Exhibits in the Garden

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This issue of *Public Garden* explores the booming trend of exhibit installations in public gardens. Given the primary purpose of exhibits—to increase revenue—and the current financial strain on all of our institutions, this seems a timely topic. There is a very matter-of-fact rationale for developing new, permanent displays or especially a cycle of temporary exhibitions—we have to keep the public coming. The pragmatic, revenue-driven objectives to increase gate receipts, invigorate membership, and build donor capacity seem as critical to meeting the mission as the exhibits themselves. In fact, public gardens measure the success of exhibits, particularly temporary exhibitions, in terms of bodies counted and dollars generated.

In these troubling economic times, when nearly every organization, corporation, foundation, and global citizen is assessing their shrunken net worth and reducing their spending, can we expect to experience this same level of “success” from our exhibits? With the growing phenomenon of “staycations”—people staying home for vacation and seeking out local entertainment rather than traveling—perhaps exhibits are well-timed prospects for both public gardens as cultural resources for the communities they serve, and the citizens of these communities who are looking for something fun or interesting to do that is close to home.

On the other hand, perhaps they are not. Many public gardens, and other cultural institutions such as museums and aquariums, are now reporting a drop in exhibit sponsorship and support, and in visitation. Exhibits are expensive endeavors. Is the offer of annual exhibitions still a smart strategy for attracting audiences? What would happen if a public garden decides to get off the “exhibit treadmill”? The challenge of creating exciting and profitable exhibits while preserving our garden’s *raison d’être* is not an easy one. Temporary exhibitions can set up the expectation that our gardens are simply another choice for entertainment if they do not relate to the garden’s mission. In the minds of our visitors, our gardens could be perceived as an entertainment venue or perhaps a gallery, but maybe not a place to appreciate, study, and enjoy plants. Perhaps entertaining visitors is enough. Simply getting them into the garden where we can capture and direct their attention may be the mission-related reason for doing exhibitions. But how do we measure the success of “stealth education”? Without front-end evaluations and back-end visitor surveys that measure the educational impact of an exhibition—something few public gardens talk about and most likely do not implement—how do we really know if our exhibitions engender a deeper understanding of the importance of plants in our visitors’ lives, or if the exhibitions are merely pleasurable distractions?
If an exhibit fails to develop deep or long-term appreciation of and engagement in our core purpose by visitors, who are not already inclined toward gardening, conservation, or sustainability, yet produces significant revenues, should we consider it a success? This is a question that donors are now considering, as they are looking to support organizations that make the most of their resources to fulfill their missions. The impact of the recent economic downturn and the accompanying scandals that have affected some non-profits has ushered in an era of compulsory accountability for all non-profits, including public gardens. Donors are demanding greater responsibility from the organizations they support, and they are expecting evidence of the proper and most effective utilization of organizations’ resources to meet their missions-related goals.

For those public gardens that are in the cycle of annual, temporary exhibitions, there may be no choice but to continue the cycle—their audiences may have come to expect it. Moreover, there is increasing competition for the public’s attention and their shrinking expendable dollars, and many public gardens may rely on the revenue that exhibitions generate. But public gardens do have a choice about the type of exhibitions they produce, and how they leverage exhibitions to stimulate their audiences’ sense of awareness, wonder, understanding, and curiosity about plants and the natural world and inspire them to engage in gardening, learning, conservation, and sustainability.

Temporary exhibitions and permanent gardens that capture visitors’ attention and have meaning in their everyday lives will have the greatest success, measured by the amount of revenue earned and contributed, and the number of visitors who are enlightened to the mission of public gardens. With this in mind, we can design exhibitions and gardens that meet our primary purpose—to connect people to plants.

Gwen Stauffer is the Executive Director of Ganna Walska Lotusland. Lotusland is the former estate of Madame Ganna Walska, who developed enchanting, quirky gardens and highly diverse plant collections from 1943 until her death in 1984. Lotusland has led the sustainable horticulture movement in Southern California, and serves as a repository for globally rare plants. Prior to joining Lotusland, Gwen served as Executive Director and CEO for New England Wild Flower Society, and before that as Executive Director for Callaway Gardens and Preserve. Gwen can be reached at gstauffer@lotusland.org.
This garden was all about inspired ideas and where they come from,” says landscape designer Julie Moir Messervy about the extraordinary Music Garden she designed for the Harbourfront in Toronto, Ontario, Canada. Completed in 1999, the three-acre Toronto Music Garden is as much a piece of art in itself, as the music from which it springs. Seen from one of the tall buildings that flanks the waterfront, the Music Garden appears to be a giant art installation, as much sculpture as it is garden. Although many beautiful gardens are extremely artful, the Music Garden seems to stretch itself beyond the boundaries of landscape design and enters a realm of large-scale, conceptual art. The difference is that conceptual art usually indicates that the concept or idea involved with the work will take precedence over traditional aesthetic and material concerns, and that a conceptualist’s work may require little or no physical craftsmanship in its execution, whereas the Music Garden’s execution involved great care being taken with materials and a very high level of aesthetic choices in its realization.

When world-renowned cellist Yo-Yo Ma first contacted Julie about this project, he sent her a recording of the “First Suite for Unaccompanied Cello” by Johann Sebastian Bach, and he asked that she “listen to this and tell me what you think.” At the time, Yo-Yo Ma was involved in a film project—a series of six films, each devoted to one of the Bach cello suites. Each film featured collaboration with artists from...

1. Landscape Designer, Julie Moir Messervy, and noted cellist, Yo-Yo Ma, on site at the Toronto Music Garden.

2. Detail of the Toronto Music Garden showing the Courante’s swirling path through a wildflower meadow culminating in a twirling Maypole.
Maiking Music, Making Art, Making a Garden

Public Garden

Makeing Music, Making Art, Making a Garden

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make this landscape vision a reality. Jim for the fund-raising that was needed to out of this chance meeting was Mr. Fleck's possibilities for the Music Garden. What grew into a conversation with Yo-Yo Ma after a Toronto businessman and music lover, got design. Even more fortuitously, Jim Fleck, a cell of land for which there was as yet no asserted that the parks department had a par-
tional crews, stoneworkers, horticulturists, development of this project. Everyone who worked on the Music Garden—construction crews, stoneworkers, horticulturists, parks department staff—all were invited to understand the underlying inspiration for the garden, and all came to appreciate Bach's music, Yo-Yo Ma's influence, and Julie's concepts for the design.

The Music Garden, which is really a series of garden rooms, with each move-
ment of the Bach Cello Suite expressed as a different room, is a unique approach to garden design. If they wish, visitors may use audio wands with Bach's music to explore the garden, or they may choose to use the garden for passive recreation, to listen to a concert (which is a regular part of the programming of the garden), for strolling along the harbor front and watching the boats, for sunbathing, reading, and all the usual uses for a garden. No matter what the use, the Toronto Music Garden provides an invigorating setting. The six movements of the cello suite involve visi-
tors in a rich garden experience, whether they are listening to the music or not: the Prelude with its undulating "riverscape" with curves and bends; the Allemande, a forest grove of wandering trails; the Courante, a swirling path through a wild-flower meadow; the Sarabande, a conifer grove in the shape of an arc; the Menuett, a formal flower parterre; and the Gigue, giant grass steps that “dance you down to the outside world.”

Some public gardens choose to feature art as a way to attract visitors; the Toronto Music Garden has become a space where the garden is art, and a sense of artfulness imbues the total garden experience.

For more information about the Toronto Music Garden, visit Julie Messervy's website at www.julienoirmesservy.com or the city of Toronto's online music garden page at www.toronto.ca/parks/music_index.htm

Susan T. Greenstein. Most recently director of the Kykuit program and of audience development at Historic Hudson Valley, Susan serves on APGA’s publication committee and is a past chair of the historic landscape committee.

She is now reviving her previous consulting company, Growing Minds, to provide project direction and expertise in education, market-
ing, outreach, and audience development for gardens and other non-profits. stgreenstein@optonline.net

Overview of the Toronto Music Garden with all of the six ‘movements’ visible; from right to left: Prelude, Allemande, Courante, Sarabande, Menuett, and Gigue.

different disciplines, and the goal was for each artist to create a work inspired by one of the Suites. Other films in the series included a focus on dance and movement with contemporary choreographer Mark Morris, ice dancers Torvill and Dean, and a grand Kabuki master. Why not a landscape designer to express Bach in the more substantial and lasting form of a garden?

So began this collaboration of Yo-Yo Ma, Julie, and the film production company, but it began in Boston, not Toronto. A site was selected, the mayor was on board with the project, and the design process had begun. In her work, Julie always seeks to find the “inward” garden of her clients, and then incorporates that view with her own vision, and she is always on the lookout for the Big Idea. In this case there were several layers of big ideas—Bach was inspired by ancient dance forms, Yo-Yo Ma was inspired to see the music expressed in a landscape, and Julie was inspired by the music itself, music that spoke to her of nature and nature’s shapes, forms, and movements. Ultimately, the scheme for this garden ran into all sorts of difficulties in Boston— and it was clear that it could not be completed there.

Fortunately for all concerned, the film company, Rhombus Media, was based in Toronto; Toronto’s mayor, Barbara Hall, was very much an “arts” mayor; and through various connections it was discovered that the parks department had a parcel of land for which there was as yet no design. Even more fortuitously, Jim Fleck, a Toronto businessman and music lover, got into a conversation with Yo-Yo Ma after a concert, and they began exploring the possibilities for the Music Garden. What grew out of this chance meeting was Mr. Fleck’s participation as the key mover and shaker for the fund-raising that was needed to make this landscape vision a reality. Jim Fleck describes himself as civic-minded, an art and music lover, and interested in gardens. With the Big Idea in place, Mr. Fleck was just the person to make this garden a reality through his many contacts and his brilliant fund-raising ability.

Another vital component of the Music Garden’s successful realization was the city of Toronto and the Toronto Parks Department. Toronto was in a green movement even then, which had led the Department to purchase native plant materials for another park that ultimately were not going to be used. This stroke of luck, at the right time, provided much of the trees and shrubs for the Music Garden, and served to inspire the entire plant palette. It also inspired the use of native materials for the hardscape, for which Julie used tumbled granite with feldspar, the material of the ancient Canadian Shield.

Because of the highly sculptural nature of the plantings, and the desire to maintain the essential vision of the Music Garden, you might imagine that maintenance is something of a challenge. However, from its inception, the Music Garden project was a coveted assignment for the parks department staff. Colette Martin, horticultural supervisor for the Music Garden, asserts that “from the beginning, the Music Garden was always considered a special area—very high profile, but different horticulturally as well.” This enthusiastic attitude was a direct result of the inclusive process that Julie Messervy led during the development of this project. Everyone who worked on the Music Garden—construction crews, stoneworkers, horticulturists, parks department staff—all were invited to understand the underlying inspiration for the garden, and all came to appreciate Bach’s music, Yo-Yo Ma’s influence, and Julie’s concepts for the design.
We all know that plants are amazing, beautiful, and fascinating, and I’d be willing to bet that this is the reason we work at public gardens. However, I fear this “world of wonder” remains largely invisible to the average person. If you stopped someone on the street and asked what he or she thinks about plants, what kind of response do you think you would get? As professionals we need to find a way to expose what is still a well-kept secret.

At our various institutions, we have probably all struggled with how to get the general public excited about plants. Connecting people with plants is very basic to our missions. At the same time we struggle with issues of increasing our gardens’ visibility, visitation, and revenue streams. The world today offers much competition for the attention of our potential visitors, who are rather disconnected from the plant world. In this climate, exhibitions can be an extremely effective tool. Changing exhibitions are a perfect way to attract people to our gardens with the offer of something new, capture them at a “wow” moment, and then further engage them. Fostering that engagement and leading our visitors to develop that sense of wonder about the plant world is what I focus on in our exhibition program at the Botanic Garden of Smith College.

We are located at a small liberal arts college, and as such, our mission includes education as its main component. Our exhibitions follow suit. Our primary audience is always the college community; however, we also serve the general public and local schools. When we began our exhibition program in 2002, we had just completed a major renovation of our facility and had a new exhibition gallery. I am fortunate to work at an institution that encourages creativity and innovation; my director, Michael Marcotrigiano, in particular, sees the value of our eclectic approach and has been very supportive.

Rachel Carson’s writing provides much inspiration for me. In The Sense of Wonder, she observed how much her nephew

“A child’s world is fresh and new and beautiful, full of wonder and excitement. It is our misfortune that for most of us that clear-eyed vision, that true instinct for what is beautiful and awe-inspiring is dimmed and even lost before we reach adulthood. If I had influence with the good fairy … I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout a lifetime.”

Rachel Carson, The Sense of Wonder
Exhibits as a Way In

Whenever people choose to visit public gardens, they come looking for an experience. Once inside, they discover something different from what they might find at home or during other leisure-time activities. Exhibitions are important in helping to shape that experience. I try to remember that exhibitions are environments where people are affected sensually, emotionally, and intellectually. They may be moved by something beautiful, startled by something bizarre, intrigued by something novel, or even repulsed by something disgusting. That is the point of entry—a successful exhibit takes people places and opens their eyes to something new. The big question is how to accomplish this.

A good start is to look at your institution’s strengths and to capitalize on them. At the Botanic Garden of Smith College, we decided to use the college’s resources to our advantage and investigated how we could collaborate with other academic departments and programs to approach our botanical subject in a whole new way to create new interdisciplinary entryways and connections. This has resulted in the development of some unusual exhibits that we might not have otherwise imagined.

Picked up on their walks in the woods, even though she purposely only shared her pleasure with what they saw, and she made no conscious effort to teach names or offer explanations. I try to approach our exhibits in the same “spirit of two friends on an expedition of exciting discovery.” This is directed at adults and children alike, to help all of us rediscover that “joy, excitement, and mystery of the world we live in.” Today we are more likely to call it informal education. Carson explained, “Once the emotions have been aroused … then we wish for knowledge about the object of our emotional response.” Motivating people to want to know more will serve us better than simply providing information that we want them to learn, and it will keep them coming back for more.

Carson suggests that we try to be acutely aware of what regularly goes unnoticed. One way to achieve this is to approach our subject matter as if we are seeing it for the first time and imagining we might never see it again. Can we step out of our regular roles as educators providing “information” and enter a new mode? I see this as a challenge — to bring a new way of seeing to how we create exhibits and interact with our audiences.

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Intentionally operating outside our comfort zone has been quite a learning experience for us. We are presenting our subject in ways that often require some stretching on our part. Even if you are not at a college or university garden, you can collaborate with other institutions (including academic ones) and community members to achieve these kinds of synergistic partnerships. Consider museums, television shows, city parks, publishers and authors, local retailers, and community clubs and organizations. There are many opportunities out there. I will describe a selection of our exhibits to illustrate the range of options possible, limited only by imagination (and, perhaps, one’s budget).

Our first exhibition inaugurated the new gallery with a splash and much surprise. We collaborated with two math professors to produce Plant Spirals: Beauty You Can Count On. The exhibit featured a novel way for most of our visitors to look at and relate to plants. We introduced concepts of Fibonacci Numbers and the Golden Mean, phyllotaxy models, spiral patterns seen microscopically in meristems, spiral lattices, and more. The exhibit used an extremely bright color scheme,
stunning photos, and video footage. As the viewer went through the exhibit some of the material became quite challenging, e.g. the "universe of spirals." The exhibit was everything we had hoped for — it provided a very new entryway into the world of plants for both scientists and artists. People reported being both surprised and intrigued.

Next we took off in a totally different direction, working with the English Department, the library’s rare book room, and the international Virginia Woolf Conference, to present Virginia Woolf: A Botanical Perspective. This exhibition showcased the gardens of Woolf’s family and friends, her sister Vanessa Bell’s botanical artwork from the dust jackets of Woolf’s books (available to us through the library), botanical descriptions from Woolf’s writings, and original hand-printed editions of her short story, Kew Gardens. Since we send students to Kew on an internship we were able to make a connection there. Through the conference we were able to take advantage of scholars around the country who shared some of their work with us, including a PowerPoint display on Woolf’s house and gardens. Faculty and staff shared photos they had taken of various gardens, so we were able to involve more people in the making of this show.

Some of our exhibits have been developed to draw attention to our students and alumnae. Smith Chrysanthemums: Hybrid Alums displayed the history of a century of Chrysanthemum Shows and student breeding work at Smith College. A major element of that show was the Chrysanthemum Hall of Fame, showing yearbook photos going back to 1920 of student hybridizers with the mums they produced (also a favorite for studying changing hairdos). Last year we updated it and showed it again. Inevitably visitors come looking for a photo of themselves or someone they have heard is shown there. Also popular with alumnae was Designed Landscapes, which featured the work of twenty Smith College graduates who are landscape architects and garden designers. We were able to display some materials from the College Archives that included plans drawn by Alice Orme Smith (Class of 1911, and probably the first alumna to become a landscape architect), who won awards for her designs of the Garden of Religion and the Main Vista at the 1939 World’s Fair in New York City. Other projects displayed covered a wide range—from road planning at Yellowstone National Park, to urban landscapes and a plan for the renovation of one of our gardens. Additionally, the exhibit gave students new ideas for career paths.

A historical perspective was featured in The Botanical Discoveries of Lewis and Clark, which was based on a book written by a Smith graduate. It included excerpts from the book with watercolors of the
Exhibits as a Way In

produced by Bioversity International, brought to life the uncommon story of this common fruit — everything you ever wanted to know about bananas and more. It included the story of how the banana we eat and love is threatened and what is being done to save it. And we displayed an unexpected assortment of products made from banana fiber. And, again we made a book connection, this time with Dan Koeppe and his book, *The Trouble with Bananas.*
Of all The New York Botanical Garden's recent exhibitions, perhaps none addressed the Garden's over-riding mission—to be an advocate for the plant kingdom—as comprehensively as did “Darwin's Garden: An Evolutionary Adventure.” This Garden-wide exhibition, which took place from April 25 to June 14, 2008, incorporated multiple venues at the Garden and drew significantly from each of the three pillars of its institutional mission: horticulture, science, and education.

The exhibition's success, while certainly linked to some degree to keen public interest in Charles Darwin, is largely attributable to the scope of the exhibition and to the many alternative avenues of engagement it provided visitors. It offered both substance and beauty: plenty of historical and educational material plus an idealized spring English garden brimming with color. There were scientific lectures and discussions, as well as fun ways to explore Darwin and plants.

“Darwin's Garden” evolved as an exhibition idea over several years, beginning with discussions in the LuEsther T. Mertz Library between David Kohn, PhD, a scholar on Charles Darwin who was doing research in the Library's extensive collection of Darwiniana and who subsequently curated the exhibition, and Susan Fraser, the Library’s director. The discussions grew to include the heads of the Horticulture, Science, and Education divisions, as well as the Director of Public Programs and many other individuals at the Garden. The synthesis of discussion and brainstorming led to a rich program of events and displays. The exhibition required extensive work by teams of staff in every division and a major Garden-wide commitment.

Perhaps the greatest challenge in developing "Darwin's Garden" was to create an exhibition that would captivate an audience that has come to expect the highest standard of horticultural excellence, while also conveying the rich and complex scientific, historical, and cultural messages that
make the Darwin story so fascinating to so many. The overwhelming public response to both the beauty and the content of the exhibition was tremendously rewarding.

It was fitting for an exhibition on Charles Darwin’s work with plants to take a multi-pronged approach. Darwin himself had wide-ranging interests in all aspects of natural history—from archaeology to geology to biology. He was immersed in scientific exploration and analysis, fascinated with gardening and nature, and dedicated to education and the sharing of information through publication.

“Darwin’s Garden: An Evolutionary Adventure” presented the little-known story of Charles Darwin’s lifelong fascination and work with plants. Few people know that Darwin was an avid gardener and that many of his scientific discoveries were inspired by more than forty years of research and experimentation with plants and flowers. Dr. Kohn explains the significance of the exhibition: “Only in his work as a botanist can we truly see all the dimensions of Darwin as a scientist—that is as a successful collector, as a powerful theorist, as an insightful observer, and as a rigorous and almost prophetic experimenter.”

Darwin’s Own Garden Re-created

“Darwin’s Garden” was a Garden-wide exhibition with components in multiple venues. In the Enid A. Haupt Conservatory, a stunning flower show re-created Darwin’s own garden at Down House in Kent, England, filled with colorful delphiniums, foxgloves, and other typical English cottage garden flowers that Darwin and his wife, Emma, grew, as well as a kitchen garden and an orchard. The exhibition also featured vignettes that interpreted Darwin’s work with living plants and botanical research. Interactive displays of plants explained some of Darwin’s often simple yet ingenious experimental studies, such as his investigations into pollination and the co-evolution of plants and their pollinators, and his many explorations into the power of movement in plants—from insectivorous plants that dynamically trap their prey to the many different climbing mechanisms of vines and other climbing plants.

Darwin’s Botany in His Own Words

The exhibition in the LuEsther T. Mertz Library’s Rondina and LoFaro Gallery included original historical documents exploring Darwin’s deep personal relationship with plants that began in childhood. It combined information about Darwin as a person with the story of his rich botanical ideas, featuring Darwin’s own writings and collections. Illustrated books, manuscripts, and other historical documents offered insight into his thinking and demonstrated the importance of botany throughout his life. A handsome exhibition catalog, featuring a scholarly essay by Dr. Kohn on the essential role of plants in Darwin’s life and science, accompanied the exhibition.

Children’s Adventures with Darwin

In the Everett Children’s Adventure Garden, an interactive exhibition with plants important to the development of the concept of evolution invited children to explore and learn hands-on. A centerpiece of the display was a replica of HMS Beagle, the ship that took Darwin on a five-year voyage to South America and around the world. Kids could climb aboard and imagine they were on Darwin’s adventure. Children’s activities included potting up a vegetable plant and creating a herbarium specimen.

Darwin’s Living Legacy

As part of “Darwin’s Garden,” visitors were brought up to date on current evolutionary plant science. The concept of evolution is the foundation of all plant science today at institutions such as The New York Botanical Garden. To educate visitors on the latest thinking, the exhibition included an Evolutionary Tour and a scientific symposium.

The Evolutionary Tour took visitors on a scavenger hunt through the tree of life among living plants in the Garden’s collections. In the Haupt Conservatory and surrounding outdoor plantings, this approximately forty-minute walking tour highlighted representative plants in the evolutionary Tree of Life. It was accompanied by signage and commentary by the exhibition curator and Garden scientists, and was accessible via visitors’ cell phones.

Displays showing one of Darwin’s experiments, part of Darwin’s Garden: An Evolutionary Adventure at The New York Botanical Garden
Photos by Talisman Brolin | TALISMANPHOTO

Stops on the Evolutionary Tour highlighted selected groups of plants on the modern tree of life. In the Enid A. Haupt Conservatory, visitors saw living representatives of some of the earliest forms of plant life such as algae, mosses, ferns, and cycads. In the surrounding outdoor plantings, the Evolutionary Tour featured some of the great diversity of flowering plants that have evolved on Earth in the past 140 million years.

In 1859, Darwin’s theory of natural selection as the engine of evolution shattered basic assumptions about science and
the world. The impact of the thinking he launched is no less significant today. A symposium held over two May evenings, which was open to the public and quickly sold out, featured presentations by scientists, historians, philosophers, and environmentalists. Hosted by the Garden in collaboration with the American Museum of Natural History, the symposium, “Darwin: 21st-Century Perspectives,” offered an opportunity to hear top scholars and commentators discuss how his thinking continues to influence science and society today. Edward O. Wilson, PhD, two-time Pulitzer Prize winner, entomologist, and biologist known for his pioneering work on evolution and sociobiology, introduced both sessions and served as moderator.

**Results, Traveling Exhibition, and Lessons Learned**

Both the exhibition and the symposium received extensive press coverage; together they drew more than 143,000 visitors. Year-to-year comparisons of audience and revenues are not possible because “Darwin’s Garden” overlapped during its final weeks with the Henry Moore exhibit. Nevertheless, prior to the Moore opening, “Darwin’s Garden” visitation and revenues were significantly ahead of the prior year.

In a popular feature in the Haupt Conservatory, visitors were invited to sit at Darwin’s desk to jot down their observations as they looked out the window at the recreation of his garden. This allowed visitors to put themselves in Darwin’s home and surroundings, and take on his worldview. Feedback included sketches of the flowers in the garden and commentary that ranged from the personal to the philosophical. Many visitors commented on the sheer beauty of the flowers; others, on Darwin’s penetrating insights or the exhibition’s celebration of the diversity of life. This feature became a valuable evaluation tool.

After closing in New York, parts of “Darwin’s Garden” traveled to The Huntington Library, Art Collections, and Botanical Gardens in San Marino, California, where they were on display from October 4, 2008, to January 5, 2009.

Many other educational tools and programs were employed to tell the history of Charles Darwin’s work with plants, to explain the cultural and historical context of his work, and to relate it to today’s scientific challenges. A special Web site created for the exhibition included an interactive diagram of the Evolutionary Tour, information on other elements of the show, and background material on Charles Darwin, the man. Weekend programs featured drop-in lectures, workshops, and guided tours. Performances featured music and poetry from Darwin’s era, much of it heavily influenced by nature. An additional audio tour—separate from the one for the Evolutionary Tour—was available to guide visitors through “Darwin’s Garden” in the Haupt Conservatory and Mertz Library.

Among lessons learned were “think big” and “engage the visitor.” The flower show set piece with interactive, participatory exhibits is a powerful combination. Beautiful plants attract the attention of visitors, who then become engaged in different ways and at different levels with the science embodied in the observational and participatory exhibits. Not everyone stopped and participated in the science activities and observational experiences; we might do a better job in the future of stimulating engagement. Another lesson: mounting a Garden-wide, multi-venue exhibition is compelling, valuable, and rewarding; it creates a visit that has many chapters, is eye-opening, and involves visitors in shaping their own visits. We also learned that there are challenges to traveling an exhibition that includes living plants. Each garden has its own growing conditions and horticultural expertise, and not every potential venue has the resources to devote to such a time and labor intensive program. Going forward, we might design an exhibit that depends less on living plants and more on elements that are easier to travel such as books, maps, or constructed set pieces. Finally, maintenance of an interpretive exhibit that includes live specimens is very challenging and requires almost daily, or more frequent, changes and alterations.

While this was certainly not the only way to offer mission-driven exhibitions (“The Orchid Show,” now in its seventh year and a visitation and revenue success, is mission-driven but has a narrower message: the beauty, diversity, and fragility of orchids), “Darwin’s Garden” set a new standard for creating rich, interdisciplinary programs that draw new audiences, introduce new ideas, and educate as they inspire. Bolstered by the success of “Darwin’s Garden,” we look forward to creating similarly complex and innovative exhibitions in the future.

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Dealing with Donated Sculpture in the Public Garden

CARTER VAN DYKE AND JURGITA TAMUTYTE

Often public gardens or parks can become the recipients of unwanted works of art. Pieces may be donated by an artist, often to promote their work, or by an estate as part of a will, or they may be pieces that remain from a local fund-raising event. How does one address this issue, especially if the gift is from a major donor? There are a number of issues to resolve: first, how to tactfully go through a vetting process, so that potential donors are not discouraged, and second, if the artwork already exists, how to find the correct placement so that it will fit within the proper context of the garden.

It is important to have an institutional art policy and a master plan. The plan should identify where sculpture may be appropriately placed within the landscape and should describe the functional role of potential placements: e.g., dominant focal point, suggestive, or merely additive, while a policy should take into account issues of theme, context, scale, material, and safety for all artwork, donated or not. A policy might specify that the donated piece of art is unacceptable if it is presented strictly to promote one’s services or if it contradicts an institution’s mission. It is also helpful to have a committee to guide policy, rather than have all the decision-making burdens or blame falling on one person, e.g., a director.

A clear and concise master plan can be an excellent fundraising tool. Institutional development offices, however, must be fully conversant with policies, because many donors want to dictate where art pieces should be placed. This is to be expected, since specific locations are frequently associated with some aspect of the donation, as when a loved one is being commemorated. Having a mechanism in place to discuss artwork placement and relevance to the institution’s function may help reduce potential donor misunderstandings early in the negotiation process.

For example, at St. Mary Medical Center in Langhorne, Pennsylvania, the garden committee was approached by an individual who wanted to donate a statue of St. Francis for the Cloister Garden designed by our firm. Although the hospital is a faith-based institution and part of the Catholic Healthcare network, the garden was designed with a Japanese theme to emphasize the hospital’s mission to serve people of all faiths. Consequently the donation was not accepted.

Sometimes the sculpture is already there, and there is nothing else to do but find a better place for it. In Doylestown, Pennsylvania, the presence of outdoor sculpture has become an essential component of the Doylestown Hospital Community Arboretum experience. A general consensus had developed that “humanistic,” non-abstract pieces were more appropriate for the hospital setting than “modern” pieces. However, the hospital already had a large unpainted steel abstract sculpture, donated over twenty-five years ago by the sculptor. The piece was the subject of spirited debate and had been relocated numerous times on the hospital grounds. The landscape architect helped to find it a permanent home in the story-telling area in the Children’s Garden of the Arboretum, where it now has an appreciative audience and become a favorite of the children.

A second piece of sculpture, a yellow mule, was donated to the hospital by the artist’s mother, a staff physician. The mule was not a commissioned piece of art, but a remnant of a public art project called “Miles of Mules”—a series of fiberglass mules decorated by local artists. The mule was also placed in the Children’s Area and incorporated into a new perennial bed and has become a whimsical addition to the landscape, peeking out from a wooded area where it is visible from patient rooms. While it might not have merited placement on the hospital grounds on its own, the sculpture was incorporated into spatial sequencing designed to pique curiosity and engage people into walking the Arboretum trails.

Understanding the institutional culture is critical when accepting a gift of art. Donors can have many reasons for their generosity, but ultimately the benefit must accrue to the garden itself.

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Gardens attract visitors for a variety of reasons: beautiful plant displays, educational programs, musical concerts, art exhibits, and scientific study. Often perceived as conservative and predictable, gardens are faced with the challenge to strengthen connections to visitors who have choices in where they spend their leisure time and dollars. Exhibits provide an excellent opportunity to meet this challenge. Well-designed and inspired exhibits can effectively communicate messages, make garden collections accessible to visitors, and provide an open-ended aesthetic experience that speaks to a broad range of audiences.

At the Desert Botanical Garden in Phoenix, Arizona, our response to the challenges that face gardens in the twenty-first century was to re-define and position our role in the community by creating experiences that are engaging and unexpected. Five years ago, as part of planning for a major fundraising campaign, *Tending the Garden*, the executive director, staff, Board of Trustees, and volunteers began a dialogue about opportunities and possibilities for the Desert Botanical Garden experience. We sought innovative ways to renovate existing and outdated displays. Our vision: for every element of the Garden to reflect excellence and beauty; to transform the visitor experience into one of discovery, inspiration, and meaning about deserts and desert plants.

The first challenge was to understand fundamental questions about what we wanted to communicate. We recognized that simply re-designing our exhibits would not necessarily transform the visitor experience. We developed new ways of thinking about our audience and how to convey our messages as an engaging and compelling attraction. Important conversations focused on key questions such as: How do we make the visitor experience meaningful? What do audiences want to see? What is the message we want to communicate? What are the outcomes or results of their experience? Answers to these questions became the framework for a new direction in exhibit planning and design.
 Using our living collection of plants as the foundation to inform and entice visitors to learn about and appreciate desert plants, our exhibit planning and development became fast paced and focused. Early in the process we identified two exhibit areas, the Cactus and Succulent Houses, for renovation. Both of these had established collections, but the aesthetic and interpretation were not meeting our standards of exhibition excellence. A significant gift from the Sybil B. Harrington Trust in 2006 provided the funding to begin implementing our vision for these major exhibit areas.

The original Cactus House was built in 1950 as an aluminum lath house. Its purpose was to display the more tender cactus and leaf succulents which required shade for survival in the harsh Sonoran desert sun. In 1965, an adjacent Succulent House was built to allow for separate cactus and succulent presentations, with the intention of expanding each collection. Through the years, as the collections grew, the structures and displays became outdated. The planting beds were in need of enhancements through contouring and hardscaping elements. Interpretation had been retrofitted to the existing plant palette, and many plants had matured beyond the roof line.

The exhibit development team began to evaluate and brainstorm ideas about what the new cactus and succulent houses could be. Recognized throughout the garden world for these collections, we wanted to share a more complete story about them and the evolution of desert plants. Rather than renovate the existing structures, we sought ways to meet the challenge of creating a transformative visitor experience to these unique collections.

The foundation of successful exhibits is created by the teams assembled to develop and implement them. A critical component in the exhibit development process, the Desert Botanical Garden exhibit development teams include a wide array of specialists from across many disciplines. Each team includes audience specialists from education, development, and marketing staff; content specialists from research, horticulture, and collections; communication specialists—interpretive planners, exhibit designers, and visual communication experts; and installation specialists—project managers, landscape architects, construction contractors, and graphic designers, among others.

Team members need to possess valuable characteristics, which include problem solving, creative thinking, adaptability, and open mindedness. It is not a linear process, and issues that have been resolved often require additional discussion and alternative solutions. At the beginning of an exhibit project, it is important that everyone understand what the themes and goals of an exhibit will accomplish, the process of exhibit development, and the principles of effective design.

The cactus and succulent exhibit development team met for many months to refine the exhibit concepts and goals. We rethought and retooled our efforts in team building, seeking fresh ideas and new ways of developing and building partnerships within our own staff and with outside consultants. The direction established for the exhibits was clear: design new cactus and succulent structures that complement each other, provide exhibit areas to meet horticultural, research, and educational needs, and create a dynamic venue for display and interpretation. We sought to create a richness and diversity within the displays that would invite a sense of discovery and visual excitement.

Once the program had been developed, the search began for a landscape designer to help us fulfill our vision. The design of the new structures was awarded to landscape architect, Steve Martino. A native of Phoenix, Arizona, Martino is recognized as a leader in desert landscape design. Inspired by the simplicity of the greenhouses in our propagation
area, he designed new structures that complement each other and open up vistas to the surrounding desert buttes. The effect is distinctly “Southwest” and establishes a new design aesthetic for the Desert Botanical Garden.

Scott Scarfone of Oasis Design Group was hired to lead the team in designing the plant displays. His experience in designing spaces for conservatories appealed to the teams’ vision of creating the ‘unexpected’ with desert plants. The first step in developing the planting plan was to identify the plant requirements for each exhibit, which became the focal point of the design criteria. Scarfone and the horticulture staff worked many months to locate key specimens to enhance the collections and elicit surprise from the visitor.

Both Martino and Scarfone collaborated closely with the exhibit development team focusing on the collections’ requirements for sun and shade, water and drainage, location and size. Additional considerations were given to how the new exhibits would relate to other display areas within the Garden, audience expectations, and interpretive formats. Interpretation was developed to allow the Garden to communicate a more complete story about cactuses and succulents. Key interpretive messages for the new galleries focus on the evolution and adaptation of cactus and succulent plants.

Two years of planning and construction culminated with the opening of the Sybil B. Harrington Cactus and Succulent Galleries in spring 2008. The exhibits have been met enthusiastically by the stakeholders and the community. The transformation we sought came to fruition through vision, comprehensive planning, and team work. By actively engaging in a dialogue to articulate what we want our exhibits to communicate, we better understand the connection between innovative exhibit design and a meaningful visitor experience. We do not assume that visitors simply want to view our collections. We seek out possibilities and purpose in the experience that will transform the relationship between the visitor and our mission.

Summative evaluation is on-going, but early results show that these exhibits are attracting visitors’ attention, holding their interest, and communicating messages that are understandable to the casual visitor. Both the Cactus Gallery and the Succulent Gallery are currently filled with an exceptional Dale Chihuly glass exhibit that accentuates the plant displays. It is satisfying to overhear conversations about the “amazing plants” that are showcased with the vivid glass sculptures. Through a creative and collaborative process, we have implemented a new era of exhibition development that meets our mission, accommodates our collections, and keeps pace with increasingly sophisticated public expectations for exhibit excellence.

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The year 2009 marks the twenty-fifth anniversary of Dallas Arboretum’s spring festival, “Dallas Blooms.” In existence for only thirty-two years as an official public garden, the Dallas Arboretum is a city-owned property maintained by the non-profit, Dallas Arboretum Botanical Society. “Dallas Blooms” has been an integral part of the garden’s marketing plan since its early days. The Dallas Arboretum’s sixty-six acres were created from the combination of two large private estates. The property, though well positioned next to White Rock Lake and covered in native trees, had no significantly designed garden or display areas. The main source of revenue from the beginning has been from gate revenue and membership sales. So, from early on, the question was: “How do we attract more guests to the Dallas Arboretum?”

This question was first addressed by the Board of Directors and the then small staff. One of the founding members, Ralph Rogers, who was Chairman of the Board at that time, was convinced the garden needed a “hook,” a unique experience to motivate people to visit a new and unknown public space. What could we do to be more than just open parkland? At the time, the Dallas Arboretum was working with one of its first landscape architects to design key garden areas, and the decision needed to be made as to how these designs would impact the future direction of the garden. Naud Burnett, designer of our Jonsson Color Garden, after much input from Ralph Rogers and many others, suggested a large display garden utilizing year-round color. His design was to have huge beds of changeable color with the edges of the garden planted with thousands of azaleas and an overstory of flowering trees. Over the years this concept has set the tone for all new gardens at the Dallas Arboretum, culminating in our emergence as a noted display and color garden.

The next big decision was what to plant in our new color beds to attract guests during early spring. An idea was formed, with the help of a local bulb importer Abbott-Ipco, to try Dutch bulbs as annuals. Tulips are not perennial in our zone-eight garden, and at that time there were no comparable local large-scale plantings of them within our area. That first year the Dallas Arboretum planted 15,000 bulbs and charged admission for a “drive-through viewing” of the plantings, which were a resounding success. From that first year the “Dallas Blooms” bulb display has grown into our largest event of the year with over 450,000 bulbs and over 150,000 annual bedding plants installed each year as the focal point of our annual six-week spring festival.

“Dallas Blooms”— a branded event— attracts 150,000 visitors of the 533,000 who come to see our garden each year. Twenty-five percent of our visitation is by members, and on average we have 18,000 complimentary visitors per year. The Arboretum is open daily from 9:00 a.m. until 5:00 p.m. and is closed on Thanksgiving, Christmas, and New Year’s Day. General admission is $9.50 for adults, $8 for seniors aged 65 and older, $6 for children aged 3-12, and free for Arboretum members and children aged two and under. On-site parking is $5. Group discounts are available with advance registration.

Because the festival is such an important part of our annual budget and development, we begin planning years in advance for each one. Each festival’s
“Dallas Blooms” has become a branded event for us attracting 150,000 visitors of the total 533,000 who come to see our garden each year. Some popular themes have been “Flower Power,” a sixties-themed year; “Proud as a Peacock,” and “20th Anniversary.”

- How can the “Streetscape” be themed to match?
- Does the theme suggest any special events, type of musical entertainment, or special availability of food items?
- Are there opportunities for Development underwriting?

An integral part of each theme is our “PR hook.” After twenty-five years of planting hundreds of thousands of tulips, narcissus, and hyacinths, it gets harder each year to obtain press coverage for our six-week festival. We have discovered that by doing a horticulturally unique item each year, there is always something fresh for the press to speak about. The marketing and horticulture departments join forces to build a “mosaiculture,” or topiary item as it is more commonly called, to be the centerpiece of the event. “Flower Power,” for example, was interpreted with a VW van and Beetle covered in psychedelic-colored flowers, and “Star of Texas” with a twelve-foot-wide cowboy hat, a twenty-foot-tall star, and a covered wagon all planted in red, white, and blue flowers accompanied by two mustang horses and two longhorn cattle topiaries. Our “Proud as a Peacock” theme centered on two peacock topiaries covered with ivy, their colorful forty-foot-long tails made of flowers spread across the lawn. The “PR hook” for this year’s anniversary theme of “A Classic” is a sixteen-foot-tall and twenty-foot-wide silver anniversary cake with white petunia and dusty miller frosting.

Also during our twenty-fifth anniversary year, local architects will compete in “Classic Storybook Playhouses.” Sixteen storybook playhouses will be interspersed about the garden for the guests’ enjoyment and will stay in the garden until December. During the “Dallas Blooms” festival, we have weekend events to bring something fresh each week. ‘ArtScape,’ a juried fine art fair of over ninety artists, will take place on the weekend of March 21 to 22. In addition, throughout the festival various musical acts will perform in the garden.

In an effort to increase gate attendance on non-weekend days, we created “Kimberly Clark’s Mommy & Me Mondays” and “Children’s Medical Center Tiny Tot Tuesdays.” The activities offered during these times encourage entire families to visit the festival and promote family fun. There are arts and crafts, petting zoos, story time, face painting, music, and horse-drawn wagon rides for the children.

The major consideration when planning any festival is budgeting the cost of the event against expected attendance revenue. Some of our most important budget items are:

- The horticultural labor commitment of twenty-five full-time staff plus ten temporary workers to install bulbs and color from Thanksgiving to late January.

- A topiary centerpiece costing from $6,000 to $10,000 for the plant materials and installation. An additional $10,000 to $20,000 may be needed to create new metal topiary frames for any new themes. We can offset this by renting our frames to other gardens in years we do not use them.

- Plant materials for festival include $90,000 per year for bulbs and $55,000 for cool season annuals such as pansies, poppies, snapdragons, and dianthus.

- Other costs to budget include “Streetmosphere,” entertainment, extra staffing, buses, etc.

The success of our “Dallas Blooms” festival is easily measured by the number of visitors we see during this six-week period each spring. In 2008 we recorded our single largest attendance for any single day in the history of the garden, and our total attendance during the festival reached 150,000 people. MSN online ranked “Dallas Blooms” as one of the “Top 10 Things to Do in Spring” nationwide. We believe the Dallas Arboretum has matured over the last twenty-five years from a simple arboretum into a world-class display and botanical garden.

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In 2000, Tyler Arboretum had nine full-time employees, an $852,245 budget, a part-time visitor center, and an estimated autumn (September through November) attendance of 4,000. In fall 2001, the institution still had nine full-time employees, but a $1,128,562 budget, a newly constructed full-time visitor center (operating whenever the Arboretum was open), and an autumn attendance of 11,678. Welcome, “Big Bugs”! This well-known traveling exhibit was our first foray into the world of temporary outdoor exhibits. Last year we presented our fourth special exhibit, “Totally Terrific Treehouses.” For the June to October display period, our attendance rose by over 400 percent, and our admission revenue for the period jumped from $27,344 in 2007 to $188,662 in 2008.

Taking a Giant Leap with “Big Bugs”

Located about thirty minutes west of Philadelphia, Pennsylvania, the Arboretum owes its existence to two Quaker brothers with a passion for the natural world who planted over 1,000 plants on their farm in the mid 1800s. In 1944, the last member of the family bequeathed the 650-acre property to the community. For a small organization, the idea of tackling a large exhibit like “Big Bugs” was daunting, but it was a perfect way to begin to combat the “hidden gem syndrome.” Many of you know what this is—a great organization that no one seems to know about. Being located in the horticultural Mecca of the Delaware Valley can be a challenge. The public gardens in this area are diverse and spectacular, and it can be difficult to stand apart from the crowd.
“Big Bugs” was a great success, but that success did not come easily. We needed to convince some staff and board members that the exhibit was a good fit for the organization. They were concerned about spending precious time and scant resources on a temporary exhibit that some thought was more appropriate to a theme park. A major factor for our success was the advice and support from organizations that had hosted the exhibit previously. We started planning two years in advance to give ourselves time to raise the capital for both the exhibit fee and necessary site improvements to handle the expected increase in attendance. Construction of a small visitor center near the parking lot was a major facility upgrade. This was the first time we had a structure that allowed us to greet (and, therefore, record) everyone who came to the Arboretum. To help defray costs, we were able to collaborate with Morris Arboretum (hosting the exhibit the following spring) on the development and fabrication of the interpretive signs.

Staff and Board Ask “What’s Next?”

It was a stretch for an organization of our size to pull off the three-month “Big Bugs” exhibit, but it was certainly worth it. People came in droves throughout the fall. Due to the events surrounding 9/11, we were not on the media radar, but word-of-mouth kept the parking lot full. Staff and volunteers noted that it was wonderful to see so many people enjoying the Arboretum, and they started commenting. “We need to do something like this again next year.” We really knew we had a winner when our hesitant board members became our biggest advocates and asked, “What’s next?”

Do-it-Yourself Exhibits

We wanted to keep the momentum going, but with very little time to plan and raise funds, our options were limited. We decided to borrow the idea of having the community help create the exhibit that had been popularized with Chicago Botanic Garden’s “Cows on Parade” event. Since we are an Audubon-certified Important Bird Area, it made sense to ask people to create bird houses.

“Bird Abodes” quickly took flight with a call for entries that resulted in over eighty exhibits created by professional woodworkers, home hobbyists, families, and kids. Displayed among the historic trees of the original arboretum, the elegant, beautiful, whimsical, silly, and clever bird houses charmed our visitors. We did not attract the same number of visitors as we did with “Big Bugs,” but it was still a healthy boost over our normal attendance, and it kept us in the public eye. Inevitably, as the “Bird Abodes” exhibit settled in, we began planning for the next temporary display. Our large, undeveloped acreage of meadows and woodlands supports a great diversity of butterflies. “Amazing Butterflies” took place in 2004, and combined sculptures developed by the community with a 1,400-square-foot live Butterfly House. A skilled and enthusiastic Tyler board member fabricated ready-to-decorate butterfly and caterpillar kits that were distributed to the public for a small fee with a stipulation that they be decorated and returned in time for installation. Like the entries for “Bird Abodes,” the butterflies and caterpillars created by community members were wonderful. The Butterfly House was also a big hit. Fabricated on a shoestring with invaluable help from volunteers, the structure was home to native butterflies along with nectar and larval food host plants. Frequent demands from visitors that the House return the following year made us realize that this “temporary” display should become a semi-permanent feature.

Homegrown exhibits are less expensive, but there are still costs to the organization. Fundraising is more difficult as, unlike a rented exhibit, there are no finished exhibits to show potential funders. And these exhibits entail much more time and energy on the part of the staff, delaying progress on other important fronts. Involving the community in helping create an exhibit has definite pros and cons.
Big Exhibits: Creating Growth for a Small Arboretum

We established important connections and were able to tap into an amazing pool of talent. But this format demands two major publicity efforts: one to first attract exhibitors and then another to promote the finished exhibit. There are also more details to coordinate when exhibit contributions are coming from so many different people. After three years of intense exhibit planning and executing, it was time to regroup. We suspended exhibits to allow staff to work on other critical initiatives to continue the growth of the organization. Unexpectedly, the Butterfly House helped us maintain a presence in the community. With a popular new seasonal attraction, our summer attendance increased significantly.

Going for the Big Time – “Totally Terrific Treehouses”

Since its inception at Dallas Arboretum and Botanical Society, the treehouse concept has succeeded at each garden where it has taken place. We began planning three years in advance, and, once again, peer organizations generously shared their experiences. Previous institutions had developed a proven model of sending out call-for-entries information and offering stipends. Funding continued to be a challenge for us until one of our board members came up with a new twist. He suggested two categories of exhibitors: one composed of traditional stipend recipients and the other composed of sponsor exhibitors who each donated $10,000 and also bore the total cost of creating and installing their exhibit. Seven sponsors were selected, which guaranteed them inclusion in the exhibit, but their designs were still subject to our approval. Sponsored exhibits raised important dollars and also served as a way to get board members involved.

Be Careful What You Wish For...

“Totally Terrific Treehouses” succeeded beyond our wildest expectations. We accepted seventeen entries, and the diversity provided structures that were perfect for young children, captured the imagination of older kids and young teens, and resonated with adults. But coordinating and managing the installation of seventeen individual projects was a serious challenge for the horticulture staff, on top of all the work needed to prepare the Arboretum for the anticipated surge in visitors. After the opening, the impact shifted to the visitor service staff. Our parking lot was overflowing and staff was often exhausted, but those skyrocketing numbers that kept breaking records kept us all smiling.

Two undeniable components of our success were phenomenal publicity and lucky timing. We hired a marketing consulting group that developed a comprehensive plan and worked hard to keep the event in the public eye. Longwood Gardens, just twenty minutes down the road, was also hosting a treehouse exhibit in 2008. When we talked with their staff, we realized that, rather than competing for visitors, the two exhibits were quite different and very complementary; the fact that we were in such close proximity would be a bonus. A cross-marketing plan was developed to encourage visitors to see the full spectrum of treehouses by visiting both institutions. It worked. News of the exhibits spread like wildfire, and everyone in the region was talking treehouses.

What We’ve Learned

Advice and guidance from peers has been essential; in our professional community, there is really no need to reinvent the wheel. Special exhibits are now part of our organizational culture. They have both fostered and pushed growth for the organization in financial resources, donor connections, public awareness, facility improvements, and staff development. Each of our exhibits offered the numerous opportunities for relevant educational programming and interpretation, directly supporting an important component of our mission. Our upcoming capital campaign will benefit from connections with new donors and supporters. The significant increase in memberships will be supported with refocused member events and other benefits. Perhaps the most important short-term benefit from the most recent exhibit involves the timely infusion of needed revenue, providing a greatly appreciated cushion for our operating budget this year.

Without a dedicated exhibits manager, we have relied on staff committees, adding work to already full plates. It is clear that we need a sustainable source of financial support in our operating budget if we are to continue; raising all the revenue needed for each exhibition is too labor intensive. We are also aware that we need to enhance and strengthen our permanent exhibits and collections to complement the temporary exhibit, a goal that has been addressed in our recently updated strategic master plan. New partnerships have already been established to move these initiatives forward. Overall, the benefits of temporary exhibits greatly outweigh the negatives, and we expect to continue to develop special exhibits as part of our public programming efforts. In fact, the summer of 2009 will see the return of “Totally Terrific Treehouses,” with a new twist.

Winning the People’s Choice Award, this treehouse consisted of a cantilevered viewing platform that took advantage of the sloping trunk of one of Tyler’s massive white oaks.

We are also aware that we need to enhance and strengthen our permanent exhibits and collections to complement the temporary exhibit, a goal that has been addressed in our recently updated strategic master plan. New partnerships have already been established to move these initiatives forward. Overall, the benefits of temporary exhibits greatly outweigh the negatives, and we expect to continue to develop special exhibits as part of our public programming efforts. In fact, the summer of 2009 will see the return of “Totally Terrific Treehouses,” with a new twist.

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In 1998 The Morris Arboretum was ready for a coming out party. Though it had been a public garden since 1933, it was not until the mid 1990s that the Arboretum really completed the transition from a private estate to a public garden. By that time, the new entrance, parking, and accessible path system were complete, and great progress had been made in restoring decaying architectural features and display gardens to their former glory. We had been operating with the premise of if you build it, they will come. Though attendance was steadily growing, we wanted to leap forward from roughly 35,000 visitors to ultimately over 100,000.

We had been using one- or two-day special events to build attendance and awareness, but there were limits on the numbers of visitors we could handle in a single day, and poor weather often spoiled all efforts. We needed a special attraction that had marketing appeal and would draw visitors seven days a week, all summer long.

In December of 1996, I met Paul Busse of Applied Imagination while leading an intern field trip to The New York Botanical Garden. Busse was there installing a holiday garden railroad in the conservatory. I was impressed with the creativity and artistic integrity of his installations. But most important, he quickly convinced me of the marketing muscle of his exhibits. A few weeks later I met Busse again at the Cincinnati Krohn Conservatory, this time with my nine-year-old nephew in tow as my test audience. Both of us were mesmerized, and the conservatory staff attested to the drawing power of the exhibit.

Being convinced, I began the process of selling staff and board on the idea, with a goal of mounting an exhibit for the
summer of 1998. Initial reactions varied. It was difficult to communicate exactly what a garden railway was. Some felt that it was an abandonment of the Arboretum’s mission and the first step down the slippery slope to becoming an amusement park. But, in doing this kind of exhibit we made a commitment to maintaining a high level of horticultural presentation and architectural detailing. The early exhibits featured replicas of historic Philadelphia buildings, including Independence Hall and the Betsy Ross House. These buildings, created by Paul Busse, were finely crafted using natural materials, such as cones, bark, and tendrils, gathered at the Arboretum. Over the years, Arboretum horticulturist Iana Turner has selected a palette of small, fine-textured plants ideal for exhibiting in the Garden Railway.

The first garden railway exhibit opened in 1998, running from July 4 to October 4, Columbus Day. When the exhibit opened, it created a buzz throughout the Philadelphia region. We connected with all three major news channels and the major print media. The TV cameramen loved the sights, sounds, and emotions of the Garden Railway, and several made multiple visits that summer. The exhibit propelled the Arboretum into the consciousness of Philadelphians in ways that none of our previous events or restoration efforts had ever done. By the end of that fiscal year our attendance had nearly doubled to over 70,000 and membership grew by 65 percent. It also helped shift our audience to a younger, more family-oriented demographic. And most important, the appeal of the garden railway continues to be strong, year after year, and our attendance now averages over 90,000. Of course, each year our garden restoration projects improve the visitor experience, but it is apparent the Garden Railway is an important part of the mix.

It soon became clear that this would be an annual exhibit, and each year we refresh the Garden Railway with a new theme. Themes have included “Great Lighthouses,” “Houses of the Presidents,” and, most recently, “Architectural Wonders of the World.” We lease the changing-theme buildings and reuse our purchased historic Philadelphia buildings. In 2001, we added the holiday garden railway for the period between Thanksgiving and the New Year. This transformed December from one of our lowest visitation months to one of our highest.

But most important, we were introducing the Morris Arboretum to a whole new audience. We cannot teach visitors if they are home watching television. We need exciting and family-friendly exhibits like the Garden Railroad to capture the imagination of the media and, ultimately, of our visitors. Once attracted, these new audiences enjoy not just the Garden Railway, but all that the Arboretum has to offer. Most of the early naysayers were convinced when they saw that even the far reaches of the Arboretum were filled with visitors. It is especially exciting to see so many children bonding with the Arboretum. I knew we had arrived when parents told me that their children were insisting on visits to the Arboretum. Some said they had to avoid passing by the Arboretum gates or the kids would have a fit if they did not go in.

We are now planning the twelfth annual Garden Railway exhibit for 2010. After twelve years, the original buildings are aging and in need of rebuilding. But the popularity of the exhibit continues. I cannot imagine the negative impact on our visitation and membership levels if we had not installed the exhibit. The Garden Railway has helped to make the Morris Arboretum a family destination and has brought untold numbers of children in touch with their natural environment and the world of plants. I often talk with young adults who have fond memories of the Garden Railway and their walks throughout the Arboretum with parents and grandparents. No doubt they will soon be bringing children of their own to the Arboretum, continuing what has become a family tradition.
The hot topic of blockbuster events and exhibitions at public gardens has been a personal interest of mine even before I became involved in the field. As a native Atlantan, I watched as my city was transformed and lifted to international esteem when it hosted the 1996 Summer Olympics. Later, when I entered the public garden world as a volunteer at Atlanta Botanical Garden, I observed how Dale Chihuly’s and Niki de Saint Phalle’s exhibits helped establish the Garden as a top Atlanta cultural attraction. When I began my graduate studies in Public Garden Leadership at Cornell University, it seemed natural to delve into research related to this subject matter, which became the basis for my master’s thesis, “The Impact of Special Events at Public Gardens: Is Bigger Better?”

While new for public gardens, blockbusters have been a long-time practice among museums and city chambers of commerce (Bean, 1994). In the museum world, big-name temporary exhibitions have become primary marketing tools, bringing enormous benefit to both host museums and their local economies. Exhibits such as “Tutankhamun and the Golden Age of the Pharaohs” and “Body Worlds” have brought in millions of dollars in revenue and millions of visitors wherever they travel (Granberry and Levinthal, 2007) (Kinnaird, 2007). While museum blockbuster exhibits are most analogous to what we are doing at public gardens, I found literature related to city events more pertinent to my analysis of blockbusters at gardens.

Major cities often vie for the privilege of hosting what economists call mega-events, large-scale sporting events such as the Olympics and the Super Bowl, or high profile political conventions, such as the Democratic and Republican National Conventions (Surowiecki, 2004). Supporters of these events argue they provide an incomparable economic boom to host cities; likewise, the publicity surrounding these events is highly desirable, bringing national or worldwide attention to the city and building the city’s brand name (Surowiecki, 2004). Despite these benefits, some economists feel the emphasis that cities place on holding these type of events is not warranted, and that, in fact, mega-events rarely live up to their expectations. Mega-events drive tourism, but they often require months and even years of...
preparation that are both expensive and disruptive to normal city operations (Surowiecki, 2004). On a dollar-for-dollar basis, many economists feel that cities derive greater benefit from holding smaller, more frequent events—such as tradeshows and small-scale conferences—that are less disruptive and put less stress on the local community (Albright and Karp, 2002).

The example of mega-events can easily be applied to public gardens. Mega-events are analogous to garden blockbusters in their potential to bring hoards of publicity and economic benefit to gardens. However, some garden professionals, like skeptical city economists, feel blockbusters are not worth the effort and instead choose to emphasize event strategies focused around smaller, more manageable events. So which is the better strategy? To blockbuster, or not to blockbuster?

What I did (research methods):

To understand the climate surrounding large events at public gardens, I developed a survey and distributed it in August 2007 to sixty-two large public gardens—those classified by the American Public Gardens Association as having a yearly operating budget of at least $2.5 million—in the U.S. and Canada. Large gardens were chosen because of their greater likelihood of holding blockbusters and thus their potential to yield a larger data set.

The survey contained three parts, aimed to capture the following:
1. Qualitative data related to garden directors’ opinions of large events at public gardens.
2. Qualitative and quantitative data on all the large events—including blockbusters—held by each garden over the past five years.
3. Quantitative data on four garden metrics (over the past five years): visitation, total garden revenue, membership, and gift shop sales.

All participants were granted confidentiality; as such, numbers were assigned in lieu of names. The survey garnered a 42% response rate, with twenty-six public gardens participating.

What I found (qualitatively):

In speaking with colleagues during the preliminary stages of my research, I was struck by how divided professionals appear to be over the topic of special events. Therefore, I felt it crucial to collect directors’ opinions of the role special events play at public gardens. The results I found were interesting but not quite as variable as anticipated (for a summary of responses, see Table 1).

• Nearly all directors agreed that large events are beneficial to public gardens (Figure 1). Of the specific benefits cited, increased visitation topped the list (a full list of benefits cited can be found in Table 2). Garden 107’s director encapsulated other benefits of events in this response: “Large events such as exhibitions are beneficial to botanical gardens because they enable us to communicate our mission more broadly to an expanded number of visitors, some of which might not have been aware otherwise.”
• In addition, directors like Director 104 discussed the benefits of publicity and audience diversification that events can provide, especially higher profile blockbuster events: “They provide an opportunity to build visibility and an audience. Gardens take time to grow and to ‘show.’ I’ve noticed, over the years, how ‘non-living’ museums, such as art museums, benefit from the opportunity that doing ‘blockbuster’ shows provide. There is an opportunity to obtain press coverage, an opportunity (through the formulations and creation of the ‘show’) to cultivate an audience or develop a new one.”
• Another sentiment expressed is that botanical collections are not enough; public gardens need events to create compelling reasons for visitation: “Given the demand for the public’s discretionary time and money, gardens are in a very competitive market, and not just with other not-for-profits. As much
as I hate to say it, ‘just plants’ are not enough to bring them in, especially for most young gardens. Special events introduce a ‘new’ public to our gardens and remind past visitors that it’s time to revisit.” (Director 105)

Though the idea that plants alone do not attract visitors denotes a tinge of defeatism, it has backing in cultural tourism literature. Research indicates that the type of tourist most likely to visit public gardens is more drawn to “living culture” than to “museum culture.” “Living culture” is distinguished by an ability to engage people through a cultural experience, such as an event or exhibition; “museum culture,” on the other hand, relates to exposure to specific objects or sites, such as a botanical collection (Tweed, 2005). This finding underscores the potential events have to create compelling reasons for tourists to visit public gardens instead of engaging in other activities.

Directors overwhelmingly classified events as beneficial to their organizations; however, they also recognized the costs and disruptions associated with holding events. The top disruptions cited were diverted staff time and high impact and damage to grounds. Many directors consider these disruptions and others—listed in Table 3—as factors limiting how many events their garden can manageably hold. Director 106 explained, “Staff time is considerable across all departments. We are currently exceeding the staff’s capacity to carry out the existing roster of events.” Likewise, Director 122 said, “Current staffing levels prevent us from holding more events.” In a perhaps hyperbolic, but telling statement, Director 106 goes so far as to say, “If we had many more events the staff would mutiny!”

In an attempt to reconcile the push-pull dynamic created by the costs and benefits of holding events, directors highlighted two components of successful event management. One pointed to the potential for mitigating event costs through a “culture shift…[where] disruptions can be assimilated as an ongoing part of operations” (Director 112). This kind of shift cannot occur overnight, but instead must be incorporated over time into a garden’s organizational culture, through clear communication and employee involvement on all levels. Ideally, these efforts will help stave off any negative impact that events can have upon staff morale. Other directors, including Director 126, stressed the importance of event evaluation in mitigating event detriments:

“Events should be evaluated regularly to see if they have grown into something that does not reflect the goals of the garden and to evaluate if they: promote mission, public outreach, generate funding/donations, remain vibrant and not stale or routine, etc. They should be discontinued if they don’t meet expectations (before they become a burden).”

Directors also expressed that with every event and every event mishap, they learn important lessons that help fine-tune future event management decisions. For example, Director 107 expressed that, “…the logistics involved in managing a large crowd is something we continue to work to refine.”

These responses provide a valuable perspective on how today’s public garden leaders regard the relative costs and benefits of events and exhibitions. However, this information alone does not provide the whole picture or directly address the blockbuster question posed at the outset of my research. Building on the information gathered from the survey, I was able to move forward in my analysis of how specific types of events at public gardens drive garden trends.

What I found (quantitatively):

I assessed four economic measures: visitation, total garden revenue, gift shop sales, and membership (total, new, and renewals). As increased visitation was earlier identified as the top event benefit, and because visitation was the measure most consistently reported by the gardens surveyed, my data analysis focused on the impact of reported events on garden visitation.
**Blockbuster Impact**

Nearly all of the surveyed gardens experienced an increase in visitation over the years reported. Four gardens in particular—as can be seen in Figure 2—experienced a notable jump in attendance during specific years. Not surprisingly, each of these spikes corresponds to years those gardens held Chihuly’s glass exhibit. In conducting a regression analysis, I was able to more conclusively illustrate the significant effect this exhibit has upon garden visitation. Results from tests of significance, of what I like to call the “Chihuly Effect,” can be found in Table 4. To clarify some of the statistical terminology, a significant result—such as that seen for visitation and gift shop sales—is represented by a p-value of less than 0.05, indicating that the Chihuly exhibit had a statistically significant impact upon increases in garden visitation and gift shop sales.

The other blockbuster exhibit reported on by survey gardens was Dave Rogers’ “Big Bugs.” In contrast to the Chihuly exhibit, regression analysis results indicated that “Big Bugs” did not have a significant effect on visitation or any other economic measure (Table 5).

**Non-blockbuster Impact**

My initial research related to blockbuster events; however, as my research progressed, it became apparent that it was just as important to assess the impact of smaller, non-blockbuster events on garden trends. Despite the recent buzz surrounding blockbusters, these smaller events—even at the largest of our public gardens—are the ones held most frequently. For example, of the 257 events detailed by the twenty-six participating large gardens, the top three reported event types were non-blockbusters, falling under these categories: holiday/cultural celebration, garden/collections-specific, and art-related (visual and performing). For the scope of my project, I assigned “non-blockbuster” status to any reported event that did not fall under the category of a big-name, travelling exhibition (e.g. Chihuly, “Big Bugs,” Henry Moore).

In assessing the significance of the top three non-blockbuster event types on garden visitation, only the holiday/cultural celebration category was found to have a significant positive effect on visitation (p=.0069, at a significance level of p<0.05). While the other categories did not show a statistically significant impact on increases in visitation, their impact on visitation was still positive. Furthermore, the three most frequently held event types—holiday/cultural celebrations, garden/collections-specific, and art-related—showed more success in attracting visitors than the other categories of events. On average, these events had a 30% increase in visitation associated with them, compared to the 4.8% change in visitation resulting from all other event types.

**What does it all mean?**

Based on the results from my statistical analysis, it could be easy to conclude that, of the events assessed, the Chihuly exhibit is the only one worth holding. However, adopting this view would be short-sighted and overly simplistic.

**The Larger Picture**

While there is great value in taking a statistical approach to a topic that is often discussed anecdotally, statistics must be supplemented with the other factors that play into successful event planning.

First, it is important to recognize that many, if not most, public gardens do not possess the means—with regards to infrastructure and design—to hold an exhibit on the scale of a Chihuly exhibit. In the words of the director of Garden 114, “Most gardens were not designed with large events in mind. Therefore, oftentimes extraordinary measures must be taken to accommodate the events.” Even when these “extraordinary measures” are achievable, they often result in previously discussed disruptions that hurt staff morale and put undue stress on the overall operations of the garden. Next, it is important to
point out that event benefits are not always accounted for by the studied economic measures. In revisiting Table 2, it can be seen that many of the benefits of events cited by directors are less quantifiable, such as diversification of garden audience and increased connectedness to community. It can be argued that these benefits do in turn impact a garden’s bottom line; however, the effect is less immediate and, therefore, will take longer to translate to a measurable economic benefit.

**Big Impact versus Steady Growth**

Another important factor when weighing the relative benefits of blockbusters versus smaller events or exhibitions is the timeframe of benefits. My results indicated that non-blockbusters on the whole did not have a statistically significant impact during the five-year time period analyzed; however, these events still provided a level of economic benefit that could translate to subtle, long-term gains. On the other hand, a blockbuster like Chihuly offers gardens an instant boost through an influx of visitation. This boost is often short-lived and leaves along with the departure of the exhibit. Therefore, it could be argued that annual garden events provide a steadier, yet less dramatic, flow of visitors from year to year, compared to single-run blockbusters.

The concept of annual versus one-time events brings up another interesting point. As mentioned before, many gardens do not have the ability to hold large blockbuster exhibitions. Even at gardens able to do so, these high-investment events cannot be held with great frequency. By contrast, non-blockbuster events are less expensive, less labor intensive, and according to my survey data, are held with much greater frequency. In a sense these events, often referred to as “special events,” are not really “special” at all; they are ingrained in the regular operations of public gardens.

According to the director of Garden 102, “holding and implementing these events are part of the annual plan and the annual budget,” and in the words of Director 112, the most effective events are ones that are “assimilated as an ongoing part of operations.” This idea suggests that a non-blockbuster event strategy, more easily incorporated into garden operations, is perhaps more sustainable than one centered around blockbusters.

**Mission-driven, robust exhibition programs**

Up until this point, I have primarily discussed the relative benefits of different event types with regards to how they directly or indirectly drive economic trends. However, it is important to recognize that event goals set by gardens are wide-ranging and always revolve around economic benefit. These non-economic goals may vary based on individual garden factors, most principally garden mission. The issue of how mission drives event planning decisions at public gardens was outlined in a concise, effective construct by the director of Garden 126, who stated that events can be placed in three categories:

1. Events that *embody* the mission of the garden
2. Events that *reflect* the mission of the garden
3. Events that create revenue and/or visitation to *promote* the mission of the garden.

Under this construct, mission—not economics—is the ultimate measure by which to guide event decisions. Director 126 even suggests that Category 1 events can lose money and still be justifiably held again, further placing fulfillment of mission above economic gain. Though mission-centered, this construct also accounts for non-mission related events. According to Director 126, these events—which fall under Category 3 and include blockbuster exhibits—are justifiable when they create sufficient revenue and visitation benefits that can then be fed back into the garden’s mission. Director 126 is not alone in this sentiment; as stated by Director 107, “…the earned income associated with...
Is Bigger Better

large events supports all our programs including scientific research, children’s education, and horticulture.”

By integrating my research findings into the construct proposed by Director 126, I created a model to help public garden professionals take a holistic approach to event-related decisions:

**Conclusions:**

Let us return to the original question: to blockbuster, or not to blockbuster? My research suggests that there is no simple answer to this question. What began for me as a question, of whether or not gardens should hold blockbuster exhibits, ended as an examination of the complex decision-making process involved in setting effective garden event strategies. My research results showed that these strategies should incorporate both the economic and less quantifiable impacts of events, and they should also account for the individual differences in the missions and organizational goals of gardens. The proposed event model can be used to assess currently held events, guide future event-related decisions, and involve garden staff with the event-planning process. It is my hope that the findings of this study, in addition to future research on the subject, will enhance the knowledge and perspective by which public garden professionals approach event-planning at public gardens.

**References:**


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As designers, we quickly learn that the term “exhibit” means different things to different people in the public garden world. The dictionary definition includes: to show, display, demonstrate, put on view, and present. Therefore, at the simplest and most essential level, exhibits in a garden are the plants that are displayed and presented; their composition and use educate and inspire garden visitors. However, when engaged with clients in the programming phase of design, the term “exhibit” generally means more than the plants.

If we liken plants to “the cake,” most clients consider exhibits “the icing.” Just as a cake with luscious buttercream icing is a bestseller at the bakery, public gardens benefit from exhibit icing. Gardens enhanced with sculpture, architectural cues, water features, interactive components, and even animals will help bring more people through the garden gate than if plants were the only ingredients. Exhibits also provide an opportunity to deepen content and to create excitement. Imagine colorful butterflies of all shapes and sizes dancing about in a screened butterfly house - an enchanting experience that releases the youngster in us all. Such an exhibit also enables the educational staff to tell the story of pollination with gusto.

Visitors carry this layered, nuanced experience beyond the garden gate and back to dinner table conversation, which by almost any measure equals success.

Of course exhibits, like icing, come in many flavors. Permanent exhibits are those elements that are integral to the design of the garden space. They are carefully conceived to support the aesthetic and educational message of the garden. For instance, a spectacular fountain plays a central educational and horticultural role in the Trout River Plaza at the Jacksonville Zoo. Water spills from a great bronze bowl and splashes onto a richly detailed pebble mosaic floor.
depicting the animals of the Trout River. A basking anhinga sculpture rises from the water along with a “boil” of mullets. Visitors learn of the native animals of the adjacent Trout River as a preview of the native plant garden planned for the River’s banks.

Education and beauty are not the only experiential layers that exhibits offer. Well-designed exhibits give us reason to pause and fully absorb the sights, sounds, and fragrances of the gardens in which they are located. Exhibits help cure “plant blindness” that plagues the majority of garden visitors. At Trout River Plaza, the soothing sound of the cascading water entices visitors to linger, to play with the water, and to enjoy a respite from the Florida heat. While seated in the Plaza oasis, visitors find themselves surrounded by an intriguing array of plants. A cascade of colorful annuals spills from great urns balanced atop encircling vine-clad columns. Creeping fig and flowering vines cling to a sinuous petal wall and drip from a curving arbor above. The Jacksonville Zoo and Gardens staff is happy to note that visitors are now reading plant labels and asking questions about the plants. The carefully crafted combination of exhibits: pebble mosaic, sculpture, and interactive fountain plus the plants work in concert to create an exquisitely rich garden – a multi-tiered extravaganza!

Public gardens benefit from temporary exhibits as well. Temporary exhibits freshen and invigorate the visitor experience. They, too, come in a range of flavors, details and costs. Consider the blockbuster - the wedding cake of the garden world. Nationally and internationally-recognized traveling exhibits such as Chihuly, Niki, or Chapungu create a stir in the community at large, spike visitation numbers, increase memberships, and ultimately improve the garden’s visibility within the region. They require the most funding to rent, insure, and transport and the largest staff to manage the procurement, marketing, unloading, maintenance, protection, and crowd control, among other things. Once the exhibit arrives - typically in large trucks - it needs to be unloaded and stored in a safe environment. Outdoor elements require protection from inclement weather, vandalism, and general wear and tear from curious visitors. Care must be taken in placement of these pieces so they are displayed effectively, typically requiring large areas of garden, exhibit hall or conservatory space. Proper lighting of the exhibit must also be considered. As designers, we remind our clients with an interest in exhibiting at this level that these complex back-of-house issues should be addressed early in the garden design process.

Smaller regional or locally conceived temporary exhibits are equally effective and engaging. We have found that local artisans and a creative staff are capable of producing changing displays that range from the demure to the outrageous. We recently visited the Minnesota Landscape Arboretum and were delighted to discover the Art to A-Maze pieces strung along the garden path like jewels on a necklace. The Madhatter Tea Party in the herb garden at Reiman Gardens was equally charming; visitors could not help but marvel at the delicate arrangement of various succulents in teapots and teacups. From the unexpected funk of the Urban Nature exhibit at Denver Botanic Gardens to the incredible creativity of the treehouse competition at Powell Gardens to the annual blockbuster flower shows at Phipps Conservatory and Botanical Gardens – it is clear that successful locally conceived exhibits come in all
sizes, shapes, and costs. As an added bonus, these artisan and staff-crafted exhibits are typically designed and constructed so that they can be mimicked in a home, school, or neighborhood park landscape.

How do gardens plan for temporary exhibits? As garden designers, we encourage clients to reserve flexible space to stage seasonal and temporary exhibits. For instance, the theme of the Idea Garden at My Big Backyard Family Garden in Memphis will change annually from a Native American Garden to a Harry Potter Garden to a Frog Princess Garden, while the Author’s Garden at Heartland Harvest at Powell Gardens will be designed and constructed by a rotating group of local garden authors. The Imagination Garden, a transitional garden between the new Family Garden and the existing formal gardens at Fellows Riverside Gardens in Youngstown, Ohio, will feature changing exhibits to appeal to the child within all visitors.

For a second helping of the photographs from the exhibits mentioned, please feel free to visit an online gallery at the following link: www.terradesignstudios.us/gallery/.

The flavor and complexity of the icing (the exhibit) varies by the size of the cake (the garden), the number of bakers (garden staff), and the cost of the buttercream (dollars to fund the exhibit). Exhibits can be interactive, welcoming whole-hearted engagement of multiple senses, or best viewed but not touched, as an ornament in the landscape. Exhibits can be permanent or temporary. All types of exhibits increase the diversity of a garden’s audience. They encourage art lovers, bird-watchers, children, and endless interest groups who otherwise would not be inclined to join plant lovers in the garden. Exhibits elevate a garden’s presence in the community, ultimately increasing visitation and membership, while giving educators valuable tools to teach and engage their audience. Finally, exhibits help cure “plant blindness.” As designers, we best serve our clients by discussing, early and often, the range of exhibit design that meets their mission. Once the flavor of icing is chosen, the results are delicious!

If we liken plants to “the cake,” most clients consider exhibits “the icing.” Just as a cake with luscious buttercream icing is a bestseller at the bakery, public gardens benefit from exhibit icing.

Cindy Tyler is the founding principal of Terra Design Studios www.terradesignstudios.us, a public garden design firm whose focus is family gardens, educational university landscapes, and turnkey support for start up gardens.
The JC Raulston Arboretum (JCRA) is a nationally acclaimed garden with one of the most diverse collections of cold-hardy, temperate-zone plants in the southeastern United States. As part of the Department of Horticultural Science at North Carolina State University (NCSU), the Arboretum is primarily a working research and teaching garden that focuses on the evaluation, selection, and display of plant material gathered from around the world. Plants especially adapted to the conditions of the North Carolina Piedmont region are identified in an effort to find better plants for southern landscapes.

The Arboretum is a ten-acre jewel that has been largely built and maintained by NCSU students, faculty, volunteers, and staff. It is named in honor of its late director, J. C. Raulston, PhD, who founded it in 1976. Plant collections include over 5,000 total taxa (species and/or cultivars) of perennials, bulbs, vines, groundcovers, shrubs, and trees from around the world displayed in a beautiful garden setting.

North American Plant Collections Consortium (NAPCC) Collection

The nature of the Arboretum’s mission combined with its small size means that the collections are constantly evolving as new plants are added and older specimens removed. Committing to the long term curation of a single taxonomic group was only undertaken after careful consideration of the limits this would impose on the dynamic nature of the collections. Because the aims of the NAPCC—to make germplasm available for selection and breeding, taxonomic studies, evaluation, utilization, and other research purposes—tie in closely with the goals of the JC Raulston Arboretum, it was decided that this would be a mutually beneficial collaboration.

Cercis (redbud) has been an important part of the collections of the Arboretum from the start. The first accession dates to 1978, shortly after the Arboretum was established. While most public gardens have their share of redbuds, few have significant collections of the often hard-to-find species and cultivars. Depending on your taxonomist of choice, there are six to eleven species of Cercis and several other sub-specific forms. The JCRA currently holds seven species and forty distinct taxa with a concentration in the forms of Cercis canadensis. While there is very little replication of taxa in the JC Raulston Arboretum, the history of freely sharing propagules with other gardens and nursery professionals has ensured that replicates of our collections can be found all over the world. The stated goal is to collect all known species and subspecies for comparison as well as collecting as many of the various named forms of redbud as possible.

Considerable confusion abounds in the literature and consequently the marketplace surrounding the Asian redbuds. The JCRA NAPCC collection will help clear up the taxonomic confusion surrounding this group of landscape-worthy trees and shrubs and provide propagules to other researchers and the green industry. Side-by-side comparisons of living plant
material will enable us to develop keys for identifying plants. The collection will also help the JCRA’s education mission both to the public and to NCSU students as we impress on them the importance of coordinated and collaborative efforts to preserve germplasm ex situ.

Records
The JCRA maintains meticulous records on all of our plant material. A customized database utilizing FileMaker Pro and mapped in MapInfo Professional makes information easily accessible to all staff. Periodic inventories, measurements, map, and label checks are carried out by JCRA volunteers under staff supervision. Wild collected material, which currently comprises a very small portion of the collection, is documented as fully as possible with locality and the environmental conditions it was growing in. The updating of both the database and maps has been streamlined to ensure easy compliance by staff and volunteers in keeping records accurate and precise. Plants are labeled with an engraved plastic label showing scientific name, common name, family, and species nativity. On our website, the list of current plantings is updated daily, and our photograph collection is available for viewing.

Introductions
By the mid 1990s, two selections of *Cercis* had been selected and named by Dr. J. C. Raulston. The first, *Cercis canadensis* subsp. *mexicana* ‘Bonita’, was grown for its exceptionally glossy leaves with regularly undulate margins. The other, *C. glabra* ‘Celestial Plum’ (originally named and still sometimes seen as *C. yunnanensis* ‘Celestial Plum’), was selected for its blue-green foliage and loads of light plum-purple flowers in early spring. Once thought to be lost from cultivation, this outstanding selection is making a comeback. In more recent years, the JCRA *Cercis* collection has been used as source material in the breeding efforts of Dr. Dennis Werner, plant breeder in the Department of Horticultural Science at NCSU. Over the next several years he will be releasing new plants in conjunction with the JCRA. Plants coming out of his program in the near future include weeping forms with both variegated and purple leaves, as well as a purple-leaved *Cercis canadensis* subsp. *texensis*. We anticipate even more exciting forms of our native redbud to emerge from this innovative breeding program.

Mark Weathington is the Assistant Director and Curator of Collections at the JC Raulston Arboretum at NC State University, http://www.ncsu.edu/jcraulstonarboretum.

1. The pale lavender racemes of *C. racemosa* give it the common name, wisteria-flowered redbud.
2. Several different variegated forms of *C. canadensis* are in the trade including ‘Silver Cloud’ and ‘Floating Clouds’.
3. This exceptional early and heavy flowering form of *C. chinensis* has been named ‘Kay’s Early Hope’ to honor North Carolina State University’s exceptional basketball coach, Kay Yow.
4. Redbud flowers commonly form on completely mature stems as seen on this *C. chinensis*.
The official Kew Timeline starts at 53 BC when Julius Caesar is thought to have crossed the Thames at Kew on his first “visit” to Britain. This year, The Royal Botanic Gardens, Kew celebrates its 250th anniversary. From its humble beginnings as a medicinal garden at Kew Palace tended by William Aiton for the royal family’s Prince Frederick and Princess Augusta, the parents of the future George III, Kew has expanded into one of the most important centers of botanical research and education, all the while maintaining focus and staying relevant after fifty, twenty, or even just ten years of operation makes Kew’s accomplishments that much more extraordinary.

As with any public facility, there is plenty of information available—statistics, lists of accomplishments, and historical timelines—for someone writing a profile of Kew. It would be impossible to give a comprehensive treatment to its centuries of history in a few pages, though. What was on my mind when asked to tackle the enormity of celebrating Kew’s 250th anniversary for Public Garden, was
discovering what it is like to work somewhere with such a long history and a living collection. It is one thing to manage a history museum of artifacts, and quite another to wrangle a 250-year-old living museum, adjusting to the needs of both a world-wide scientific community and wide-eyed tourists. A garden, without careful stewardship, is but an ephemeral creation. The following staff graciously took a few minutes during busy preparations for the 250th anniversary to reflect on how Kew’s history and traditions impact their daily work, and their future planning:

- Professor Stephen Hopper, Director
- Wesley Shaw, Keeper of the Palm House
- Nick Johnson, Head of the Tropical Nursery
- Paul Smith, Head of Millennium Seed Bank
- Paula Rudall, Scientist, Jodrell Laboratory
- Nigel Taylor, Curator of Kew Gardens
- Tony Kirkham, Head of the Arboretum
- Rogier De Kok, Assistant Keeper of the Herbarium

Though each staff member belongs to a different department within the gardens, the similarity of their answers spoke as much about the success of Kew as any numerical statistic available. There appears to be a deep current of understanding throughout the garden of where they have been and where they are going, instructive to anyone charged with ensuring the success of their own public garden.

The World’s Oldest Plant

Possibly the most iconic images of Kew showcase the Palm House, which took four years to build from 1844 to 1848. The comprehensive restoration in the late 1980s took as long as the original construction period. It was built during the Victorian era to showcase exotic tropical plants and palms collected during botanical explorations funded by the royal benefactors of Kew. Many modern horticultural mainstays were introduced into cultivation during this period. Francis Mason was one of the earliest plant collectors for Kew. One of his specimens now resides in the Palm House—a cycad that has been at Kew since 1775. Wesley Shaw, Keeper of the Palm House as of this writing, is responsible for the *Encephalartos altensteini* specimen, which, if not the world’s oldest plant, is thought to be the world’s oldest containerized, cultivated plant. Shaw feels the responsibility and privilege of working at one of the world’s oldest public gardens, viewed through this very specific charge. He says, “When I think of how many gardeners have cared for this plant over the years, it gives me a real sense of the heritage and importance of the living collection that we are all responsible for—and the incentive to keep it going through my time in the Palm House!”

Nick Johnson, responsible for the Tropical Nursery also mentioned the *Encephalartos altensteini*, noting that the Palm House and its famous plant were on top of the tour list during his first day of employment. The fear of keeping alive a 200-plus-year-old plant is always close at hand! He says, “We, as gardeners, never take the history associated with Kew for granted. We are charged with keeping it going, renewing, and re-invigorating it, passing on our notes and skills to the next generation, all the while adding to the uniqueness of this beautiful institution.” Both Shaw and Johnson noted the importance and the inherent tension in maintaining aesthetically pleasing and scientifically valuable collections and displays.

A Research Facility, Pleasure Garden and James Bond Inspiration

Is Kew’s greatest accomplishment inspiring a key plot twist in the James Bond film *Moonraker?* Probably not, but when Ian Fleming met former Orchid Herbarium Keeper Victor Summerhayes on a train one evening, something about Summerhayes’s line of work struck a chord in Fleming, who featured a poisonous orchid in his next book. How about the ground-breaking work of a former curator who aided the British Government by creating runway camouflage using chamomile plants during pre-war trials? Chamomile planted in grass runways sped recovery, allowing the grass to grow back thicker and quicker, thus lessening the chance that the runways would be discovered in aerial
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photographs. Those two tiny pieces of trivia are but drops in a deep well of contributions Kew has made to history. Neither of those came up as a “greatest accomplishment” in the eyes of the staff, but they do show how diverse the work at Kew can be, and the way it touches, directly or indirectly, lives around the globe.

Every staff member interviewed was keenly aware of Kew’s position at the world center of botanical and horticultural hubs, and the care necessary to maintain the standards of excellence required of his or her position. Aptly put by Paul Smith, Head of Kew’s Millennium Seed Bank, “The most significant accomplishment of Kew over the past 250 years has been to maintain its position as global leader in the world of botanic gardens. Kew is botany in microcosm, and in all its forms—horticulturalist, taxonomist, naturalist, research scientist, and ecologist—if we don’t know the answer to a plant-related problem then we will know someone who does!”

Professor Stephen Hopper, Director of Kew Gardens, notes that Kew has used its position to be “a global force and science powerhouse for plants, fungi, and human welfare, increasingly in partnership with sister institutions locally, nationally, and around the world.”

The current mission and activities of Kew were made possible, in the opinion of Nigel Taylor, Curator of Kew Gardens, by horticultural activities at the Garden.

“During the era of Empire, our forbearers transformed agricultural economies with translocated plants and exported horticultural skills. Had this not occurred, arguably Kew would not be able to have the influence it has today. The spread of plants and the skills to grow them around the world, particularly in the nineteenth and early
twentieth centuries...that was our greatest achievement.” Taylor’s perspective builds an interesting bridge between Kew’s early history and its present activities. He began with the thought that naming Kew’s greatest accomplishment over the past 250 years “is a very difficult question,” and that “it is tempting to focus on the modern change in our work towards plant conservation as opposed to the exploitation theme that existed during the royal and Victorian periods—the poacher-turned-game-keeper thing.” Kew’s resilience comes from the ability of its ever-changing staff to build upon the existing foundation laid by the hundreds of caretakers before them, maintaining history with an eye toward the future. Glass houses originally purposed for display, now both showcase and conserve species for the future. Plant specimens originally collected for pleasure, now bred and re-introduced into wild habitats where they are virtually extinct. All of Kew’s conservation and education programs, horticultural schools, and delighted visitors are still possible after two-and-a-half centuries because everyone at the garden carries with themselves a sense of history and an understanding of the importance of taking a long view.

Looking Back, Looking Forward
When one is but a drop in the river of history flowing through a garden, decisions must be made not for personal accomplishment or fleeting glory, but for perpetuity. Rogier De Kok, Assistant Keeper of the Herbarium (the Herbarium with specimens from Charles Darwin, no less), sums it up well: “Do good scientific work and think long term. The collection you make today will be used for centuries to come, so you’d better make a good one.” Whether maintaining and building the herbarium, keeping collections alive, or carrying out in situ conservation programs, Kew’s staff works with the understanding that whatever they do now will affect the future of the garden, just as their own accomplishments have built on those of their forbearers. To conclude their interviews, staff members answered this question:

Two hundred and fifty years is quite an accomplishment. Obviously, Kew has done something right! What advice would you give to relatively new public gardens in the US based on your opportunity to work with and learn from the deep history and experience amassed by current and former Kew staff?

Kew Director, Professor Stephen Hopper, offered these eloquent and practical thoughts, instructive for anyone working in the public garden field. “I would say that the heart of Kew’s persistence includes the combination of inspirational gardens and collections with scientific problem solving. As a product of the Enlightenment, and under the gifted de facto leadership of Sir Joseph Banks, Kew went beyond being a royal pleasure garden to becoming a global centre for botanical science and economic botany. Today, it aims to inspire and deliver plant conservation worldwide, enhancing the quality of life. This ongoing transition, remaining relevant and focused, underpinned by great collections, good science and inspired leadership, may well enable today’s new public gardens to similarly endure beyond expectations.”

Katie Elzer-Peters, founder of The Garden of Words, LLC, is a freelance writer living in Wilmington, North Carolina. Her previous work in public gardens, combined with her love of history made the investigation into Kew’s amazing longevity an enjoyable undertaking. Contact Katie at katie@thegardenofwords.com.
Q: What is a green exhibit? How green does it have to be?

A: A green exhibit isn’t necessarily one that tells visitors how your garden is becoming more sustainable and how they can, too (though that’s a good idea!). Exhibits of all types and sizes can be beautiful expressions of sustainability. As for how green to go, you should make your exhibits as green as you can, and keep growing greener.

By now, most people in the public garden world are familiar with the LEED guidelines, performance benchmarks, and rating system for green buildings. The same basic guidelines can also be used for creating a green exhibit. Like a green building, a green exhibit is one that is designed to minimize the use of resources and the generation of pollution, including the greenhouse gases that contribute to global warming.

A good source of information specifically on green exhibits is the Green Design Wiki (www.greendesignwiki.com/index.php?title=Main_Page), a publicly created and accessible resource modeled after Wikipedia. The website is divided into four sections. The first covers choosing materials and finishes, such as plywood and paints, when designing and constructing an exhibit. It includes good background information and tips, but an even simpler way to choose green materials is to look for those that have been certified by an independent organization, like Green Seal or the Forest Stewardship Council (see my “Growing Greener” column on finding green products in the Green Leadership issue of Public Garden: Vol. 23, No. 1).

And don’t forget to consider the ecological footprint of ancillary products, like the food you’ll be selling to the people who come to see your exhibit. It’s worth noting that a 2008 study in the journal Environmental Science & Technology found that red meat is 150 percent more greenhouse-gas-intensive than chicken or fish. Cutting back on the red meat and dairy products you sell can make an even bigger difference than offering locally grown foods.

A second major consideration is how to minimize the use of energy over the exhibit’s entire life cycle, from fabrication and transport to operation and breakdown. For example, lighting is a key element of many exhibits, and specifying compact fluorescents or other low-energy lamps can reduce electricity consumption. In temporary and traveling exhibits it’s important to salvage these long-lived lamps for other uses. I’d add that since the whole idea of an exhibit is to attract visitors, often as many as possible, a big part of reducing energy consumption should be encouraging them to walk, bike, or use mass transit to come see it.

A third goal for green exhibit developers is “closing the loop.” Most special and changing exhibits at public gardens and other museums are one-shot affairs. No matter how important the message, interpretation as currently practiced is often a throwaway business. But in the words of Kathy McLean in “Environmental Considerations: Some Guidelines for Exhibit Developers,” which can be found on the Association of Science-Technology Centers’ website (www.astc.org/exhibitions/rotten/booktuts.htm), “what if the furniture and crates could be reused for another exhibition? Museums can design for reuse by creating an exhibition furniture vocabulary—a modular standard for exhibit components—that can accommodate a variety of configurations and arrangements. Furniture could be designed in such a way that surface treatments and detailing could change with each exhibition.” It’s certainly possible right now to at least create exhibits with materials like paperboard and glass that can be recycled. Some standard exhibition materials, such as plastic laminates and acrylics, are not yet made of recycled materials.

A final section of the Green Design Wiki, on sustainable graphics and signage, includes links to a few green vendors, such as a printer certified by several groups, including the Forest Stewardship Council, and a company that prints banners and other products on material woven from recycled soda bottles using water-based inks.

Green exhibits often cost more initially. But in the longer run, conserving energy and reusing the components can offset the cost and may even save money!

After sixteen-and-a half years at Brooklyn Botanic Garden, Janet Marinelli started her own planning, interpretation, and publishing company, Blue Crocus Consulting. She has written several books and numerous articles on sustainable buildings and landscapes; you can find many of them on her website, www.janetmarinelli.com, as well as her blog on plants and public gardens. Send any questions you would like answered to Janet at jmarinelli@earthlink.net.
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Top left: Natural Resources Exhibit
Indianapolis State Fairgrounds, Indianapolis, IN

Top right: Howell Park Wetlands
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Bottom left: Campus Martius Park
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Bottom right: ArtsPark
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