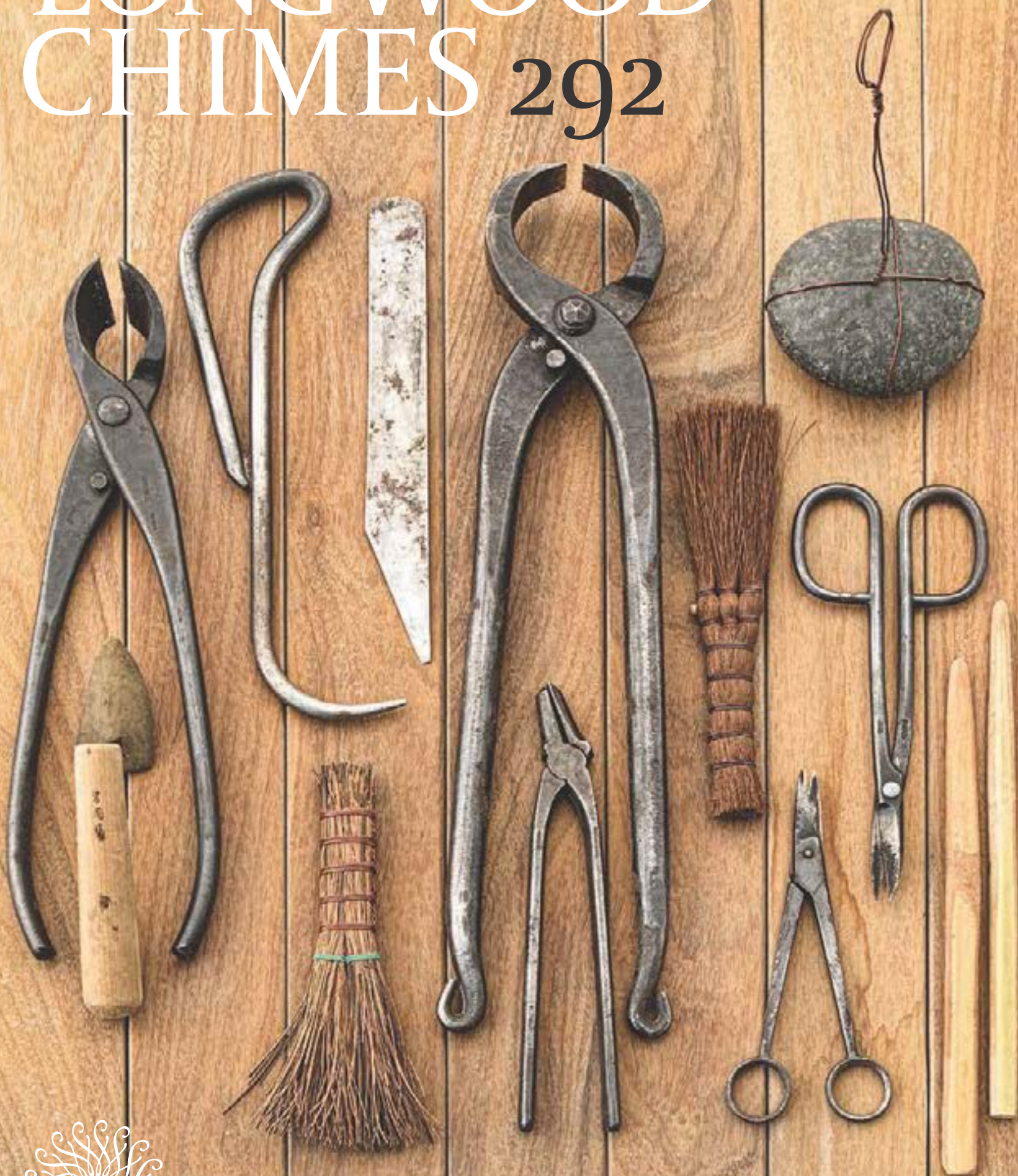


LONGWOOD CHIMES 292

Winter
2016





Texture, pattern, and rhythm add layers of richness and interest to a garden. Pierre S. du Pont was certainly inspired by motifs and recurring themes apparent in classical European garden design, and sought to introduce these concepts into the Gardens he envisioned for Longwood. In this issue, we look at the rich textures of Longwood Gardens, from the diverse talents and personalities of our staff, to the elegant structure of nature, to the rhythm of a historic instrument.

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A visual cadence is created by the spines of the leather-bound, gold leaf editions of *Edward's Botanical Register* from Longwood's Rare Book Collection. The *Botanical Register* was published in London by Sydenham Edwards, and later by John Lindley, 1815–1847. Longwood is one of only a handful of libraries worldwide that own the complete 33-volume set. Photo by Daniel Traub.

Virtual Fieldtrip

Innovative School & Youth Program brings Longwood to students around the world.
By Patricia Evans

“Good afternoon, Hermitage!” Kellie Saraceno says with a smile as she looks into the camera. “Has anyone been to Longwood Gardens before?” she asks. A few hands are raised among the 18 excited sixth graders at Hermitage Elementary School in Huntingdon, Quebec, Canada, who watch Saraceno from a video screen in their classroom.

“Let me show you my classroom,” Saraceno says. “Ready?” she asks. As a chorus of “yeahs” fills the room, images of the Conservatory and Gardens fill the screen. And thus begins another Virtual Fieldtrip courtesy of our School & Youth Programs Division.

Longwood has long offered on-site visits for school-age kids, welcoming 15,000 students for curriculum-based programs each year, as well as countless other students in grades K–12 for self-guided visits. It was not until 2012 that the Gardens began exploring the idea of online distance learning.

“The desire was to create an interactive, online experience, or Virtual Fieldtrip, so children around the country—and the globe—could experience Longwood,” explains Lori Trexler, a former high school science teacher who joined Longwood in 2012 as the School & Youth Programs Coordinator.

After researching successful online programs at other cultural and educational institutions, Longwood began piloting online webinar programs one-on-one with the homeschooler community. Seeing the potential to move beyond the one-on-one format, the Education Department invested in the creation of an interactive video conferencing (IVC) studio in 2013 from which to connect with students around the globe.

The studio, located in the Horticulture Building, looks very much like a TV studio with green screen technology, lights, and

camera. However, the technology to connect to students is relatively simple. To connect, schools require an Internet connection, a microphone, speakers, and webcam (think of it as Facetime for schools). Teachers can select from seven different curriculum-based programs for grades K–12, from A Plant’s Life to Operation Pollination. A program is also offered for teachers new to Virtual Fieldtrips and online learning.

The sixth graders at Hermitage Elementary School participated in A Plant’s Life, where they learned about the characteristics of living things, the life cycle of a plant, and biomimicry. Throughout the 45-minute lesson, Saraceno engages with students in real-time on the screen, teaching the concepts and asking questions. Often they ask her as many questions as she asks them.

“They ask a lot of questions about Longwood, because most have never been here before,” she explains. “They also always ask me my favorite plant,” Saraceno says with a smile.

Although children are more savvy than ever before, Saraceno still enjoys the moment when they first realize she can see them and talk to them just as they can see and speak with her. “You see the surprised look on their faces when I say, for example, ‘the young man in the red shirt’. It really gets them excited to participate.”

Saraceno joined the Education Department in 2009 as a K–12 Educator for on-site student programs. She did not foresee becoming the face of online education, but was intrigued and decided to give it a try. “Timing and movement are the biggest challenges of presenting on camera,” Saraceno explains. “Everything is opposite in studio from what you see on screen, so you have to adjust for that.”

She has adjusted quite well, presenting programs to public and private schools

across the US, Canada, and Puerto Rico. In 2014, 55 programs were presented to groups as large as 300 students and as small as single classrooms. For the 2015–2016 school year, 114 programs are already booked, and the response has been overwhelmingly positive. “Love, love, love the program,” enthused Canton City Schools. “It was engaging, the materials were awesome, and the lesson met my current science standards. The presenter was also engaging, patient, and knowledgeable. I will request this again.”

Students on Virtual Fieldtrips enjoy a few advantages on-site students do not. “We can take them via video behind the scenes to areas of the Gardens that on-site students don’t see, such as our Research and Production facility,” explains Trexler. “I also think for many students it is a fun break in the normal routine of the school day,” she explains.

Especially popular with grades 1–4, these programs plant an important seed that goes beyond the immediate lesson of plant science. “We are exposing kids to careers in horticulture,” Trexler explains, citing that for many students it is their first introduction to the idea.

“How long have you worked at Longwood?” a boy from Hermitage Elementary asks Saraceno as she concludes the online lesson, “and what’s your favorite plant?”

“I like carnivorous plants,” Saraceno answers with a smile.



Far left: Outside Longwood Gardens’ interactive video conferencing studio an on-air sign alerts staff that a live session is in progress.

Left: Students quickly realize that the instructor onscreen can see them too, and respond in kind. Here, a student holds up her drawing of a plant’s life cycle created during the lesson.



Above: Online educator Kellie Saraceno, live from the studio at Longwood Gardens, interacts directly with students throughout the lesson in a lively back-and-forth exchange.



Far left: Students respond to questions asked by Saraceno using their true and false cards, provided as part of a packet of supplemental materials (below) mailed out to schools prior to the lesson.

Left and below left: Students follow along closely to the session in their lesson workbooks.



A Quest for Hardiness

Tracing the legacy of camellias at Longwood, from Pierre S. du Pont's passion to core collection.
By Dr. Matt Taylor and Dr. Peter Zale

In 1919, Longwood Gardens' Camellia Collection began in the Conservatory of the Pierce-du Pont House when Pierre S. du Pont obtained 34 Japanese varieties of camellias. These plants came from Belgium and were acquired through John Scheepers Inc. of New York. Soon following, du Pont received an additional 37 varieties from France, which were among the first plants installed in the Main Conservatory. His passion for camellias continued to grow. In 1928, Mr. du Pont discovered Veuve Guichard, a specialty camellia grower in Nantes, France, who grew and listed an impressive 262 varieties of camellias in its catalog. After receiving authorization from the Federal Horticultural Board, du Pont ordered three each of 189 varieties. However, plants from overseas were small and Mr. du Pont also desired large-specimen camellias. A total of 13 well-shaped camellias with good flowers was sourced domestically from rural Georgia where larger plants would be dug, crated, and shipped to Longwood. The first camellia inventory was performed at Longwood in 1937, documenting 372 plants representing 167 cultivars in the collection.

Opposite, clockwise from top: Herbarium specimen of *Camellia* × *williamsii* 'Aida', a cultivar released by Longwood Gardens in 1995. Specimen by Sara M. Helm and Gladys A. Brennan, March 20, 2012.

Seedlings for camellia trials, Longwood Gardens, 1976. Photo by Richard (Dick) Keen.

Portrait of Pierre S. du Pont, 1927. Photo courtesy of Hagley Museum and Library.

Camellia Lady Clare, c.1958–60s. Photo by Gottlieb Hampfler.

Dr. Russell Seibert began as our first Director in 1957 and initiated the Research Program at Longwood. This program included camellia breeding and hardiness trials with the goal of developing camellia plants that were fully hardy to Zone 6. Longwood collaborated with the US National Arboretum and Dr. Clifford Parks at Descanso Gardens near Los Angeles in this effort. Dr. Parks did most of the hybridizing, with hybrids being evaluated at Longwood and the National Arboretum. Two extremely cold winters in 1977 and '78, where temperatures fell to -14°F , killed the majority of the trial plants. Although this cold snap was devastating to the breeding program, the low temperatures provided the selection pressure for a new cultivar, *Camellia* × *williamsii* 'Aida'. Dr. Robert Armstrong, Longwood's Geneticist at the time, made the initial selection in 1974 as this plant showed some additional resilience during harsh winters. *Camellia* × *williamsii* 'Aida' was formally released in 1995.

Due to the death of most of the trial camellias in the '70s, Longwood intensified the search for hardy camellias to continue breeding and evaluation. In the mid-80s, Longwood Gardens, the US National Arboretum, Morris Arboretum, and Holden Arboretum embarked on a plant exploration trip to Sochong Island off the coast of South Korea. The Plant Explorers were amazed to find 20-foot tall groves of camellia trees growing in harsh conditions. Seeds and cuttings were brought back to the participating gardens and placed into hardiness trials. Several hardy selections have been released from this exploration trip, including *C. japonica* 'Longwood Valentine' and *C. japonica* 'Longwood Centennial', both released in 2006.

Longwood Gardens continues to breed and evaluate camellias for cold hardiness. Many new, supposedly cold-hardy camellias

were planted at Longwood during the late 1990s and early 2000s. Most grew well until the two most recent exceptionally cold winters, which killed or severely damaged many of them. However, the South Korean camellias continued to show cold tolerance, and a relatively new camellia species, *C. chekiangoleosa*, the most northerly distributed Chinese camellia species, was essentially undamaged. These species are now being hybridized in hopes of creating offspring that are hardier than either parent. Furthermore, new techniques such as seed embryo rescue (the process of using tissue culture to save under-developed seed embryos—think of it as a neonatal care unit for baby plants) are being used in the breeding program to facilitate crosses that would otherwise be impossible.

Camellias, because of their historical and current significance to Longwood, are designated as one of our core collections—plant groups that have increased importance to Longwood. These collections are continually refined and expanded to meet various display, research, and curatorial goals.

Although our camellia breeding and trialing for cold hardiness take place in a non-public area of the Gardens, you can still see camellias on display at Longwood. A year-round display of non-hardy camellias, including a number of different varieties, is located in the East Conservatory. These camellias flower during the winter, creating a must-see stop as you enjoy the Conservatory.



A Seamless Transition

Board of Trustees welcomes incoming President Jane G. Pepper, and salutes the service of retiring President Nathan Hayward III.

One hallmark of Longwood Gardens has always been the harmonious teamwork of our Board of Trustees, which is what founder Pierre S. du Pont intended when he created the Longwood Foundation in 1937, from which Longwood Gardens, Inc., evolved into a separate entity in 1970. Over the past 78 years there have only been five Board presidents, to which we now add a sixth: Jane G. Pepper, who in November succeeded Nathan Hayward III.

Nathan has a direct connection to his great-uncle, Pierre S. du Pont. Nathan the youngster lived at Longwood while his family's home was being renovated. He remembers riding on a Longwood fire engine; listening to his father play piano duets with Mr. du Pont; and flooding a guest bathroom with a cake of soap in the toilet.

Fast forward 50 years. Nathan became a member of the Board in August 2001 and served as its fifth President beginning in November 2003. He is the living legacy of our founder and thus embodies the mission of Longwood Gardens. Excellence has long been his mantra and manner. He encouraged us to live up to Longwood's high standards, while being respectful and inclusive of everyone's voice. He worked to ensure the progression and evolution of governance at Longwood, with a Board that is representative of the community, and committees that are aligned with our mission and vision.

Nathan once referred to Longwood as a "20th-century Neverland." His 14 years of service on the Board ensured that the beauty and magic of Longwood will endure long into the 21st century—carried forth not only by the united actions of its Board, its staff, and its volunteers, but also by the loyalty of guests who remember their own magic childhood moments here, and who bring the next generations of their families to share the memories of those moments.

Although retired from the Board, Nathan Hayward has been designated a *Trustee emeritus*, so that he will forever remain part of Longwood Gardens.

Following in his footsteps is Jane G. Pepper, who joined the Board in 2005. Jane didn't grow up at Longwood (she's from Scotland), but she spent two formative years here as a Longwood Graduate Fellow, receiving her master's degree from the University of Delaware program in 1978. From 1981 to 2010 she was President of the Pennsylvania Horticultural Society and its world-famous Philadelphia Flower Show. Her involvement with corporate and cultural institutions includes serving as a Director of The PNC Financial Services Group, Inc.; Trustee of the Natural Lands Trust; Chair of the Selections Committee for the Eisenhower Exchange Fellowships Philadelphia International Leadership Initiative; and a Vice President of the Royal Horticultural Society, London. She holds additional degrees from Temple University and the University of Delaware.

"This transition is a testament to our succession planning to ensure that the Longwood Board continues to have the highest-caliber leadership guiding our organization," said Executive Director Paul B. Redman. "Jane's professional background, her varied experience, and vast knowledge of Longwood will make her an outstanding President of the Board of Trustees."

See page 42 to read a poem composed by Nathan to mark his retirement from the Longwood Board of Trustees.

Opposite:
Nathan Hayward III (left),
retiring President of the
Longwood Gardens Board
of Trustees, photographed
in the East Conservatory
in November, 2015, with
incoming President Jane G.
Pepper. Photo by Daniel Traub.



Shine On

Solar field fuels sustainability, beauty, and smart investment.
By Tom Brightman and Anne-Marie Crossan

Did you know that Longwood Gardens has a different sort of field, one that includes metal, glass, and electronics? On the south side of Route 1 near the crossover ramp, there is a large solar panel field. Although it may seem disconnected from the core of the Gardens, the solar panels are a core part of our vision.

A key part of our commitment to conservation and sustainable practices, the 1.67 megawatt solar field began operating in June 2011. The completed solar field is one of the largest examples of clean emission-free energy in our region. Photovoltaic electricity (aka, solar power) generated during the productive life of solar panels does not result in any greenhouse gas generation, and it is considered a green technology. The panels passively collect and convert light from the sun into electrical energy.

On a bright sunny day, the solar panels are surrounded by meadow plants, seemingly basking in the all-powerful sun and quietly producing electricity. Useful output from the solar panels varies throughout the day and throughout the seasons depending on weather and available sunshine; annual production exceeds two million kilowatt-hours. (By comparison, the Terrace Restaurant uses approximately 500,000 kWhs annually.)

The field, however, is much more than metal and glass. From the beginning, we sought to achieve a new aesthetic for solar arrays, which are often left as rock or bare ground underneath the panels. Therefore, a new type of garden was born, with a thoughtful plant selection of various seed mixes.

Criteria considered in plant selection include height, nativity to our region, growth rate, seed dispersion, and the ability to mitigate stormwater runoff. Ideally, the plants have time to develop and go to seed each year prior to becoming too tall for the

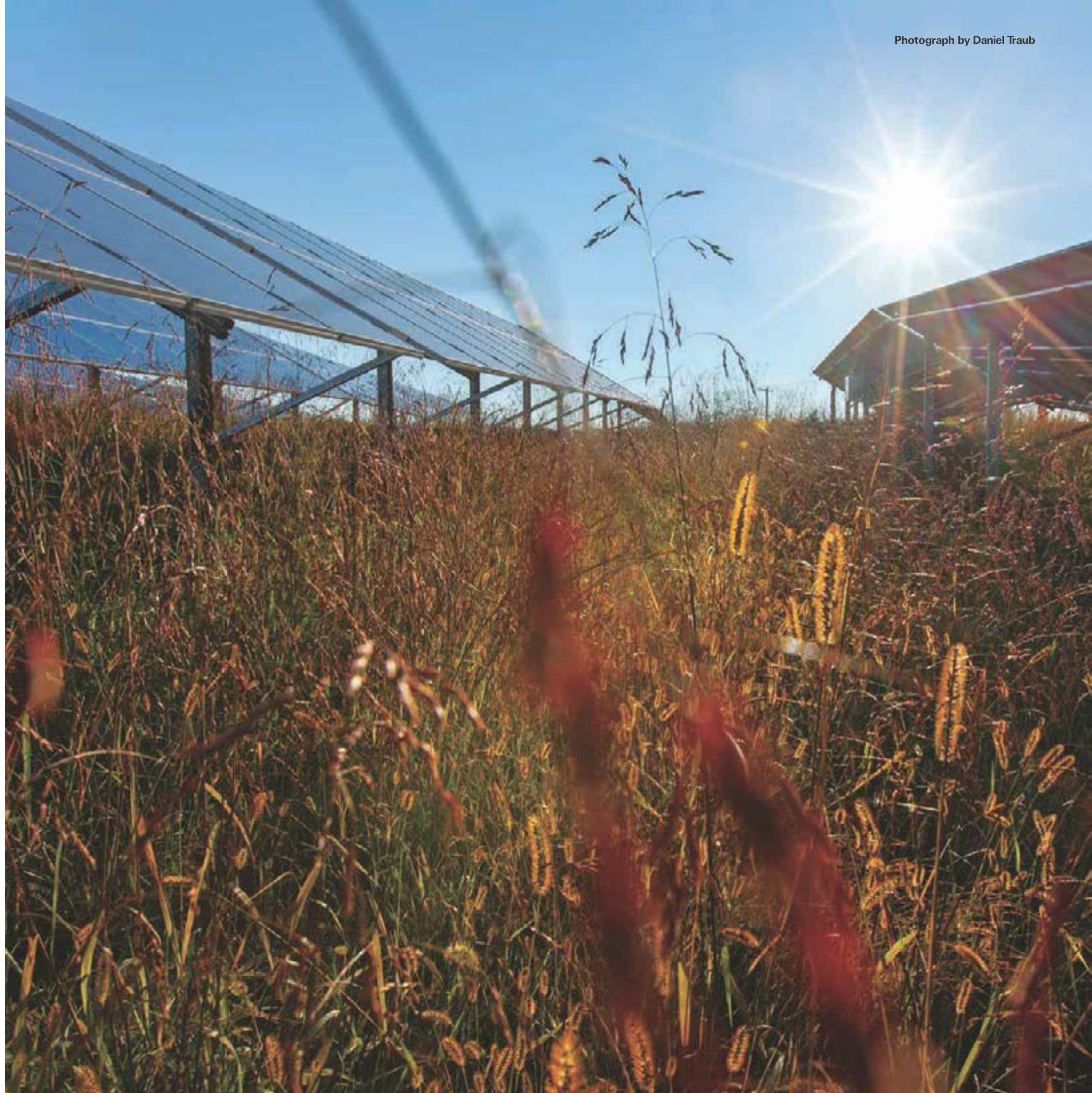
solar panels. This type of meadow plant community also provides habitat for many insects, birds, and small mammals.

Even the height of the plants matters. A small bit of shading on the solar panels has a disproportionately large impact on electrical output. Entire sections of the panels are impacted when even just a small bit of shading is present, reducing the useful output of that section. The intentional plant selection and careful timing of mowing in front of the panels help to maximize performance of both the panels and the plants.

Solar panels are often considered too expensive to implement. However, financing models for solar panel ownership, installation, and operation can vary. We chose an approach that included private industry financing and technical competency, state funding, and Longwood's oversight. Our partner organization, Ecogy Solar, provided the majority of the upfront capital investment, as well as the long-term ownership and operation. Longwood has responsibility for the land and the plants, as well as the financial commitment to purchase the full electrical output of the panel over the life of the agreement. That rate is competitive with the cost of electricity from alternate providers. So in this case, as with other similar arrangements across the country, the solar panels can be financially feasible.

This project is only one part of Longwood's broader commitment to sustainable practices. We also purchase clean wind energy, utilize root zone heating throughout our conservatories to reduce our use of heating fuels, and have a comprehensive wastewater management system, just to name a few.

More information about sustainability programs at Longwood Gardens can be found at: longwoodgardens.org/sustainability



A repetitive array of photovoltaic panels passively collects and converts light from the sun into electrical energy at Longwood's solar field. The intentional plant selection and careful timing of mowing in front of the panels helps to maximize performance of both the panels and the plants. Photo by Daniel Traub.

The ability to recognize pattern is a defining human characteristic. We group things by color, shape, texture, or other discernable qualities in order to make sense of the world around us. This propensity towards pattern is also indicative of a range of disciplines inherent to Longwood, from garden design, horticulture, and biology, to architecture, music, and the visual arts.

Here, we spotlight pattern throughout the Gardens in all its guises.

Opposite:
Winter in the Conservatory finds an undulating carpet of *Pericallis* x *hybrida* 'Sunsenereba' Senetti® Magenta Bicolor.

Photographs
by Daniel Traub

Pattern Recognition

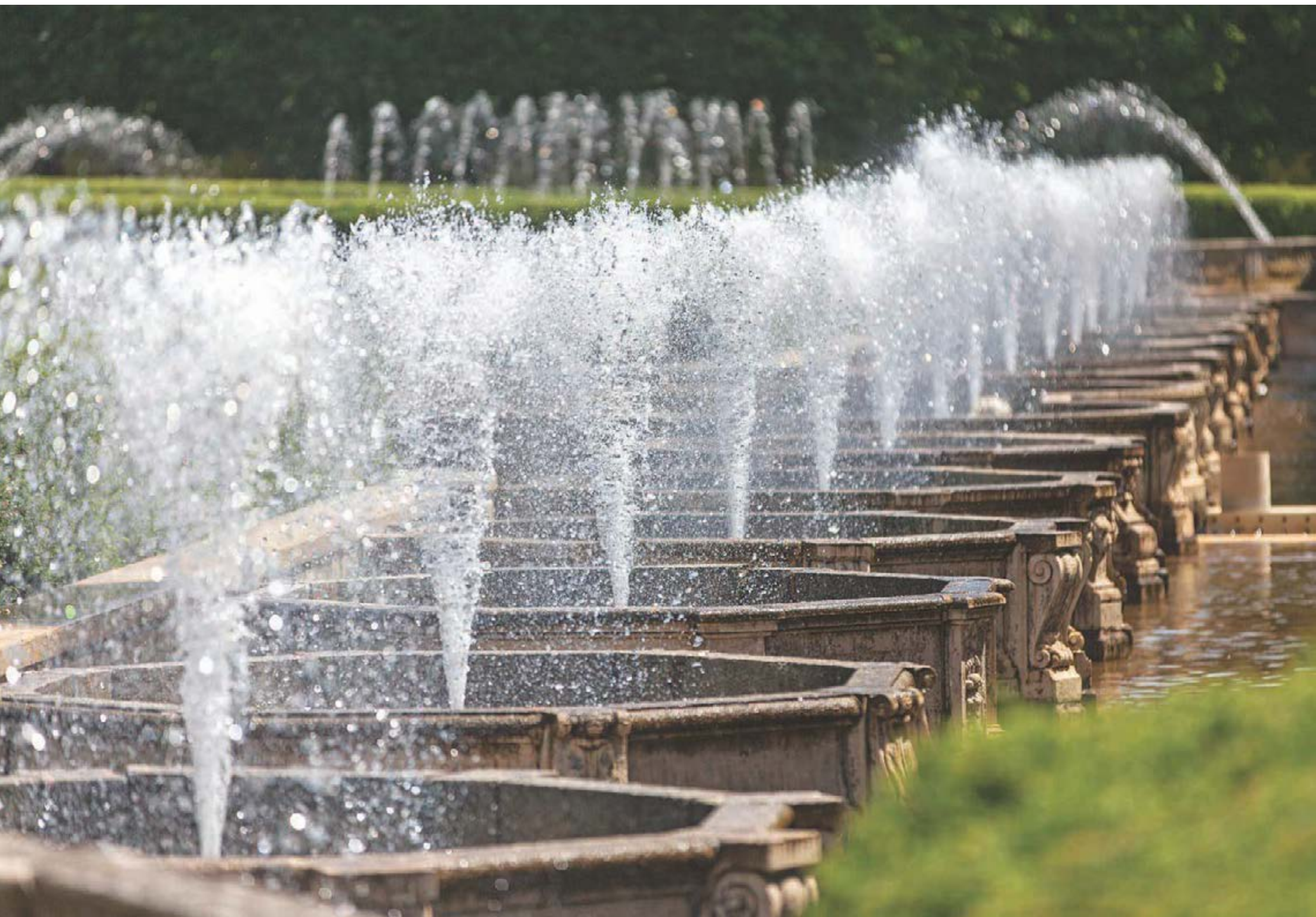




Master organ tuner Joseph Rotella, of the Spencer Organ Company from Boston, among a rhythmic arrangement of organ pipes in the Swell Division of The Longwood Organ.

A typographic hierarchy unites these stacks of player organ rolls, originally used for the Aeolian Pipe Organ. They are currently housed in the Archives of Longwood Gardens. Many of these rolls originally belonged to Pierre S. du Pont. Several pictured here were recorded from performances by Firmin Swinnen, who served as Longwood's resident organist from 1924 to 1956. In the early 2000s, Longwood's collection of nearly 400 organ rolls was converted to a digital format, enabling our organ to be played by a computer-controlled program.





Water and stone in a concert of function and beauty in the Main Fountain Garden. This photo was taken just prior to the temporary closing of this garden in preparation for the Fountain Revitalization Project, currently underway and scheduled to be completed in Spring 2017.

An abstract interpretation of *A Longwood Christmas* is seen in this unconventional view of holiday lights in front of the Peirce-du Pont House.



Opposite:
A shifting interplay of light and form is created by these Japanese paper lanterns as they drift on the floor of the Exhibition Hall during *Night of 1,000 Lights*.



Towering palms disrupt the uniform regularity of the precisely arranged flowers of the Thousand Bloom Chrysanthemum on view in Autumn 2014.

Overleaf:
The bloom of a *Victoria* 'Longwood Hybrid' punctuates a mosaic of water platter leaves in the Waterlily Display.





**A Consummate Plantsman
Remembering Patrick Nutt**



Patrick Nutt (foreground, left) demonstrating the *Victoria* pollination technique to his successor, Tim Jennings, 1991. Photo by Larry Albee.

Patrick A. Nutt, 85, passed away Thursday, June 4, 2015, after a brief illness. Pat was a horticultural icon at Longwood Gardens, where he worked from 1957 until 1995, and an inspiration for thousands of students. He was a consummate plantsman and best known for his exceptional work with aquatic plants, especially the *Victoria* ‘Longwood Hybrid’, which he first hybridized in 1960. He was well respected by colleagues throughout the horticultural world. As Paul B. Redman, Longwood’s Executive Director, notes, “When former students from decades ago visit, the first person they always ask about is Patrick. He was a legend in the professional gardening world, and he will be greatly missed. But his legacy will live on, especially in our vibrant aquatic displays, which owe so much to him and which have brought so much pleasure to millions of visitors.”

Pat began his Longwood career in February 1957 after applying for a horticultural position at Longwood Gardens to care for new outdoor waterlily pools then under construction. Longwood hoped to continue the work of George Pring, waterlily expert from the Missouri Botanical Garden and father-in-law of Longwood Director Russell Seibert. Coincidentally, Pat had attended a lecture by Pring on his very first day as a student at Kew in 1951.

Pat worked closely with Pring, who, Pat remembered, “put me through the mill on waterlilies. He used to cut up the flowers, mix them up, and quiz me on which one was which.” Pat gained what was to be the base of his knowledge by propagating aquatic tubers and seeds, and by engaging in lengthy conversations with his mentor. In 1960 Pat made the first cross of *Victoria cruziana* (female) and *Victoria amazonica* (male), resulting in the magnificent *Victoria* ‘Longwood

“He was a humble individual who took great pride in mentoring, teaching, and watching others succeed. If you had Patrick as a friend, you had an ally for life.”

—Tim Jennings, Senior Gardener

Hybrid’ now grown around the world.

One of his accomplishments during those early years was to successfully flower the giant aroid, *Amorphophallus titanum*, using bottom heat by placing the plant over a heating grate. Pat and two other co-workers nursed this plant for months, forcing it into bloom. It was a rare achievement at that time; in the US, it had been done previously only in the 1930s, at the New York Botanic Garden.

Pat was promoted several times during his 38 years at Longwood, and even after retiring in 1995, he continued as an instructor. It was not uncommon to encounter him walking around the Gardens several days a week.

Pat was a founding member of the International Waterlily and Water Gardening Society and was inducted into its Hall of Fame in 1988.

Tim Jennings, curator of Longwood’s Waterlily Collection, fondly recalls, “I first met Patrick in 1986 when I was a student in our Professional Gardener Training Program. Little did I know then that a simple question about *Nelumbo* would lead to a lifelong friendship. Pat’s successes as a horticulturist were many, but one of the most significant influences on me was the way he conducted his life around three basic values: thankfulness, generosity, and the sharing of knowledge.”

Patrick Nutt is survived by his wife Ann, three children, and ten grandchildren.

To honor the life and horticultural legacy of Pat, his friends and colleagues have created The Patrick A. Nutt Endowed Scholarship Fund. This fund will offer travel scholarships to students in Longwood’s International Internship and International Training Programs. Visit PatrickNuttScholarship.org to learn more.

Learning by Doing

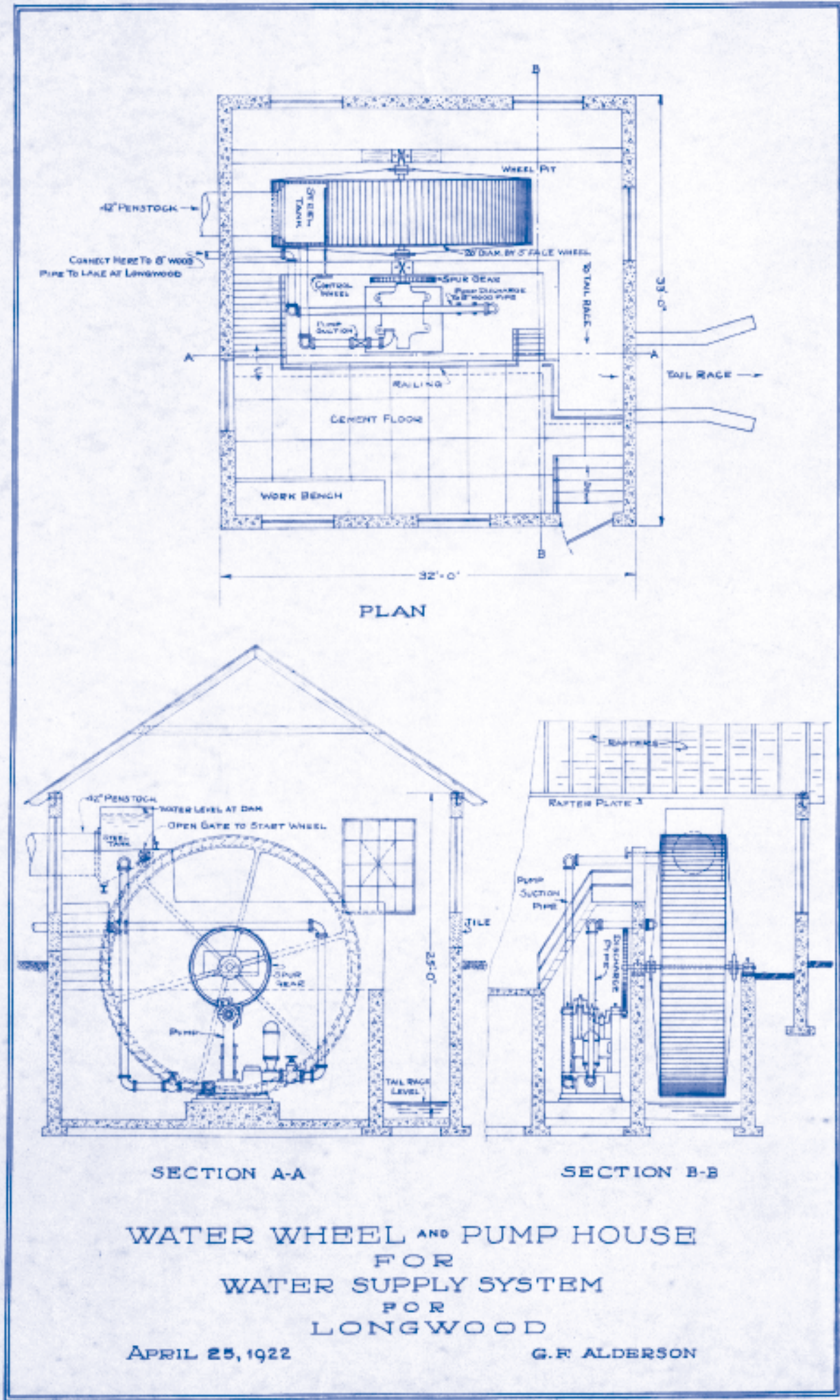
Pierre S. du Pont and his staff learned how to build fountains by trial and error, using a few books, travel observations, and a lot of experimenting.
By Colvin Randall

In 1916, Pierre S. du Pont hired Ferruccio Vitale (1875–1933) to oversee moving some large plants. Vitale was an Italian landscape architect who practiced in New York, designing many country estates. He had been working for John J. Raskob, Pierre's former secretary and a rising star in the DuPont Company, so Raskob no doubt made the introduction. Vitale proposed using the services of a nursery called Lewis & Valentine, from Roslyn, NY, to do the transplanting. Pierre met with Frederick Lewis and inspected one tree to be moved. Thus began Pierre's long-running relationship with Lewis & Valentine, although his relationship with Vitale would be much shorter.

In mid May, 1916, Pierre sent Vitale a profile of the site for an enormous conservatory, much larger than the one built into the Peirce-du Pont House. Vitale prepared 100 or more sketches by that summer, but many were discarded when the siting was changed. Almost a year later, in March, 1917, Pierre belatedly confirmed in writing what Vitale was to do, namely design the entire greenhouse structure, but Vitale was to have nothing to do with "any kind of plants... nor... any of the landscape

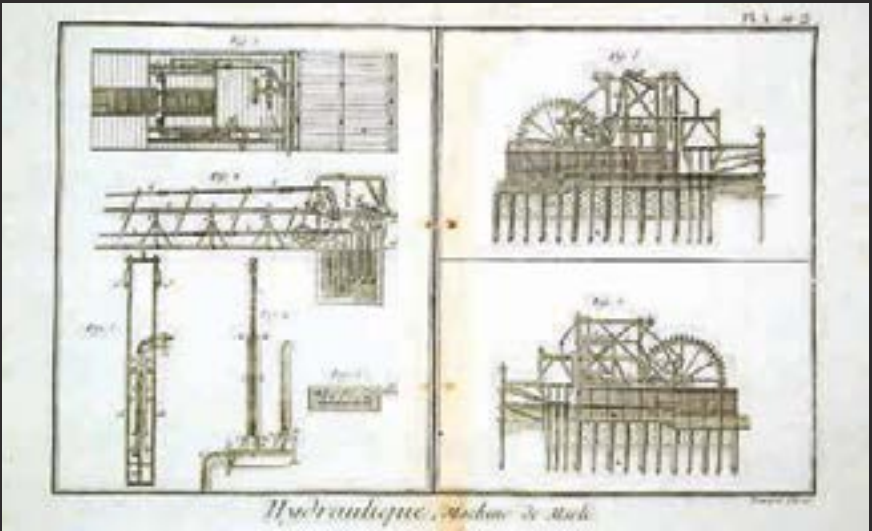
gardening." Sketches and plans were well advanced when just a month later Pierre decided that because of war commitments, he did not have the time to work out the details to his satisfaction. They mutually agreed that a DuPont Company engineer would examine what had been completed and suggest a fair financial settlement, which turned out to be the entire amount Vitale requested (\$10,000).

On November 1, 1918, ten days before the armistice that ended World War I, Pierre wrote to architect Alexander Harper (1877–1940), who had designed the mansion at Raskob's Archmere estate in Claymont, DE: "I have been greatly interested in the fine work you did at Mr. Raskob's residence, not only in securing a wonderful whole but also in the display of care in working out details to the best conclusion. This interest in your work and the advice of Mr. Raskob leads me to write to you concerning... the construction of a series of greenhouses or conservatories. Unexplained this may not be of interest to you. However, my ideas are quite beyond ordinary greenhouse construction. The buildings are to be monumental in character, designed to exploit the sentiments and ideas associated



Opposite:
Plan of Longwood's Water Wheel and Pump House, located at Pocopson Creek, from *The Design and Construction of a Water Supply System for Longwood*, a thesis by civil engineer George France Alderson, B.S., 1922. Longwood Gardens Library & Archives.

Right:
Engraving of the Machine de Marly from Diderot's *Encyclopédie* (plates 1 and 2, 1778), showing several views of a hydraulic invention that supplemented the water supply for the fountains of King Louis XIV at Versailles.





View of Conservatory with holes dug for the maple allée, 1921. Image from the Lewis & Valentine Co. photo album. Longwood Gardens Library & Archives.

View from Conservatory over site of future Main Fountain Garden, 1921. Image from photo album titled “The Development of Longwood Gardens” prepared for Mr. and Mrs. P.S. du Pont compliments of Lewis & Valentine Co. Photo was titled: “As the planting progressed.” Longwood Gardens Library & Archives.



with plants and flowers in a large way. On the other hand the expansion of the project is somewhat limited as we will have to conform to the character of the surrounding country which is agricultural and of very simple architecture and landscape effect. The seeming incongruity of these two requirements is very interesting to me and I will look forward with much pleasure to working out the problems which call for some clever architecture and landscape effect.”

Harper lasted 17 months (compared to 15 months for Vitale) before Mr. du Pont dismissed him, but Harper at least completed the design for the growing houses. It is difficult to know to whom the overall concept of the Orangery, Exhibition Hall, and flanking fruit houses can be credited, whether Vitale or Harper (as depicted on Harper’s blueprints), but in all likelihood it was as much Pierre du Pont as either of them. In any case, to finish the main buildings, Pierre turned to the DuPont Engineering Company and several of its employees, especially architect J. Walter Cope (1884–1973).

Outdoors, the surrounding country was indeed “of very simple architecture and landscape effect,” but that gradually changed. In August 1921, Pierre noted

that there were 102 large and 124 small boxwoods, 86 azaleas, and 23 white pines already on the property for possible planting around the new conservatory. That month he ordered from Lewis & Valentine 26 evergreens up to 25 feet tall, an incense cedar of 14-inch caliper, 44 deciduous trees up to 16-inch caliper, and 6 large boxwoods up to 7 feet high, all for \$12,710. A month later, there was an additional order for 20 specimen boxwoods, several 14-foot pines, and 100 Norway maples of 4 to 5-inch caliper at \$38 apiece, for a total of \$14,480. By Thanksgiving 1921, in time for the official inauguration of the Conservatory, the initial planting in front of the Conservatory was finished and endorsed in a letter Pierre wrote for Lewis & Valentine to use in advertising.

Many of the trees were planted in front of the massive retaining wall. The specimen boxwoods were grouped in an oval pattern tracing the turnaround in front of the lower Reception Suite. A continuous boxwood hedge planted in 1922 reinforced this design, along which an adjacent fountain canal would be built nearly a decade later.

A 250 × 500-foot allée of Norway maples defined the east, south, and west boundaries of a large, newly graded, gently falling



Photo from Alice du Pont’s 1925 trip to Spain. Handwritten on back: “F.L. Belin, Alice Belin du Pont, Ophelia Dent. Facade of the Palace of the Emperor Charles V., interior of the Alhambra.”

rectangular expanse beyond which a hill rose to the south. Why Norway maples, which today are known to be invasive? John Bartram of Philadelphia introduced *Acer platanoides* from England to the US in 1756. It is easy to grow, tolerates adverse conditions, and holds its yellow autumn foliage into mid November. Lewis & Valentine had planted several maple allées elsewhere, so it is not surprising that they might have suggested Norway maples to Pierre. The initial revised planting of 105 maples at \$38 apiece was supplemented with 16 more in 1923 and 10 replacement trees in 1926. There is no indication, however, that Mr. du Pont was planning a lavish fountain garden in this location. Longwood did not have elaborate fountains yet, apart from the simple fountains built into the Open Air Theatre in 1915.

Nor did Longwood have an abundant water supply, either for fountains or for the new Conservatory. Mr. du Pont spent \$50,000 (about \$650,000 today) to build a water-powered pumping station at the Pocopson Creek to the east. This recalled, on a tiny scale, the enormous Machine de Marly that Louis XIV built to pump water from the Seine to Versailles. The Pocopson plant had a water wheel 20 feet in diameter, a 600-foot-long, 42-inch-diameter intake pipe to supply

Below: Arching jets at the Generalife, Granada, photographed on Alice du Pont’s 1925 trip to Spain.



“We got a guide this morning and have had a marvelously successful day for the Alhambra . . . you would have enjoyed it more than I can ever persuade you and there were such good ideas in the water line that we could use in the water garden. . . .”

—Alice du Pont, letter to Pierre du Pont, 1922.

the wheel, three piston pumps powered by the wheel, and an 8-inch wood pipe to deliver creek water to Longwood’s Large Lake, which was three miles away and 200 feet higher. It first pumped in December 1919 at about 40 gallons per minute into Longwood’s Large Lake. By 1921, however, leaks in the wooden pipe were discovered and it became increasingly difficult to repair. Eventually the plant was abandoned and the property sold. Wells were a more practical solution.

Mr. and Mrs. du Pont had always enjoyed visiting foreign gardens. Following their 1920 trip to California and Hawaii, Alice alone toured Spain and France in 1922 with her brother’s family, but Pierre stayed home to handle his enormous business responsibilities. A highlight for Alice was a visit to Granada, where she wrote to Pierre: “We got a guide this morning and have had a marvelously successful day for the Alhambra and the Generalife gardens both exceeded my wildest expectations. I simply longed for you in both places, for you would have enjoyed it more than I can ever persuade you and there were such good ideas in the water line that we could use in the water garden. . . .” She wished that some day he would tour Europe with her to see again the wonderful châteaux.



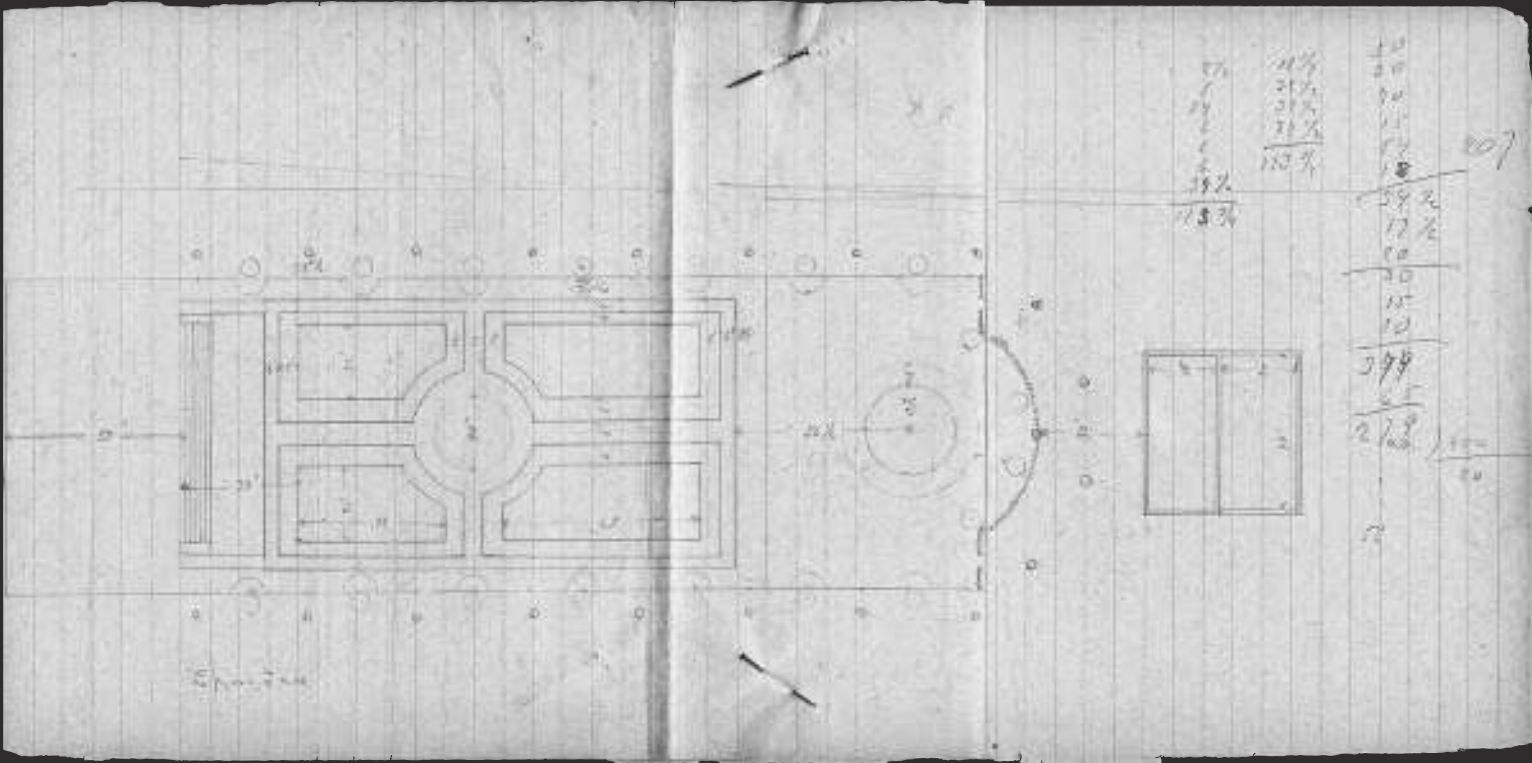
Château of Vaux-le-Vicomte, Maincy, Seine-et-Marne, France, 1925. View from château as Pierre du Pont saw it. Alice du Pont wrote of crossing the enormous canal to walk up the hill to see the view back to the château. Atop the hill is an underground reservoir for the fountains. Hand-colored glass lantern slide by Frances Benjamin Johnson. Courtesy Library of Congress.

That wish came true three years later, in 1925. They decided to join a Garden Club of America 14-day tour of French gardens, along with four other du Ponts and 14 non-family participants. The group visited more than 50 châteaux and gardens in and around Paris, Normandy, and the Loire Valley. Among those they met were the celebrated designer/restorer of classic French gardens, Achille Duchêne (1866–1947); the owners of Villandry, Courances, and Vaux-le-Vicomte; and Claude Monet (1840–1926). Alice described Monet’s garden at Giverny as “a garden that seems impossible of accomplishment outside of a large domain, far from the haunts of man. Here are lofty trees and rushing brooks and a large pool or lake covered with the loveliest pond lilies of all colors shimmering in the glistening sunshine, and with the banks of the lake blue with agapanthus set about with ferns. Claude Monet himself, a picturesque old man with his eyesight almost gone, showed us his garden. . . .”

But the gardens that really captured their attention, she remembered, were “those most formal and imposing ones that owe their impressiveness to the magnificent use of water in a series of immense fountains, namely . . . Vaux le Vicomte” where it looks “so new that it is

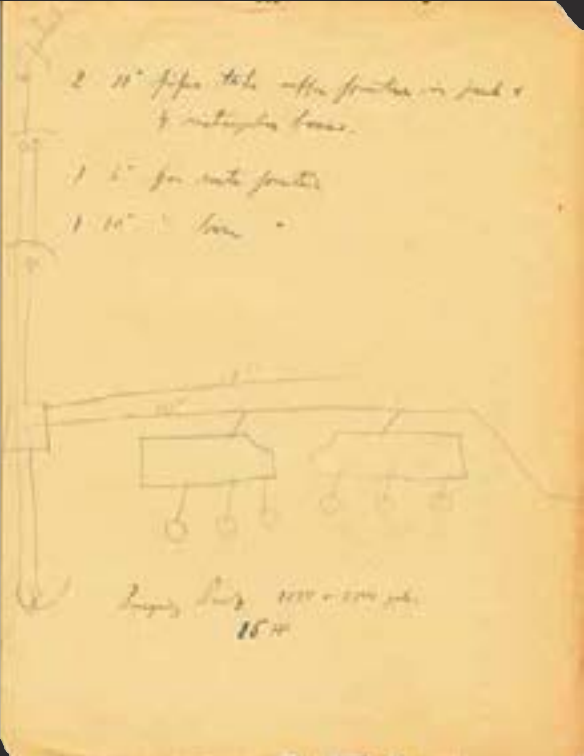
Designing Longwood's
Italian Water Garden
1925-1927

Plan of Longwood's Water Garden as drawn by Pierre S. du Pont, 1925. Courtesy of Hagley Museum and Library.

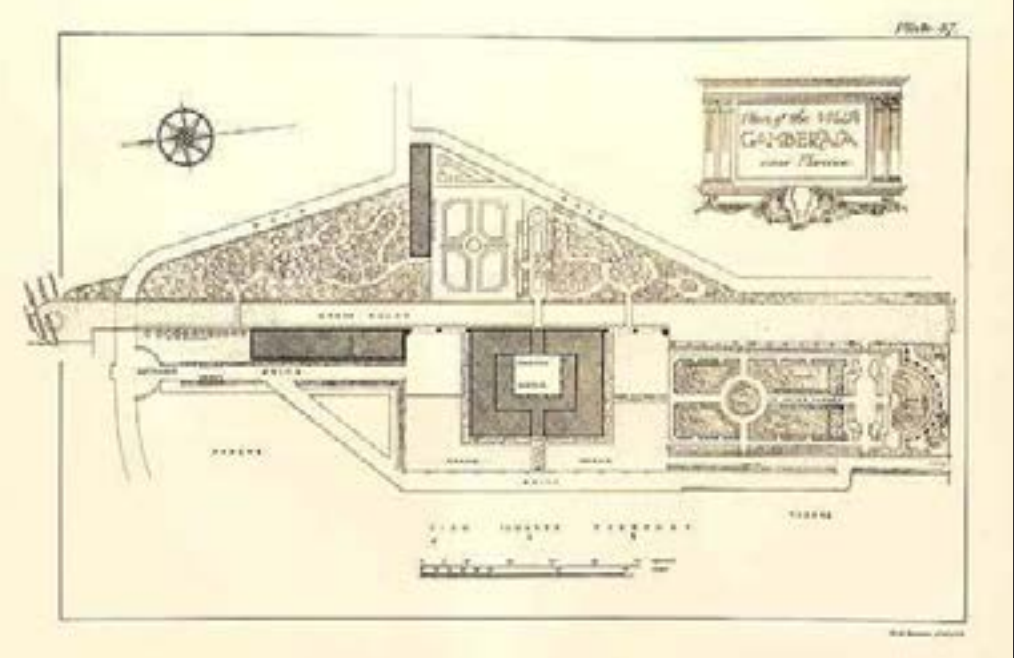


Above: La Grotte at Vaux-le-Vicomte, which may have inspired Longwood's three-arched loggia at the south central end of the Main Fountain Garden, from *Jardins de France* by Prosper Pean, 1925.

Right: Memo from Pierre du Pont to his engineer with dimensions taken from the Villa Gamberaia as reference for the Water Garden, 1925. Courtesy Hagley Museum and Library.



Above right: One of over 50 pages containing Pierre's handwritten calculations for the Italian Water Garden.



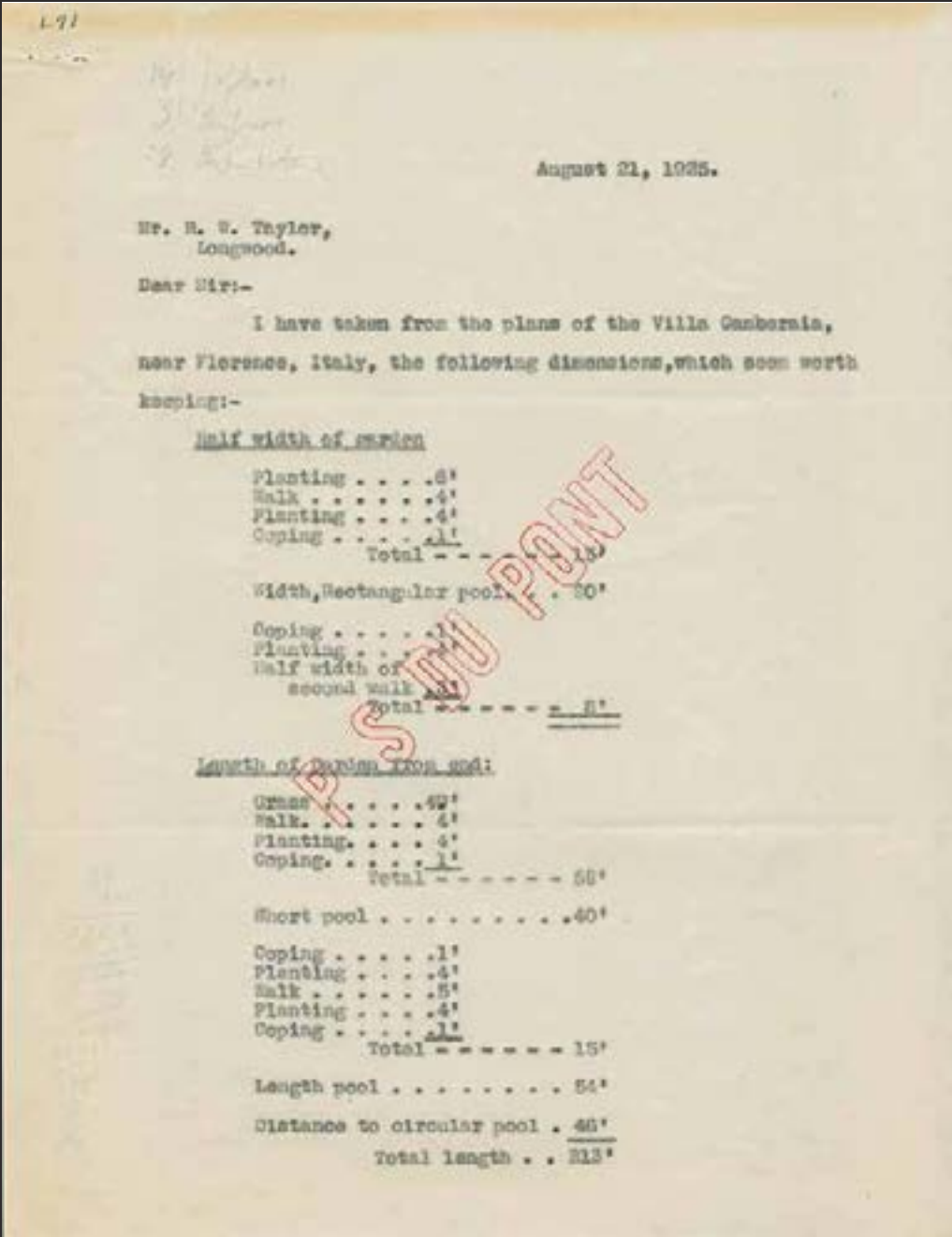
Above: View of the Villa Gamberaia from *The Art of Garden Design in Italy* by H. Inigo Triggs. Longwood Gardens Library & Archives.

Left: Measured plan of the Villa Gamberaia from *The Art of Garden Design in Italy* by H. Inigo Triggs, with a printed scale precise enough to permit taking dimensions. Longwood Gardens Library & Archives.

Elevation drawn by Pierre S. du Pont showing viewing angles from the elevated observation terrace (at left) toward shorter front and longer back pools. The rear pools are extended 14 feet to counteract foreshortening when viewed from the terrace. Courtesy Hagley Museum and Library.



Pierre filled about 50 pages with handwritten calculations to figure out the hydraulic requirements. At max capacity, 4,500 gallons per minute are recirculated, with the tallest jet in the far pool 40 feet high.





Above:
Italian Water Garden under construction, 1926. Longwood Gardens Library & Archives.

Right:
Ornamental wrought-iron railing at the east end of Italian Water Garden, 1959. Photo by Eugene L. DiOrio. Gift of Eugene L. DiOrio.



Curving water staircase at southwest corner of the Water Garden, 1963. Photo by Eugene L. DiOrio. Gift of Eugene L. DiOrio.



A surprise feature is a curving water staircase to the southwest. . . . It was here that Pierre supposedly perched his nieces and nephews for a photo, only to turn the water on at the last moment to happily soak them.

Above:
Italian Water Garden, Spring 2015. Photo by Larry Albee.

hard to believe that the restorations have been made absolutely in accordance with the plans that date back to the time of Louis XIV.” At Vaux “the fountains pour their water in stone work channels of every variety of shape and size into basins equally diversified and in both places the water comes from an underground reservoir at the top of the hill. . . . [which] only holds enough slowly pumped water to allow the fountains to play for four hours a week [and] nearly the whole week’s supply was exhausted by our visit. Some idea of the size of the water basins may be given by telling you we crossed one that was almost a lake, on a little ferry boat. This was in order to walk on up the hill and get the view from the top. As words seem futile in describing what I saw I can only hope that some day you may all see the originals as we did.”

Pierre returned from France with new enthusiasm. He had been planning a water garden since 1916 and authorized its construction two days before his departure for the French garden trip.

The du Ponts arrived back from France on August 12, 1925. Three days later Pierre noted that the “water garden [was] now laid out 60-feet wide.” Six days after that he told his engineer, “I have taken the

following dimensions of the Villa Gamberaia which I think worth keeping.”

Pierre had to have taken the dimensions from one of his garden books. Of those he owned in 1925, only Inigo Triggs’ 1906 *The Art of Garden Design in Italy* had a measured plan large enough to copy from.

Phil Brewer, the employee most responsible for Longwood’s fountains, said that Mr. du Pont had drawn a plan on the boat while returning from Europe. If so, it may have been this one, the earliest known (see page 30, top). On the other hand, it was made using simple drafting tools which Pierre may not have had on the ship.

In another sketch Pierre calculated the viewing angles from the elevated observation terrace to the left. He took into account visual foreshortening by making the farther pair of rectangular pools 14 feet longer than the nearer pair. This ensures that all four pools appear proportionately equal when viewed from above.

It is interesting that he chose not a French garden for inspiration but instead selected an Italian villa pictured numerous times in his garden books and visited personally in 1913. Its domestic scale is more practical than the French behemoths he toured in 1925.

Mr. du Pont had observed that European garden fountains were gravity fed from elevated reservoirs supplied by springs and aqueducts. When he started designing the Water Garden and contemplated revising the Open Air Theatre at the same time, he first imagined a 100 × 100 × 6-foot underground hilltop reservoir that would supply (via long pipe runs) the Theatre, two Flower Garden fountains, Peirce’s Park fountain, and Water Garden by gravity flow, 350 gallons per minute on Saturdays and Sundays, 140 GPM on weekdays, with 1,700 GPM comprising “a great display.” The reservoir would be filled by electric pumps. Pierre did pages of elaborate calculations comparing the cost of electricity versus piping versus revamping the Pocopson water wheel, but ultimately he decided to build individual recirculating pumping systems for each of the gardens, with the reservoirs not elevated. There is no question that he had a sophisticated knowledge of hydraulics.

The Gamberaia original has only a few fountains, but in Longwood’s Water Garden more than 600 jets in nine separate displays shoot from six blue-tiled pools and from 12 pedestal basins along the sides. It is likely that Mrs. du Pont’s enthusiasm for Spain’s Generalife was the inspiration for the many arching jets along the sides of the

pools. Pierre filled about 50 pages with handwritten calculations to figure out the hydraulic requirements. At maximum capacity, 4,500 gallons per minute are recirculated, with the tallest jet in the far pool 40 feet high.

A surprise feature is a curving water staircase to the southwest which complements a traditional staircase to the southeast. It was here that Pierre supposedly perched his nieces and nephews for a photo, only to turn the water on at the last moment to happily soak them.

The garden was planted with 14 lindens (6-inch to 8-inch caliper, \$125 apiece) and boxwood along the sides and with evergreens at the far end. Pierre perhaps chose lindens (*Tilia*) as a result of his trip to France; in particular he noticed the magnificent linden allées at the château of Champs, east of Paris. Limestone copings, pedestal basins, and ornaments carved in Philadelphia and Italy add a distinctively Italian flavor to Longwood’s garden. Yet in its setting within a wooded clearing and in concentration of jets, the garden resembles more a fanciful water *bosquet* at Versailles. Its full beauty is revealed only by walking alongside the garden to see the backlit water shimmering against the deep green foliage. It was only after Mr. du Pont’s death

that the Water Garden was renamed the Italian Water Garden, to ease confusion on the part of guests.

At the same time, Mr. du Pont installed the Sylvan Fountain at the end of the central allée in Peirce’s Park. The main jet is 40 feet tall and is a pleasing eye-catcher when viewed from the house. It is said that Mrs. du Pont could turn it on for her house guests with a push button. The water disappears underground then reappears at the southwest side of the Italian Water Garden as it noisily cascades down a small waterfall then into two rustic pools on its way back to the pumphouse. When elevation changes permitted, Pierre took advantage of gravity as much as possible, just as the Europeans had done.

Pierre next decided to enlarge the Open Air Theatre. It had been used since 1914 for theatrical performances, garden parties, concerts, and as a place of amusement for Mr. du Pont’s nieces and nephews. The grassy seating area was flat, which restricted visibility, so in 1926 the area under the stage was excavated and spacious underground dressing rooms were built. The soil that was removed was used to give the proper slope to the auditorium.

A much enlarged fountain system was installed during the 1926–27 Theatre



Above: Expansion of the Open Air Theatre, 1927. Longwood Gardens Library & Archives.

Opposite: View of Open Air Theatre showing circular basins built into the main stage, 2014. Photo by Daniel Traub.

expansion, with seven circular basins with removable covers built into the main stage floor, a unique 10-foot-high water curtain, two upper level basins, and isolated roof fountains off to either side. A stairway of glass steps was added at the back, the idea being that a luminous waterfall would cascade down the steps. But the steps leaked and the effect didn't work, so the glass was replaced with stone in 1928.

Beneath the stage are 11 pumps recirculating 2,000 gallons of water per minute through 750 nozzles illuminated from below by over 600 lights in red, blue, green, white, and—added in 1933—yellow.

Longwood's Italian Water Garden was designed by Pierre du Pont, except for the electrical specifications which were determined by Phil Brewer. For the Open Air Theatre and the Main Fountains, however, Pierre noted in 1937, "The Longwood fountains and illuminating effects were designed largely from the experiences of the electricians employed at Longwood, who worked with the manufacturers in putting the apparatus together. There was no designing engineer and no one man did the work. The illuminating plan was comparatively new and it was almost impossible to find anyone capable of designing and making

the installation." But, as Brewer recalled, "every step of the work was approved by him [Mr. du Pont] as we went along...."

The new Theatre fountains were a sensation. Marion Laird, a guest at the September 17, 1927, garden party debut, rhapsodized:

*The dancing done, the dancers steal away
The dream fades fast,
none but the dreamers stay.
The silver crystal curtain rises bright
One thinks
'Tis time to bid our Host "Good-night"
"When Lo!" The Screen falls.*

*See! From the stage, rise tall sheaves of grain,
Falling and rising with patter of rain
Shattering, scattering golden & bright
See from below there are other sprites rushing,
Rising in fountains, playfully gushing,
Changing from gold to red,
Dancing with lightsome tread
While ever overhead, Glows the soft light.*

After such success, how could Pierre top this? Build the Main Fountain Garden, of course!

**In the next issue of the *Longwood Chimes*:
The Main Fountain Garden is constructed.**

Bonsai Beginnings

Bonsai is a combination of art and horticulture. China is credited with the origin of bonsai, collecting trees and other plants from the wild and growing them in containers. The Japanese became exposed to this practice through social and economic interaction with China starting as early as the 600s AD. Both countries developed various techniques over the years that continue to be used to create bonsai today. The Japanese word “bonsai” translates to ‘planted in a shallow pot.’ The small trees are living sculptures requiring continuous care to develop and maintain the desired form.

Bonsai were not part of the displays at Longwood Gardens during Pierre S. du Pont’s time. But in 1959, five years after Mr. du Pont’s death, well-known bonsai artist, Yuji Yoshimura (1921–1997), presented a bonsai class at Longwood. It was so well received that Longwood staff decided the Gardens should have some bonsai of its own.

Starting with 13 trees purchased from Yuji, the collection size has changed throughout the years under the guidance of five different curators to fit the needs of Longwood’s display. These bonsai represent an educational opportunity for guests as well as an enticing horticulture display. Our collection is small, with approximately 40 trees, including trees that are being developed or undergoing a style change. The collection highlights species that can grow in our regional landscape.

I am fortunate to have overseen the collection for 33 years and continue that role today as curator with three volunteers who help to maintain the collection.

In June 2015, Yuji Yoshimura was inducted into the National Bonsai Hall of Fame. While traveling to the event to celebrate his induction, Yuji’s two daughters Emi Suzuki and Yoko Said and his granddaughter, Jehan (Yoko’s daughter), visited Longwood to see four of Yuji’s

A look at
the origin of
Longwood’s
Bonsai collection.
By Mary Allinson

bonsai that remain in our collection. The bonsai volunteers and I were on hand to give a tour of Longwood to the first-time guests, who enjoyed the Gardens immensely, but were particularly excited to see the bonsai their father brought to Longwood in 1959 to begin our collection.

Today bonsai continue to be an important part of Longwood. Guests greatly enjoy our collection, often commenting on the beauty and age of many of the trees. We continue to offer classes for bonsai enthusiasts, and we welcome community bonsai organizations, such as the Brandywine Bonsai Society, which holds an annual show for guests to enjoy each fall. And to think it all started with a single class in 1959.



Yuji Yoshimura, bonsai pruning demonstration, 1959. Photo by Gottlieb Hampfler. Longwood Gardens Library & Archives.



Left: Yuji Yoshimura taught the first bonsai class at Longwood in 1959. It was so well received that Longwood decided to begin a bonsai collection and purchased 13 bonsai from Yuji. Photo by Gottlieb Hampfler. Longwood Gardens Library & Archives.

Opposite: Japanese *Zelkova serrata*, shown here in its dormant state, one of the four original bonsai given to Longwood by Yuji Yoshimura that are still in the collection. Training for this specimen began in 1909. Photo by David Ward.



The idea behind bonsai is to imitate nature. There is an unspoken beauty in large, old trees with their rough bark and massive, expanding branches. To create the appearance of an older tree in miniature is to create bonsai. The pot or container is also a part of the design, and should harmonize with the style of the bonsai. Exemplifying these principles is the Hinoki False Cypress *Chamaecyparis obtusa* shown here, which was donated in 1987. Training for this specimen began in 1930. Photo by David Ward.



“To create bonsai, you must have two things: horticultural knowledge and artistic ability. Maybe I should say talent: that is the word. How to grow something, I can teach that. But I cannot teach how to create beauty; that is inside.”

—Yuji Yoshimura, Master of the Ancient Art of Bonsai

This Crape-Myrtle *Lagerstroemia indica* is one of four remaining bonsai from the original 13 plants given to Longwood by Yuji Yoshimura in 1959. Training for this specimen began in 1944. Photo by David Ward.



Yuji Yoshimura, who is deceased, was inducted into the Bonsai Hall of Fame in 2015. His daughters, Yoko Said from Boston, MA, and Emi Suzuki from Tokyo, Japan, visited Longwood as they were retracing his bonsai steps prior to the induction. They are pictured here along with members of the team at Longwood charged with maintaining the Bonsai Collection: (front row left to right) Jehan Said (daughter of Yoko, granddaughter of Yuji Yoshimura), Emi Suzuki (daughter of Yuji), Yoko Said (daughter of Yuji), and (back from left) Bonsai Collection volunteers Steve Ittell, Dennis Donald, Section Gardener and Bonsai Curator Mary Allinson, and Volunteer Bill Cushing. Photo by Richard Donham.

88 Keys to Excellence

In the world of music and pianos, there is probably no better-known brand than Steinway & Sons. Longwood’s Steinway has made glorious music here for decades, and if anything, it has reached new heights in recent years.

Pierre S. du Pont loved music and wanted to play the piano, something his father felt real men should not do. But after his father’s death in 1884, Pierre freely indulged in keyboard activities. He rented a piano for his college room at M.I.T. In 1902 in Wilmington, he joined the Tankopanicum Musical Club as its pianist. This amateur ensemble of du Pont family and DuPont Company workers was conducted by Pierre’s cousin, Alfred I. du Pont (1864–1935). “We used to play a lot at dances,” Pierre remembered. “I played by ear for a long time before I could read any note.”

Mr. du Pont assessed his pianistic talent in 1932: “As to my own ability as a musician, I confess to a definite knowledge of the piano, one that leads me to attempts on any kind of music, regardless of its difficulty, with consequent suffering on the part of those who are obliged to hear my efforts at interpretation. It is fortunate that my residence is far removed from neighbors.”

In March 1923, Pierre ordered a 9-foot Steinway Model D Concert Grand Piano with walnut veneer from N. Stetson Company of Philadelphia, the local

Steinway dealer, for \$3,100 (compared to upwards of \$150,000 for a new Steinway today). It was delivered in October and placed in Longwood’s new Music Room where it remains today.

During Pierre’s lifetime the Music Room Steinway was used to accompany recitalists (especially operatic singers) for concerts and society orchestras who played for parties. Some years it provided background music during the annual Christmas Party vaudeville acts that delighted employee children through 1942. There weren’t many solo recitals, since the organ was the star performer then.

After Mr. du Pont’s death in 1954, the Music Room Steinway sat little used over a heating vent, and eventually the soundboard cracked. It was remanufactured in 1979 by Willis Snyder and son David of Robeson, PA, who installed a new soundboard and brought it back to its former glory. It was reinaugurated on September 21, 1980, by pianist Rollin Wilber in an all-Chopin recital.

Additional work was done by Snyder on the Steinway in 1998, including a new pinblock and new strings. A second complete rebuilding took place in 2009 by David Snyder, when the actions and dampers were remanufactured. At the same time, an LX Live Performance system was installed out of sight beneath the piano, permitting concert-quality computer playback of more than 250

Since 1923, Longwood’s Steinway has been a source of delight and (occasional) suffering. By Colvin Randall

hours of recorded music by such luminaries as Gershwin and Rachmaninoff. The player receives wireless signals from a nearby laptop, using iTunes to categorize the music. The solenoid under each piano lever has 1,020 degrees of dynamic expression, and each pedal has 256 positions, permitting amazingly lifelike performances. Short public demonstrations are often given twice a day.

But the piano is never more thrilling than when used for live concerts, both classical and jazz with everything in between. The stellar classical talent that has performed on it in recent years includes Leon Bates, Simone Dinnerstein, Stewart Goodyear, Olga Kern, Vadym Kholodenko, Valentina Lisitsa, Ignat Solzhenitsyn, Daniil Trifonov, and Haochen Zhang. From the world of jazz have come Cyrus Chestnut, Fred Hersch, Marian McPartland, Danilo Perez, and Marcus Roberts. When asked their opinions, many agree that this Steinway from the company’s glory days is a wonderful instrument on which to play the Romantics like Chopin and Rachmaninoff.

Coming this spring will be the jazz talents of Pablo Ziegler (March) and Ellis Marsalis (April), and the classical brilliance of Yefim Bronfman (May) who will perform the same Prokofiev concert two days later at Carnegie Hall. Longwood’s magnificent Steinway will continue to be an integral part of the arts at Longwood for years to come.

Opposite:
Detail views of the Longwood Steinway, and second from right, Pierre S. du Pont at the piano of the Tankopanicum Musical Club, c.1902. This is the only known photo of Pierre seated at a keyboard instrument. Steinway detail photos by Larry Albee and Daniel Traub.



A Longwood Tribute

A poem, by Nathan Hayward III, presented to the Longwood Board of Trustees on the occasion of his retirement.



Clockwise from left: Pierre and Alice du Pont and J.P. Sousa with group, outside Orangery, 1930; Two men in Chimes Tower, c. 1930s, by Peter N. Greeley; Nathan Hayward III, Nancy Lloyd Hayward, and Pierre S. du Pont, July 1946; View of the grove in Peirce’s Park, 1913; 1915 Garden Party performance by dancers from the Florence Noyes School of Rhythmic Expression.

11/4/2015

Between the dark and the daylight
As the sun was beginning to lower;
Came a pause in Pierre’s busy schedule
We’ve now dubbed as his gardening hour.

In a stroke both bold and decisive
He’d rescued the elms and the oaks;
No lumberyard writ in their future
Noble gifts now, for millions of folks.

His eyes scanned the jumble of landscape
Through the scrub, the corn stalks and slough,
His engineer’s mind fixed on precision
“Oust those damn fossés; they’re blighting my bois!”

After drafts drawn with ruler and compass
Came the Flower Walk’s patterns—so French;
No rest until Euclid’s been satisfied
“We need water and a curved wooden bench.”

On his marriage to Alice he just flourished
With the grace and the charm of her love;
She brought knowledge of orchids and fruit trees
“There’s so much here we need to improve.”

The cattle soon moved out to pasture
To make way for Paulownias mauve;
He imagined a Renaissance gateway
To bring guests ‘neath this memorable grove.

In Tuscany’s Villa d’Gori
They discovered a stage, en plein air;
To Alice he quoth, “Let us have one”
To bring Broadway to old Kennett Square.

With music, he added the organ
Whose ten thousand pipes would soon swell;
“Notre Dame dear, you’ve taken a back seat
In second place with red ribbon you’ll dwell.”

In the midst of the national depression
He resolved to put tradesmen to work;
“We’ll outdo Chicago’s Glass Palace”
From challenges great he’d ne’er shirk.

“A carillon tower’d be perfect
To loom over the pools and the streams;
What good is a garden with no fantasy?
For children to take home for their dreams.”

“More color, more noise, more excitement
Where’s Sousa with baton and gold epaulette?
Give me dancers in skirts all of gossamer
And parties no one will EVER forget!”

But ‘neath all of this outward frivolity
Stood a quiet and serious man;
Whose love for mankind and his neighbors
Has kept on giving to many a clan.

He willingly gave time and his treasure
To those people and places in need.
His diffidence confounded promoters
Who’d equated wealth only with greed.

Since his death in the 50s his garden
Has continued to prosper and grow;
It’s brought joy and contentment to millions
Been a refuge for life to go slow.

I’ve wondered for weeks how to write this
To say so many thanks, in arrears;
To my colleagues and friends here assembled
Recalling Longwood o’er past fifteen years.

We’ve planned and we’ve labored together
Laughed when our luck brought on smiles;
Gritted teeth when snowfall meant overtime
Damn few guests through those quiet turnstiles!

I’ll cherish the memories of friendship
Yes even Gail [Lord], and all of her plans;
We’ve so much to be proud of together
Should we all just stand and hold hands?

BUT this is not a meeting revival
Nor a funeral at which we should weep;
It’s an evening of pleasure and tribute
To Team Longwood whose talents are deep.

You plant posies, count money, post websites
Feed thousands of visitors good grub;
Teach more students than Carter has liver pills
Give the old apple here his daily scrub.

Tonight with music, scent and food flavor
That make synapses pulse til they ping;
Where there’s beauty of any description
You’ll find it here in this magic ring.

To our founder whose vision began this
And whose wisdom made sure it’d endure;
I say thanks with the biggest of bear hugs
May his legacy thrive evermore.

And it shall because people of goodwill
And passion, and prudence, and pride;
Have been following P.S.’s footsteps
For the decades since he sadly died.

As I pass the President’s gavel
To Jane Pepper, who’ll use it with care;
Here’s good luck and Godspeed to your leader
May her days bring weather that’s fair.

To the Board, and the staff and our friends here
There’s treasure in Box Five-Oh-One;
Care and love it so fondly—as always
For your work here will never be done.

No. 292

Winter 2016

Front Cover

A cohesive patina unifies these hand-forged bonsai tools from Japan, arranged here in a communion of form and purpose. From left to right: Concave cutter, repotting tamping trowel, repotting root hook, coarse grooming brush, grafting knife, root cutter, jin pliers, soft grooming brush, two pair of bonsai scissors, stone weight to hold branch in position, and chopsticks used for repotting. The tools, courtesy of Bonsai Collection Curator Mary Allinson, are shown atop one of the hardwood platforms typically used for the bonsai display at Longwood Gardens. Photo by David Ward.

Inside Covers

An intricate arabesque pattern is present on this blueprint featuring the ornamental panel for the railing in the Italian Water Garden. The panel was created for Mr. Pierre S. du Pont, Longwood Farms, Kennett Square, PA, by Richmond & Kemp, circa 1927. This blueprint is part of the historic blueprint collection in Longwood Gardens Archives. Photo by Daniel Traub.

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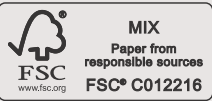
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Editor's Note

In issue No. 291 of the *Longwood Chimes* on page 4, we identified Mr. Pring as Mr. Nutt's father-in-law. In fact, Mr. Pring was Dr. Seibert's father-in-law. On page 7, we stated that Ms. Young shared Longwood's expertise about orchid growing and *Artemisia* grafting techniques. Ms. Young actually learned orchid growing techniques and *Artemisia* grafting techniques from the staff at Chenshen. Also on that page, Mr. Li Yan is identified in a photo. The person in the photo is actually Mr. Chen Longhui. On page 17, we identified the photo as the Silver Garden when in fact it was the Palm House. We regret these errors.



LONGWOOD
GARDENS



“In short, no pattern is an isolated entity. Each pattern can exist in the world only to the extent that is supported by other patterns: the larger patterns in which it is embedded, the patterns of the same size that surround it, and the smaller patterns which are embedded in it.”

—Christopher Alexander, from *A Pattern Language*, 1977

Longwood Gardens is the living legacy of Pierre S. du Pont, inspiring people through excellence in garden design, horticulture, education, and the arts.

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