Magnolias at the Scott Arboretum of Swarthmore College

Andrew Bunting

From the inception in 1929 of the Scott Arboretum of Swarthmore College, the mission has remained the same—to collect and display outstanding ornamental plants, specifically trees, shrubs, and vines. Since 1931, one of our most prominent collections of plants—and one that has stood the test of time—has been the magnolia collection. Early on, new magnolia accessions were received from notable nurseries, organizations, and individuals including Bobbink and Atkins, Rutherford, New Jersey; Andorra Nursery, Chestnut Hill,
Pennsylvania; the Arnold Arboretum; Hicks Nursery, Long Island, New York; and Highland Park, Rochester, New York.

At the time, John Wister, first director of the Scott Arboretum, was developing the campus based on an evolutionary or phylogenetic tree, so all genera in a plant family were planted together, and hence all species in a family resided together. The magnolia collection housed both species and cultivars alike.

In 1931, Wister began to get regular deliveries of many plants, especially magnolias, from Henry Hicks of Hicks Nursery on Long Island, New York. On May 8th, 1934, Hicks brought Wister a gift of plants which included 61 accessions representing 3,143 individual plants. These included seven seedlings of the sweetbay magnolia (*Magnolia virginiana*), a native species which was then known as *Magnolia glauca*. Of these original seven, only one survived. It was

The original type specimen of *Magnolia virginiana var. australis* 'Henry Hicks' still thrives at the Scott Arboretum (above). This cultivar bears fragrant, creamy white flowers and cold-hardy evergreen foliage (right).
Early History of the Scott Arboretum

In 1929, John Caspar Wister was appointed the first director of the Arthur Hoyt Scott Horticultural Foundation (now the Scott Arboretum). Wister graduated in 1909 with a degree from the School of Landscape Architecture at Harvard University, and supplemented this education with courses taken at the New Jersey Agricultural College. After graduation, Wister worked in landscape architecture offices in both Philadelphia and New York.

From his youth, John Wister was an avid plant collector. As a small boy he had exposure to estate gardening at different Wister properties located in and around Germantown, Philadelphia. At age 14 he grew 40 cultivars of chrysanthemums. After Wister started his professional career his interest in a myriad of plant groups and genera began to grow. Throughout his lifetime he was an avid collector of both herbaceous and tree peonies. Wister admired a photograph in a garden catalog that showed the peony collection of Arthur Hoyt Scott (for whom the Arboretum is named) and Edith Wilder Scott and in 1913 he met the Scotts at their home in Oak Lane, Philadelphia.

On July 10, 1917, at the age of 30, Wister enlisted as a private in World War I. Wister was sent to France. On his leave time during the war Wister toured the gardens of Europe. While in France he collected several cultivars of tree peonies and sent the plants back to Mr. and Mrs. Scott. Wister was honorably discharged in 1919.

Arthur Hoyt Scott was a graduate of the class of 1895 from Swarthmore College. His father, E. Irvin Scott, founded Scott Paper Company which was located in Chester, just south of Swarthmore, Pennsylvania. Like Wister, Scott developed a passion for ornamental horticulture as a young man. In 1920 he became president of the Scott Paper Company, but his spare time was primarily occupied by his love of plants. Scott served as an officer of the American Peony Society and the American Iris Society. As early as 1915 Scott was sending gifts of plants to his alma mater, Swarthmore College. His first gift was 100 lilacs of many different varieties. In 1919 the Scotts moved from Philadelphia to a 100-acre farm in Rose Valley near Swarthmore. As Wister later wrote “Here for the first time he had ample room. He at once began to plant great collections of flowering trees and shrubs like Japanese cherries, crabapples, dogwoods, lilacs, mockoranges and azaleas.”

When Arthur Hoyt Scott wanted to study peonies he had to travel to Cornell University and when he wanted to see lilacs he had to go to Highland Park in Rochester, New York. Scott dreamed of having an arboretum at Swarthmore College where local gardeners could go and see attractive displays of his favorite plants. Scott had the support of Samuel Palmer, the head of the Botany Department, and Swarthmore College. Palmer, in turn, contacted Robert Pyle who had graduated from Swarthmore in 1897 and was serving on Swarthmore's board of managers. Pyle was head of the Conard-Pyle Company, one of the country's largest purveyors of mail-order roses.
Arthur Hoyt Scott died in 1927, at the age of 51. Two years later Edith Wilder Scott and Arthur Hoyt Scott’s sister, Margaret Moon, and her husband, Owen Moon, approached Swarthmore’s president with the idea of starting a campus arboretum. They recommended that John Wister become its first director, and so indeed he did.

The early 1930s were the heydays of the Scott Horticultural Foundation. With Wister at the helm, the plant collections grew very quickly. Huge collections of *Paeonia, Iris, Rhododendron, Syringa, Philadelphus, Prunus, Malus, Cotoneaster, Chrysanthemum, Narcissus* and *Magnolia* were being accessioned and planted. In 1931 the Foundation accessioned 783 plants; in 1932 there were 1162 accessions, and in 1933, 1110 accessions. To put this in perspective the Scott Arboretum currently accessions about 300 plants per year.
planted in a poorly drained section of the Magnolia Collection, and over the years this sweetbay magnolia thrived [unlike most magnolias, this species performs well in wet soils]. It was observed that while most specimens of Magnolia virginiana in the Swarthmore area are deciduous, this particular specimen was reliably evergreen. In 1967 this clone was officially registered and named Magnolia virginiana var. australis ‘Henry Hicks’. The original type specimen remains in great shape today in the old Magnolia Collection.

A Stream of Magnolias
In addition to Magnolia virginiana, several accessions of Oyama magnolia (Magnolia sieboldii, previously M. parviflora), a shrubby Asian magnolia noted for its white flowers with striking crimson stamens, were added to the collection from several different sources. Other early additions included the star magnolia (Magnolia stellata), anise magnolia (Magnolia salicifolia), umbrella magnolia (Magnolia tripetala), Kobus magnolia (Magnolia kobus), southern magnolia (Magnolia grandiflora), cucumbertree magnolia (Magnolia acuminata), and the saucer magnolia (M. x soulangiana, syn. Magnolia x soulangeana).

Magnolia x soulangiana resulted from a cross between Magnolia denudata and Magnolia liliiflora in 1820 by Étienne Soulange-Bodin, who was the first director of the Royal Institute of Horticulture near Paris. For many gardeners across the United States, saucer magnolia is the quintessential magnolia species. This large shrub to medium-sized tree produces masses of large, showy flowers that emerge before the foliage. The flowers, which are often fragrant, appear in white and shades of pink and purple.

In the early 1930s the Scott Arboretum received two different batches of Magnolia x soulangiana cultivars. In 1933, Arthur D. Slavin at Highland Park in Rochester, New York, sent ‘Alexandrina’, which has deep red-purple flowers and was introduced in Paris in 1831; ‘Ama bilis’, an 1865 French introduction with white flowers; ‘Alba’, which is another white-flowered clone that was grown and named by Louis van Houtte of Belgium; ‘André Leroy’, which has dark pink to purple flowers and is a French

The slightly nodding flowers of Magnolia sieboldii bloom in late spring or early summer.

Early-spring-flowering Magnolia salicifolia has fragrant, 6-tepaled white flowers and a pyramidal growth habit.
introduction from 1892; ‘Brozzoni’, which bears white flowers with pink veins and was named in honor of Camillo Brozzoni in Brescia, Italy in 1873; ‘Lennei’, which has tepals that are magenta on the outside and white on the inside; ‘Norbertii’, a late-blooming cultivar with red-purple flowers; and ‘Verbanica’, which has deep pink flowers and was named by André Leroy in France in 1873. In 1936, scions of all these clones were sent to Verkades Nursery in Wayne, New Jersey. The magnolias were propagated there, and duplicate plants were then sent back to the Scott Arboretum. Today, many of these original cultivars from Highland Park are found in our collections. Noted magnolia expert Philippe de Spoelberch from Arboretum Wespelaar, Haacht-Wespelaar, Belgium, commented that the Scott Arboretum’s collection of *Magnolia x soulangiana* cultivars is important because they most likely represent clones which are true to name. De Spoelberch said that many of the original cultivars from France are much confused in the nursery industry and that many cultivar names have been mistakenly attributed to the wrong cultivar.

**Southern Belles and Little Girls**

In 1933, the Scott Arboretum received its first plant of the southern magnolia (*Magnolia grandiflora*) as a gift from Edith Wilder Scott. This large magnolia, native to the southeastern United States, is prized for its leathery evergreen foliage and large, fragrant, creamy white flowers. Several cultivars of this species were soon added to the collection; in 1939, ‘Exoniensis’ was received from Princeton Nursery, and in 1940 ‘Lanceolata’ arrived from Hillier and Sons in Winchester, England. Both of these clonal names are synonymous with ‘Exmouth’, which is a fastigiate cultivar. It was not until 28 years later, in 1968, that any additional selections of the southern magnolia were added to the Arboretum’s collections. ‘Edith Bogue’ was a selection that was made in 1961 for its ability to withstand very cold temperatures with minimal
leaf burn. Our plant came from Kingsville Nursery in Kingsville, Maryland. Today, there are several specimens of ‘Edith Bogue’ growing on the campus of Swarthmore College, as well as 7 other *M. grandiflora* cultivars including both ‘D. D. Blanchard’ and ‘Pocono’ which also have been selected for greater cold hardiness.

In 1968 the Scott Arboretum also received an important collection of magnolias from the United States National Arboretum. Commonly referred to as the Eight Little Girls, these magnolias were the result of hybridizing work conducted at the USNA by research geneticist Dr. Francis deVos and horticulturist William Kosar. In 1955, deVos began breeding working using *Magnolia liliiflora* ‘Nigra’ and *Magnolia stellata* ‘Rosea’. ‘Nigra’ was used for its hardiness and late blooming, while ‘Rosea’ was used for its fragrance, prolific flowering, and mildew resistance. The results of this program resulted in the introduction of cultivars ‘Ann’, ‘Judy’, ‘Randy’, and ‘Ricki’. In 1956, Kosar hybridized *Magnolia stellata* ‘Rosea’ and ‘Waterlily’ with *Magnolia liliiflora* ‘Nigra’ and ‘Refl orescens’, which resulted in the introduction of cultivars ‘Betty’, ‘Jane’, ‘Pinkie’, and ‘Susan’. Today at
the Scott Arboretum ‘Ann’, ‘Betty’, and ‘Susan’ remain as beautiful mature specimens, while the others that we lost have been replaced with younger specimens. The “Little Girl” hybrids remain a group of magnolias that we continue to promote as relatively small (about 12 to 20 feet [3.5 to 6 meters] tall) magnolias for the home garden.

In addition to Magnolia virginiana and Magnolia grandiflora, the Scott Arboretum added several other magnolia species native to the United States. We received the umbrella magnolia (Magnolia tripetala) from the Hicks Nursery in 1932 and Magnolia fraseri came from Arthur D. Slavin at Highland Park Nursery in 1933. Magnolia macrophylla, which is closely related to Magnolia fraseri, was acquired from Andorra Nursery near Philadelphia in 1939. The Scott Arboretum’s first plant of Magnolia pyramidata (which is sometimes listed as Magnolia fraseri subsp. pyramidata) came to us via the Henry Foundation for Botanical Research in Gladwyne, Pennsylvania in 1971. This species is native to the coastal plains of Alabama, Georgia, Florida, Louisiana, Mississippi, South Carolina, and Texas, while Magnolia fraseri is only found in the mountains. It wasn’t until 1991 that we added the last of the North American native magnolias, a single plant of Magnolia macrophylla subsp. ashei. Ashe’s magnolia is very rare in the wild and only occurs in a small portion of the Florida panhandle where it is found from Leon to Wakulla counties and westward to Santa Rosa county. In the Red List of Magnoliaceae, which documents globally threatened plants within the magnolia family, Magnolia macrophylla subsp. ashei is given the conservation status of “vulnerable”, which means it is considered to be facing a high risk of extinction in the wild.
Recent Additions, Future Plans

The 1990s saw dozens of new cultivars enter the Scott Arboretum’s collections from many magnolia purveyors such as Arbor Village Nursery, Gossler Farms, and Fairweather Gardens. In 1998, through Pat McCracken and McCracken Nursery, we received a number of cultivars introduced by noted magnolia hybridizer Dr. August Kehr. After retiring from the USDA, Kehr started a robust magnolia breeding program in Hendersonville, North Carolina that resulted in many outstanding cultivars of magnolias. Some of the Kehr cultivars included in our magnolia collection are ‘Serenade’, ‘Pink Perfection’, and a number of the much-desired yellow-flowered hybrids including ‘Gold Crown’, ‘Golden Endeavor’, ‘Hot Flash’, ‘Solar Flair’, and ‘Sunburst’. To create the yellow magnolias Kehr made complex crosses using *M. acuminata*, *M. denudata*, *M. x brooklynensis*, *M. ‘Elizabeth’*, *M. ‘Woodsman’* and *M. ‘Gold Star’*.

From 2000 to 2010 the Scott Arboretum continued to add dozens of new magnolia taxa to our collection. Many new cultivars of *Magnolia grandiflora* and *Magnolia virginiana* were added. Several other yellow-flowered magnolias such as ‘Yellow Joy’, ‘Limelight’ and ‘Golden Rain’ were added. In addition, many species magnolias from a variety of sources were accessioned, including *Magnolia x wiesneri*, a hybrid between *M. sieboldii* and *M. obovata*; *Magnolia zenii* which is critically endangered in China where only one population, comprised of 18...
Magnolia denudata ‘Swarthmore Sentinel’ was selected and named for its distinctly upright habit.
individual trees, exists; and Magnolia wilsonii, which is endangered and only exists in scattered populations in Sichuan, northern Yunnan, and Guizhou, China. Two other additions—Magnolia lotungensis from China and M. tamaulipana from northeastern Mexico—may prove to be borderline hardy in Swarthmore (USDA zone 6, average annual minimum temperature -10°F to 0°F [-23.3°C to -17.8°C]).

In 2009 the Arboretum introduced a new selection of the Yulan magnolia, Magnolia denudata ‘Swarthmore Sentinel’. The Arboretum originally received a seedling from J. C. Raulston at North Carolina State University, who had received seeds from the Beijing Botanic Garden. From a seedling in 1993, the tree is over 30 feet tall today. On several occasions visiting magnolia experts commented on how upright our particular clone was. Therefore, we decided to name this selection ‘Swarthmore Sentinel’ for its fastigiate habit.

Over the last 81 years we have accessioned 502 magnolias at the Scott Arboretum. Today the collection holds 165 different taxa. The Scott Arboretum’s collection is recognized as a national magnolia collection through the American Public Garden Association’s North American Plant Collections Consortium (NAPCC). According to the APGA “The North American Plant Collections Consortium is a network of botanical gardens and arboreta working to coordinate a continent-wide approach to plant germplasm preservation, and to promote high standards of plant collections management.” The Scott Arboretum will be working with approximately 20 other institutions across North America, including San Francisco Botanical Garden, Quarryhill Botanical Garden, University of British Columbia Botanical Garden, the Bartlett Arboretum, and Atlanta Botanical Garden to create a consortium of institutions to oversee the preservation and conservation of Magnoliaceae germplasm. This group will also be part of the NAPCC and administered through the APGA. Once formed, this Magnolia Curatorial Group will partner with the Magnolia Society International to target both wild species and cultivar groups which need to be preserved in botanic gardens and arboreta. The Scott Arboretum will also continue to grow its own collections. We currently have 72 magnolia taxa growing in a nursery, and once these reach specimen size they will be transplanted to garden sites throughout the arboretum. In 2015 the Scott Arboretum plans to host the international meeting of the Magnolia Society International.

Bibliography

Andrew Bunting is Curator of the Scott Arboretum of Swarthmore College in Swarthmore, Pennsylvania.