A recent issue of *Arnoldia*, our quarterly journal, bears striking testament to the richness of the resources at the Arnold Arboretum. The front and inside covers display two images captured by Peter Del Tredici, senior research scientist, on a plant-collecting expedition in 1997 to the Changbai Mountain region of northeastern China, near the Yalu River boundary with North Korea. On the back inside cover is a photograph taken by Joseph Hers in 1923 on a plant-collecting expedition in Shanxi Province in central China. This follows an article by Sheila Connor, our horticultural archivist, describing five historical plant collectors and the wealth of images created by them that now reside in our archives.

The greatest of these was E. H. Wilson, who made five expeditions to China and traveled with a large-format, Sanderson whole-plate field camera capable of capturing exquisite detail. He photographed a wide range of subjects: landscapes, local peoples in their natural settings, a diverse array of monuments and architecture, and of course some very large, magnificent trees.

While it is wonderful to have these photographs safe in our archives and easily accessible to staff, they remain largely unknown outside the Arboretum except for their occasional publication in an article about plant collecting. This will soon change.

Thanks to support from Harvard University and generous friends of the Arboretum, we are about to complete the digitization of the entire Asian collection. It will then be made available and searchable online through Harvard’s Visual Information Access catalog of visual resources in the University’s library system. With the click of a mouse, a Chinese student in Chengdu will now be able to peruse her country’s rich cultural heritage as captured by plant explorers nearly a century ago.

The Arboretum’s mission—to study woody plants and promote their conservation around the world—continues today. This issue of *Silva* includes an interview with Dave Boufford, whose collecting trips to the Hengduan Mountain region of China and Tibet have netted valuable plant specimens as well as many terrific photographs. It is the commitment to discovery that connects Hers and Wilson to our collectors today and our continuing efforts in the future. The Arboretum is uniquely equipped to perform this work, and its legacy thrives in our herbarium collections, in our archival images, and particularly in the magnificent specimens in our landscape.

—Robert E. Cook, Director of the Arnold Arboretum
Over the years, the Landscape Institute has fostered groups of students and graduates that reinforce community and present opportunities to share knowledge and experience. In the 1970s, one such group coalesced into a formal association. By 1980, it had become a student chapter of the Boston Society of Landscape Architects. The chapter sponsored lectures, published a newsletter, and brought together faculty and students of New England landscape design schools at an annual dinner. Since then, the chapter has evolved into a professional organization called the New England Landscape Design and History Association, which provides services to both students and professionals. Yet another association that emerged from the BSLA chapter is the Community Outreach Group (COG), a nonprofit that offers landscape design services to public agencies and nonprofit organizations such as the Pine Street Inn in Brookline, the House of Hope in Lowell, and Nira Rock Park in Jamaica Plain.

One of COG's projects began in June 2003 in response to a request from the Boys and Girls Club of Middlesex County. COG organized a workshop to explore design alternatives for The Blessing of the Bay Boathouse area, a state recreation facility in Somerville that no longer met the needs of expanding programs. Out of the workshop, attended by COG landscape professionals and community stakeholders, emerged a number of new visions for the site. A year later, a COG team began to distill these ideas into a coherent plan. The team's work, which included site analysis, community meetings, and informal conversations, has culminated in a proposal for a new boathouse that expands the recreational opportunities on the Mystic River.

Illustrated boards helped to facilitate discussions with the community.
David Boufford is a research taxonomist whose scope of work includes the vascular plants of temperate to subtropical Asia, their patterns of distribution and relationships with the plants of North America. He has pursued these interests through participation in the historic 1980 SinoAmerican Botanical Expedition, as well as his service on the editorial committees for the Floras, respectively, of China, Japan, Taiwan (2nd edition), Korea, and North America.

Since 1997, under the auspices of the Biotic Surveys and Inventory program of the National Science Foundation, he has led the Arboretum’s collaborative effort to inventory the plant and fungal diversity in the Hengduan Mountains of south-central China, one of the unique—and richly diverse—biological regions of the world. Dave also carries the title of assistant director for collections at the Harvard University Herbaria. In that role, via the Internet, he makes available to biologists information from the Herbaria’s resources, particularly from type specimens and the Gray Herbarium Index.

Q. What makes the Hengduan mountain region so biologically important, and what does your project ultimately hope to accomplish?

A. The Hengduan Mountain region is unique in so many ways, but mostly because of the richness of the flora in such a harsh environment. It is a center of distribution for many genera, both for China and the world. For example, there are more than 225 species of Rhododendron in the region, most found nowhere else. There are more than 200 species of Pedicularis, or more than a third of the world’s total. At least one-third of all the Chinese species of gentians, primroses, alliums and Saussurea, Corydalis, and Arisacema are in the Hengduan region, and the list could go on and on.

Q. In the early 20th century, the Arnold Arboretum’s E. H. Wilson and Joseph Rock explored parts of the Hengduan region. In what ways did their work prepare the way for your project?

A. Wilson barely visited the area. He was in the very easternmost portion of the region, and it was there that his leg was broken in a landslide. Wilson’s collections are mostly of the trees and shrubs—the woody plants—that the Arboretum was interested in. Rock, however, spent considerable time in the area and traveled more deeply into the mountains and ranged more widely. His specimens, which are a better representation of the Hengduan flora, are extremely important and useful. Rock knew the local people well, and some older residents in the Lijiang area remember Rock. Others in China know of him through his linguistic studies of the Naxi people. Besides Rock, a number of Chinese botanists—R. C. Ching, T. T. Yü, C. W. Wang, C. W. Wang, H. T. Tsai, K. M. Feng, and others—visited the area. Rock and R. C. Ching even collected together. When E. D. Merrill was director of the Arboretum he supported many Chinese botanists by funding their fieldwork or by purchasing their collections. Merrill’s support and interest in the plants of Asia resulted in the Arboretum receiving extensive sets of specimens from all of those collectors, and their specimens have made the Arboretum’s collection of Chinese plants among the best in the world.
bracts, or flower parts to form a protecting enclosure over the inflorescence. A large number of plants produce specialized flowers adapted to insect pollination, but almost nothing is known about pollination in the Hengduan area.

_Q. In your work both in Hengduan and with the Flora of China project, what has been the role of collaboration with Chinese scientists?

A. We have always collaborated with Chinese scientists. Permits are needed for collecting and exporting specimens, and large amounts of specimens must be shipped from a recognized scientific institution. Specimens may be carried out of China, but a letter from an authorizing institution is required. Taking specimens out of China without permission, as in many countries, can result in serious trouble.

Our collaborators in China arrange for all the local permits, obtain permissions from all the “relevant units,” such as national, provincial, and local governments, the heads of nature reserves, the Chinese army and officials in special areas still not open to foreigners, such as in many parts of Tibet.

Rock did not travel as deeply into the area as we have been able to do on recent expeditions. He barely reached Tibet, but he did go farther north. A few other collectors went into southeastern Tibet, but the area was essentially closed to outsiders until recently. In the latter half of the 1900s, Chinese biologists made several extensive collecting trips to Tibet and Qinghai and described many new species. Although the Harvard collections are very good for the areas that were explored up until the 1940s, there is almost no representation of the species described from that area since then, either at Harvard or in other herbaria outside of China. One of our objectives is to get into the areas where those plants were collected, as well as into unexplored areas, to obtain specimens that will enrich the Harvard collections and that will be more readily available for study by botanists outside of China.

_Q. How do the local mountain people (ethnic peoples) respond to your studies of their native plants? What values do they place on the Hengduan flora?

A. Perhaps all people in China make use of native plants for food or medicine. Many of the local people wherever we visit are curious about what we are doing, and I suspect they wonder why we collect some plants that they “know” have no medicinal or food value. Often, the local people will see us, even in the most remote areas, and come over to watch what we are doing. In the meadows at high elevations in Sichuan and Xizang, where the Tibetan people bring their animals to graze for the summer, we seem to provide their only, although brief, entertainment.

_Q. As you’ve explored the flora of Hengduan, what has been the most surprising or unexpected finding?

A. It is always amazing to see over and over again the diversity and the variation in the flora and vegetation from one site to another. In some places, such as at Gongga Shan in southwestern Sichuan, it was interesting to see warm temperate plants such as species of Lauraceae and woody members of the Euphorbiaceae growing interspersed with boreal plants such as _Abies_ and _Betula_. It has also been interesting to see the plants in nature that previously we saw only as herbarium specimens. There are so many strange plants in the area, such as the incredibly hairy ones on scree slopes and the “greenhouse” plants that have modified their leaves, bracts, or flower parts to form a protecting enclosure over the inflorescence. A large number of plants produce specialized flowers adapted to insect pollination, but almost nothing is known about pollination in the Hengduan area.

All the collections are divided equally between the Chinese and U.S. institutions and papers based on our fieldwork are coauthored by members of the Chinese and American teams. The Chinese members of the team visit the United States periodically to identify the collections, examine type specimens, and utilize literature and other resources unavailable in China. While many collections can be identified with the resources at the institutes within China, the Harvard Herbaria contain many specimens from other parts of Asia that are extremely useful for comparison with the plants of China, and the literature on Asian plants in the botany libraries at Harvard is beyond comparison with the botanical libraries in Asia.

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Overall, the collaborations have been very good for both sides. We have been able to visit some of the most remarkable areas in China, many that have never been visited by westerners, or even by the Chinese themselves, to study the plants and vegetation and to collect specimens for analysis by both traditional and modern methods.

Q. You are among a handful of American botanists who have conducted botanical work in China since the country first reopened to the west in the early 1980s. What do you see as the most significant accomplishments of this period, and what are the most important challenges for the future?

A. The most significant change has been in the quality of research in China. When western scientists first visited China in the late 1970s and early 1980s, many scientists there were not aware of the advances that had taken place outside China. Most knew nothing of the discovery of DNA or its significance, and botany was being practiced much as it had been before 1940. The upheavals in China during the late 1930s and through the 1940s, and then the closing of China to the outside world from the late 1950s to the end of the cultural revolution left the scientists in China without access to the many discoveries in biology that were made elsewhere. In 1980 it was difficult to imagine that China could catch up with the rest of the world. The enrollment in colleges and universities at that time was a minute fraction of China’s population, and the number of colleges and universities was remarkably low in a country the size of China. There were almost certainly more colleges and universities in Massachusetts at the time than in all of China.

During the last 40 years, however, research in China caught up with the west and now is equal to or ahead of the west in some areas. The Chinese students who left China to study in the U.S. and in other western countries were the very brightest of China’s more than one billion people and they learned quickly. Those who returned to China carried back everything they learned in the west. They are now the heads of the leading research institutes. Whereas at one time most Chinese students did all they could to study and stay in the west, conditions in China have improved to such an extent that many students now prefer to remain in China to conduct their studies. Unlike those first students who came to the west, those who come now are eager to return. They see a bright and dynamic future in China and a climate where research and hard work are rewarded.

Prosperity has also spread beyond the coastal cities. In 1980, on my first trip, no one could imagine that there would ever be private cars in China. Along one river in eastern Tibet a fisherman with a spinning rod had pulled his new car over to the side of the road and was trying his luck. There is even talk now of cars being made in China for export to other countries. Imagine what that will do for China’s, and the world’s, economy.

Prosperity has also benefitted the biological institutes. The Kunming Institute of Botany has a new herbarium building and all new laboratories and offices for systematic botany, as do many scientific institutes. Equipment at nearly all research institutes and universities is state of the art, from Germany, Japan, or the United States, or even made in China.

Q. There is some concern that the continuing decline in numbers of botanists trained in taxonomy and fieldwork will impair our ability to effectively describe and conserve the world’s remaining botanical diversity. Do you share this concern? If yes, what steps can we take to ensure that this important area of scientific competence remains available to document areas such as the Hengduan Mountain region?

A. There is concern within China that the traditional fields of biology are being neglected. Researchers in China are rewarded for publishing in high impact journals—the higher the impact, the greater the reward. Advancement is also based on the Science Citation Index (SCI) scores. Studies based on traditional methods are rarely accepted by high impact journals. Younger people therefore see a career in leading edge research as being the only way to a higher standard of living if they are to remain in the sciences. It’s the same at many institutions in the west. Until it is seen that basic science is necessary and important, support will probably always be meager.

In our project we bring students with us. They learn field techniques, collect research material in addition to making general collections, and they have the opportunity to combine their observations in the field with the results they obtain in the lab and with reports in the literature. We believe the combined research provides a much broader and more insightful understanding of the plants and their biology and gives the student a more well-rounded background.

We are especially grateful to the National Science Foundation, and to the National Natural Science Foundation of China, for supporting basic field studies. The NSF Biotic Surveys and Inventory program, which has so far funded eight years of our fieldwork, provides grants to sample in remote and underexplored parts of the world and to study and collect poorly known groups of organisms.
Methodical and regular renewal is needed to maintain the health and world-class standing of a collection encompassing some 16,000 accessions. To accomplish this, the Arnold Arboretum grounds staff carries out a planting regimen each fall (coniferous plants) and spring (deciduous plants). This spring, more than 100 plants were relocated from the Arboretum’s nurseries to the grounds to become part of the Arboretum’s living history.

Each season’s plantings has been preceded by several years of care in the greenhouse and nurseries. The plants come from a number of sources. Some have been grown from seed collected on field trips by Arboretum staff; others are acquired in exchanges with other botanical gardens; still others are propagated in our greenhouses from existing stock. Taxa with fewer than three representative accessions of known wild provenance or with individuals in decline may be propagated to ensure a handful of successful nursery specimens. Typically, as these plants grow in size, saplings are transferred to nursery soil while shrubs are cultivated in containers.

Living collections co-directors Tom Ward and Julie Coop begin the planting season with an evaluation of these nursery holdings. The plant records department provides them with a list of plants in the Arboretum nurseries, accompanied by a list of like species on the grounds. Plants in the nursery are selected for planting based not only on collections policy criteria, but also on the number, age, and relative condition of similar accessions on the grounds. Those destined for the grounds are grouped, flagged, and included in a planting list.

Once the list has been finished, Tom and Julie determine the placement of the plants on the grounds. While options for most plants are restricted by their position in the Bentham and Hooker sequence, new accessions of spring flowering trees and shrubs such as dogwoods (Cornus), redbuds (Cercis), and witch hazels (Hamamelis) are placed throughout the landscape to enhance seasonal views. Once a location has been agreed upon, a white flag with an accession number is placed at that spot. The color of the stake differs each planting season: this spring the stakes were, appropriately enough, green. Locations chosen for each plant are included on the planting list and handwritten in a map book.

While Tom and Julie stake out locations, the plant records department creates two accession tags for each new planting. After these tags are attached, grounds crew members ball and burlap the plants for removal from the nursery. As each new accession is planted, its stake, which will remain beside the plant for a few years, is driven into the ground next to it. Watering and mulching crews use these stakes to identify new plantings that require their attention, and plant records staff use them for mapping.

Of note among the items on this year’s spring list were five native dogwoods (Cornus florida) and a magnolia species, Magnolia liliiflora, that were added to the perimeter of the Leventritt Garden. As in other recent years, many new accessions were planted in the Leventritt Garden, which entered its fourth growing season. Also, replacements for older individuals of some genera, such as Malus, and those affected by disease, including Sorbus, are planted annually, a practice that will continue until those collections stabilize. Fall planting will commence in late September.
American beech (*Fagus grandifolia*) is one of a handful of native hardwoods that flourished on the grounds that became the Arnold Arboretum in 1872. Since then, the beech has figured prominently in our landscape, both in maintaining the character of eastern forests and in showcasing disjunct species of this noble plant family.

Wilson’s interest in beeches is understandable—on his 1910 plant expedition he finally succeeded in introducing Chinese beech to Western horticulture after several failed attempts. As a consequence of this and later developments, seven of the eight Asian species grow in the Arboretum’s living collections, although the collection is dominated by accessions of American beech and its European counterpart, *Fagus sylvatica*. Often regarded as kings among specimen trees, American and European beeches are valued for their smooth gray bark and graceful branch architecture that looks particularly striking in old age. However, aged specimens are vulnerable to attack by beech-bark disease; over the past few years, several infected beeches have succumbed to the consequences of infection.

Beech-bark disease is the umbrella term for damage to beech trees caused by infestation of fungi in the *Nectria* family, primarily *N. coccinea* and *N. galligena*. Fissures in bark caused by beech scale (*Cryptococcus fagisuga*), frost or hail injuries, or human and animal interference allow *Nectria* spores to invade the cambium. In response to infection, the tree attempts to compartmentalize or halt fungal spread by producing a layer of callous tissue around the canker. As this process is repeated over several seasons, a ringed or “target” canker is formed that can eventually envelop entire limbs and cause dieback.

Older trees, lacking the vigor to sustain injury and extreme environmental stress, are particularly vulnerable. To compound the problem, older trees respond poorly to hard pruning, which is the generally prescribed treatment for the malady. When a significant portion of a tree shows evidence of dieback, it must be removed before it becomes too hazardous for arborists to work in its canopy. Also, since fungal spores reproduce abundantly in the spring and may be transported from tree to tree, removal of severely compromised specimens helps protect younger, adjacent trees.

In 1925 E. H. Wilson wrote that this stand of American beeches (*Fagus grandifolia*) suggested “a billowy cloud of morning mists.” It can still be admired from the Arboretum’s Hemlock Hill Road.

In America’s Greatest Garden: The Arnold Arboretum (1925), author E. H. Wilson wrote:

> A winter landscape in the Arboretum of which I never tire has for its dominant note the large clump of American beech on the left bank of the [Bussey Brook] near the Arbor-vitae and opposite the northern end of the Hemlock grove . . . In this setting the clump of Beech with its pale gray bark and myriads of slender, spreading branches suggests from a distance a billowy cloud of morning mists.
First described by European botanists in 1849, the disease was accidentally exported to Nova Scotia about forty years later. It was spotted on Arboretum beeches only ten years ago, and a handful of heavily infected beeches, both American and European, have been removed over the intervening years. Arborists surmise that several recent years of particularly harsh growing seasons allowed the disease to spread quickly on the European beeches that had to be cut last fall.

Healthy growing conditions—in particular, healthy soil—are the best defense against the fungus. The living collections staff has worked hard to raise the pH of soils to less acidic levels over the past few years. Mulching trees helps improve vigor in several ways—decreasing soil compaction, retaining moisture, and improving the organic content of the soil. Even aggressive watering during dry periods can prove vital in giving older beeches a better shot at surviving fungal invasion. As with any disease, combating the depredations of *Nectria* will require consistent monitoring and management, but with proper care and maintenance, the magnificent beauty and shade of these imposing trees will be enjoyed long into the future.

**“Harvard Heroes”**

Each June Harvard University honors Central Administration staff members in a ceremony that acknowledges especially noteworthy contributions of individuals or teams of individuals, who are known as “Harvard Heroes.” This year director Bob Cook nominated the Arboretum grounds crew in recognition of the terrific job they do, day in and day out, managing a large landscape with total commitment to caring for the living collections. This past year they completed a special project on Hemlock Hill and made needed improvements to the Arboretum’s perimeter.

In the front row from left to right are Scott Grimshaw, Mark Walkama, Kristin DeSouza, James Papargiris; in row 2, Kit Ganshaw, Jen Kettell, John Del Rosso, Chris Rice; row 3, Bob Ervin, Bob Famiglietti, Jessica Blohm; and in row 4, Rocky Ebener, Thomas Pur, Dennis Harris, James Doyle, Jr., and Bruce Munch.
In a landscape famous for trees of outstanding historical significance, the Chinese Path section of the Arnold Arboretum stands above the rest as a place where history is written in plants. Roughly a hundred years ago, a series of events led to the creation of a gallery of trees and shrubs that exists today as a magnificent living record of Asian plant explorations and introductions to the North American continent. Over the past twelve years, the Arboretum staff has worked hard to enhance Chinese Path both aesthetically and as an interpretive display for Arboretum visitors.

Its site, near the summit of Bussey Hill, has long held significance for the people of Boston. During the Revolutionary War, Colonel Eleazer Weld, ancestor of former governor William Weld, owned what was then called “Weld Hill,” part of a larger property that included much of the present-day Arboretum. At that time, the summit’s commanding views of the Boston basin to the east and the Blue Hills to the south gave strategic importance to Weld Hill, and it became the site of an earthen fortification.

In 1806, gentleman farmer Benjamin Bussey acquired the property and made the hill the centerpiece of one of Boston’s finest country estates. In addition to a mansion on the hill’s south-facing slope, Bussey constructed an observatory at its summit where evenings of study included stargazing with fellow Bostonians who shared his scientific interests. By the time Bussey bequeathed the property to Harvard and the Arboretum was founded, the name “Bussey Hill” was firmly affixed to the property.

When Charles Sprague Sargent and Frederick Law Olmsted negotiated for the inclusion of the Arnold Arboretum in the Boston park system, Bussey Hill’s outstanding views once again determined its use and development. As part of its agreement with Harvard, the City of Boston specified that eleven acres near the summit of Bussey Hill be reserved for a picnic area. Fortunately, the picnic area was never realized, and in 1895 the City of Boston released the reservation area so that it could become part of the Arboretum proper.

The timing of the City’s decision was fortuitous because it coincided with an unprecedented influx of new plants that were pouring into the Arboretum from many parts of the world, many of unknown hardiness. Because of its protected location on the slope just below the summit of Bussey Hill, and its moisture-retentive soil, it proved ideal as a first test of the hardiness limits of these new plants.

Initially the area featured plantings of North American azaleas as well as other plants from the southeastern United States, such as the *Franklinia alatamaha* planted around 1905. Over time, this was expanded to include a number of Asian plants that had been collected by Arboretum staff members between 1892 and 1918. The wisdom of this decision has been borne out by the fact that many of these species have proven difficult to grow in other locations in the Arboretum.

By the 1920s these plantings had flourished to the extent that the area was labeled on period maps as the “Collection of Chinese Shrubs.” Eventually this area evolved into the broad, horseshoe-shaped gallery known today as Chinese Path. The path’s defining feature is the
botanical legacy of E. H. Wilson: the dove tree (*Davidia involucrata*), the Korean stewartia (*Stewartia pseudocamellia var. koreana*), and the paperbark maple (*Acer griseum*), undoubtedly the most outstanding specimen in North America, all grow there. These historic collections are now joined by plantings of *Sorbus yuana*, *Ilex fargesii*, *Rhododendron fargesii*, *Heptacodium miconiodes*, and other shrubs collected during the course of the 1980 Sino-American Botanical Expedition to China.

In 1992–1993 the entire Chinese Path area was renovated, and rampant-growing bamboo was replaced by cultivars and species of tree peony, slow-growing, evergreen rhododendrons, a collection of *Corylopsis* species, and *Cornus kousa* accessions from China, Korea, and Japan. Finally, a grove of eighteen wild-collected dawn redwoods (*Metasequoia glyptostroboides*) from China were planted to mark the southern terminus of the path. They have grown remarkably well in their slope-side location and promise to become an outstanding feature in the not-too-distant future.

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2005 interns

Each summer, the Arboretum benefits from the hard work and budding expertise of 14 students selected for the Isabella Welles Hunnewell Internship Program. Interns take classes taught by Arboretum staff on a variety of horticultural subjects, participate in numerous maintenance and renovation projects on the grounds, and visit neighboring botanical institutions. Pictured lending a hand with mapping duties in the plant records department are two of the 2005 interns, Sarah Thompson and Jeff Unger.

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International Lilac Society Visits Grounds

Members of the International Lilac Society enjoy the Arboretum’s renowned collection on a tour with propagator and lilac expert Jack Alexander. In May the Society held its annual convention at the Arboretum, which culminated in a live auction of rare and unusual lilacs in the Leventritt Garden.

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Bonsai

The Arboretum’s bonsai consultant, Colin Lewis, is shown applying aluminum wire to train a 120-year-old specimen of Japanese white pine.
he collections of the Arnold Arboretum, both living and archival, make it a uniquely suitable venue for horticultural education. With over 16,000 documented specimens as learning tools, the Arboretum’s adult education program maintains the commitment of Charles Sprague Sargent, its first director, to educate the public through “object teaching.”

The Arboretum’s first major involvement in public education began in the late 19th-century when Charles S. Sargent created Garden and Forest, a weekly publication that would, as he put it, “extend and popularize the knowledge of trees and their cultivation, and of gardening and garden-botany.” A few years later Arboretum dendrologist J. G. Jack began giving classes on trees and shrubs on the Arboretum’s grounds. More recently, in the 1970s and 80s, the Arboretum further increased its commitment to adult education by hiring staff specifically to create and manage programming for the public. The staff’s recent projects have included an enhanced promotion program, the addition of more free offerings, and a complete revamping of this publication, the semiannual Silva.

The Arboretum’s classes have always focused heavily on woody plants in order to take advantage of the expertise of its staff and its world-class collections. Students of landscape and garden design benefit by studying at the site of Frederick Law Olmsted’s only realized arboretum design; and the opening in 2002 of the Leventritt Garden of Shrubs and Vines has provided new learning opportunities in its diverse and ever-changing exhibit of rare and interesting cultivated plants.

Each spring 40 to 50 classes are offered, in the fall the list of classes is even longer, when gardeners and landscape professionals have more time for academic pursuits. The grafting and propagation classes led by Jack Alexander and Tom Ward are among the perennial favorites, not only because they play to the institution’s strengths but also because they offer hands-on experience at tasks that are difficult to learn without careful instruction. Another class that is regularly offered is woody plant identification, which uses the landscape as classroom.

The program has also benefited from collaboration with allied institutions, particularly in the case of the lecture series that have been added in the past decade. The New England Wild Flower Society, the Wellesley College Friends of Horticulture, and the Massachusetts Horticultural Society are just a few of the organizations that regularly cosponsor events, classes, and symposia. Another valued collaborator is the Arboretum’s Landscape Institute.

The adult education program owes its success in large part to the quality of its instructors and lecturers. Many classes are led by recognized authorities in their fields. Students have recently immersed themselves in the microscopic world of flowers with Harvard botanist Kanchi Gandhi, for example; others have debated the impact of climate change with Boston University professor Richard Primack. Many Arboretum staff members teach courses on their occupational expertise, from pruning ornamental shrubs to preserving flowers, leaves, and fruits using the best methods currently known.

Pam Thompson, the program’s director since 1995, points out that by making use of all the Arboretum’s resources—the expertise of staff members as well as materials from the library or herbarium and visits to the grounds—the adult education program “allows us to present topics in ways that are unique and valuable.” Most important, it serves as an ongoing demonstration of the Arboretum’s commitment to its educational mission.
Plant Collecting in South Central China and Tibet

Plant exploration has always played an important role in shaping the Arnold Arboretum’s collections and has been the driving force behind the many Arboretum-sponsored trips to the Far East and within North America. Living plants grown from seeds gathered on these expeditions grow on the grounds of the Arnold Arboretum, in the collections of other botanical institutions in North America and abroad, in the stock inventories of nurseries across the country, as well as in our own home gardens. Although new plant material from expeditions is added to the Arboretum’s living collections each year, the main goal of the majority of Arboretum-sponsored fieldwork is the creation of botanical inventories of selected regions of eastern and southeastern Asia.

This work is especially important in the Hengduan Mountain region of South Central China and Tibet, one of the 25 designated “hotspots of diversity” around the globe. Hotspots are areas with a high number of species whose distribution is limited to a single region and which are under severe threat of destruction because of human activities. To learn more, see our interview with the leader of the Hengduan Mountain expeditions on page 2.
Special Events

**Peak Color**  
*Works on paper  
by Kyle Larabee*

Hunnewell Building Lecture Hall  
Arnold Arboretum  
Reception with the artist  
Saturday, October 22, 1:00–4:00pm  
Discussion and family art workshop with the artist  
Saturday, November 5, 1:00–3:00pm

In this series of collages, Kyle Larabee transforms a familiar part of our environment—fallen leaves collected at the Arnold Arboretum and around the region—into works of rich color and unexpected form. This project involved the collection, desiccation, dissection, and arrangement of leaf fragments on paper, an artistic process with parallels to the scientific and educational mission of the Arboretum. As with scientific research, Larabee’s work is at its heart an effort to better see and understand the world.

Kyle Larabee is an architect and artist who lives in Somerville.

**Family Leaf Workshop**  
with Kyle Larabee

Hunnewell Building Lecture Hall  
Arnold Arboretum  
Saturday, November 5, 1:00–3:00pm

Join artist Kyle Larabee in creating art with autumn leaves. Take inspiration from Kyle’s work or experiment with your own ideas. We will provide leaves in a variety of colors and shapes, as well as paper, scissors, and glue. Parents and their children need only bring their imaginations. Recommended for age five and older.

**An Ever Changing Moment:**  
*Paintings by Michael Noyes*

Hunnewell Building Lecture Hall, Arnold Arboretum  
March 5 through April 30, 2006  
Reception with the artist: Sunday, March 5, 1:00–4:00pm

Michael Noyes’s paintings celebrate both the spirit and beauty of trees. “Once I have found a specific location, I look, study, and meditate on it until I have fully absorbed it. I then create a piece, usually in one sitting, as a single gesture expressing an ever changing moment in time.”

Michael Noyes has been painting and making art for the most of his life. He studied at The School of the Art Institute of Chicago, Michigan’s Oxbow Summer School of the Arts, and Parsons School of Design in New York.
Polly Wakefield
Planned Giving

Sheila Connor, Horticultural Research Archivist

Mary May Binney Wakefield, or Polly, applied all she learned at the Arboretum to the creation of a landscape that is as delightful and original as is its maker. Within her garden there are several acres of Chinese dogwoods grown in an orchard-like setting that celebrate her patience and hint at a certain stubborn singleness of mind. It was during her first Arboretum propagating class in 1956 that her fascination with this woody species began. By the 1970s she had introduced and patented several cultivars including ‘Greensleeves’, ‘Moonbeam’, ‘Moonlight’, ‘Silverstar’, and ‘Twinkle’. In the recently published Dogwoods, Polly’s ‘Greensleeves’ is ranked as “one of the very best C. kousa cultivars available.”

Polly’s interests and accomplishments extended far beyond the confines of her own garden walls. She served as trustee or board member of nearly all our important horticultural institutions. When the Friends of the Public Garden was formed, Polly declared that “Every garden needs friends—in the case of a garden that is always open to the public, lots of friends,” and became an active member, chairing the committee on horticultural planning.

According to Gwilym S. Jones, director of the Center for Vertebrate Studies at Northeastern University, with whom she worked on the establishment of the Massachusetts Nature Preserves System and the Nature Preserves Council, “That legislation became law solely on the strength of Polly’s character, including her dogged persistence. She had a vision and her pursuit of that vision included a direct discussion with Senate president Bulger when she happened to encounter him on the street.”

Polly is the only known recipient of two gold medals awarded by the Massachusetts Horticultural Society—just two of the many tributes bestowed on her during her lifetime. The Massachusetts Tree Warden’s & Forester’s Association awarded their highest honor, the George E. Stone Award, to Polly for her commitment to their mission and her support of their Arbor Day programs. The Amy Angell Collier Montague Medal of the Garden Club of America recognized her many accomplishments, stating that “She has truly enhanced the quality of life for us all.” Polly herself created an honor: the Wakefield Award for the Small Garden is presented annually at the New England Spring Flower Show.

I met this remarkable woman 36 years ago during the last season of Donald Wyman’s Friday morning walks in the Arboretum. She was the soft-spoken lady in the sunbonnet who kept Dr. Wyman on his toes with her questions. When I became the Arboretum’s librarian, her questions were soon directed toward me. It is relatively easy to be a booklover, but far more challenging to be a lover of libraries. Polly was both.

“People just do not realize that libraries are expensive,” was her constant refrain, and while she occasionally inquired if I was able keep up with new acquisitions, she never failed to ask if I had money enough to care for the collection.

In 1981, Polly established a book fund to benefit the Arboretum’s Library in Jamaica Plain. In 2000, she established the Horticultural Library Fund of the Arnold Arboretum, a large endowed fund that continued to support the library’s work. Finally, upon her passing in 2005, Polly left a very substantial bequest to support the operation, maintenance, and development of the Jamaica Plain Horticultural Library’s overall collections. If you have a bequest for the Arnold Arboretum already in place, please let us know so we can ensure that your wishes will be carried out. If you would like more information about leaving a bequest to the Arboretum, confidential inquiries may be directed to Robert P. Surabian at the Arnold Arboretum (617.524.1718 x140 or robert_surabian@harvard.edu) or Anne McClintock in University Planned Giving (1.800.446.1277 or amcclint@harvard.edu).
Members’ Fall Plant Sale
Sunday, September 18, 2005

To fulfill a central part of its mission, the Arnold Arboretum has shared woody plants with individuals, botanical institutions, and the nursery trade for over a century. Twenty-five years ago, we expanded this tradition to include an annual fall plant sale, now offered exclusively as a benefit of membership. This year’s plant sale—to be held on Sunday, September 18, 2005, at the Arboretum’s Dana Greenhouses—will also mark the sale’s silver anniversary. Gardeners at all levels of expertise will enjoy a wide selection of woody plants and perennials and a host of educational activities at this rain-or-shine event.

Many noteworthy plants, including several Arnold Arboretum plant introductions, will be offered. Members at the sustaining level ($100) and above will be admitted to the sales area at 9am; all other members may enter at 10am. After the sale, members are invited to participate in a guided tour of the Leventritt Garden of Shrubs and Vines and a self-guided grounds tour focused on mature specimens of plants featured in the sale. Horticultural professionals from the Arboretum’s staff will be available to answer plant-related questions, and the bonsai pavilion will be open for a close-up look at this superb collection of trees in miniature. We hope you’ll join us for an enjoyable and enlightening celebration of woody plants.

A detailed catalog of plant sale offerings, as well as free plant vouchers, will be distributed to members in August. If you are not a member, you may join on the day of the sale and immediately receive benefits such as free plants. If you have any questions or would like to join the Friends of the Arnold Arboretum prior to the sale, please contact Ronda Brands at 617.524.1718 x143.

Members Make a Difference
Help us grow! Join the Friends of the Arnold Arboretum and receive:

- Free or discounted admission to gardens and arboreta worldwide
- Subscription to *Arnoldia*, our quarterly magazine of horticulture and botany, and *Silva*, our semiannual newsletter, adult education catalog, and visitor guide
- Free plants at our Members’ Fall Plant Sale
- A 10-percent discount on books and gifts at the Arboretum bookstore
- Membership rate on courses and lectures
- Discount on plant purchases at participating nurseries

Please join today at one of the following membership levels to begin receiving your benefits. Additional benefits are offered at the Sustaining Level and above.

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Your membership with the Friends of the Arnold Arboretum helps support our 265-acre landscape and living collections, research programs, and public and professional education.

Please contact the membership office at 617.524.1718 x143, or email membership@arnarb.harvard.edu for more information.

See page 31 for a membership form.