The Arnold Arboretum is pleased to announce that the Landscape Institute, which provides advanced education in landscape design, landscape preservation, and landscape history, will have a new educational partner in the Boston Architectural College, located in Boston’s Back Bay. The Landscape Institute will be joining the BAC’s professional degree and certificate programs in the spatial design professions beginning in fall 2009.

“We are delighted to bring together these well developed design programs,” said Boston Architectural College President Dr. Ted Landsmark. “The Landscape Institute and the BAC are equally committed to design, history, and preservation teaching by active practitioners. We are connecting the Landscape Institute’s courses, faculty, students, intellectual assets, and research interests to the BAC’s practice-based learning, library facilities, technology, faculty, design firms, students, staff, commitment to community service, and on-line programs in sustainability and preservation. This collaboration will provide a powerful landscape design learning resource throughout New England and beyond. We look forward to building on the strengths of both institutions to expand teaching and research into important subjects from landscape preservation and planting design to innovative green design, urban sustainability, and cultural landscapes.”

“This moment is transformative for the Landscape Institute. This new collaboration brings our students the opportunity to pursue either a certificate from the Landscape Institute or to matriculate in the BAC’s degree programs,” said Heather Heimarck, Director of the Institute. "Landscape Institute students will now be an integral part of an academic community committed to comprehensive design education. I am very excited about our future.”

The BAC, established in 1883, is a dynamic, open enrollment college offering graduate, undergraduate, and certificate programs. The BAC is the country’s largest independent college dedicated solely to spatial design. In adding the Landscape Institute, the BAC will expand its graduate-level course offerings, research capabilities, domestic and international travel programs, and community service opportunities.

“The BAC will oversee the future growth of the Institute and expand educational resources and student services,” said Arboretum director Bob Cook. “Harvard’s educational ties to the Landscape Institute will remain strong, with the Landscape Institute students continuing to study plants and their role in the human environment within the Arboretum’s renowned landscape and collections. We look forward to a rewarding partnership in the years ahead.”

For more information on certificate programs and classes at the Landscape Institute at the Boston Architectural College, please visit their website at http://www.the-bac.edu/ or call 617.262.5000.
Dear friends and colleagues,

I am writing to let you know that Bob Cook has accepted the University’s early retirement incentive and will leave his position at the end of December. His mastery of the subject matter, his intellect, commitment, and entrepreneurial energy made him a great addition in 1989, and they have continued to make him a wonderful colleague. He will be greatly missed.

Bob’s two decades at Harvard have been marked by impressive achievements not only in the Arboretum’s overall administration, but also for its outstanding collections, public programs, and growing commitment to plant research. He oversaw a comprehensive renovation of the Hunnewell building, the Arboretum’s administrative building. He improved working conditions and expanded services and public programs to both local schools and the general public. Bob oversaw the design, construction, and funding of the Leventritt Shrub and Vine Garden, a new addition to the collections and landscape of the Arboretum. Under Bob’s direction, the overall quality of horticulture on the grounds was improved, cementing the Arboretum as one of the best-loved landscapes in Greater Boston.

Bob’s legacy will be particularly apparent in the realm of research. He actively developed extensive plant collection and research programs in Asia, and he advanced the development of the Center for Tropical Forest Science in collaboration with the Smithsonian Institution—a worldwide research network of forest plots supporting basic and applied knowledge of tropical forests for their future conservation in the face of climate change. Finally, Bob has led the Arboretum in new facility design and development which promises to transform the future research mission of the Arboretum and make it a leader in plant biology research.

Please join me in wishing Bob well in his almost certain pursuit of an energetic retirement.

—Sally H. Zeckhauser, Former Vice President for Administration, Harvard University
Peter hopes the book, containing more than 800 photographs, will not only help readers identify the plants that grow spontaneously in urban environments, but spark an appreciation for the role they play in making our cities more livable. His pragmatic assessment of plants well adapted to the cosmopolitan world is intended to counter the widespread perception that these plants are patently harmful or useless and should be eliminated from the landscape. “This is not to say that I think these species should be actively cultivated,” Peter explains, “but I do hope that people will develop a sense of respect and appreciation for what these plants are contributing—on their own and free of charge—to the quality of urban life.”

These pages offer a small sample of some of the plants described in Wild Urban Plants—plants whose toughness and adaptability suggest their increasing abundance in the future.
Previous page, the common reed, *Phragmites australis*, can spread widely near urban waterways, like this stand in the Boston Fens. *Clockwise from the top*, the native black locust (*Robinia pseudoacacia*) can grow in poor soils and is an early colonizer of disturbed areas due to nitrogen-fixing bacteria on its root system; plants like the blue-flowered chicory (*Cichorium intybus*) and Queen Anne’s lace (*Daucus carota*) beautify vacant city lots while providing ecosystem services related to soils and wildlife; the tree of heaven (*Ailanthus altissima*) is a notoriously tough and prolific species, as exhibited by this indefatigable Beacon Hill specimen; by absorbing surface heat and shading walls during the summer, Boston ivy (*Parthenocissus tricuspidata*) gives back to the buildings it engulfs; oriental bittersweet (*Celastrus orbiculatus*) is a noxious pest in woodland habitats, but its hardy nature makes this vigorous climber one of the few plants that can survive under punishing conditions like this railway embankment.
Cultivating Plant Careers

Pamela Thompson, Manager of Adult Education and Internships

Gardening can be a deeply satisfying experience, offering a sense of renewal as we tend newly acquired plants, watch them stretch skyward, and proudly display the fruits of our labor. However, most of us never considered making a career of this endeavor. Yet some individuals know from an early age that plants will be the focus of their studies and vocations. This is the case for a group of students at Norfolk County Agricultural High School (NCAHS) who are exploring careers in horticulture and environmental science, an effort now supported by the Arnold Arboretum through a three-week field experience on the grounds with Arboretum staff.

The plant and environmental science program at NCAHS allows students to specialize in floral design, urban forestry, landscaping, environmental technology, ornamental gardening, and natural resources. Students divide their time between the classroom and the laboratory, in this case growing and tending plants in greenhouses and in the landscape, climbing and felling trees, practicing plant identification, drafting landscape plans, and installing their designs. In 2008, the Arnold Arboretum and NCAHS initiated a partnership to offer students a practicum in the care of plant collections and public garden landscapes. Beginning in February, students completed applications and were interviewed by Arboretum staff and NCAHS teachers. This year Joe Cope, Arboretum Apprentice and former intern in the Isabella Welles Hunnewell Internship Program, assisted me with student interviews to offer applicants his insights as an intern and compatriot in pursuing a horticultural career.

Ten NCAHS juniors were selected to participate in this spring’s significantly expanded program. Enhancing the week-long experience of the pilot program, the Arboretum hosted the students for three weeks in May and June 2009. Accompanied by their instructor Justin Kennedy, interns worked cooperatively with our horticultural technologists. They focused most of their efforts on Peters Hill, where Sue Pfeiffer (another former Hunnewell intern and now curatorial fellow) has been implementing a review and reorganization of the collections. NCAHS interns provided instrumental support.
in shaping planting beds and removing deaccessioned shrubs from the site. Additionally, they continued the weeding and pruning work initiated by the 2008 NCAHS team, helping to manage overgrown areas on the hill. For three weeks, they became part of the crew, from collaborating on a daily plan of action to sharing meals in our lunchroom.

Augmenting the educational value of the experience, students attended lectures and training sessions as part of the practicum. I invited Elena Kramer, Harvard professor of organismic and evolutionary biology, to advocate investigative careers in plants science with a lecture about flower evolution and development. Senior Research Scientist Peter Del Tredici led a tour through Franklin Park to encourage students to consider emerging ecosystems in urban environments. Rounding out their practical experience, students worked for a day at our greenhouse and nursery facility and were introduced to collections management by our curation and plant records staff. Additionally, students studied biotechnology for a week at MassBay Community College.

While students gained valuable experience and career insights through the experience, the Arboretum was an equal beneficiary of the program’s success. Our horticultural technicians, several of whom attended agricultural high schools themselves, proudly shared their knowledge in mentoring the students, and research staff relished challenging the students to contemplate human impacts on the environment. Best of all, the interns inspired us all with their energy, enthusiasm, and nascent love for plants.

On April 30, His Holiness the Dalai Lama, the exiled head of state and spiritual leader of Tibet, helped install a piece of the Arnold Arboretum in Harvard Yard. A hybrid of Asian and North American birches, *Betula maximowicziana x papyrifera*, was the focus of a special ceremony with Harvard President Drew Gilpin Faust to honor the Dalai Lama’s visit to Harvard. President Faust dedicated the tree to the Dalai Lama’s inspiring leadership and commitment to service, and suggested the cross of the disjunct species symbolizes the significance of birches to the native cultures of both Tibet and America.

The tree planted that morning originates from seed collected from a birch exhibiting exceptional vigor and disease resistance at Philadelphia’s Fairmont Park. A seedling from this individual, which was found to be a hybrid of the Asian monarch birch (*Betula maximowicziana*) and the American paper birch (*Betula papyrifera*), was selected and propagated by the staff of the Morris Arboretum in 1996. The specimen dedicated to the Dalai Lama was propagated by tissue culture from this select seedling, and was one of two plants donated to the Arnold Arboretum by the Morris Arboretum in 2007 (AA accession #122-2007).
A CHANGING FOREST EXAMINED

Investigating the Ecological Impact of Adelgid Infestation on Hemlock Hill

Heidi Lux, Harvard Forest

When hemlock woolly adelgid (HW A), an invasive insect pest from Japan, was discovered feeding on hemlocks at the Arnold Arboretum in 1997, staff mobilized to save accessible trees and remove dead and dying hemlocks to ensure public safety. As a management plan for Hemlock Hill took shape, a collaborative study by the Arboretum and Harvard Forest, in Petersham, MA, was initiated to investigate how the forest would respond to removal of infested hemlocks in this urban park setting.

Ecologists at the Harvard Forest have been studying the impact of pre-emptive logging on ecosystem function and species composition in hemlock forests throughout Connecticut and central Massachusetts, but little research has been done in urban environments. To study outcomes at the Arboretum, six 15-square-meter plots were established in 2004 across Hemlock Hill. Once fenced off, we collected baseline data on soil nutrient cycling, temperature, moisture, and vegetation composition for one year. The hemlocks, heavily infested and in decline, were removed from four plots in February of 2005, and two plots remained as uncut controls. The tree tops and branches were chipped and left on the soil surface in two chipped treatment plots, and removed from two logged treatment plots. This series of treatments coincided with a similar hemlock removal experiment at Harvard Forest, and the pairing of these experiments was designed to permit comparisons of forest change in urban and rural environments.

The Hemlock Hill investigation consisted of measuring conditions during one year of pre-treatment and three years of post-treatment. Nitrogen availability, estimated with the use of nitrogen ion-attracting bags that were buried in the soil, was very high—up to 20 times higher at the Arboretum compared to rural test sites. This measurement showed increases for the first and second years after tree cutting, but then returned to levels similar to the control plots. Vegetation response to hemlock removal was very dramatic in the logged plots. Herbaceous plant cover in the logged plots increased tremendously over time, from negligible amounts initially to up to 60% of the soil surface. Herbaceous cover has also gradually increased in all plots, but particularly in the

The Arboretum’s Hemlock Hill study, a collaboration with scientists from the Harvard Forest, began on Hemlock Hill in February 2005 with the removal of dying hemlocks in four of six research plots.
cut plots. Raspberry (*Rubus sp.*) and bristly sarsaparilla (*Aralia hispida*) continue to be the dominant shrubs across all treatments, and the invasive glossy buckthorn (*Frangula alnus*) has also increased notably in the chipped plots. New seedling emergence was highest in the control plots, but many of these were small, one- or two-year-old hemlocks that are establishing under thinning canopies. In contrast, large sweet birch (*Betula lenta*) seedlings are increasing in both the logged and chipped plots. Somewhat surprisingly, the overall number of plant species found on the hill is largely unchanged from before logging took place, and while we have seen some unusual species emerging, most of the dominant plants are native to the region.

Many of the species at the Arboretum—including bristly sarsaparilla, raspberry, and sweet birch—were significant players at the rural site in central Massachusetts. In contrast, vegetation establishment at Harvard Forest has taken nearly five years to reach similar levels of cover to what was seen on Hemlock Hill in the summer following tree removal. Some of this dramatic effect may be due to the actual tree tops and branches left on site at Harvard Forest, but likely the extremely high levels of nitrogen availability at the Arboretum has played a significant fertilizing role in terms of stimulating seedling growth.

As counter-intuitive as these results might seem—that seedling regeneration occurs more rapidly in urban Boston than in rural Petersham—it illustrates how important on-the-ground research is in understanding vegetation dynamics in the era of climate change. Comparative studies like this one on Hemlock Hill have a significant role to play in helping us understand—and predict—what our forests will look like in the future.

**Benefactor Memorialized With Library Bookplate**

The Arnold Arboretum has created a new bookplate for the library featuring the artwork of Mark Fowler, a longtime member and planned giving benefactor. Mr. Fowler was a resident of Concord, Massachusetts, and an artist of woodblock printing in the Japanese style. His highly detailed artwork primarily depicts botanical and wildlife subjects, and our new bookplate features a distinctive print entitled *Pinus strobus* (white pine). Archivist Sheila Connor selected the art from Mr. Fowler’s collection, which is now at the Museum of Printing in North Andover. Through the use of this bookplate for new library acquisitions, the Arboretum is pleased to commemorate Mr. Fowler’s generosity and talent.

**Centenarian Nikko Fir Struck by Lightning**

On the morning of July 2, a lightning strike destroyed one of the tallest conifers in the Arboretum, a 91-foot-tall Nikko fir, *Abies homolepis* (AA accession #12413A), growing along Conifer Path. Lightning traveled through the center of the trunk, literally shattering the tree from the inside out and sheering off large sections of its bark. Though this 1898 accession was not the oldest Nikko fir at the Arboretum—that distinction belongs to a specimen acquired in 1882 (#12410) standing near Bussey Brook—its great height and stately form made it a favorite of staff and visitors, and it was among the choice plants included on the Arboretum’s self-guided tour of the conifer collection.
Members who attend the Arboretum’s annual Plant Sale this fall will participate in the swan song of a nearly 30-year tradition—and the debut of a new one. The event on September 20 will mark the last time that members will be able to purchase plant material as part of their membership benefit. In 2010, the Plant Sale will return to its roots as a free distribution of choice Arboretum-grown plants for members.

This year, as in the past, members at the sale may select the free plant(s) that their membership level entitles and buy additional plants at discount prices. Staff and volunteer plant experts will again be on hand dispensing advice and plant information, and members may visit mature specimens of plant sale offerings in the Arboretum collection and participate in exclusive tours of the Larz Anderson Bonsai Collection.

Starting next spring, the Arboretum will offer members several opportunities to pick up free plants at the Arboretum and learn directly from Arboretum staff through lectures, demonstrations, and one-on-one interactions.

The concept of a plant giveaway mirrors the intent of the event’s origins in the 1960s, when a “Gift Day” was offered to Arboretum members for the distribution of plant material left over in the Arboretum’s nurseries at the end of the season. By 1980, Gift Day had transformed from a plant giveaway to a plant sale held in the barn at the Case Estates in Weston, and it continued to expand in scope over that decade. The event was open to the general public and involved a multitude of plants from commercial nurseries as well as a rare plant auction. By 2002, the Plant Sale had grown so large that it operated at a loss for the Arboretum. As a result, the event was scaled back, made an exclusive benefit of membership once again, and relocated to the Dana Greenhouse at the Arboretum. Since that time, the membership program has endeavored to offer prime plant material to members while increasing the educational value of the event itself.

This model will continue in the event’s restructuring in coming years. As a part of its horticultural mission, the Arboretum will continue to promote and distribute exceptional plants to its supporters. Plants will be available to members at several events throughout the growing season, providing members with additional opportunities to establish the plants in their gardens. The plant offerings will favor species and varieties introduced or championed by the Arboretum and plants that our staff believes deserve a higher profile in New England gardens.

At a time of contracting resources, next year’s end to the retail component of the member plant benefit will enable the Arboretum to devote more time and space to propagating plants destined for our landscape and sister botanical institutions throughout the temperate world. Most importantly, members will have new opportunities to gain expert knowledge acquired first-hand from staff on the horticultural care, ornamental quality, and historical and botanical relevance of the plants they receive from the Arnold Arboretum. 

The Arnold Arboretum has grown, studied, and distributed *Metasequoia glyptostroboides* (dawn redwood) since its discovery in China in the 1940s. Notable for its buttressed trunk, exfoliating bark, and deciduous foliage, dawn redwood is one of the exceptional plants on offer at the 2009 Plant Sale.

Jon Hetman, Development Manager
Adult education at the Arnold Arboretum is a community resource for the study of horticulture, botany, and garden arts.
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### Walks, Talks, and Visits

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Focused Studies

Adult Education at the Arnold Arboretum is centered on our collections of temperate woody plants. We offer core classes in plant identification, horticultural methods and propagation. We recommend that all students complete an introductory botany class as a preliminary step. Note that not all classes are offered every semester, or even every year. However, we are always developing new ones.

Temperate Woody Plant Identification (Fall/Winter 2009-2010)
The ability to identify a wide variety of hardy woody plants is essential for understanding the floral and horticultural environment of New England. The classes below provide a foundation for this skill.

- BOT 104A Winter Tree Observations: Evergreens
- BOT 104B Winter Tree Observations: Deciduous Trees
- BOT 126 An Introduction to Plant Ecology
- BOT 172 Introduction to Winter Tree Identification
- HOR 103 Identifying the 25 Most Common Trees in Boston
- HOR 346 Conifers for Urban Sites
- WAL 127 Bonsai Matching
- WAL 203 Exciting Introductions? Or Stealth Invaders?
- WAL 206 Barking Mad!

Horticultural Methods for Woody Plants
Proper care of woody plants is important to their overall health. These classes teach techniques for woody plant care.

- HOR 111 Landscape Maintenance in Spanish
- HOR 113 Horticultural Math
- HOR 137 The Edible View: Blended Garden Landscapes
- HOR 167 Landscaping With Native Plants
- HOR 191 Landscape Maintenance: An Organic Approach
- HOR 193 Chainsaws: Use, Safety, and Maintenance
- HOR 195 Planting and Transplanting: Demonstrated Techniques for Trees and Shrubs
- HOR 314 Pruning In Winter
- HOR 328 Woody Plant Health Care: Identifying Insect Pests, Plant Diseases, and Stresses
- HOR 359 Assessing Tree Health and Structure
- HOR 416 Your Garden As Habitat
- WAL 108 Oh Nuts! A Tour of the Arboretum’s Nut Collection

Woody Plant Propagation (Year-long Cycle)
The elements of propagation—from taking cuttings and germinating seeds to hardening off potting, and planting out—are covered in the classes listed below.

- HOR 336 Growing Plants from Seeds (Spring)
- HOR 303 Propagation 1: Hardwood Cuttings and Seeds (Fall)
- HOR 305 Propagation 2: Grafting of Ornamental Trees (Winter)
- HOR 307 Propagation 3: Layering and Softwood Cuttings (Summer—offered occasionally)
- HOR 320 Advanced Propagation: Choice & Challenging Plants (Summer—offered occasionally)
- HOR 316 Budding Workshop (Summer—offered occasionally)
September

**Exciting Introductions? Or Stealth Invaders?**

Marty Amdur, Arnold Arboretum Docent

1 Session

Sun Sep 13 3:00–4:30pm [HB]

There is a lot of concern today about invasive plants. However, many of them were intentionally introduced because of their horticultural value. How do we define invasive and how do these plants get into our landscape? See examples in the Arboretum and gain a better understanding of this issue.

Free. Advance registration requested.

**Introduction to Botany**

K. N. Gandhi, Botanist, Harvard University

Herbaria

8 Sessions

Tue Sep 22, 29; Oct 6, 13 20, 27; Nov 3, 10 6:30–8:30pm [HUH]

Learn botany from dedicated instructor and plant nomenclature specialist Kanchi Gandhi. Among the topics to be explored: plant cells and tissues, anatomy and morphology, reproduction, nutrition, growth and development, plant diversity, evolution, classification, and nomenclature. This course, offering both lecture and laboratory activities, introduces botany to new students or serves as a refresher course. Required text: *Botany for Gardeners* by Brian Capon. Contact the Arboretum’s bookstore (617.384.5209) for availability.

Fee $225 member, $270 nonmember

Credit MCLP: 1ceu; MCA: 1ceu

Offered in collaboration with the New England Wild Flower Society

**Private Spaces: Garden Redesign for Homeowners**

Peter Medaglia, Landscape Designer and Owner, Gold Medal Gardens

4 Sessions

Thu Sep 24; Oct 1, 8, 15 6:30–8:30pm [HB]

Have you bought a home and with it an overgrown garden? Or are you living with a garden that’s become uninspiring? Even the smallest of yards can yield a successful garden if planned wisely. You will learn how to design your personal space for maximum use and aesthetic appeal and to deal with questions of sun, shade, drainage, and water in an urban or suburban environment. Peter will discuss plants suitable for smaller spaces and will work with you to develop your own redesign. Students will have the opportunity to attend a garden tour in Boston with the instructor later in the spring (additional fee payable to the instructor).

Fee $96 member, $115 nonmember

**Creative Botany: Drawing & Painting Nature**

Rebecca Arnoldi, Artist and Naturalist

4 Sessions

Sun Sep 27; Oct 4, 18, 25 (no class Oct 11) 10:00am-1:00pm [DG]

Combine creative expression and deep observation of trees and plants. Guided by a multi-faceted instructor, learn to look at trees, plants, seeds, and fruits with a mixture of botanical knowledge and a creative eye. In two sessions you will use pencil or charcoal;

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**The Flavors of Fall**

**Wednesday, September 16 at 5:30pm at the Arnold Arboretum**

Join the Boston Society of Architects’ *Women In Design BOSTON* for an ice cream social in the Leventritt Shrub and Vine Garden. Enjoy a talk by Maryann Thompson of Maryann Thompson Architects, Cambridge, Massachusetts, who collaborated on the design of the Leventritt Garden.

Sponsored by Lee Kennedy Company, Inc. and Iron Crafters, Inc.

Please RSVP to rsvp@architects.org or 617.951.1433 x221 by September 14.

Rain date: September 23, 5:30–7:30pm. In case of inclement weather please refer to www.architects.org/calendar on the day of the event.
in the others you will use watercolor. All levels of experience are welcome.
Fee $140
Offered in collaboration with the Eliot School of Fine & Applied Arts

October

Propagating Trees and Shrubs from Cuttings and Seeds  HOR 303
Jack Alexander, Plant Propagator, Arnold Arboretum of Harvard University
2 Sessions
Sat Oct 3, 24  9:00am–4:00pm [DG]
Need to nurture? Then join longtime Arboretum propagator Jack Alexander to learn basic information and techniques for propagating most woody plants. Session One includes a lecture and workshop on seed propagation and construction of a propagation case.

Session Two will be a lecture and workshop on hardwood cuttings. You will leave class with numerous cuttings and seeds to care for. To participate, you must sign an assumption-of-risk-and-release form in order to practice the techniques taught in class. Bring a lunch and beverage. If you own hand pruners, bring them to the second class. A sharp knife and an apron may also be helpful. You will be collecting propagules from the Arboretum grounds on both afternoons regardless of weather, so dress accordingly and wear comfortable shoes.
Fee $180 member, $215 nonmember
Offered in collaboration with Wellesley College Friends of Horticulture

The Universe in a Garden  HOR 539
Charles Jencks
1 Session
Wed Oct 7  7:00pm [TC]
"Exploring the Garden of Cosmic Speculation is a magical experience comparable to wandering the grounds of Stowe. Its coming into existence is wonderfullly described by its creator, Charles Jencks."—Professor James Watson, Co-Discoverer of DNA

"The inspirational ideas put forward . . . provide us with a contemporary response to the age-old conflict between art and nature. The extraordinary garden is not only a feast for the eyes but . . . stimulates our intellectual curiosity."—Arabella Lennox-Boyd, Landscape and Architectural Designer

Charles Jencks, architectural theorist, landscape architect, and designer, has become a leading figure in British landscape architecture. His landscape work is inspired by fractals, genetics, chaos theory, waves and solitons. These themes are expressed in his award-winning design, the Landform Ueda at the Scottish National Gallery of Modern Art in Edinburgh, Scotland, and expanded in his own private landscape, the Garden of Cosmic Speculation, at Portrack House, near Dumfries. Also a furniture designer and sculptor, Jencks completed the DNA Sculpture in London’s Kew Gardens in 2003. Jencks will speak at Boston’s Trinity Church about his design process as it applies to landscapes.
Fee: $20 members, $25 nonmembers
Co-sponsored by the Arnold Arboretum and Trinity Church in the City of Boston

Charles Jencks is known for his books questioning Modern architecture and defining its successors—Late, Neo and Post-Modern architecture. He now designs landscapes and sculptures, and writes about cosmogenic art. He has degrees in English literature and in architecture from Harvard University and a doctorate in architectural history from London University. His publications include the best-selling The Language of Post-Modern Architecture; What is Post-Modernism?; The Architecture of the Jumping Universe; and Iconic Building—The Power of Enigma. His celebrated garden in Scotland is the subject of his book, The Garden of Cosmic Speculation.
An Introduction to Plant Ecology

Katie Alt Griffith, Plant Ecologist
3 Sessions (Columbus Day weekend)
Sat Oct 10–Mon Oct 12
9:00am–Noon [WCBG]

We are often unaware of the myriad ways in which a plant’s growth and form is affected by other organisms and its environment. This class will explore concepts in plant ecology with environmental scientist Katie Alt Griffith. You will learn about plant defenses and physiology and discover reasons for leaf shape and size variation on a single plant. Each session will begin with a lecture in the Wellesley College Botanic Gardens Visitor Center and then move outdoors into the botanic gardens for observational studies.

Bring a notebook or journal and a pencil, as well as a hand lens and field guide, if you have them. Dress appropriately for going outdoors, rain or shine. Note that the botanic gardens have stairs and uneven surfaces.

Fee $75 member, $90 nonmember
Offered in collaboration with Wellesley College Friends of Horticulture

Bonsai Matching

Robbie Apfel, Docent, Arnold Arboretum
1 Session
Wed Oct 14 10:30am–Noon [DG]

What would happen if a bonsai tree were planted in the ground? Most of the species seen as bonsai in the Arboretum’s world-renowned Larz Anderson Bonsai Collection can also be seen in the Arboretum landscape, but they look very different! Explore the history and culture of bonsai and the Arboretum’s long relationship with these plants, and compare bonsai with their “unrestricted” counterparts in the landscape. Meet at the Bonsai House.

Free. Advance registration requested

Chainsaws: Use, Safety, and Maintenance

John DelRosso, Head Arborist, Arnold Arboretum
1 Session
Sat Oct 17 9:30am–2:30pm [DG]

Are you the new owner of a chainsaw or a weekend woodcutter? If so, are you using your chainsaw safely? If you’re at all in doubt, please put the saw down now and register for this class. In this lecture and demonstration by ISA-certified arborist John DelRosso you will learn the basics of chainsaw use. John will talk about essential safety equipment and maintenance requirements. He will demonstrate sharpening and bar tensioning and discuss limbing and felling techniques, including tension cuts. Bring your saw, along with ear protection, for the maintenance discussion. Bring a lunch, too, and dress for the outdoors.

Fee $60 member, $75 nonmember

Essential Elements of Botanical Drawing: Getting It Right

Jeanne Kunze, Illustrator and Instructor in Art History and Studio Art
5 Sessions
Sat Oct 17, 24, 31, Nov 7, 14 9:30am–12:30pm [WCBG]

Are you a beginner or even an advanced artist in need of a basic approach to drawing? Jump-start your drawing skills in this class with Jeanne Kunze. The techniques she teaches are designed to develop accurate observation and definition of shape—both essential to artistic renderings, botanical or not. Learn to represent plants through specialized observation and sketching exercises and techniques for making proportional measurements, depicting foreshortened petals, flowers, and leaves and representing perspective and compositional balance. Jeanne will help you develop your illustration skills through class demonstrations, exercises, and individual teaching moments. Class meets at the Wellesley College Botanic Gardens Visitor Center.

Fee $225 member, $275 nonmember
Offered in collaboration with Wellesley College Friends of Horticulture

Invasive Plants: Identification, Ecology, and Control

Ted Elliman, Vegetation Manager, New England Wild Flower Society
1 Session
Sun Oct 18 10:00am–2:00pm [NEWFS]

This course will provide an introduction to about 40 of the most common invasive, non-native plants in our local landscapes.
Through lecture, discussion, powerpoint presentation, herbarium specimens, and a walk outside, we will become familiar with identification clues as well as the habits of a number of these plants which are so disruptive of natural ecosystems. We will discuss management techniques for many of these species, on both a home and a larger landscape scale.

Homeowners and property managers who wish to get a head start on invasive control this year will appreciate the timing of this course, which will allow you to learn to identify young invasive plants before they become camouflaged by other vegetation. The New England Wild Flower Society’s Invader’s Magazine, as well as the Massachusetts Field Guide to Invasives, will be available for purchase at a discount.

Fee $44 member, $52 nonmember
Offered in collaboration with the New England Wild Flower Society

Painting Fall Foliage

Rebecca Arnoldi, Artist and Naturalist
1 Session
Sun Oct 18 2:00–5:00pm (rain date Oct 25) [DG]
Revel in fall color under the guidance of an instructor who combines an artist’s eye with botanical knowledge. Combine careful observation with fluid watercolor painting to express the essence, energy and emotion stirred by the natural world. All levels are welcome. The class meets at the Arnold Arboretum.

Fee $50
Offered in collaboration with the Eliot School of Fine & Applied Arts

Assessing Tree Health and Structure

Dave Ropes, Consulting Arborist, Tree Specialists, Inc.
1 Session
Sat Oct 24 9:30-Noon [NEWFS]
Proper tree care requires assessment of the entire tree system from roots to shoots. Learn how to properly assess a tree’s health and structure with techniques used by professional arborists. Learn which types of structural defects compromise the integrity of the tree and require attention, and which are merely aesthetic concerns. Study and evaluate tree foliage, twig growth, and the presence of pathogens and diseases. A classroom session will cover tree physiology and site conditions that relate to tree health, followed by a field session to look at a variety of trees at Garden in the Woods. Appropriate for landscape professionals as well as property owners who want to know how to decide what can be done and when to call a professional arborist.

Fee $30 member, $36 nonmember
Offered in collaboration with the New England Wild Flower Society

Identifying the 25 Most Common Trees in Boston

Kyle Port, Manager of Plant Records, Arnold Arboretum
1 Session
Sun Oct 25 9:00am–1:00pm [HB]
In just a few hours you can learn to identify 90 percent of the trees growing in Boston, both native and nonnative. Beginning in the classroom, you will briefly...
review the characteristics of the 25 most common trees and learn the botanical terminology necessary to describe them. You will then walk the grounds of the Arboretum to look at mature specimens of these trees.

Fee $45 member, $55 nonmember
Credit MCLP: 1ceu, MCA: .5ceu

**November**

**A Garden in Your Mind’s Eye: Developing Your Vision**  
**HOR 244**

*Tony Bernstein, Principal, SLDA Landscape Design Associates*

5 Sessions  
Mon Nov 2, 9, 16, 30 (no class Nov 23);  
Dec 7 6:30–8:30 [HB]

Garden design incorporates philosophy, aesthetics, economics, and theories as well as practicalities. It’s no wonder that considering where to begin can overwhelm. In this class, designer Tony Bernstein will teach about core design principles, but he’ll also coach you to clarify what you desire of a garden. Through exercises and discussions, he’ll encourage you to be introspective to develop design concepts that are reflective of your personality and lifestyle. He’ll also train your eye to consider the architecture and land that will surround your garden. Melding your inner visions with external factors, you will begin to develop a satisfying and cohesive garden design.

Fee  $140 member, 168 nonmember
Offered in collaboration with the New England Wild Flower Society

**Conifers for Urban Sites**  
**HOR 346**

*Dennis Collins, Horticultural Curator, Mount Auburn Cemetery*

1 Session  
Sat Nov 7 10:00am–12:30pm [BSG]

Dennis Collins, our go-to guy for teaching about conifers, will use the Arnold Arboretum’s vast collection of conifers to show those that would be suited for smaller spaces in city gardens. He will also recommend plants that can withstand some of the stressors common to urban sites, such as extreme wind or heat. Dress for the weather and wear comfortable walking shoes, as this class takes place entirely outdoors. This class meets at the Arboretum’s Bussey Street Gate.

Fee $30 member, $35 nonmember
Offered in collaboration with Wellesley College Friends of Horticulture

**The Art and Science of Fall Color**  
**BOT 138**

*Nancy Rose, Editor of Arnoldia, Arnold Arboretum*

1 Session  
Sun Oct 25 1:00–2:30 pm [HB]

Every autumn the Arboretum’s sea of green foliage changes to a blaze of reds, yellows, oranges, and purples. You may have learned the basics of fall color change back in grade school, but the science behind this annual show is always fascinating. Come along as we walk through the Arboretum and brush up on the hows and whys of fall color. We’ll also seek out examples of outstanding fall-color plants that would look great in your yard, too.

Free. Advance registration requested

**Barking Mad!**  
**WAL 206**

*Michael Dosmann, Curator of Living Collections, Arnold Arboretum*

1 Session  
Sat Oct 31 1:00–2:30pm [HB]

As the weather changes and leaves drop, focus your attention on bark, an often-overlooked ornamental feature of woody plants. The curator of living collections is mad for bark! Join him on a stroll to find trees and shrubs with beautiful, colorful, textural bark.

Free. Advance registration requested

**Natural History and Ethnobotany of Medicinal Plants**  
**BOT 356**

*Judith Sumner, Botanist and Author of The Natural History of Medicinal Plants*

1 Session  
Sun Nov 8 9:00am–4:00pm [NEWFS]

Before the time of written records, people used plants to relieve symptoms and cure disease, forming the basis of the modern study of ethnobotany and the starting point for the history of medicinal plants. During this intensive course, track the knowledge of medicinal plants from prehistory through the spectacular work of the Renaissance herbalists, *The Doctrine of Signatures*, and the development of the European medical tradition. New World settlers carried the seeds
of medicinal plants with them to North America, where European medical knowledge commingled with Native American lore. The class will consider herbal medicine in nineteenth century America, the field of zoopharmacognosy, and the current ethnomedico-botanical approach to drug discovery. You will gain an understanding of human-plant interactions and botanical cures for human disease and consider the importance of preserving medicinal plant diversity.

Fee $77 member, $91 nonmember
Offered in collaboration with the New England Wild Flower Society

Introduction to Winter Tree Identification  BOT 172A
Kyle Stephens, Arborist, Arnold Arboretum
2 Sessions
Sat Nov 21, Dec 5 9:00am–12:30pm [DG, HB]
This class will provide an overview of the information necessary to identify deciduous trees during their dormant season. Looking at specific character combinations, participants will learn to determine the genus and species of several types of trees in the Boston area. The group will begin indoors with a discussion of basic classification techniques and then go outside to the Arboretum grounds to explore maples, oaks, lindens, buckeyes, hickories, hornbeams and as many other trees as time will allow. This class is recommended for the beginner-to-intermediate tree observer.

The first class meets at the Dana Greenhouse classroom. The second class meets at the Hunnewell Building. Dress warmly for spending the morning outdoors. A hand lens may be helpful, but is not necessary.

Fee $65 member, $75 nonmember

Healing Spaces: The Science of Place and Well-Being  HOR 509

Esther M. Sternberg, M.D., Chief of Neuroendocrine Immunology and Behavior and Director of the Integrative Neural Immune Program National Institute of Mental Health

1 Session
Sun Nov 8  2:00–3:30pm [Trinity Church]
Can a pleasant view speed healing? In this lecture, Dr. Esther Sternberg will present the science of mind-body connections and human perception as it relates to place. Using examples from her book, Healing Spaces: The Science of Place and Well-Being, to explain the neurobiology of the senses, she will explore how a theme park, concert hall, cathedral, labyrinth, or garden can trigger or reduce stress, induce anxiety, or instill peace. Dr. Sternberg will provide clues to how and why we respond to our surroundings that could influence the places we create in the future.

Fee $10 members, $15 nonmembers

Dr. Esther M. Sternberg is the author of The Balance Within and Healing Spaces: The Science of Place and Well-Being. She is internationally recognized for her discoveries in brain-immune interactions and the brain’s stress response on health. She is the chief of the section on neuroendocrine immunology and behavior at the National Institute of Mental Health. Dr. Sternberg is also director of the Integrative Neural Immune Program, NIMH/NIH and co-chair of the NIH Intramural Program on Research in Women’s Health. She was on the faculty at Washington University before joining the National Institutes of Health in 1986.

Co-sponsored by the Arnold Arboretum and Trinity Church in the City of Boston
Dan Pearson is one of the most important and influential landscape designers working today. At the heart of all his gardens lies an unshakeable theme—his reverence for the power and delicacy of nature. In this lecture at Boston’s Trinity Church, Dan will demonstrate his design process, in which he extrapolates on the spirit of place as it emerges through geography, history, architecture, and native flora. Dan will explain how he believes landscapes—both wild and designed—speak to us, how human interventions in the landscape can animate and inform, and how they can serve to memorialize and to heal.

Fee $20 member, $25 nonmember

Dan Pearson is a landscape designer with an international reputation for design and planting excellence. His key strengths are horticultural expertise, an informed and intuitive approach to the organization of space, and the practice of ecological and sustainable design principles. Dan trained at Wisley, a Royal Horticultural Society garden, and at the Royal Botanic Gardens, Kew. He is a weekly gardening columnist for The Observer, before which he was a columnist for The Daily Telegraph and The Sunday Times. He is co-author of The Essential Garden Book (with Sir Terence Conran) and author of The Garden: A Year at Home Farm. He has presented and appeared in several TV series and has designed five award-winning Chelsea Flower Show gardens.

Co-sponsored by the Arnold Arboretum and Trinity Church in the City of Boston

Celebrate the season with acclaimed storyteller Diane Edgecomb and musicians Margot Chamberlain and Tom Megan. This performance features solstice legends from Greece, Scandinavia, and England as well as traditional music on Celtic harp, synthesizer, accordion, and voice. Classic evergreen lore, haunting legends of light, humorous tales of the season, and a traditional wassail round out this solstice celebration. Register early for this popular event. Appropriate for adults and for children twelve years and older.

Fee $20
January

Design Workshop for Home Gardeners

Christie Dustman, Designer, APLD

5 Sessions
Thu Jan 14, 21, 28, Feb. 4, 11
6:30–8:30pm [HB]

Explore principles of garden design and develop a plan for a specific area of your yard. In this beginner-level design class, you will explore the importance of line, scale, circulation, unity, and repetition as the organizational components of a coherent garden. You’ll also consider finer details such as color, focal point, depth, layering, and connecting indoors to outdoors. Christie Dustman will use before-and-after examples of projects she has completed to illustrate the design process. You will be required to draw a base plan for your site and identify your wish list of features. In analyzing your own and your classmates’ base plans and needs, you will practice the process of design and then begin to apply principles to your site plan. Christie will then lead in-class reviews, soliciting solutions from students and suggesting her own. You will leave class with a plan in progress from which to continue your design exploration.

Email adulted@arnarb.harvard.edu for a list of materials and instructions on creating your base plan for the first class.

Fee $140 member, $168 nonmember

Pruning in Winter

Jen Kettell, Horticultural Technologist, Arnold Arboretum

1 Session
Sat Jan 23 9:00am–Noon [HB]

With no leaves on the branches to obscure your view, this is the best time of year to study a tree’s structure and shape it for improved air circulation, silhouette, and strength. Jen Kettell, an International Society of Arboriculture-certified arborist and accredited Organic Land Care professional, will explain the reasons for pruning and what to consider when pruning dormant trees, shrubs, and vines. She will demonstrate techniques, give guidelines for determining which plants benefit from winter pruning, and explain how plants heal from pruning wounds, even when dormant. Bring your questions to this classroom discussion and demonstration.

Fee $30 member, $35 nonmember

The Edible View: Blended Garden Landscapes

Scott LaFleur, Horticulture and Botanic Garden Director, Garden in the Woods of the New England Wild Flower Society

1 Session
Mon Jan 25 10:00am coffee; 10:30am program [WCSC]

In this lecture Scott LaFleur will present the development, design, and installation of New England Wild Flower Society’s new edible plant garden—designed to help change the way garden visitors consider food production in the United States. Scott will weave together design approaches, horticultural techniques, and culinary uses for native plants that you can apply in your own home landscape. Blending ornament and function, he’ll provide examples of native plants that will allow you to shift your concept of garden and landscape from passive to productive, from viewable to edible. The class meets in the Wellesley College Science Center.

Fee: $15 member, $18 nonmember

Offered in collaboration with the Junior League of Boston Garden Club and Wellesley College Friends of Horticulture

Grafting Techniques for Ornamental Trees

Jack Alexander, Plant Propagator, Arnold Arboretum

1 Session
Sat Jan 30 9:00am–4:00pm [DG]

Grafting is the technique of joining parts of plants in such a manner that they unite and continue their growth as one plant. It is sometimes the most practical propagation method for the hobbyist, since it does not require special conditions or equipment. This workshop will teach methods of grafting and offer practice in making graft unions from actual plant material. You will graft both deciduous and evergreen trees and shrubs. The plants may include two- or five-needled pines and crabapples. (Simple aftercare will be required until planting out in late spring.) If you own pruning shears or a grafting knife, please bring them to class. You must sign an assumption-of-risk-and-release form in order to practice the techniques taught in class.

Fee $90 member, $110 nonmember

Credit MCLP: 1ceu
Winter Tree Observations: Evergreens
Carol Govan, Artist and Naturalist
1 Session
Sat Jan 30 10:00am–2:30pm [WCBG]
Winter is a great time to identify trees based on their overall structure and twig and bud characteristics. Close observation can also reveal clues to the adaptive strategies of various tree species. You will begin indoors at the Wellesley College Greenhouse Visitor Center, carefully looking at twigs and other tree parts, discovering family and genus similarities, and examining indicators of the growth cycles of evergreens. After lunch Carol will lead you through the Wellesley College Botanic Gardens to identify trees, observing both large- and small-scale details. Bring a lunch and hand lens and dress for cold weather. Participants may also wish to register for BOT104B which focuses on deciduous trees. (Snow date: February 13)
Fee $50 member, $65 nonmember per session
Credit MCLP: 1CEU; MCA: .5ceu per session
Offered in collaboration with Wellesley College Friends of Horticulture

February
Winter Tree Observations: Deciduous Trees
Carol Govan, Artist and Naturalist
1 Session
Sat Feb 6 10:00am–2:30pm [WCBG]
Winter is a great time to identify trees based on their overall structure and twig and bud characteristics. Close observation can also reveal clues to the adaptive strategies of various tree species. You will begin indoors at the Wellesley College Greenhouse Visitor Center, carefully looking at twigs and other tree parts, discovering family and genus similarities, and examining indicators of the growth cycles of deciduous trees. After lunch Carol will lead you through the Wellesley College Botanic Gardens to identify trees, observing both large- and small-scale details. Bring a lunch and hand lens and dress for cold weather. Participants may also wish to register for BOT104A which focuses on evergreen trees. (Snow date: February 13)
Fee $50 member, $65 nonmember per session
Credit MCLP: 1ceu; MCA: .5ceu per session
Offered in collaboration with Wellesley College Friends of Horticulture

Landscaping with Native Plants
Michael Lance, Owner and Designer, Wild Regeneration
3 Sessions
Mon Feb 8, 22, Mar 1 6:30–8:30pm [HB]
Gardeners, smitten by a display of natives at a garden center, erroneously infer all sorts of attributes from the word “native,” such as “hardy,” “resilient,” “tough,” or even “better.” All of these traits may indeed apply to any native plant; however, this is dependent on the conditions in which the plant is grown. For example, a tough native wetland plant won’t be resilient when planted along the hot, dry edge of a driveway. In this class with designer Michael Lance you will learn about native plants that would be most suitable to your garden site. Michael will present some of the plants that he incorporates when designing gardens for clients, with class sessions about native trees, shrubs, and perennials. He’ll emphasize edible and medicinal plants, trees, and shrubs that exhibit ornamental characteristics, and perennials that can withstand and thrive in urban and suburban New England conditions. Throughout the class Michael will incorporate organic techniques and his philosophy for developing healthy and beneficial garden habitats.
Fee $70 member, $85 nonmember
Horticultural Math

Kevin Bell, Director of Community and Cooperative Education, Norfolk County Agricultural High School

2 Sessions

Tues Feb 9, 23 6:30–8:30pm [HB]

You’ve probably heard the phrase “math makes cents,” and now you can put it to good use. This class will cover the basics of horticultural math with topics such as determining the amount of topsoil or mulch for an area, calculating fertilizer and lime applications, figuring how many plants to use in a garden bed or border, and using conversions in the industry. It makes no difference whether you are a hobby gardener or a landscape professional—this refresher math class will increase your productivity and accuracy in planning your gardens and lawns!

Fee $45 member, $55 nonmember

Pruning in Winter

Jen Kettell, Horticultural Technologist, Arnold Arboretum

1 Session

Sat Feb 20 9:00am–Noon [HB]

With no leaves on the branches to obscure your view, this is the best time of year to study a tree’s structure and shape it for improved air circulation, silhouette, and strength. Jen Kettell, an International Society of Arboriculture-certified arborist and accredited Organic Land Care professional, will explain the reasons for pruning and what to consider when pruning dormant trees, shrubs, and vines. She will demonstrate techniques, give guidelines for determining which plants benefit from winter pruning, and explain how plants heal from pruning wounds, even when dormant. Bring your questions to this classroom discussion and demonstration.

Fee $30 member, $35 nonmember

Essential Elements of Botanical Drawing: Value and Form

Jeanne Kunze, Illustrator and Instructor in Art History and Studio Art

ART 106

5 Sessions

Sat Feb 27, Mar 6, 13, 20, 27
9:30am–12:30pm  [WCBG]

Ramp your drawing skills up a notch in this class with Jeanne Kunze designed to help you develop form and value in your plant drawings. Take the mystery out of representing three dimensional botanical subjects in a two dimensional drawing. It all starts with accurate observational skills. Learn the techniques necessary to correctly observe and to accurately express the subtlety of light and shadow and turn shape into form. Develop confidence in your observation and illustration skills through class demonstrations and individual teaching moments and directed practice. Class meets at the Wellesley College Botanic Gardens Visitor Center.

(Snow date: Sat April 3)

Fee $225 member, $275 nonmember

Introduction to Winter Tree Identification

Kyle Stephens, Arborist, Arnold Arboretum

BOT 172B

2 Sessions

Sat Feb 27, Mar 6 9:00am–12:30pm [HB]

This class will provide an overview of the information necessary to identify deciduous trees during their dormant season. Looking at specific character combinations, participants will learn to determine the genus and species of several types of trees in the Boston area. The group will begin indoors with a discussion of basic classification techniques and then go outside to the Arboretum grounds to explore maples, oaks, lindens, buckeyes, hickories, hornbeams and as many other trees as time will allow. This class is recommended for the beginner-to-intermediate tree observer.

Dress warmly for spending the morning outdoors. A hand lens may be helpful, but is not necessary.

Fee $65 member, $75 nonmember

March

The Plant Kingdom: An Overview

K. N. Gandhi, Botanist, Harvard University Herbaria

BOT 351

6 Sessions

Tue Mar 2, 9, 16, 23, 30, April 6
6:30–8:30 pm [HUH]

Through lectures and work in the laboratory, Dr. Gandhi will provide a deeper understanding of the plant kingdom, from the simple plants to those that are highly evolved. He will outline the structure and reproduction of bacteria, cyanobacteria, algae (fresh water and marine), fungi, moss, ferns, pines, and flowering plants. You will learn about the fundamental differences in the plant structure
of these groups and also their capabilities in reproducing both sexually and asexually. The role of xylem, phloem, fruits, and seeds in the success of flowering plants will be discussed.

Fee $165 member, $200 nonmember

Sub-Urban Chicks: Raising Fowl or Raising Cain?  
Phyllis Craine, Local Chicken Owner and Paralegal  
1 Session  
Thu Mar 4 6:30–8:30pm [HB]

As the movement to eat locally grown food gains momentum, there has been an increase in the number of people who are gardening. A parallel trend is a growing interest in raising chickens. Some cities and towns don’t allow backyard birds. Some do under conditional circumstances, while towns such as Arlington have put chicken-keeping up for vote. If you’ve ever considered raising a few laying hens of your own, this class is for you. We’ve invited suburban chickenista Phyllis Craine to provide basic information needed to start a small flock, the advantages of various breeds, insight into local chicken-keeping regulations, and the symbiotic relationships between garden and fowl when your birds come home to roost.

Fee $20 member, $25 nonmember

Growing Plants from Seeds  
Jack Alexander, Plant Propagator, Arnold Arboretum  
1 Session  
1 Sat Mar 13 9:00am–1:00pm [DG]

There’s nothing more satisfying to a gardener than growing plants from seeds. From annuals and perennials to trees and shrubs, success can be achieved if you understand what triggers germination. Expert propagator Jack Alexander will share techniques and tips for starting various types of plants from seeds. This workshop is for beginners and those who have been frustrated in past attempts to transform seed to seedling. Students will leave class with a selection of seeds raring to grow. Aftercare will be necessary.

Fee $45 member, $55 nonmember

Going Green with Marie Stella: Constructing an Environmentally Engineered Home and Landscape  
Marie Stella, Landscape Historian and Designer, Kirin Design Enterprises  
1 Session  
Mon Mar 22 10:30am coffee; 11:00am program [WCCC]

Marie Stella takes to heart the Renaissance ideal of harmony between art and technology. She designed her teaching site and landscape laboratory, Beaver Lodge, on this principle to address and promote environmental awareness, reduced energy consumption, sustainability, and innovative uses of plant material. In this lecture Marie will present the process of building an energy efficient, sustainable house and integrating it with a responsibly managed landscape. Marie will highlight the ecological elements of Beaver Lodge, such as rain gardens, buffer zones, a vegetated roof, and green architecture, as encouragement for all to blend landscape, art, and technology for a green future. Class meets in the new Wellesley College Campus Center.

Fee $15 member; $18 nonmember

Co-sponsored by the Arnold Arboretum and Trinity Church in the City of Boston
Landscape Maintenance:
An Organic Approach  

James J. Agabedis, Jr., Minuteman Landscaping Inc.

1 Session
Thu Mar 4  9:00am–3:30pm [HB]

Improve your understanding of horticulture and enhance your landscape skills. This all-day class will introduce the basics of horticultural landscape maintenance. James Agabedis is the owner of Minuteman Landscaping, an all-organic land care company. Jim is a pro at communicating with customers and employees, and brings a solid understanding of current landscape practices to the classroom. He is a Northeast Organic Farming Association-certified Organic Land Care Professional and emphasizes organic techniques in this class. Jim will present the following topics:

• Landscape maintenance practices
• Soil fertility
• Plant growth and health
• Planting and pruning techniques
• Plant evaluation
• Equipment safety
• Turf care

The class will take place indoors and on the grounds of the Arnold Arboretum. Certificates of attendance will be given to attendees. The fee includes morning coffee and program materials. Bring a lunch and beverage. Register early as this class fills quickly.

Fee $90

Mantenimiento del Cesped y Paisaje (Landscape Maintenance in Spanish)  

Geovani Aguilar, Jefe de Operaciones, A Yard & A Half Landscaping

1 Session
Miércoles, 10 de marzo, 9:00h da mañana as 3:00h da tarde [HB]

Mejore su conocimiento de horticultura y sus destrezas laborales. Esta clase enseñará lo básico de la horticultura y mantenimiento de césped y áreas verdes. Geovani Aguilar ha trabajado en la industria por 12 años.

Los temas a discutir son los siguientes:

• Mantenimiento del césped y paisaje
• Fertilidad de la tierra
• Salud y crecimiento de las plantas
• Técnicas de siembra y poda
• Evaluación de plantas
• Manejo seguro de equipo de horticultura

La clase se presentará en español en la reserva forestal Arnold Arboretum que está localizada en el 125 Arborway en Jamaica Plain, a pasos de la estación de Forest Hills (última estación del tren anaranjado). Se otorgarán certificados de participación a quien asista. El costo incluye el material necesario para la clase y café. Los estudiantes deberán traer su propio almuerzo.

El costo de la clase es $60.

April

Growing Vegetables in the City  

Abby Hird, Putnam Fellow, Arnold Arboretum

3 Sessions
Tue April 6, 13, 27 6:30–8:30pm [HB]

Learn the where, what, and why of urban vegetable gardening with horticulturist Abby Hird. Raised on a Nebraska farm, educated in horticulture, and now living here in Boston, Abby Hird will talk about her gardening adaptations in the city environment. She will guide you through site evaluation, plant selection, and common problems and possible solutions in raising home-grown food. She’ll also talk about community resources for gardening, ideas for maximizing yield from a small plot, as well as ways to grow food more sustainably. This class is for nascent gardeners and those who have been frustrated by previous run-ins with vegetables.

Fee $60 member, $72 nonmember

WOW—Botany is Exciting!  

Carol Govan, Artist and Naturalist

1 Session
Sat April 10 9:30 am–2:30pm [WCBG]

Do you love plants and want to understand them better? Enjoy early arrival of spring in the WCBG Greenhouses as Carol Govan introduces botany using basic terminology, direct observations, and journaling to explore plant morphology (seeds, roots, shoots, flowers, and fruit). No previous experience is necessary. Class meets at the Wellesley College Botanic Gardens’ Visitor Center.

Fee $50 member, $65 nonmember

Offered in collaboration with Wellesley College Friends of Horticulture
Instructors

James J. Agabedis, Jr. is the founder of Minuteman Landscaping, Inc., an organic lawn care company. He is a Northeast Organic Farming Association accredited organic land care professional, a Massachusetts certified horticulturist, and a Massachusetts certified landscape professional.

Geovani Aguilar was born in El Salvador and came to the U.S. in 1994, unable to speak any English. Starting off as a laborer, he worked his way up the ladder to foreman, and is now construction project manager at A Yard & A Half Landscaping in Waltham, Massachusetts.

Jack Alexander is the plant propagator of the Arnold Arboretum. He is a graduate of the Harvard University Extension School and a third-generation nurseryman. In 1995 he was named a Fellow of the Eastern Region of the International Plant Propagators’ Society and in 2004 he was awarded their prestigious Award of Merit. Jack is also a recipient of the Massachusetts Horticultural Society’s Jackson Dawson Medal.

Rebecca Arnoldi is an artist and naturalist with over 15 years of experience making nature-based art and educating people about nature. She has an MFA in painting and an MS in environmental education. To see her work: www.rebeccaarnoldi.com.

Kevin Bell is director of Community and Cooperative Education with Norfolk County Agricultural High School. He has a M.Ed. and is also a graduate of NCAHS.

Tony Bernstein has been involved in the design industry for over 25 years, designing patented technology components, consumer products, brands, engineering, packaging, and landscapes. He holds a masters degree in comparative law from the University of San Diego as well as a liberal arts and law degree from South Africa, where he was educated before moving to the United States in the early 1980s. He is principal of SLDA Landscape Design Associates.

Berta Berriz is a National Board Certified bilingual teacher, National Faculty Member at Lesley University Arts in Learning Department. She has a doctorate from Harvard Graduate School of Education. Dr. Berriz was named Teacher Scholar for the State of Massachusetts in 1992 and was awarded a Lucretia Crocker Fellowship in 1990 for her work using thematic education, cooperative learning, and integrated cultural arts.

Margot Chamberlain draws on a background of singing, classical piano, medieval and folk repertoire, Celtic music, and therapeutic harp to create accompaniments that speak to the heart of story and song. She has performed with Quadrivium, LiveOak, Mistral, Revels, and the Gentle MUSES at venues throughout New England.

Dennis Collins is curator of plant collections at Mount Auburn Cemetery in Cambridge and has taught conifer classes at the Arnold Arboretum since 1997. He has a masters degree in botany from the University of Edinburgh and the Royal Botanic Garden, Edinburgh, Scotland.

Phyllis Craine has a paralegal certificate from Suffolk University. She worked in the publishing division of Harvard Business School, helping clients to implement web-based training, and now works for a nanotechnology company.

John DelRosso is the head arborist at the Arnold Arboretum. He has an associates degree in forestry from Essex Agricultural and Technical Institute and is a graduate of the Consulting Academy of the American Society of Consulting Arborists. He is a certified arborist with the International Society of Arboriculture and the Massachusetts Arborists Association.

Michael Dosmann is the curator of living collections at the Arnold Arboretum. He holds a doctorate from Cornell University as well as a BS and MS from Purdue and Iowa State Universities, respectively. His interests include the eco-physiology and taxonomy of woody plants as well as their use as ornamentals.

Christie Dustman, principal of Christie Dustman & Company Inc., is a certified landscape designer and has been designing in the Boston area for 11 years. Working closely with A Yard & A Half, a landscape construction company, she offers a design-build approach to landscape solutions. See www.christiedustman.com for examples of her work.

One of New England’s favorite tellers, Diane Edgecomb has been featured on National Public Radio as well as at theaters, colleges, museums, and nature centers throughout the Northeast. A versatile performer whose tellings are filled with rich characterizations, Edgecomb has been hailed by Publisher’s Weekly as “a virtuoso of the spoken word…an entire cast rolled into one.”

Ted Elliman is New England Wild Flower Society’s Vegetation Management Coordinator and Invasive Plant Atlas of New England (IPANE) Volunteer Coordinator. He has worked on botanical surveys for the U.S. Park Service and Forest Service, as well as in southwestern China.
Kanchi Gandhi earned his doctorate from Texas A&M University. He edits several botanical journals, including the *International Plant Name Index* for the Harvard University Herbaria, *The Flora of North America*, and *Rhodora*, the journal of the New England Botanical Club.

Carol Govan helps others to explore the connection between art and science and to learn the observational skills needed for both. She is a professional artist and educator whose insight has engaged scores of students at museums and gardens in Massachusetts.

A Wellesley College Visiting Scholar, Katie Alt Griffith received her Ph.D. in plant ecology from the University of California, Santa Cruz. Her research examined the relationship between a parasitic plant and its host plant in a central California salt marsh.

Abby Hird is a Putnam Fellow at the Arnold Arboretum, where she is heading up initiatives in plant conservation and sustainable work practices. Abby coordinated a graduate student community garden while completing the Longwood Graduate Program in Public Horticulture at the University of Delaware.

Jen Kettell, horticultural technologist at the Arnold Arboretum, oversees the Leventritt Garden of Shrubs and Vines. She is a certified arborist and an accredited organic land care professional. She began work at the Arboretum as an intern in 2003.

Jeanne Kunze started her career with a degree in painting and illustration and went on to 20 years of teaching art history and studio fine arts. She now works as a freelance illustrator and teacher with an interest in botanical subjects. She is an active member of the Guild of Natural Science Illustrators and the American Society of Botanic Artists.

Scott LaFleur is the botanic garden director at the New England Wild Flower Society’s Garden in the Woods. He was the founding director of Garden Buds, a perennial garden design and maintenance business based in Rye, New Hampshire. Trained in horticulture at the University of New Hampshire, Scott brings a deep knowledge of native plants to his work and public presentations.

Michael Lance is a landscape designer and the owner of Wild Regeneration. His designs incorporate the application of low-impact methods with native plants, reflecting his respect for the land. He is a graduate of the Conway School of Landscape Design.

Peter Medaglia traded a career in marketing for a pair of garden clogs and a lifetime of dirty fingernails. Gold Medal Gardens, his award-winning landscape design-build company, specializes in client-driven, site-specific solutions for personal landscapes.

Composer, playwright, and musician Tom Megan is a multi-instrumentalist. He has written several full-length musicals and has received numerous writing awards for the musical stage, including the Yip Harburg Award. He performs regularly with the Billy Walsh Band and Naked Caravan.

Kyle Port has a bachelor’s degree in environmental horticulture from Washington State University. In his role as manager of plant records, Kyle supervises mapping and labeling efforts as well as the formal assessment program of accessioned plants at the Arnold Arboretum.

Dave Ropes, senior and consulting arborist with Tree Specialists, Inc., has provided arboricultural care services in private, commercial, and institutional settings, including a position as head arborist at Forest Hills Cemetery in Boston. Dave has a bachelor’s degree in urban forestry from the University of Massachusetts, Amherst, and is a Massachusetts Certified and an International Society of Arboriculture Certified Arborist.

Nancy Rose, a horticulturist, is editor of *Arnoldia* at the Arnold Arboretum. She previously worked in extension horticulture and woody plant research in Minnesota. Nancy is also a garden writer, photographer, and co-author of *Growing Shrubs and Small Trees in Cold Climates*.

Marie Stella is a landscape historian and designer with graduate certificates in landscape design and landscape design history from Radcliffe College, Harvard University. Her firm, Kirin Farm Design, specializes in environmental landscapes and initiatives to foster the preservation of open space. Marie teaches, lectures, and leads local and foreign garden history tours.

Kyle Stephens, a Massachusetts and International Society of Arboriculture certified arborist, has worked as an arborist for the Arnold Arboretum since 2005. Prior to this he worked in New York at Brooklyn Botanic Garden, Wave Hill, and with the Central Park Conservancy.

Judith Sumner is a botanist with interests in flowering plant systematics and morphology, and medicinal plants. She is the author of *American Household Botany* and *The Natural History of Medicinal Plants*. She is currently writing a college botany textbook for McGraw Hill on the symbiotic relationships between plants and other organisms.
Registration Information

The Arnold Arboretum’s adult education program offers many types of classes for adult learners. These are listed chronologically with dates and times noted with each class description. Letters in brackets designate meeting places. See the key to meeting places on page 11. See page 10 for an overview of classes by topic. If you have questions, contact Pamela Thompson, manager of adult education, at 617.384.5277.

Registration—Online

To register online, please visit: www.arboretum.harvard.edu/adult_ed

Once you have selected the classes you wish to register for, the online registration system will guide you through the process, step by step. Payment is by credit card only (Visa, MasterCard, or American Express). If you are registering for more than one person, you must complete a separate registration for each person. You will receive an email confirming your class selection and payment. Consider your registration to be complete when you have received this email.

Registration—Mail or Telephone

To register by mail for adult education classes, please complete the form on page 27 and 28. You may register by phone with a credit card at 617.384.5277.

Registrations are processed upon receipt and confirmed in writing. You may pay by cash, check, or credit card (Visa, MasterCard, or American Express). If you are registering for more than one person, please attach a separate sheet with names, addresses, and telephone numbers. Consider your registration to be complete when you have received written confirmation.

Mail registration form to:
Adult Education Registrar
Arnold Arboretum
125 Arborway
Boston, MA 02130

Fees and Membership

Fees for classes are listed with each class description. Members receive a discount of up to twenty percent for most classes. If you are a current member, or if you are enclosing a new or renewed membership with this registration, you are entitled to pay the member rate. If our records do not indicate that your membership is current, we must charge for classes at the nonmember rate. **Please write separate checks for membership and class registration.** For more information, call 617.384.5766 or visit our website at www.arboretum.harvard.edu.

Harvard University’s **Tuition Assistance Plan (TAP)** for faculty and staff may be applied toward classes at the rate of $20 per class.

Children at Classes

We regret that it is not possible to include babies, children, or pets in classes designed for adults.

Parking for Arboretum Classes

**Hunnewell Building [HB]**
Monday through Friday, for daytime and evening classes, students may drive through the main gates and park in front of the Hunnewell Building if space is available. Otherwise parking is along the Arborway. For all weekend classes and events, the main gates remain closed and parking is along the Arborway.

**Dana Greenhouse [DG]**
For weekday, evening, and weekend classes, students may park in designated spaces and along the greenhouse drive in front of the Bonsai House unless otherwise directed. Do not block any entrances to the shrub and vine garden or access drives surrounding the greenhouse facility. Please do not park on the grass.

**Note:** At both locations be aware of Arboretum visitors (especially children), employees, and Arboretum equipment and vehicles when parking at and leaving our facilities.

Cancellations and Refunds

You may cancel a class registration and receive a partial refund by calling the adult education department five business days prior to the first class. With such cancellations, a $5.00 per class cancellation fee will be deducted. We regret that no refunds or credits can be given for withdrawals from classes in progress or for classes you have not attended.

If registration numbers are insufficient, we reserve the right to cancel a class. In this case, a full refund will be issued.

**Please note that check refunds can take up to 60 days to process. We recommend payment by credit card when possible.**

Weather Cancellations

Class cancellations due to inclement weather are announced by recorded message at 617.384.5277. If you think that your class may have been canceled, please call the adult education department at this number.

Confirmation of Attendance

The adult education department does not maintain attendance records and cannot confirm your attendance at past class meetings. If you need proof of attendance at classes, you are responsible for obtaining your instructor’s signature at each class meeting. To request a list of all the Arboretum classes for which you have registered, please contact Pamela Thompson, manager of adult education, at 617.384.5277.

Professional Credits

Certified members of the Association of Professional Landscape Designers (APLD), Massachusetts Certified Arborists (MCA), and Massachusetts Certified Landscape Professionals (MCLP) may earn continuing education units for attending selected Arnold Arboretum classes. These classes and the number of credits offered are indicated by the following: (APLD: #ceu) (MCA: #ceu) (MCLP: #ceu). Other classes may also be accepted for accreditation. Contact the accrediting organization for approval.

Tax Deductions

Income tax deductions may be allowed for education expenses undertaken to maintain and improve professional skills. Please consult your tax advisor.
REGISTRATION ONLINE: www.arboretum.harvard.edu/adult_ed

Registration

Classes fill quickly. Please register early (please print).

NAME

STREET

CITY STATE ZIP

HOME PHONE BUSINESS PHONE

EMAIL

Method of Payment (credit card preferred)

☐ VISA ☐ MasterCard ☐ American Express

AMOUNT (total from other side)

CARDHOLDER NAME

CREDIT CARD #

EXP. DATE SECURITY CODE

SIGNATURE

☐ Check or money order payable to the Arnold Arboretum

Are you a current member of the Arnold Arboretum?

☐ Yes ☐ No If yes, under what name is your membership listed?

Please suggest new course ideas or make comments below.

Mail registration form to:
Adult Education Registrar
Arnold Arboretum
125 Arborway
Boston, MA 02130

If you are a current member, or if you are enclosing a new or renewed membership with this registration, you are entitled to pay the member’s discounted rate. If our records do not indicate that your membership is current, we must charge for classes at the nonmember rate.

Join the Friends of the Arnold Arboretum

Select a level of membership:

☐ Student/Teacher $20
☐ Individual $35
☐ Household $50
☐ Sustaining $100
☐ Sponsor $200
☐ Patron $500
☐ Benefactor $1000

I would like to receive the quarterly journal Arnoldia (for tax purposes, a $20 value).

☐ Yes ☐ No

Name and Address (please print)

MR., MS., MRS.

STREET

CITY STATE ZIP

Payment can be made with a check, money order, or credit card (Visa, MasterCard, American Express only). Please make checks payable to the Arnold Arboretum and send a separate check for class fees. Students and teachers, please send a copy of your I.D. with this form.

☐ My check is enclosed ☐ Please charge my credit card: ☐ Visa ☐ MasterCard ☐ American Express

CREDIT CARD # EXP. DATE

CARDHOLDER NAME PHONE

SIGNATURE

Please write separate checks for membership and class registration.
## September

<table>
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<tr>
<th>Date</th>
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<th>Course Title</th>
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<tbody>
<tr>
<td>13</td>
<td>WAL 203</td>
<td>Exciting Introductions! Or Stealth Invaders?</td>
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<tr>
<td>22</td>
<td>BOT 100</td>
<td>Introduction to Botany</td>
<td>$___</td>
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<tr>
<td>24</td>
<td>HOR 219</td>
<td>Private Spaces: Garden Redesign for Homeowners</td>
<td>$___</td>
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<tr>
<td>27</td>
<td>ART 130</td>
<td>Creative Botany: Drawing &amp; Painting Nature</td>
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## October

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<tr>
<td>3</td>
<td>HOR 303</td>
<td>Propagating Trees and Shrubs from Cuttings and Seeds</td>
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<td>7</td>
<td>HOR 539</td>
<td>The Universe in a Garden</td>
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<td>10</td>
<td>BOT 126</td>
<td>An Introduction to Plant Ecology</td>
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<td>14</td>
<td>WAL 127</td>
<td>Bonsai Matching</td>
<td>$___</td>
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<tr>
<td>17</td>
<td>HOR 193</td>
<td>Chainsaws: Use, Safety, and Maintenance</td>
<td>$___</td>
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<td>17</td>
<td>ART 114</td>
<td>Essential Elements of Botanical Drawing: Getting It Right</td>
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<tr>
<td>18</td>
<td>BOT 291</td>
<td>Invasive Plants: Identification, Ecology, and Control</td>
<td>$___</td>
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<tr>
<td>18</td>
<td>ART 116</td>
<td>Painting Fall Foliage</td>
<td>$___</td>
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<td>21</td>
<td>EDU 420</td>
<td>Bridges to Learning: Creating Educational Access for Immigrant Students</td>
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<td>24</td>
<td>HOR 359</td>
<td>Assessing Tree Health and Structure</td>
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<td>25</td>
<td>BOT 138</td>
<td>The Art and Science of Full Color</td>
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<td>31</td>
<td>WAL 206</td>
<td>Barking Mad!</td>
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## November

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<tr>
<td>2</td>
<td>HOR 244</td>
<td>A Garden in Your Mind’s Eye: Developing Your Vision</td>
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<td>7</td>
<td>HOR 346</td>
<td>Conifers for Urban Sites</td>
<td>$___</td>
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<tr>
<td>8</td>
<td>HOR 509</td>
<td>Healing Spaces: The Science of Place and Well-Being</td>
<td>$___</td>
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<td>8</td>
<td>BOT 356</td>
<td>Natural History and Ethnobotany of Medicinal Plants</td>
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<tr>
<td>21</td>
<td>BOT 172A</td>
<td>Introduction to Winter Tree Identification</td>
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<tr>
<td>19</td>
<td>WAL 265</td>
<td>The Winter Solstice in Legend and Song</td>
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## January

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<tr>
<td>14</td>
<td>HOR 282</td>
<td>Design Workshop for Home Gardeners</td>
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<td>19</td>
<td>HOR 481</td>
<td>Spirit: Garden Inspiration</td>
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<td>23</td>
<td>HOR 314A</td>
<td>Pruning in Winter</td>
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<td>HOR 137</td>
<td>The Edible View: Blended Garden Landscapes</td>
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<td>30</td>
<td>HOR 305</td>
<td>Grafting Techniques for Ornamental Trees</td>
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<td>30</td>
<td>BOT 104A</td>
<td>Winter Tree Observations: Evergreens</td>
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## February

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<td>6</td>
<td>BOT 104B</td>
<td>Winter Tree Observations: Deciduous Trees</td>
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<td>HOR 167</td>
<td>Landscaping with Native Plants</td>
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<td>9</td>
<td>HOR 113</td>
<td>Horticultural Math</td>
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<tr>
<td>20</td>
<td>HOR 314B</td>
<td>Pruning in Winter</td>
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<td>27</td>
<td>ART 106</td>
<td>Essential Elements of Botanical Drawing: Value and Form</td>
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<tr>
<td>27</td>
<td>BOT 172B</td>
<td>Introduction to Winter Tree Identification</td>
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## March

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<tr>
<td>2</td>
<td>BOT 351</td>
<td>The Plant Kingdom: An Overview</td>
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<td>HOR 191</td>
<td>Landscape Maintenance: An Organic Approach</td>
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<td>HOR 296</td>
<td>Sub-Urban Chicks: Raising Fowl or Raising Cain?</td>
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<td>10</td>
<td>HOR 111</td>
<td>Mantenimiento del Cesped y Paisaje</td>
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<td>13</td>
<td>HOR 336</td>
<td>Growing Plants from Seeds</td>
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<td>22</td>
<td>HOR 517</td>
<td>Going Green with Marie Stella: Constructing an Environmentally Engineered Home</td>
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<td>&amp; Landscape</td>
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## April

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<tr>
<td>6</td>
<td>HOR 173</td>
<td>Growing Vegetables in the City</td>
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<tr>
<td>10</td>
<td>BOT 103</td>
<td>WOW--Botany Is Exciting!</td>
<td>$___</td>
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**Thank You for Becoming a Friend of the Arnold Arboretum!**

New members will be sent an introductory packet containing maps and information, the current issues of *Arnoldia* and *Silva*, a membership card(s), and a window decal. Please allow two to three weeks for processing. Call the membership office with any questions at 617.384.5766. Please write your name as you would like it to appear on your member card(s):

**MEMBER CARD**

**2nd MEMBER CARD**

(household level and above only)

I would like to receive information about news/events via email.

**EMAIL ADDRESS(ES)**

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**Help Us Make New Friends!** Do you know someone who would like information on our classes, free tours, and member benefits? Please provide their names and addresses and we will put them on our mailing list.

**MR., MS., MRS.**

**STREET**

**CITY**

**STATE**

**ZIP**

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If you are already a member, thank you!

Please give this membership application to a friend.

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Arnold Arboretum
A bold rush of color stirs the senses this fall at the Arboretum. Then winter arrives with quiet, elemental beauty. Enjoy New England’s seasonal splendor in the heart of Boston.
Events and Exhibitions

Jamaica Plain Open Studios
Artists in the Arboretum

September 16–October 9
Hunnewell Building Lecture Hall

Opening Night
Wednesday, September 16, 6:00–8:00pm

Open Studios Weekend
September 26 and 27, 11am–6:00pm

Local artists will exhibit Arboretum-inspired work in the Hunnewell Building lecture hall this fall. The juried exhibition is organized in conjunction with Jamaica Plain Open Studios.

Jamaica Plain Open Studios celebrates its 16th year as the premiere annual arts event in one of Boston’s most vibrant neighborhoods. This year the event features the artwork of more than 200 artists at 75 sites on the weekend of September 26–27. For more information, and to preview artists’ work, visit www.jpopenstudios.com.

Botanica
Scanography by Marty Klein

October 24–December 15
Hunnewell Building Lecture Hall

Reception with the artist
Saturday, October 24, 1:00–3:00pm

Artist Talk
Thursday, November 19, 6:30–8:00pm

Marty Klein is fueled by an insatiable and wide-ranging curiosity to see familiar natural forms in new and refreshing ways. Using a flatbed scanner as a camera, Marty Klein captures images of plants and other natural objects with incredible depth and contrast. The images are very different from traditional photographs, yet remain close in spirit, imbued with an arresting vitality. Several new works in this show use specimens gathered by special permission from the Arboretum’s living collections.

Marty Klein holds a BA and a Master of Regional Planning from the University of Massachusetts, and over the years has worked as an artist, photographer, blacksmith, and land protection activist.

Note: The lecture hall is often used for meetings and classes. Please call 617.384.5209 for exhibition availability. See page 33 for Visitor Center hours.
Summer in Winter
Paintings by Anthony Apesos
January 9–March 3, 2010
Hunnewell Building Lecture Hall

Reception with the artist
Saturday, February 20, 1:00–3:00pm
Artist talk
Thursday, February 25, 6:30–8:00pm

Anthony Apesos has been painting the Arboretum since he moved to Jamaica Plain in the early 1990s. His recent series of paintings shows the Arboretum at the height of summer’s verdant glory. A perfect antidote to winter weather, Apesos depicts the wide-ranging Arboretum landscape in deep summer, from the rugged outcrops of Hemlock Hill to the meadows from which dawn redwoods spring.

Anthony Apesos is a professor of painting and art history at the Art Institute of Boston at Lesley University. His paintings are inspired by such landscape artists as George Inness, John Constable, and Samuel Palmer.

Enter the 2010 Lilac Sunday T-shirt Design Competition

Calling all artists! Submit your t-shirt designs for Lilac Sunday 2010. Lilac-themed t-shirts have become a tradition as beloved as Lilac Sunday itself. Submissions will be evaluated based on how well they reflect the spirit, history, and beauty of Lilac Sunday, a century-old Boston tradition. Visit arboretum.harvard.edu/tshirt for full details. Deadline for submissions is January 4, 2010.
Walking Tours

Experience the Arboretum in a new way—take a guided tour with a knowledgeable volunteer docent.

**Free Tour Schedule**

**Saturdays at 10:30am**
- September 5, 12, 19, 26
- October 3, 10, 17, 24, 31
- November 7, 14

**Wednesdays at 12:15pm**
- Select Wednesdays
- September 9, 23
- October 7, 21
- November 4

**Sundays at 1:00pm**
- September 13, 20, 27
- October 4, 11, 18
- November 1, 8

**Fridays at 6:00pm**
- Last Friday tour of the season!
- September 4

Every tour is different; hear about seasonal highlights, plant expeditions, the science of trees, and the history and future plans of the Arnold Arboretum. Tours begin in front of the Hunnewell Building unless otherwise noted, last around 90 minutes, and are geared toward adults. There is no need to register.

For more information or to learn about cancellations due to inclement weather, call 617.384.5209.

**Scheduled Group Tours**

A private guided tour of the Arboretum is a memorable experience. Adult groups interested in a private tour should contact the Visitor Center at least three weeks in advance of their visit. Group tours are 90 minutes long and cost $125 for a maximum of 20 people for a walking tour, or 35 people for a bus tour (groups supply their own bus). For more information, please call 617.384.5209 or email arbweb@arnarb.harvard.edu.

**Arboretum Interpreters**

Gain a richer understanding of this special place. Every Saturday and Sunday in September and October, Arboretum Interpreters will be stationed in various locations in the landscape with activities and information to enhance your visit. Stop by and investigate!

**Special Theme Tours**

Free. Advance registration is requested; register online or call 617.384.5277. All tours meet at the Hunnewell Building. See page 24 for registration information.

**Exciting Introductions or Stealth Invaders?**

Marty Amdur, Arboretum Docent
- Sun Sept 13 3:00–4:30pm
- See page 12 for details.

**Bonsai Matching**

Roberta Apfel, Arboretum Docent
- Wed Oct 14 10:30am–noon [HB]
- See page 14 for details.

**The Art and Science of Fall Color**

Nancy Rose, *Arnoldia* Editor
- Sun Oct 25 1:00–2:30pm
- See page 16 for details.

**Barking Mad!**

Michael Dosmann, Curator of Living Collections
- Sat Oct 31 1:00–2:30pm [HB]
- See page 16 for details.

**Bird Walk**

Sun Jan 24, 8:30am
Led by Robert Mayer, Arboretum Docent
Free. No registration required

Join Arboretum Docent and bird expert Robert Mayer for a two-hour winter stroll from the Arborway Gate to Bussey Hill and back, with a focus on winter birds and the woody plant collection. Visit the Arboretum website for a checklist of birds: [www.arboretum.harvard.edu/visitors/bird_list.html](http://www.arboretum.harvard.edu/visitors/bird_list.html).
Family Fun

Explore the Arboretum and foster a sense of wonder about nature in your child.

- **New!** Saturday story hour in the Visitor Center—September 19, October 31, November 21 at 11:00am
- Pick up a Tree-of-the-Month guide in the Visitor Center or online with a new letterbox hunt each month
- **New!** Connect with volunteer Arboretum Interpreters in the landscape for hands-on fun

Check our website for more details: arbor.net.harvard.edu/programs/family_activities.html

Plant Information Hotline

Run by knowledgeable volunteers, the hotline is available for questions about woody plants hardy in the Boston area. Open every Monday from 1:00-3:00pm. Call 617.384.5235. You may also send email to plantinfo@arnarb.harvard.edu.

Getting Here

Visitor Parking & Driving Permits

Visitor parking is available around the Arboretum’s perimeter. No parking is allowed inside the Arboretum gates. Individuals with special needs may request a driving permit at the Hunnewell Visitor Center, weekdays only, from 10:00am to 2:30pm. For more information please call 617.384.5209. For parking for classes, see page 26.

Visitor Services

The Visitor Center, located in the Hunnewell Building, is open at the following times:

- Monday to Friday 9:00am to 4:00pm
- Saturday 10:00am to 4:00pm
- Sunday Noon to 4:00pm
- Holidays Closed

See website for holiday closings

Telephone: 617.384.5209

Services available in the Visitor Center include:

- Personal assistance to enrich your visit
- Maps and self-guided tour brochures
- Special exhibitions, including “Science in the Pleasure Ground” and seasonal art shows
- Bookshop, featuring a large selection of books and educational items for children and adults
- Restrooms
- Horticultural library, open Monday through Saturday 10:00am to 4:00pm. For more information, call 617.522.1086 or email hortlib@arnarb.harvard.edu
Explore the Diversity of the Living Collection

**BARKING UP THE RIGHT TREE**

Sheryl White, Visitor Education Assistant

Through the seasons, from bud to nut, bark is a constant. It is a key way to identify a tree, particularly in winter. The outer bark of dead tissue covers and protects the inner bark, where tissue lives and grows. Waste products from the tree's metabolism, in the form of tannins, gums, and resins, are deposited in the outer bark. This outer bark might be smooth or rough, bumpy, fissured, or peeling. On any individual tree, the bark's characteristics are a result of the tree's growth, as well as external forces such as weather, injury, or disease. This means the bark is continually changing. At the Arboretum, a diverse and extensive collection of woody plants offers a wide range of distinct bark characteristics. Here are six that will get you barking for more!

Start with *Stewartia pseudocamellia* (Japanese stewartia), on the lawn in front of the Hunnewell Visitor Center. This Asian native has lovely flowers and fantastic fall foliage, but best of all is its year-round, exfoliating bark. The bark peels off from the trunk and is a natural part of the tree's growth pattern. The stewartia's bark peels in very thin patches resulting in a camouflage effect. Shades of warm grey, rose, buff, light green, and cream cover the surface, flowing and merging in smooth eddies of color.

Follow Meadow Road to our tallest tree, *Acer saccharinum* (silver maple). Long, loose strips of bark pull away from the surface of the trunk. As these vertical pieces lift off, a warm gold surface is revealed beneath the silver-gray. This pattern covers the main trunk as well as the mature branches.

With its rich cinnamon, orange, and brown bark, *Acer griseum* (paperbark maple) seems to glow. In the maple collection along Willow Path, once the leaves have fallen, the paperbark maple stands out like a beacon. Native to the mountains of central China, the Arnold Arboretum specimens are the largest and oldest in the United States. The bark exfoliates in thin, paper-like sections, curling away from the surface.
The genus *Prunus* (cherry) offers particularly interesting and attractive bark, dotted with lenticels. Lenticels are tiny holes in the bark that allow gases, especially oxygen, to move between the internal tissues and the air. They are slightly raised and horizontal, looking like pimples or blisters. One of the cherries in the Bradley Rosaceous Collection worth a close look is *Prunus serrulata* ‘Washi-No-O’ with rich-brown, smooth, burnished bark accented by networks of lenticels.

Our native *Diospyrus virginiana* (common persimmon) exhibits yet another type of bark, made up of pronounced scales. These small, irregularly shaped blocks are divided by furrows and have an overall appearance of hundreds of squares and rectangles. Colors of gray, black and rust emerge in this rough, textured bark.

Many trees in the *Betula* (birch) genus are recognized for their unusual and striking bark. *Betula nigra* (river birch) is a native with exfoliating bark. Layers peel and curl all over the trunk revealing patches of cream, rust, and gray. As the river birch matures, the main trunk becomes predominantly dark gray and brown, no longer peeling in big sheets, but developing a scaly surface with furrows that run vertically. Upper limbs, especially new growth, retain the delicate colors and patterns that emerge as the thin sheets of bark peel away.

This is just a glimpse of the many woody plants at the Arboretum with interesting bark. Take a free tour with Curator Michael Dosmann to see these and more up close! See page 16 for details.

**Barking Mad!**

*Michael Dosmann, Curator, Arnold Arboretum*

Sat Oct 31 1:00–2:30pm [HB]
The Arnold Arboretum grows 4,500 kinds of hardy trees, shrubs, and vines. They are arranged in botanical sequence and labeled with name and country of origin. Frederick Law Olmsted designed the grounds, and the plantings were laid out by Charles Sprague Sargent. Special plant collections include the Larz Anderson Bonsai Collection, the Bradley Rosaceous Collection, and the Leventritt Garden of Shrubs and Vines.

The grounds are open daily without charge from sunrise to sunset. For Visitor Center hours and services see page 33.
Members' Fall Plant Sale and Giveaway
Sunday, September 20, 2009

For over one hundred years, the Arnold Arboretum has propagated and shared new, rare, and noteworthy plant material to promote the use of outstanding woody plants in our landscapes. In addition to making plant material available to researchers and other botanical institutions, the Arboretum has traditionally distributed plants to members of the Friends of the Arnold Arboretum in recognition of their support. This year’s sale for members—which will be returning to its roots as a plant distribution event in 2010 (see article on page 8)—will be held at the Arboretum’s Dana Greenhouses on Sunday, September 20, 2009. The event offers a selection of Arboretum-grown plants and opportunities for educational enrichment and enjoyment of our beautiful landscape in autumn.

A detailed listing of plant sale offerings, as well as vouchers for free plants, will be mailed to members in late August. Members at the Sustaining level ($100) and above will be admitted to the sale at 9:00am; all other members will be admitted at 10:00am. After the sale, members may walk on the grounds or enjoy an inside look at the Larz Anderson Bonsai Collection. Experts from the Arboretum’s living collections staff will be on hand to offer advice on planting and maintaining healthy trees, shrubs, and vines.

If you are not a member, you may join on the day of the sale to attend and receive free plants. The Fall Plant Sale is a rain-or-shine event. Parking will be available on Arboretum roads near the Greenhouses. If you have any questions or would like to join the Friends of the Arnold Arboretum before the sale, please contact membership coordinator Wendy Krauss at 617.524.5766.

Karen Madsen

Members Make a Difference

Help keep us growing! Your annual membership in the Friends of the Arnold Arboretum supports the care of our landscape and living collections, research initiatives, and education programs for adults, children, and professionals. Your membership gift provides the foundation for all of this important work as well as these benefits to you:

- Subscriptions to Arnoldia, our quarterly magazine of horticulture and botany, and Silva, our semiannual publication of news, classes, and visitor information
- Member-only events and free plant distributions
- Free admission and/or discounts at nearly 200 gardens and arboreta
- Special member rate for Arnold Arboretum sponsored courses and lectures
- Discounts at more than 35 participating nurseries
- A 10% discount on merchandise in the Arboretum bookstore

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.

- Student/Teacher . . . . $20
- Individual . . . . . . . . . . . . $35
- Household . . . . . . . . . . . $50
- Sustaining . . . . . . . . . . . . $100
- Organization . . . . . . . . . . $150
- Sponsor . . . . . . . . . . . . . $200
- Patron . . . . . . . . . . . . . . . $500
- Benefactor . . . . . . . . . . . $1000

To join or learn more, please contact the membership office at 617.384.5766, or request information by email at membership@arnarb.harvard.edu. Thank you!
In our Collection

View of Woodland Hill, Autumn 1839

Sheila Connor, Archivist

In the mid-1980s, Boston antiques dealer Paul Weiner loaned the Arboretum an oil painting of “Woodland Hill,” the estate of Benjamin Bussey which today comprises a large portion of our landscape. When Mr. Weiner closed his shop, he graciously offered the painting to the Arboretum at a cost well below its appraised value. With the generous support of staff, members of the Friends of the Arboretum, and the Arboretum Associates, the painting was purchased on December 7, 1989.

Inscribed “Seat of Benjm Bussey Esqr Roxbury (from Walk Hill) by Wm A. Cobb. Autumn of 1839,” it is a small (22½” x 20½”) but delightful painting rendered by an obscure, though possibly local, artist. The landscape depicts Hemlock Hill on the left and Bussey Hill (formerly Weld Hill) in the center and, in the foreground, Bussey Brook Meadow. Also visible in the foreground is South Street, which in Bussey’s time was known as the low road to Dedham, and one can see where Bussey Brook (then Sawmill Brook) flows into Bussey Brook Meadow. The small white fence approximates where the Arboretum’s South Street Gate stands today. The Bussey mansion is surrounded by stylized pines, and these, as well as other conifers in the painting, stand in sharp contrast to the prevailing fall color of the landscape.

Some of the hedgerows that delineated the separate parcels Bussey acquired in the creation of his 300-acre estate appear in the painting. Of particular note is the hedge line that ascends the right slope of Bussey Hill. It is likely the same ancient lilac hedge planted by Bussey that is still extant and today forms the edge of the Explorers Garden. His observatory sits atop Bussey Hill, and the church in the distance probably represents the Third Parish in Roxbury (presently the First Church of Jamaica Plain) where Bussey, a generous patron, is buried. We are fortunate to have this representation of our past in our archival collections; displayed outside the library, it captures a view of the Arboretum that, in many ways, remains unchanged.