The Arnold Arboretum

New Horticultural Taxonomist Welcomed

Robert E. Cook, Director

In 1997, when Steve Spongberg announced that he would retire after 27 years as the horticultural taxonomist at the Arboretum, we knew he would be hard to replace. The traditional science of taxonomy, especially as applied to the description and naming of horticultural cultivars, had all but disappeared from graduate training programs in American universities. Our preliminary inquiries among colleagues turned up few names of professionals with the experience and stature that Steve had acquired during his career here.

Following his departure, we advertised the availability of the position and received a modest number of resumés expressing interest. Although there were very few senior individuals who could qualify for the position, among the younger scientists who applied, the qualifications of Dr. Jianhua Li stood out due to his unusual background and training and his particular interest in temperate woody plants of Asia and North America.

Jianhua was born in China and received a traditional botanical education emphasizing anatomy, embryology, morphology, physiology, and ecology at Henan Normal University and Central China Normal University. His master's thesis looked at the vegetational ecology of rare *Metasequoia* populations in southwestern Hubei Province. He taught in several Chinese universities until 1993 when he came to the United States to attend the graduate training program at the University of New Hampshire, where he earned his Ph.D. degree in botany in 1997.

At New Hampshire, Jianhua quickly acquired new skills, using molecular techniques to address questions about genetic relations among plants and what this information tells us about their evolutionary history. His family of choice was Hamamelidaceae, the witch hazels. These newer techniques extract the DNA from plants and compare the sequence of genes along the DNA to infer degrees of relatedness among species. By virtue of his earlier training in China, Jianhua could now compare studies based on traditional morphological approaches with the results of molecular analysis to greatly refine our understanding of plant evolution, particularly the close evolutionary relationship between Asian and North American genera. This relationship has been the basis of plant collecting for the Arboretum for over a century.

With his Chinese heritage and his thorough grasp of modern approaches to plant evolutionary studies, we believe that Jianhua will greatly strengthen our Asian research efforts in collaboration with a wide range of scientists, both here in America and in the countries of eastern Asia.



Jianhua Li's primary area of expertise is the witch hazel family, and his study of genetic differences among its species—of *Corylopsis*, in particular continues. His interest in the honeysuckle family (Caprifoliaceae) also continues, and his knowledge of it is growing rapidly, helped by the Arboretum's large representation of that family.

In addition to his work on molecular phylogeny, Jianhua will continue to study the embryonic and floral development of *Heptacodium miconioides* and *Kolkwitzia amabilis*. This type of research requires close proximity to the plant material since buds, flowers, and young fruits must be collected often, sometimes every other day. A new laboratory in the Dana Greenhouses will support this more traditional aspect of his taxonomic research.

Fellowship Awarded to Director of Living Collections

Director of Living Collections Peter Del Tredici has recently been awarded Harvard University's Charles Bullard Fellowship in Forest Research. The fellowship is awarded to individuals in the biological, social, physical, or political sciences to promote advanced study, research, or integration of subjects pertaining to forested ecosystems. It provides mid-career scientists with an opportunity to use the resources and interact with personnel in any department within Harvard in order to develop their own professional growth. Peter is one of seven fellows selected for the 1999–2000 fiscal year.

Peter plans to spend most of his "sabbatical" in Petersham, Massachusetts, the site of the Harvard Forest, where he will work on several projects, including vegetative regeneration in trees following catastrophic disturbances and the response of hemlock forests to infestation by the hemlock woolly adelgid. He also hopes to begin writing a book on the growth and cultivation of trees in the human landscape. He will be away from the Arboretum from the first of September through the first of March 2000, but we're sure that he will pop in at the Arnold periodically.

Welcome to Arboretum Apprentice

Midori Matsuoka arrived at the Arboretum in May to begin her year-long appointment as apprentice. Born and raised in Tokyo, Japan, Midori earned her associate's degree in horticulture from Kesen Junior College in Tokyo. After graduating, she worked in the floral department of the College, where she propagated herbaceous plant material and taught a number of practical courses related to horticulture. Following her time at Kesen Junior College, she entered the oneyear program in practical horticulture at Wisley Gardens in England where she discovered that the English method of teaching

about plants differs from the Japanese. She found her English instructors to be more open to student inquiries, often responding to questions with multiple answers and ideas. After leaving Wisley she worked for twomonths at Westonbirt Arboretum in Gloucestershire, which fast became her favorite English garden. She especially enjoyed working with Westonbirt's many old and very large trees.

An important project in which Midori will be involved over the next year is the restoration of Rhododendron Dell at the base of Hemlock Hill. Re-edging, pruning, weeding, and stream renovation should result in vast improvement. Ultimately, Midori hopes to work in plant conservation.





New Staff

Jon Hetman joined the Arboretum staff in April as assistant to the director and the development staff. Originally from Ohio, Jon graduated from Ohio University with a degree in communications. Since graduating, Jon has held a variety of positions, from public relations at an Ohio art museum to teaching children about composting and beekeeping at a private foundation. He has lived in Boston for nearly six years, and worked most recently at Harvard's John F. Kennedy School of Government as assistant to the registrar.

Among Jon's responsibilities are administrative support for the development and membership departments related to special events, the plant sale, and mailings. Jon will also assist the Institute of Cultural Landscape Studies with database management.

1999 Summer Interns

Each year the horticultural trainees of the Arnold Arboretum provide the living collections department with invaluable service. The fourteen interns assisted the full-time staff with the propagation and maintenance of thousands of juvenile plants in the Dana Greenhouses and Nursery and the transplanting of hundreds of plants to the main collection during the spring of 1999. Several tons of weeds were uprooted and replaced with tons of mulch throughout the Arboretum, and records and mapping locations of hundreds of plants have been updated.

Thanks to the hard work of the 1999 interns, the lilac collection was in peak condition for the visiting public this May. Interns braved

Lilac Hill, risking life and limb to cut grass with push mowers on the 45-degree slope. The summer has not been all hard, death-defying work; the interns learned a great deal about the propagation, care, and record-keeping of the living collections.



The 1999 Arboretum Interns: standing, Jeanne Kannegieser, Rijk Gupta, Dylan Penrose, Steve Wiersma, Julie Callahan, Tomas Zicha, Leanne Erickson, Hilary Maurer, Brent Scherr, Karen Clancy; seated, Midori Matsuoka (Arboretum apprentice), Jessica Abramavicius, Stephen Snyder. Not pictured: Claire Corcoran, Jessie Pettit.

They also ventured out on many field trips, including visits to the Polly Hill Arboretum on Martha's Vineyard, the Brooklyn Botanic Garden and Prospect Park in New York City, and Boston's own Emerald Necklace, which they walked from end to end.

Annual Fall Plant Sale

Plans for the 19th Annual Fall Plant Sale, to be held on Sunday, September 26, are well underway. This event attracts expert and amateur gardeners alike and



is a wonderful opportunity to take in and play a role in the New England horticultural scene. Over 100 varieties of trees, shrubs, perennials, and vines nur-

> tured at the Dana Greenhouses will be on offer in the barn at the Case Estates in Weston. Arboretum staff and knowledgeable volunteers will be on hand to answer your most challenging questions. Thirty nonprofit plant societies have been invited to participate, adding the twin resources of hard-to-find cultivars and expert advice in a wide assortment of specialties. The liveliest activity of the day is always found under the live and silent auction tents, where the rarest and most choice selections are to be found. Rain or shine, we hope to see you there!

Peters Hill Dedication

Well-wishers gathered in June to view the completed landscape restoration project on Peters Hill, funded by employees of Hill, Holliday, Inc., in honor of founder and chairman Jack Connors. The planting of over 300 trees and shrubs has returned the hilltop to a condition consistent with Frederick Law Olmsted's vision of scenery in the naturalistic style. Mr. Connors (seen at center) spoke with affection of his visits to the Arnold Arboretum, which began in boyhood, and of the Arboretum's continuing importance as an urban resource.



A Memorable Spring Gala

Members of the Director's Advisory Board and the Arboretum Council gathered with friends and contributors to the Arnold Arboretum on a breezy spring evening to celebrate another successful year of fundraising toward the \$8.2 million goal of the capital campaign.

Presentations throughout the Dana Greenhouses compared the challenges faced by successive generations in assembling the outstanding landscape of today's Arnold Arboretum, giving participants a look at how plant collecting, curation, and propagation have changed-or not changedover the last century. Technological advances have improved efficiency and access to information, but all the same much of the work remains remarkably similar to time-honored methods of acquiring plant material and bringing it into the living collections in Jamaica Plain. In honor of the new millenium, staff developed a self-guided tour of fifteen significant centenarian trees and shrubs to encourage guests to explore the grounds and discover



mature examples of the earliest accessions.

Director Bob Cook and Director's Advisory Board Co-chair David Stone greeted the assembled guests and spoke of the significance of their contributions to the vitality of the institution. John Trexler, director of Tower Hill Botanic Garden, reviewed the Arnold Arboretum's history of leadership among its peer organizations and remarked that his own fascination with horticulture was fostered at the Arboretum in the earliest stages of his professional career. The remainder of the evening was given over to conversation, music, and renewing acquaintances.

Sheehan Recognized by Fellow Workers

July 16 marked Maurice "Moe" Sheehan's 35th anniversary working on the grounds staff of the Arnold Arboretum. In recognition of this momentous occasion, the staff surprised Moe with a tree dedication ceremony on Peters Hill. The tree, a *Fagus sylvatica* 'Bornyensis', was the first Moe planted as an Arboretum employee in 1964. A special record label was suspended from the tree during the ceremony. It reads,



In celebration of 35 years of exceptional caring and commitment, as well as hard work, his colleagues at the Arnold Arboretum dedicate this *Fagus sylvatica* 'Bornyensis'—the first tree he planted—to Maurice "Moe" Sheehan

July 16, 1999

As the employee with greatest seniority, Moe functions both as the institution's memory and as our working foreman. During his tenure he has literally performed every job related to maintenance of the grounds and has witnessed great change in both the landscape and the institution. Congratulations to Moe for his 35 years of service!

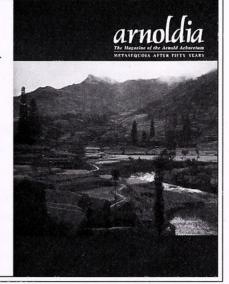


Moe Sheehan and Julie Coop, Superintendent of Grounds, stand before the *Fagus sylvatica* 'Bornyensis'. Left, Moe graced the cover of *Arnoldia* in 1975.

Many back issues of Arnoldia—most of those published since 1990, many published since 1980, and some published since 1970—are available for purchase. With only two exceptions—Sourcebook of Cultivar Names and Metasequoia After Fifty Years, both \$10—all are \$5 postpaid.

And for gift giving, bear in mind that subscriptions to *Arnoldia* are just \$20 per year domestic and \$25 foreign, payable by international money order or by Visa or Mastercard.

Send orders or inquiries to Circulation Manager, Arnoldia, The Arnold Arboretum, 125 Arborway, Jamaica Plain, MA 02130-3500; telephone 617/524-1718 x114; fax 617/524-1418; or e-mail arnoldia@arnarb.harvard.edu.



The Institute for Cultural Landscape Studies of the Arnold Arboretum is pleased to co-sponsor the publication of

Charles Eliot, Landscape Architect

by Charles W. Eliot with a new introduction by Keith N. Morgan University of Massachusetts Press in association with the Library of American Landscape History, 1999

This biography of Charles Eliot (1859-1897) remains the definitive work on the influential designer and planner whose death at age thirty-seven robbed this country of a practitioner of unusual foresight and deep social conscience. First published in 1902, it was compiled by Eliot's father, then president of

Harvard University, directly from his reports, and published writings. Charles ation of both The Trustees of Reservavancy in the country, and the Boston of Frederick Law Olmsted, Eliot worked ing the Arnold Arboretum. His essays population supported the development reprint contains a new introduction by Boston University. Two large fold-out lic open spaces in metropolitan Boston



son's journals, travel writings, public Eliot laid the groundwork for the cretions, the first statewide land conser-Metropolitan Park System. As a partner on Boston's Emerald Necklace, includon the value of scenery to an urban of regional open space planning. This Keith Morgan, Professor of Art History, maps that show the distribution of pubin 1892 and 1901 have been reproduced

from the original edition. *Charles Eliot, Landscape Architect* is the inaugural volume in a ten-volume reprint series undertaken by the Library of American Landscape History, Amherst, Massachusetts, to honor the centennial of the American Society of Landscape Architects.

In honor of this new publication the **Institute for Cultural Landscape Studies** is sponsoring a lecture and panel discussion at the Arnold Arboretum to reveal the value of Eliot's contribution to landscape preservation:

"The Natural City": Reclaiming the Legacy of Charles Eliot Catherine Howett, Professor of Landscape Architecture and Historic Preservation, University of Georgia Tuesday, November 16, 1999, 7:00–8:30 Professor Morgan will be available at a reception after the lecture to sign copies of the biography and to discuss his work on Charles Eliot.

Places of Uncommon Beauty: A Panel Discussion on the Lesser Known Parks of Charles Eliot Panelists will include:

Julia O'Brien, Director of Planning, Metropolitan District Commission Karl Haglund, Project Manager of the New Charles River Basin, Metropolitan District Commission Tuesday, December 7, 1999, 7:00–8:30

Charles Eliot, Landscape Architect will be available for purchase at both events. It can also be obtained directly from the University of Massachusetts Press for \$50.00 plus postage and handling (e-mail: orders@umpress.umass.edu; fax 800/488-1144; phone 413/545-2219).

Both events will be held at the Hunnewell building of the Arnold Arboretum, 125 Arborway, Jamaica Plain, Massachusetts. They are open to the public free of charge, but advance registration is required. Please call the Institute at 617/524-1718 x175 or e-mail us at icls@arnarb.harvard.edu to reserve a place.

To complement this biography the Institute for Cultural Landscape Studies is publishing *Charles Eliot, Landscape Architect: A Research Guide.* This guide, prepared by Keith Morgan, contains a chronology of Eliot's life, a list of his projects, and a bibliography of works by and about him. This guide will be available at both of the events listed above as well as directly from the Institute for Cultural Landscape Studies. Call 617/524-1718 x175 or e-mail us at icls@arnarb.harvard.edu.

Johnny Appleseed Commemorated

On April 12, a direct descendant of one of Johnny Appleseed's trees was planted in the Arnold Arboretum in a ceremony that honored him as tree planter of the millenium. The event was co-hosted by American Forests Famous and Historic Trees, and it launched a two-week tour that traced his travels from Massachusetts to Indiana. At each stop, Jeff Meyer of American Forests planted several "Rambo" apple trees, which were propagated from the last surviving apple tree known



to have been planted by Johnny Appleseed.

Peter Del Tredici assisted Jeff Meyer (seen above) with the ceremonial planting in the Eleanor Cabot Bradley Collection of Rosaceous Plants. Afterwards, the specimen was removed to the Dana Greenhouses, where it will be sheltered until it attains greater size.

PROGRAMS 🔗 EVENTS

The Arnold Arboretum's education department offers many short courses, lectures, and programs during the winter months. These cold months give gardeners the time to plan their gardening activities for the coming season and to learn about new plant materials and horticultural techniques.

For a complete catalogue of programs and events at the Arboretum, call 617/524-1718 x162. Please note that course fees printed in **boldface** are for Arboretum members.

SEPTEMBER

HOR 431 Making a Garden: Unusual Plants in a Traditional Design

David Culp, Sales Representative and Researcher and Developer for Sunny Border Nurseries; Instructor for Longwood Gardens

Creating a new garden does not necessarily mean abandoning traditional design, especially in New England. In fact, following tradition may be most appropriate to your garden site. In this slideillustrated lecture David Culp will provide examples of new ideas joined with standard design techniques to create remarkable and harmonious gardens. Primarily illustrated with design ideas from his own "four-square" garden in Downingtown, Pennsylvania, this lecture will discuss tried-and-true design elements and suggest innovative ways to bring freshness to old ideas.

Fee: \$15, \$18

Monday, September 13, 7:00–8:30 pm Hunnewell Building Co-sponsored with the Massachusetts Horticultural Society OCTOBER

HOR 366 Beeches

Dennis Collins, Curator of Plant Collections, Mount Auburn Cemetery

European beeches, *Fagus sylvatica*, have long been a mainstay in the tree collection at Mount Auburn Cemetery. Many have attained magnificent size and form after more than a century of growth. In addition, the species is known for its vast number of cultivars that display unusual foliage and growth habit. On this walking tour, Dennis Collins will highlight the diversity within this remarkable group of plants and look at the recent outbreak of a serious health threat affecting old beech trees. Wear your best walking shoes. Class meets rain or shine.

Fee: \$10, \$12

Friday, October 1, 10:00-noon Mount Auburn Cemetery (MCA: .5 credits) Co-sponsored with the Friends of Mount Auburn Cemetery

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HOR 301 Pruning Basics for Woody Ornamentals

Bob Famiglietti, Gardener Specialist, the Arnold Arboretum, and Massachusetts Certified Arborist

Are you intimidated by overgrown landscapes? Knowing what and when to prune, and how to do so, is essential. This lecture/slide presentation will demonstrate pruning tools and methods that will aid the homeowner in maintaining well-balanced specimens. Learn the basic techniques of structural pruning to enhance the beauty of ornamental shrubs.

Fee: \$30, \$36

Saturday, October 2, 10:00 am-1:00 pm Dana Greenhouses (APLD: 1 unit) (MCA: .5 credits)

HOR 202 Medicinal Uses of Woody Plants

Seija Hälvä, Horticulturist

Enjoy a walk on the grounds of the Arboretum with a focus on its medicinal woody plants. Seija Hälvä will highlight plants from throughout the temperate world that have been used or still are used by various cultures today for healing purposes.

Fee: \$16, \$19 Tuesday, October 12, 10:00–noon Dana Greenhouses

BOT 116 Supermarket Botany

Judith Sumner, Botanist and College Educator

A trip to the supermarket can become a botanical adventure. During this handson, three-hour workshop we will rely on supermarket bounty to understand the practical aspects of plant form and function. Using culti-



vated specimens, we will investigate fruit origin and development, beginning with pollination and fertilization in the flower. Fruit types will be classified using a convenient dichotomous key, and we will discuss the structure of such familiar fruits as pomes, drupes, legumes, and berries in light of their adaptations for dispersal. Cultivated specimens will also provide roots, stems, leaves, and flowers for study, as we investigate some interesting supermarket examples of plant anatomy, pH, and pigmentation. **Fee: \$30, \$**36

Monday, October 18, 2:00–5:00 pm Hunnewell Building

Flora of the Lesser Antilles

Copies of the six-volume *Flora of the Lesser Antilles*, a long-term project of Richard A. Howard, former director of the Arnold Arboretum, are still available in limited quantities.

These six volumes constitute the first comprehensive flora of the area, and the treatments present keys to the genera as well as the species for easy identification. For each genus and species a complete modern description is provided; it includes coloration as well as measurements of floral parts. The descriptions are followed by geographic distribution both within and without the Lesser Antilles. All volumes are abundantly illustrated with line drawings that are botanically correct and highly artistic. All species known in the Lesser Antilles, both native and introduced, are included.

The six volumes are available either individually or as a complete set. For the complete set a special price of \$260 is offered that includes shipping and handling within the U.S.A. (Add \$5 for shipping outside the U.S.A.) For volumes 4, 5, and 6 only, the special price is \$205.

Individual volumes may be purchased at the prices given below, plus \$2 per volume for shipping and handling:

Volume 1: Orchidaceae	\$20
Volume 2: Pteridophyta	\$25
Volume 3: Monocotyledoneae (other than Orchidaceae)	\$35
Volume 4: Dicotyledoneae 1	\$75
Volume 5: Dicotyledoneae 2	\$85
Volume 6: Dicotyledoneae 3	\$85

Checks should be made payable to the Arnold Arboretum, and all orders should be addressed to the attention of Frances Maguire, Arnold Arboretum, 125 Arborway, Jamaica Plain, MA 02130, U.S.A.



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