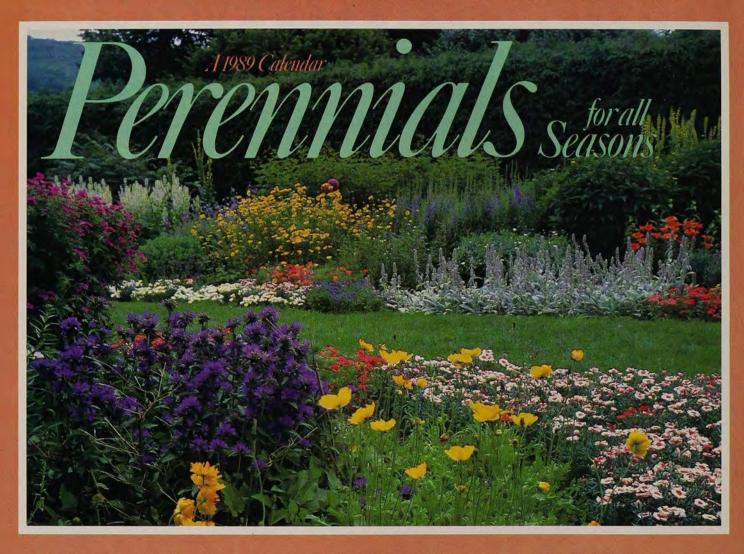


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Left: Rich autumn colors brighten the Fountain Terrace, one of the many gardens at Dumbarton Oaks. The gardens were designed by Beatrix Jones Farrand, one of two early twentieth century creators of American garden landscapes whose work is described in this issue. Read about Beatrix Farrand's Dumbarton Oaks starting on page 22; learn about Fletcher Steele's artistic landscapes on page 4. Photograph by Michael Selig.

On the Cover: Colchicum 'The Giant' blooms with rosy-lilac, crocus-like flowers in the fall. Members of the Lily family, colchicums offer a pleasant surprise at the end of the growing season, just when gardening excitement seems to be winding down. A number of colchicums and their culture are covered in the article that starts on page 18. Photograph by Anita Sabarese.

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"All the World Is Good"

Il the world is good," said Dr. Liberty Hyde Bailey, dean of American plant scientists, world famous botanist and horticulturist, at a dinner given in his honor by Cornell University April 29, 1948, in celebration of his ninetieth birthday. He also lauded the virtues of a lifetime of hard, honest labor. He spoke of the books he had written and said that his "opus magnum has not yet been begun"—a comprehensive study of the palms of the world. He concluded by saying, "The measure of life is in the day-to-day of it. The earth is good, and it is a privilege to live thereon. My life has been a continuous fulfillment of dreams."

Cornell University had planned his birthday party in March, but as *Time* magazine said, "The party had to be deferred—for the birthday boy was nowhere around." His birthday was spent alone in the Caribbean where he discovered three palms never before described by man.

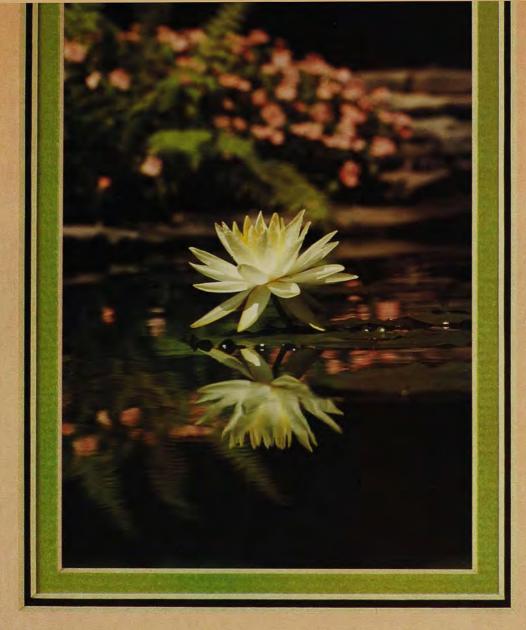
The delayed celebration honored a most extraordinary life marked with devotion to rural America, a passion for collecting and classifying plants, prolific writing of more than sixty-five books and hundreds of articles and pamphlets, and cherished friendships with Theodore Roosevelt, Asa Gray, and other prominent Americans. He built the Bailey Hortorium (he coined the word to include cultivated plants as well as plants in their natural state) to house the specimens of his worldwide collecting. A U.S. postage stamp honoring American gardening and horticulture further recognized Dr. Bailey's achievements.

Your American Horticultural Society will honor America's own Dr. Liberty Hyde Bailey at the 1989 Annual Meeting to be held next July 26-29 in Minneapolis, Minnesota.

The most prestigious award in horticulture—the Liberty Hyde Bailey Medal—is given annually by the Society to the person most exemplifying Dr. Bailey's pursuit of excellence and devotion to horticulture. Many of the previous award winners will be present to participate in this tribute and to share their own current projects and future visions with all of us.

I hope that this focus for our 1989 meeting will stir us to rediscover the great heritage we received from Dr. Bailey and inspire us to read his books and biographies in order to experience the magnitude of his work, which is as vital and pertinent now as it was a century ago.

Caroly March hindsay



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The Designer As Artist

ore Americans are gardening, and gardening better, than ever before. Homeowners across the country are requesting terraces and beds in place of the decks and simple lawns that sufficed a decade ago. Not surprisingly, new concerns about design are arising, with happy results: the garden, once again, is seen as a vehicle for artistic expression.

In their search for fresh ideas, professional and amateur designers are finding inspiration in the work of early twentieth century American designers whose reputations languished as a result of changing postwar attitudes and lifestyles. Fletcher Steele (1885-1971), Fellow, American Society of Landscape Architects, is one of the most intriguing figures to have emerged from recent research.

Steele practiced landscape design as a fine art for nearly six decades. His sensitivity to the lay of the land and his imag-



Steele's designs drew from European and Far Eastern traditions, modern French design, and the American past.

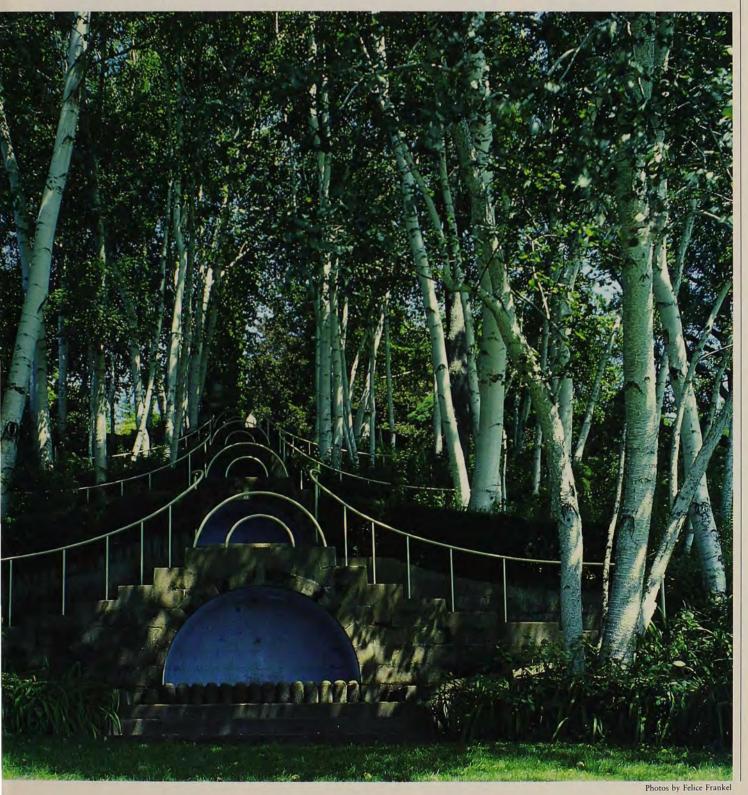
inative responses to it and to the needs of his clients set him apart from many colleagues, especially during the 1920s and 1930s when Steele was at the height of his powers and big commissions were commonplace. Steele's designs drew from European and Far Eastern traditions, modern French design, and the American past. They offered a link between modernism and the Beaux Arts formalism that characterized early twentieth century work. To today's designer, they offer a treasure house of inspiration and practical ideas.

Steele was born in the small village of Pittsford, outside Rochester, New York. He claimed that it was a dissatisfaction with the way most things looked that led him to study landscape architecture. "I suppose I thought it was easier to change plants than buildings," he later wrote in a private letter. A student in Harvard's newly formed school of Landscape Architecture, Steele proved a witty and outspoken iconoclast; in 1909 he decided that he could better master his art working for Warren Manning, one of the founding members of the American Society of Landscape Architects, so he abandoned his formal course of study at Harvard. "The one good teacher I had there, Denman Ross, made up for a lot of wasted time," he complained many years later. After four years with Manning, Steele left with his mentor's blessing (and financial support) for a four-month tour of Europe.

Upon his return to Boston in 1914, Steele set up a solo practice. One of his first jobs, for Charlotte Whitney Allen, proved his most enduring—it was Steele's own death in 1971 that finally signaled the end of the project. Ironically, the Allen garden was tiny; it covered barely one quarter of an acre in an elegant but essentially suburban Rochester neighborhood. The small size and rectilinear lot (defined

LEFT: At Naumkeag, a small, pagoda-like structure accentuates the rolling green lawns. RIGHT: A stroke of genius, the Blue Steps' arching rails echo the semi-circular vaults while the grove of *Betula papyrifera* highlights the white rails.



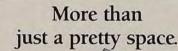




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THE DESIGN PAGE



This view of Mrs. Allen's garden from the rear shows one of the pair of unusual painted bronze vases of flowers that flanks the pool.

by the L-shaped house and neighboring properties) presented a special challenge to the young professional: how to procure the privacy that Steele believed all gardens must have and yet create the illusion of great size and mysterious, unseen spaces.

Steele solved the problem by walling the third (long) side of the backyard and grading the fourth to create a terrace and brick retaining wall-it was this special, separate space that gave the garden its magic. He defined the area with an allée of Fagus sylvatica at right angles to the main garden axis. The row of beeches nearest the house are pruned lower, so the space between the two is clearly perceivable. A nude figure, sculpted for the garden by Gaston Lachaise in 1926, offers a focal point for the view from the house terrace. A small fountain creates sound and movement as it bubbles into a pool directly below. (Tiny Mrs. Allen asked Steele to make the pool shallow enough for her to wade from one end to the other without getting her hair wet.)

Charlotte Allen's was a green garden by request—she disliked the chaos of dying flowers—so Steele used the architectural forms of taxus, buxus, ilex, and euonymus (in variety) to create a tailored appearance. More unusual, *Cornus florida* 'Pendula' and topiaried taxus ornamented simple green niches. A single row of *Heuchera*

sanguinea was added for color, and a tiny wildflower garden was planted out of sight on the other side of the house. Steele believed that the impact of a carefully wrought, three-dimensional outdoor "room" was more profound than any other landscape feature; in Mrs. Allen's garden, the room was diminutive, and its detailing increasingly complex.

Over time, Steele would add bronze pots of polychromed flowers along the terrace edge (painted red, white, and blue during World War II), a Jacobean arch to emphasize the presence of the sculpture, a Calder mobile (Calder's first outdoor work), and a pool shelter of bronze chain mail for Mrs. Allen's daily martini hour. But nothing disrupted the logic of Steele's original plan or violated the calm, organizing force of the garden's central feature—a rectangle of turf, narrowed imperceptibly at the far end to further enhance the illusion of distance.

Twelve years into his successful practice, Steele met his greatest patron, Mabel Choate. At the time, his clientele included some of the Northeast's wealthiest residents, his first book *Design in the Little Garden* was a critical success, and he was in great demand as a lecturer. Miss Choate, the daughter of United States ambassador Joseph Hodges Choate, would shortly inherit the family's large Shingle Style sum-



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THE DESIGN PAGE

mer cottage, Naumkeag, which nestled on a Berkshire mountainside in western Massachusetts. At age fifty-five, she was ready to make the family home her own.

At their first meeting in 1926, Miss Choate presented Steele with a relatively simple request-she wanted a place to sit outdoors and enjoy the fine mountain view. Neither patron nor artist realized that the modest project was launching them on a collaborative venture that would stretch over three decades and transform most of the estate's forty-five acres.

Steele's concerns with utility and livability remained constant while be explored a range of artistic expression.

In designing Naumkeag's Afternoon Garden (as it was later christened), Steele was faced with the opposite of the problem that he had encountered in Rochester. Here the challenge was to provide some sort of enclosure without obscuring the stupendous view and, once done, to keep interest inside the garden, despite the compelling visual competition beyond.

Steele resolved the tensions neatly by siting the new garden room against the south end of the house and using a dynamic piece of sculpture by Frederick MacMonnies, silhouetted against the sky "in the Italian manner," to establish one corner of the area. The sculpture's position was fixed by sending a boy up a stepladder which was turned until he looked right from all angles. A tall brick wall was built to screen traffic from the driveway, but the remaining two walls, defined by Venetian columns and ivy-garlanded rope, were open to the broad south lawn and its breathtaking view. All planting in the small garden-and in Steele's work generallywas subjugated to broad design concerns.

The dominant plant in the Afternoon Garden was a large Ulmus americana that had been included inside the new wall to give the illusion of age. Beds of ferns, hostas, and lilies beneath dispelled an unwanted "primness," as did the rampant grapevine covering the wire trellis roof. Blue and violet clematis wound skyward on the brightly painted Venetian posts, while Miss Choate's fine fuchsia collection was displayed in a long wrought iron holder influenced by Steele's memories of Spain. A French knot design was adapted to create a carpet for the new room: low box hedges edged beds of Lobelia erinus and Calceolaria crenatiflora (both eventually replaced by anthracite and pink gravel). Four tiny jets played in fountains inspired by the Generalife gardens in Granada and a mirror pool of black glass reflected the blue sky overhead. It was a thoroughly eclectic vision, but the lively, playful spirit was all American.

New designs at Naumkeag followed quickly. Steele's practice was flourishingclients throughout the Northeast were paying high fees for the landscape architect's services and popular gardening magazines were publishing his articles annually. In 1933, Steele boldly reworked the contours of Naumkeag's south lawn to harmonize with the rolling hills beyond in a gesture that owed its inspiration to the abstraction of modern painting and sculpture. The resulting topographical formundoubtedly the first "earthwork" of the twentieth century—seizes the eye and guides it to a small, pagoda-like structure at the lawn's end. Steele's solution emphasized the magnificent expanse of ground by joining the contours of the designed landscape with the mountainscape beyond.

Miss Choate's request for steps down to her cutting garden led to another grand scheme. By 1938 Steele was under the sway of the bold rhythms of Art Deco. He had also just returned from the last of many trips to Italy. These two forces converged in a design that faintly recalls a Renaissance inspiration. The Blue Steps have become Steele's signature work, one of the best known images in American garden

The visual play between the blue semicircular concrete vaults and the curving white rails is beautiful, but the feature would not be half so striking without the grove of Betula papyrifera surrounding it. Here Steele's genius as designer and plantsman found near-perfect expression-the resonance between white rails and white trunks and branches is at once witty and poetic. Steele's ability to see plants as building blocks in the broad picture was serving him well.

The trip down the Blue Steps is accompanied by the echoing trill of water, fed by a shallow brick rivulet that catches the sun and offers birds a spot to drink and bathe. Today the flower gardens that

necessitated the feature have been replaced by lawn, a casualty of steadily increasing labor costs on the estate. Naumkeag is the only garden by Steele open to the public.

n 1946, nearly a decade later, the landscape architect was hired by a young Worcester, Massachusetts, couple to create a garden in their sharply sloping, densely wooded backyard. Returning to the sculptural approach that had served him so well at Naumkeag, Steele directed bulldozers with hand signals until he had resolved the property into a series of giant, curving terraces that found visual fulfillment in a large pine at the hill bottom. Steele defined the edges of the great curves with a formal bedding scheme that included blue-gray stone, Festuca glauca, Rosa "Gruss an Aachen", and Stachys byzantina. Other features (including a wall of Adiantum pedatum, a rock wall garden at the house terrace, and a series of small, lead-bottom pools) did not disturb the dynamism or unity of the unusual scheme.

Steele's landscape projects-nearly all of them residential-often extended far beyond conventional garden planning to include siting houses, laying out and constructing drives, service courts, and parking areas, and designing outbuildings and house additions. During his forty-eight years of practice in Boston, and his decade-long "semi-retirement" in Pittsford, he made over 500 gardens, many of them large and expressive landscapes requiring many years' planning and growth. Steele's concerns with utility and livability remained constant while he explored a range of artistic expression inspired by historical forms, his own rich imagination, and his client's wishes.

Steele's gardens (many of which are accessible only through old photos and plans) offer intriguing answers to ancient landscape dilemmas. But his example is illuminating in the broadest sense-Steele approached his work as an artist, and believed, as he convinced others, that the truly successful garden offers a playground for the owner's inner, sometimes hidden self. When observed, it is a lesson that results in landscapes of great beauty and meaning.

-Robin Karson

Robin Karson, contributing editor for Garden Design and Landscape Architecture, is the author of Fletcher Steele's biography to be published in 1989.

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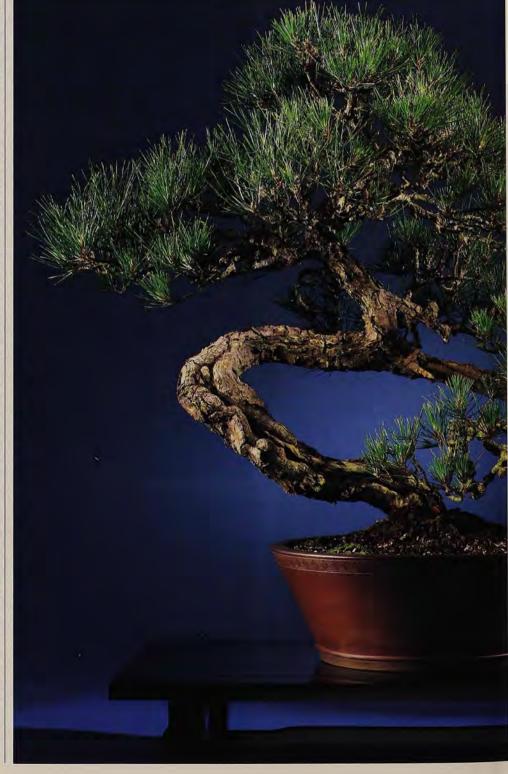
A Gift of Chinese Penjing

7 his story begins in Hong Kong in November 1975. My wife and I, along with other participants in the American Horticultural Society's Asian tour, were invited to visit Dr. Yee-sun Wu's collection of artistic potted plants, called "penjing" in Chinese. Although I had just completed a gardening bulletin titled "Growing Bonsai" for the U.S. Department of Agriculture and was also aware that the U.S. National Arboretum had recently received a gift of fifty-three bonsai from the citizens of Japan through the Nippon Bonsai Association, this visit gave me a totally new understanding of how landscape trees and shrubs could be contained in such small living spaces.

Dr. Wu's collection was a private one, created for personal enjoyment and maintained for viewing by only a few honored guests. Unlike the bonsai displays of Japan, where an educational or commercial aspect was often involved, Dr. Wu's collection was a statement of one person's mastery of the living landscape. At first glance I found the penjing to be too stark, too finely trained, too reduced, as opposed to the lushness I had learned to admire in Japanese bonsai. I also found the presentation of more than 800 "trees" in one setting overwhelming from the viewpoint of daily care and maintenance; the gardener in me said that the responsibilities for so many plants would be more than most people would consider.

in preservation.

After touring the collection, we were invited into the residence to view the Chinese antique furniture and penjing containers and were offered a classic Chinese meal with a "lazy Susan" of dishes both hot and cold. When I left it was with several sets of slides that pictured the stone bases, ascending forms, and tiny garden artifacts of the penjing. Over the next several years I used these slides over and over again with different lectures to illustrate the gardener's striving to tame plants for urban life and the decisions which we all must make



RIGHT: A twenty-seven inch Pinus thunbergii.



Move forward ten years: I am now director of the U.S. National Arboretum, having moved to the 444-acre research/ education facility of the Agricultural Research Service after twenty-five years as a research horticulturist at the Beltsville Agricultural Research Center in Maryland. One of the first things I learned on my arrival at the Arboretum was of the tentative offer of Dr. Wu to give the American people a collection of penjing-the very plants on the slides I had shown so frequently with my lectures. In the files I found letters dating from 1975 suggesting that Dr. John L. Creech, the third director of the Arboretum, should visit Dr. Wu's collection in Hong Kong on his next trip to the Orient. Other letters over the next few years represented increasing progress toward the offering of a collection to the U.S. National Arboretum. I then began to take up the campaign myself, as I realized that a Chinese collection of trees would help us tell a more complete story about artistic pot plants. I continued the work of Dr. Creech in encouraging the formation of the National Bonsai Foundation and in establishing goals toward creating a National Bonsai Museum on the grounds of the Arboretum. Together we worked to complete the 1975 design of the internationally-famous architect, Masao Kinoshita, to display the original fifty-three bonsai that were gifts from Japan, along with Chinese penjing and North American

In 1985, Mrs. Orville Bentley, wife of the assistant secretary of agriculture, took a letter of acceptance for a portion of the collection to Dr. Wu from the secretary of agriculture, John Block, and thus began the detailed process of bringing the trees to the United States. Dr. Terry B. Kinney, Jr., administrator of the Agricultural Research Service, provided the funds to fly the plants to this country and to maintain them during a two-year quarantine.

bonsai.

On June 26, 1986, the plants were presented by Dr. Wu to the people of the United States. Sylvester G. March, supervisory horticulturist, Robert F. Drechsler, curator of the National Bonsai Collection, and I escorted them from Hong Kong to San Francisco. When we got to Dulles International Airport on July 1 we found that the airline had sent the trees to Los Angeles while we were traveling on tickets with the same flight number. Mr. March spent most of that night tracking them down and coordinating their delivery, and finally, on the morning of July 2, they arrived at Dulles after having been in transit for almost three days.

We were thankful that at both Los Angeles and San Francisco the plants had been watered by an interested airline attendant. We were greatly concerned about the shallow trays and their limited supply of water-the trees could easily have become stressed. But, amazingly, an early summer downpour drenched the trees as they emerged from the 747 at Dulles. After a puzzling transfer of government documents for gifts of unassignable value, the staff of the U.S. National Arboretum motored up in a convoy of trucks to transport the trees to the same quarantine houses at Glenn Dale, Maryland, that had been used for the Japanese collection eleven years before.

The staff cut their way through the crates and netting to place the trees in the screened lath house, and a team of eight specialists descended on the plants to check every aspect-insects, nematodes, snails, slugs, and diseases. There was even an inspector for the wooden packing material! The plan called for Robert Brittingham, officer in charge, Plant Germplasm and Quarantine Center, Beltsville, Maryland, to handle all of the materials and dispose of them safely (all the original growing media was to be changed and disposed of within one year). Because of these precautions, only a few groups were allowed to visit the collection. For the next two years Robert F. Drechsler and Daniel J. Chiplis visited daily to care for the plants, and volunteers Janet Lanman and Ruth Lamanna aided in the re-potting and pruning on a weekly basis.

The formal presentation of the penjing was on September 30, 1988. Stephen Wu, a banker from Boston, Massachu-

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NEW COLLECTIONS

i	Chinese Penjing	Japanese Bonsai	North American Bonsai	
Form	Ascending Clearing/starkness Trunk, roots are emphasized	Dimensional Depth/lushness Foliage is emphasized	Experimentation and discovery; styles are still emerging	
Species	Temperate and tropical species	Native trees and shrubs; hardy types are emphasized	Exotic and native North American species	
Source	Found, and recently put into training	Found, and centuries of training	Recent interest, mostly collected from the wild	
Training	Thin, prune and clip	Thin, prune, clip and wire	Thin, prune, clip, wire and mould	
Media	Natural clays of region	Complex mixture of components	Varies with specialist and traditions	
Artifacts	Figures, shrines and bridges to create illusions of landscapes	The plants themselves scaled to human size	Many approaches by various artists	
Container	Many guidelines of size, color and texture	Many guidelines of size, color and texture	Many traditional practices are emerging	

A Comparison of Ronsai Styles

setts, and the vounger brother of Dr. Wu, presented the plants to Peter Myers, deputy secretary of agriculture, and the collection was then placed in a temporary setting at the Arboretum. Thirty-one trees ranging in age from twenty to over 200 years are in the collection. Various styles are represented: the forest, clinging to Ying tak stone, two-tree, mother with son. The containers are either white marble pots or from Shiuvan, Guangdong, Wuxi Jiangsu, or Taiwan; several antique pots are over 200 years old. The trees and shrubs have been trained by the "grow and clip method" to create a variety of rock shapes and scenes; others represent overhanging cliffs or mountain peaks and ranges. Miniature figures, bridges, boats, and pavilions are included, so the potted plants have become artistic depictions of China's famous land-

The National Bonsai and Penjing Museum collection now includes over 250 distinguished trees from Japan, Hong Kong (Chinese Lingnan School), and North America. Ultimately, this six-acre site will have a series of garden experiences. Entrance is through the Ellen Gordon Allen garden, a gift of Ikebana International,

which leads into and includes the Japanese cedar forest (*Cryptomeria japonica*) and is followed by the Chinese, Japanese, and North American gardens and pavilions. Offices, teaching and display rooms, greenhouse and lath house areas will make the facility into a first-rate museum. The National Bonsai Foundation is securing funds for construction, to maintain the trees, and to provide educational experiences about bonsai and penjing throughout our nation.

It is gratifying that the slides I obtained during my 1975 visit to Dr. Wu's collection have now, in 1988, become living plants on the grounds of the U.S. National Arboretum. I invite you to visit and to learn about these gardening practices of southern China dating from the First Century. Now, as then, they are living poems, pliable sculptures of the renewing earth, and with our nation's gratitude, they are available for all Americans to see at their own National Arboretum.

-Henry M. Cathey

Henry M. Cathey is the fourth director of the U.S. National Arboretum and a former president of the American Horticultural Society (1974-1978).



Photographs by Josh Westrich. Text by Eva Dierauff and Anny Jacob. Foreword by Helene von Stein-Zeppelin.

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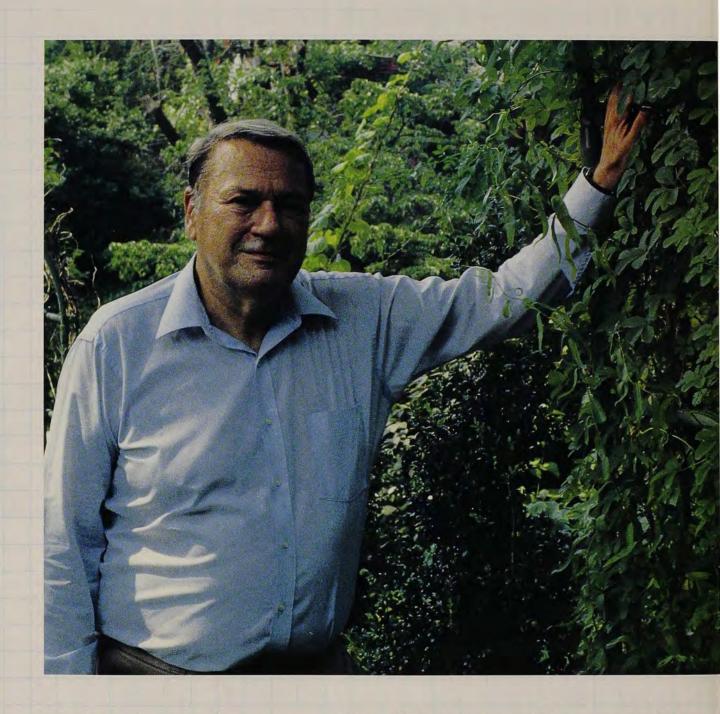
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Henry Mitchell

talks about his own kind of garden, and the plants he won't live without





byiously if your garden is thirtyseven by ninety-six feet you deal with that space; if it is four and a half acres, you use your land differently. If a seventy-foot-high maple grows a few feet from your garden on a neighbor's land, clearly you make allowances for that disgusting fact. No garden exists apart from its setting-the particular climate of its geography, the nature of the soil, the presence or absence of large trees, walls, and existing plants. A gardener would not lightly saw down a thirty-foot-high box bush already growing in the garden he recently acquired, even if it is not where he would

like it to be placed, or even if he did not particularly like box.

In short, and to save endless caveats, the reader is expected to know that no garden is "ideal" for all situations or for all gardeners. What follows is my own idea of a garden to suit myself and let us say it is a long narrow cat-run 40 by 185 feet in the nation's capital. The small house sits forty feet from the sidewalk in a neighborhood of large trees and neat lawns.

First, I would abolish the lawn, since the land in this small space forty feet square drops to sidewalk level in three terraces. And besides, I do not like lawns or the infernal racket of lawn mowers. Passing trucks and cars are of slight interest to me as well, and I would screen this fore-garden with a line of shrubs. A central walk would lead to the front door, and be given emphasis by an arch or small arbor at the sidewalk.

An endless variety of plants exists to glorify the entrance arch. In sun, few things excel a climbing rose, and my choice would be 'Jaune Desprez', an everblooming creature introduced in 1832 and hardy at least to Philadelphia. The clustered blooms of pale apricot are two to four inches (depending on manure, water, and general



care). The color is not strong at all, and sometimes it is mainly pink, sometimes yellow, and the musk fragrance is intense. This is a massive plant and would require heavy support.

In half-shade, where the rose would never be at its best, I would choose honeysuckles. Possibly the best is Lonicera heckrottii, its flowers rose with buff interiors and a slightly glaucous foliage that lasts into December. It is somewhat fragrant at night. But my choice would be the common European honeysuckle, L. periclymenum in the form known as "late Dutch." It is vaguely rose-colored, and scented. Tangling with it (planted on the other side of the arch), I would grow the wild American scarlet honeysuckle, L. sempervirens, which is scentless.

f I wanted a heavier foliage to make a more monumental entrance, I would choose the wild Japanese clematis, Clematis maximowicziana, long known as C. paniculata, with white almondscented stars in great masses at Labor Day, and foliage immune to bugs and blights. To the sides of the arch, forming a screen from the street, I would use a mixture of evergreen and deciduous shrubs. A good fat bush of the English box near the arch would emphasize the entrance, and I might indulge myself here in a variegated vucca and a daslirion from our own Southwest, D. texanum, opposite the most dwarf and slowest growing yews, only two or three of them, and perhaps three hollies, Ilex 'Foster No. 2', and a sweet olive, Osmanthus 'Gulftide'. I would prefer the sweet olive of the Gulf Coast, O. fragrans, but it will not grow in Washington.

I might include a large white azalea, the Glenn Dale hybrid, 'Treasure', which does not have the fine glossy foliage of the white 'Glacier', but which I prefer to other white azaleas.

If there is enough sun, I would include a rose, the old alba variety called 'Celeste', which blooms only in May and makes a plant five feet tall and wide. A fine viburnum for the end of the screen is *Viburnum plicatum* 'Mariesii' which makes a globe of eight feet, its densely white flowers strung solid along the tabular branches. It is scentless, but is as beautiful as the native dogwood, and blooms four or five days after the dogwoods.

Another viburnum for this screen is the strongly perfumed $V. \times juddii$, with pink tennis balls of flower that, if the day is soft and mild, can be smelled fifteen feet away. I would also try very hard to find

space for a witch hazel, such as the hybrid 'Jelena', with orange-bronze flowers beginning in late January and beautiful fall coloring to the leaves. I admit, however, this plant likes to spread out horizontally more than I like. All these shrubs would be planted four or five feet back from the sidewalk, the space being filled in with daffodils and various wild tulips. Along the walk itself, the barrenwort or Epimedium makes a flawless and weedproof edging that needs only to be cut to the ground once a year in February. It is dense and polished enough to take the curse off the maturing (that is, dying) leaves of spring bulbs. A plant or two of the Chinese forgetme-not, Cynoglossum, which blooms in brilliant gentian blue for six weeks is also useful, as its large leaves come after the early bulbs are through flowering and helps to disguise their undignified ripening.

All these shrubs will require sensible attention as they merge together into a screen. Such an arrangement is no good for the gardener who wants to plant something and then forget it. But such a screen gives an agreeable-I almost said thrilling-variety of greens and textures, with bits of color in late winter and spring and a bit of fragrance as the year goes along.

he walk from sidewalk to house may be concrete, and if so it should be repaved with brick, stone, or slate. It should be six feet wide at least, and edged with barrenworts on one side, to give a neat, cared-for look. On the other side I would use the blue star flower, Ipheion uniflorum, sometimes called Brodiaea or Triteleia. This little South American bulb forms hummocks of narrow, strap-shaped leaves surmounted by dozens of sky-blue stars an inch and a half wide, fragrant, and borne on individual stems. It blooms for three or four weeks starting in mid-March, then dies down for the year.

On both sides of the walk, I would use some fat box bushes, the kind wrongly called "English Box," and an occasional vertical columnar box of the kind wrongly called "American Upright Box." The fat box bushes would be just on one side, only three of them, nothing too studied.

Back of the box, and clearly visible between them, I would carpet the ground with bulbs that bloom early, crocuses (especially the ones bred from Crocus chrysanthus) and the very early lavender, flame-centered C. sieberi, along with Chionodoxa sardensis and C. gigantea, Scilla siberica, Endymion hispanicus, Scilla Continued on page 37



Anira Sabarece

Polchicums Are an Autumn Delight

By Lorraine Marshall Burgess

hen first we discover lateblooming colchicums they seem a wondrous afterthought provided by some freak of nature, yet once we are convinced that these are normal plants blooming in their own autumnal rhythms our attitudes change from awe to acquisition.

Cormous plants, the genus Colchicum is a member of the Lily family and is not related to the crocus, which is of the Iris family. Although they are crocus-like in appearance, they are larger. Their flowers are tubular, in six segments with six stamens within each tube. This aids in distinguishing them from crocuses, since crocuses have three stamens. Their cycles of growth, bloom, and dormancy vary from the timing of other plants, but we adjust, as we learn to accept their aberrations.

Contrary to our bulb-purchasing habits, colchicums should be ordered in spring for midsummer planting (August into September) and put in the ground as soon as they arrive from suppliers. This need for urgency is based upon the bulb's tendency to break into bloom soon after it gets out of commercial storage. Believe it or not, it can do this without soil or water. Certain novelty houses, capitalizing on this "eagerness" factor, offer colchicums as windowsill oddities, guaranteed to bloom potless upon demand. But bulbs forced to bloom in the raw are sometimes stunted or of second-rate quality. Even then, all is not lost; given new homes outdoors after blooming, these orphans can right themselves and bloom the following year.

When planting outside, look for quality and variety. Colchicums' normal bulb size is comparable to the size of a nectarine. Plant them in midsummer in well-turned soil, making sure the top of the corm is three inches below the surface. Spacing bulbs eight to twelve inches apart allows room for cluster blooming in the second or third year. Some bonemeal is beneficial. Try to provide protection from heavy rains, hail, or early snows by choosing a site under overhanging tree or shrub branches. Look for a place offering only morning sunlight; afternoon shade is considered beneficial as a way of prolonging the blooming periods.

American bulb suppliers list several species and a number of hybrids and cultivars. Dutch growers claim their bulbs are the largest, and stateside suppliers make no counter boasts since much of their stock comes from Holland, either on commercial order or grown by Americans on leased low-country land. Others that are available include whites from England, lilacrose tints from Greece, pinks from Turkey, and creamy hues from Lebanon. Legend has it that this delightful flower originated in Colchis, a country now part of the Georgian Republic of the U.S.S.R.

Colchicums' unorthodox timing seems to produce unexpected pleasures. Its fall blooming serves as a reprieve against winter for gardeners who otherwise begin mourning the passing of another garden year. The delicate, translucent flowers imply new beginnings instead of sad endings, and the dreary cycle of atrophy and decay is delayed for a month or more.



looming without the presence of leaves is another unusual habit of this plant. A friend in Colorado, finding Colchicum autumnale in bloom again in his Rocky Mountain garden, is reminded of walks he took as a child with his grandmother in her Illinois garden. They always went

into the woodland to view her colchicum plantings. She would delight at their beauty and smile at their shapely forms, but she never made mention of their thenpopular name, "naked ladies"-nor did he. (But in spite of this leaflessness at the time of fall blooming, the plant produces sturdy clusters of large, coarse leaves in spring which must be allowed to grow full term in order to provide nutrients to sustain its fall display.)

The species most frequently cultivated is Colchicum autumnale which produces large, pale lavender-to-pink blooms in fall. A fine, yellow, bitter, and very poisonous powder is produced from its corms and seeds. (In fact, the entire plant is poisonous.) Its active ingredient, colchicine, is a powerful chemical compound that has been used in minute doses as a remedy for gout. When applied to the growing points of plants, it has the ability to alter the number of chromosomes. This ability has been exploited by plant breeders as a tool in developing new cultivars. Results of these experiments are sometimes outstanding, but not always so.

Remember that colchicums bloom while other plants are resting and their coarse foliage appears most often in the spring, but in a few instances it grows immediately after fall blooming. Be sure to

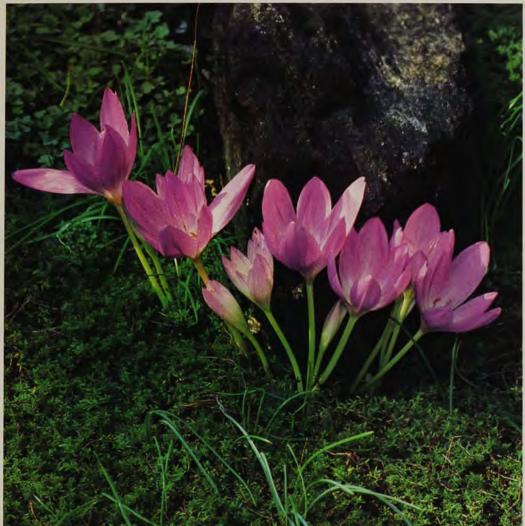


visualize the presence of the straplike leaves in the off season. When you are choosing a place for your colchicum display, site the plants so the spring foliage won't smother small neighbors.

As to specific cultivars, consider C. autumnale 'Album', a very fine white cultivar having small flowers but prolific bloom. C. autumnale 'Pleniflorum' is a double, with peony-like flowers in lilac hues in late autumn. C. agrippinum is quite a departure with small flowers that are tessellated (having a checkered pattern similar to fritillaries). It is a light pink, patterned in purple. The leaves are smaller than most colchicums and easier to use in association with other plants.

C. speciosum var. bornmuelleri (syn. C. bornmuelleri) in pink is both huge and fragrant and boldly dares to bloom as winter approaches. It was discovered in Syria and Iran by J. F. Bornmueller. C. sibthorpii (syn. C. bowlesianum, named for plantsman E. A. Bowles) blooms in October, producing colorful flowers of strongly checkered purple on a pink ground. C. byzantinum offers rosy-lilac flowers in





PREVIOUS PAGE, TOP: A group of determined white colchicums push their way through a thick, green growth. BELOW: 'Waterlily', a double-flowering hybrid, appears to float above the soil. THIS PAGE: Colchicum speciosum var. bornmuelleri is a late-blooming, fragrant variety.

September, two-to-four inches in diameter, and then produces foliage as the flowers fade. A hybrid known as 'The Giant' resembles the largest crocuses, but in rosylilac hues. It is frequently available from suppliers. Its large, vase-like flowers appear in succession through early fall. Others generally available are 'Waterlily', doubleflowering in lavender-pink, and 'Autumn Queen', with deep purple checks on a paler ground. C. cilicicum is similar to C. byzantinum, but its flowers are star-shaped and in a deeper rose-lilac shade. C. autumnale 'Daendels' is a clear violet, and C. 'Disraeli' a light blue. For the convenience of beginners wanting to plunge in and make quick acquaintance, some nursery houses are offering several in one packet.

One landscape designer suggests that we plant our bulbs at a middle distance in our gardens, enjoying their charming blooms in fall and disguising their coarse leaves in spring by surrounding them with other spring bulbs. In northern gardens, the corms do their blooming in September and into October. In southern states, the corms bloom to a more leisurely rhythm. In the Carolinas, fanciers vie with each other for the earliest flowerings and sometimes claim mid-August showings. The other challenge is to achieve continuous blooming through winter of one type or another. (The game of continuous flowering is also played in England.) Colchicum growers also tend to be very fussy about color descriptions, defining such subtle differences as pale-rose versus rosylilac. Rose-purple is, of course, different from purplish-red or lilac-purple. A true red colchicum, I'm told, has not yet been achieved.

There is one species that gets mixed reviews. It is C. variegatum (syn. C. parkinsonii). It was praised by John Parkinson, one of England's foremost seventeenth century horticulturists. He was said to prefer "brave colors," including those found in his own tessellated namesake. Today growers give it a so-so rating. And then there is C. luteum, an alpine type offering precious yellow flowers in spring and as early as February-most non-conforming. Author Elizabeth Lawrence, in her book

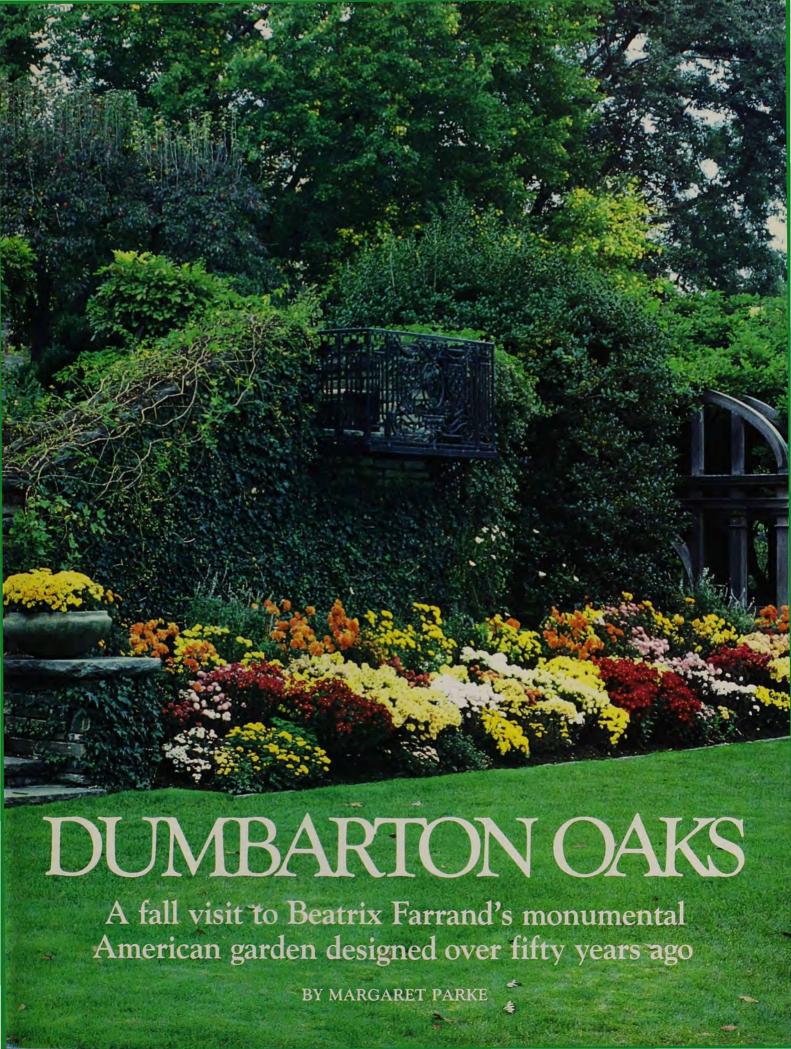
Little Bulbs, claims to have two vellow colchicums from India that have survived some fifteen years in North Carolina.

Today Hortus Third reports some sixty to seventy species from Europe, North Africa, and Central Asia, and lists seventeen for our consideration. These lovely little flowers offer us many gifts-delicacy of form, slender and graceful petals, delightful color choices, and perhaps best of all, the promise of bloom in an otherwise lonely season.

To ensure all this autumnal beauty in your garden be sure to protect its growing area from other plantings before and after the colchicums bloom. Mark their places with rag ribbons or small warning signs and declare the area off limits. These protective measures established, they can be forgotten until the blooms appear. Then, colchicums are certain to make life upbeat in an otherwise downbeat season.

Lorraine Marshall Burgess of Colorado Springs is an author of garden books and magazine and newspaper articles on garden arts.





mild October sun gilds the fine old houses that line the streets of Georgetown in our nation's capital. On R Street, a timemellowed red brick wall with elegant openwork coping parallels the sidewalk, then turns north at 32nd Street. Almost unnoticed among the glossy leaves of a Magnolia grandiflora espaliered against the wall is a limestone plaque incised with these words: " . . . gardens have their place in the humanist order of life, and trees are noble elements to be protected by successive generations and are not to be lightly destroyed." This declaration by Mildred Bliss hints of the values that are cherished here; there can be no doubt that a special landscape lies beyond the wrought iron gate topped with a sheaf of wheat, emblem of Dumbarton Oaks.

The splendid garden on the sixteen acres of hilly land inside has been referred to by garden historians as "the last great American garden." It was designed over fifty years ago by Beatrix Jones Farrand, one of the founders in 1899 of the American Association of Landscape Architects, for Robert Woods Bliss (1875-1962) and Mildred Barnes Bliss (1879-1969). The Blisses moved in a world of diplomacy and old money, collecting books and art during years spent abroad in government service.

Today Dumbarton Oaks is not only the site of a significant garden, but it is a many-faceted place. A handsome neo-Georgian mansion houses a connoisseur's library of gardening books—7,000 reference books and 3,500 rare books of botany and original botanical art. Prestigious museum collections of Byzantine and pre-Columbian art also reside here in specially-built wings, one a glass jewelcase designed by Philip Johnson.

Patrician philanthropists in the best sense, the Blisses in 1940 gave their property, including the garden, mansion, and its contents, to Harvard University, Mr. Bliss' alma mater. It is now a Center for Byzantine Studies, fulfilling a dream of the donors to provide a "quiet place" where students and scholars could withdraw to study and write. Endowments provide for maintenance of the garden, and the whole environment is preserved as "an oasis of culture where the inanimate beauty of the objects within is complemented by the growing beauty of the gardens without."

It all began in 1920 when during a three-year tour of duty in Washington, D.C. the Blisses bought fifty-four hilly acres in Georgetown as their country estate in the city. The rugged terrain overrun by cowpaths and ramshackle farm buildings featured a big Federal-style house with pos-

sibilities. Forthwith they hired an architect to begin alterations on the house, and Mrs. Bliss turned to the garden.

Mrs. Bliss had seen many gardens while abroad. She particularly admired the seventeenth and eighteenth century gardens of France where she and Mr. Bliss had attended social affairs. These fueled her vision for the garden she would build someday. In 1922 she found the perfect associate in Beatrix Farrand. (See American Horticulturist, April 1985.) Mrs. Farrand was then nearly fifty and on the cutting edge of her profession; her landscape design work on country estates and major university campuses across the country had earned her a fine reputation. Earlier Farrand had even done some work for Mrs. Bliss' mother, and it is likely that the Blisses had met Farrand's aunt, Edith Wharton, the novelist and champion of classicism in the decorative arts, through mutual friends in Paris. When Mr. Bliss was appointed minister to Sweden in 1923 it was a relief to Mrs. Bliss to have someone in charge upon whom she could depend.

It took eleven years to build the garden, with much correspondence crossing the Atlantic between owner and designer. Major decisions were made during the periods when the Blisses returned to Washington. As the garden evolved so did a lasting friendship between the women, and as it turned out, Farrand remained as consultant until 1947 to oversee changes in the garden even after it was given to Harvard.

The Blisses intended their garden to be lived in, a place where they could relax, entertain friends, and smell the roses. Space was reserved for a swimming pool and tennis court under a precipitous drop north of the house, close to it but out of sight.

Farrand exploited the steeply sloping land to the north and east of the mansion by designing a series of terraced gardens, "listening to the light and wind and grade" as she studied each area. Each of the re-







ABOVE: A majestic beech demands your attention in the Beech Terrace. LEFT: A double ring of pruned hornbeams surround the Ellipse. RIGHT: Colorful groupings of container plants round out the Arbor Terrace.

sulting garden "rooms" carries out a particular theme: there is a Rose Terrace, Beech Terrace, Box Terrace, and so on. Each is enclosed by a masonry wall and linked to the other by steps. Each is embellished with specially-designed architectural features and ornaments in impeccable taste. Everywhere are balconies, steps, benches, urns, finials, fountains, and pools. Most of the sculptures were designed by Farrand and executed by Frederick Coles.

n active social life went handin-hand with Mr. Bliss' diplomatic duties, and the Green Garden, extending from the classic orangery attached to the northeast side of the mansion, was the stage for large parties. It is the most formal of the terraces, replete with pink marble benches, brickwork, and decorative scrolls, fruits, garlands, and shells. Potted plants could be brought out from the orangery to accompany whatever furniture was needed. Farrand's treatment was simple and elegantlawn, ivy, and vinca around two existing black oaks-so that the neutral green background would be a foil for the festive dress of the guests.

The garden becomes less formal the further from the house one progresses. By the time the Lovers' Lane Pool and amphitheater surrounding it are reached at the bottom of the east slope, the brick and marble of the higher terraces are replaced with weathered stone and wood. Contained beds, borders, and lawns gradually give way to more rustic plantings-orchards and hillside growth traversed by a goat path-until all melds into naturalistic woodland.

There are surprises and vistas-an intimate Star Garden for family dining half hidden behind azaleas, an Italianate amphitheater, an allée of silver maples, a camellia circle.

One of the best platforms for viewing the informal part of the garden that lies toward the northeast is from the balustrade of the Arbor Terrace. A vine-covered pergola concealing a lead fountain shares the stone terrace with groups of pots displaying fragrant plants. In spring, the view is of whole hillsides awash with golden forsythia, puffs of blossoms on crabapple, cherry, lilac, and other flowering trees and shrubs, and sweeps of colorful spring bulbs.

On an October afternoon, however, the garden wears a different face. Below the same lookout a copse of dogwood trees cuts a wine-red slash on the landscape, birds feast on berry-laden honeysuckle (Lonicera maackii), and waxy yellow and



Margaret Parke

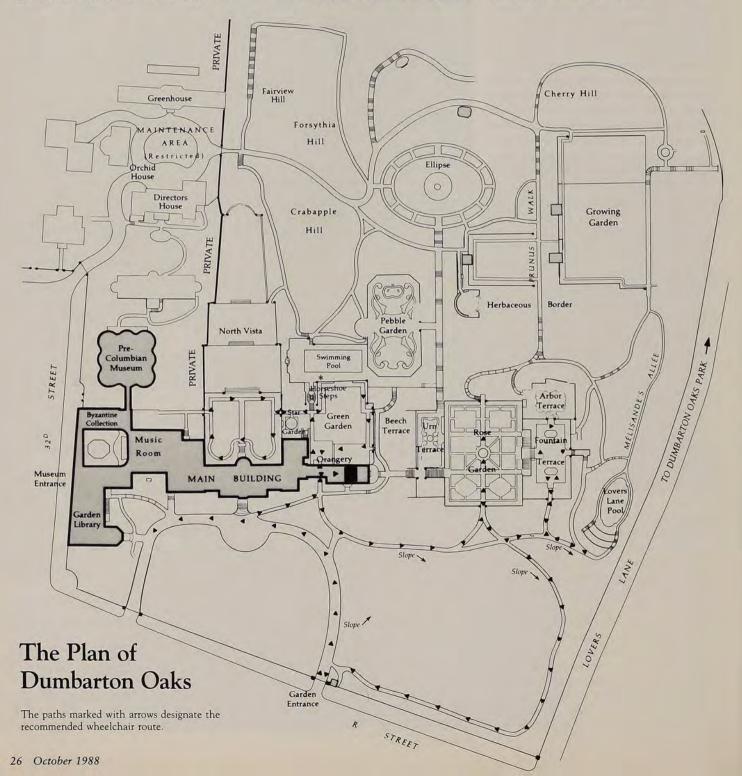
red fruit dangles temptingly from the crabapples. The Zumi crabapple (*Malus* × zumi) is the star producer; it bears heavily in alternate years. Other crabapples are therefore interspersed on the hillside to pick up the slack, such as 'Hopa' (sometimes called 'Pink Sunburst') and the yellow-fruited 'Van Eseltine'.

A herbaceous border falls over a slope to one side of the picturesque Portuguesetiled tool sheds in the kitchen garden. It is filled with chrysanthemums, echoing the reds and golds of the woodland foliage along Rock Creek ravine on the northernmost boundary. (This twenty-eight-acre woodland was given to the National Park Service in 1940 by the Blisses and is no longer part of the garden.) Best of all is the way the slanting October light turns the landscape to gilt.

It is impossible to stroll through the garden—or even think of it afterwards—without feeling the powerful presence of its trees; one notices them as soon as one enters the gate. A thick planting of evergreens bordering R Street obliterates the sights and sounds of the city. A gigantic Katsura tree grows horizontally—as if frozen in an eternal bow—on the fringe of the east lawn, along with an American elm

(there are six of this vanishing species in the garden), Japanese maples, and a selection of others.

During construction the placement of walls and steps was sometimes shifted to accommodate roots from existing trees. Because of this a triangle of three choice beeches helps ensconce the terraced hill-side and soften the transition to the naturalistic garden surrounding it. One, with magnificent exposed roots, is the focal point of the Beech Terrace, another stands outside the Rose Terrace, and the third graces both a corner of the Fountain Terrace and the Lovers' Lane Pool below.



rees are used as screens, accents, markers, allées, and canopies for garden seats. They are pollarded, espaliered, and in the area beyond the gardens, scattered over hillsides, forming clouds of blossoms in spring and colorful foliage in autumn.

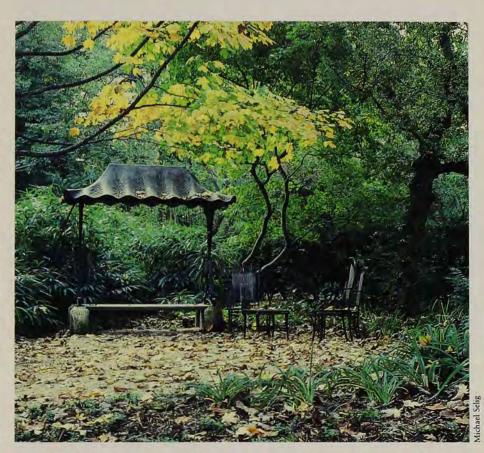
This respect for trees in the landscape provided a shared frame of reference which could only have enhanced the two women's working relationship. Mrs. Bliss was impressed by Farrand's "profound love of trees," not mere sentimentality on Farrand's part as she did not hesitate to cut them down to create vistas when this proved necessary. Mrs. Bliss noted that Farrand's skill matched her sensitivity: "... she managed somehow so to place her axes that the vista she wanted took its place as if by happy accident."

The most impressive vista is from the steps of the north portico of the mansion. It is said that Farrand struggled to get this part of the garden right, and the problems bothered her for years. Called the North Vista, it is a sweep of four, wide, treebordered lawn terraces focusing on a view of cherry trees and woodlands at the end. The grandeur of the two towering cedars on either side of the first terrace (the original Cedrus libani are now replaced by C. deodara) reinforces the similarity to a landscape painting by Constable. If the vista seems more grand than it actually is, the illusion is intentional. The three lower terraces are deliberately tapered inward to create a false, more distant perspective.

There is other sleight-of-hand here. Steps with turf treads and brick risers connect the spacious lawn terraces. These are invisible from the mansion, but looking back toward the house from the opposite end of the vista, the brick risers become visible. Though most visitors enjoy this as an unexpected touch of whimsy, landscape design students admire the ploy for the way it ties the landscape to the mansion.

But what is a garden without flower borders? The main perennial planting is the herbaceous border, actually twin flower borders separated by a wide grass walk and enclosed between yew hedges. The only other flower garden is the Fountain Terrace. Tulips and early-blooming flowers fill these areas in spring and are replaced and interplanted with summer-flowering annuals and perennials. In September the beds are planted with nearly two thousand chrysanthemums.

The mums are propagated in the garden's greenhouse from "mother" plants lifted from the garden the previous November. Donald E. Smith, superintendent of gardens and grounds, says that cuttings



ABOVE: Fall adds rich color to a secluded spot in the woods above the Lovers' Lane Pool.

are made in February, then young plants are put out in the nursery in late spring and pinched back until July. They are routinely fertilized and watered for transplanting to the flower borders just after Labor Day.

Some of the older cultivars that have been admired over the years are 'Bronze Pyramid'; 'Gertrude Compton' (a single yellow); a pumpkin-colored, semi-double 'Robert Wallace'; and 'Sunstone', which can be trained as a cascade for wall planters. Because white (and also pink) chrysanthemums will turn an unattractive brown when nipped by frost, Smith uses whites sparingly in the borders.

At the back of the herbaceous border, tall Michaelmas daisies alternate with the wonderfully graceful and long-lasting single flowers of *Anemone japonica* held high on airy stems. The white anemones also grow against the stone wall behind the borders on the Fountain Terrace.

This garden does not overemphasize herbaceous borders as might be true in other gardens of comparable size, but was designed to look its best in spring and autumn and to be interesting in winter—the seasons when the owners would be in residence. Washington's hot and muggy summers were spent elsewhere.

Under these circumstances, instead of

filling the garden with ephemeral annuals and perennials—impractical at best—Farrand chose another tack. She relied on broadleaved evergreens—particularly holly, boxwood, and yew—to provide a permanent structure with year-round interest. Then into this evergreen structure she wove flowering trees, shrubs, vines, and ground covers.

Fine-leaved, dark bluish-green evergreens were the ones selected to be planted at the end of the driveway and for the "foundation" planting. Farrand felt these would harmonize best with the scale and the red brick of the house. Boxwoods and holly (*Ilex crenata* and *I. opaca*) are clumped in massive groups at the entry court. Buxus sempervirens and B. sempervirens 'Suffruticosa' flank the steps to the mansion as do two English yews, Taxus baccata 'Gracilis Pendula' and the smaller T. baccata 'Repandens'. These and Pieris japonica are interspersed along the foundation of the mansion with deciduous shrubs and climbers (forsythia, spirea, wisteria, winter jasmine, and porcelain berry).

Farrand disliked the effect when plants "muffle the architectural lines or cause the building to appear to rise from a mass of shrubs rather than from the ground." For the most pleasing results, she left one third of the line of the building unplanted.



n the waning October afternoon, the orangery at the southeast front of the house is lit by the fiery red berries of firethorn (Pyracantha coccinea) espaliered against the left doorway. The lacv. chartreuse leaves of a sinuous Chinese wisteria festoon the window arches, creating a lovely background for the vermillion foliage of a Japanese maple planted in front of it. This pleasing picture greets visitors approaching from the driveway entrance (and could be adapted to grace any front entrance).

Under Farrand's touch boxwood affords a memorable experience and no one should miss the "journey" down the Box Walk which is entered just off the Beech Terrace. The descent is through the dappled shade of a wide brick staircase with frequent landings, flanked by "rumpled" (Farrand's adjective) masses of the edging box, Buxus sempervirens 'Suffruticosa'. Romantic trees are way-markers: magnolias, golden-rain tree (Koelreuteria paniculata), American elm, and a fine Japanese pagoda tree. The time it takes to reach the bottom is just right for instilling a mysterious or pensive mood. Then suddenly one emerges into a light-drenched circle, The Ellipse, enclosed by a double row of hornbeam (originally yews) pruned as an aerial hedge. A splashing Provencal stone fountain is at the center. Here it is possible to relax on a bench in this absolutely serene spot, cleansed of any distraction.

The garden is preserved, in the main, as it was originally designed and amended under Mrs. Bliss' direction for its use as an outpost of Harvard. The not inconsiderable day-to-day labor that is demanded (pruning chores alone boggle the mind) is supplied by Smith and his crew of twelve gardeners. They are guided by Farrand herself. At the astute suggestion of John S. Thacher, the first director of Dumbarton Oaks, she wrote a remarkably meticulous document explaining the intent behind the design for every part of the garden; it also suggests maintenance or replacement procedures and gives forty-two lists of plants. This is now bound into a book, Plant Book for Dumbarton Oaks, which sets the standard for the garden's preservation.

Since Dumbarton Oaks is no longer a private residence, a measure of change is inevitable. Those made in the Rose Terrace are probably more significant to garden historians than to rose lovers. This continues to be the favorite garden of many visitors and was also Mr. and Mrs. Bliss' favorite. (Their ashes are contained in a crypt in the west wall.) Sometime in the 1970s the boxwood edging ('Suffruticosa') of the individual rectangular rose beds-

which Farrand considered so essential to the design-was replaced with bluestone. Bluestone is practical and satisfactory, but when one is confronted with old photographs of the Rose Terrace they show how much better box clothes the garden and camouflages the bare feet of the canes. Charm has been sacrificed here, even though the box edging of the peripheral borders has been retained and offers partial compensation.

According to Smith, who has been at Dumbarton Oaks for thirty-six years and who as a boy worked in Mrs. Farrand's own garden at Reef Point, Maine, it was necessary to replace from 300 to 500 boxwoods each time a severe winter hit Washington. (In her Plant Book Farrand anticipated that the box would have to be replaced only once-"perhaps over 15 or 20 years"-when they became too large.) Perennial candytuft was tried as an alternative edging, but this was also unsuccessful. Finally, defeat was conceded in 1970 and bluestone was installed. But, surviving fair weather and foul, the large, humanoid box topiaries designated by Farrand to stand in the center of the rose beds continue to carry on as major accent plants. They are indispensable to the winter look of the rose garden.

In June, the old climbers such as



Hollen Johnson

'American Pillar' and the climbing form of 'Frau Karl Druschki' bloom against the west wall along with other old shrub roses. Diane Kostial McGuire, editor of Farrand's Plant Book, observes that the influence of Gertrude Jekyll (whom Farrand admired and had visited in England) is seen here in the effect of the climbing and shrub roses. The central beds sparkle with the sumptuous bloom of the universally loved 'Peace' rose, 'Summer Sunshine', 'Tiffany', 'Mister Lincoln', and other hybrid teas and floribundas as well as three roses existing from Farrand's planting scheme-'Ami Quinard', 'Roselandia', and 'Mrs. P. S. duPont'. The remontant types keep blooming until frost, a great boon in a garden which is on constant display.

The color scheme that Farrand and Mrs. Bliss concocted for this garden is intact. Pink and salmon colors are selected for the south third of the garden together with a few of the very deep red ones, the middle beds hold salmon and yellowishpink colors, while roses in the yellow and orange range grow in the northern third of the garden. (With the exception of the rose garden, Mrs. Bliss disliked pink flowers in mauve and magenta ranges and outlawed them. This prejudice is seen in the many azaleas planted at Dumbarton Oaks-all are the white azalea 'Indica Alba'.)

A major change was made in the early 1960s (Farrand died in 1959) when Mrs. Bliss replaced the tennis court with the Pebble Garden assisted by Ruth Havey, for many years a landscape architect in Farrand's office. Small colored stones from the beaches of Mexico are set into a flamboyant parterre with sedum and thyme border plantings. The Bliss motif of the sheaf of wheat is featured in the elaborate design, and the floor is covered by a thin sheet of water which enriches the colors. The garden is unforgettably dramatic when viewed from one of the terraces above. Ironically, the much-photographed Pebble Garden, one of the few major areas not designed by Farrand, has become somewhat of a logo for the garden. (The Pebble Garden has been damaged by frost and is currently being restored by taking up a section at a time and relaying the cobbles in fresh cement.)

In the Green Garden above the Pebble Garden a memorial plaque to Farrand has been set into the parapet by the Blisses. Mrs. Bliss wrote elsewhere in a tribute: "Dumbarton Oaks has its own personality sculptured from Beatrix Jones's knowledge and wisdom and from the daydreams and vision of the owners. The bonds of friendship and affection were firm and the guiding 'anima' of Beatrix Farrand will linger in all the highlights and shadows."

Let it be so.



LEFT: From the "light-drenched" Ellipse, one can walk up the refreshingly shaded Box Walk to the Beech Terrace. TOP: An aerial view of the formal Pebble Garden. BELOW: Chrysanthemums provide a dramatic show of color in the Herbaceous Border.

Margaret Parke is a freelance writer and photographer who has previously contributed to American Horticulturist.

What Plants Are Fighting the Drought?

hether the drought conditions that prevailed across most of the country last summer are part of a long-term phenomenon or not is a muchdiscussed question among climatologists. So far, though, they are not providing any definitive answers. Interesting theories abound, however, among them the idea that the North American continent may be well into a drought cycle that could continue for another two decades or so. Gardeners across this country who are experiencing their second, third, or fourth years of water scarcity are probably starting to regard such theories with some degree of seriousness.

W. George Waters, editor of Pacific Horticulture magazine, tells us that the tendency toward drought in the Northwest has been noticeable for the last two years, at least. "Our reservoirs weren't filled last year, and the snow pack in the Sierra Nevada wasn't good, with dry conditions causing the snow to evaporate rather than melt." He sees trouble ahead if rains don't materialize this year. Anthony J. Halterlein, curator of the American Horticultural Society's headquarters at River Farm and newly arrived in Virginia from Tennessee, speaks of four dry years in that state. As for farmers and gardeners in the Midwest—they'd probably rather not talk about it. One thing does seem increasingly obvious: the vocabulary of Xeriscape and other conservation-conscious approaches will increasingly become an integral part of the gardening lexicon. As it probably should.

Water is a valuable resource which, like a diamond, seems to become more precious with scarcity. But water's value is not that of a bauble or even a thing of beauty, water is basic to life. In this context squandering water becomes a serious matter indeed, an issue to be addressed in a larger context than that of a few difficult years. Drought-tolerant plants, especially drought-tolerant natives, assume increasing importance as we rethink water con-



Perovskia, Liatris, Achillea, Potentilla, Sedum, Pennisetum, and Echinacea did well despite low moisture. Lavender, artemesia, creeping thyme, and roses also carried on in the face of extremely dry conditions.

At the Memphis Botanical Garden Jim Brown said that though the crape myrtles were late in blooming, they seemed to be doing fine, as did the hollies, iris, and hosta (as long as they were sheltered). The dryness led to troubles with spider mites, however, and the fire blight on crabapples was more severe than usual. "Red maples are in trouble," said Brown, "along with river birch, Magnolia grandiflora, the dogwoods, and azaleas." The comment con-

sumption in terms of water "needs" rather than water "wants." A bonus to the changing awareness will be a new concept of garden beauty that may emerge if we step back a little from our sometimes-ridiculous efforts to remold the American landscape with thirsty plants more appropriate to gentler, wetter climes.

Plants That Work

We spoke with horticulturists across the country about drought-tolerant plants; specifically, we asked them to tell us about plants in various regions that had survived the drought relatively unfazed, even though they might not traditionally be described as drought-tolerant. Here are some of their observations.

Ruth Haskell of Kansas City said that in her own garden this year the perennials

ABOVE: Acer tataricum, a drought-tolerant maple, is a success in the landscape with appealing, red samaras appearing in the fall.

nthony Halter

cerning red maples was repeated in several areas.

Mildred Pinnell at the Atlanta Botanical Garden commended the grasses Miscanthus, Panicum, and Pennisetum as survivors; she also mentioned Portulaca rosea, dusty miller (Senecio cineraria), salvia, and Zinnia angustifolia, along with Juniperus and Magnolia grandiflora. Hesperaloe, a plant similar to a yucca but with a red flower, is "a wonderful plant for dry conditions." She's noticed a lot of slow dieback on deciduous trees due to the past several years' drought.

At the Cox Arboretum in Ohio, Bob Butz and Marion Scheiderer shared a list of drought-tolerant plants for that area: perennials include Coreopsis, Gaillardia, Sedum spp., Stachys, and Yucca; outstanding drought-tolerant grasses include Stipa pennata and Hordeum jubatum. Annuals are Vinca, Zinnia, and Portulaca. The evergreens Scotch pine, white spruce, and bristlecone pine do well, as do Acer campestre, A. tataricum, Potentilla fruticosa, and Sophora japonica. They also recommended the ground cover Liriope spicata.

Sturdy Beauties

From the Northwest, George Waters mentioned a plant that's popular across the country and that seems to be surviving well. "I noticed when I was in England a few years ago that camellias did well in drought conditions; here, I notice that they are surviving and flourishing even in quite obviously neglected gardens where watering is intermittent at best." Waters is a strong advocate of the use of native plants. "In California they use a lot of Mexican sages, which are popular and do well; I've also seen some splendid color effects achieved with drifts of Echeveria." Bromeliads work well in coastal areas, according to Waters; cactus lends what he considers to be a somewhat aggressive feeling and is most effective in carefully planned landscapes. He described the picture of "emerald-green lawns against a background of brown hills" as quite out of place, and urged gardeners to bone up on regionally-appropriate plants and landscape designs.

In general, the following plants also tend to be tolerant of drought conditions: Viburnum lentago, V. prunifolium, Koelreuteria paniculata (the golden-rain tree), Sassafras albidum, Cotinus coggygria (smoketree), Chaenomele speciosa (flowering quince), Helianthus annuus (sunflower), Eschscholzia californica (California poppy), Iberis sempervirens (candytuft), and Gleditsia triacanthos var. inermis (thornless locust).

If drought does turn out to be a longterm issue, the choice of drought-tolerant plants is an option that every gardener will want to consider. Each plant has qualities that make it endearing, and part of the gardener's task has always been to find the real value and true beauty of plants in a particular landscape. Another thing to consider: as showier greens grow more scarce, other, subtler greens tend to become more appealing. Some of this country's loveliest gardens are composed entirely of succulents.

We will all benefit if we also take other measures toward water conservation. Mulching stabilizes soil temperature, conserves moisture and nutrients, and keeps thirsty weeds down. Drip irrigation, an option that more gardeners are investigating, is one of the most efficient ways of delivering water to plants; and we are even hearing about systems to recycle household water to the garden. This year's drought may or may not be a serious problem, but water conservation is an issue that thoughtful gardeners are taking more and more seriously. The responsibility-and the challenge-will, we hope, be part of the evolving beauty of the American landscapes we create.

-Kathleen Y. Riley

Kathleen Y. Riley is the editor of the American Horticulturist News Edition.



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One Woman's Legacy



Caroline Dormon and "grandpappy."

on't you take time to mourn. Get on with the task at hand," Caroline Dormon demanded shortly before her death in 1971 at the age of eighty-three. The friends she spoke to—Sudie Lawton, Arthur Watson, and Richard Johnson—quickly complied and set to work to preserve her southern native plant garden on the grounds of Briarwood, her home in the wooded sandhills of northwestern Louisiana.

To "Miss Carrie," as her friends and neighbors called her, Briarwood was "heaven on earth," a place that belonged to posterity, and with the help of her friends she had formed The Foundation for the Preservation of the Caroline Dormon Nature Preserve in late 1970. Another friend of Miss Carrie's, Dr. Clair Brown, suggested that they also start a Friends of the Caroline Dormon Nature Preserve, so with voluntary help and funds from the Friends, the reserve was launched. Today, visitors

find not only the remains of the many native plants Miss Carrie planted along a network of trails, but also a headquarters building erected with donated materials and labor from the lumber industry and local businesses, Miss Carrie's log home preserved just as she left it, and an everexpanding collection of southern native wildflowers, trees, and shrubs planted and cared for by Miss Carrie's friend and protegé, Richard Johnson, and his wife Jessie. Like Miss Carrie, the Johnsons are selftaught botanists who know the scientific names of every plant and tree on the 135acre property. They live in the headquarters building with its floor-to-ceiling windows, a large living room with a huge central fireplace, and two bedroom wingsone for visiting naturalists, the other for the Johnsons.

Besides being Miss Carrie's official tree climber when he was a youngster, Richard was then and still is the kind of man who can fix or build anything, although his fulltime job is as an electrician for a local lumber company. Both he and Jessie devote all their spare time to making Briarwood the kind of nature sanctuary Miss Carrie dreamed of—a preserve not only for plants but for animals, a place where the hand of man lies lovingly on the land, letting nature run its course with a minimum of human interference and making only those "improvements" that further Miss Carrie's desire to preserve the southern flora she saw ravaged by private interests during the early part of this century.

Back in 1919 she was a young school teacher in the pine woods of Kisatchie in Natchitoches Parish, Louisiana. She traveled by wagon over the rough dirt roads to teach her country pupils. Her way led "through mile after mile of majestic longleaf pine forests... The great pines came right to the water's edge on those lovely clear creeks, with only an occasional mag-

nolia and dainty wild azalea and ferns," she later recalled. She lost her decade-long battle to preserve a small portion of those virgin woods from lumbering, but on her own piece of land no lumberman was ever allowed to touch "grandpappy," a 300year-old longleaf pine, the loveliest, most valuable, and majestic of the native southern pine tree species. The lumbermen tried, though, to talk Miss Carrie into "harvesting" the "overmature" tree. "Those pesky lumbermen," she wrote to her friend Sudie, "were here again today, trying to convince me that 'grandpappy' wouldn't outlive me. But I know better-my very soul lives in that beautiful old gnarled and weather-beaten tree." And, of course, she was right. Part of the official tour Richard Johnson gives to every visitor is a stop to see grandpappy, still hale and hearty just as Miss Carrie predicted.

Over her lifetime Miss Carrie pursued a number of careers-botanist, horticulturist, forester, writer, landscape gardener, artist-and all of those careers are still in evidence at Briarwood. The headquarters building is a showcase for her books and her delicate watercolor paintings of southern wildflowers, particularly Louisiana irises. In the early 1920s she learned that Dr. J. K. Small of the New York Botanical Garden was interested in these irises and she offered to collect for him. She also collected for herself, planting the irises in natural bogs at Briarwood in an effort to learn more about them. To her and even to botanists today, "they constitute one of the great botanical mysteries-the unbelievable variations in size, form and color make classifying (them) extremely difficult," she wrote to one correspondent. She and several horticultural friends and relatives spent years hybridizing them. Miss Carrie, her sister Virginia, and her sisterin-law Ruth even had a business selling irises for a time. From their work many hybrids were developed, including one that Ruth named in honor of Miss Carrie. She called the iris the 'Caroline Dormon', which Miss Carrie herself later described as an "uncontrolled hybrid. . . . (The) inner portion of both petals and sepals is soft yellow,

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shading out to rosy-red at (the) edges."

The Bay Garden at Briarwood, which was restored to commemorate Miss Carrie's pioneer work in hybridizing Louisiana irises, is at its height in April. Stocked with some of the finest and loveliest specimens first hybridized by Miss Carrie and others, it is a showcase for "irisiacs" as she called herself.

But irises were only a small portion of Miss Carrie's concern for native plants and trees. She drove all over the South collecting rare and unusual wildings such as stinking cedar (Torreya taxifolia), which she grew from a cutting she obtained in Appalachicola, Florida; the wildflower Amsonia ludoviciana, known only from three locales in southeastern Louisiana; and a lovely, small tree with rose-red fruits, Magnolia pyramidata. The latter she discovered growing in Sabine Parish, Louisiana, 350 miles farther west than its known range at the time. On her next visit to the site, she spotted Lilium michauxii, the Carolina lily, another plant far west of its believed range.

In addition to finding an extended range of many known southern plants, Miss Carrie discovered at least one new species-a unique Hymenocallis or spider-lily. But when she, an unknown amateur, reported it to experts they dismissed it as the common H. caroliniana. Nevertheless, it too was planted at Briarwood. Years later the same flower was rediscovered in eastern Texas by botanist Dr. Lloyd Shinners, who declared it a new species and named it Hymenocallis eulae in honor of Texas botanist, Dr. Eula Whitehouse.

Combining her expertise in southern plants and flowers with her artistic talent, Miss Carrie wrote and illustrated her first book, Wildflowers of Louisiana, in 1934 for amateurs like herself, and followed it up twenty-four years later with Flowers Native to the Deep South, which was partly an update of the botanical names in the previous book. Both books are filled with her delicate paintings of wildflowers and are collectors' items now, although copies of the latter can still be purchased from the Caroline Dormon Nature Preserve.

Miss Carrie also promoted the use of native plants in landscape gardening by writing numerous articles for southern gardening periodicals such as Home Gardening. When she did the landscape gardening for the Huey P. Long Charity Hospital grounds at Pineville, Louisiana, she used only native plants, and when she worked as a highway beautification consultant to the Louisiana Department of Highways in 1941 she tried to persuade the highway department to preserve the native trees and shrubs already growing beside state highways. To Miss Carrie, native species "are adaptable to local conditions." As she wrote in her introduction to her book Natives Preferred, "by using native plants, gardens and public grounds can display the typical beauty of each region." That book is replete with the names and descriptions of native trees, flowers, and shrubs useful in garden settings and is written in Miss Carrie's own entertaining fashion.

t Briarwood she had experimented with most of the southern native species she mentioned in her book. To her the southern vine, yellow jessamine (Gelsemium sempervirens), was "a very happy-natured plant," an early and long bloomer which "festoons every bush and tree," scenting the air with a delicate perfume. It still does so in early spring at Briarwood. Mountain laurel (Kalmia latifolia) she regarded as "our finest native shrub," and she would be delighted to know that the mountain laurel planting she made forty years ago in the woods was exceptionally showy during the spring of 1987. This was because Richard Johnson allowed the pine beetle epidemic in 1985 to run its course, and it killed many of the pines that had overshadowed the mountain laurel. But as Richard wrote in the Caroline Dormon Nature Preserve Newsletter in April 1987, "nature is fast to fill in a void," illustrating a laissez-faire attitude toward natural processes with which Miss Carrie would no doubt have agreed.

Miss Carrie did believe, though, in improving on nature. One example was the pond she built. Finding a small, springfed stream between steep hills on her property, she called in a local engineer to stake out its boundary. Then she had the tangle of plants and trees cleared out and the tree stumps removed. Finally, she convinced a road gang using mule-drawn scoops to dig out and dam her pond. It was finished in two days and it filled up naturally with water a few days later. But then the real work began-shoring up the four-foot bank on one side with rocks, soil, and plants. There she planted native violets, the smallest of the wild irises, Iris cristata and Iris verna, wild ginger, and ferns, and at the top she put in mountain laurel, native aza-



Bruce Bonta



Anita Sabares



Richard Johnson



Jessie M. Harris

TOP: Surrounded by a naturalized landscape, the Preserve's headquarters contain Miss Carrie's books and watercolor paintings. LEFT: Erect white bog torches topped with rough yellow spadices grow near the swamp. RIGHT: Slender, vellow-fringed orchids, Habenaria ciliaris. LEFT: Bold Carolina lilies with leopard-like spotting.

leas, including the red-flowered Rhododendron prunifolia (which she called the "most astonishing azalea of all"), and the evergreen Lyonia lucida.

On the flat side of the pond there was a natural sphagnum moss bog, an ideal environment for swamp candles or bog torches (Orontium aquaticum) with their showy, fleshy white stems topped with brilliant yellow spikes. They are still the outstanding feature of the bog in March and April and are followed in May and June with the blooms of the rare Pinckneya pubens, a native of Florida, sent to her by a botanist friend many years ago. She also planted yellow fringed orchids (Habenaria ciliaris), August bloomers which thrive in the wet areas.

Wild orchids, in fact, remain one of a number of specialties at Briarwood. Fifteen species, including the bog orchid (Calopogon tuberosus), the yellow lady-slipper (Cypripedium calceolus), the white fringed orchid (Habenaria blephariglottis), and the rare shadow-witch or glandular neottia (Ponthieva racemosa) grow there today. Other specialties at the Caroline Dormon Nature Preserve are a complete collection of native southeastern magnolias, azaleas, and wild crabapples; an unusual collection of viburnums, leucothoe, and hawthorns; and a large collection of hollies, including Ilex decidua var. longpipes and Ilex ambigua, the latter an endemic of the Louisiana sandhills.

Before it was renamed the Caroline Dormon Nature Preserve, Briarwood was recognized in 1966 as a "sanctuary for the flora of the South" by the American Horticultural Society. Since then the work of Miss Carrie's friends, and specifically the Johnsons, has made it an even more complete sanctuary of southern flora, a "study area, not a natural area," as Richard Johnson emphasizes. But for those who long to see a harmonious melding of nature and horticulture as well as a remnant of the wild sandhills of Louisiana before the lumbermen, Briarwood is the place to visit. The combination of southern hospitality in the persons of Richard and Jessie Johnson and natural southern beauty typified by the diverse collections of native plants and trees will leave any visitor with warm memories of a very special place.

-Marcia Bonta

Marcia Bonta writes for Pennsylvania Wildlife and Outdoor Digest and is a frequent contributor to American Horticulturist.

Pronunciation Guide

Agave americana ag-AH-vee am-eh-rik-KAY-nuh Akebia quinata ak-KEE-bee-uh kwin-NAY-tuh Ampelopsis am-pel-LOP-siss Amsonia ludoviciana am-SOH-nee-uh lew-doh-viss-ee-AY-nuh Anemone japonica an-NEM-on-ee jap-PON-ik-uh Betula papyrifera BET-yew-la pap-ihr-RIFF-er-uh Brodiaea broh-dih-EE-uh Buxus BUKS-us B. sempervirens B. sem-per-VYE-renz Calceolaria crenatiflora kal-see-oh-LAY-ree-uh kren-av-tiff-FLOR-uh Calonyction kal-oh-NIK-tee-on Calopogon tuberosus kal-oh-POH-gon too-ber-ROH-sus Cedrus deodara SEED-rus dee-oh-DAR-uh C. libani C. lye-BAN-eye Chionodoxa gigantea kye-oh-nod-DOKS-uh jye-GAN-tee-uh C. sardensis C. sar-DEN-siss Choisva ternata KOY-see-uh ter-NAY-tuh Clematis maximowicziana KLEM-at-iss or klem-AT-iss maks-im-oh-wiks-ee-AY-nuh C. paniculata C. pan-ik-yew-LAY-tuh C. × vedrariensis C. ved-RAR-ee-en-siss Colchicum agrippinum KOL-chik-um ag-rip-PYE-num C. autumnale C. aw-tum-NAY-lee C. bornmuelleri C. born-MEW-ler-eye C. bowlesianum C. bohl-see-AY-num C. byzantinum C. biz-an-TYE-num C. cilicicum C. sil-ISS-ik-um C. luteum C. LEW-tee-um C. parkinsonii C. par-kin-SON-ee-eye C. sibthorpii C. sib-THORP-ee-eye C. speciosum C. spee-see-OH-sum C. variegatum C. var-ree-eg-GAY-tum Cornus florida KORN-us FLOR-id-uh Crocus chrysanthus KROH-kus kriss-ANTH-us C. sieberi C. SEE-ber-eye

Erythronium ehr-ith-ROH-nee-um Euonymus vew-ON-im-us E. alata E. a-LAY-tuh Fagus sylvatica FAY-gus sil-VAT-ik-uh Festuca ovina var. glauca fes-TEW-kuh oh-VYE-nuh GLAW-kuh Fritillaria meleagris frit-il-LAY-ree-uh mel-ee-AY-griss Galanthus nivalis gal-ANTH-us niv-VAL-iss Habenaria blephariglottis hab-en-NAY-ree-uh bleff-ar-ee-GLOTT-iss H. ciliaris H. sil-ee-AY-riss Habranthus tubispathus hab-BRAN-thus too-biss-PATH-us Hemerocallis citrina hem-er-oh-KAL-liss sit-RYE-nuh Heuchera sanguinea hew-KER-uh san-GWIN-ee-uh Hymenocallis caroliniana hve-men-oh-KAL-liss ka-rol-in-ee-AY-nuh H. eulae H. YEW-lee Ilex EYE-lex I. ambigua I. am-BIG-yew-uh I. crenata I. kren-NAY-tuh I. decidua I. des-SID-yew-uh I. opaca I. op-PAY-kuh Ipheion uniflorum IFF-ee-on yew-niff-FLOR-um Ipomoea alba eye-poh-MEE-uh AL-buh Iris chrysophoenicia EYE-riss kriss-oh-fee-NISS-ee-uh I. cristata I. kriss-TAY-tuh I. fulva I. FULL-vuh I. unguicularis I. un-gwik-yew-LAY-riss I. × vinicolor I. VIN-ih-kull-er I. violipurpurea I. vye-oh-lee-pur-PUR-ee-uh I. verna I. VERN-uh Iasminum nudiflorum JASS-min-um new-diff-FLOR-um Kadsura japonica kad-SOOR-uh jap-PON-ik-uh Kalmia latifolia KAL-mee-uh lat-iff-FOH-lee-uh Koelreuteria paniculata kel-roo-TEER-ee-uh pan-ik-yew-LAY-tuh Lilium michauxii LIL-ee-um mee-SHOH-ee-eye Lobelia erinus loh-BEEL-ee-ah er-RYE-nus Lonicera heckrottii lon-ISS-er-uh hek-ROT-tee-eye L. maackii L. MAK-ee-eye L. periclymenum L. pay-ree-KLYE-men-um L. sempervirens L. sem-per-VYE-renz

Lyonia lucida

Magnolia grandiflora

lye-OH-nee-uh LEW-sid-uh

mag-NOHL-ee-uh gran-diff-FLOR-uh

M. pyramidata M. pihr-am-id-DAY-tuh M. stellata M. stel-LAY-tuh Malus hupehensis MAY-lus hu-pay-EN-siss M. sargentii M. SAR-jen-tee-eye M. × zumi M. ZOO-mee Mertensia virginica mer-TEN-see-uh vir-IIN-ik-uh Nandina domestica nan-DYE-nuh dom-MESS-tik-uh Narcissus cyclamineus nar-SISS-us sik-lam-IN-ee-us Nelumbo nucifera nee-LUM-boh new-SIFF-er-uh Nymphaea gigantea nim-FEE-uh jye-GAN-tee-uh Orontium aquaticum oh-RON-tee-um ak-KWAT-ik-um Osmanthus fragrans oz-MANTH-us FRAY-granz Perovskia pehr-ROFF-skee-uh Pieris japonica PYE-er-iss jap-PON-ik-uh Pinckneya pubens PINK-nee-uh PEW-benz Polygonum aubertii pol-LIG-on-um aw-BERT-ee-eye Ponthieva racemosa pon-THEE-va ras-em-MOH-suh Robinia kelsevi roh-BIN-ee-uh KEL-see-eye Rosa ROH-zuh Scilla autumnalis SILL-uh aw-tum-NAY-liss S. siberica S. sye-BIHR-ik-uh S. tubergeniana S. too-ber-jen-ee-AY-nuh Shibataea kumasasa shib-bat-EE-uh koo-ma-SAH-suh Smilax smalliana SMYE-laks small-ee-AY-na Sophora japonica sof-FOH-ruh jap-PON-ik-uh Stachys byzantina STAY-kiss biz-an-TYE-nuh Taxus TAKS-us T. baccata T. bak-KAY-tuh T. x media T. MEE-dee-uh Torreva taxifolia TORR-ee-uh taks-iff-FOH-lee-uh Tritelia trih-TELL-ee-uh Tulipa clusiana TEW-lip-uh kloo-zee-AY-nuh Ulmus americana UL-mus am-eh-rik-KAY-nuh Viburnum × juddii vye-BUR-num JUD-dee-eye V. plicatum V. plik-KAY-tum V. setigerum V. set-TIJ-er-um V. wrightii V. RITE-ee-eye Zephyranthes robusta zeff-er-RANTH-eez roh-BUST-uh

C. speciosus C. spee-see-OH-sus

krip-toh-MEER-ee-uh jap-PON-ik-uh

sip-rip-PEED-ee-um kal-see-OH-lus

en-DIM-ee-on hiss-PAN-ik-us

Cryptomeria japonica

Cypripedium calceolus

Endymion hispanicus

HENRY MITCHELL'S OWN KIND OF GARDEN

Continued from page 17

tubergeniana, Tulipa clusiana, blue Roman hyacinths and, of course, plenty of snowdrops, the plain Galanthus nivalis being best. If I knew where to acquire it, I would also have a patch of Scilla autumnalis for September, a modest flower I greatly loved when I once had it from the Rhone Valley. If I decided on a bit of October color, I would choose the blue Crocus speciosus.

n this patch of bulbs, which would be left alone after flowering except to keep down the wonderful assortment of chest-high weeds that flourish so well in semi-shaded spots, there is no reason I could not have a few Virginia bluebells (Mertensia virginica) and some of the smaller daffodils, but nothing larger than the pale, flared flowers of 'Beryl'.

Narcissus cyclamineus is perfect, provided I wait a few years for them to seed themselves into colonies. And I would not want to be without at least a couple of patches of trout lilies (Erythronium 'White Beauty' is as good and as easy as any). All these and even more-surely I would not omit Fritillaria meleagris, sometimes called the toad lily, with its checkered nodding bells-can be got into a space less than twenty feet square.

Back of the box on the other side of the walk I would have drifts of the daffodils 'February Gold' and 'Tete-a-Tete'. These bloom usually in mid-March and last a month. Bordering the front garden at the sides, behind these bulbs, I might have Nandina domestica, not that nasty little speckled dwarf form which is ugly, but the usual five-foot-high kind with beautiful divided leaves and great panicles of scarlet berries. Not in a row or a hedge, just a good clump of it, along with the glossy evergreen photinia, maybe a few barberries, a fine fat bush of Euonymus alata 'Compacta' for its dusky but brilliant red fall leaves, Viburnum wrightii and V. setigerum, which would be happier in full sun but which make do with light woodland conditions, and near the house, the relatively small crab, Malus sargentii. If I had more space I would instead plant the tea crab, Malus hupehensis. These two are better than other crabs.

The house has a small gabled entrance supported by four posts. In front of them and to the side I would try the common blue hydrangeas that everybody grows.

They bloom in June and announce their need for water by drooping leaves. A plant I greatly love is the little bamboo about mid-thigh in height, Shibataea kumasasa, which is evergreen but which sometimes browns at the edges in a cold winter. It runs a little, but behaves better than most bamboos. If there were more sun at one end of the little porch I'd plant the somewhat tender Mexican orange, Choisya ternata, which is not an orange at all. For the posts, which I would not allow to become completely covered, I would plant the madly vigorous April-blooming pink Clematis × vedrariensis, leading it horizontally on catenary garlands or else letting it loose on the porch roof. Another post I would devote to the sumptuous but small-flowered clematis, 'Etoile Violette', which will make a ball of flowers two feet wide and three feet high at eye level if given wire support to six feet and no higher. Another post would be devoted to the slightly tender Smilax smallii and yet another to the Japanese clematis mentioned earlier. This will make a fine mass of foliage and will stay in bounds if its wire support is seven feet high. Otherwise it will romp on up to twenty or thirty feet, and I want all these vines to decorate and by no means obscure their little columns, an effect ensured by discreet snipping at them off and on through the

In the main garden behind the house I would have a brick walk, five feet wide and perfectly straight, with a couple of upright vews, Taxus × media 'Hicksii', on one side. The dark green yews would support the white clematis, 'Henryi', and a pink rambler rose, 'Mrs. F. W. Flight', which apparently nobody in the world likes except me and the Roseraie de la Have in Paris. We both think it superb.

The walk would have five arches over it, about fifteen feet apart, covered with roses of the kind hardly anybody grows nowadays. On the first one (with one of the tall vews at one side of the arch) there would be the white rambler, 'Seagull', on one side and a bush of the common red rugosa rose, 'Hansa', on the other. Growing into the rose and yew and mingling with the rambler rose I would have the small clematis, 'Venosa Violacea', which blooms at the same time. The next arch I would devote to 'Aglaia', which is yellow, and 'Violette'. The two do not bloom together, and 'Violette' is scentless.

The next arch would be covered by 'Blairii No. 2', a rather plain name for an





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HENRY MITCHELL'S OWN KIND OF GARDEN

opulent old Bourbon rose decked out in fat, pink, perfumed flowers rimmed in pale blush. It is too big a plant for an arch, but if I want it there, who should complain? Mingling with it is another 'Violette' which overlaps in bloom only three days or so. The next arch is more sober, given entirely to the white hybrid musk, 'Moonlight', and the last arch is devoted to the single, changeable China rose called 'Mutabilis'. It is not a climber, but will cover an eightfoot-high arch. It is a trifle tender to cold and should be planted against a wall, where it will easily grow to ten feet or more. If it proves too susceptible to being killed back on the arch, it will remain as a bush on each side and the arch clothed with that best of the larger flowered clematis, 'Perle d' Azur'.

see that at this rate every reader will doze off long before we finish the garden. I have said nothing of so many plants that I would not willingly live without, and shall speak of them briefly.

Irises are the most beautiful of all flowers, best grown in solid beds with nothing else. I should want at least one bed of them, in pastels, with only a few deep blues and purples and no reds, bronzes, or blacks, but plenty of straw yellow and other yellows, blues and lavenders, and light raspberry or soft magenta-a color of critical importance in bringing out the full beauty of the yellows and blues.

Poppies and cornflowers, larkspurs and nasturtiums, petunias of a semi-wild type, such as you see along alleys, off-white and off-lavender and smelling sweet at night, are flowers I would have every year.

Other indispensable roses not yet mentioned are the great climber, the pink 'Mme. Gregoire Staechelin', and the wildlooking white rambler, 'Polyantha Grandiflora', sometimes called Rosa gentiliana. The modest-in-height climber, 'Blossomtime', with intensely fragrant, pink hybridtea-type blooms all summer is one of the few modern roses I would grow. They are all right, but when space is limited I would not find room for them. I would always grow the purple gallica roses, 'Cardinal de Richelieu' and 'Tuscany', just out of habit, and the small-flowered 'Blush Noisette' out of passion. I mentioned it once, why not again? The great Noisette climber, 'Jaune Desprez', comes close to being my idea of a perfect rose, and I wonder how many gardeners who are fussing about with the newest climbers would prefer this old one,



ABOVE: Endowing gardens with large blossoms throughout the summer, Rosa 'Jacques Cartier' is one of the most popular Portland-China hybrids grown today.

so silky in texture, so supreme in scent, so delicate in its blend of flesh, rose, canary, buff and a touch of orange, if they knew it existed. Then there is 'Jacques Cartier', a steady bloomer finely scented, a good healthy bush with quartered flowers of baby pink, and the great white climber, 'Mme. Alfred Carriere'. These are all roses, from among so many hundred, that I would have in my garden.

I love vines. The only grape, of a dozen or so I have tried, that produces what I consider edible grapes is 'Villard Blanc', but any grape at all can be justified for its beautiful foliage. Another climber that is nothing much in flower (though it has blue duck-egg fruits in late summer) but unsurpassed for delicate green foliage is Akebia quinata. Sometimes an arch is better served by this Asian vine that has no flowers to speak of than by a vine of flashy flowers that lacks the elegant disease-proof leaves.

I do not want to go through life without Polygonum aubertii, with racemes of white, lightly perfumed flowers blooming almost all summer, although I know well how troublesome it is to keep in bounds. Ideally, I would grow it up a dying forest tree and let it reach for the stars.

Yet another beautiful vine I must have is the Carolina jessamine, with wonderfully sweet little yellow trumpets in April. And few vines please me better than trumpet vines, relished by hummingbirds above all others, and of these I would have to have both Campsis 'Mme. Galen', a larger flowered hybrid of our wayside native trumpet vine, and the yellow trumpet vine, which is very solid yellow—hummingbirds love it, despite the absence of any red.

There must be big agaves (Agave americana in its white and yellow variegated forms) in pots or tubs, and a couple of blue Nile lilies (Agapanthus) as well. Tuberoses-the 'Mexican Single' is the best-are indispensable but a royal nuisance as they are not hardy in Washington over winter, and they are trouble to dig up and plant out every year.

Of annual flowers, few give so much for so little labor as the moon vine or Ipomoea alba (syn. Calonyction) which romps about for twenty feet or so. I would not willingly live with a chain link fence, but if I had to (say, a gun at my head) I would plant moon vines for summer.

Another plant of great and refined beauty I must have is Kadsura japonica, a delicate twiner with leaves smaller than but otherwise rather similar to those of Magnolia grandiflora. It has small, white, inconspicuous, magnolia-type flowers and

red fruit, but it is for its foliage I would grow it. It deserves a sheltered but very prominent place—not just stuck in somewhere—where it can be seen against mellow old brick or stone or first-rate wrought iron, not that anybody has that any more.

hatever sacrifice is necessary, there must be a fish pool. Common red goldfish are quite beautiful enough, and it should be as large as possible so I will not go mad trying to choose among the endless beautiful water lilies. Among tropicals, I would have Nymphaea gigantea, and the hybrids 'Blue Beauty', 'August Koch', and 'Daubeniana'-all of them blue. The white 'Juno' is the best of night bloomers. Among hardy water lilies the yellow 'Chromatella' and the pygmy 'Helvola' are the best vellows, though I remember how I once saved my money to buy 'Sunrise' when it was new and supposedly so much finer. Of pink, hardy kinds the best to my mind is N. × laydeckeri 'Rosea', which is never more than four inches across its lovely flowers, but there are many of them. All the others I can take or leave alone; there is no such thing as an ugly kind. Of lotus, the best one is the common Asian Nelumbo nucifera and I would surely have it.

Of perennials, there are so many it is hard to choose. Certainly the Russian sage, *Perovskia*, and certainly daylilies, including the wild *Hemerocallis citrina* which is fragrant, with long narrow trumpets blooming only at night. Lady's mantle and catmint are in the forefront of easy, useful perennials for placing near a walk.

Peonies (including tree peonies and the gorgeous very early, hybrid red peony, 'Red Charm') I would have. Among the main-season peonies, I would never neglect the silver-pink 'Mons. Jules Elie' or the crimson-flecked white 'Festiva Maxima'. The Japanese single peonies are among the best, in such varieties as the soft pink 'Westerner' and the deep rose 'Largo'.

Lilies are the glory of late June. The white 'Black Dragon' offers tremendous fragrant trumpets on stems six or seven feet high, and the 'Golden Clarion' strain is almost as impressive in rich yellow. I would not have the Asiatic hybrids, but the pink speciosum types would be represented by a large clump, and where I had almost full shade but strong light I would plant the big, gold-striped auratums, especially 'Silver Imperial'. These grow readily from seed, I have noticed.

I would learn to live without magnolias in a small garden, probably, except maybe Magnolia stellata 'Rubra', if I could find it again—a rich rose color, not red. But I would have to have a pink locust, maybe the wild American Robinia kelseyi or the cultivated variety, 'Monument'. And a fig, 'Brown Turkey', since the little 'Celeste' seems not to grow well in Washington.

There is a feeling, I notice, that respectable people do not grow bananas. I have grown several kinds, all marvelous (I speak of the beauty of the plants and do not count on fruit), and would certainly have at least three or four kinds. Another passion is crinums, and at the very least I would insist on the beautiful pink 'Cecil Houdyshel'.

In fall nothing is more beautiful than the Japanese anemone. The plain single white one is the best. A neglected (but not by me) perennial is the Italian arum, which emerges with calla-like leaves in October. It is blotched with gray-white and is a beautiful surprise all winter, then dies down in June. It is a plant I would want every gardener to enjoy.

What can be said of daffodils, except I would like a great many. The greatest daffodil I have known is 'Ceylon', yellow with red cup, but the ones that seize my heart are the late whites with small cups. And surely there would be space for a row of the little perfumed jonquils, such as every southern gardener has, just for cutting. I would not be without 'Dawn' and a couple of the old tazetta kinds, which are so happy in sun-baked spots (often found near the garage) interplanted with rain lilies (*Habranthus tubispathus*) and winter-bloming Algerian irises (*Iris unguicularis*).

When I think of so many other wonderful plants I have loved and of all the ones I don't know at all—not yet—I do not see how any garden except the great garden we call the Earth can hold them all, but the few I have mentioned are among those I would bestir myself to plant before the furniture had been unloaded at a new place. And needless to say if I should fetch up in some dwelling without any garden at all, it would not bother me much. I began gardening with nasturtiums in my mother's discarded cold cream jars, and with sweet potatoes in a jar of water. And very satisfactory they were too. And are.

Henry Mitchell is a columnist for *The Washington Post* and has written widely in gardening publications.



JAPANESE GARDEN DESIGN

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Japanese Landscapes for American Gardeners Stephen Morrell

Creation and Restoration: Advancing the Classical Tradition Shiro Nakane

A Practical Guide to Asian Plants Barry Yinger

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Book Reviews

The Annual Garden

Peter Loewer. Rodale Press, Inc., Emmaus, Pennsylvania. 1988. 242 pages, drawings by the author, \$19.95. AHS member price, \$15.95.

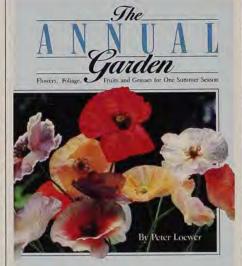
"The garden is your canvas, the blossoms your paint." Peter Loewer, who has authored a full spectrum of gardening books, gives us in *The Annual Garden* a one-volume ready reference, exquisitely illustrated with his own botanical renderings imaginatively interspersed within the text. The spirit of the book is reflective of the author's humor and vitality, imparting enthusiasm and positive thinking to the would-be gardener.

Specifically, the text and drawings are divided into seven chapters centered by a wondrous color plate section, all of which lure the reader into creating magical spaces in his head and ultimately on his land.

Chapter One considers overall design with an eye to color intensity, suitability of plants, and the diversity of choice. The reader is encouraged to draw an initial garden plan, or he may incorporate any of the fifteen included sketches, to be adapted, says the author, with care not "to stifle your creativity." Mr. Loewer encourages personal expression in determining existing potential as well as practicality in designing. Some of the varied possibilities include a fragrance garden, one of annual wildflowers, an area of annual grasses, a privacy garden, and a vegetable garden of variety and texture using the concept of mass plantings.

The four chapters that follow list more than 300 flowers, grasses, vines, vegetables, and fruits. Those who love to arrange flowers will relish specific details for satisfying their desire for armloads of blossoms. In-depth information regarding length of stem, texture, color, and size of bloom is included along with the necessary horticultural requirements for successful flower groupings. The pronunciation guide is invaluable for the experienced gardener as well as the novice. We are also reminded of the edible qualities of some of the foliages, which can enrich our soups and salads, and of the additions to our lives provided by the fruits of the vine.

Finally, the appendix furnishes answers to questions that range from what time of day to harvest flowers to how to



maintain the cutting garden. There are lists of publications dealing with general gardening, seed exchanges, commercial seed companies, and garden equipment catalogs.

The Annual Garden can provide years of fascination and experimentation for the experienced gardener as well as the curious and eager beginner who both have one thing in common—the joy of introducing beauty and elegance into one's everyday life.

—Hardie Newton

Hardie Newton owns a flower design business and gardens for her own pleasure.

The New American Garden

Carole Ottesen. Macmillan Publishing Company, New York. 1987. 148 pages, \$24.95. AHS member price, \$21.60.

Carole Ottesen has a nearly evangelical view of a new type of American garden. This vision emphasizes the passage of the seasons by creating a garden with year-round interest. Her intent is to replace Americans' obsession with lawns and evergreen foundation plantings with a low-maintenance alternative that gives solace and provides interest for the gardener. These alternatives frequently evoke the prairies of the American past to counteract the contemporary "... soulless wilderness of shopping centers, parking lots and heavily trafficked streets"

Herbaceous perennials and ornamental grasses are the backbone of her approach. Simple dramatic effects are achieved by massing a few types of plants. Perennials such as Achillea 'Moonshine', Sedum 'Autumn Joy', Rudbeckia 'Goldsturm', and grasses which include Miscanthus sinensis 'Silberfeder' and Pennisetum alopecuroides are favorites for their four-season interest, striking forms, and ease of maintenance. Ottesen advocates using plants appropriate to a garden's specific ecotype, rather than altering the conditions to accommodate the plants. Thus she briefly mentions using natives and those adapted to particular climates—such as cacti, agaves, and succulents in the arid Southwest. (Most of the plants she discusses are best suited to the Northeast, where she is based.)

Low-maintenance gardening is central to Ottesen's vision. None of the plants discussed require staking or spraying. Deadheading is also eliminated, as she chooses herbaceous plants with attractive, long-lasting seedheads. And while it is difficult for many people to imagine a home without a lawn, she asks, "Is the occasional game worth the time and expense involved in maintaining turf?" If so, she advocates limiting the lawn to an easily maintained oval bordered by garden. On the other hand, flagstone, brick, and other surfaces require little maintenance beyond an occasional sweeping. Ottesen argues that with the use of plants appropriate to the climate, especially those which remain attractive year-round, much maintenance can be eliminated, providing leisure to contemplate the garden.

As the subtitle "A Manifesto for Today's Gardener" suggests, *The New Amer*ican Garden presents an approach rather than a recipe. Ottesen points the way to a naturalistic style that combines much of the best in American gardening: edible landscaping, organic gardening, lowmaintenance alternatives, and a renewed interest in perennials and native plants. It will inspire those seeking new ideas and is a welcome addition to the evolving discussion of American garden design.

-Sarah F. Price

Sarah F. Price is curator of the Conservatory Garden located within Central Park in New York City.

American Garden Writing

Bonnie Marranca, Editor. PAJ Publications, New York. 1988. 334 pages, illustrated, \$23.95. AHS member price, \$21.55.

Americans are "enraptured by the illimitable knowledge of things." So says Bonnie Marranca of the Quaker, John Bartram, founder of what was to become the first botanical garden on the American continent. The comment could apply equally well to many of the personalities who speak to us in this fascinating compilation of letters, travel diaries, essays, and seed catalogs spanning American history from colonial times to the present. Marranca's thoroughgoing notes on each writer, placed discreetly at the end of each selection, give pride of place to the words of the gardener him- or herself, lending the richness of language rooted in a particular time and place to this splendid horticultural history.

The approach is eclectic and anecdotal: here we find the story behind the acquisition of Washington, D.C.'s famed cherry trees, along with a homey chronicle of the establishment of the White Flower Farm nursery in Litchfield, Connecticut, and a sampling of George Washington's correspondence with British agricultural writer Arthur Young. The voices range in tone from the challenging (Henry Mitchell) to the intensely lyrical (Celia Thaxter); overall, the chorus is orchestrated in such a way that the reader catches his breath at the sheer variety of the American gardening experience. Selections such as the entry from the Shaker seed catalog, with its plain yet engagingly conversational plant descriptions, lend a quiet integrity to the whole. I did find myself paging back to the end of each selection to find the dates that would place it properly in my mental chronology. Dates at the beginning, please, for those of us not perfectly versed in the progression of American history!

The dust jacket describes this book as a "landmark," which indeed it must be, for the American garden identity is in no way close to being cast in the stone of more venerable gardening traditions. Perhaps it could be described as a guidebook as well, both to the "way we were" and to the future possibilities that are implied by the rich diversity of the American gardening experience. -Kathleen Y. Riley

Kathleen Y. Riley is editor of the American Horticulturist News Edition.

Bonsai Masterclass

Peter Chan. Sterling Publishing Company, Inc., New York. 1988. 160 pages, \$19.95. AHS member price, \$15.95.

The bookcover flap of Bonsai Masterclass by Peter Chan claims that this book "covers every aspect of the subject in full, practical detail." This claim is well met. Especially well presented are step-by-step pictures of "how-to" collect, air layer, prune, and plant. The author's pictures of example bonsai are good, and many are quite realistic as to what an aspiring bonsai artist could create and maintain. Often bonsai books and articles describe and picture bonsai plants that are true masterpieces, generations old, and that only bewilders and discourages the beginner.

While Mr. Chan is a British bonsai grower, he speaks with an Oriental-especially Japanese-focus. This focus includes spiritual aspects and impacts that may not necessarily be readily shared in the Western bonsai world. Regardless, it adds zest and interest to his writing.

Especially helpful to the fledgling grower are the descriptions and easily read presentations of "how-to's" without unnecessary Japanese words, definitions, and horticultural terms that can be both intimidating and unnecessary. All too often a writer overwhelms the reader with terminology which only distracts him from the important messages that can inspire the grower to try bonsai.

While the book will be especially directed to the novice or intermediate bonsai grower, it has many excellent tips for the experienced. Listings of appropriate plant materials for bonsai and of propagation techniques are particularly welcome.

It is always fascinating to compare growing theories and techniques among experienced growers. This fascination centers on the "absolutes" of one grower, which may not be at all agreeable to another; e.g., "evergreens (for wintering) must never be kept in dark places for more than two weeks at a time or they will turn yellow." Regardless of the differences, author Chan has carefully considered the needs of a new or developing bonsai enthusiast. He shows how to successfully create, care for, and find joy in this popular but ancient Oriental horticultural art.

-William Smedley

William Smedley is an experienced American bonsai grower who lives in New Hampshire.

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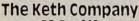
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Sources

The Designer As Artist

A Fletcher Steele symposium, sponsored by the American Horticultural Society (AHS) April 29 and 30, 1989, will feature eight slide-illustrated lectures on his design work and plantsmanship, along with tours of local gardens by Steele. Speakers include Robin Karson, Peter Hornbeck (former Harvard professor and one-time draftsman for Steele), Katherine Warner Moss (director of Horticulture at Walt Disney World whose childhood home was set in a Hudson River garden by Steele), Joann Beck (a landscape architect with Environmental Design and Research who has studied Steele's philosophy of suburban landscaping), and Carolyn Marsh Lindsay and Steve McMahon (president of AHS and Grounds Superintendent, Naumkeag, who have advised on Steele restorations). The event will be held in conjunction with the opening of a touring exhibition of Steele's work at Memorial Art Gallery, Rochester, New York.

A Gift of Chinese Penjing

The National Bonsai and Penjing Museum is open from 10 a.m. to 2:30 p.m. each day except December 25. The collection also includes seven bonsai given by Mr. Shu-ying Lui of Hong Kong.

The plants of tropical origin are moved to adjoining research greenhouses for the winter and are not on public display. The species from temperate climates are overwintered in place with a temporary covering and supplemental heat to avoid freezing the shallow root systems.

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Dumbarton Oaks

The gardens are open daily from 2 to 6 p.m. April through October and 2 to 5 p.m. November through March, but closed during inclement weather. The Collections are open daily from 2 to 5 p.m., except Monday; the Rare Book Room from 2 to 5 p.m. weekends only. Entry to the gardens is on 31st and R Streets; the Collections are at 32nd Street between R and S Streets. For information write Dumbarton Oaks, 1703 32nd St., N.W., Washington, D.C. 20007, or call (202) 342-3212.

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1988-89

Travel with others who share your interest in gardening. AHS' custom-designed trips take you to the world's great gardens—small and large, public and private—and also offer special experiences that expand your enjoyment of America's number one leisure time activity. Write or call for information today!

October 20-November 6, 1988 Fall Into Spring

This trip to the lovely island nation of New Zealand will feature a visit to a specialized miniature rose nursery, a wildflower walk on the slopes of Mt. Cook, and a tour of the colonial gardens at Holmslee.

Passages Unlimited, 14 Lakeside Office Park, Wakefield, MA 01880 (617) 246-3575.

January 21-28, 1989 Gardens of the Leeward Islands of the Caribbean

This exciting garden cruise adventure takes us to the tranquil islands of the Caribbean Leeward Chain. Visit tropical rain forests, botanic gardens, and private estates never open to the public, as we stop at such secluded islands as Montserrat, St. Kitts, St. Martin, and Antiqua

Leonard Haertter Travel Company, 7922 Bonhomme Avenue, St. Louis, MO 63105 (800) 942-6666

March 22-29, 1989 Pacific Coast Gardens

Travel from San Diego to San Francisco on this horticultural visit to botanical and

private gardens of California, with excursions to the Hearst castle and the San Miguel Mission.

For further information contact Liz Smith, AHS Special Events, (703) 768-5700.

May 2-17, 1989 The Gardens of Coastal Iberia

Ports of call on this cruise from Lisbon, Portugal, to Folkstone, England, will include Guernsey, the Channel Islands, and New Haven. Experience a most unique program of sightseeing ashore that will include exceptional public and private gardens.

Leonard Haertter Travel Company, 7922 Bonhomme Avenue, St. Louis, MO 63105 (800) 942-6666

June 2-5, 1989 Seaside Gardens of Rhode Island

Tour members will visit historic homes and gardens in Providence and the secret gardens of Newport, as well as Blithewold Arboretum and other outstanding gardens of Rhode Island. Triple A Travel, Polo Center, 700 Aquidneck Avenue, Middletown, RI 02840 (401) 847-6393

August 1-21, 1989 U.S.S.R. and the Caucasus

ew Zealand

Highlights of this special tour to the Soviet Union will include the botanical gardens of Moscow, Kiev, and Leningrad, as well as the alpine plants of the Teberda Nature Preserves on the northern slopes of the Caucasus. Leader of the tour will be Erastus Corning III, fluent in Russian and a specialist in travel to the U.S.S.R. The group will be accompanied by a botanical expert familiar with the flora of the U.S.S.R.

Corning Tours, Box 431, Albany, NY 12201 (518) 463-2160

October 7-14, 1989 Cruising the Hudson River

Timed to coincide with spectacular fall foliage, this cruise will feature some of the most important homes and gardens along the Hudson River—America's Rhine—all the way to Albany. Included will be private entertainment and visits to Wave Hill, the New York Botanical Garden, and Sleepy Hollow Restorations.

Bellinger Davis Company, Inc., 150 East 58th Street, New York, NY 10155 $\,$ (212) 759-1590