

BOLD AND BRASSY YUCCAS *For East and West*

THE AMERICAN GARDENER

A Publication of the American Horticultural Society

November/December 1997 \$3.95



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c o n t e n t s

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November/December 1997



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On the cover: This photograph, of an old barn on the site of Tower Hill Botanic Garden in Boylston, Massachusetts, is a favorite of photographer and book author Ken Druse. Read the story behind this and other Druse photos beginning on page 37.

American Horticultural Society

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The American Horticultural Society seeks to promote and recognize excellence in horticulture across America.

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commentary

This issue of *The American Gardener* brings this momentous 75th anniversary of the American Horticultural Society to a close. We hope you've helped us celebrate—by attending one of our 75 specially designated events around the country, by planting one of our 75 great plants, or by reading one of our 75 great books.

It's time to focus on an AHS event that has been a highlight of each year throughout our history—the AHS Awards Program. The Liberty Hyde Bailey Medal is the highest award the society gives, and its recipients must have made significant contributions in three of the following areas of horticulture: teaching, research, writing, plant exploration, administration, art, business, and leadership. Although many of these award winners have been featured in the pages of our magazine over the years, one who has not until now is Fred Galle. Galle was for many years the curator of horticulture at Callaway Gardens in Pine Mountain, Georgia, and is nationally known for his book, *Azaleas*. Now he has written an equally authoritative book on hollies. Read our story to find out why this esteemed horticulturist isn't "Dr." Galle!

Amazingly, another Liberty Hyde Bailey Medal winner we've overlooked was right in our own backyard—or rather, at our own River Farm. H. Marc Cathey, for four years president and CEO of AHS and now president emeritus, will continue to represent us throughout the country as only this raconteur/scientist can.

The gorgeous photography of Ken Druse appeared on last month's cover because one of his books made our list of 75 Great American Garden Books and another was among the first to receive our new Annual Book Award. We asked him to come back to our pages this month because he's also a past award winner, of our 1993 Horticultural Writing Award. We asked him: What are his 10 favorite photographs among the thousands he has taken? He tells us the assignment was fun but difficult—he couldn't get the number down to fewer than 14 and neither could our editors! We know you'll enjoy looking at the results.

Our awards process is important to us because recognizing horticultural excellence has always been part of our mission. As members of AHS, you can help us fulfill that mission by suggesting worthy recipients for our 1998 awards. To receive a list of the AHS Annual Awards and nominating criteria, call us at (800) 777-7931, or visit our Web site at <http://members.aol.com/gardenahs>.



Linda D. Hallman

—Linda D. Hallman, AHS President/CEO



members' forum



HEMEROCALLIS 'PANDORA'S BOX'

As already enthusiastic gardeners, we didn't foresee the significance of buying our first registered daylily, 'Pandora's Box'. Two years later, our gardens include more daylily cultivars than any other perennial. Like the woman of Greek myth, we couldn't have begun to imagine all that was awaiting us. But while Pandora unleashed a world of trouble, we discovered a world of plants that are virtually no trouble at all.

We were first drawn into the daylily world through a lecture by André Viette at his Fishersville, Virginia, nursery. We became acquainted with some of the perennial's other alluring qualities through Sydney Eddison's book, *A Passion for Daylilies*. From full sun to bright shade, poor soil to newly amended beds, despite all the worst that Old Man Winter can throw at them, we have found that daylilies have staying power. Whether an area requires a petite pink flower that can mingle with overpowering neighbor plants, or something tall and bold to define the back of the border, the daylily fits the bill.

With tens of thousands of cultivars available, every grower is going to have a different opinion about which one is the best. The cream-colored petals of 'Pandora's

Box', when they appear in June, are made striking by a dark purple eyezone. We may appreciate it even more for its vigor. It's fast growing, producing multiple fans and a proliferation of blooms on a single clump. And the blooms don't fade, even when the heat index reaches 120 degrees plus. Like most daylilies, it's trouble free and will take part shade as well as full sun, although it won't produce as many blooms.

No matter how many other great cultivars we collect in the future, 'Pandora's Box' will always be one of our favorites—for opening the daylily world to us.

*Cynthia and Steve Johnson
Richmond, Virginia*

What's your favorite plant? Send us a short essay with a color photograph of yourself in your garden. If we publish it, you'll have your choice of one of the three books receiving this year's AHS Annual Book Award.

MILKWEEDS 'N' MONARCHS

In the article "75 Great Plants for American Gardens" (May/June) you say about *Asclepias tuberosa* that "the monarch [butterfly] lays eggs only on this milkweed." I'm no lepidopterist, but personal experience as well as my field guides tell me that milkweeds, in the plural, are host plants for

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Botanical Quiz

Did you find your brain taxed this season by trying to recall the botanical names of all your plants when the garden club visited? Are you poring over reference books in an effort to decide why your azaleas died?

Frequent contributor Andy Wasowski thought that fellow members might enjoy a gentler form of mental exercise. All of the answers to the questions below contain the name of a plant or plant part. The answers can be found among the classifieds (page 64).

1. What was the *HMS Bounty's* cargo on its infamous last voyage?
2. What is the first vegetation mentioned in the Bible?
3. What is the symbol of the Royal Family of Japan?
4. What flower is associated with disabled war veterans?
5. What fruit do we get from New Zealand?
6. By what name was John Chapman better known?
7. What term describes tropical countries dependent on fruit exports?
8. What inexpensive piece of furniture was found in many singles' pads during the 1960s and '70s?
9. What was often loaded into Civil War cannons?
10. How does one describe a coward?
11. What vegetable did the 19th-century monk Gregor Mendel use in his experiments on genetics?
12. What conflict took place between 1455 and 1485?
13. What's another term for a divorcee?
14. What keeps oxfords in shape?
15. When everything is going smoothly, what don't you want to do?

the monarch. It is quite easy to find monarch eggs on the common milkweed, *A. syriaca*, which unlike *A. tuberosa* is widespread in our area. Schoolchildren often raise monarchs in the classroom from eggs they have collected from this milkweed. I have also seen monarch caterpillars on an *A. incarnata* growing in my garden.

Perhaps this is a minor point, but since "butterfly gardening" is becoming not only popular but supportive of shrinking butterfly populations, I thought it useful to bring it up.

Doris Balant
 Newcastle, Maine

I really enjoyed the article about 75 great plants for American gardeners. It featured many of the flowers, shrubs, and trees that I love best, including a real favorite: *Asclepias tuberosa*, or butterfly weed. Listed as a state endangered species, it's actually quite abundant on our island. You mention that monarch butterflies lay eggs only on this milkweed. In fact, when my kids were young and we lived in Mystic, Connecticut, we always picked milkweed (*A. syriaca*, I believe) in late August and early September and raised many monarchs that we released to fly south after they "hatched." Back on the island we've continued the practice. I believe that butterfly weed is very attractive

to butterflies, but that they lay eggs on and eat the leaves of common milkweed as they metamorphose from egg to caterpillar to chrysalis to butterfly.

Try looking at the undersides of leaves for egg clusters.

Virginia Crowell Jones
 Martha's Vineyard, Massachusetts

Yes, we should have said "the milkweed" rather than "this milkweed." There are many *Asclepias* species native to the United States, and you'll make monarchs happy by growing whichever one is suitable to your own conditions.

AHS Online

BE SURE TO CHECK OUT the new AHS Web site at <http://members.aol.com/gardenahs>. We'll be posting all kinds of information for members, such as the gardens and flower shows across the country that admit AHS members for free. We'll also update you on discounted garden books and AHS meetings and study tours. And you'll have a chance to make nominations for our Annual Awards.



offshoots

THE YOUNG AND THE ROTLESS

by Steve Butterman

Once I've spaded compost into my garden and bade it farewell until spring, my off-season activities are simple: daydream sketches of next year's garden and whatever armchair gardening I can cull from the dense thicket of available "green literature." I sometimes also play couch potato—or more accurately Lazy-Boy tomato—when a gardening program sprouts from the TV.

Recently I read a viewing-guide listing for a late-night nature channel special about tomatoes that don't rot. Since I read the listing in the early afternoon, I had hours in which to anticipate this. You'd think that excitement would have filled me or grabbed me or at least pinched my cheek. Instead I was seized by a gang of Bad Vibes, who ruthlessly interrogated me with troublesome questions.

For example, what uncommon fertilization techniques would we use on these incorruptible tomatoes? Manure that doesn't stink? And will we be required to sprinkle them only with water from some mail-order Fountain-of-Youth monopoly selling water that doesn't dry? If so, at what price? To pay for it, will we need checking accounts that don't dwindle, or credit card companies that don't bill?

Not love of BLTs but lust for profits must be behind development of these excessively dignified tomatoes, I concluded, with the approval of my Bad Vibes. We can thank the eternal-youth move-

I know several confused boys and girls with parents who are constantly mistaken as their slightly older siblings. Where does it all end? I mean, the Parthenon is crumbling. Are we all to outlast it, and our vegetables too? I propose that a tomato should look like a tomato, and should furthermore act its age.

Of course, a certain party at my house who frequently complains about the inevitable springtime topsoil shoeprints on her majestic carpet might brighten at the news of these tomatoes that don't rot. Surely, she'll hope, garden soil that doesn't track can't be far behind.

Unlike my Bad Vibes and me, she'll not consider the negative effects. For instance, how will the hyperactive neighborhood imps react when deprived of their annual rotten-tomato wars? We certainly can't let them hurl immortal, stenchless-mannered, dryless-watered tomatoes, now can we?

A SCARY SCENARIO

Even many nongardeners (brutes!) grow at least a backyard tomato plant or two each summer. By century's end, we could face a tomato population explosion crisis. My Bad Vibes and I foresee violence and anarchy. Even virtuous, red-juiced Early Girls and Better Boys will not escape unscathed.

Natural processes are supposed to be gardeners' friends. Consider what foul influences those unnaturally self-centered tomatoes could exert. We envision compost that doesn't decay, annuals that don't go to seed, honeybees that aren't busy—in short, gardens that don't grow!

While conversing with these philosophical, somewhat long-winded Bad Vibes, I missed the TV show. Its hour passed, and that was just hunky-dory with me. It'll never take hold anyhow, at least not in my plot of earth, or so I decided after kicking the Bad Vibes out. After all, tomatoes that don't rot sound suspiciously like what we already have at the supermarket: tomatoes that don't taste. The trendsetters should focus their energies on more practical matters—say vines that don't climb and jalapeños that don't burn.

The Parthenon is crumbling. Are we all to outlast it, and our vegetables too? I propose that a tomato should act its age.

ment and its corporate wish fulfillers: the purveyors of face lifts (biefharoplasty) and nose jobs (rhinoplasty), tummy tucks and fanny fakes, implants of teeth and hair and breast bulk. Now that they've reversed all outer signs of human wrinkling and sagging, bulging and balding, they've aimed their greed-glazed gaze at aging tomatoes (lycopersiplasty).



BILL FIRESTONE

Steve Butterman is a free-lance writer living in Bucyrus, Ohio.



mail-order explorer

HERE COME THE TROPICALS

by David J. Ellis

In case you hadn't noticed, tropics are hot stuff. It used to be that only gardeners in California, Florida, and Texas used them outdoors with confidence. But now the rest of us are deciding that their exotic flowers and flamboyant foliage deserve to be focal points in containers or even flower beds. Those who live north of USDA Zone 7 are overwintering them as pot plants, cuttings, or rhizomes packed in vermiculite, or discarding them after a season, reasoning that the plants have given their money's worth of pleasure.

So with the gray days of November upon us, we hope to add a splash of color to the winter days ahead with brief biographies of mail-order nurseries that specialize in tropical plants. To narrow the field, we excluded nurseries that deal primarily in traditional house plants, succulents, bromeliads, or orchids and focused instead on purveyors of a wide range of tropical trees, shrubs, vines, and herbaceous plants.

Our research revealed that a popular source of tropical plants and butterfly gardening supplies, Brudy's Exotics of Houston, Texas, has gone out of business, and that Crockett's Tropical Plants in Harlingen, Texas, no longer accepts retail mail-order requests.

THE PLUMERIA PEOPLE

910 Leander Drive, Leander, TX 78641, (512) 259-0807. Catalog \$3, deductible. Minimum order \$20.

The brainchild of Mary and Richard Eggenberger, who start-

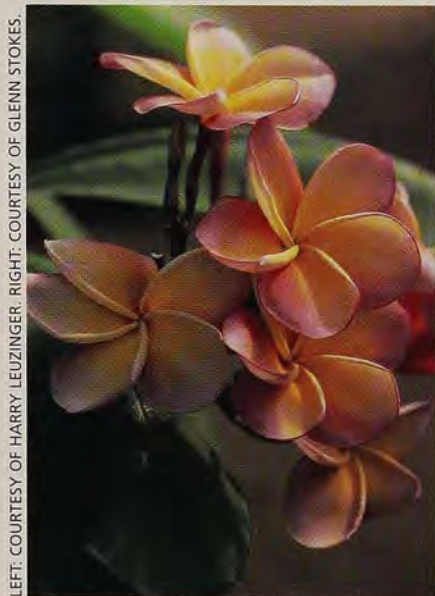
ed the business in 1983, this Leander, Texas, nursery has since 1993 been managed by Harry Leuzinger in partnership with Paul Tomaso and the Eggenbergers. A nurseryman with a degree in botany, Leuzinger says the nursery has a reliable customer base of about 5,000 within North America, mostly from California, Texas, Florida, and New York, but with a few in almost every state. "I ship plumerias to Alaska," notes Leuzinger.

Plumerias (more than 70 selections) remain the nursery's mainstay. "We always have new introductions in the catalog, but I'm still amazed at how many plain old plumerias we sell," says Leuzinger, referring to the more common varieties of this tropical tree, also known as the frangipani. Hibiscus (50 selections) are also hot sellers, as are heliconias, gingers, cannas, bougainvilleas, and jasmines. A myriad of other exotic flowering shrubs, vines, and bulbs make up the nearly 1,000 plant selections available at any one time.

According to Leuzinger, small plants such as jasmines, hibiscus, and bougainvillea come in four-inch pots, while plumerias can be ordered as rooted or unrooted cuttings, depending on the time of year. "Generally, unrooted cuttings are available early in the year and rooted cuttings are available later," he says.

STOKES TROPICALS

P.O. Box 9868, New Iberia, LA 70562-9868, (800) 624-9706, www.stokestropicals.com. Catalog \$4, deductible. Minimum order \$20. Glenn Stokes is the new kid on the block in the mail-order tropical plant business, but in July 1995 he came in with a bang, offer-



LEFT: COURTESY OF HARRY LEUZINGER. RIGHT: COURTESY OF GLENN STOKES.



'Penang Peach', far left, is one of more than 70 plumerias sold by the Plumeria People in Leander, Texas. One of the trendiest tropicals is a ginger known as the Siam tulip, left, offered by Stokes Tropicals in New Iberia, Louisiana.

ing a color catalog loaded with a staggering variety of tropicals. "We are actually the largest single distributor of the four major groups of tropicals in the world," claims Stokes, who lists 100 banana selections, 110 plumerias, 150 gingers, and 40 heliconias among the 500-odd plants in his current catalog.

"I grew up in the nursery business—my grandfather, Sam Stokes, was the first nurseryman in Louisiana, and on the other side of the family my mother's brothers were in the nursery business," says Stokes. A biologist and entomologist by training, he first gained an appreciation for exotic plants while traveling and working in the tropics as a malaria specialist.

One of Stokes' hottest commodities is a ginger from Thailand called the Siam tulip (*Curcuma alismatifolia*). With a blooming season from May to August, it is being touted as a summer version of the tulip, ideal for mass plantings and cut flowers. "It's a wonderful plant with a lot of potential," says Stokes. "It takes full sun to some shade, overwinters from Zone 8 south, and doesn't need a lot of water." At the moment it is available in white, pink, and rose, but Stokes says breeders are working on other colors. Where it is not winter hardy, it can be dug and stored in the same way as gladioli or caladiums.

THE BANANA TREE

715 Northampton Street, Easton, PA 18042. Orders can be made through the company's Web site: banana-tree.com. A new printed catalog (\$2) is expected to be available next year. Minimum order \$8.50.

Fred Saleet, principal owner of the Banana Tree in Easton, Pennsylvania, holds the longevity edge on tropical plant nurseries, having been in business since 1955. A botanist by training, Saleet for many years sold tropicals mainly to laboratories, universities, and botanical gardens before word of his nursery inexorably found its way to tropical plant buffs. A steady stream of customers seek his offerings of heliconias (60 varieties), gingers (including *Alpinia*, *Curcuma*, *Hedychium*, *Kaempferia*, and *Zingiber* species), cycads, bulbs, vines, and palms. He also sells fresh seeds of a wide variety of tropicals from *Acacia* trees to papayas (*Carica* spp.) and from birds-of-paradise (*Strelitzia* spp.) to Asian vegetables and other exotic edibles. Some of Saleet's seeds are so fresh that they are still exuding moisture and can become moldy in transit. This can be alarming to new customers who have never received fresh seeds before. "People we have worked with over the years know to wash the seeds and use a fungicide," he explains.

The Banana Tree's principal clientele is still botanical institutions and experienced gardeners who don't require too much detailed instruction on how to successfully grow some of the more culturally complex plants Saleet sells. "Those who love what we do have become enamored of *Theobroma cacao*—chocolate," says Saleet. "We sell millions of seeds of chocolate, something the average grower of perennials and annuals may even have trouble getting to germinate."

From customers looking for something less problematic, Saleet says he gets a lot of requests for heliconias, gingers, kiwi, and tea (*Camellia sinensis*). And, of course, for seeds and corms of the Banana Tree's namesake plant. "We always hope that the people who buy bananas follow the instructions, which means consistent warmth and light," says Saleet. He worries that too many garden writers tout bananas as easy-care plants when they actually require rather exacting conditions to thrive.

David J. Ellis is assistant editor of *The American Gardener*.

POLLY HILL — AND HER — ARBORETUM



As featured on CBS Sunday Morning

The inspiring story of
Polly Hill who, at age 50,
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plants and trees would grow
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conservationist's notebook

PILGRIMAGE TO CRANBERRY BOG

Isolated on central Ohio's Buckeye Lake, about 30 miles east of Columbus, is Cranberry Bog State Nature Preserve. Just after the turn of the century this fragile island of sphagnum moss encompassed nearly 50 acres, but has since diminished to 12 acres and counting.

The bog was not always an island—it is a breakaway republic that formed in 1830 when 2,000 acres of swampland was flooded to create a reservoir for the Ohio and Erie Canal. "Essentially they created a canal feeder lake over the existing bog lake," says Guy Denny, chief of the Division of Natural Areas and Preserves for the Ohio Department of Natural Resources (ODNR).

Most of the bog stayed underwater, but a particularly buoyant section expanded like a waterlogged sponge, separated from the rest of the bog, and rose to the surface of the water.

When the reservoir was abandoned near the end of the 19th century, it was renamed Buckeye Lake. In 1949 the lake and its unusual island became a state park, and in 1973 the bog itself became an ODNR preserve. It has received considerable attention from naturalists over the years because it is one of the few remnants of a larger sphagnum bog ecosystem that covered large areas of southern Canada and the northern United States more than 13,000 years ago. "It is a living relic of the Ice Age, a chance for people to see some of the species that are more common a couple of hundred miles farther north," says Denny.

The key to ecosystems such as Cranberry Bog is sphagnum moss, which exudes acid as it grows. Where large communities of sphagnum moss become established, the surrounding water eventually becomes too acidic for most plants to survive. Bog lakes are also typically oxygen-deficient, which creates an anaerobic condition hostile to the microorganisms that foster the decomposition of dead plants. Dead sphagnum moss and other vegetation builds up and eventually compacts to become peat.

The other factor that affects the make-up of bog plant communities is related to sphagnum moss's ability to absorb many times its own weight in water. On hot summer days, large quantities of water evaporate from the moss, creating a cooler, more humid microclimate at the surface of the bog. "Sphagnum is also a great insulator," notes Denny. "[Surface] temperatures rarely get above 60 degrees in summer, and it rarely gets below freezing in the winter."

Many of the plants commonly seen on

the island are typical bog plants, such as the rose pogonia orchid (*Pogonia ophio-glossoides*), calopogon orchid (*Calopogon tuberosus*), and northern pitcher plant (*Sarracenia purpurea*).

Other common species include the large cranberry (*Vaccinium macrocarpon*) and poison sumac (*Toxicodendron vernix*). The former gave rise to the island's name, and the latter is mentioned prominently by tour guides as a way of discouraging visitors from straying off the boardwalk built to protect the bog.

More unusual plants include disjunct species such as arrow grass (*Scheuchzeria palustris*), which Denny describes as a "typical circumpolar species usually found up in bogs of Michigan and Wisconsin," and mud sedge (*Carex limosa*), a state endangered species.

Despite a number of measures designed to protect this fragile preserve—including establishing a no-wake zone in the waters around the island and allowing public access to the bog only one day a year—it continues to shrink and will eventually disintegrate. The bog is now ringed with trees and shrubs that are shading out sphagnum moss and bog plants. Winter storms and the pressure of lake ice tend to exacerbate the breakdown. Several years ago, an acre segment broke loose during a March snowstorm and beached itself in about three feet of water on the opposite shore, much to the surprise of a lakefront property owner.

At the request of the state legislature, studies were conducted to determine if the bog could be saved, but the consensus was that measures to prevent further deterioration would in themselves alter the character of the bog.

In the meantime it has served as a living laboratory for thousands of people who have taken advantage of the annual visitors' day. Ten to 12 people at a time are ferried out to the island and can walk along the boardwalk. A few years ago the tour was publicized by three Columbus-based television stations and an unprecedented 1,500 people turned out. "We were overwhelmed," says Denny, "People waited two to three hours in hot weather." The preserve staff feared a public relations nightmare. But after each tour, Denny kept asking people if the wait had been worth it. "They all said yes and we never got one letter of complaint," he says. "It opened their eyes to a whole new world." —D.E.



The showy calopogon orchid graces Ohio's Cranberry Bog nature preserve.

Tours of Cranberry Bog are held once a year, generally the fourth Saturday in June. For more information, contact ODNR/Natural Areas and Preserves, 1889 Fountain Square Court, Columbus, OH 43224, (614) 265-6453.

COURTESY OF OHIO DIVISION OF NATURAL AREAS AND PRESERVES



gardeners' information service

I bought an American persimmon (*Diospyros virginiana*) from Burpee's, after seeing the tree at the University of Wisconsin at Madison. The first winter, I wrapped the stem with tree wrap and mulched the base. When I unwrapped the tree in the spring, the bark had "exploded." I called Burpee's for a replacement tree, and that fall again mulched the base of the tree and put a plastic tube around the stem to keep animals from gnawing at the bark. Again, when I looked at the tree in the spring, the bark had exploded. What's happening to my trees?

—L.F., Minneapolis, Minnesota

Lee Reich, author of *Growing Fruit in Your Backyard*, suggests that your tree might have "exploded" due to alternating cold and warmer temperatures, which can make parts of the trunk expand at different rates than others. Tree bark is exposed to more direct sunlight in winter because the sun remains closer to the horizon. You may want to try painting the bark with a white latex paint, which will help the trunk reflect the sunlight rather than absorb it.

Another possibility is that the "exploding" bark is simply a matter of cold-hardiness. The American persimmon's northern range ends in central Indiana and southern Iowa. Trees raised in a USDA Zone 4 nursery instead of Burpee's nursery in Zone 6 may be better adjusted to Minneapolis winters. One northern source for persimmons is Oikos Tree Crops, P.O. Box 19425, Kalamazoo, MI 49019-0425, (616) 624-6233; catalog \$1.

Recently, a friend left a small potted plant on my doorstep, along with the information that it was a climbing vine called "Gabriel's horn" or "Gabriel's trumpet." She says it blooms in the evening and "takes up quite a bit of room." I took it to my local nursery, but they could not find that popular name listed in anything they had. I'm beginning to suspect that the name is of purely local folk origin. I'm reluctant to plant the vine since I don't know whether or not I'll be letting myself in for some long-term problems such as invasiveness.

—D.W., via e-mail

Your plant is probably *Solandra longiflora*, more commonly called chalice vine or copa de leche (cup of milk). It is a member of a genus of about 10 species of shrubby vines native to tropical South and Central America and the Caribbean. Most have showy, gobletlike, yellow or white flowers that are highly fragrant. Gabriel's trumpet has white flowers with five purple lines running down the throat. The flowers eventually turn yellow and then darken with age.

These vines are somewhat unusual in that they bloom in winter and need a period of rest in summer, at which time water should be limited and fertilizer withheld. Let your plant rest during the summer in a shady spot where it won't get rained on. In early fall, start watering and fertilizing it, and increase its exposure to sun.

This tropical plant is only hardy outside in southern Florida and parts of Texas and Southern California (Zone 10). If you do

not live in one of these areas, it must be moved inside as soon as temperatures begin to fall below 50 degrees and kept in a very sunny room—ideally a greenhouse or solarium that gets direct light at least six to eight hours a day. Under ideal conditions it should flower for you in December or January. Start allowing it to go dormant again in late spring by gradually reducing water and fertilizer. Because it flowers on old stems, you can cut back any new growth to keep the vine from taking over. Keep it in a medium to large pot with some kind of trellis or support for it to climb on.

I have a "wonderberry" (*Solanum ×burbankii*) and have read that the fruit is edible, but when it is unripe, it is poisonous. Can you tell me a little bit more about the wonderberry and how to tell when I can eat it?

—J.E., Bowling Green, Ohio



The wonderberry or sunberry was introduced, with much controversy, in 1909. Plant breeder Luther Burbank—who claimed to have hybridized the plant by crossing *Solanum melanocerasum* (formerly *S. guineense*) and *S. villosum*—sold the rights to the wonderberry to John Lewis Childs for distribution. Childs advertised the wonderberry as "the greatest garden fruit ever introduced... easiest plant in the world to grow, succeeding anywhere and yielding great masses of rich fruit." A messy public debate ensued because many people charged that the

wonderberry was nothing more than black nightshade (*S. nigrum*), the leaves and fruit of which are poisonous, or the garden huckleberry (*S. melanocerasum*). The exact origin of *S. ×burbankii* was never completely resolved. Based on evidence of chromosomal incompatibilities, botanist Charles B. Heiser Jr., author of *The Fascinating World of the Nightshades*, has concluded that the wonderberry could not have been a hybrid of the two species Burbank claimed to have used to create it, but is more likely a cross between *S. melanocerasum* and an unknown *Solanum* species growing in Burbank's garden.

As for how to eat the wonderberry: The unripe berries contain a poisonous alkaloid, so be sure to pick ripe berries—those with the darkest color—and cook them thoroughly. This will enable you to use them in pies, jams, and sauces.

—Sara Epp, Editorial Assistant



the future

LEARNING, COUNTRY STYLE

Story and photographs by Christie Craig

Thirty years ago, Denna Baskin found herself increasingly frustrated by the limitations of teaching public school. There was too little flexibility, she felt, for helping individual children overcome what she calls “stumbling blocks.” She dreamed of opening her own school, where there would be as much attention to personal growth and self-esteem as to learning facts and figures.

While attending college she had carpooled with Sara Redd, who had returned for a degree in her 50s, after her children left home. Redd had also talked about starting a private school. In 1969 they took the plunge and opened the Redd School for preschool through eighth grade in Bellaire, a densely developed Houston suburb.

After five years the students seemed to be flourishing, but Baskin sensed that something was missing. Finally she figured out what it was.

“My roots are in farming and ranching,” she says. “I grew up in the country where we raised animals and farmed the land. Most of the food my grandmother set on the table came from her garden. I remember watching and helping her. It wasn’t always an easy way of life for the adults, but as a child, the lessons, the fun, and the entire lifestyle provided me with warm memories, wholesome values, and lots of education. I wanted to be able to give this to my students.”

On a three-acre wooded lot on the fringes of Houston, Baskin and Redd built the Redd School as it is known today—a place that serves its education with a little bit of country on the side.

Like children in any school, its students study algebra and computer science, but the class pets—including at various times rabbits, an iguana, a hedgehog, fish, a lamb and an orphaned pot-bellied pig—often accompany them in their classes. The children also take horseback riding lessons, help care for and feed the animals in the petting zoo, and both relax and work in the school’s gardens.

LESSONS ABOUT LIFE

As much as Baskin loved gardening, she was the first to admit that there was a lot she didn’t know. In 1986 she hired Lewis Money, the husband of one of Redd’s teachers, who had 10 years’ experience managing a nursery. It’s a small school, so Money also pitches in with computer programming and after-school care, but mostly he does the heavy-duty gardening and offers plant advice. “His horticultural knowledge and expertise gave our program a real boost,” Baskin says. “He even has a knack with the animals.”

Although more and more schools today are establishing

gardens, few program leaders are daring enough to combine flora and fauna. “It’s true that animals and gardens don’t go together like a hand and glove,” Baskin laughs. The rabbits often get into the garden and help themselves to a salad lunch. The horses have been known to snack on a whole row of corn, and left to their own devices the goats make an all-you-can-eat buffet of the flower beds. But even these inci-



dents are learning experiences for the children, she reasons.

"Gardeners and farmers have always been dealing with these kinds of disasters. It's just another lesson about the country way of life."

The lessons go a lot further than learning that rabbits love carrots and radishes. Preschool teacher Janet Krueger notes that most of her students either live in apartments or have working parents who don't even mow their own lawns, let alone work with plants in any other way. "It's unfortunate, because most children love gardening. And when you can take something that inspires a child and use it as a teaching implement you have a real educational advantage."

This is no model garden, she emphasizes. "It's not the prettiest, the neatest, or the most structured. But it's our garden and we've spent hours of muddy, dirty, educational fun there. The kids love the dirty part."

Academically, the preschool uses the 30-by-45-foot garden to teach math by counting the plants, the pulled weeds, or tomatoes on the vine. The garden is a natural place to teach science, of course—how plants grow, the importance

of the sun and the rain, and the different parts of a plant.

"Telling a four-year-old that a carrot is a root is one thing. Letting her pull it up from the earth, see it, feel it, and taste it is another," says Krueger. "We often cook up a little vegetable soup or cut open a watermelon. The children are always excited about tasting something they grew. This year we planted popcorn. I can't wait to see their eyes when we pop it. Most of these children believe popcorn is grown in the movie theaters."

BEYOND ACADEMICS

But of course the Redd School was founded to teach more than math and science, and Krueger and other teachers are quick to point out that the gardening experience is deeper than academics. "Patience, pride, dedication, self-esteem" are a few of the benefits, Krueger says. "We've seen the positive results gardening has on children with behavioral problems. The therapeutic value of working with the soil applies to children the same as it does to adults. As a teacher and a gardener, I find it very gratifying to see the children blossom right along with the tomatoes and zinnias."

Nor is it only preschoolers who get excited about working the earth. The fourth- and fifth-graders were the perfect age to be inspired by Frances Hodgson Burnett's *The Secret Garden*, and begged to build one of their own after reading the book. "Before long all the kids jumped on the bandwagon and a plan started to sprout," says teacher Dottie Jones. The children scouted the campus and found a 30-by-100-foot fenced-in area



Her students' faces prove the words of Redd preschool teacher Janet Krueger, left, that "most children love gardening." A former nursery manager, Lewis Money, below, provides plant expertise. Not many school gardens also have animals on the premises, but founder Denna Baskin, below opposite, believes that animals such as Cookie the cockatoo teach lessons in patience and responsibility.



"Telling a four-year-old that a carrot is a root is one thing. Letting her pull it up from the earth and taste it is another."

directly behind the school. When they told Baskin they would hold a bake sale to finance the project, she offered to match the profit, and Money helped them select plants that would flourish there.

"It was their project," says Jones. "I sat back and watched them use geometry in the landscaping process, marveled at how they incorporated problem-solving techniques, and was thrilled when they talked about pH balance in the soil. Gardening is a science in itself, but the entire undertaking turned out to be a great way to teach across the curriculum, using a very kinesthetic style of learning. The learning didn't stop at the academic level either. The children learned to labor, to wait, and to dream."

Each year after a new class reads *The Secret Garden*, they find their own way to make a mark on that landscape. "One class labored over the flower beds until they were picture perfect, set up tables with tablecloths, and held a tea for their mothers on Mother's Day," says Jones. "Another class built arches and planted Chinese wisteria."

As the wisteria climbs and the gardens grow, Baskin says she is reminded of a Native American saying, "We do not own the earth, we are only borrowing it from our children." Until we give it over to their keeping, she reasons, it only makes sense to teach them to appreciate and care for it.

Christie Craig is a free-lance writer living in Spring, Texas.

Yuccas!!!

You can't fail to make a strong statement when you use this dramatic shape in your garden.

by Gary and Mary Irish



WHEN SOMETHING IS MISSING VISUALLY IN A GARDEN, it's often form. An enchantment with perennials can lead to masses of foliage that are almost too bountiful and billowing. The remedy is contrast in shape and texture, which will not only relieve the sameness of the display but enhance existing plants. Few plants serve this purpose with such vigor and style as yuccas. Their rigid geometrical

Yucca treculeana in bloom at the Ruth Bancroft Garden in Walnut Creek, California.

CHRISTI CARTER

structure can bring a more agreeable balance to a repetitious vista.

The diverse sizes, colors, and forms of yuccas let them be incorporated smoothly into almost any garden. There are very tall species, requiring a garden of palatial dimensions, and more demure, nearly miniature forms, which are at home in the tiniest courtyard. Their foliage colors range from dark green and yellow-green to gray, gray-green, and even powder blue.

Yuccas' fame as quintessential accent plants and their tolerance of varied growing conditions have made them one of North America's great contributions to horticulture. While many people associate yuccas strictly with the American Southwest, there are several species native to our Southeast, which were being grown in English gardens as early as the 17th century. Border gardener and colorist Gertrude Jekyll used them as anchors, flanking borders where they were split by paths. Her contemporary William Robinson thought their form too strong to mix with other plants, preferring to use them alone or in "noble groups" in paved gardens, on ridges, or against walls.

The winter garden, said southern garden writer Elizabeth Lawrence, "acquired the charm of simplicity when it was reduced by frost to a pattern of brick-edged walks accented by the stiff rosettes of yuccas and framed by a clipped hedge."

While they serve as a foil to other plants in the lush gardens of the East, in the Southwest they're often combined with a variety of native and exotic succulents to create gardens of opposing strong forms with intense texture and character.

Possible partners for them in such gardens include other members of their family, Agavaceae, a group characterized by a rosette of leaves and a tall, showy inflorescence with flowers held in spikes or candelabras. In addition to yuccas, the family includes *Agave*, *Manfreda*, and *Hesperaloe*.

Form and Function

Yuccas are practical as well as beautiful; humans and animals have found uses for every part of them. Birds nest among their leaves, and deer and livestock browse them. Yucca seeds and fruit—particularly that of *Yucca baccata*—have been eaten fresh, pickled, roasted, or boiled. Chihuahuan Indians fermented the fruit to make a beer and ground the seeds for meal. The leaf fibers were pounded out for baskets, cordage, mats, clothing, and handmade paper. Saponin from the root of *Y. elata* is a good soap, and for many high grassland natives is still a preferred shampoo. Native Americans used the root in salves and laxatives, and to stun fish. The "wood" of the plants, especially the largest species, is light and strong, useful for posts and other construction. Joshua tree wood was harvested to make splints in World War I.

One of the primary reasons for the popularity of yuccas is the wide variety of North American habitats in which they grow naturally. Yucca species grow wild northward from the Atlantic and Gulf Coasts to a line stretching west from Virginia to South Dakota and on to California. There are many species native to arid regions of the United States and Mexico, and several species extend from central Mexico into Central America. This enormous range guarantees that there is a yucca for almost any climate, condition, or garden.

Yuccas native to the southeastern United States are the most familiar to American gardeners, as they were the first to be introduced into commerce. The 17th-century gardens of the great English plantmen John Gerard, John Parkinson, and the Tradescants contained specimens of *Y. filamentosa*, as did Thomas Jefferson's Monticello. This species, known as Adam's-needle, is the most cold hardy of the genus and is grown along the East Coast as far north as Maine (USDA Zone 4). Trunkless, it has a ball of wide sword-shaped leaves and a magnificent spear of creamy white, sweet-scented flowers. Variegated cultivars include 'Bright Edge' and 'Golden Sword'.

Y. aloifolia, known as Spanish bayonet for its stiff spine-tipped leaves, is native to the sea islands and sandy reaches of the southeast Atlantic Coast and along the Gulf Coast. Slightly branched, it usually reaches six to 10 feet. Cultivars may have yellow, white, or pinkish stripes, and one has a striking dark purple tint.

Two similar southeastern natives are *Y. flaccida* (which taxonomists have now



The stiff form of yuccas serves as a foil to more billowy plants. Top: Mountain yucca is paired with feathery cassia (*Senna artemisioides*). Above: *Yucca filamentosa* 'Golden Sword' echoes the color of *Celosia argentea* var. *cristata* 'Century Yellow'.

lumped with *Y. filamentosa*), a trunkless species with thin flexible leaves, and *Y. recurvifolia*, a graceful plant that develops a trunk bearing multiple heads of wide, blue-green drooping leaves.

Y. gloriosa is called the soft-tipped yucca because its leaves lack the terminal spines found on other species. Native to the islands and coasts of South Carolina, Georgia, and Florida, it can be grown indoors but is superlative outdoors east or west in Zone 9 to 11, where it will form large clumps of multi-branched, curving trunks and reach 20 feet tall.

Tough Hombres

The diversity of the western yuccas makes them valuable additions to gardens in that region, where they perform heroically despite the arid conditions and frequently poor soil.

The most cold hardy of the western yuccas is the trunkless *Y. glauca* (formerly *Y. angustifolia*), the plains soapweed, found throughout the Great Plains and front range of the Rockies north to South Dakota. From a ball of narrow, rigid, blue-green leaves—each two to three feet long—it puts up a narrow spike of stunning, large cream-colored flowers. *Y. barrimaniae*, from the mountains of the four corners states, has slightly wider leaves and large greenish flowers.

Among the trunkless western yuccas, *Y. whipplei* is one of the most dramatic. It grows on the dry, chaparral hills of Southern California and is hardy to approximately Zone 7. Its rosette, a lustrous light blue-green, can spread to six feet, and in the setting sun it turns to a matrix of bright leaves and dark shadows. It is commonly called “our Lord’s candle” because the nine-foot stalk can bear more than 500 small flowers. But this exuberant show marks the end of the plant, for this yucca, alone among the genus, dies after it flowers. Plants will form clumps, however, allowing new rosettes to replace those that expire.

Two fairly recent entries into western horticulture are *Y. rupicola* and *Y. pallida*, natives of central Texas that occur as far north as the Dallas area (Zone 8). Both are trunkless and fairly small, rarely growing more than three feet wide or tall. *Y. rupicola* is called the twisted-leaf yucca for the graceful twist that its wide, yellow-green leaves develop as they mature. *Y. pallida*, the pale-leaf yucca, has flatter, pale blue-gray leaves. Both species produce a three- to six-foot stalk of white flowers and are ef-

fective in groups or among other natives or drought-adapted perennials.

Western Classics

Although the smaller western yucca species are important garden subjects, it is the mighty trunked species that are associated with classic images of the American Southwest.

Y. treculeana is often confused with *Y. torreyi*, and to increase the confusion, they



hybridize freely in central Texas where their ranges overlap. This single or slightly branched species can develop a trunk up to 12 feet tall. It has a very short flowering stalk, so that the flowers are partially clustered within the rosette of leaves. A fine blue-green variety grows in west Texas.

Y. thompsoniana and *Y. rostrata* are both native to west Texas and are hardy to Zone 7. While they are often grouped together as *Y. rostrata*, there are marked differences. *Y. thompsoniana* is highly branched with narrow, gray-green, fiber-edged leaves. The flowers rise far above the leaves, giving the plant a plumed appearance. It usually grows six to 10 feet tall. *Y. rostrata* has fewer branches and a thicker trunk that can grow to 15 feet. Its leaves, bluish green and lacking marginal fibers, are arranged symmetrically, giving the plant a very refined look.

Y. faxoniana is another species called Spanish bayonet or Spanish dagger. This yucca is massive. The straight, single trunk can be one-and-a-half feet wide and 25 feet tall, topped with a rosette of rigid, dark green leaves two inches wide and three feet

The eastern native known as Adam’s-needle, left, was grown by great 17th-century English plantmen. Blue-gray foliage and multiple heads make the 12-foot *Yucca rigida*, which hails from Mexico, a real attention getter.

Growing Yuccas

The cardinal rule in caring for yuccas is not to give them too much care. They enjoy a fast-draining but somewhat enriched soil, with moderate water in the growing season. In winter, they should be watered only often enough to keep the trunk from shrinking. Most yuccas growing in the ground do not require regular feeding—only a moderate application of well-balanced fertilizer once a growing season.

Many species do well in pots. Southeastern natives prefer somewhat rich soil and steady moisture in summer. Winter tip burn is common, even among hardier species, and a light covering during a heavy freeze is a good idea. Chlorosis (yellowing leaves) can be prevented with a light monthly fertilization and good drainage.

Western yuccas grown in containers need even more attention to drainage. But they thrive in poorer soil, and fertilization once during the growing season is adequate.

Yuccas commonly hold only a small number of leaves at one time. Old leaves are always dying, often lying over the trunk long after they are dead. Whether or not to prune off these dead leaves is largely a question of aesthetics and the location of the plant. In full or very hot sun, the leaves offer protection against sunburn. If you do prune, be sure that the cut does not go beyond the leaf base into the trunk.

—G. & M. Irish



The stature of yuccas makes their individual flowers almost an afterthought. Above, a close look at those of *Y. rostrata*. One of the most massive species at 25 feet tall is *Y. faxoniana*, center. *Y. whipplei*, or "our Lord's candle," right, dies after bearing up to 500 flowers on a stalk.



long. A population of plants in Brewster County, Texas, and the Mexican state of Chihuahua is sometimes referred to as *Y. carnerosana*. It's even more enormous, with leaves up to four feet long. Both species make an imposing addition to large landscapes and are often planted as specimens in Texas and New Mexico through Zone 7.

Gardeners in the intermediate to low elevations of the West are familiar with *Y. elata*, the soaptree yucca, and *Y. baccata*, the banana yucca. With stems up to 20 feet, *Y. elata* is often the tallest plant of its native desert grasslands. The common name derives from the saponin-rich, swollen underground stem and roots used by native peoples and settlers to make a cleansing lather. Young plants generally have single trunks,



while older specimens may branch with up to 10 heads. Leaves are very fine and thin, often somewhat hairy looking with filaments flowing from the margins. The flowering stalks, bearing the state flowers of New Mexico, are held high above the leaves in a fabulous display for gardeners through Zone 7.

The banana yucca, so named for its large edible fruits, is one of the shortest of the trunked yuccas. Older plants typically have as many as a dozen four- to six-foot stems. The leaves are stiff, usually blue-green and one or two inches wide with sparse but thick marginal fibers. Individual plants vary considerably in leaf color, size, and shape. Banana yucca tolerates hostile growing conditions—from low-desert heat to the Zone 6 cold of higher elevations—and its



The dramatic form of the Joshua tree, caused by branches dying and being replaced by others, earned the species its own national park.

dramatic form makes an outstanding addition to desert perennial or native wildflower gardens.

Y. brevifolia, the Joshua tree, is the largest yucca native to the United States. This denizen of the Mohave received its common name from Mormon pioneers, who saw in the intricate branches the outstretched arms of the prophet Joshua pointing the way through the desert. As the yucca slowly matures, branches that bloom often die but are replaced by other branches that twist, turn, return to the earth, and rise to the sky in complex forms. With its short, stiff, blue-gray leaves and heads of creamy white flowers, Joshua trees rank with saguaros as one of the most striking native desert plants. The Joshua tree was used commercially until the early 20th century, but in 1936 the Joshua Tree National Monument—now a national park—was established in Southern California to protect some of the species' most spectacular stands.

Still underused in Southwest gardens are *Y. schottii*, the mountain yucca (Zone 7), and *Y. schidigera*, the Mohave yucca (Zone 8). The mountain yucca occurs naturally in the southern Arizona highlands and is generally a single-trunked plant six to 10 feet tall. Its leaves, a soft gray-green, are ramrod straight. It is highly tolerant of both heavy shade and full sun, and cold as well as heat.

The Mohave yucca can grow to 12 feet and may branch slightly with stiff green leaves. It is one of the most heat- and drought-tolerant of all yuccas.

Mexico is home to many yucca species, and one of the most exquisite is *Y. rigida* or blue yucca (Zone 8). The common name comes from the two-foot leaves that are powder blue and edged with thin yellow stripes. Growing to about 12 feet, usually with three or four heads, blue yucca is striking alongside a pool.

American gardeners can find lots of uses for yuccas—as an accent to balance the round leafy shapes of a Connecticut border, mixed with shrubs and wildflowers in a native garden in the foothills of the Colorado Rockies, as a dramatic accent at a beach house in Florida, or mixed with cacti and agaves in a stunning Arizona landscape. Over the years yuccas have won many fans. Garden writer Allen Lacy has even argued that the cream-colored flowering stalks of the yucca would be a most appropriate national flower, and that would be a fitting tribute to this great American plant.

Gary and Mary Irish garden in Scottsdale, Arizona, and are writing a book on agaves and yuccas for Timber Press. Mary is director of public horticulture at the Desert Botanical Garden in Phoenix.

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SOUTHWESTERN NATIVE SEEDS, P.O. Box 50503, Tucson, AZ 85703. Catalog \$1.

WOODLANDERS, INC., 1128 Colleton Avenue, Aiken, SC 29801, (803) 648-7522. Catalog \$2.

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1987 AHS
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Beau Beau's Next Gig

**Horticulture cheerleader
Marc Cathey has no intention of
hanging up his pompoms.**

by Kerry Hart



Above: His grandmother, Nancy McAuley Cathey or "Miss Nannie," kept a Burpee catalog by her Bible, Cathey says, and shaped his gardening ethic. **Opposite:** Cathey in the pavilion of American-grown bonsai at the U.S. National Arboretum.

If you could make a tornado stop spinning, it wouldn't be a tornado any more. And for four decades or so, H. Marc Cathey has been something of a green tornado, zooming around the world promoting horticulture, charming little old ladies in garden clogs and wide-eyed kindergartners with sunflower seeds in yogurt cups, delivering a stream of nonstop advice for millions of radio listeners with mildewed phlox and tomatoes that won't ripen, catching the wave of the next landscape trend before anyone else sees it cresting.

"Retire? Never!" says the president emeritus of the American Horticultural Society, who vacated his office—but not his calling—on September 30. "The great horticulturist Liberty Hyde Bailey said you need a new profession about every five years, so I'm starting on number eight, and of course there will eventually be nine. You'll notice there's a 'cat' in Cathey!" Let's see, seven so far: That would be florist, researcher, visiting professor, arboretum director, radio talk show host, head of a national review panel, and AHS president and chief executive officer.

Asked to name his greatest achievements, he begins with his latest: coordinating the creation of the AHS Plant Heat-Zone Map. "The map is the first new gardening concept in years," he says. "Temperature tolerance is the major factor affecting plant growth and development, but there hasn't been much research in the area. Heat damage is a lot more subtle than damage from cold—cold usually kills the plant immediately—and the effects of heat and drought are interrelated."

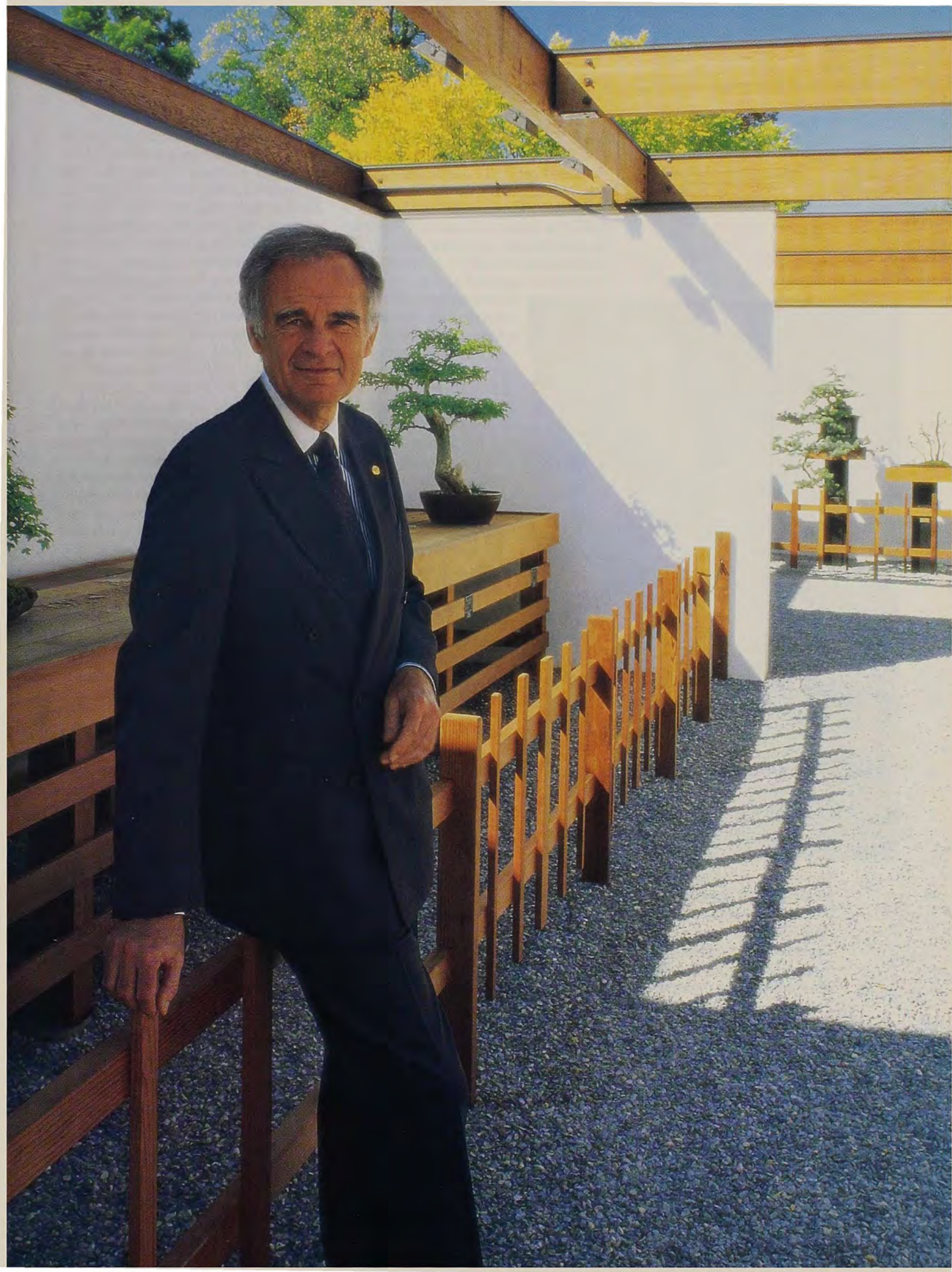
Once consumers become more aware of the issue, he thinks they'll start demanding more heat-tolerant plants. He even predicts that the word "annual" will become obsolete. "Some plants—like the marigold—will set seed and die at the end of the season no matter where they're growing. But a lot of the plants we call annuals—the petunia, the snapdragon, the vinca—can live for years in a frost-free environment."

So Heat Map Promoter is his next profession, and he's already off and running, with eight lectures scheduled to talk about the map and an accompanying book due out early next year from Time Life Inc.

The Family Man

Anyone who's been around Cathey for more than five minutes knows that he can talk about one subject almost as endlessly as plants, and that's his family. Off the chart in the

LEFT: COURTESY OF H. MARC CATHEY. RIGHT: ROGER FOLEY.



adoration ratings are his grandchildren, who all have color nicknames—Emily (Miss Pink, who's 12), Ellen (Miss Peach, 7), Elizabeth (Miss Emerald, 5), and Sarah (Miss Ruby, 2½)—and call him Beau Beau. They're the offspring of daughter Marcy, director of technology at the Madeira School in McLean, Virginia, and son Henry, engineer for the National Aeronautics and Space Administration near Chincoteague, Virginia.

He immediately becomes an honorary grandpa when he visits elementary schools. Garden design, believe it or not, was one recent topic. "I learned that you don't have to put flowers in rows," one enchanted child wrote to him afterwards, "and I liked your jokes, too."

Also revered is his grandmother, Nancy McAuley Cathey, or Miss Nannie.

During the Depression, the Cathey family—mother Emily Mae, father Carl, and brothers Leconte and Carl Jr.—moved every eight or nine months while Carl Sr. planted trees throughout the South for the Civilian Conservation Corps. When World War II broke out, they went to live in Davidson, North Carolina, next door to the boys' paternal grandmother. Cathey was at first re-

luctant about the move, which would take him away from his mother's family, little realizing how it would shape his life.

"Miss Nannie kept a Burpee catalog next to her Bible," Cathey relates. "I learned to read the catalog with her, and I can still hear myself using some of those phrases today. 'Hardest!' 'Most productive!' 'Outstanding in its class!'"

And when Cathey uses phrases like "environmentally responsible gardening" and "the green ethic," he's talking about the practices Miss Nannie followed: recycling, mulching, deep digging, and the basic tenets of what we now call Integrated Pest Management (IPM). She didn't wear Birkenstocks but proper grandma heels, keeping several pair on the porch so she could change them to avoid spreading

"sickness" from one garden area to the other. The family once sold some boxwoods that were used to landscape Duke University, but money was never their primary motivation for gardening. The first goal was food for family and friends, and the second was pleasure. "We never thought of gardening as work," Cathey says. The gardens were so perfect that visitors always wanted tours, and this is where Cathey got his experience in storytelling.

Church choirs introduced him to music—he could sight read by the age of nine—and he credits that training with giving him confidence and the ability to make himself heard in a crowd.

He was the only person on either side of his large family drawn to the visual arts. His medium was watercolor, his style Audubon realism, and his subjects flowers and birds. "I attended a three-hour art class every Wednesday for almost 10 years, and sold my life-size paintings for three dollars each. Cardinals and roses were the best sellers."

Cathey got a bachelor's degree in floriculture at North Carolina State University and worked two years as a florist. "Then I decided there had to be other uses for plants than burying people with them." He headed north to Cornell University to take one year of additional training, and stayed four years to earn his PhD.

He credits a floriculture professor, Kenneth Post, with shaping his life's direction, passing along not only respect for science, but also the excitement of travel and public speaking, and the ultimate importance of consumer satisfaction. "He had an incandescent personality!" exclaims his student, who served as Post's teaching assistant for three years.

After college, Cathey applied for and won a Fulbright Scholarship to the Netherlands. There he met another mentor, Jan Wellensiek, horticulture professor at the Agricultural University in Wageningen, and took advantage of every opportunity to visit research laboratories, great gardens, and enjoy all the fine arts of Europe.

When he returned to the States, he chose a job offer from the U.S. Department of Agriculture's Agricultural Research Service over two others. It paid a little less, but the Beltsville, Maryland, climate was more like home and the research was "world class, cutting edge," he says. For the next 20 years he teamed with Harry Borthwick, an ARS plant physiologist who had led pioneering work on the effects of light, in applying Borthwick's



Whether live or via electronic media, Cathey loves an audience of any age. "I liked your jokes," wrote one young fan. He credits early experience in vocal music with giving him the confidence to make himself heard in a crowd.

findings to florist and nursery plants.

As a researcher, Cathey made his mark by using light and chemicals to manipulate plant growth and development. "Marc Cathey developed cookbook procedures that could help growers time flowering almost to the hour," says Robert Griesbach, an ARS plant geneticist, "using different types of lamps and lighting periods." Cathey's work with chemical growth regulators "allowed a grower to have a whole bench in bloom at once. That lowered production costs and gave consumers a better plant—one that was compact instead of leggy." The trend today is toward genetic manipulation and away from chemicals, says Griesbach, "but the use of lighting is still critical."

Shortly after Cathey joined the ARS, Mary Ellen Jackson, an educator in a suburban Washington church, was looking for someone to speak to her youth group about how they might find places to stay when traveling abroad. Her minister recommended Cathey on the basis of his stint in the Netherlands. "Mary," Cathey says, "was all that I was looking for—a lady with a strong faith, clever, intelligent, fun, surprising." They were married a year later.

In 1959 Cathey entered into what would also become a long-term partnership, with the American Horticultural Society. He's served on the AHS board for 18 years, chairing it from 1974 to 1978, and served as president and chief executive officer of the Society for the past four years. Friends say his public persona—not that he was ever a shrinking violet—blossomed when he took the helm of AHS. "That did a great deal to expand my opportunities to speak," he says, "and to be considered for the job at the arboretum."

Going National

In 1980 Cathey took a job that he seemed to have been working toward since his youth, as director of the U.S. National Arboretum. At that time the arboretum housed a fine tree collection and solid research, "but it wasn't a people place, where you might come to have fun," says Washington, D.C., landscape architect James van Sweden.

With his love of color, Cathey began adding perennials and bulbs to the displays of woody plants and conifers, and some purists were aghast. "Marc is unlike any horticulturist I ever met," says van Sweden, "into all of the arts, a master of public speaking who loves people. When he

brought this sensibility to the arboretum, it was something that had never been seen at a science station."

One day van Sweden was watching Cathey greet distinguished visitors outside the standard-issue little ranch house that serves as the Visitors' Activity Center and noticed that the ground beneath the director barely supported grass. He offered the services of himself and partner Wolfgang Oehme to give the spot some pizzazz. This was the first highly public display of the pair's New American Garden, with their now signature mix of tall waving grasses, long-season perennials, and bulbs. When the garden was dedicated, van Sweden recalls, "Marc had a tent, a band, and a color guard. He pulled out all the stops."

Cathey insists it was really his predecessor, John Creech, who broke the mold by introducing the Japanese bonsai display and herb gardens to the arboretum. The aim of all Cathey's glitz—he sometimes used four screens and sound effects in arboretum lectures—was to "bring them in." Backstage there were serious aims such as new projects for ARS students, better labeling, and more promotion of arboretum-bred plants. And the low-maintenance, naturalistic Oehme-van Sweden garden meshed with the philosophy Cathey had learned at Miss Nannie's knee: Use compost instead of chemicals, a variety of plants for color and motion instead of lawn grass, and tough plants that don't need constant watering.

About 20 percent of his time, Cathey was taking his show on the road, with appearances on national television shows such as "Today" and "Good Morning America." A memorable moment occurred when, trying to spread the message that poinsettias are not poisonous, he watched with horror as Barbara Walters nibbled on a bract. "I got in trouble for that," he says. "People were afraid their children would be eating all kinds of flowers."

And of course there was his radio show,



During Cathey's tenure at the U.S. National Arboretum, James van Sweden and Wolfgang Oehme created one of their earliest New American Gardens there. Among the first designers to make prominent use of ornamental grasses, their goal is to create interest in all seasons.

Beau Beau's Garden

For Marc Cathey, shifting from the nationwide scope of the new AHS Plant Heat-Zone Map to a child-size garden at River Farm is effortless. Last December, he approached former resident horticulturist Mark Miller and Washington, D.C., landscape gardener Alastair Bolton with an ambitious idea for a children's garden at the American Horticultural Society's River Farm headquarters. In honor of his granddaughters, he wanted to create a living legacy that would be both educational and fun.

Bolton took Cathey's notions and created a garden with the intention of showing "that it is possible to have a children's play space that is functional and yet aesthetically appealing for adults as well as children." He, like Cathey, advocates encouraging children to develop an appreciation for beauty and good design at an early age. "I believe in stretching the minds of children," says Bolton.

All this stretching takes place in a space that might seem restricted by grown-up standards. The garden is only 19 by 28 feet; the wooden pavilion that is the centerpiece fills 100 square feet. But although the structure rises 10 feet from the ground over a dry streambed, the height from deck to ceiling excludes anyone over five feet tall.

"The size of the pavilion is important because it brings across that this is a children's garden, for adults to look at," says Bolton. "Yet this can be part of a serious garden landscape."



Cathey's granddaughters explore the dry watercourse under the deck, left, then join their grandparents for a view from topside, center. At right, Cathey chats with the garden's designer, Alastair Bolton.



Bolton points out that the typical Japanese courtyard garden is for viewing only, not walking through. "I think the inspiration for the AHS garden comes from growing up in England where we frequently visited gardens with Japanese accents. No adult would think of walking across these little bridges, but children did."

He wanted the garden to encompass a "crossing point" that would engage the imaginations of both children and adults. In the AHS garden—dubbed "Beau Beau's Garden" in reference to the name Cathey's granddaughters call him—children can scramble along a dry watercourse under the deck or follow the sloping yellow-brick path up to the deck for a panoramic view. The pebble streambed that winds under the pavilion is set with boulders salvaged from

the nearby river bank. Though the watercourse is technically dry, depressions scooped out of the concrete base form puddles on wet days.

For Bolton, Beau Beau's Garden is a more elaborate version of a temporary ditch garden that he developed for the AHS Children's Gardening Symposium in 1993. That too was a watercourse with bridge; he created a four-foot-deep ditch filled with rocks and water and crossed by a rustic turf bridge.

The new garden, by contrast, has been installed with an eye to permanence—as much as possible given the fluid nature of gardening. To withstand children's rough-and-tumble play, the pavilion was constructed to strict standards, and the pressure-treated wood will be allowed to weather to a soft gray.

Monrovia, a wholesale nursery in Azusa, California, donated the plants, and volunteers and River Farm interns gave countless hours in the sticky Virginia summer to construct Beau Beau's garden.

Cathey's four granddaughters saw the garden they inspired for the first time at a dedication ceremony in late July. "They were delighted and surprised," he says. They marveled over topiaries of each of their favorite animals: an elephant, a cat, a rabbit, and Shamu the killer whale. They peered up at flags representing their favorite colors. Monkeys hanging from the terrace, a la "The Wizard of Oz," brought squeals

of delight (the movie is also the inspiration for the yellow-brick walkway leading up to the pavilion). In addition, juniper, boxwood, and holly, chosen for their dwarf habit and toughness, provide shape and patterns, and encourage counting games.

Describing his approach to children's gardens, Cathey says it's important to incorporate family traditions and family stories. Clearly, his granddaughters have already absorbed that message: They collected shells for the garden on their annual vacation in Emerald Isle, North Carolina, in August—weaving Beau Beau's Garden into their family's tradition while knowing it will be shared with many more families.

—Terri J. Huck, Managing Editor

which at one point was heard on 300 stations by an estimated one million listeners. In the 15 years of its run, at three hours per weekend, he calculates that he answered some 23,500 questions. "There were two that I could count on every week," he says. "What can I do about deer?" and "What do I do to get my amaryllis to re-bloom?" But the job was never dull because there were also questions that completely stumped him, gratitude from callers when a problem was solved, and the generosity that all gardeners show in helping each other. "It was always a wonderful, warm, affirming experience—answering their questions helped teach *me* what to do."

The New American Garden is among eight new garden areas and features that took shape during Cathey's 10-year tenure at the arboretum. The Friends of the National Arboretum, a volunteer group, funded rescue of the U.S. Capitol columns, part of a feature designed by the famous landscape architect Russell Page before his death in 1985. The 22 30-foot columns, once part of the east portico of the U.S. Capitol building in Washington, D.C., were removed in 1958 and left lying in what Cathey describes as "a weed patch" on the banks of the city's Anacostia River. They're now set in an ellipse meadow on a nearly square stone platform, from which a sluice fountain cascades between mossy steps into a reflecting pool.

The columns, dedicated in June 1990, brought a historic and classic cachet to the arboretum, and adding a Chinese penjing collection to the bonsai museum in 1988 heightened visitors' appreciation of those ancient arts.

Yet when he talks about gardening in his many public forums, the emphasis is always on keeping gardens simple. "Tough plants for tough times" and "the right plant for



Cathey rescued the U.S. Capitol columns, top, for display at the arboretum. Purists were aghast when he added bulbs and other colorful herbaceous plants to attract more visitors to the arboretum.

the right place" are some of his favorite phrases. Prepare your site with organic matter, do your research and buy plants that naturally thrive where you live, and gardening will be a joy, not a job.

In a 1993 article Cathey said "we're still an uneducated nation" when it comes to gardening. Yet because we co-evolved with plants, he says, we all sense at some level that we're only really happy when we have some around. And that subliminal longing for a relationship with plants may be what is driving the trend toward more natural gardens.

"American gardeners are way ahead of the industry with their green ethic," he says. "They want plants that don't need chemical heroics or a great deal of watering. In the future, the goal will be to garden with zero impact on the environment, yet have color in every season—a great challenge."

Cathey says he has only one small regret about his career. Although he taught plant physiology every other year for nine years at George Washington University, as a federal employee he was forbidden to guide students in conducting research. "So I've tried to be 'Uncle Marc' to about 50 to 60 younger professionals, introducing them to people and encouraging them."

Slim and tan, Cathey doesn't look like someone who recently went through cancer surgery and treatment, and is pleased to report a clean bill of health from his last checkup. He's not only ready to hit the road for the Heat Map, but plans a number of international trips.

Ironically, he has no garden of his own because he's always traveled so much. Nor does he plan to create a garden now that he's no longer reporting to an office every day. There are other ways to fill your hours with plants, he points out. "Gardening can be a trip to a florist to buy cut flowers for a sick friend. And I've been spoiled by being able to garden in a place like the National Arboretum."

And what's one more private garden? There's an old adage about the relative value of giving a boy a fish and teaching him to fish, and Marc Cathey has gone one better. Grow a flower or a tomato and you'll have beauty or food for a day. Teach thousands to garden and they—and quite probably their grandchildren—will have beauty and food for a lifetime.

Kerry Hart is a free-lance writer living in Reedville, Virginia.

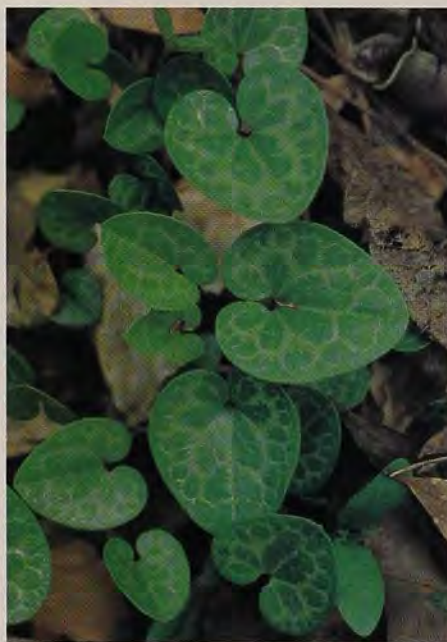
1982 AHS
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The Gifted Mr. Galle

Mr. Azalea's writings and garden show he knows a thing or two about other plants, as well.

by Kathleen Fisher
Photos by Michael Hayman



The name Galle is synonymous with native azaleas such as the Oconee azalea (*Rhododendron flammeum*), opposite. But his knowledge is much broader: The 'Callaway' ginger, above, is among the plants he's introduced.

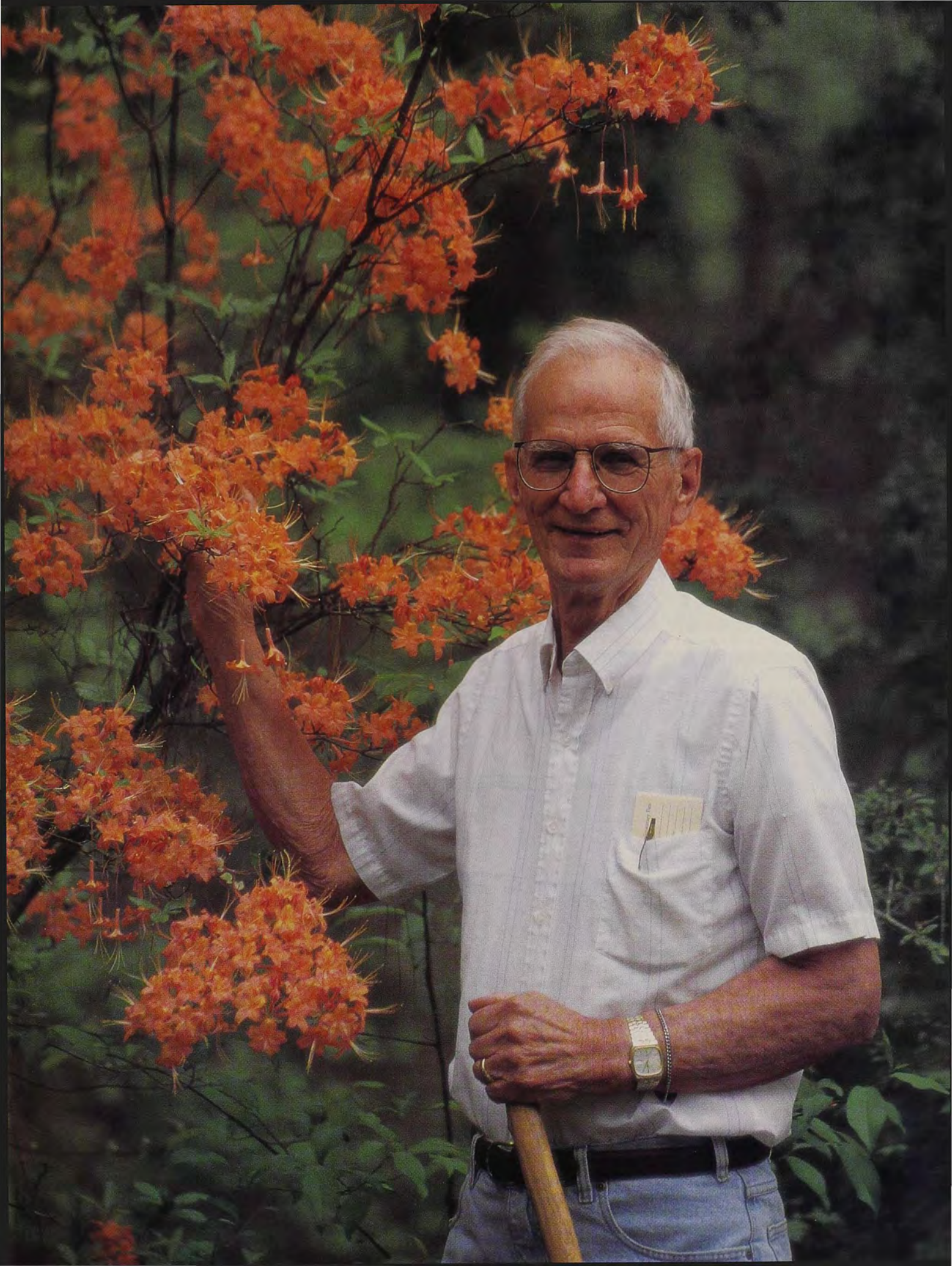
The car slows and the driver waves her hand toward a clearing dotted with flowering shrubs. "This is Fred's play area," she confides. "He wasn't supposed to be hybridizing azaleas, but he couldn't resist."

While his wife, Betty, waits behind the wheel, Fred Galle gets out of the car with his visitors to take a closer look. There are more than a dozen colors of native azaleas here in this small patch of Callaway Gardens, each at least six feet tall and nearly as wide. Pink, peach, salmon, dusky orange, yellow, subtle duotones, some sweetly scented. Galle notes that it isn't always necessary to hand-pollinate native azalea species—they merrily intermarry where their native ranges meet.

In many ways, this whole spectacular place is the Garden That Galle Built. He was here for 30 years, as director of horticulture and then curator until he retired in 1983. When he first came to Pine Mountain, Georgia, "these were all abandoned cotton fields," he says of the 14,000 acres of woods and manmade lakes. In those early years, he and other staff planted as many as 15,000 shrubs and 1,000 five- to six-foot-tall dogwoods a year. As hiking trails were laid out, he would mark some trees for removal and put down stakes where new ones were to be planted. "I wore out three pairs of gloves a season, and we had to develop a special auger with a high-carbon tip that was adapted to a tractor. Even that one lasted only three days until we had to replace the tips and blades."

At that time the founders of Callaway Gardens, Cason and Virginia Callaway, wanted to plant only natives, especially the plumleaf azalea, *Rhododendron prunifolium*. They were inspired to buy the property when they saw a plumleaf blooming during a July picnic and learned that it grew naturally only within a 100-mile radius. "Of course, you couldn't buy natives then," notes Galle. "We had to grow them ourselves or dig wildings."

Today the name Galle (pronounced gal-ee, as in a ship's galley) is synonymous with azaleas, not for the many he planted at Callaway but because he wrote *The Book*. The 486-page *Azaleas* was first published in 1985, with a second edition released in 1987 and a third printing last year. Just a few months ago he surprised those who knew him only



through that book with the publication of a similarly authoritative tome on hollies.

In fact, his interests have always been diverse, encompassing gingers, crabapples, and clethras. Many people do know—or think they know—Galle's connection with the *Clethra alnifolia* cultivar 'Hummingbird', prized for its relatively small stature. "The story that we found it growing by Hummingbird Lake at Callaway is wrong,"

return trip he asked an old friend, Ben Pace, to join him in camping there. He toted along a five-by-seven black notebook containing all the data he had collected toward his PhD—representing seven years' work. "This was before copy machines, and that notebook was like the Bible," he says. "I took it everywhere with me."

Toward dawn, the men hiked a half-mile up the bald to enjoy the sunrise.

wasn't allowed, and I had to make her stop."

World War II interrupted the romance. Betty served as a nurse, and Fred in the armored artillery. He was injured twice and hospitalized in England. When the war ended, the couple was married overseas.

Galle's original interest was forestry, but his small stature coupled with a war-injured arm made that impractical. "I was the first person to teach ornamental horticulture at the University of Tennessee, and now they emphasize it," he says. "But when I moved to the South, I had to learn how to grow collards!" He was there five years and had returned to Ohio State for only one when the Callaways began to woo him, sending photographs of the massive project they were undertaking. He turned them down twice; Betty laughs today at her insistence that the South would be too rural and backwards.

"Then," says Fred, "there came a day in March when Ohio got four inches of slush," and south Georgia began to look awfully inviting. Interjects Betty: "I told him there were just three things I would insist on—rooms with doors, an indoor bathroom, and a water spigot inside." They did okay for themselves, moving into a building that today is the gardens' executive suite. Their two children—Phil and Peggy—grew up riding bikes along Callaway's miles of trails. "The first time our son came home from college he was shocked that everyone didn't grow up doing the things that we did," Betty says.

Galle says the Callaways were interested in him because of his work with native azaleas in Tennessee, and notes that they're difficult to grow in his hometown of Dayton. "The western half of Ohio has alkaline soil and the eastern half has acid, with the line running right through Columbus. I knew the species the Callaways wanted to grow—*prunifolium*, *canescens*, and *arborescens*. And I knew that if we were going to get more of them [at Callaway], we would have to grow our own. But Mrs. Callaway was a very knowledgeable lady, and she had already worked out some of the details about how we would collect them and heel them in until they were permanently planted."

Most of their wild azaleas were rescued from areas that were being clear-cut, and the process wasn't easy. "They have a terrible root system," Galle says—wide-spreading and sparse—and need to be severely pruned back on top and heeled into pine bark mulch for a couple of years in order to recover.

"I was the first person to teach ornamental horticulture at the University of Tennessee," he says. "But when I moved to the South, I had to learn how to grow collards!"

says Galle. The plant was found 20 years before its introduction into the nursery trade, 40 miles away on a floodplain in Talbot County, Georgia. "It was one of about 500 plants we collected on that trip, and we did plant it by Hummingbird Lake to observe it." In its native soil it had spread vigorously, Galle reports, but the clay soil at the edge of the lake seems to have restrained it. Later we drive by the famous parent plant and comment on its being caged. The reason for the hardware becomes obvious when we try to inspect it up close. We back away quickly. "It was put up there as a warning," Galle says from a safer distance, "to keep people away from that hornets' nest." Among other plants he has given the nursery trade are a dwarf nandina, 'Harbor Dwarf', and a vigorous, speckled wild ginger, 'Callaway'.

Galle's list of honors is staggering. In addition to the American Horticultural Society's highest honor, the Liberty Hyde Bailey Medal, he has received the Gold Medal of the American Rhododendron Society and the Arthur Hoyt Scott Garden Award from Swarthmore College. He has been president of AHS and of the American Association of Botanical Gardens and Arboreta. It's just a reflex to call such a person "Dr. Galle." But it's Mr. Galle, and therein lies a tale. "The bear facts," as he calls them, are a true twist on "the dog ate my homework."

In the early '50s Galle was an assistant professor of horticulture at Ohio State University after holding that same title for five years at the University of Tennessee. In Tennessee he'd started researching the famous Gregory Bald colony of natural azalea hybrids for his doctorate, and on a

Galle left his notebook in a green Army ski pack, hanging on a post. While they went up the mountain, a bear came down, and they returned to find their food untouched but Galle's ski pack gone. "We walked around looking for it for a long time with the bear right behind us!" he recalls. "And we were five miles from our car." He returned to look for the pack again a week later, then left a description of it with park rangers, but he never recovered the notebook—or heard tales of a bear defending his dissertation.

Starting Small

Galle was raised in Dayton, Ohio—his father was an upholsterer and he had two brothers—and earned tuition money at a variety of jobs for two years before he started college. One winter, for instance, he helped tear down a flood-damaged house to make way for a store while at night he worked for Frigidaire on a grinding wheel. In the summer he did some nursery and landscape work. "The bigger nurseries wouldn't hire me because I was so small," he relates. "One did and then let me go after the second day, but I stayed friends with the owner and we still laugh about it."

Because Ohio State didn't make dormitory space available to undergraduates, Galle spent one year at Michigan State—where he earned room and board serving food in the dorm—before returning to his home-state school. One summer he worked two jobs as a lifeguard, and that's where he met Betty. No, he didn't save her from drowning. "She was fooling around at the deep end of the pool," he says. "That

Hand pollinating some of the native azalea species growing in Callaway Gardens resulted in the wide variety of flower

colors seen below. The shrubs flower heavily in early April, bottom right.



Although the Galle's Hamilton, Georgia, garden is rich in native plants, it also contains imported treasures such as species of *Calanthe* orchids, left and top right.

(*Calanthe* photographs courtesy of Fred Galle)

When visitors began coming to Callaway in large numbers, however, the subtle charm of these deciduous azaleas apparently passed them by. "They would say, 'Where are the gardens?' I wondered sometimes if they would have found a row of corn more satisfying. So we began planting rhododendrons, evergreen Kurume azaleas, and others."

Although Betty's teasing reference to Fred's azalea trial area made it sound a bit

new hybrids were being developed in Australia and New Zealand, for instance." Lacking a reliable central registry, Galle took an interview approach, contacting every azalea grower he knew and asking for a list of all the azalea cultivars they were growing or had ever grown.

"An astonishingly small number responded," says Abel. "A lot of them had been farmers and they seemed to still be

the roofline would be impossible to replicate. "Then we made the mistake of siding it with western cedar," laughs Betty, "and carpenter bees were drilling holes everywhere. So we finally added vinyl siding."

Fred is a carver whose favorite subject is mushrooms—a photo of a quartet he whittled from holly appears in his new book—and he used birch to shape the frames for some of their living room furniture. This is a cozy yet open place, with lots of glass and a deck that seems miles high because the lot slopes away so quickly. The heavily wooded six acres are uphill from a former mill site and a seasonal stream that was once dammed to power the mill.

Toward the front of the house, where the ground is level, the Galles have built beds for propagation and lining-out. In back, chunks of rock outline narrow paths that wind between woodland plants. "We like to look along the streambed for them," says Betty, who is gamboling up and down the steep paths like a teen-ager, accompanied by Rhodie, a border collie acquired a few weeks ago.

These Georgia hills are rich in natives like *Phlox paniculata*, *Galax urceolata* (wand-flower), *Sanguinaria canadensis* (blood-root), and gingers such as *Hexastylis shuttleworthii* (formerly known as *Asarum shuttleworthii*) 'Callaway'. This seems an especially healthy environment for the native pachysandra, *Pachysandra procumbens*, with mottling that stands out sharply against deep green leaves as big as lemons. On stones in front of the house grows the resurrection fern, *Polypodium polypodioides*, which slumps like a tired lichen in dry weather but rises in a majestic deep green following a rain.

Galle displays imports as well: *Skimmia*, an Asian evergreen, is hardy here in USDA Zone 8. There are both evergreen and deciduous species of the terrestrial orchid genus *Calanthe*; a Japanese species of Solomon's-seal, *Polygonatum falcatum*, which grows to only three inches tall; and a dwarf form of maidenhair fern, *Adiantum pedatum*, a gift from a garden in the Pacific Northwest.

A benign climate, a house of one's own design, an adoring companion, a frisky pup. It's a bit smaller than Callaway Gardens, but it's a pretty pleasant spot to work and play.

Kathleen Fisher is editor of The American Gardener. As we went to press, Fred Galle called to let us know he and Betty would be leaving Georgia for a retirement home in Illinois, near their son.

"Fred undertook a complete revision, adding several hundred cultivars, in a little more than a year. It was a herculean effort."

clandestine, Galle did some serious tinkering with germplasm in his job at Callaway. Exiting its beach gate, you'll spot a *Magnolia grandiflora* that's short for its species—under 30 feet after an equal number of years—and incredibly dense. Galle explains that he grew it from irradiated seeds.

In 1955 he brought Callaway five rooted cuttings of the Asian fringe tree, *Chionanthus retusus*, from a defunct arboretum in Knoxville. Towering specimens today, they were in bloom during our visit, and Betty had to lay on her horn to tear our photographer away from the sight. "They're still difficult to propagate by cuttings or seed," Fred observes.

He also selected and named some interspecific azalea crosses with the objective of capturing forms and colors that might be seen in the wild. At least two are still in the trade: 'Choice Cream' and 'Galle's Choice'. Both are fragrant, and their pale yellow flowers have wavy lobes. The first is an early bloomer; the second puts on its show midseason, and the flowers sport white throats with pink tips.

Galle was on the U.S. National Arboretum board in the late '70s when the taxonomist there, Ted Dudley, told him Timber Press owner Richard Abel was looking for someone to write the definitive book on azaleas. Recalls Abel: "There were two books in the works on rhododendrons, but nobody was dealing specifically with all the cultivars of azaleas and how they can be used in the landscape. Fred was well-known in horticultural circles, and based on his work at Callaway, he was clearly the one to do it."

Says Galle: "There was a rage for new cultivars at the time, and we wanted to make the book's scope worldwide. A lot of

thinking like farmers—you don't have to market corn or wheat."

When the book came out, however, the lists did come in, from growers who realized that their favorites had been overlooked. "New information started flooding in," says Abel, "and we knew we couldn't reprint even though we sold out within a year or so. So Fred undertook a complete revision, adding several hundred cultivars, in a little more than a year. It was a herculean effort."

Holly Folly

Galle says it took him five or six years to write the azalea book, even with clerical help. The holly book that he just completed took eight years. Production bogged down at the last minute because Galle didn't agree with the designer's choice of a photograph on the back cover. The designer, as designers will, was thinking "color" in choosing a picture of a variegated holly. Galle, as scientists will, was thinking "precision."

The holly in question was found in a Massachusetts garden and registered as 'Honey Jo', but it hasn't been released to the trade, says Galle. A branch sport of 'Blue Girl', its pedigree has been made murky by an earlier registration under the name 'Gretchen'. So Galle and his publisher "spent two months going back and forth" over the issue, and compromised by using the photo without identifying the plant.

Galle worked on the book, "scattering books, files, and papers from the dining room table to the study," at the home he and Betty built down the road from Callaway in 1979. Fred designed it, using a cardboard model, and met with some resistance from their local builder/architect who feared that the sharp interior angles of

Our native pachysandra, below, thrives in the Galle's woodland garden. In his second year at Callaway,

Galle brought the garden five rooted cuttings of the Asian fringe tree, right.



Fred met his wife, Betty, left, when he was lifeguarding and she was "fooling around in the deep end." Fred designed their home, above, with lots of sharp angles and glass.



A Sensuous Delight

All senses come into play in this Florida garden influenced by Chinese traditions.

b y L i n d a M a r x

When most people think of an Oriental garden, the image that comes to mind is probably the formal Japanese approach incorporating bonsai, stone, and raked sand.

But a Chinese garden is different. "The Chinese garden," observes the *Oxford Companion to Gardens*, "although it reveals a profound and serious view of the world and man's place in it, is above all a sensuous delight, and full of joy and laughter as well as peaceful contemplation." One of this style's best-known adherents—thanks to Samuel Taylor Coleridge—was Kublai Khan, who added a lake to palaces and gardens built in the 13th century near what is now Beijing.

In fact the Chinese garden tradition, one of the oldest in the world, influenced the Japanese. But in comparison it is more colorful and less fastidious, and appeals to more senses than just sight. It embodies sounds, smells, flowing water, and natural features appropriate to the larger landscape in which it is created. Rocks are a crucial component, although they can be either cut or natural stone. Surprise and discovery are important elements; the visitor often follows a path from one space to another, which can be regular or oddly shaped.

In 1993, Jim Reed moved to Boynton Beach, Florida, after 15 years of living in Asia as a military attaché in Hong Kong



Garden owners Jim and Sheila Reed first admired the royal poinciana tree, opposite, at the Beijing Botanical Gardens. A walk from the house passes a pool framed by travertine rock, above. In spring, the orchid *Epidendrum ibaguense* colors the scene, and in fall the scent of fragrant olive perfumes it.

and Bangkok. He and his Chinese wife, Sheila, had traveled throughout China seeking both aesthetic delights and spiritual understanding. They spent many days at the Beijing Botanical Gardens, where they were enraptured with the color, symbolism, and quiet solitude. "I never had the space or time for a garden in Asia," says Reed. "Once I retired in Florida, I was anxious to begin one."

Creating a Chinese-style garden in subtropical Florida was a project that required

a lot of trial and error. Reed knew from living in China that plant selection would be less important than how they were used: grouped so that they would spill together informally. His garden clearly demonstrates his confidence in the use of color. But having lived previously in Washington, D.C., he was unsure about what plants would do well here in USDA Zone 10.

Reed enrolled in a Master Gardener course offered by the Palm Beach County Extension Service to learn what plants could perform well without a "cold break" in winter and also tolerate south Florida's summer heat and humidity.

To enhance his understanding about Chinese gardens, he read the 18th-century Chinese novel *Hong Lou Meng* (*Dream of the Red Chamber*), a classic three-volume tale of a family during feudal times. From it he learned that the Chinese garden is based on strong—but not rigid—landscaping principles, with special emphasis on forced perspective and massed color. A sense of spontaneity or imagination is stimulated with glowing lanterns, stepping stones, sitting benches, splashing water crossed by bridges, fish-filled lagoons, and piped-in music.

In a Chinese garden, individual plants are valued not for rarity, or even necessarily for color, but for their symbolism. According to *Dream of the Red Chamber*, a garden should contain Four Gentlemen,



representative of the seasons: for summer the orchid, or True Gentleman, for the manner in which it scents a room; for autumn, the chrysanthemum; for winter, the bamboo, which suggests an Honorable Man because it bends with the wind but does not break; and for spring, the plum.

Although Reed would eventually incorporate all of these plants in his garden, he also learned from his reading that fruit, fragrances, and moving water are more important to the overall aesthetic of a Chinese garden than the plants chosen.

The Reeds' lot is 80 by 120 feet, with the designed garden currently one-third of that and getting larger as he moves the borders around. (It's appropriate that it should be a work in progress, since Chinese gardens often took a lifetime to create, only to be destroyed and rebuilt during another owner's lifetime as dynasties rose and fell.) "There was no garden here before, just a few typical Florida foundation plantings—*Ixora* and *Pentas*—and some dying trees," he recalls. "So I dug up and threw away most of the existing plants." With loving care the couple resuscitated a small guava, which now serves as an anchor to the garden plan. Reed had admired crape myrtles in both Washington and Hong Kong, and one of his first new projects included planting a semicircle of *Lagerstroemia* hybrids that bloom in white, lavender, rose, and pink. He also added some berries—mostly blackberries but also strawberries, blueberries, and rasp-



Facing the community lake is a statue of Guan Yin, goddess of mercy, top. Near a lakeside sitting area, above, is a plaque identifying A Dream Come True Garden.

berries—and in a shady spot, some azaleas.

Although the Reeds' front and side gardens are eye-pleasing with their emphasis on purples, whites, and pinks, their focus has been on the rear garden, which slopes down to a 26-acre, fish-filled community lake. The height of plantings here are sloped in two directions to force perspective and add to the impression of depth.

Lower-growing plants are at the lake's edge and the garden's perimeter, with taller plants toward the center.

In *Dream of the Red Chamber*, the family gardens are divided into several named sections, and Reed followed that custom in this spectacularly colorful, fragrant, and melodic rear garden. Throughout are scattered rectangular granite plaques bearing names etched in Chinese. Reed translates: Grandview Garden, Paradise by the Waters, Happy Bamboo Terrace, and A Dream Come True Garden.

Grandview Garden—the main garden around which events are centered in the novel—features the guava tree, the crape myrtles, and a karum or poonga-oil tree (*Pongamia pinnata*), with strongly scented pinkish racemes up to five inches long. These provide shade for a bed of pink-flowering azaleas beneath them. Most of these Formosa azaleas bloom in winter; in summer the color palette changes to yellow and coral provided by rhododendrons. A purple glory bush (*Tibouchina urvilleana*) provides privacy for the area flanking the Reeds' swimming pool. Scattered around in the most shady spots are stakes where orchids—white and pink *Bletilla striata* and orange *Epidendrum ibaguense*—bloom in spring.

Paradise by the Waters is bordered on one side by more *E. ibaguense* and birds-of-paradise (*Strelitzia* spp.) and two small pools with working waterfalls. The rear border is planted in fragrant olive (*Os-*



manthus fragrans), while a flame-of-the-forest tree (*Butea monosperma*) provides shade. Both are plants that Reed first noticed in China. *Salvia splendens* and sword ferns (*Nephrolepis* spp.) are massed as a tall ground cover. There is a coral stone bench surrounded by African iris (*Dietes iridioides*), daylilies, salvia, and chrysanthemums; along the rear of the pool runs a bed of iris and daylilies that ends at a grapefruit tree.

Happy Bamboo Terrace is dominated by a polished statue of Guan Yin, who represents mercy to the Chinese, positioned to gaze at the lake and calm troubled waters. Under the high shade of an oak, the statue is surrounded by such traditional plants as heavenly bamboo (*Nandina domestica*), 'Golden Goddess' clumping bamboo (*Bambusa multiplex*), gladioli, and verbenas. There are two small areas, dominated by a small citrus, planted to attract butterflies. The water hyssop (*Bacopa* spp.), a semiaquatic ground cover, provides food for the larvae of the white peacock butterfly, and monarchs lay their eggs on bloodflower or scarlet milkweed (*Asclepias curassavica*).

A Dream Come True Garden features a sitting area beneath a royal poinciana tree (*Delonix regia*), a species that the Reeds admired at the Beijing Botanical Gardens. Flanking the bench are a fragrant butterfly ginger (*Hedychium coronarium*); a peregrina or spicy jatropa (*Jatropha integrerrima*), which has fiddle-shaped leaves and



A purple glory bush, top, provides privacy for the area flanking the Reeds' swimming pool, while bleeding heart vine (*Clerodendrum thomsoniae*), above, covers an arbor to provide a shady resting area.

small pinkish red flowers; and a bald cypress (*Taxodium distichum*). At water's edge is a mix of bog plants such as water canna, blue flag iris, pickerel weed (*Pontederia cordata*), and arrowhead (*Sagittaria* sp.), all of which help protect the shoreline from erosion. Black-eyed Susans (*Rudbeckia hirta*) and dune sunflowers (*Helianthus debilis*) serve as golden-flowered accents.

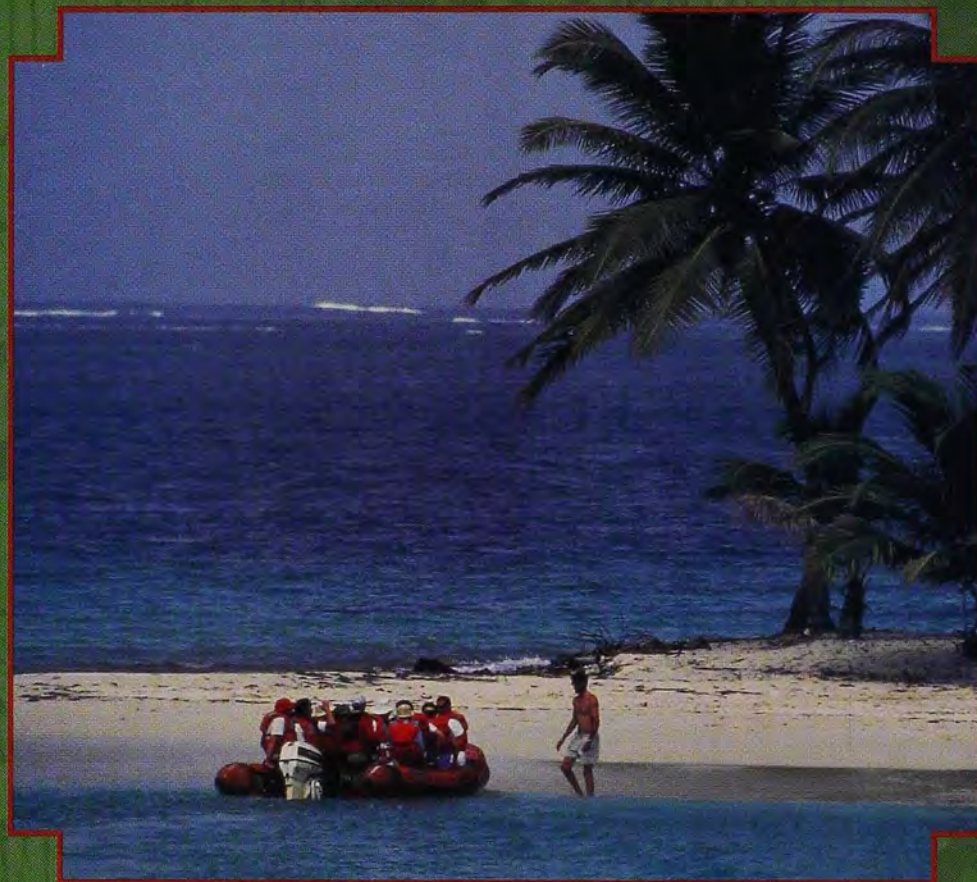
Stone paths lead to the water and the small bridge Reed built from which to view it. "Water plays such a big role in Chinese gardens that I built a small bridge to take advantage of it," he says of the mesmerizing lakefront scene. So that the bridge would be over water as well as overlooking it, he created a water garden beneath it.

Reed's garden is blessed with above-average soil. Much of it is muck, dredged to create the lake, which he spends 10 to 40 hours a week maintaining for his community—patrolling, testing water, and retrieving the occasional tennis ball. He also adds organic matter to the garden on a regular basis.

In recent weeks, Reed has begun to substitute gingers for his understory of azaleas, which don't perform as well as he would like in Florida's sandy soil. He has found great success with a plum tree cultivar, *Prunus* 'Gulf Gold', selected for its ability to grow well here. "I find surprising similarities between Chinese plants I admired in Hong Kong and those that I experiment with here," says Reed, who pulls weeds each time he meanders through his garden. "I also tend to plant close together and allow seedlings of crape myrtles and dahlias to grow all over. The result is a garden that reflects more than a luxuriant look. It is a spiritual place that my wife and I take time to enjoy nearly every day."

Linda Marx is a free-lance writer living in West Palm Beach, Florida.

February 5-15, 1998

Costa Rica

THIS EXPEDITION TO THE TROPICAL PARADISE OF COSTA RICA will begin and end in San José, at the Hotel Camino Real. Between these stays, we'll enjoy a seven-night voyage on the elegant sail ship *Wind Song* to Isla de Coiba, Panama, and to the national parks of Corcovado, Isla del Caño, Manuel Antonio, Palo Verde, and Curu on Costa Rica's Pacific coast. *Wind Song* has expansive sails, broad teak decks for sunning and alfresco dining, and 74 cabins with every conceivable comfort. During our stay in San José, we will make an excursion to Cartago to visit Linda Vista, a flower-seed farm started by AHS member — and 1994 Liberty Hyde Bailey Award winner — Claude Hope. Guest horticulturist for this trip will be former AHS Board member Roy Thomas.

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A Winner's Winners

We asked photographer Ken Druse—who's received numerous honors from AHS—to pick his 10 favorite images. He couldn't.

I am often asked what my favorite plant is. My stock answer: the last one I saw that I don't have. When *The American Gardener* asked me to choose my 10 favorite photographs, I couldn't rely on a smart remark. After much agonizing I selected 14 from the 150,000 images in my library. It wasn't enough for the image to be striking. I wanted to be sure that every picture told a story, not just about a place or thing but the story behind the story—what it took to make the photograph.

Sometimes there are extreme circumstances. I've gone 100 feet up in a cherry picker to take a shot, and I've also dug trenches to get the camera closer to the ground. Often success required a certain film stock and just the right lens, what I included in the framed composition and what I cropped out, what I took out of focus and what I made sharp as a tack. I buck the popular trend for photographs with limited focus: for example, a clear edge of a flower





petal awash in a mush of soft color. These are often pretty, but I work to capture a great depth of field—nearly everything sharp, from foreground to background—and use limited focus only when I want to isolate an element.

I always strive to capture the feeling of being in a garden—the character of a place. I try to communicate with the audience through their guts and hearts as much as their eyes and intellect. While the photo that *records* the garden is often the big, overall shot, the one that expresses its emotion and its maker's point of view might be a subtle color combination, the placement of a treasured object, or dew on a spider's web.

To reproduce images a full page or larger and retain quality, the ideal situation is to blow it up as little as possible. Large format cameras, however, are cumbersome. I compromise with a medium for-

'Krinkled White' peony

(The Natural Garden, 1989)

I underexpose all my pictures, to the consternation of most publishers. But I know that flowers are very reflective. An automatic camera will often leave no detail in the petals—especially in the case of white flowers. The thing that I love about this “fried-egg” peony is its crepe-paperlike texture. If I photographed it in the garden, however, I would either have to expose for the flower, in which case the leaves would appear nearly black, or for the leaves, which would render the flowers as white blobs. So I cut the blos-

soms and brought them inside. I placed the flowers in a simple, smooth vase for textural contrast, in a monochromatic setting to make them the obvious stars of the picture. I used only the light available from the windows, thinking it would be nice to let the flowers take on the honey glow reflected off the furnishings.



Morning glory seeds

(For my next book, due out in March 1999)

My last big book, *The Collector's Garden*, took readers across North America to see what gardeners on the cutting edge are doing. I thought for my next book I would show not just what gardeners can do, but how we can do it, capturing different steps of certain aspects of gardening in beautiful new ways.

Many of the photos are a bit offbeat. For example, to illustrate soaking seeds—something that helps certain ones germinate—I wanted a spare, Japanese-style image. I chose a small white ceramic

bowl, and for my version of “rice paper,” I grabbed the stainless-steel stew pot from the kitchen and turned it upside down.

I used natural light and filled in shadow areas, especially inside the bowl, by bouncing the light back to the setting with a piece of white mat board. I use all sorts of things to augment natural light. A small mirror will aim a shaft of sunlight onto a subject. The dull side of aluminum foil (always available) will reflect an overall illumination, while the shiny side makes gleaming patterns. And I always carry my Flexfill, a five-foot-wide fabric circle stretched over a wire hoop—silver on one side, white on the other.



mat camera, a Mamiya 6/4.5, which produces a transparency of that size in centimeters. It is designed to handle more like a 35 mm than a medium-format camera. I've realized that equipment such as a tripod not only gives you more control, but forces you to slow down and compose the picture more thoughtfully. I used to take a shotgun approach to gardens, shooting 100 photos to get eight good ones. Now I just shoot eight good ones.

Publications, by the way, require transparencies for reproduction purposes. Transparency film has more contrast than "print" film and if exposed in sun can appear harsh—rendering bright areas nearly white and dark nearly black. So I try to shoot on overcast days or before sunrise and after sunset. That limits my shooting time, sometimes to an hour or two.

Little girl

(The Natural Garden, 1989)

I served as the field editor for a magazine article about a family who gardened together. As the photographer, the magazine's editors assigned someone they thought would be "better with children." At one point, the photographer became so frustrated with the children not doing what she wanted that she lay down on the grass and threw a tantrum. During this episode, I walked with the youngest child around the garden and asked her to show me the sunflower she grew. She did, happily, and this is the picture—one of my favorites. Even the sunflower behaved.

Seed head of 'Nelly Moser' clematis

(The Natural Shade Garden, 1992)

I am fascinated by details of plants that nearly everyone overlooks, and I plant my gardens to display them. Some flowers, such as poppies, last as little as a day, but their seed pods last for months. I grow the reliable clematis 'Nelly Moser' not for its fleeting pink flowers, but for the fruits that form nearly immediately after petal drop and last for months before they turn into balls of fluff. The inch-plus seed heads look like dangling jewelry made of spun gold. This photo was shot with an 80 mm macro lens [equivalent to a 50 mm macro on a 35 mm camera] with EPP film. It has proved to be one of my most enduring images—and is mentioned as a favorite by more people than any other picture I've taken.



Bellevue Botanical Garden border, Bellevue, Washington

(The Collector's Garden, 1996)

I recommend professional film stocks. Most film, like fruit, is shipped to stores "green" so it can sit on the shelves for a long time until it is overripe—spoiled. The colors will be off and the film will be grainy. Professional film is shipped to camera stores when it is "ripe" and kept refrigerated. Professional film is just a bit more expensive—cheaper if you buy in bulk from mail-order sources.

I have been a fan of Ektachrome Professional Plus (EPP 100 ISO) for years and never cared for the slower speed Fuji films

that turned the grass day-glo green and clouds pink. But I started noticing that many pictures I admired in slide lectures were taken on the newer Fuji professional film called Velvia (RVP 50 ISO). I began shooting it, and although I lament the loss in film speed, I find it exceptional. The colors might be a little too "punchy," but the detail and clarity in shadows are great.

I love foliage. As you can see in this photo, Velvia records texture brilliantly. There is so much to see in this intricate planting—no one notices that there are hardly any flowers in the picture.

Since I was shooting in the shadow of puffy white clouds, I used a KR 1.5 filter. In the shade on sunny days, I use this filter with Velvia. On overcast days I don't use a filter.



The lenses I use are an 80 mm macro, a 55 mm wide angle, a 35 mm wide angle, and a 150 mm telephoto. I would love more, but with all my other equipment, we're talking 70 pounds. Add my laptop computer and imagine how I feel at the airport when I hear "one carry-on bag per person."

My goal is to share my art, to teach, and I hope, to inspire with beauty. I usually visualize the result and then make it happen. Sometimes I even imagine the shot being used in a magazine or as a book

Allium cristophii

(*The Collector's Garden*, 1996)

I love the faded seed heads of *Allium cristophii*. They can be as large as soccer balls and look to me like Fourth-of-July sparklers. I wanted to capture what I see and think when I look at these fantastic flowers. I used a very narrow depth of field—a limited focus—to imply movement. I positioned the camera to shoot two flowers to accentuate the gleam of crisscrossing stems in limited focus. I used an 80 mm lens. A preview button on a lens or camera can be very helpful for this kind of shot to show me what will be in focus. I can then pull elements in or out of focus to achieve the desired effect. I exposed for the light reflected off the seed head, not the background. An automatic camera would have created a silhouette.

The back terrace of a private garden, Les Quatre Vents, Quebec

(*House Beautiful* magazine, November 1996)

There is a lot of information in this photograph: the stone wall planted with *Campanula*, the poplar tree, lawn, hillside, and the

town across the bay. The *Campanula* planting shows the taste and talent of its maker. The stone wall hints at the grandeur and age of the place, as does the lone poplar and lawn. This is a great estate garden with a magnificent manor house and astonishing plantings, and it is also important to people in the surrounding area who benefit from the patronage of its owners, Frank and Anne Cabot, founders of the Garden Conservancy. Instead of showing the stone wall straight on—as part of, or even overwhelmed by, the manor house—I showed it nearly in profile, so that we can "eavesdrop" on the site.

It was overcast—the best light for shooting gardens. But there is a problem when the sky must appear in the shot, because it can be four or five f-stops brighter than the plants. So I used a graduated filter. This is a sheet of high-quality, rigid plastic that is half clear and half translucent color, with a blurred line where the two parts meet. The one I used for this shot is gray.

I hold these filters in front of the lens by their edges so that I can quickly adjust the position. I darkened the sky and slid the filter down so its blurry line would be hidden by the town in the background. When I look at this photo, I see complex information and richness and recall the technical details necessary to get my picture. I wonder what other viewers think and feel?





cover. There are occasional bolts of luck—such as overcast, windless days—but accidental successes are few these days. Now I've learned what a film stock, lens, f-stop, and shutter speed will do. This is something I want to stress to amateur photographers: You have much more control than you might think. Put your camera on a tripod, and turn off the automatic pilot.

Ken Druse, contributing garden editor of House Beautiful, lives and gardens in New Jersey and has been photographing gardens for 20 years. He won the American Horticultural Society's writing award in 1993.

Symplocarpus foetidus

(unpublished)

Skunk cabbages are one of my favorite plants. I didn't have a chance to spend time photographing them until I found them on the site of my new garden in New Jersey. When they were coming up in late winter, they looked like clusters of little monks with hoods pulled over their heads, hurrying off to vespers. I took this picture around the time when the spathe split open to allow insects to crawl inside for warmth and shelter—and to pollinate the flowers in return.

To get more light inside the spathe I used a little flashlight with a cobalt blue piece of cellophane covering the top—to change the color of the light to match daylight. The blue plastic blocked most of the light, so I had to hold the flashlight as close to the skunk cabbage as possible without getting it in the picture.

Woodland floor

(*The Natural Habitat Garden*, 1994)

I always look down, especially in the woods. The floor of the woodland is its graveyard and nursery, I like to say, and I want to communicate, in my way, this notion, and to hint at the fact that millions of organisms live in the space recorded in this photo. People often say a garden is never finished. Of course it's not, we don't want it to be—nature itself has no beginning, middle, or end.

Another photo that resulted from this habit appeared on the September/October cover of *The American Gardener*. I had arrived at a garden in autumn and discovered that there was really very little to photograph. It was in disrepair, but had not yet reached the state of romantic ruin. Much of the architecture had been torn down, and the plantings, except for a few spring-flowering shrubs, were gone. The mature trees left standing already had lost their leaves so I looked down at the ground and began to frame little vignettes of colorful litter.



David garden, Austin, Texas

(*House Beautiful* assignment, 1995)

James David's garden is spectacular and rich with detail—an incredibly imaginative mix of architecture, landscape architecture, and plants. I took hundreds of pictures there, but chose this one to include here because of all the details that are *not* in the picture. I often have to compose a photograph in a way that hides distracting elements and highlights desirable features. I wanted this angle of the house and chimney, but it was filled with distracting elements. I set my camera up behind a planting so I could use its components to adjust the subject. Creating a frame

with an apple tree branch at the top and a fig tree below helps direct the viewer's eye. The apple branch also breaks up the large plane of red made by the roof and covers some distracting roof vents. The fig tree hides some scruffy plantings between the camera and the raked gravel area in front of the house. There are several poured concrete columns in this area. I hid the lightest one behind the juniper in the foreground. That also pushes the viewer's eye back to the center of the photo and makes some of the other columns, formerly so dominant, appear to fade away.

In Texas and many other places, one cannot depend on overcast days, so I took this photo in the cool light of daybreak. I warmed the light with the KR 1.5 filter.



Montrose Garden, Hillsborough, North Carolina (above)

(*The Collector's Garden*, 1996)

Sometimes a great garden seems to be all that I need to take a great picture. Oddly, I have not seen many great pictures of Nancy Goodwin's deservedly famous garden. But capturing the color, scale, and detail of a garden takes more than pointing and shooting a camera. I used a slightly wide-angle lens, 55 mm, and tried to get as much depth of field as possible by using a high number f-stop: f22. I shot this photograph after sunset, around 7 p.m., using my KR 1.5 filter to warm up the film to accurately reproduce the colors. I exposed the film for one-half second.

Look at the sharp zinnias in the foreground, the texture of the pebbles and mulch, and the black sweet potato vine. Then look at the coral sepals of the shrub, *Heptacodium miconioides*, all the way in the background through the center of the arch in the lathe house. This photo was taken with Fuji Velvia, but if it had been any later, I would have needed faster film. Velvia can't be shot slower than half a second.

Ficus aspera leaves (opposite)

(*The Collector's Garden*, 1996)

I'm attracted to things that are sensational, as are most people, I suppose. That doesn't mean I watch "America's Most Wanted" or read the supermarket tabloids. But if you want my attention, just give me a juicy piece of natural trivia, something like, "The biomass of ants on earth weighs more than all other organisms combined." I've always found the clown fig, *Ficus aspera* 'Parcellii', beautiful and intriguing. It is a harlequin fantasy. Even the fruits are variegated—round marbles striped white, green, and red. To me the leaves look like infrared photographs of earth from a satellite. I used my 80 mm macro lens and natural light at nearly noon on an overcast day, bracketing the shots to record the entire color range from cream to dark green.

Tower Hill Barn

(this issue's cover, previously unpublished)



In 1986 the Worcester County Horticultural Society took over a farm on Tower Hill in Boylston, Massachusetts, to start a public garden. They concluded that the barn could not be renovated and planned to give it away. I loved the old barn and decided to take its portrait at night with the last light reflecting off the reservoir in the distance. One utility-light pole off to

the left was the only additional light source.

All artificial light sources appear as different colors on film. Hoping that the street light's orange glow would be similar to regular light bulbs, I chose a film balanced for "tungsten" or indoor light. Since a filter that is the direct complement of a color will often neutralize it, I used a pale blue filter—the color directly opposite orange on a color wheel—to "cool" the light.

I used a light meter set for an "incident" reading. Instead of measuring the light reflected off the subject, as most meters do, it reads the light that reaches the subject. Since I was shooting to the side of the light source, that is what I wanted to know. I stood at the barn and pointed the light meter at the camera.

When most films are exposed for one second or more, their color changes radically and they may become grainy. I chose Fuji RTP with a speed of 64 ISO, one of several film stocks that aren't supposed to work for long exposures, but do. But in these instances I have to be mindful of the "reciprocity factor"—to increase the exposure by one stop, you have to double the time. The meter told me to expose for four minutes, which I doubled to eight. The camera didn't move because it was on a tripod, but the earth did. Instead of pinpoints of planets and starlight, you see blurred dots. It was about 9 p.m. when I took this photo—I lost a lot of blood to mosquitoes that night.





Enid Haupt Conservatory

(New York Botanical Garden brochure, 1996)

I try never to shoot in full sun but sometimes I have no choice, as when the cherry picker arrived at noon for a shoot at the New York Botanical Garden. First, I turned my back to the sun to make the shadow areas appear as small as possible. Then there was the bright white Enid Haupt Conservatory, the darker sky, and paving and plants that were darker

still. If I exposed for the plants alone I would have lost all detail in the greenhouse—it might have disappeared into the sky. In such difficult-to-reshoot situations, I bracket the exposures, choosing the exposure I think will be right (nearly one stop underexposed) and then underexpose and overexpose in one-quarter-stop increments—three or four in each direction.

It turned out to be a once-in-a-lifetime shot. A radio tower is being built across the street from the garden and will be in the background of future photographs.



book reviews

- 🌿 *herbaceous perennials*
- 🌿 *native Texas gardens*
- 🌿 *gardening with nature*

HERBACEOUS PERENNIAL PLANTS, SECOND EDITION

Allan M. Armitage. *Stipes Publishing, Champaign, Illinois, 1997. 1,141 pages. 6 x 9". Publisher's price: softcover, \$56.80. AHS member price: \$51.10. STI 004*

The battle of the northern sea oats and the showy evening primrose was not fought in the first edition of

Allan Armitage's *Herbaceous Perennial Plants*, published in 1989. The contest between these aggressive perennials—the oats won, by the way—is documented in the University of Georgia professor's second edition and is part of what makes the book worth buying.

Such anecdotal information as well as greatly expanded coverage has turned a valuable but rather dry encyclopedia into an invaluable treatise that's actually rather fun to read. It's like the difference between a quartet and an orchestra, between a Berber carpet and an Oriental rug. In each case, it's not just a matter of more notes, knots, or

plants—although there are 800 more selections mentioned in the second edition—but the layering of information that makes the final product so useful.

That aside, this is also a serious book for serious gardeners. A lot of information is packed into the 1,100-plus pages of this book. Summaries of each genus are followed by concise descriptions of important species and cultivars, a simplified botanical key to distinguishing individual taxa, and suggestions for additional reading.

Armitage's expanded coverage reflects a more liberal view of what constitutes a garden perennial. For instance, ferns are now included—a nod to these worthy garden companions that were scarcely mentioned in the previous edition—as are grasses and more native wildflowers. The revised book also extends to plants such as oregano, a most decorative and willing herb that savvy gardeners have long grown for its ornamental as well as its culinary value. Armitage lists five cultivars of *Origanum vulgare* and waxes enthusiastic over *O. laevigatum*, a little-known knockout of a subshrub hardy to USDA Zone 6 or 7.

The only real regret I have is that color photographs are still parsimoniously confined to a central sheaf of small plant mug shots, but this disappointment is tempered by an increase in detailed line drawings.

I especially enjoyed expanded sections on *Centaurea*, *Ligularia*, *Lysimachia*, and the always confusing genus *Nepeta*. I wish

I had been privy earlier in my gardening life to his tip that bluebeard (*Caryopteris* spp.) is “welcome late summer relief from the many yellow daisies which flower at that time” and that their flowers “contrast well with those same yellows.”

There you have the essence of the new Armitage guide—expanded coverage and friendly advice on how your garden can work harder while you work smarter. Don't wait until you have gotten your mouth successful-

ly around Latin nomenclature. Add this book to your library as soon as possible. It will hasten graduation from neophyte to seasoned gardener and will aid even the



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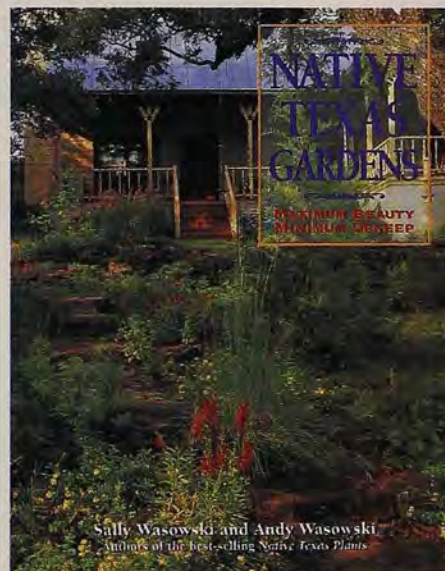
—Diane Heilenman
Diane Heilenman, art critic and garden columnist for the Louisville Courier-Journal, is author of Gardening in the Lower Midwest.

NATIVE TEXAS GARDENS

Sally and Andy Wasowski. Gulf Publishing Company, Houston, Texas, 1997. 185 pages. 8 3/4 x 11 1/4". Publisher's price: hardcover, \$39.95. AHS member price: \$36.

GPC 001

Texas has some truly remarkable and interesting native plants, and appreciation of their worth in gardens is rapidly increasing. Membership in chapters of the Native Plant Society of Texas is growing, as is demand for native plants and seeds. To people like me, who came to Texas after living in climates more



amenable to gardening, it seems the logical way to go. The extremely varied soils, many of them not easily modified for good gardening, and the more or less moderate winter temperatures that alternate with searingly hot summers seriously tested my gardening skills for the first few years I lived here.

Sally and Andy Wasowski's book offers Texas gardeners a stimulus by showing—with many illustrations—that gardening with native plants can be successful throughout the state and in all situations.

The book is designed much like an elegant hard-bound magazine. Most pages have up to three photographs, each with a caption offering lucid comments on the scene portrayed. Yet while the photographs show many beautiful examples of native Texas plants in gardens, it is important to

note that more than half—76 out of 132—were taken in April and May, whereas only two were photographed in July and August, the most torrid months in Texas. One quoted gardener admits to despair in native gardening during these months and mows most of the plants, some of which then give a second season of growth in autumn.

Much of the book is devoted to descriptions of a wide variety of personal, public, and commercial gardens that incorporate native plants. Other chapters cover design of native gardens, conversion from “conventional” to “native” landscapes, preserving natural landscapes, and planting and caring for native plant gardens. Chapters on how to preserve a natural landscape while building on the property—the building envelope—and those on restoration and maintenance of natural landscapes offer advice on methods that have proven successful. An appendix describes laws that hinder maintaining and developing natural landscapes and addresses possible ways in which to deal with them.

The book offers much encouragement to those interested in making native plants a major or even subordinate part of their gardens. Personally, I find that natives fit well into my garden in combination with imported plants that I am able to grow in Texas, and this seems to me a reasonable way to use them so long as space is available to provide the necessary microclimates.

The book is mostly in good order, although I found captions of figures reversed on page 73. An appendix cross-references common to botanical names, but I regret that it is organized by common name. This makes it difficult, for example, to quickly look up how many oaks are grown in native gardens in Texas. This book will, nevertheless, be useful and encouraging to those in Texas and other southern states who are contemplating making native plants part of their garden.

—Richard E. Norris

Formerly a botany professor and researcher, primarily on algae, Dr. Richard E. Norris is retired and studying vascular plants at the Fort Worth Botanical Garden.

GARDENING WITH NATURE

James van Sweden. Random House, Inc., New York, 1997. 224 pages. 8 × 10". Publisher's price: hardcover, \$40. AHS member price: \$36.

RAN 022

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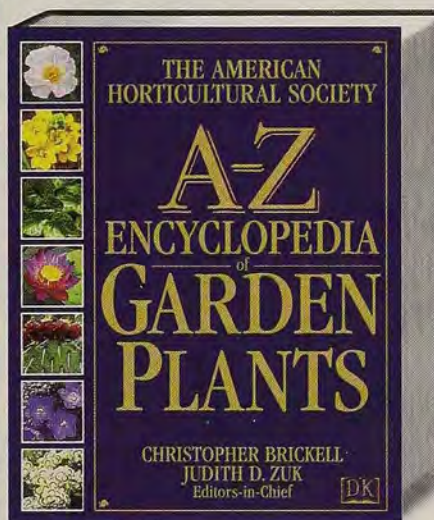
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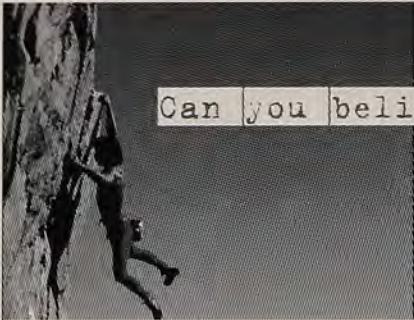
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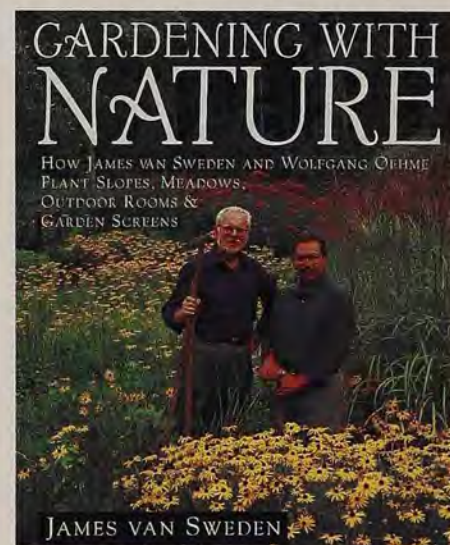
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plantings as they once relied on sheared yews and summer marigolds, you know that landscape architect James van Sweden—with the collaboration and consultation of partner Wolfgang Oehme—has indeed loosened the straitjacket of American landscaping. Perhaps famous client Oprah Winfrey helped the cause; certainly, the early followers of van Sweden and Oehme showed gutsy independence by ripping out their front lawns and shrubs two decades ago. That the van Sweden-Oehme philosophy is fast approaching mainstream seems inarguable; one can only hope that in the future perennial grasses and *Rudbeckia* don't become as ubiquitous



in suburban America as the present clichéd evergreens and annuals.

It is hard to quibble about success. As van Sweden's newest publication, *Gardening with Nature*, demonstrates, contemporary American gardeners have long been ready for an alternative to traditional formal plantings that demand excessive staking, pruning, pest control, and division. Regrettably, few people have time for such fussing now, nor do many people hire professional gardeners to do the work (and who's available anyway besides lawn-mowing and fertilizer/herbicide crews?). The New American Garden advocated by van Sweden and Oehme calls for a more relaxed-looking use of plants—lots of exotic and some native grasses and herbaceous perennials—to offer year-round visual interest, a dense layering of textures and colors, and an Attitude. Forget prissy and uptight. Think broad, sweeping plantings and views—help yourself to your neighbor's vista—and by all means get rid of as much lawn as possible.

Subtitled "How James van Sweden and Wolfgang Oehme Plant Slopes, Meadows, Outdoor Rooms, and Garden

Screens," the book includes an introductory essay discussing the evolution of the author's style and philosophy, a portfolio of descriptions of private and public gardens designed by the author and Oehme, step-by-step instructions for planning and planting one's garden, and an annotated list of favorite plants. I felt that more specific information on self-seeding or invasive tendencies of certain plants would have made this last section more helpful.

The heart of the book, the portfolio section, offers van Sweden's enthusiastic commentary on 27 commissioned gardens, mostly in the Northeast. These are accompanied by landscape drawings and, more importantly, specific planting keys. The step-by-step guide to planting a garden offers some useful advice for anyone considering a garden makeover, although novice gardeners may underestimate what's involved in the author's occasionally breezy instructions, as in Step Seven: "Prepare the soil by rototilling to a depth of eight to twelve inches and add the amendments recommended as a result of your soil tests."

But the illustrations are lavish, and 175 color plates and 50 black-and-white photographs amply demonstrate why the van Sweden-Oehme team has drawn such a following. Even in the heartland.

—Harriet Fowler

Harriet Fowler is director of the University of Kentucky Art Museum in Lexington. Her writings have appeared in *The New Yorker* and *Fine Cooking* magazines.

THE GARDEN TOURIST: 1998

Lois G. Rosenfeld. *The Garden Tourist Press*, New York, 1997. Approx. 240 pages, 5 1/2 x 8 1/2". Publisher's price: softcover, \$16.95. AHS member price: \$15.25. **GTP 001**

This annual calendar of gardening events around the country, now in its seventh year, is a must for anyone who likes to visit botanical gardens, go on private garden tours, attend gardening symposia, or take in flower shows. From Mango Madness Month at Fairchild Tropical Garden in Miami, Florida, to the Boise Flower and Garden Show in Idaho, more than 1,600 events are listed in the 1998 edition, which is organized by state, city, and date. Included for the first time in this edition are e-mail and Web site addresses for many listings, as well as location information to make out-of-town events easier to find. Appendices offer suggestions for regional gardening guidebooks and garden tour operators. A great gift for the gardener who likes to travel.

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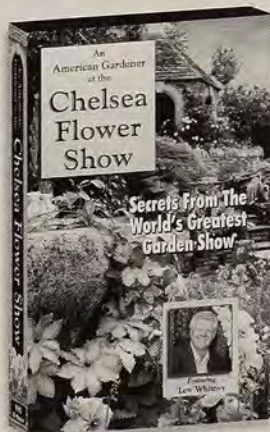
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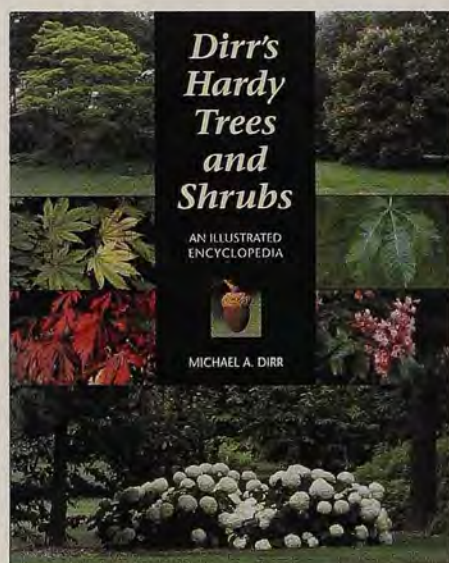
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NEW BOOKS



DIRR'S HARDY TREES AND SHRUBS
Michael A. Dirr. Timber Press, Inc., Portland, Oregon, 1997. 494 pages. Publisher's price: hardcover, \$69.95. AHS member price: \$63.

TIM 105

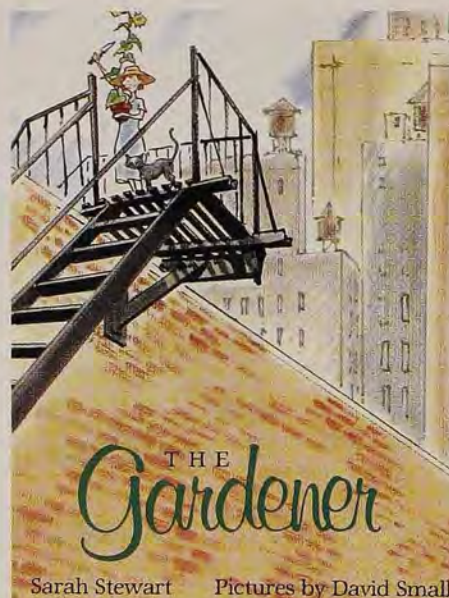
A photographic tour-de-force, this is the book Dirr fans have been waiting for. In addition to the usual opinionated and informative text we have come to expect from Dirr, this encyclopedia of hardy woody plants is illustrated with 1,650 full-color photographs selected by the author from his slide collection. At the end of the book is a useful index of plants grouped by desirable characteristics and cultural requirements.

THE GARDENER

Sarah Stewart and David Small. Farrar, Straus & Giroux, New York, 1997. 40 pages. Publisher's price: hardcover, \$15. AHS member price: \$13.50.

FSG 001

From children's author Stewart, this may



be the book for that special child on your holiday gift list. Beautifully illustrated by Small, the book tells the uplifting story of Lydia Grace, a green-thumbed waif who is sent to live with her cantankerous uncle in Depression-era New York City. During her year there she uses her gardening skills to brighten her gray surroundings and, eventually, to bring a smile to her uncle's face.

TAYLOR'S DICTIONARY FOR GARDENERS

Frances Tenenbaum. Houghton Mifflin Company, Boston, 1997. 352 pages. Publisher's price: softcover, \$25. AHS member price: \$22.50.

(available in December) **HOU 015**

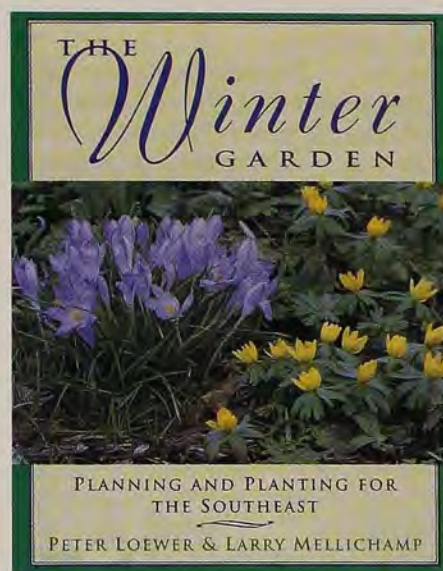
This illustrated dictionary of gardening defines more than 2,000 horticultural and botanical terms the adventurous gardener is likely to run across in the course of reading seed catalogs, gardening books, or magazines. Compiled by Tenenbaum, editor of the Taylor's Guides to Gardening and other books, the dictionary clearly explains terms relating to topics such as botanical nomenclature, gardening techniques, plant physiology, and garden design.

THE WINTER GARDEN: PLANNING AND PLANTING FOR THE SOUTHEAST

Peter Loewer and Larry Mellichamp. Stackpole Books, Mechanicsburg, Pennsylvania, 1997. 208 pages. Publisher's price: hardcover, \$39.95. AHS member price: \$36.

STA 008

Just in time for winter, garden writer Loewer and horticulturist Mellichamp have teamed up to produce a beautifully illustrated guide to creating a winter garden. Although written specifically for the



Southeast, gardeners everywhere can pick up ideas about how to use plants that offer winter interest through flowers, foliage, bark, or fruit.

GETTING READY FOR WINTER AND OTHER FALL TASKS

Steven Bradley. Stewart, Tabori & Chang, New York, 1997. 112 pages. Publisher's price: hardcover, \$22.50. AHS member price: \$20.25.

STC 005

Part of the Essential Garden Library series, this book offers timely advice on preparing your garden for its winter rest. Among the gardening projects described are constructing a cold frame, building a rose arbor, pruning, and protecting tender plants. Includes 100 color photographs and 200 color illustrations.

CLASSICS REISSUED

A GARDEN OF ONE'S OWN: WRITINGS OF ELIZABETH LAWRENCE

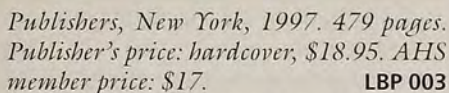
Barbara Scott and Bobby J. Ward, editors. University of North Carolina Press, Chapel Hill, 1997. 281 pages. Publisher's price: hardcover, \$24.95. AHS member price: \$22.45.

UNC 004

After seven years of searching, the editors have brought together 55 treasures from the dispersed trove of Lawrence's writings. Among the articles culled from such disparate sources as *House and Garden*, *Pacific Horticulture*, and *Garden Gossip* are ones on the author's favorite plants and "Brothers of the Spade," a tribute to her fellow gardeners.

THE WELL-TEMPERED GARDEN

Christopher Lloyd. Lyons and Burford,




THE PLANT HUNTERS

price: hardcover, \$16.95. AHS member price: \$15.25. **LBP 002**

LBP 002

GRAHAM STUART THOMAS

*Cuttings from
My Garden Notebooks*

A detailed illustration of a purple columbine flower with five petals and a yellow center. The flower is on a green stem with two large, serrated green leaves. The background is a light cream color with a vertical wood-grain texture on the left side. The title 'Cuttings from My Garden Notebooks' is written in a cursive font across the middle, and the author's name 'GRAHAM STUART THOMAS' is at the top.

Graham Stuart Thomas. *Sagapress, Inc., Sagaponack, New York, 1997. 384 pages. Publisher's price: hardcover, \$39.95. AHS member price: \$36. SAG 012*

SAG 012

BETH CHATTO'S GARDEN NOTEBOOK

Beth Chatto. Updated by Thomas Fischer. Sagapress, Inc., Sagaponack, New York, 1997. 306 pages. Publisher's price: hardcover, \$34.95. AHS member price: \$28.70.

SAG 011

THE DAMP GARDEN

Beth Chatto. 1996. 348 pages. Publisher's price: hardcover, \$32.95. AHS member price: \$29.70. **SAG 007**

SAG 007

THE DRY GARDEN

Beth Chatto. 1996. 195 pages. Publisher's price: hardcover, \$29.95. AHS member price: \$27. **SAG 008**

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MID-ATLANTIC

NOV. 6 ■ Winterizing the Garden.

Lecture. Brookside Gardens, Wheaton, Maryland. (301) 949-8230.

NOV. 11-15 ■ Watchable Wildlife Conference. The Hotel Roanoke and Conference Center, Roanoke, Virginia. (540) 231-3122.



NOV. 21-JAN. 4 ■ Garden of Lights.

Norfolk Botanical Garden, Norfolk, Virginia. (757) 441-5830.

DEC. 7 ■ Discovery Day. Art exhibit. River Farm, Alexandria, Virginia. (800) 777-7931 ext. 764.

NORTH CENTRAL

NOV. 2-5 ■ National Conference on Urban and Community Conservation. Columbus, Ohio. (202) 547-6223.

NOV. 3 & 4 ■ The Practice of Restoring Native Ecosystems.

Conference. Lied Conference Center, Nebraska City, Nebraska. (402) 474-5655.

NOV. 8 ■ Annual Herb Fair. Madison Herb Society. Olbrich Botanical Gardens, Madison, Wisconsin. (608) 246-4551.

NOV. 8-30 ■ Chrysanthemum Show. Garfield Park Conservatory and Lincoln Park Conservatory, Chicago, Illinois. (312) 746-5100.

NOV. 16 ■ Morning Hike at Carvers Pond. Holden Arboretum, Kirtland, Ohio. (440) 946-4400.



Events marked with this symbol are official "Diamond Anniversary Gardening Events" chosen as regional sites where AHS members can help us celebrate our 75th anniversary during 1997.



NOV. 27-JAN. 4 ■ Holiday Display.

Chicago Botanic Garden, Glencoe, Illinois. (847) 835-5440.



DEC. 3 & 4 ■ Festival of Light.

Botanica, the Wichita Gardens, Wichita, Kansas. (316) 264-0448.

NORTHEAST

OCT. 25-NOV. 23 ■ Fiesta! Annual Chrysanthemum Festival. Longwood Gardens, Kennett Square, Pennsylvania. (610) 388-1000.

NOV. 15 ■ South Jersey Orchid Society Plant Auction. Wenonah Methodist Church, Wenonah, New Jersey. (609) 722-0393.

NOV. 17 ■ Focusing on Biological Control for the Green Industry. Conference. University of Massachusetts Campus Center, Amherst, Massachusetts. (413) 545-0895.

NOV. 18 ■ Get to Know Ground-covers. Class. Bartlett Arboretum, Stamford, Connecticut. (203) 322-6971.

NOV. 18 ■ Indoor Worm Composting. Workshop. Brooklyn Botanic Garden, Brooklyn, New York. (718) 622-4433 ext. 202.



NOV. 27-JAN. 4 ■ A Gardener's Christmas.

Display. Longwood Gardens, Kennett Square, Pennsylvania. (610) 388-1000.

NORTHWEST

NOV. 6 & DEC. 4 ■ Propagation Workshop. Center for Urban Horticulture, Seattle, Washington. (206) 685-8033.

DEC. 7 ■ Armchair Garden Tours. Slide show. Northwest Horticultural Society, Seattle, Washington. (206) 527-1794.

SOUTHEAST

NOV. 8 ■ Wreaths for the Holidays. Lecture. Tryon Palace, New Bern, North Carolina. (800) 767-1560.

NOV. 12-15 ■ Ecological Restoration

Hillwood Closing for 18 Months

Beginning December 13, Hillwood Museum and Gardens in Washington, D.C., will be closed to the public as the house and gardens are renovated and restored. Hillwood is the former home of Marjorie Merriweather Post, daughter of cereal magnate C.W. Post. Its outdoor features include Japanese-style and French parterre gardens.

Hillwood is scheduled to reopen in late 1999. In the meantime, representative artwork from its European and Russian collections will be on tour throughout the United States. For more information, call Hillwood at (202) 686-8500.

Polly Hill Farm Purchased

Barnard's Inn Farm on Martha's Vineyard, Massachusetts, has been purchased as the Polly Hill Arboretum, Inc. Amateur horticulturist Polly Hill has spent 40 years experimenting with and propagating trees and shrubs on the 60-acre site in North Tisbury. Her plant introductions have included selections of *Cornus kousa*, *Ilex verticillata*, stewartias, crabapples, and azaleas, among others. She has received the Gold Medal of Honor from the Garden Club of America and the Catherine H. Sweeney Award from the American Horticultural Society.

Now 90, she will continue to live on-site during the summer and help supervise the arboretum, which will receive consulting services from Winterthur Museum in Wilmington, Delaware. The purchase of the arboretum was made possible through lead gifts from the David H. Smith Foundation, members of the Hill family, and anonymous horticultural colleagues of Hill's. The Department of Environmental Management of the Commonwealth of Massachusetts provided funds to place a conservation restriction on the property.

The arboretum is expected to be open to the public next spring. For information, call (508) 693-3776.

and Regional Conservation

Strategies. Conference. Fort Lauderdale, Florida. (305) 247-1132 or e-mail ser1997@netrunner.net.

NOV. 14-16 ■ Birmingham Antiques and Garden Show. Birmingham—Jefferson Civic Center, Birmingham, Alabama. (205) 871-0840.

NOV. 15-18 ■ Professional Grounds Management Society Annual Conference and Green Industry Expo. Charlotte Convention Center, Charlotte, North Carolina. (800) 609-7467.

NOV. 20 ■ Confessions of a Pusher: Crazy, Obsessed, and Addicted to Rare and Unusual Plants. Lecture and meeting. Georgia Perennial Plant Association. Atlanta History Center, McElreath Hall, Atlanta, Georgia. (770) 955-1303.

NOV. 20 ■ Holiday Topiary for Parents and Kids. Workshop. The State Botanical Garden of Georgia, Athens, Georgia. (706) 542-1244.

NOV. 21 & 22 ■ Plants as Medicine: Herbalism Today. Symposium. Atlanta Botanical Garden, Atlanta, Georgia. (404) 876-5859.



DEC. 6 & 7 ■ Ramble Garden Festival. Fairchild Tropical Garden, Miami, Florida. (305) 667-1651.

DEC. 7-MAR. 31 ■ Splendor Under Glass. Tropical Orchid Display. Atlanta Botanical Garden, Atlanta, Georgia. (404) 876-5859.

DEC. 15-17 ■ Southeast Vegetable and Fruit Expo. Holiday Inn Four Seasons, Greensboro, North Carolina. (919) 772-2204.

SOUTH CENTRAL

NOV. 25-JAN. 2 ■ Holiday Exhibit. Missouri Botanical Garden, St. Louis, Missouri. (314) 577-9400.



NOV. 27-JAN. 1 ■ Holiday Display. Myriad Gardens, Oklahoma City, Oklahoma. (405) 297-3995.

SOUTHWEST

NOV. 14 & 15 ■ Holiday Sale. Denver Botanic Garden, Denver, Colorado. (303) 370-8187.

NOV. 15 ■ Seasons of Light. Flower show. The University House, Albuquerque, New Mexico. (505) 881-4740.



DEC. 4-6 ■ Noches de las Luminarias. Festival. Desert Botanical Garden, Phoenix, Arizona. (602) 941-1225.

WEST COAST

NOV. 6-9 ■ Fall Plant Festival. Huntington Gardens, San Marino, California. (626) 405-2141.

NOV. 9 ■ Camellia Workshop. Descanso Gardens, La Cañada Flintridge, California. (818) 952-4401.



NOV. 29-DEC. 6 ■ Christmas at Filoli. Filoli Center, Woodside, California. (415) 364-8300.

DEC. 6 ■ Holiday Plant Sale. University of California Botanical Garden, Berkeley, California. (510) 643-2755.

DEC. 8 ■ Four Seasons of Herbs. Class. The Arboretum of Los Angeles County, Arcadia, California. (626) 447-8207.

Back to the Victorian Era

A new feature at the Missouri Botanical Garden is the Kresko Victorian Garden, a modern interpretation of gardens planted in 1885 by Henry Shaw, the botanical garden's founder.

The Kresko Victorian Garden was designed by Environmental Planning and Design of Pittsburgh in consultation with Brent Elliott, the librarian of the Royal Horticultural Society. It features displays of colorful flowers and foliage in 27 geometric beds surrounding a marble statue of Juno.

This Victorian style of landscaping was fashionable in England during the 1800s, when plant explorers began to bring back brightly colored flowers from the tropics.

Evil "Apple" Moves North

Tropical soda apple (*Solanum viarum*), a South American plant that invades pastures and unused land from Tennessee and North Carolina to Florida, has now been discovered in Pennsylvania. Lab tests conducted in Florida have indicated that tropical soda apple may be able to handle winter conditions, although it is uncertain to what temperature. Scientists are now studying the plant's growth at the Russell E. Larson Agricultural Research Center in Rock Springs, Pennsylvania.

Native to Argentina and central Brazil, the tropical soda apple has spread to Africa, Honduras, India, Nepal, and elsewhere in South America. It is a member of the nightshade family and has broad hairy leaves with a white midrib and veins.

In August, the plant was listed under the Federal Noxious Weed Act, which means that it cannot be moved into or through the United States without a permit. There's no reason to think, however, that anyone is transporting it intentionally.

"Weed seeds can be transported by the interstate trucking industry and by imported livestock that may carry foreign seeds in their feces or coats," notes Dwight Lingenfelter, an assistant Extension agronomist at Pennsylvania State University's College of Agricultural Sciences.

Currently, tropical soda apple is controlled by mowing densely infested areas before the plants reach the flowering stage and by spraying with a glyphosate herbicide.

Maine Researcher Hired for Bernheim

Paul Cappiello, a horticulture professor at the University of Maine, has been named director of horticulture at Bernheim Arboretum and Research Forest in Clermont, Kentucky. Cappiello, who researched cold hardiness and evaluated plants for landscape use at his former post, was one of 50 candidates for the Kentucky job, according to Dave Imbrogno, Bernheim's executive director.

The arboretum proper comprises 250 acres of plant collections on 14,000 acres set aside 65 years ago by a distillery owner. Nearly 2,000 acres are open to the public. It includes collections of 700 hollies, 323 crabapples, and 212 maples, and a huge planting of bottlebrush buckeye. For more information, call (502) 955-8512.

On November 8 Cappiello will join three other distinguished speakers—Paul Meyer of Morris Arboretum, Michael Dirr of the University of Georgia, and Rick Darke of Longwood Gardens—in a half-day seminar that will re-establish Bernheim's Henry Y. Offhutt Memorial Lecture Series. For more information, call Judith Hunt at (502) 267-5074.

1996-1997 Contributors

"Words that come from the heart enter the heart." That old saying cannot ring truer as I reflect on the contributors and supporting organizations and foundations listed below. Throughout this 75th Anniversary year we have rededicated ourselves to ensuring that the AHS mission is clearly articulated. And you have responded. Generous donations and bequests are helping us develop plans that will not only ensure the Society's survival, but also provide for growth and change.

As stewards of the natural world, AHS members are dedicated to enhancing and sharing their knowledge about plants, garden design, and the environmental impact of gardening. AHS is the one national organization where gardeners, horticultural professionals, the green industries, policy makers, and the media come together for the advancement of better gardening. Our efforts influence the 72 million Americans who have made gardening the nation's fastest-growing hobby.

Membership dues directly support the Society's active and vital programs to share gardening knowledge, promote responsible gardening, support scientific achievements, advance the horticultural profession, and reach out to communities in need. Every AHS member can be a partner in this enterprise. There are a host of ways you can be involved, through annual donations, volunteering to work on a special event or committee, participating in educational events such as our annual Youth Gardening Symposia, contributing to our nationally recognized Horticultural Intern Program, or becoming actively involved with our Friends of River Farm. I hope you will take the opportunity to join your colleagues and fellow gardeners in supporting the American Horticultural Society. In the words of Winston Churchill, "We make a living by what we get, but we make a life by what we give."

—Linda D. Hallman, *AHS President/CEO*

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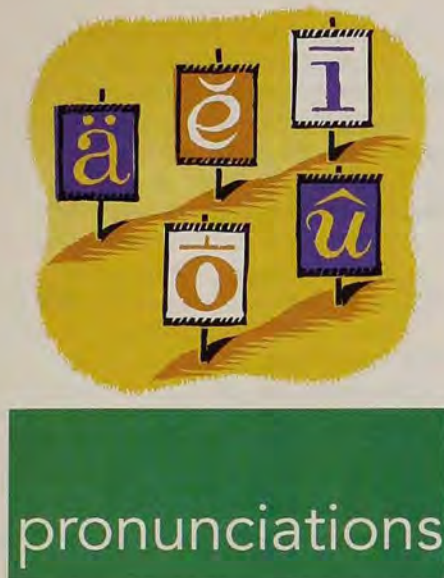
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Answers to Botanical Quiz on page 6

1. breadfruit; 2. grass (Genesis 1:11);
3. chrysanthemum; 4. poppy; 5. kiwi;
6. Johnny Appleseed; 7. banana republics;
8. beanbag chair; 9. grapeshot;
10. lily-livered; 11. peas; 12. War of the Roses;
13. grass widow; 14. shoe trees;
15. upset the applecart.



a simple speaking guide to plants found in this issue

Adiantum pedatum
ad-dee-AN-tum peh-DAY-tum

Allium cristophii
AL-ee-um kris-TOF-ee-eye

Asclepias curassavica
as-KLEE-pee-us
kur-uh-SAV-ih-kuh

Bletilla striata
bleh-TIL-luh stry-AY-tuh

Butea monosperma
BEW-tee-uh
mon-o-SPUR-muh

Calopogon tuberosus
kal-o-PO-gon too-buh-RO-sus

Camellia sinensis
kuh-MEEL-yuh sigh-NEN-siss

Carex limosa
KAIR-eks lih-MO-suh

Chionanthus retusus
ky-o-NAN-thus reh-TEW-sus

Curcuma alismatifolia
kur-KEW-muh
uh-liss-mat-ih-FO-lee-uh

Delonix regia
DEL-on-ix REE-jee-uh

Epidendrum ibaguense
eh-pih-DEN-drum
ih-bag-yew-EN-see

Galax urceolata
GAY-laks er-see-o-LAY-tuh

Hedychium coronarium
heh-DEE-kee-um
kor-o-NAIR-ee-um

Helianthus debilis
hee-lee-AN-thus DEB-ih-liss

Heptacodium miconioides
hep-tuh-KO-dee-um
my-kon-ee-OY-deez

Hexastylis shuttleworthii
hex-uh-STY-lis
shut-uhl-WORTH-ee-eye

Jatropha integririma
JAT-ro-fuh in-teh-JER-ih-muh

Kaempferia
kemp-FAIR-ee-uh

Nephrolepis
neh-FRO-lep-is

Osmanthus fragrans
oz-MAN-thuss FRAY-granz

Pogonia ophioglossoides
po-GO-nee-uh
o-fee-o-gloss-ee-OY-deez

Polygonatum falcatum
pah-lih-GO-nay-tum
fal-KAY-tum

Polypodium polypodioides
pawl-ee-PO-dee-um
pawl-ee-po-dee-OY-deez

Pongamia pinnata
pon-GAH-mee-uh pin-NAY-tuh

Pontederia cordata
pon-tuh-DEER-ee-uh kor-DAH-tuh

Rhododendron canescens
ro-doh-DEN-dron kuh-NES-senz

Sanguinaria canadensis
san-gwi-NAIR-ee-uh
kan-uh-DEN-siss

Sarracenia purpurea
sar-uh-SEE-nee-uh per-PER-ee-uh

Scheuchzeria palustris
skook-ZEER-ee-uh pah-LUS-triss

Symplocarpus foetidus
sym-plo-KAR-pus FEE-tih-dus

Theobroma cacao
thee-o-BRO-muh kuh-KAY-o

Tibouchina urvilleana
tih-boo-KY-nuh
ur-vil-lee-AN-uh

Toxicodendron vernix
tok-sih-ko-DEN-dron VUR-nix

Yucca aloifolia
YUK-uh ay-lo-ih-FO-lee-uh

Y. baccata
Y. buh-KAY-tuh

Y. faxoniana
Y. fak-son-ee-AN-uh

Y. filamentosa
Y. fil-uh-men-TOH-suh

Y. flaccida
Y. FLAS-sih-duh

Y. harrimaniae
Y. har-ih-MAN-ee-ee

Y. pallida
Y. PAL-lih-duh

Y. recurvifolia
Y. rek-ur-vih-FO-lee-uh

Y. rupicola
Y. roo-PIH-ko-luh

Y. schidigera
Y. ski-DIJ-ur-uh

Y. schottii
Y. SHOT-ee-eye

Y. torreyi
Y. taw-RAY-eye

Y. treculeana
Y. trek-yew-lee-AN-uh

Y. whipplei
Y. WHIP-lee-eye

What's in a Name: *Symplocarpus foetidus*

Commonly known as skunk cabbage, this native of northeastern North America and northeastern Asia is a rhizomatous perennial commonly found in swamps, stream edges, and moist woodland sites. Its common name stems from the pungent smell produced when its rounded, cabbagelike leaves are bruised. Other evocative common names include polecat weed, swamp cabbage, skunkweed, and parson-in-the-pulpit. It is the sole species in this genus, which is part of the arum family (Araceae).

The genus name—derived from the Greek *symploke*, which means connection, and *karpos*, which means fruit—refers to the way the plant's ovaries combine to form a single fruit. The species name means stinking or malodorous.

In late winter or early spring, skunk cabbage sends up a short, fleshy, barrel-shaped inflorescence (spadix) enveloped by a mottled, hoodlike spathe that helps insulate the flowers from cold air. The bright green basal leaves emerge shortly after in tight coils, unfurling slowly around the spathe up to two feet high. Pollinators include both honeybees and numerous kinds of flies; the latter are apparently attracted by the putrid odor given off by the plant. After pollination, the spadix becomes a compound fruit, releasing marble-size fruits as it blackens and decomposes.

Although the leaves contain calcium oxalate crystals, which can cause irritation of the mouth and throat, Native Americans used the dried leaves as a pot herb and ground the rhizomes into a flour. According to John Eastman in his book *Swamp and Bog: Trees, Shrubs, and Wildflowers of Eastern Freshwater Wetlands*, early American physicians used the rhizomes as an antispasmodic to treat epilepsy and asthma, and the leaves as a poultice for skin irritations.

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