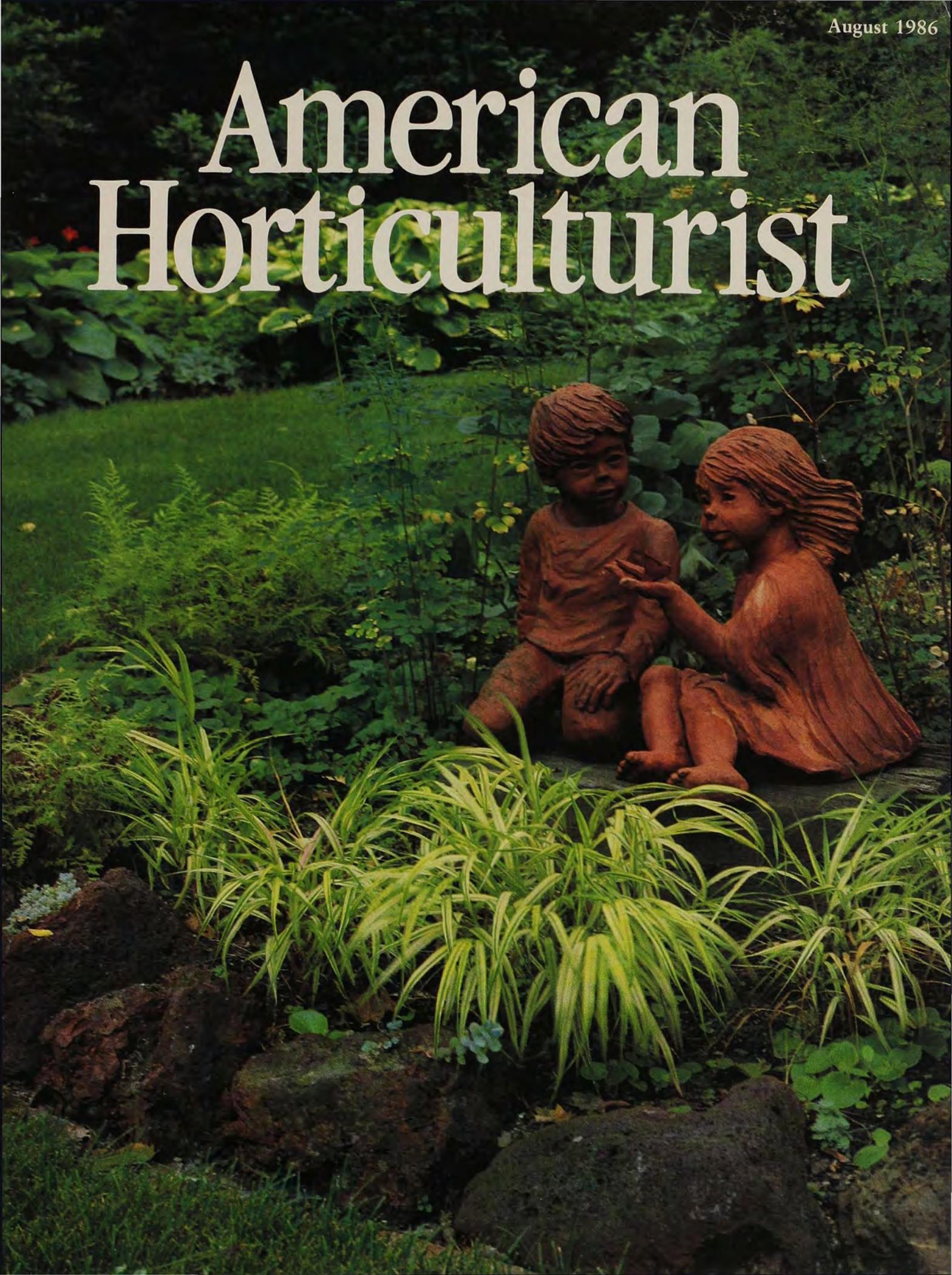


August 1986

American Horticulturist



Help Save America's Endangered Wildflowers



Mark W. Skinner

Hummingbirds are the primary pollinators of *Lilium bolanderi*, which is just one of the spectacular native plants featured in the American Horticultural Society's 1987 *Endangered Wildflowers Calendar*.

Many of America's most treasured wildflowers are threatened with extinction. In fact, experts estimate that 10 percent of the species and varieties native to the United States are in jeopardy. Over 50 taxa have already disappeared.

Help save our endangered wildflowers by purchasing the American Horticultural Society's 1987 *Endangered Wildflowers Calendar*. Funds raised from sales will be used to support conservation projects. To order your calendar, turn to page 42.

Contents



A suitable home for surplus plants when the Washington Cathedral's Hortulus ("little garden") was redesigned, this tiny triangular garden later became a focal point in its own right. Unlike the nearby Hortulus, this garden has no special design, but both the assorted heights of the plants within it and the varying colors and leaf textures contrast delightfully. Behind the triangle is a sundial made from the head of a thirteenth-century pillar. For more on the redesigning of the Washington Cathedral Herb Garden, join Jeanne Shojaat on page 17. And to learn more about sundials, see "Sundials" on page 10. Photograph by Alexandra K. Scott.

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On the Cover: Garden sculptures such as this striking terra cotta boy and girl add an air of artistry to an already beautiful garden. In fact, ornamental sculpture and gardens seem to complement each other quite naturally. Traditional ornaments, such as bird baths and sundials, can do much for an empty corner, while less traditional pieces can add an element of surprise and delight for the garden visitor. To learn more about how one Ohio man combines sculpture with his garden, turn to "An Art Gallery Garden" on page 20. Photograph by Pamela Harper.

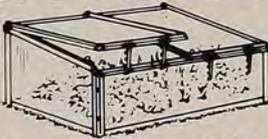
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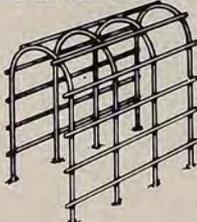
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A Challenge

The Society's Annual Meeting this month in San Francisco marks the end of my term as President of the Board of Directors and the beginning of Everitt Miller's term as my successor. Everitt Miller has served on the Society's Board of Directors for four years, and has held the position of First Vice President for the last two years. Many of you will also recall that he was awarded the Society's prestigious Liberty Hyde Bailey Medal in 1983 and is the former Director of Longwood Gardens in Kennett Square, Pennsylvania.

Changes in Board composition are, of course, mandated by the Society's bylaws. Changes in our organization's outlook and the ways we serve our members are not governed by such clear-cut rules, and there is always a tendency to cling to the old adage "If it ain't broke, don't fix it." But if the American Horticultural Society is going to continue to serve American gardeners from all walks of life, it must continue to examine and improve its existing programs as well as plan and implement new ones.

One of the things that differentiates a Society membership from merely a subscription to a gardening magazine is the opportunity for members' active participation. Clearly, not all of the Society's diverse and geographically separated members can be expected to participate in the many Society-sponsored events, including tours, meetings and symposia. Nevertheless, there is a need for better communication among the Society's members, board and staff. We must design more outreach programs that will not only promote greater cooperation with sister societies and clubs, but will also encourage thoughtful response from our membership and help the Society face the challenges in the years to come.

The need to balance the traditional and proven activities of an enduring institution like the American Horticultural Society with the changing lifestyles of its members is one of those challenges. To achieve the goal of providing the most useful horticultural information to its many diverse members, the Society needs to encourage open communication among its membership. Although all members receive the Society's publications, it is unfortunate that few members realize the value their feedback could have in maintaining the health and well-being of the organization.

The Society needs to know when it is doing a good job and when it is not. If members don't exercise their right to communicate their opinions, there will be a natural tendency among the policy-setting committees to assume that changes are not needed.

In short, members who participate actively can only strengthen the Society. I believe the greatest challenge I can leave my successor is to find and promote ways to improve the channels of communication among us all.

Edward N. Dane

—Edward N. Dane

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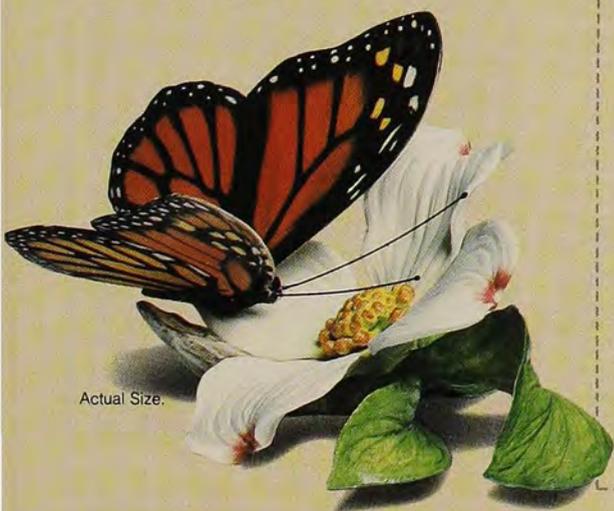
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Astilbes

As a gardener, I am learning to value and admire astilbes for their unique beauty. Their attractive leaves retain a high gloss, and their flowers are both striking in color and unusual in form. If their simple cultural demands are met, they offer a long period of bloom during the summer months, filling the garden with feathery spires for many weeks.

Astilbes are herbaceous perennials that belong to the Saxifragaceae, or saxifrage family. These lovely plants have dark green, compound, fern-like leaves that are divided two to three times into toothed or cut leaflets. The plants produce showy panicles of flowers in shades of white, pink, lilac, red and crimson. Each flower has two or three pistils and eight to 10 stamens. The widely branching inflorescences make the feathery flowers very attractive. Since a single plume may contain hundreds of florets, the overall effect is often spectacular.

Astilbes are attractive when planted in drifts or as companion plants. They blend well with other perennials such as *Monarda*, *Primula*, *Iris* and *Hemerocallis*. Specimen plants are also effective, since the foliage, bloom and shape of each plant can be appreciated from all sides. However, the position of one isolated astilbe must be carefully chosen. A single specimen is best planted against a dark background—perhaps a dark-leaved conifer. This single-plant treatment has been so successful in my Chicago-area woodland garden that I have used several of these special plants, giving each a different position and a different background.

Astilbes require very little care. Providing semi-shade and adequate moisture are the key to their successful cultivation. If you decide to grow astilbes, try to choose a location that offers very light shade; astilbes are reasonably happy in full sun or dappled shade, but they will not survive in dense shade. The soil should be rich in leaf mold and humus, with ample moisture and drainage. (Astilbes are ideal plants for moist woodlands or locations near water.) Dry conditions lead to red spider attacks, which can be controlled by hosing the plants



Astilbe simplicifolia 'Sprite'

every now and then. It is easier to prevent red spider infestations than to cure them.

When planting in colonies, allow about 18 inches of space between large plants. The smaller cultivars need less space between plants—eight to 10 inches. This spacing will allow for full development.

Astilbes are heavy feeders, so you should give them an annual dressing of compost, well-rotted manure or garden fertilizer. Be sure to provide them with plenty of moisture during their growing season; otherwise, the plants will perish. Since astilbes are relatively shallow-rooted, a mulch will help prevent heaving in the winter and drying out in the summer.

Astilbes can be propagated by division or by removing rooted offsets. This is done in early spring in the colder regions, and in the spring or autumn in the warmer regions. Since the fibrous root clumps of astilbes are quite heavy and tight, plants should be divided every three or four years to keep them vigorous. Their fibrous root systems make it possible to move plants anytime, even when they are in flower.

Astilbes can also be propagated by seed

sown in early spring in a greenhouse or cold frame. Plants should be pot-grown for a season, and will bloom the second year from seed.

There are many species and cultivars of astilbes from which to choose. Your choices will depend on what is available through plant catalogues. There are a few tall selections suitable for a shaded spot or a waterside garden, including *Astilbe chinensis* var. *davidii*, a robust plant from China whose rose-purple flowers on upright, two-foot-long branchlets are carried on stems reaching six feet; *A. rivularis*, with spiky panicles of flowers that range from yellowish-white to reddish and are borne on four- to five-foot stems; *A. taquetii*, a rigid, stately, two- to three-foot-tall plant with spikes of bright reddish-lilac flowers; and *A. grandis*, with creamy-white, three-foot-long panicles on stems of up to six feet.

Of the medium-height species, *A. japonica* is the best known. It bears true white flowers in loose panicles on stems that are from one to two feet tall, and blooms early in the spring. *A. chinensis*



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PLANTS FOR THE LANDSCAPE

grows from 18 inches to three feet in height, and sports panicles of white blossoms flushed with rose or purple.

There are some astilbes that are small enough for rock gardens, too. *A. chinensis* 'Pumila' sports flattened mats of dissected leaves, above which rise short, stiff flower spikes on six- to 12-inch stems. The flowers are rosy-pink frosted with bluish-lavender. This cultivar will self-sow in suitable locations, and comes true to form from seed. *A. simplicifolia* is a late-season bloomer. Its leaves are glossy, deeply lobed and toothed. It bears small white to pale pink flowers on six- to 12-inch-long stems. *A. simplicifolia* 'Alba' has pure white flowers. Another cultivar of *A. simplicifolia*, 'William Buchanan', displays creamy-white flowers on nine-inch stems over a compact bushlet of crimson-tinted, dissected leaves. 'Sprite' is another charming cultivar, with pink flowers and beautiful foliage.

In the early twentieth century, two growers—Lemoine in France and Arends in Germany—carried out extensive hybridizing of astilbes, giving rise to the *A. × lemoinei* and *A. × arendsii* hybrids. These two garden hybrids, produced in Holland and Germany, contain many named cultivars that are widely available. Among the tall to medium-high cultivars are the whites, which bloom from early spring to August: 'Deutschland', 'Snow Cloud', 'Gladstone', 'Bridal Veil' and 'Avalanche', to name a few. The pinks include 'Queen Alexandra' (deep pink), 'Gloria Superba' (rose-pink), 'Peach Blossom' (pale peach-pink), 'Rheinland' (clear pink), 'Astro Rosea', (rose-madder flowers on red stems) and 'June' (deep rose). Some of the reds and crimsons are 'Fanal' (carmine-red and bronze foliage), 'William Reeves' (dark crimson flowers, red stems and bronze foliage), 'Feuer' (deep crimson), 'Red Sentinel' (glistening, rich red flowers), 'Bremen' (deep crimson flowers on short stems), 'Etna' (bright crimson-red) and 'Koblenz' (glowing, light red blossoms).

All of these astilbe cultivars are easily grown and readily available. (See "Sources" on page 43 for a list of mail-order suppliers.) They are valuable additions to any garden that offers shade and moisture, and are horticultural beauties to be treasured and shared with other gardeners. 🌱

—Mrs. Ralph Cannon



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Mrs. Ralph Cannon received her doctorate from the University of Chicago and is now retired as Professor Emeritus from that institution.

Garden Plans

Garden plans aren't for everyone. Many people can go through their entire lives without ever seeing their gardens on paper. One accomplished gardener I know refuses to measure anything. The shapes of her borders, for example, are laid out with a hose, which she jiggles around till the line "feels right." As for trees and shrubs, she walks around her garden and plunks broomsticks



Stone paths and walls give this private garden a sense of permanence and structure.

down in what seem to be appropriate spots. Then, just to make sure, she asks her husband to stand with his arms "out like an oak." If the design still isn't quite right, he obligingly moves about like a chess piece till the spot is chosen or it is tea time.

For those gardeners without spouses or friends willing to stand around like oak trees, or for those who cannot visualize what they want their garden to look like, plans can be important tools, particularly when it comes to planting large numbers of trees and shrubs. A plan will also help keep a gardener honest. On a bare site, large or small, container-grown trees and shrubs can look quite insignificant, and the temptation to jam in a few more for immediate effect is often overwhelming. A plan that shows the mature dimensions of each specimen drawn to scale can help the gardener avoid this temptation.

In addition, a plan can help break preconceived patterns and encourage a bit of abstract thinking that can result in the formation of new spaces and perhaps more exciting relationships between them. Many homeowners who design their own landscapes get caught in the trap of their gardens' existing layout and their daily routines within it. As they walk the same route from garage to house, from back porch to vegetable garden, day after day, year after year, their senses become accustomed to

the surroundings; it becomes difficult, if not impossible, to see the surroundings differently or to imagine changing the basic structure. (This staleness of perception is one reason plantings tend to huddle around foundations or to hug property lines.) Occasionally, they may widen or narrow a walk, but rarely do they consider moving it entirely and striking out into new turf.

From a plan perspective, you see the entire garden as if looking down from an airplane, not just one section at a time. From this "height," the layout can be viewed more objectively, and the fundamentals are clearer. Once you become familiar with this new way of looking at your garden, it becomes easier to see how areas relate to each other and to begin playing with alternatives.

Drawing a plan to scale is not difficult for a relatively small site (anything up to a couple of acres), as long as grade changes aren't too dramatic. The equipment needed is minimal and can, for the most part, be purchased at an art or architectural supply store: cloth measuring tape (50 to 100 feet) that winds back into its case (some people prefer metal); bamboo stakes to mark off measurement points; a pad of graph paper ($\frac{1}{4}$ -inch squares, 18 inches by 12 inches, or larger, if available); a drafting pencil, soft leads (B and HB), and a sharpener; soft erasers; a roll of yellow, 24-inch-wide

Then cross these with lines at periodic points to form a grid. This grid will help you site trees, shrubs and borders. On the outline of the house, mark out the positions of doors and windows, and think about what you might enjoy seeing from each one. Now is also the time to think about how you use these rooms during the day and throughout the year.

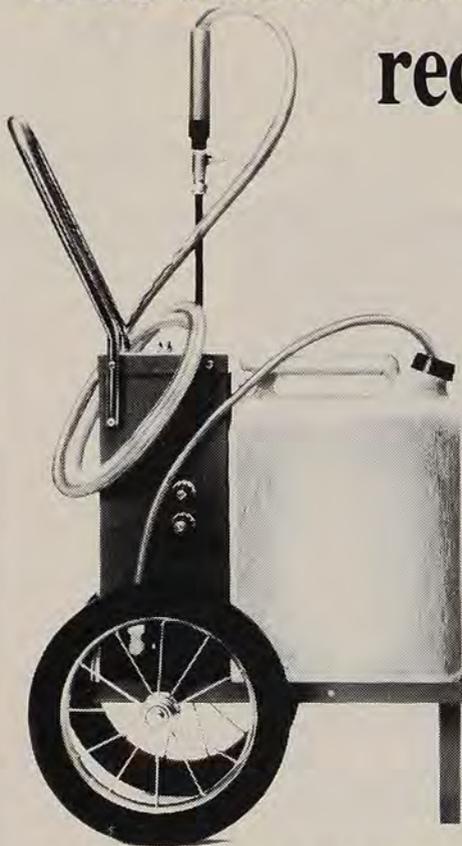
Once you have established the site dimensions and located the major features of your landscape, you can transfer the information on the graph paper to the yellow tracing paper. At this point, it is important to select a workable scale appropriate to the size of your site and the level of detail you'll be working with (for example, $\frac{1}{4}$ inch = 1 foot for an area of shrubs, or $\frac{1}{2}$ inch = 1 foot for something like a perennial border).

After you have transferred the fundamentals (trees, house, existing shrubs, etc.), you can begin roughing out the various use areas, both as they exist now and as you would like to see them in the future. A color code system will help keep the whole thing somewhat legible as you bring more factors into play. You might use dark green lines to indicate paths and general circulation patterns—for instance, to show how you can get from the back porch to the garage or compost pile, or from the terrace to the proposed pond. Yellow could

tracing paper; felt-tip pens of various colors; a T-square; and finally, triangular rules of various sizes ($\frac{1}{4}$ -inch, $\frac{1}{8}$ -inch, $\frac{1}{16}$ -inch). Begin drawing your plan outdoors, in your back yard, for example. First, select a fixed line or lines, such as the edge of your house or drive. Or you can establish an arbitrary point and run your line off that point. From these lines, draw perpendicular lines at five- or 10-foot intervals.

Margaret Hensel

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THE DESIGN PAGE

be used to outline potential children's play areas, red to indicate flower borders and so forth. The idea is not so much to make pretty pictures or to get it just right the first time as it is to stimulate ideas and alternatives.

You might also find it helpful to write down ideas directly on the yellow tracing paper. Walk to the front door. Is the walkway wide enough? How about perennial borders on either side? Fragrance? Color? Sequence of bloom? Should the yews be pulled? Could the concrete path be changed to brick? Ask yourself what would happen if you were to shift a path, change its direction or eliminate it entirely. Then draw out a few lines on your plan and see what the alternatives look like and how they affect your experience as you walk along the path. Also, consider what the changes you are considering might do to surrounding areas. During these flights of fancy, it is often the most insignificant observations or intuitive flashes that develop into interesting design solutions, so don't ignore what may seem like trivial thoughts in hopes of coming upon some big design breakthrough.

Each time a piece of tracing paper gets too crowded, tear off a fresh piece and lay it over your last set of scribbles. This way, you can locate permanent structures and features, and select some of the best concepts or begin anew without an accumulated clutter of ideas. Later, you can go back and sift out the parts that seem to fit together into a workable whole.

There are many factors to consider when drawing a plan for an enjoyable and personal garden or landscape. One of the most important is flexibility. Every garden is in a constant state of change, from season to season, year to year and even generation to generation. Any plan that tries to stop this natural evolution results in a garden that looks like a stage set—often beautiful, but also stale after the first half a dozen evening performances. In a border, some plants may die out, while others mushroom into magnificent specimens you hadn't imagined. Or a gnarled apple tree might fall into a path and, still alive, provide just the reason you needed to shift the path's direction (and character) into an adjacent meadow of lupine—a lovely effect far removed from the circles and green arrows on your yellow tracing paper. ☺

—Margaret Hensel

Margaret Hensel is a landscape designer and writer living in western Massachusetts.

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Last summer I installed an antique sundial in the center of our back garden. It was not an easy job, since the type I purchased is a variation of the armillary sphere, consisting of a set of three interlocking rings, each of which is about 19 inches in diameter. All of the rings are held up to the heavens by a tiny figure of Atlas. One ring holds a copper band inscribed with numbers representing the hours of the day; the second ring supports an arrow that acts as a gnomon to cast the sun's shadow; and the third, inscribed with degrees of latitude, supports the other two and is attached to the Atlas figure.

This device requires a solid support—one that is perfectly level and plumb, yet high enough to be read with ease and still be in scale with the rest of the garden. Luckily, I had an old two-foot-long concrete drainage tile—six inches square and perfectly plain—that could be used as a support for the dial. An afternoon's work—along with a bag of ready-mix concrete, some gravel and a carriage bolt to hold the sphere's base—turned this tile into the base for a garden ornament that is both aesthetically pleasing and practical.

I dug a foot-deep hole, lined it with gravel for proper drainage, topped the gravel with a concrete block, then placed the tile six inches below the surface of the ground. I then filled the hole with concrete (making sure it flowed freely into the base), inserted the carriage bolt and smoothed the area around the bolt's threaded tip. I left everything alone for three days to allow the concrete to dry. Finally, under a brilliant afternoon sun, I bolted the base of Atlas to its new pedestal after using a compass to make sure the arrow pointed north. Then I adjusted the vertical ring that Atlas holds so that it agreed with our latitude, and watched the shadow of the arrow's shaft pass just beyond the numeral "3." With a rapidly beating heart, I glanced at my watch. It read 3:05. The date was April 13. Miraculous!

About Sundials

The sundial is an instrument that indicates the time of day by the shadow cast on the



A sundial in the herb garden at Fernwood in Niles, Michigan.

surface—marked to show hours or fractions of hours—of an object on which the sun's rays fall. Any object whose shadow is used to determine time is called a gnomon (originally from the Greek *gnomos*, meaning "one who knows"). The shadow-casting object is usually a style, pin or metal plate.

Poles, upright stones or possibly bones were used as gnomons by early man. For example, when on the hunt, advance scouts of Indians in Labrador would set a stick upright in the snow and mark the line of the shadow that was cast. About three hours later, the women of the tribe would appear, heavily laden with fuel and provisions. By noting the difference between the present shadow and that marked by the men, they would know whether they had time to rest before continuing on their way.

Most of these ancient "sundials" were so makeshift that they did not last through the ages. The true sundials—both portable and permanently fixed types—were probably first used either in Egypt or in Mesopotamia. The oldest existing sundial is an Egyptian instrument (circa 1500 B.C.) consisting of a flat stone on which is fixed

an L-shaped bar, much like a carpenter's square. The bar's short, vertical limb casts a shadow that is measured by markings on the longer horizontal limb.

In the first century A.D., the accuracy of sundials was greatly improved when it was discovered that by setting the gnomon's direction parallel to the earth's axis, the apparent east-to-west motion of the sun determined the swing of the shadow. However, the development of sundials slowed during the so-called Dark Ages that led up to the projected end of the world set for 1000 A.D. Finally, the world "awoke" in 1001, the church renewed its interest in the holy calendar, and time-keeping advanced once again.

Yet time continued to be only a way of marking intervals between church holidays, which were important to the astrologers and astronomers. For most people, morning, noon, afternoon and evening were all the measurements needed to live through a typical day. Therefore, it is not surprising that the sundials and water clocks of antiquity were more or less unpredictable in their ability to measure the passage of time accurately. It was not until a successful pendulum clock was invented by the Dutch scientist Christian Huygens in the middle of the 17th century that mankind at last had a timepiece that was accurate.

During the Renaissance, sundials of great complexity and fantastic design were developed. By the 1600's installation had become so simple that any carpenter or homeowner could lay out the hour lines with a high degree of accuracy. The most familiar design then—as now—was the round or square plate of metal inscribed with numerals and topped by a triangular gnomon, which was usually placed upon a pedestal. Almost as popular were the vertical dials, which were often installed in public squares on the south side of the town hall. Unlike the horizontal varieties, these sundials had to face exactly south and were read counterclockwise.

Floral sundials were also common during the Renaissance. Live flowers were used to make the dial, and the gnomon was usually a trellis covered with vines. These sundials were sometimes so elaborate that they defied description. Lady Warwick of Essex, whose garden included a floral dial, wrote, "Never was such a perfect time-keeper as my sundial, and the figures which record the hours are all cut out and trimmed in box [*Buxus* spp.], and there again on its outer ring is a legend which reads in

whatever way you please: *Les heures heu-reuses ne se comptent pas* [The happy hours cannot be counted]. They were outlined for me, those words, in baby sprigs of box by a friend who is no more, who loved my garden and was good to it."

Sundials based on armillary spheres like the one in my garden were also popular. These were eventually simplified to form the equatorial dial, which consisted of two half-circles, one of which held the numbers, and the other, the arrowhead gnomon.

Finally, there was the noon cannon, a design that originated in the early 17th century and was honored by Noel Coward in *Mad Dogs and Englishmen* with the lines, "In Hongkong / they strike a gong / And fire off a noon day gun / To reprimand each inmate / who's in late." This particular dial used a brass-mounted lens with an adjustable arm to focus the sun's rays on a charge of black powder; thus, a tiny cannon exploded with the arrival of noon. Noon cannons were often used in the 19th and early 20th century on plantations in India to let workers know when it was time for a rest.

One of the largest and most unusual sundials ever made is in Jaipur, India. Constructed in approximately 1724, it covers almost an acre of ground and has a gnomon over 100 feet high with a complete observatory on top.

Among the more interesting and ingenious sundials constructed in England was that of Sir Isaac Newton. Newton's dial consisted of a small, circular mirror that was fixed to a windowsill and reflected the sun's rays on the ceiling of his room, which was painted with hour lines and numerals.

Another unique sundial was executed in stone in 1622 by Nicholas Stone, a close associate of British architect Inigo Jones. The sundial was designed by Edmund Gunter (the man responsible for the terms cosine and cotangent) for the King's Privy Garden at Whitehall. It consisted of a dozen dials that showed a dozen different astrological times and surrounded a large, concave dial at the center. In 1699, the Reverend Francis Hall, a professor of mathematics at Liège, designed and built a great pyramidal dial for Charles II in the same garden that consisted of 271 different and smaller dials showing the time according to the Babylonian, Italian, Jewish and astronomical ways of counting. In addition, the dial included various other figures associated with contemporary astronomy, geography and astrology.

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GARDEN ORNAMENT

During the Revolutionary War in America, portable dials were used instead of watches. George Washington owned such a dial, which he carried, along with a compass, in a delicately wrought, oval-shaped, silver case. Even when watches came into general use by the 18th century, most people felt they could not depend on such mechanical contrivances, and the local sundial was still used to check for accuracy or to set the time.

Finally, the French developed an instrument called the heliochronometer, which employed the sun to cast the shadow of a fine wire on a carefully calibrated dial. This instrument was used to set the watches of all the French railroadmen until the early 1900's.

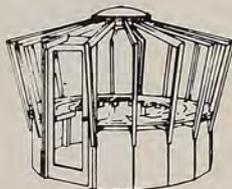
The Sundial in Literature

Allusions to sundials in literature are plentiful. For example, Paul Hentzner (1558-1623) wrote of walking about the gardens of Whitehall, where playful gardeners had installed water jets around the garden's sundial. When unwary visitors bent to glance at the time, they were sprayed from head to toe.

Andrew Marvell (1621-1678) wrote the following about floral clocks: "How well a skilful gardener drew / Of flowers and herbs this dial new, / Where from above the milder sun / Does through a fragrant zodiac run; / And as it works, the industrious bee / Computes its time as well as we. / Be reckoned but with herbs and flowers?"

Later, Batty Langley (1696-1751), when writing of the state of gardens in general, suggested that the intersections of all garden walks be adorned with statues, and these in turn, surrounded by groves, evergreens, flowering shrubs and sundials.

Charles Lamb (1775-1834) spoke eloquently of sundials when he wrote about Temple Gardens: "What an antique air had the now almost effaced sun-dials, with their moral inscriptions . . . holding correspondence with the fountain of light! How would the dark line steal imperceptibly on, watched by the eye of childhood, eager to detect its movement, never caught, nice as an evanescent cloud, or the first arrests of sleep! What a dead thing is a clock, with its ponderous embowelments of lead or brass, its pert or solemn dulness of communication, compared with the simple altar-like structure and silent heart-language of the old dial! It stood as the garden god of Christian gardens . . ."



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Many authors became very attached to the time-keeping devices. For example, it is said that when Sir William Temple (1628-1699) died, his heart was sealed within a silver box and, with great ceremony, buried beneath the sundial in his garden.

Mottoes on the Dial's Edge

Throughout the centuries, sundial aficionados have not only written about the time-keeping devices; they have also felt compelled to inscribe mottoes on the dials themselves. Among the mottoes that have appeared around the outer edges are "I count none but sunny hours," which is a corruption of a motto chosen by Queen Alexandra for the sundial at Sandringham: "Let others tell of storms and showers, I'll only count your sunny hours"; and "A clock the time may wrongly tell, I never if the sun shine well." The ever-popular "Grow old along with me, the best is yet to be" is also found on many dials.

More unusual mottoes, featured in an early 20th-century book entitled *A Book of Sundials*, include the one on the dial installed in the King's Garden, Holyrood. Presented by Charles I to Queen Henrietta Maria, it read, "United in time, parted in time, to be reunited when time shall be no more."

A dial in the garden of Harriet Martineau read, "Come light visit me." Appropriately, the dial of a public house near Grenoble noted, "This is the hour of drinking." Other intriguing mottoes include "Some come some go, this life is so" and "My heures are made of sun and shade, take hede of what your heures be made." A favorite line of mine written by Publilius Syrus (c. 42 B.C.) would be perfect for inscribing on a gnomon: "Even a single hair casts its own shadow."

Sundial Time

Scientists recognize three principal types of time: sidereal, apparent solar and mean solar.

Sidereal time is used mainly by astronomers. It is a measurement of the time it takes for one complete rotation of the night sky, that is, the time required for a star to return to the same spot overhead that it occupied the night before (about $\frac{1}{365}$ of a year).

Apparent solar time measures the solar day and is read on a sundial. It is the time it takes for the sun to appear in the same spot in the sky, day by day. These measurements add up to about $365\frac{1}{4}$ solar



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GARDEN ORNAMENT

days, which equals one solar year. Now, instead of changing our clocks by one-quarter of a day each year, we use a 365-day year with one 366-day leap year every four years.

The method of measuring time using leap years was introduced long ago, in the days of Julius Caesar. However, by 1582, time measured in this way did not reflect the proper season, since a year is really 365.2422 days long. The Georgian calendar then skipped 10 days to compensate for this difference, and new leap year rulings were made to take up the excess time: century years (1800, 1900, 2000, etc.) would not be leap years unless they were evenly divisible by 400. Therefore, 1800 and 1900 were not leap years, but 2000 and 2400 will be.

It is surprisingly difficult to keep accurate time by the sun alone. Because of gravitation, the earth travels at different speeds as it journeys along its orbit. As a result, sundials are absolutely correct only four times a year: December 25, April 16, June 15 and September 1. The rest of the time, they are either slow by as much as 16 minutes or fast by up to 14 minutes. By consulting a chart called the "equation of time," sundial owners who are particular about accuracy can adjust their instruments to match their watches.

The third form of time, mean solar time, averages out the differences in apparent solar time and gives us an artificial but exact 24-hour day.

In addition to the three major types of time recognized by scientists, there is earth time. Since it is impossible for each place on earth to have its own local time based on a noon hour (that is, when the sun is directly overhead), the earth has been divided into standard time zones. Each of these zones is 15 degrees longitude in width; 360 degrees represents the whole earth. The time in two neighboring zones differs by one hour. Thus, if you move east, you set your watch ahead; west, you set it back. The Royal Observatory in Greenwich, England, is the place where earth's time zones begin and is considered 0 degrees. In the United States and Canada, four standard time zones were adopted by the railroads in 1883 and were eventually adopted by the citizens and the government. The zones were named Eastern Standard, zone 5; Central, zone 6; Mountain, zone 7; and Pacific, zone 8. Intercolonial, or Provincial, time corresponds to the 60th meridian and is one hour earlier than Eastern Stan-

dard time. It is used by Halifax and a few adjacent cities in Canada.

If you live directly on a time meridian for the particular time belt in which you live, your dial will register the standard time of your region. Time meridians (found by multiplying 15 degrees by your zone number) for the various zones in the United States are as follows: Eastern, 75th; Central, 90th; Mountain, 105th; and Pacific, 120th. If you live east or west of these lines of longitude, the time shown on your sundial will be earlier or later than the actual standard time of your region.

Installing Your Sundial

When you buy a horizontal sundial, the manufacturer usually asks your latitude or sends you a dial with an average setting for the United States or Canada. (The width between the numerals should be plotted for your particular latitude.) The armillary type can be easily adjusted to your specific situation.

When installing a sundial or using the portable variety, keep in mind that the place upon which the instrument sits must be absolutely level. Any deviations will change the gnomon's shadow and will result in an incorrect reading. For the same reason, the gnomon must be absolutely perpendicular to the earth's surface.

Any sundial that you may find will be of use in your garden. However, you will probably have to adjust your dial for it to show reasonably correct time. If you are a purist, you will need to plot compass points to magnetic north and not true north.

If you wish to forgo complicated instructions, just set your sundial in place about noon. When there is no shadow on the dial except a mere slit and the gnomon is pointing due north, the gnomon's shadow is exactly on the north-south axis of the earth, and it is noon in your garden. Of course, it might not be noon according to the radio or your clocks, since you will be reading apparent solar time.

Our remote ancestors were far less conscious of time than we are. Today, the only peaceful and unhurried time left to us may be the time spent in the garden. There, the dark line moving slowly across our figured dial tells us that there is still time to linger before the night drives us back inside. ☼

—Peter Loewer

Peter Loewer is a botanical artist and scientific illustrator who writes and illustrates his own books. He is the author of *Gardens by Design*, published by Rodale Press.

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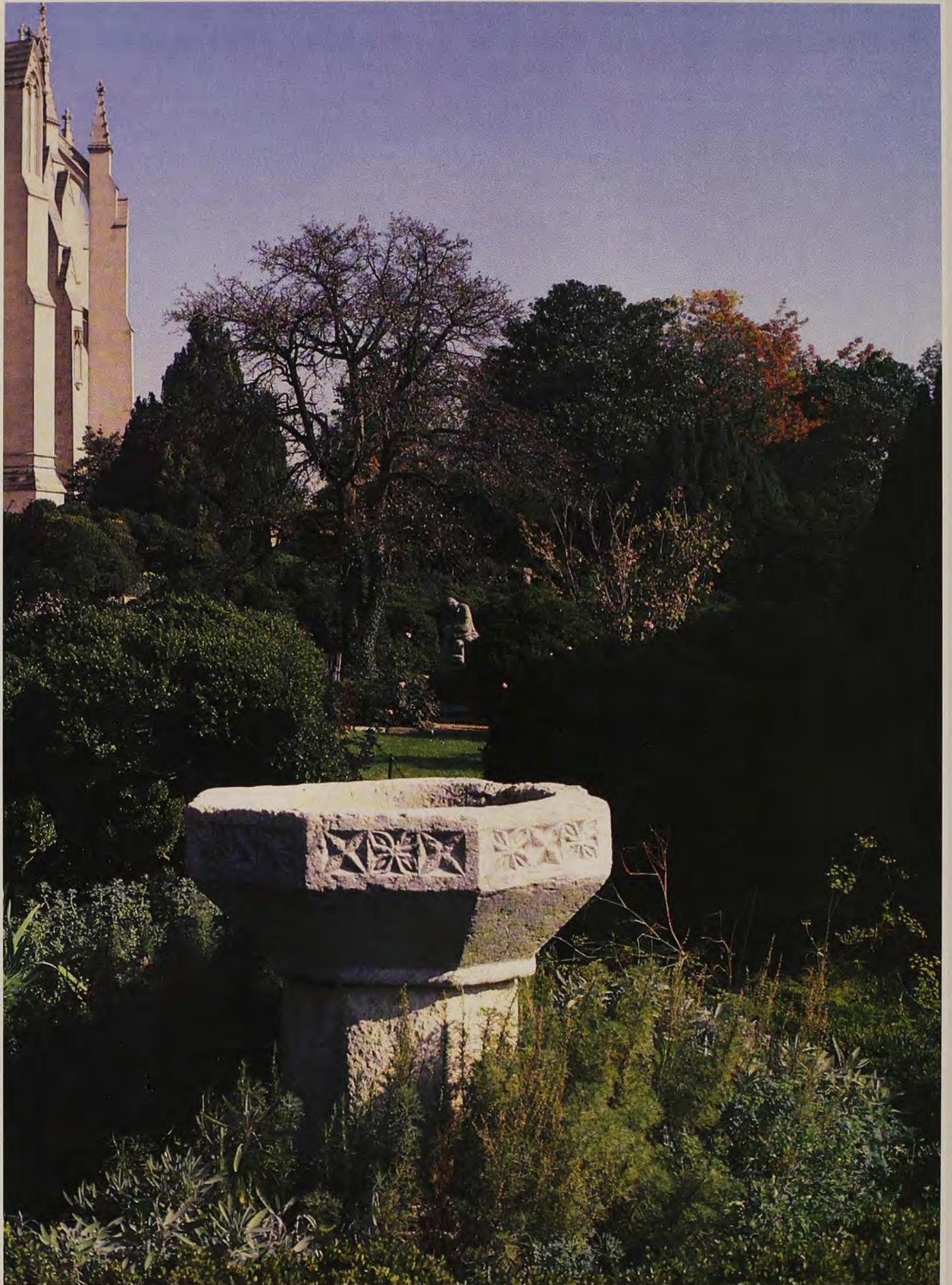
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HERB GARDENS

At the Washington Cathedral

TEXT BY JEANNE SHOJAAT
PHOTOGRAPHY BY ALEXANDRA K. SCOTT



Take one herb garden, redesign it, move the old herbs to another space, and voilà—you have two gardens. That’s what happened in the Bishop’s Garden at the Washington Cathedral, a sunny, walled refuge in Washington, D.C., filled with boxwood, roses and a multitude of other plants.

It all began with plans to redesign the Hortulus, or “little garden,” a small square of herbs surrounding a baptismal font that dates back nearly to the time of Charlemagne. The stone font, which was originally used at the Abbey St. Julie on the River Aisne in France, was carved in about 835 A.D. Since the font was the garden’s focal point, the Hortulus had originally been designed to include only those plants known to be grown in the ninth century

LEFT: The stone baptismal font in the Hortulus or “little garden” at the Washington Cathedral was originally carved in 835 A.D.
ABOVE: Boxwood hedges and brick walks set off the new triangular herb garden at the Cathedral.

A.D. However, over the years, various herbs had been added to the Hortulus with little regard for their historical authenticity. Cathedral horticulturist Peter McLachlan thought that the garden was getting “too mixed up,” and decided to redesign it to reflect the plantings of a typical medicinal and fragrance garden during the Carolingian period.

Before replanting the Hortulus, it was necessary to do some historical research. The arduous task of digging into the medieval past fell to Suzanne Miller, Assistant Garden Chairman of the All Hallows Guild when the garden was being planned.

Miller’s research revealed that “hortulus” is the Latin word for a small garden. A typical hortulus is described in a poem written in 849 A.D. by Walafrid Strabo, a Benedictine monk who was once Abbot of Reichenau Abbey. In his poem, originally entitled *Liber de Cultura Hortorum* (*The Cultivation of Gardens*) but later called *Hortulus*, Strabo described the making of his garden—the laying out, digging, ma-



nuring and planting—and the plants that he grew from seeds, roots and cuttings. He referred to his hortulus in the section of the poem entitled “Catmint” (*Nepeta*): “Among the herbs my garden is always renewing / The sprigs of catmint grow as brisk as any. / Its leaves are like the nettle’s, but the scent it casts / So lavishly round its tall head is passing sweet.”

Medieval gardeners who tended small kitchen or courtyard plots in Europe divided vegetables into two categories: legumes (*legumina*) and roots. Legumes included field crops such as beans, peas and edible herbs. Roots included such vegetables as leeks, onions, carrots and garlic. Everyone, from peasants to bishops and kings, had plots near the house; these gardens provided the two types of vegetables.

Research led Mrs. Miller to three sources for lists of plants used in the Carolinian (742-814 A.D.) and Carolingian (751-987 A.D.) periods: Strabo’s poem; edicts issued in 812 A.D. (*Capitulare de Villis Imperi-*

alibus) that listed plants to be grown in Charlemagne’s own royal gardens; and *The Plan of St. Gall*, drawn in about 820 A.D. on parchment, which mapped out a Benedictine monastic community. In his poem, Strabo mentions sage, rue, lad’s love or southernwood (*Artemisia abrotanum*), gourds, melons, wormwood, horehound, fennel, iris, lovage, chervil, lily, opium poppy, clary, mint, pennyroyal and celery, as well as betony, agrimony, tansy, catmint, radish and rose. Charlemagne lists (among others) onions, garlic, leeks, shallots, parsley, coriander, dill, lettuce, savory, parsnips, cabbage, beets and corn cockles (*Agrostemma githago*). *The Plan of St. Gall* shows an ideal monastery drawn to scale. In addition to the church, monks’ and abbot’s quarters, guest houses, kitchens, infirmary, workshops and animal buildings, the plan includes several gardens and an orchard/cemetery. It also shows both a vegetable and an herb garden, with separate beds and the name of a plant on each bed; a total of 33 plants are listed in the two gardens.

When it was time to lay out the beds in the Washington Cathedral’s Hortulus, Miller consulted both *The Plan of St. Gall* and Strabo. “*The Plan* shows rectangular

herb and vegetable gardens with rectangular beds,” she said. “Strabo writes of facing his patch with boards and raising it in oblong beds a little above the ground. We have raised beds in the Hortulus with stone edgings.” The beds in the Cathedral’s Hortulus are curved, and the plants are mixed in the beds. “It is the plant material that makes the Hortulus a Carolingian garden,” explained Miller.

“Of the 24 plants Strabo describes as growing, I included 18 when we planted the garden,” she continued. “We planted 29 varieties, and the other 11 came from the two other Carolingian lists: the *Capitulare de Villis Imperialibus* and *The Plan of St. Gall*. Of the 33 plants in the gardens of St. Gall, 19 are in the Cathedral’s Hortulus.”

It wasn’t easy to find a few of the plants on the three lists. Some of the original plants are considered weeds today, according to Peter McLachlan, a Scotsman who has been caring for the Cathedral’s 52-acre grounds for the past 23 years. For example, he had difficulty finding *Chrysanthemum parthenium*, or feverfew.

The Carolingian garden in Washington, D.C., is square, with four outer beds enclosing a circular walk around the inner

ABOVE: A variety of herbs, which once were planted in the Hortulus, surround a sundial fashioned from a thirteenth-century Gothic capital. RIGHT: The purple flowers of bee balm brighten the newly created herb garden at the Cathedral.



beds, which in turn circle the font. The outer beds include old-fashioned tansy, southernwood, catmint, feverfew, horehound, lovage, betony, costmary, wormwood, parsley and chicory. Fifty madonna lilies, as well as lamb's-ears, coriander, dill, tarragon, chervil, chives, garlic, fennel, orris root (*Iris* × *germanica* var. *florentina*) and summer savory, also ring the path.

Arranged in four crescents next to the font, the inner garden is a combination of varying shades of green and differing textures. The herbs include rue, rosemary, feverfew and sage. McLachlan has also planted an annual species of *Nigella*, or fennel flower. He would rather have planted *N. sativa*, commonly called black cumin or Roman coriander, but it is hard to find—in fact, he is still looking. “The original garden had no meaning,” said McLachlan. “Now it is an authentic planting that would please the monk Strabo and Charlemagne, too.”

When the Hortulus was redesigned, many herbs had to be removed. Fortunately, there was a semi-triangular garden nearby that could serve as a suitable home for the surplus plants. The triangle, filled with vinca as a ground cover and underplanted with purple-blue-flowered grape hyacinths, was

a delightful plot covered with blue flowers for a few weeks in the spring. Unfortunately, it was also choked with wild onions and was uninteresting for the rest of the season. Cathedral gardeners had to spend one day a week weeding the garden—a poor use of their time, for they were responsible for the upkeep of the entire 52-acre Cathedral grounds. McLachlan decided this troublesome spot would be the perfect place for a new garden, as the herbs would be easier to manage than the vinca and the wild onions.

First, the gardeners killed off all the perennial weeds in the triangle, leaving only a large rosemary plant that had grown there for 40 years. Then they planted herbs: more rosemary plants (*Rosmarinus officinalis*); artemisias, including dusty-miller, wormwood and southernwood; English thyme; winter savory; four types of lavenders; and comfrey. Visitors to the Cathedral's triangular garden will also find santolinas—gray-foliaged *Santolina chamaecyparissus* and green-foliaged *S. virens* ‘Pretty Carroll’—as well as dill, lemon thyme, golden sage, bergamot, dwarf sage, rue, French thyme, tansy, woodruff and lovage. There is also a classic hybrid tea rose, ‘Peace’, planted years ago, and a rare perennial

copper fennel (*Foeniculum* sp.) that McLachlan says is difficult to find these days.

At the end of the triangle, standing where it has been for years, is a sundial made from the head of a thirteenth-century Gothic pillar. The gray-greens, yellow-greens, purple-greens and solid greens of the different herbs in the garden contrast delightfully, as do the varying textures of leaves and the assorted heights of the plants. When the herb triangle is in bloom, the red, purple, yellow and blue flowers illuminate the garden in the summer sun.

Unlike the nearby Hortulus, which has a strict design, the new herb garden has no special design. Tall plants are generally found in the middle of the triangle, while lower and spreading herbs are at the edges.

McLachlan believes the new garden is much more interesting now. He is trying to devise a labeling system so that visitors can identify the many herbs as they stroll around the triangular garden, getting ideas for their own gardens, or just watching the shadows on the sundial and the bees hovering over bergamot and thyme flowers. ☉

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An Art Gallery Garden

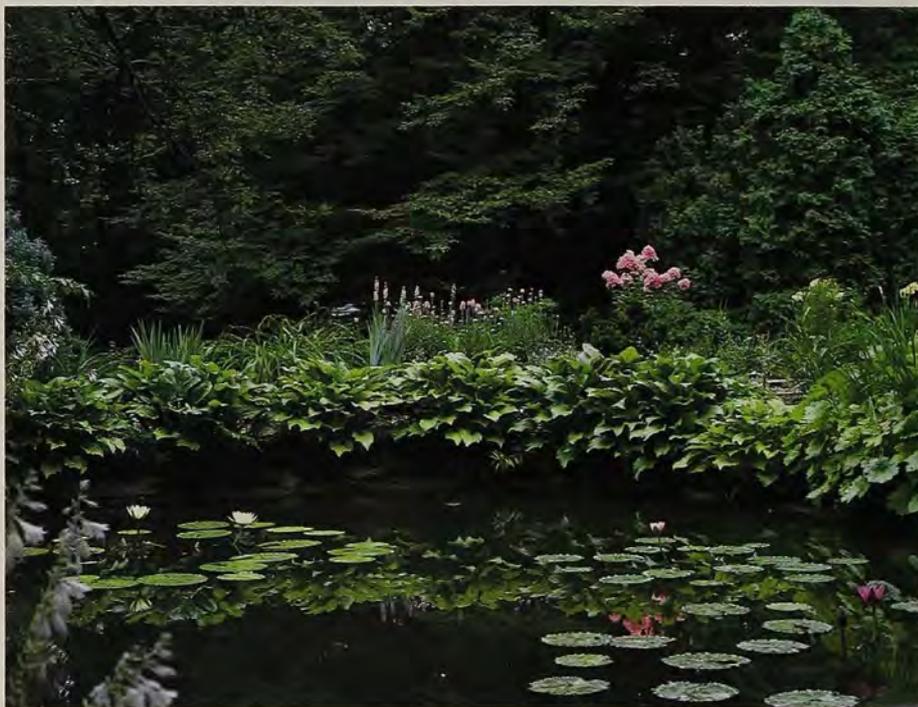
TEXT & PHOTOGRAPHY
BY PAMELA HARPER

The hand of a plantsman and artist is immediately apparent as you pull up outside the Meyers' Ohio house. In the corners where the front path meets the sidewalk, great blue-green leaves of *Hosta sieboldiana* rise up over a carpet of dark green creeping euonymus (*Euonymus fortunei* var. *radicans*), providing contrast in color and form.

There isn't a front fence or hedge, and the white stucco house is visible from the road. Instead of the customary open sweep of grass, the house is tucked away behind a large informal pool—a watery “island bed” that measures approximately 40 feet by 25 feet. When the Meyers bought the property, a ravine ran across what was to become the front garden. The area was filled in except for the lowest part, where a stream had run, which was left to form the pool. Although the pool filled—and remains filled—by natural drainage of the land, it dried out at first and had to be lined with concrete.

Across one end of the pool is a bridge leading to the house. Flat-topped wooden rails provide a resting place for the elbows, creating the perfect place to pause in the cool shade of ash and hickory trees. Here, the visitor can enjoy the tropical water lilies floating on pellucid water clear enough to reveal the goldfish swimming just below the surface. Originally, there were a couple dozen goldfish in the pool; now there are 200 to 300. At first, the pool was cleaned out occasionally by a septic tank service, but the task of rounding up the goldfish became too great, so the pool hasn't been cleaned now for six or seven years. It seems to have found a natural balance; mosquitoes aren't a problem, because the goldfish eat the larvae.

The pool still leaks a bit, but Meyer has turned this problem to advantage by rimming the pool with moisture-loving plants. Between these and the island beds of plants runs a bark mulch path. “I love paths,” Dick Meyers says, and there are many in the garden. Two kinds of hostas are massed



TOP: Tropical waterlilies decorate a water garden surrounded by large-leaved hostas at the Meyer's Ohio garden. ABOVE: Cobblestones, astilbes, *Hosta* 'Royal Standard' and a simple wooden bench share an island bed with a sculpture of a gazelle's head, which was created from a steel I-beam. RIGHT: Japanese painted fern complements a replica of *Tête de Femme*, by Modigliani.



on the pool's edge: a gray-green form of *H. fortunei*, with quantities of pale violet flowers that appear in July; and the brighter green leaves of 'Royal Standard', which bears its almost-white, fragrant flowers in late summer. There are also Japanese irises and the big, rounded and scalloped leaves of umbrella plant (*Peltiphyllum peltatum*), which is native to the West Coast and easily grown in moist soil; its starry pink flowers appear in early spring, growing in clusters the shape of inverted saucers on two- to three-foot stalks. From the slight elevation of the bridge, visitors can see the bright pink flowers of *Phlox* 'Dodo Hanbury Forbes' reflected in the water of the pool.

Basking on a rock beside the pool—looking for all the world like an advertisement for a save-the-seals campaign—is a sculpted white baby seal. Combining plants and sculpture is by no means a new idea, but the Meyers' Ohio garden made me wonder if we look too much to the past and the classical tradition for garden sculpture. This is the first private garden I have ever seen that serves as a showcase for the work of talented modern artists.

My first visit wasn't nearly long enough. I would probably never have left the restfulness of the pool had a friend not said, "You can't miss this," and led me away. As we traversed a path of round millstones of varied size, placed with the seemingly random artistry usually associated with Japanese design, we discovered two black-and-white sculpted penguins strutting among hostas, ferns and late-summer-flowering hardy begonias (*B. grandis*, formerly *B. evansiana*).

Whether or not the gardener finds time to sit on them, seats are among the most satisfying of garden features. In a quiet corner above the millstone path, a bench stands on a carpet of bark mulch, surrounded by spring-flowering shrubs, ground covers and wildflowers such as Solomon's-seal (*Polygonatum*), foamflower (*Tiarella*) and *Jeffersonia*. In spring, a carpet of Virginia bluebells (*Mertensia*) appears; the leaves eventually become untidy, and Meyer has found that he can cut them away long before they wither completely, without damaging the plants, which multiply rapidly. On the summer day of my first visit, Meyer's art training was apparent in the placement of a container of impatiens—a bright splash of red in an otherwise serenely green area. The sculpture displayed in this secluded nook is a replica of *Tête de Femme*, a long-necked Modigliani.

At the back of the house are borders and island beds of perennials, punctuated by flowering shrubs and conifers set among

bright green grass. The original lawn became infested with an invasive grass called nimblewill, a well-known scourge in the area. Weed killers cannot get rid of it without also killing the lawn, so the old sod was removed and a fresh start made. When the earth lay bare, Meyer so admired the contrast between the brown earth and the growing plants in the island beds that he toyed with the notion of forgoing a lawn in favor of a redwood-chip mulch—an idea abandoned when he realized that wood chips float in heavy rain and would probably end up in the pond.

This is a wooded lot—there is ash, oak, alder, beech and sycamore—so there is an ample supply of shade. Plants that do well in the shadiest beds include Lenten rose (*Helleborus orientalis*), *Thalictrum*, primroses, ferns and hostas. One of the best plants for dry shade is *Epimedium*, of which there are 10 kinds in this garden; the flowers are white, yellow, pink or orange. Day-lilies, which did poorly in the shade, are now grown in the sunnier beds.

In one long, island bed there is a mat-forming succulent plant known to rock gardeners as *Orostachys iwarenge*. Here it is used in quantity as an edging plant that follows the front curve of the border. This ribbon of blue-gray provides visual continuity that binds the border together. Meyer waxes poetic when describing the plant's changing appearance at different times of year: when wet with dew or rain, it "sparkles more brightly than diamonds"; when it puts up its myriad small, flowering spikes,

it "looks like a forest of tiny conifers." The yellow flowers are tiny, but they are a great attraction for bees. The gray color of the foliage is a wonderful harmonizer. Meyer is particularly pleased with a combination of the orostachys with Japanese bloodgrass, *Imperata cylindrica* 'Rubra', a striking two-foot-tall grass with blades of ruby-red. After flowering, the orostachys looks a bit untidy, so Meyer trims off the flowering stems with shears. Unfortunately, the stems can't be pulled off without uprooting the plants, but if they are still present in the spring, they can be gently removed with a broom rake.

In one island bed sits a cockerel weather vane. Because weather vanes are customarily placed on a roof, the element of surprise adds to its impact here on the ground. Weather vanes come in an infinite variety, and Meyer tosses out, free for the taking, the idea of a whole garden devoted to displaying this art form.

On the July day of my first visit, the most striking piece of sculpture in the garden was a terra cotta boy and girl by a well-known Ohio sculptor, Anne Entis. This figure is striking not only in itself, but also for the artistry with which it is combined with plants in a circular bed under a walnut tree—yes, a walnut tree. The front of the bed is edged with lava rock of mingled gray and terra cotta coloring. Between these rocks and the sculpture is a sweep of *Hakonechloa macra* 'Aureola', an exceptionally beautiful grass with low-arching blades of creamy yellow streaked with green



ABOVE: A terra cotta boy and girl by Ohio sculptor Anne Entis are surrounded by ornamental grasses (*Hakonechloa macra* 'Aureola'), hostas and maroon-leaved coleus. RIGHT: Two stone-ware raccoons perch on a featherstone boulder surrounded by *Matteuccia pensylvanica* and *Dryopteris cristata*.



and pink. To one side is a large patch of coleus, with velvety leaves of a dark reddish-plum, a color repeated in the pink veins of the gray-fronded Japanese painted fern (*Athyrium goeringianum* 'Pictum', formerly *A. nipponicum* 'Pictum'). Meyer says he has seen lists of plants that won't grow under walnut trees, but he has never seen a list of those that will. Other plants that have grown successfully under the walnut tree include *Thalictrum*, many kinds of fern, *Begonia grandis*, *Tiarella*, hostas, *Polemonium* and annual begonias.

Across the lawn, in another island border, the yellow of the *Hakonechloa* is repeated in the bold, yellow-edged leaves of *Hosta* 'Frances Williams'. In the Meyers' garden, aesthetics and practicality go hand in hand—as they must for success in this most exacting of art forms. In a single night of busy chomping, slugs can ruin the beauty of hosta leaves. When slug pellets failed to prevent his hostas from being damaged, Meyer tracked down Slugit, a liquid slug killer made in England. Spraying this solution on the leaves has kept the slugs well under control.

On the edge of one island bed is a planting that always attracts the attention of visitors. Sempervivums, sedums and other rock plants that prefer fast drainage fill the crevices of broken rock as if nature had put them there. To achieve this natural look, Meyer takes pieces of lava rock approximately two feet by 1½ feet in size, buries them halfway into the soil, then takes a sledgehammer and breaks them into three or four chunks: "The pieces all fit together

like a jigsaw, just like Mother Nature had done the job herself by the freezing and thawing method." He warns that you can't get this natural effect by trying to assemble a lot of unrelated stones: "They just don't look right."

Under a sycamore tree stands a simple wooden semi-circular bench, which follows the trunk contours and stands on a half-moon of cobbled paving. The cobbles, called Sunburst, were bought from local stone merchants and are used to give a change of texture. On one side of the seat, clumps of hosta and astilbe—excellent companions for textural contrast—grow in the paving. On the other side, on a millstone plinth, stands a gazelle's head. Sculptured from a steel I-beam, it is one of a limited edition of five by Albert Wilson. On a winter's day, the gazelle's delicate curving antlers create a dark silhouette against the snow and match the outline of the shadows of small tree branches—a stark but lovely composition in black and white.

After lingering at each fresh composition, I nearly missed the one that, for me, remains the most memorable. Tall, feathery ferns (*Matteuccia pensylvanica* and *Dryopteris cristata*) rise up behind and flow around a large featherstone boulder. On the boulder stand two black-masked raccoons, sculpted in stoneware by John Seymour. They look so right for this time and place, and much more appropriate than the commonplace classical urn or concrete cherub made trite by overuse. Seymour's sculptures of birds and animals, including the seal pup by the pool and the strutting

penguins, are among Meyer's favorites. "Could I afford them?" I wondered aloud. The cost is less prohibitive than I would have expected; small pieces of Seymour's work can be bought for under \$100, among them songbirds, a chipmunk, an owl, a sea gull and a baby raccoon.

The Meyers have lived here for 37 years. There have been—and will continue to be—many changes. Dick Meyer advises new gardeners not to "try to do it all at once." He began with the foundation plantings, relying on nurseries for guidance. "It was boring," he says, and later the plants were changed to include dwarf conifers, which were one of his earliest gardening passions. When I asked him to name a few specific favorites, he merely said, "To paraphrase Will Rogers, I never met a dwarf conifer I didn't like."

Privacy is important to the Meyers, so the second step was to fence the rear of the property. Although they were told that solid fences more than three feet high violated the building code, they went ahead and installed a fence anyway, pleading that cypress stockade fencing isn't solid!

"When you do something, do it thoroughly," says Dick Meyer, who attributes many gardening failures to inadequate preparation. He dug all the beds deeply, and added perlite and peat moss to make the clay soil more porous and less alkaline. He uses sulfur for plants that are most in need of acid soil (rhododendrons, for example) and adds superphosphate to every planting mix. Perlite is expensive when used

Continued on page 33

Ruminations on KITCHEN HERBS

BY FREDERICK MCGOURTY

One candle-lit evening a dozen years ago, my bride-to-be enticed me with my first pesto, that ethereal sauce combining fresh basil leaves and garlic. It was love at first bite, and I wondered where this delicious and versatile concoction—equally at home on top of spaghetti or in soup—had been all my life. Certainly not in the staid Italian restaurants of my youth. Admittedly, I had a protected childhood; the principal culinary work in our home was the 1943 edition of Irma Rombauer's *Joy of Cooking*, which didn't mention pesto at all and included just a couple of fleeting references to garlic. In those days, garlic wasn't often used west of the Hudson River, except in bad jokes.

That was the era of creamed vegetables, chicken à la king and chipped beef, not to mention casseroles. The only basil that was known to Main Street Americans had the last name of Rathbone.

Basil, garlic, tarragon and a host of other herbs have come a long way since the 1940's, and the herb garden itself is no longer the preserve of slightly dotty, generally harmless old women whose closets smell of lavender sachets. Even *Joy of Cooking* has been liberated, and revised editions by Marion Rombauer Becker and Irma Rombauer recognize pesto. Culinary herbs have come into the mainstream as our diets and tastes have changed. As a result, American cooking is much more imaginative than it used to be, and the sale of herb plants has boomed.

Herbs always used to be grown together in one section of the garden, and herb gardening evolved somewhat separately from other kinds of gardening. Indeed, there was a special lore associated with herbs, and there was comfort in having the traditional plants bound together in tidy rectangles of dwarf boxwood and lavender. Plant cul-

ture was frequently made easier, too, because many of the basic herbs have similar growth requirements.

A Pickle Among Dills

Even today, a good case can be made for keeping herbs intended for culinary use separate from plants grown exclusively for ornamental purposes—if the latter are going to need spraying. More than once I have inadvertently showered the feathery leaves of dill with a systemic fungicide meant for summer phlox, which gets mildew as readily as a dog gets fleas. (Systemic, it should be remembered, refers to poison taken up *within* the plant.) Since I don't like dill, my wife accused me of absent-mindedness the first time, and of sabotage the second. I lamely replied that one can be absent-minded twice.

Ever since then, Mary Ann has grown dill only in the vegetable garden, where no systemic pesticides are used, and we reserve the ornamental bronze-leaved fennel (*Foeniculum vulgare* 'Atropurpureum') for spots in the perennial border where a gossamer effect is desired. The height of this anise-scented herb is about four feet. Plants are short-lived perennials, but usually self-sow, sometimes to the point of being pesty in mild climates. They consort well with the cherry-red, summer-flowering *Phlox paniculata* 'Starfire' or the white-flowered cultivars such as 'Mt. Fuji' or the September-blooming 'World Peace'. *F. vulgare* 'Atropurpureum' mingles nicely with taller sorts of silver-leaved perennials, too, including *Artemisia ludoviciana* and its kin, 'Silver Queen' and 'Silver King'. Fennel leaves have an anise taste that Mary Ann doesn't like, so no part of the plant ever reaches our kitchen table, spraying or no spraying. The art of gardening has a lot to do with marital compromise.

In most gardens, there are a few sound reasons for incorporating herbs where they will best fit in aesthetically, rather than having them isolated in a single area. Most gardens today aren't large enough for specialized plantings. Also, although the carefully designed herb garden is a joy to see in May and June, it usually becomes unkempt by midsummer unless many of the rank-growing sorts—and there are many—have been cropped almost to the ground. Of course, until lush new growth reappears, this kind of drastic pruning leaves gaping holes, which are all the more conspicuous if a number of wayward herbs are planted together.

Some traditional herbs are first-rate ornamental plants, and it seems a shame to restrict them to a little corner of the garden instead of casting them into the mainstream, as is usually done in England. Once, when designing a perennial border for a client, I mentioned that I planned to work in some sage and lavender because of the buffering effect their cool gray or gray-green foliage has on other plants. I was taken aback by my client's reaction: "But they are herbs, and I want a *perennial* border." I was tempted to inquire whether she wanted a ghetto or a garden, but temperance prevailed, and gray-leaved artemisias were substituted. The fact that artemisias are considered herbs in the conventional sense, or indeed that most herbs are perennials, was lost upon her, but I do hope she is enjoying her perennial border.

A Kitchen Border

Mary Ann and I like to grow a wide range of plants and have no formal herb garden

Laurus nobilis, commonly called bay laurel, is a useful and attractive herb that can be container grown in areas where it is not hardy.



as such. Near our kitchen door, however, a small border does include a mixture of kitchen herbs and a few ornamental sorts that haven't been used much lately, such as lady's-mantle (*Alchemilla mollis*), which alchemists employed in the Middle Ages. This species grows a foot tall and tolerates dry shade better than most plants do. It has handsome, blocky, gray-green foliage with pronounced lobes, and water has a way of forming glistening, almost silvery beads on the leaves after a rain or a dewy night. The chartreuse flowers, which appear in June, are esteemed more by flower arrangers than by zinnia growers. However, they are quite pleasant when combined with *Gaillardia* and *Geranium* 'Johnson's Blue'. Should we forget to remove the inconspicuous clusters of spent *Alchemilla* blossoms (as is often the case during an indolent July), there are seedlings growing in awkward spots the next year. But, it takes just a few minutes to remove the unwanted plants—if we are in a tidying mood. The excess plants are then moved to a nursery area, potted and eventually sold.

Our kitchen border is convex, curving for a length of 22 feet to extend the line

of a small back porch—one that is just large enough for two deck chairs, a grill, four cats or one Labrador retriever, and an inordinate number of potted plants. The border is six feet wide at its broadest point and is bounded by lawn on one side, and on the other, by a fieldstone path so we can weed in the back of the border without stepping into it any more than necessary. (Most plants, including herbs, grow best in fairly loose earth that roots can penetrate readily, and they falter in soil that is compacted by human feet.) Between the fieldstone path and the house are several shrubs, near the base of which lady's-mantle consorts with scillas, a hellebore or two, and oriental adonis, each planted for an early-spring serenade. The border faces southeast, and most of it receives six hours of sun—just enough for the sun worshipers, which most herbs are—but the back part is shaded by the shrubs.

The shrubs are a mixed lot, including an uncommon spice bush from the Orient, *Lindera angustifolia*, whose aromatic, narrow leaves turn brilliant tawny-orange, then buff-colored, before falling in late autumn; a Japanese holly that resembles the traditional herb garden accompaniment,

English boxwood, which we avoided because its brittle branches break easily in heavy snows; and a hybrid yew, which has been kept sheared to three feet high and eight feet wide, and protects some of our herbs from the hot afternoon sun.

Sweet cicely (*Myrrhis odorata*), a stout-growing herb with finely cut, light green foliage like that of the lady fern, grows here and there among the shrubs, softening the somber green foliage of the yews and providing a lacy contrast to the holly. This plant is a charmer, with flat clusters of white flowers that appear in May and inch-long, anise-scented seeds that I find refreshing to chew on a warm June day. In fact, every part of the plant has an odor of anise. I occasionally add a few fresh chopped leaves to a salad as a welcome change of pace from tarragon (*Artemisia dracunculus*). (Tarragon, incidentally, is one of the least attractive plants in the garden and should be placed where it is inconspicuous.) A sprig of sweet cicely in iced tea is unexpectedly pleasant, too. These plants perform best in partial shade. To forestall the premature yellowing of foliage that is sweet cicely's weak point, and to encourage a flush of good foliage later



Pamela Harper

in summer, we frequently cut stalks back sharply in late June. Plants grow three to four feet tall and are vigorous enough to emerge through pachysandra.

Alliums for All

Times change, and the ubiquitous sour-cream-and-chives topping for baked potatoes 20 years ago has become, in our cholesterol-conscious era, yogurt and chives. Chives are eternal in the garden of any good alliumophile, and they can even overcome yogurt. The principal culinary species is *Allium schoenoprasum*, which makes a hummock of rounded, but otherwise grass-like leaves and bears dainty flower clusters that run the gamut from lavender to pink in May or June—quite a pleasant sight with blue or white columbine. This is the ideal cut-and-come-again crop, since a few leaves here and there can be taken for a salad or, even more drastic, the plant may be given a crew cut if a lot are needed. The foliage grows back in several days. If you forget to buy onions at the market, you can always substitute the somewhat milder-flavored chives. Just two or three plants are ample for most families.

It is best to avoid using chives as an edging for a border surrounded by grass. The foliage is too similar, and inevitably, the grass will sneak into the clumps when your back is turned. Instead, I would suggest putting a few plants of *Veronica incana* in front. This species' low, gray foliage sets off chives well, and its spikes of blue flowers, which grow to about 10 inches tall, complement the chives' bloom.

Allium is, of course, the generic name for onion, and there are 400 or so species growing wild somewhere in the world, a fact that I enjoy contemplating. Oddly enough, the common onion (*Allium cepa*) is of garden origin and is not known in nature, but I will hardly discriminate against it for that reason. Many of the alliums are fine ornamental plants if the spent flower clusters are removed and not allowed to set seeds, which often have a higher fertility rate than rabbits. Some alliums, it must be admitted, are weeds, and the world cannot eat enough of them to keep the upper hand. A certain number of alliums, including shallots, leeks and garlic, elevate cooking from the mere preparation of food to the status of an art.

Traditional chives (*A. schoenoprasum*) are of modest garden merit unless one is lucky enough to have a form with either clear pink flowers or blossoms that are borne well above the foliage tufts. In the

border, I prefer the garlic chive (*Allium tuberosum*), which has strap-like leaves (easier to harvest and prepare), grows to 2½ feet in height, and bears three-inch-wide clusters of white, star-shaped flowers in late summer, when bloom in many gardens is sparse. The taste of the chopped foliage is more pungent than that of common chives, but I have never thought of it as garlicky, despite the common name. Kitchen chives are for relatively subtle dishes, while garlic chives are better suited to Braunschweiger and pumpernickel sandwiches.

Suitable garden companions for garlic chives in a sunny spot include pink turtle-head (*Chelone obliqua*), *Physostegia* 'Bouquet Rose' and Japanese anemones, all of which are in the three-to-four-foot category. Another potential mate is 'The Fairy' rose, with its abundant, small, pink flowers. You might try some low-growing blue plumbago (*Ceratostigma plumbaginoides*) in the foreground. Bear in mind that garlic chives can also soften the brassiness of late-summer yellow composites such as rudbeckias and heleniums.

Allium senescens has no common name, although it is grown under a number of other botanical names not currently recognized by botanists. This is another species of chive that combines utility with attractiveness. Because it is native over a very wide range (from Europe to the Pacific), the gardener might expect this species to be variable, and indeed it is. One common garden sort has flattened, green leaves with a pronounced twist; its pink flowers have a lavender tinge and are borne in flat clusters on top of 18- to 24-inch stalks. Blooms appear in midsummer. Although not an exciting plant in itself, it complements purple coneflower (*Echinacea purpurea*) well, softening that perennial's raspiness when it is used in quantity.

The twisted chive, *Allium senescens* var. *glaucum*, a Far Eastern variety of *A. senescens*, is a lovely end-of-summer bloomer. It is only six or seven inches tall when the rosy-pink flowers open in August. The gray-green leaves are sickle-shaped and, when new growth begins in spring, are arranged horizontally in a characteristic circle. To be truthful, the foliage is so nice I haven't had the heart to pluck it for salads. Twisted chives look well in a raised bed, especially if they are allowed to mingle with the common annual edging plant, sweet alyssum (*Lobularia maritima* 'Carpet of Snow'). They are also attractive in small groups toward the front of the border. As with other alliums, the site should be sunny and the soil well drained. However, these are not fussy plants.

Curley Parsley

One of the handsomest edging plants for a border is parsley (*Petroselinum crispum*), at least the curly-leaved sort that one sees today. It is refined and goes well with practically everything in the garden, as it does in the kitchen. Parsley is a biennial; the slow and erratic germination of its seeds led to the old saying that parsley seeds go nine times to the devil and back before coming up, and he keeps some of them. Instead of growing parsley from seed, we buy young plants in spring and set them six inches apart in the front of a border. Sprigs are available for picking all summer, and in autumn, we pot several plants to grow during the winter in the kitchen. Parsley does not transplant well, so we pot a couple more plants than are actually needed. Once adapted to the house, they put up with subdued light and low temperatures, but they need to be watered more often than most plants. They usually stagger through to March unless the whiteflies get the best of them.

We sometimes let parsley overwinter in the garden. In spring, these second-year plants produce a flush of new foliage for a month or two, but then flower and die. To avoid gaps, parsley is therefore best treated as an annual.

In ancient times, parsley was associated with death, and victors at funeral games in Greece were given wreaths made from it. Later, the phrase "to be in the parsley" was used in reference to someone on the deathbed. The term "Welsh parsley" meant the gallows.

Parsley happens to be of Mediterranean origin, but it is not at home in the parched surroundings one associates with that region. Plants grow best in garden soil to which compost or peat moss has been added. The site need not be in full sun, and if the soil is not moisture-retentive, plants should receive light afternoon shade.

Bear in mind that parsley's foliage lends a fresh spring-green color to the garden until December, even in a very cold climate. A prolonged garden scene can be produced by grouping parsley with lamb's-ears (*Stachys byzantina*), *Lamium maculatum* 'Beacon Silver', *Lamiastrum* 'Berman's Pride', *Pulmonaria* 'Mrs. Moon', *Salvia officinalis* or *Lavandula angustifolia*, all of which have long-lasting, silvery or gray-green leaves. Parsley also looks well with the reddish, late-season foliage tints of coralbells (*Heuchera*), *Bergenia* or *Epi-medium* × *rubrum*. You can even eat it if it gets to be a bore, although most people are happy just toying with it on the plate.

Mentha × *gentilis* 'Variegata' has striking, brightly striped foliage.

Mints

The mints are not very good garden plants because they spread so rapidly underground, but it is nice to have a patch or two near the kitchen door if friends drop in unexpectedly for dolmas or juleps. Peppermint and spearmint fend for themselves quite well on poor sites and are thoroughly at home in light shade. Ideally, they should be planted to one side, out of the garden, and kept honest by the blade of a lawn mower. Running water nearby makes them really romp, but such a rare site should be reserved for watercress.

In the garden, mints are thugs, and they should be fully recognized as such before they abuse the rights of fellow herbs with less invasive root systems. The solution, of course, is confinement—in a bucket sunk in the soil, with the rim slightly above ground level, for they will try hard to escape. Old plastic wash buckets work well. Brown buckets, which blend with the surroundings, are preferable to kelly green ones. Poke a few holes in the bottom of the bucket with an ice pick to allow for drainage. Every two years it will be necessary to take up the mint and set it back again in replenished soil, but this procedure is preferable to pulling the strands of its invading roots from choked plants nearby every year.

For kitchen use, I am fondest of apple mint (*Mentha suaveolens*, formerly *M. rotundifolia*), whose rounded, inch-wide, hairy leaves are easy to pick and are excellent for iced tea. A variegated cultivar called pineapple mint (*M. suaveolens* 'Variegata') appeals to some; to others, its cream-and-green leaves suggest herbicide

injury. Orange mint (*M. × piperita* var. *citrata*) is esteemed more highly by some menthologists. For gardening beauty, perhaps the nod should go to the variegated ginger mint (*M. × gentilis* 'Variegata'), which has yellow and green leaves that bring a welcome brightness to a dark corner. This cultivar has extremely invasive roots and surely deserves solitary confinement. Variegated ginger mint grows about 15 inches tall; the others range from two to three feet in height. If a tiny, prostrate sort is desired between steppingstones try growing Corsican mint (*Mentha requienii*). This species resembles mother-of-thyme but has a strong mentholated odor. In winter in northern regions, it is short-lived, so one or two plants are best kept in a cold frame during the cold months.

Basil

Basil (*Ocimum basilicum*) has been associated with the Mediterranean region since ancient times. This annual herb is, in fact, native to the tropical parts of India, where it is considered sacred. (The name basil means kingly or royal.) The plant made its way to Greece via the earliest routes of trade, and Greeks and Romans thought of it in sinister terms. Keats' tale of Isabella, inspired by Boccaccio, recounts how she preserved her murdered lover's head in a pot of basil, watering the plant with her tears. I figure the skull must have been a slow-release fertilizer of sorts, providing phosphorus for the healthy growth of the basil.

Basil doesn't need a very rich soil. Pesto addicts usually choose to grow basil in the vegetable garden because of the prodigious amounts of foliage needed for their sauce.

This choice may be just as well, for the common kitchen basil is a rather nondescript plant, and the pretense of ornament can be dropped altogether within the row system of the vegetable garden. It is more appropriate to save the space in the kitchen herb border for bush basil (*Ocimum basilicum* 'Minimum'), which is tidier, or better still, for 'Dark Opal', a maroon-leaved seed strain of common or sweet basil that was developed some years ago at the University of Connecticut. Rue (*Ruta graveolens*), whose lacy but bitter, gray foliage is seldom used in the kitchen anymore, makes a fine background for 'Dark Opal'. From a distance, the combination of their foliage gives a flowering effect all season long. However, rue's foliage can present a problem to the gardener, as noted many years ago by Dioscorides; "If any one rubs his Face with the hand that gathered it, it will immediately raise a violent Inflammation." On a hot day, some gardeners may indeed develop a bad rash from touching rue.

An annual, basil is grown yearly from seed. Although the seed is easy to germinate, seedlings are subject to rot if overwatered, and many gardeners elect to buy young plants from garden centers after the danger of frost has passed. In the border, basil performs best during hot summers. Common basil grows about 18 inches in height; 'Dark Opal' is usually under 15 inches tall. Rue, a perennial, is apt to be short-lived in colder parts of New England, especially if winter drainage is poor. Young plants are usually available from garden centers in spring. Both common basil and 'Dark Opal' enjoy full sun.

Sage, Bay and Rosemary

Kitchen sage (*Salvia officinalis*) needs the same growing conditions as 'Dark Opal' basil and rue, and thus makes a good companion for these plants. The typical kind has gray-green leaves of respectable substance and is more versatile in the garden than in the kitchen (though a New England sausage-maker or a British duck-stuffer might disagree). This low-growing Mediterranean shrub is a straight man—not striking in its own right, but an excellent complement to those plants with maroon foliage, or with pink or lavender flowers. Kitchen sage is quite variable. To me, the most attractive cultivar is *S. officinalis* 'Purpurascens', whose new leaves are tinged with purple. It makes a sumptuous tub



LEFT: Lamb's ears (*Stachys byzantina*) and parsley make a very pleasing garden combination. RIGHT: An especially attractive cultivar of kitchen sage, *Salvia officinalis* 'Purpurascens', combined with *Lavandula angustifolia*.



plant and goes well with companions that have subdued pink flowers. I am fondest of it with purple sweet alyssum (*Lobularia* 'Royal Carpet').

Like many pungent herbs, sage was originally used for medicinal purposes. (The botanical name for the genus *Salvia* comes from the Latin *salveo*, meaning "to be well.") It was associated with immortality, and was also believed to have teeth-cleaning and gum-strengthening properties. One old proverb queries, "How shall a man die who has sage in his garden?" Just as old Soviet Georgians today might attribute their longevity to yogurt, men of an earlier time put much stock in sage. Perhaps one day an imaginative health-food entrepreneur will market a sage-flavored yogurt for those who don't like to take chances.

Bay (*Laurus nobilis*) and rosemary (*Rosmarinus officinalis*) are two other very useful and attractive herbs from the Mediterranean. In colder areas, they must be treated as house plants during winter months. South of Baltimore, Maryland, they are reasonably hardy outdoors year round. I recall growing bay in New York City for several years as a die-back shrub; top growth was killed each winter, but a new

surge came from the base in spring. In mild climates, laurel is often trained into a single stem, with the top clipped into a formal globe. Rosemary thrives best in the dry, alkaline soils of the Southwest, where it sometimes makes a fine, loose, eight-foot-tall hedge. The branches take on considerable character with age, and plants lend themselves well to bonsai treatment, or at least to some pruning for special effect. Small leaves and good blue flowers add to a sense of refinement.

Bay, the true laurel of the ancients, was used to make wreaths for life's winners. Crowns of bay also conveniently covered up bald spots on the heads of Roman dignitaries. (Bay should not be confused with mountain laurel, *Kalmia latifolia*, an American shrub with vaguely similar but toxic foliage.) Bay has a summer home in the back of our herb garden. In May, we plunge it—pot and all—into the ground. Then in October, we move it indoors, prune back tops and roots slightly, and report it. This is a vigorous shrub when it becomes established, and pruning with shears is necessary. The dense, dark green foliage serves as an enhancing background for a number of low-growing herbs. Bay brings

out the best in gray-leaved plants or plants with gold or white variegation, especially the silver-leaved thymes. The leaves are intensely aromatic, and just one or two are sufficient for flavoring a stew.

Rosemary means dew of the sea, an allusion to the plant's home on the shores of the Mediterranean. It is the herb of remembrance as well as of love, death and eternity. In the garden, rosemary is accustomed to a hot, dry spot once it is established; in the home, it is easy to kill inadvertently, since one tends to forget to water those plants with low water requirements. During summer, we give it the same outdoor treatment as bay, but I also like to keep rosemary as a potted plant on the terrace. That way, it is easier to keep an eye on its somewhat wayward growth habit and make corrections with pruning shears. There is even a prostrate form of rosemary that is quite seductive if allowed to drape over the side of a pot. The trimmings are, of course, classic accompaniments for pork and lamb. They make especially handsome whiskers for a suckling pig, too. ☪

Frederick McGourty, who lives in Norfolk, Connecticut, is co-owner of Hillside Gardens, a nursery specializing in perennials.

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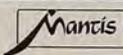
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Book Reviews

VISIONS OF PARADISE.

Photography by Marina Schinz; Text by Susan Littlefield with Marina Schinz. Stewart, Tabori & Chang. New York, New York. 1985. 272 pages; hardcover, \$39.95. AHS member price, \$34.45.

Without a doubt, this is the most beautiful book on gardens or gardening that I have ever seen. The simply breathtaking photographs by Maria Schinz featured in *Visions of Paradise* are grouped in chapters



to illustrate various types of gardens and gardening important to the western world. The chapter titles are an indication of the scope of the book: The Cottage Garden, The Herb Garden, The Rose Garden, The Kitchen Garden, The Perennial Border, The Italian School, The French Style, The "English" Garden, The Designed Landscape and The Naturalized Garden. Schinz's photographs have a freshness about them; even her shots of often-photographed gardens are unique. Many of the photographs are enlarged to occupy two pages of this large-format book, yet despite this degree of enlargement, they are crisp and illustrate their subjects in wonderful detail. For example, a two-page close-up shot showing the detail of the carpet bedding at Hampton Court (which combines coleus, ornamental cabbage, ruby chard and dusty Miller) provides a unique look at the Victorian-era fascination with brilliant color, while a magnificent shot of the twin perennial borders at Bampton Manor reflects the trend that replaced carpet bedding. Lovely pictures of elegant French allées, baroque Italian gardens and Monet's exuberant cottage garden at Giverny, are equally as pleasing. Many American gardens are pictured as well, including herb gardens at The Cloisters in New York and Longacres in Nashville, Tennessee; rose gardens at the Brooklyn Botanic Garden and the William Paca House in Annapolis, Maryland; the vegetable garden at Mount Vernon in Virginia; the woodland garden at Winterthur in Delaware and naturalized gardens at the Huntington Botanical Gar-

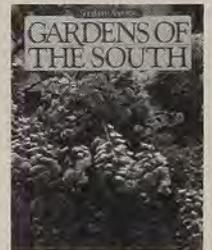
dens in San Marino, California.

Visions of Paradise is more than just another picture book, however. The text that accompanies the photographs is fascinating and makes for very enjoyable reading. The thoughtful commentary of Susan Littlefield, a landscape architect and freelance writer, provides the reader with considerable insight into the development and meaning of the various garden themes. In short, *Visions of Paradise* is a book no garden lover should be without.

GARDENS OF THE SOUTH.

Southern Accents Press. Simon and Schuster. New York, New York. 1985. 211 pages; hardcover, \$35.00. AHS member price, \$30.00.

This is a book celebrating both the public and the private gardens of the South. A total of 25 gardens are presented, all of which were originally featured in *Southern Accents* magazine. Each garden is illustrated with a selection of beautiful photographs showing both overall views and intimate details of the garden. The Biltmore House, Longue Vue, Tryon Palace and Cypress Gardens are among the stunning public gardens included. (Maryland's Ladew Topiary Gardens was included in the section on private gardens, although it has been open to the public for some time.) The private gardens presented in the book, including those at The White House, are equally lovely.



Although a brief introduction is provided for each garden, *Gardens of the South* is basically a picture book. The text is very general and merely serves to "set the scene" for each garden. The authors have not even provided addresses for the public gardens featured. As for the private gardens, whose owners want to protect their privacy (and understandably so), it was often difficult to determine which state the garden is located in. However, the photographs contain a wealth of design ideas and would certainly entertain any gardener who enjoys dreaming about gardens.

THE HOUSE & GARDEN BOOK OF BEAUTIFUL GARDENS ROUND THE WORLD.

Peter Coats. Little, Brown and Company. Boston, Massachusetts. 1985. 208 pages; hardcover, \$29.95. AHS member price, \$26.95.



World travelers (including the armchair variety) would enjoy paging through this book by Peter Coats, a world-traveler, photographer, garden writer and designer. Although many books have been devoted to the gardens of the western world—most notably Great Britain—few offer such a worldwide view of gardens. Coats has included photographs of magnificent gardens from several European countries, as well as Africa, India, Australia, Japan, Singapore, Russia, Greece, Mauritius, the United States and Canada. In all, 60 gardens from 22 countries are represented.

Most gardens in this book are illustrated with a series of photographs rather than a single shot. These photographs, some of which show evidence of yellowing or fading from age, represent a lifetime of travel and are generally of very high quality. The lively and informative text is also very pleasing; it not only details the history of the various gardens, but also describes particular plants that predominate.

COLOR IN YOUR GARDEN.

Penelope Hobhouse. Little, Brown and Company. Boston, Massachusetts. 1985. 239 pages; hardcover, \$35.00. AHS member price, \$28.00.

Undoubtedly, the first impulse of anyone who sees a copy of this sumptuous book is to page through the many beautiful photographs of plants and gardens. *Color in Your Garden* is far more than a luscious new picture book on gardens, however. Gardeners who read the text and photo captions will gain insight about how color can be used effectively in the garden.

Entire volumes have been written on the subject of color and its use in the garden. Hobhouse's introductory chapters on design and the nature of color serve as a very good introduction to this complex subject. In addition to providing a brief history of the use of color in gardens, the author presents a detailed discussion of the factors

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BOOK REVIEWS

gardeners must keep in mind if they are going to use color successfully. For example, she discusses the "fundamental practicalities of climate, site and garden aspect," as well as the ways in which an individual garden can be used and enjoyed. An entire chapter is devoted to defining terms such as hue, value and intensity, and to explaining how color is perceived.

The majority of the book is devoted to individual chapters on color groups—"The Blues," "Hot Colors," "Clear Yellows" and "Foliage Framework," for example. Each of these chapters begins with a general discussion, followed by a plant catalogue, which divides the plants into seasons of color. Although the plant catalogues contain a great many plants, it is important for American readers to remember that this is a British book. (It is unfortunate that few of us will ever be able to duplicate, in our own gardens, the magnificent stand of *Meconopsis* pictured in the chapter on blue-flowered plants.) Fortunately, the author is aware that the conditions under which her readers garden vary tremendously, and her suggestions are meant to serve simply as guides. Gardeners who

combine the suggestions presented in *Color in Your Garden* with cultural recommendations for their particular part of the country will gain a great deal from this lovely and informative book.

DESIGNING WITH FLOWERS.

Tricia Guild. Crown Publishers. New York, New York. 1986. 191 pages; hardcover, \$24.95. AHS member price, \$18.70.

Anyone interested in learning more about the art of designing with flowers will enjoy this beautifully illustrated book. Guild begins by discussing the various elements that must be incorporated into a successful design. The chapter on color is divided into individual discussions of the major color groups that the flower arranger will encounter, including white, cream, yellow, mauve, blue and red. The chapter on foliage is similarly divided into discussions of variegated foliage, texture, shades of gray, and ferns and grasses. The section on containers is especially intriguing because it reflects the wide variety of containers employed by the author in her own lovely, informal arrangements, which are

depicted in beautiful photographs throughout the book. (Guild's choices include glass, plain ceramics, patterned ceramics, metalware, baskets and a variety of more unusual containers.) There are also chapters devoted to composition, using fragrant flowers, combining food and flowers, and using flowers to decorate interiors. The final chapter describes and illustrates many commonly used blooms, and explains how to cut and condition them for longest vase life.

Perhaps the most outstanding aspect of the book is the many photographs of the author's own fresh, informal arrangements, which range from large, floor-standing pieces to tiny vases filled with a few sprigs. *Designing With Flowers* also includes many photographs of arrangements consisting of grouped containers used to decorate tables or mantelpieces. In short, the variety of the materials and containers employed, and the settings used to complement the arrangements, would inspire any flower arranger. ❀

—Barbara W. Ellis

Barbara W. Ellis is the Publications Director for the American Horticultural Society.

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AN ART GALLERY GARDEN

Continued from page 23

in quantity ("It was like digging in dollar bills"), but the local sand is alkaline, and plants grow best in a slightly acid soil. For a year or two after perlite has been dug in, it washes to the surface after it rains, but then it settles down. Now, after years of cultivation, the Meyers' soil is sufficiently acid that sand can be used instead of perlite.

No overall plan was made for the garden. Alan Bloom's books advocating growing plants in island beds were a strong influence. (When the two men recently met, Meyer expressed his thanks with a gift of *Orostachys*, a plant new to Bloom.) Meyer used a hose to mark out pleasing abstract designs for the beds and borders, all of which are curving. "Mother Nature doesn't plant in straight lines," he notes.

The garden is cared for without outside help. A gardener's days are never long enough, and Meyer has learned to avoid unnecessary tasks. At first, he fertilized the grass often, but, he says, "it grew so fast in spring I couldn't keep up with it." Now he feeds the grass only once each year, applying Scott's Turf Builder in early autumn. Fungus, which Meyer is convinced was caused by over-feeding, is no longer a problem. Plants usually need to be watered during the late-summer drought, but when they wilt toward the end of a hot day, Meyer no longer rushes for the hose; only if they are still wilting in the morning does he bother to water. He feeds plants once a year, in spring, with a slow-release fertilizer, which is more expensive than rapid-release fertilizers but less costly in terms of labor. (He favors MagAmp (7-40-6), available from Stokes Seeds, Inc., 737 Main Street, Box 548, Buffalo, NY 14240.)

Gardening is a year-round interest for Dick Meyer, who uses an indoor plant room and lights throughout the winter to raise plants for summer bedding from seed or cuttings—the only way he can be sure of getting exactly what he wants. In conversation, he describes himself as "a failed artist—just not good enough." His garden refutes that statement; both practical and artistic, it is inspiring to all who visit. Visitors often comment that it must be "an awful lot of work." Meyer smiles and says, "Work is something you do when you'd rather be doing something else. There's nothing else I'd rather be doing." ☺

Pamela Harper is the owner of the Harper Horticultural Slide Library, and is a frequent contributor to *American Horticulturist*.

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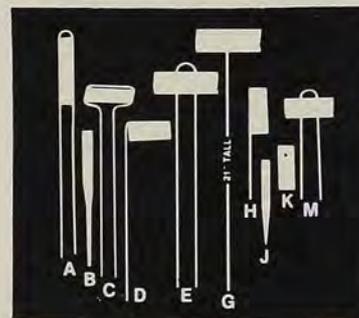
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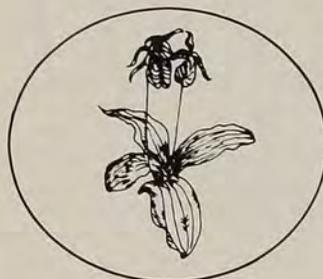
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ag-row-STEM-ah jih-THAY-go
- Alchemilla mollis*
al-keh-MILL-ah MOLL-iss
- Allium cepa* AL-ee-um SEE-pah
- A. schoenoprasum* a. ski-no-PRAY-sum
- A. senescens* var. *glaucum*
a. seh-NES-senz GLAW-kum
- A. tuberosum* a. too-bur-OH-sum
- Artemisia abrotanum*
are-tem-EASE-ee-ah ab-row-TAY-num
- A. dracunculus* a. drah-KUN-kew-lus
- A. ludoviciana* a. lood-oh-viss-ee-AY-nah
- Astilbe* × *arendsii*
ah-STILL-bee air-END-zee-eye
- A. chinensis* var. *dauidii*
a. chih-NEN-sis day-VID-ee-eye
- A. grandis* a. GRAND-iss
- A. japonica* a. jah-PON-ih-kah
- A. × lemoinei* a. leh-MOYN-eye
- A. rivularis* a. riv-yew-LAIR-iss
- A. simplicifolia* a. sim-pliss-ih-FOE-lee-ah
- A. taquetii* a. tah-KET-ee-eye
- Athyrium goeringianum*
ah-THIGH-ree-um gear-rinj-ee-AY-num
- A. nipponicum* a. nih-PON-ih-kum
- Begonia evansiana*
be-GO-nee-ah/be-GOAN-yah
ee-van-see-AY-nah
- B. grandis* b. GRAND-iss
- Bergenia* ber-GIN-ee-ah
- Buxus* BUCK-sus
- Ceratostigma plumbaginoides*
ser-ah-toe-STIG-mah
plume-badge-ih-NOY-deez
- Chelone obliqua*
kell-OWN-ee oh-BLEE-kah
- Chrysanthemum parthenium*
kris-AN-thah-mum par-THEN-ee-um
- Dryopteris cristata*
dry-OP-ter-iss kris-TAY-tah
- Echinacea purpurea*
ech-in-AY-see-ah pur-pur-EE-ah
- Epimedium* × *rubrum*
ep-ih-MEE-dee-um REW-brum
- Euonymus fortunei* var. *radicans*
yew-ON-ih-mus FOR-tune-eye
RAD-ih-kanz
- Foeniculum vulgare*
fee-NICK-yew-lum vul-GARE-ee
- Gaillardia* gah-LAR-dee-ah
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- Hakonechloa macra*
hah-kon-ee-KLOE-ah MACK-rah
- Helleborus orientalis*
hell-eh-BORE-us or-ee-en-TAY-liss
- Hemerocallis* hem-er-oh-KAL-iss
- Heuchera jeffersonia*
YEW-ker-ah jef-er-SEW-nee-ah
- Hosta fortunei* HOSS-tah FOR-tune-eye
- H. sieboldiana* h. sigh-bold-ee-AY-nah
- Imperata cylindrica*
im-per-AH-tah sill-IN-drih-kah
- Iris* × *germanica* var. *florentina*
EYE-riss jer-MAN-ih-kah
floor-en-TEEN-ah
- Kalmia latifolia*
KAL-mee-ah lat-ih-FOE-lee-ah
- Lamium stratum* lay-me-ASS-strum
- Lamium maculatum*
LAY-me-um mack-yew-LAY-tum
- Laurus nobilis* LORE-us no-BILL-iss
- Lavandula angustifolia*
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- Lindera angustifolia*
lin-DER-ah an-gus-tih-FOE-lee-ah
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mat-TOO-see-ah pen-sil-VAN-ih-kah
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SAL-vee-ah oh-fiss-ih-NAL-iss
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san-toe-LEE-nah kam-ee-sip-air-ISS-us
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The American Horticultural Society



Nantucket and Martha's Vineyard

September 14-21, 1986

This fall the island gardens of Nantucket and Martha's Vineyard will be the focus of a special trip co-sponsored by the New England Wild Flower Society and the AHS. Our visit will concentrate on the natural flora of the islands and the unique qualities resulting from their isolation and unusual climatic conditions. We will be guided by well-known New England botanists, and our tour leader will be Polly Pierce, President of the New England Wild Flower Society.



Baltimore and Beyond—Fall Foliage Cruise on the Chesapeake

October 7-18, 1986

The Foliage Season, nature's last hurrah before winter, invites us to cruise the Chesapeake Bay in early October. With thousands of miles of tidal shoreline, the Chesapeake provides a brilliant backdrop for our seven day cruise. We begin our tour in the Baltimore area with three days of private visits and special activities arranged by enthusiastic and knowledgeable members of the AHS. We then board the *M/V America*, a lovely small ship boasting spacious outside cabins and the best of southern hospitality, sail along the unspoiled landscape of Maryland's eastern shore and visit such historic and exquisite landmarks as Williamsburg and Norfolk.



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INDIA-NOVEMBER 4-19—We have postponed the trip to India this fall but hope to offer it again in November of 1988.

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Autumn Tour of Japan (October 19-November 5). Explore unique gardens not open to the general public, and learn about Japan's fascinating temple gardens while enjoying this country's beautiful autumn foliage. Participants will visit the Imperial Palace East Garden in Tokyo and lovely gardens in Kyoto such as Kenroku-en and Seisonkaku Villa. Leader: Ernie Chew, former director of plantings at the San Diego Zoo.

Chesapeake Fall Foliage Cruise (October 8-18). Cruise the Chesapeake Bay on the *M/V America* during fall foliage season. Enjoy a seven-day sail along the unspoiled Eastern Shore of Maryland, and visit such historic and exquisite landmarks as Williamsburg and Portsmouth, Virginia. Join us during these golden days of October as we cruise this spectacular estuary, with its thousands of miles of tidal shoreline. You may wish to extend your trip and enjoy special activities sponsored by AHS.

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ERRATUM

Please note the correct address for **COMPANION PLANTS** is Rte. 6, Box 88AH, Athens, OH 45701. The advertisement appearing under the **HERB PLANTS** heading in our March, April and May issues had the incorrect address.

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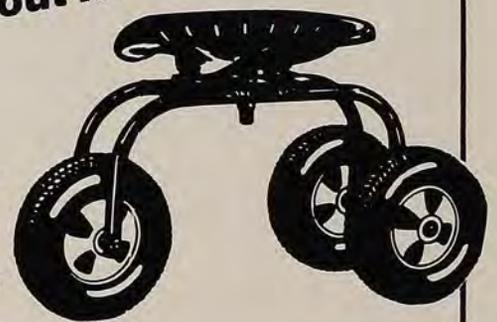
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Sources

SUNDIALS

The following companies offer a selection of sundials.

American Sundials, Inc., Dept. AH, PO Box 677, 300 Main Street, Point Arena, CA 95468, catalogue free.

Clapper's, Dept. AH, 1125 Washington Street, West Newton, MA 02165, catalogue free.

Erkins Studios, Dept. AH, 604 Thames Street, Newport, RI 02840, catalogue \$4.00.

Florentine Craftsmen, Dept. AH, 46-24 28th Street, Long Island City, NY 11101, catalogue \$3.00.

Garden Concepts Collection, Dept. AH, PO Box 241233, Memphis, TN 38124, catalogue \$6.00.

Kenneth Lynch & Sons, Inc., Dept. AH, PO Box 488, Wilton, CT 06897, complete catalogue \$7.50; sundial book \$4.00 softcover, \$6.00 hardcover.

Robinson Iron, Dept. AH, PO Drawer 1235, Alexander City, AL 35010, catalogue \$3.00.

Seahorse Trading Company, Inc., Dept. AH, PO Box 677, Berryville, VA, 22611, catalogue \$3.50.

Southern Statuary & Stone, Dept. AH, 3401 5th Avenue South, Birmingham, AL 35222, catalogue \$5.00.

Sundials and More by Replogle, Dept. AH, 1901 N. Narragansett Ave., Chicago, IL 60639, catalogue free.

Wind & Weather, Dept. AH, PO Box 2320, Mendocino, CA 95460, catalogue free.

ASTILBES

Astilbes are available from garden centers and nurseries as well as the following mail-order companies.

Plants

Busse Gardens, Dept. AH, Route 2, Box 13, Cokato, MN 55321, catalogue \$1.00.

Carroll Gardens, Dept. AH, 444 East Main Street, Box 310, Westminster, MD 21157, catalogue \$2.00.

Rocknoll Nursery, Dept. AH, 9210 US Route 50, Hillsboro, OH 45133, catalogue 44¢ in stamps.

André Viette Farm and Nursery, Dept. AH, Route 608, Fishersville, VA 22939, catalogue \$1.50.

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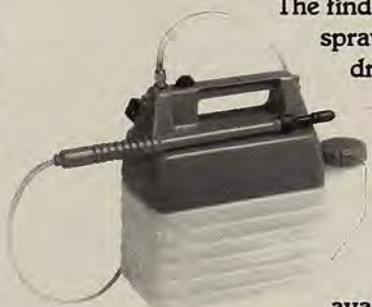
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SOURCES

Wayside Gardens Company, Dept. AH,
Hodges, SC 29695, catalogue \$1.00.

White Flower Farm, Dept. AH, Litchfield,
CT 06759, catalogue \$5.00.

Seed

W. Atlee Burpee Company, Dept. AH, 300
Park Avenue, Warminster, PA 18974,
catalogue free.

The Country Garden, Dept. AH, Route 2,
Box 455A, Crivitz, WI 54114, catalogue
\$2.00.

J. L. Hudson, Seedsman, Dept. AH, PO
Box 1058, Redwood City, CA 94064,
catalogue \$1.00.

Park Seed Company, Dept. AH, PO Box
31, Greenwood, SC 29647, catalogue
free.

Thompson & Morgan, PO Box 1308-AM,
Jackson, NJ 08527, catalogue free (\$2.00
for 1st-class postage).

KITCHEN HERBS

Herbs are available from the following
mail-order nurseries.

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ABC Nursery and Greenhouse, Dept. AH,
Route 1, Lecom, MO 65540, catalogue
25¢ (cash or stamps).

Carroll Gardens, Dept. AH, 444 East Main
Street, Box 310, Westminster, MD
21157, catalogue \$2.00.

Companion Plants, Route 6, Box 88, Dept.
AH, Athens, OH 45701, catalogue \$1.50.

Halycon Gardens, Inc., PO Box 124, Dept.
AH, Gibsonia, PA 15044, catalogue
\$1.00.

Logee's Greenhouses, Dept. AH, 55 North
Street, Danielson, CT 06239, catalogue
\$3.00.

Lost Prairie Herb Farm, Dept. AH, 805
Kienas Road, Kalispell, MT 59901, cata-
logue \$1.00.

Louisiana Nursery, Dept. AH, Route 7,
Box 43, Opelousas, LA 70570, cata-
logue \$3.50.

Meadowbrook Herb Garden, Dept. AH,
Route 138, Wyoming, RI 02898, cata-
logue \$1.00, plant and seed list 50¢.

Merry Gardens, Dept. AH, PO Box 595,
Camden, ME 04843, catalogue \$2.00.

The Sandy Mush Herb Nursery, Dept. AH,
Route 2, Surratt Cove Road, Leicester,
NC 28748, catalogue \$2.00.

Tansy Farm, Dept. AH, RR1-C, Agassiz,
BC Canada V0M 1A0, catalogue \$1.50.

André Viette Farm and Nursery, Dept. AH,
Route 608, Fishersville, VA 22939, cata-
logue \$1.50.

Wrenwood, Berkeley Springs, WV 25411,
catalogue \$1.50.

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Bountiful Gardens, Dept. AH, 5798
Ridgewood Road, Willits, CA 95490,
catalogue free.

W. Atlee Burpee Company, Dept. AH, 300
Park Avenue, Warminster, PA 18974,
catalogue free.

Comstock, Ferre & Company, Dept. AH,
263 Main Street, Wethersfield, CT
06109, catalogue free.

The Fragrant Path, Dept. AH, PO Box 328,
Fort Calhoun, NE 68023, catalogue
\$1.00.

Heirloom Gardens, Dept. AH, PO Box 138,
Guerneville, CA 95446, catalogue \$2.00.

J. L. Hudson, Seedsman, Dept. AH, PO
Box 1058, Redwood City, CA 94064,
catalogue \$1.00.

Johnny's Selected Seed, Dept. AH, 100 Foss
Hill Road, Albion, ME 04910, cata-
logue free.

Nichols Garden Nursery, Dept. AH, 1190
West Pacific, Albany, OR 97321, cata-
logue free.

Park Seed Company, Dept. AH, PO Box
31, Greenwood, SC 29647, catalogue
free.

Richters, Dept. AH, Box 26, Goodwood,
Ontario, Canada L0C, 1A0, catalogue
\$2.00.

Seeds Blum, Dept. AH, Idaho City Stage,
Boise, ID 83706, catalogue \$2.00.

Vermont Bean Seed Company, Dept. AH,
Garden Lane, Fairhaven, VT 05743,
catalogue free.

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Hybrid Lilies separately packed and labeled. 2 bulbs each of the 8 named varieties listed hereon.

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1 Group (16 bulbs) for \$9.95 plus \$2.00

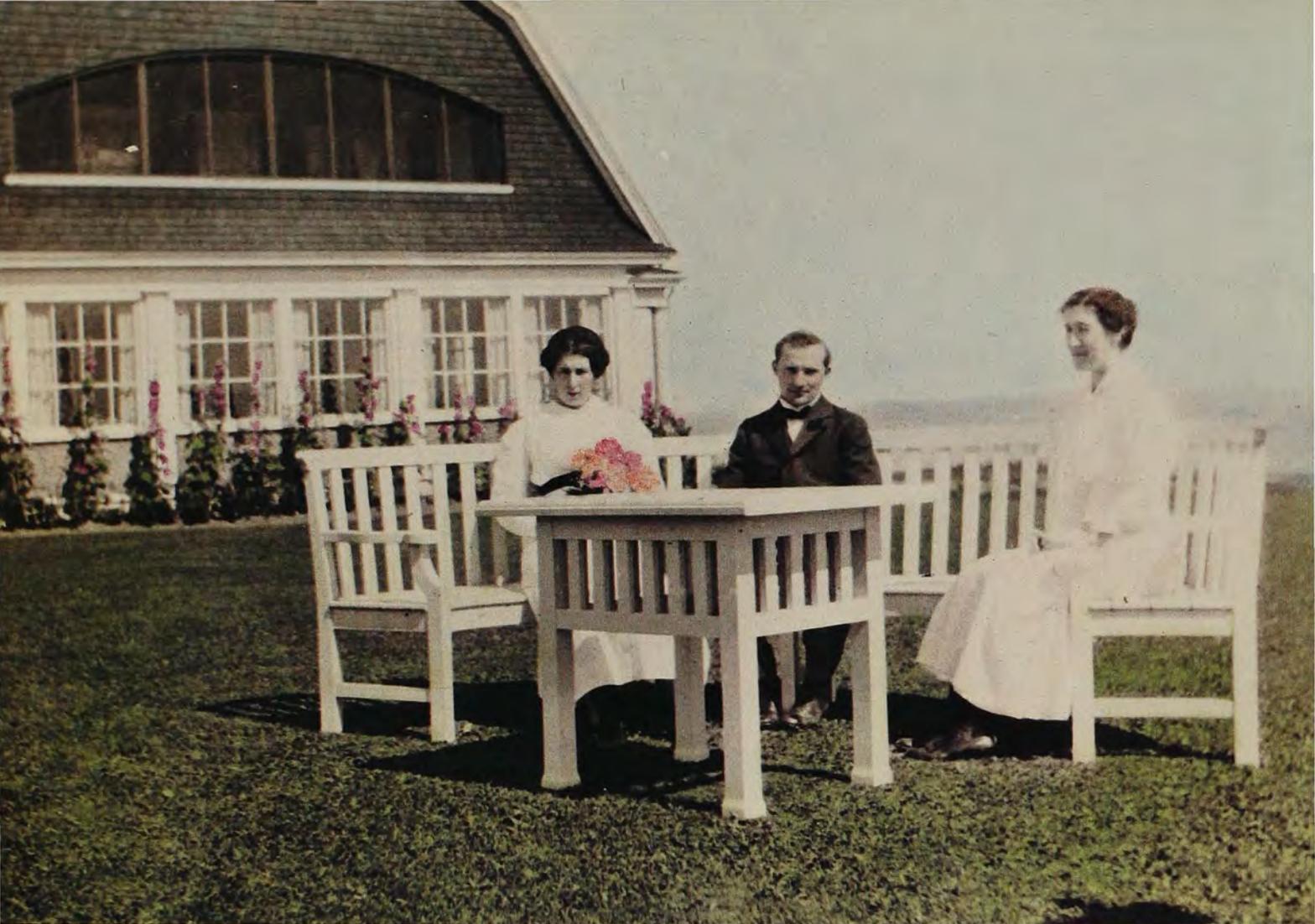
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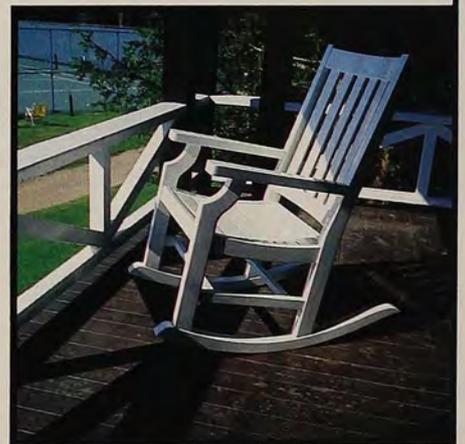


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