

Volunteer Keepers of the Arnold Arboretum: Effective Program Design Yields Reciprocal Benefits

Jeanne Christianson and Sandra Elsik

“Working in the program has transformed me from a devoted but passive domestic gardener into a fervent disciple of horticulture.”

Structuring for Success

This quote by volunteer Mary Harrison captures the spirit of commitment felt by the many individuals who, with their contribution of time, support the curation and management of the living collections at the Arnold Arboretum. In three separate but inter-related areas, they have collected specimens for the verification project, field-checked for the plant records office, and mounted specimens in the herbarium. Other dedicated volunteers work on virtually every aspect of the Arboretum. (See past and future issues of *Arnoldia* for articles on their work.) Although only about half of the Arboretum's volunteers are described in this article, we are deeply indebted to all of them. Using the words of the volunteers themselves, we hope to make others aware of how much our volunteers have contributed and express our gratitude for their tremendous help.

There is no typical profile of the Arnold Arboretum volunteer; their backgrounds and interest in the program differ greatly. This diversity has added an element of interest and enjoyment for everyone involved. The group includes retired people now studying botany, horticulture, or home gardening as a second career; avid home gardeners who desire to help a worthwhile institution while gaining useful knowledge and contact with a professional staff; people working in related careers (as landscape designers, nurserymen, or arborists) seeking to enhance their knowledge

of plants; others (secretaries, nurses, administrators, or homemakers/mothers of young children) who are involved in unrelated careers but are seeking a balance in their lives; and a few who simply enjoy the altruistic satisfaction of helping a worthwhile institution. “To contribute in any small way to help at the Arboretum is rewarding to me,” reported Helen Hagopian. Some go to great lengths to find the time to help: one volunteers on his vacation days, one day at a time; a few work on limited weekend shifts. The amount of time worked by each volunteer ranged from ten to hundreds of hours. Many have become devoted to the Arboretum: some have worked in more than one area and ten have participated for the entire five years covered by this article.

Of the three interrelated areas, the verification project has required the most massive input of volunteer hours. (See the article on collecting by Sandra Elsik.) Without volunteer assistance, the project would have taken many years and been prohibitively costly. Fortunately, working with the plants on the grounds has proven a highly desirable volunteer position, so there has never been a shortage of enthusiastic assistants; since January, 1984, 84 volunteers have worked a total of 6809 hours. They have collected herbarium specimens, gathered the data needed for the specimen labels, and performed numerous less-exciting, but equally important, associated indoor tasks. During the collection

phase of the verification project, teams of two volunteers and one staff member have worked a regularly scheduled three-hour shift each week of the collecting season. The number of volunteers needed for collecting has steadily decreased as this phase of the project has neared completion. The first collection season, in the spring of 1984, required 38 volunteer assistants; in the fall of 1988, only 13 were needed to collect the few remaining specimens.

In the plant records office volunteers have field-checked countless acres of the grounds, replacing damaged and missing labels and helping to provide the information necessary to the curation of the collection; they have assisted in records retrieval and maintenance and in the updating of nomenclatural reference files. Nine volunteers have worked in this department, three of them for the entire five years. (See the article on the plant records office by Jennifer Quigley.)

In the herbarium 15 volunteers have mounted herbarium specimens. The process of arranging and gluing a dried specimen onto a sheet of archival paper is meticulous and time consuming, requiring artistic and scientific sensitivity as well as great patience. It does, however, offer the opportunity to examine a number of interesting plant specimens closely. Elaine Foster noted that "volunteering . . . has made me much more aware of what goes on in an arboretum and given me a greater appreciation of plants and their importance to the environment, [as well as allowing me to work] with friendly, helpful staff in pleasant surroundings."

Volunteer satisfaction, productivity, and longevity has been unusually high on living-collections projects. "I never have had a more satisfactory or rewarding volunteer job," said Mary Wolcott, and Kathleen Warren felt that "the system appealed to my sense of order and to my training as an indexer." One factor contributing to this success has been the organization and structure of the volunteer work assignments. Clearly structured, sensitively supervised responsibilities have provided volunteers with room to grow into increas-

ingly independent functions with a sense of accomplishment at the end of each shift. They have had the additional satisfaction of working on a long-term project that is making a very valuable contribution to both the institution and the science of botany. Susan Dumaine noted that she was "fascinated by and learned from the complex yet facile organization and resourcefulness of both the plants and the project's leader over the past five growing seasons."

Survey Elucidates Volunteer Motivations

To assess the feelings of our volunteers about their involvement in the project, we conducted an informal survey. We discovered that



"I had always taken trees for granted unless they were doing something 'special' like blooming or putting on their fall colors. Now I look at the features of each type of tree—leaf texture, growth characteristics—and can appreciate them for being plain ol' green!" (Kathy Groves). Shown is a leaf detail of *Viburnum furcatum*, our specimen from wild-collected material gathered in Japan by E. H. Wilson in 1915. Photograph courtesy of Rácz and Debreczy.

their sense of reward for their labors was far more than the tangible benefits of free membership and courses. The unique opportunity for detailed, experiential learning from a living botanical collection and a professional staff was frequently cited as a highly valued benefit. Below are some of the statements that we received:

As a student in the Radcliffe Landscape Design Program, [I have found that] the hands-on education has been invaluable. Rather than being intimidated by lists of plants in books, we were able to learn the plants one at a time while we collected their flowers, described them on the field label, and made mental notes about their ornamental characteristics. Later, collecting the fruits reinforced our knowledge.—Sandra Jonas

[I remember] sitting on the grass dissecting a tiny flower to finally learn the difference between a bract, a petal, and a sepal, or finding and identifying the ovary, style, and stigma. [We had] lengthy team discussions to give an *exact* color: “Is it red?” “Scarlet?” “Try rust.” . . . I had resisted the metric system at the gas tank, but by using it in the project it became a part of my vocabulary and I could think in terms of it.—Barbara Epstein

[Volunteering gave me] the opportunity to pursue a love of botany and taxonomy with a staff who patiently answered all my questions and generously shared knowledge of nomenclature, plant lore, and botanical structures.—Roberta Zinman

Hard to summarize 25 years. In addition to the fellowship of working with the staff, the Arboretum has “opened our eyes” to what goes on with plants—a rare opportunity for anyone lucky enough to have access to it.—Richard Warren

Even after 15 years of volunteering, I find that I learn something each time I go—from the collection, and from contact with the staff and other volunteers. Where else could I find such an opportunity?—Marie Dempsey

Working at the Arboretum is a marvelous opportunity to observe plants at all seasons with an eye toward their use in landscaping: their forms, seasonal effects, disease and drought resistance, and hardness. [It has been] a gold mine of horticultural information.—Ellen Bennett

Mounting leaf specimens for the Arnold Arboretum is a pleasant way to educate yourself about geography, botany, and artistry.—Lillian Hagopian

I loved learning the Latin names. It helped me to understand the value of classical Latin—its root words and descriptive terminology are universally understood.—Susan Hardy Brown

Volunteers sometimes became poetic when describing how the program allowed them to develop a greater sophistication in their perception of beauty, noting the subtleties in textures and shades within a monochrome, forms of bark, plant architecture, miniature designs, and fruiting structures. For Sophie Kulik these new images allowed her to “gain a greater appreciation of the Arboretum as a place of natural beauty for all to enjoy.” Others cited similar experiences:

Of course one could go on about the endless opportunities for discovering and appreciating the natural life in the Arboretum . . . I *especially* remember the amazement and joy that swept over me when I first saw a *Populus* and an *Acer* flower under magnification—the intricacy and splendor were beyond words!—JoAnn Whitehead



“After seeing the fantastic-looking acorns of *Quercus variabilis*, we purchased a seedling at the plant sale and gave it to some friends when their child was born” (Mima Weissmann). The large acorns of this species, an East Asian oak, are enclosed in a bold and dramatic cup. Such details, often overlooked by visitors, are frequently encountered by volunteers. Photograph courtesy of Rácz and Debreczy.



“Observing a leaf pattern—the bark of a tree—it was a horticultural class hard to come by” (Genevieve Good). Shown here are the barks of a Japanese cherry, *Prunus apetala* (left), and an East Asian oak, *Quercus variabilis* (right). Photographs courtesy of Rácz and Debreczy.

Working as a volunteer in the verification project has provided me with a very special familiarity with the Arboretum, to meet plants at both flowering and fruiting times and to discover the amazing variety of forms that exist. It is truly refreshing to the soul to be outdoors each week, appreciating the natural beauty abounding in the Arboretum.—Anne Gamble

I have been introduced to so many wonders *Stewartia*, its exquisite branches decked with gardenias in July; the bright red seeds of *Magnolia* dancing on silken threads; the fruit of *Cornus kousa*, as safely edible as it looks; *Calycanthus* with its discrete dark red flowers blooming shyly behind the main borders of the roadway; autumn witch hazel quietly blooming in October unseen amid its yellowing leaves. . . These are the bounties of the volunteer. . . I have lived with the Arboretum on my doorstep for half my life and am grateful to the program for enabling me to get to know it intimately at last.—Mary Harrison

Working with the living collections gets you off the . . . beaten paths of the Arboretum. You see genera and species you might not otherwise see. And

you get a chance to observe them closely, not just when they are blooming. How rewarding that can be! For instance, when we were checking the mapping and labeling in the . . . *Prunus* collection, it was in October and the *Prunus* plums were fully ripe—yellow, purple, orange, and blue. Our job description did not call for fruit sampling, but taste them we did. Tiny in comparison to their supermarket relatives but much more flavorful. Shall we call this a fringe benefit?—Bob Siegel

Once while out collecting we stopped to look at the *Symplocos*, also known as sapphire berry. There it was, right on the road between the lilac beds and the greenhouse, and it was covered with the most incredibly blue berries! Apparently they only last a few weeks before the color darkens or the birds eat them. In 18 years of visits to the Arboretum, I had never walked by at the right moment! . . . Last week someone looked at one of the vases I had made and said it reminded her of water and trees—no drawings or any graphic representations—just the vase itself. I took it as a great compliment, and I know that being out on the grounds has been a constant inspiration to me.—Muma Weissmann



My five-year collection trip at the Arnold Arboretum—the landscape was spectacular, the species exotic, and the natives very congenial.—Sue Erwin

We would like to give special recognition to the following Arboretum visitors that we have observed on the grounds. The Globetrotter Award: to the Brazilian cardinal seen flitting around the Visitor Center in the fall of 1986. The Most Dedicated Workers Medal: to the rangers who stalked us as we were submerged in the ten-foot flowering Jerusalem artichokes. The Best Hunters: to the red-tailed hawks who routinely catch the odd snake and the not-so-odd Norway rat. The Most Perfect Timing Award: to the mystery picker with his rake who combs the lowbush blueberries under the pines just before we get there.—Neil Walker

. . . the discovery of unusual fruits [such as] those tennis-ball-green osage oranges. . . To actually be allowed to pick the blossoms and collect the fruits at their peak of development was such a privilege. It was like being Eve in the Garden of Eden and being given permission to pick the apples. . . . Collecting the silverbells (*Halesia*) was special. I had known about them from the poem "In Praise of Silverbells," which my mother had written. To describe them on the label became a challenge. Was the flower "shell-pink, like a tropical atoll," as my mother described?—Susan Hardy Brown

Volunteers and staff were challenged, both physically and mentally, by the rigors of working on the grounds (and in an old building lacking adequate climate control). Fortunately, such difficulties were usually perceived as part of the fun; camaraderie and dedication prevailed. Again, as our volunteers tell it:

Regardless of exhaustion from the rain, heat, or cold in which we might have worked, I still felt exhilarated over what we had accomplished.—Barbara Epstein

There is life after retirement! It's good to be able to participate in something ongoing. . . and that in

beautiful surroundings, out of doors, and in congenial company. The physical challenge is there for anyone aged 72, and a lot more fun than contrived exercises.—Ruth Griffin

The staff is fun to work with, rain or shine, hot or cold, grubbing on knees or high in trees.—Ellen Bennett

. . . helping to unravel and set straight the confusion caused by missing and misplaced labels (I can still hear the shouts of triumph when one of us would discover a label, presumed missing, under half a foot of oak-leaf mulch!) and the satisfaction that I was part of the laudable effort to assure the taxonomic correctness of the Arboretum's records.—Dick Brooks

Volunteers also enjoyed working with a team that provided opportunities for socializing while the work was being accomplished. The friendships developed and ideas exchanged were a valuable bonus. In addition, the team format provided a predictable work environment and an interdependency that encouraged consistent attendance and involvement. In their words:

Pleasant work with pleasant people made my time here each week a special segment of my life; a time to be with nature and a time to learn.—Priscilla Ryan

Working with a team was great because it provided the opportunity to explore the deepest, remotest areas I wouldn't have felt comfortable exploring alone. The people were great. We seemed to speak a common language, loving nature and our environment. I've made very special friends who have taught me so much and brought a richer dimension to my life and to my art.—Susan Hardy Brown

Although many of the volunteers surveyed for this article reported deriving great benefits and pleasures from their work at the Arboretum, the interaction is clearly reciprocal. It is difficult to say who benefits more. In addition to the tasks accomplished, the Arbore-

"In my mind's eye it is always January, the month of my first visit to the Arboretum, when the tree architecture and the distinctive colors and markings of the bark are most apparent. I now know it at every month of the year, each month with its own special beauty" (Pauline Perkins). Although this winter study shows them to have a wide range of branching patterns, all of these linden trees (Tilia) would have the same canopy profile in the summer. Since a living collection is located within a particular climate, these structural differences in cultivated specimens reflect genetic differences inherent in the plants rather than environmental factors. Left to right, top to bottom: Tilia × flavescens, T. paucicostata, T. cordata, T. neglecta, T. japonica, T. americana, T. tomentosa, T. petiolaris, T. platyphyllos. Photographs courtesy of Rácz and Debreczy.

tum gains another important, less obvious long-term benefit. The involvement of members and supporters educates them about the role and function of an arboretum. For Westy Lovejoy the frequent and intimate contact with the living collections, and the process of curation, gave her “a better understanding of the quantity and quality of the Arboretum’s collections,” as well as an appreciation for the scientific role of the institution and its importance to the world at large. Volunteers develop a sense of ownership and pride. For Caroline Blake her work meant “learning more of the Arboretum, and thus feeling more a part of it.” Thus they become more determined in their support and spread their enthusiasm to friends.

Never-Ending Curation

If the Arboretum is to flourish, it must continue to encourage this kind of involvement and commitment by the public as well as the scientific community. Part of the Arboretum’s



“Assisting in the phase of the verification project dealing with the genus *Rhododendron* has given me the opportunity to become more intimately familiar with this extraordinarily large and diverse genus” (Dick Brooks). *Rhododendron yakusimanun*, shown here, is native to Japan. Photograph courtesy of Rácz and Debreczy.



“. . . The magic *Metasequoia*, elegant in its winter contours” (Mary Harrison). The trunks of the dawn redwood, *Metasequoia glyptostroboides*, grown in this country are often dramatically buttressed and sinuous. Photograph courtesy of Rácz and Debreczy.

mission must be to educate and inspire people to appreciate and make a commitment to their environment. Curation of a world-class botanical collection requires enormous long-term effort and resources. Although the effective management of a comprehensive volunteer program requires an investment of staff time and facility resources, the benefits to the organization make it clearly worthwhile.

In the words of Peter Ashton, “Each year new plants are tried in the Arboretum collections, some never before cultivated. Each year we must curate these introductions and celebrate their first flowering. So the greatest news of all is that the work will go on, and we will continue to need you, our volunteers!”

Jeanne Christianson is the membership, volunteer, and visitor-services coordinator at the Arnold Arboretum. Sandra Elsik supervises the collecting phase of the verification project.

Living-Collections Volunteers, January, 1984, to December, 1988

VERIFICATION PROJECT

Sue Avery, Medford
 John Bailey, Dover
 *Ellen Bennett, Weston
 Caroline Blake, Dover
 Dick Brooks, Concord
 Tony Bryan, Boston
 Susan Burke, Brighton
 John Carey, Norwood
 Janet Christop, Jamaica Plain
 Tom Coulson, Chestnut Hill
 Susan Davis, Boston
 Carin Dohlman, Weston
 Margaret Donahue, Watertown
 Paul Donnelly, Squantum
 Jean Dricker, Brookline
 *Susan Dumaine, Weston
 Susan Dwyer, Norwood
 *Barbara Epstein, Newton Centre
 *Sue Erwin, Cambridge
 Don Falk, Cambridge
 Esther Fich, Winthrop
 Gerhold Fitz, Roslindale
 Ruth Fried, Roxbury
 Sandra Friedman, Wellesley
 Barbara Frishkopf, Lexington
 Anne Gamble, Brookline
 Barbara Gard, Norwell
 Niki Gilsdorf, Cambridge
 Genevieve Good, Cohasset
 Ruth Griffin, Brighton
 Kathy Groves, Sherborn
 Helen Hagopian, Wellesley
 Susan Hardy Brown, Jamaica Plain
 Mary Harrison, Cambridge
 Laverna Haskell, Cohasset
 Isabel Horan, West Roxbury
 Shirley Hyland, Cambridge
 Sandra Jonas, Newton
 Anne Joseph, Whitman
 Andrea Knowles, North Billerica

Amy Kosmidis, Roslindale
 Sophie Kulik, Roslindale
 Mary Jeanne Langevin, Milton
 Annie Lomuto, Wellesley
 Westy Lovejoy, Boston
 Betty MacKenzie, Dorchester
 Barbara Mahon, Jamaica Plain
 Louise Makepeace, Warwick, Rhode Island
 Phyllis Marx, Newton
 Melinda McCall, Jamaica Plain
 Melana McCann, Jamaica Plain
 Terry McKiernan, Cambridge
 Jane McKinnell, Boston
 Peg Megowen, Carlisle
 Jane Morss (deceased), Chestnut Hill
 Melanie Moses, Cambridge
 Vincent O'Gorman, Chestnut Hill
 C. J. Patterson, Norwell
 Pauline Perkins, Brockton
 Robert Perkins, Jr., Cambridge
 Karen Peterson, Cambridge
 Margaret Pfitzer, Boston
 Betty Porter, Concord
 Jean Rosenberg, Arlington
 Liz Ruth, Brookline
 Priscilla Ryan, Somerville
 Liz Sargent, Boston
 Anne Shuhler, Cambridge
 Hiltrud Siegel, Belmont
 Marjorie Smith, Cambridge
 Magen Solomon, Northampton
 *Lester Stockman, Roxbury
 Kathy Terzi, Jamaica Plain
 Elaine Tsomides, Brookline
 Jan Wampler, Jamaica Plain
 Kathleen Warren, Dedham
 *Richard Warren, Dedham
 Ann Waters, Jamaica Plain

Mima Weissmann, Jamaica Plain
 Jan Whitaker, Jamaica Plain
 JoAnn Whitehead, Jamaica Plain
 Mary Wolcott, Manchester
 Karen Wolkoff, Somerville
 *Roberta Zinman, Newton

PLANT RECORDS OFFICE

Betty Jacobson, Dover
 Amy Kosmidis, Roslindale
 Joseph Merriam, Brookline
 Jean Rosenberg, Arlington
 Donna Rowland, Jamaica Plain
 *Bob Siegel, Hingham
 *Nell Walker, Lexington
 Jan Wampler, Jamaica Plain
 *Richard Warren, Dedham

HERBARIUM, SPECIMEN PREPARATION

Mary Ashton, Carlisle
 Caroline Blake, Dover
 Kathleen Daly, Jamaica Plain
 Marie Dempsey, Lexington
 Elaine Foster, Chestnut Hill
 Sandra Friedman, Wellesley
 *Lillian Hagopian, Wellesley
 Susan Hardy Brown, Jamaica Plain
 Mary Harrison, Cambridge
 Sophie Kulik, Roslindale
 Barbara O'Connor, Auburndale
 Ciba Vaughan, Cambridge
 Kathleen Warren, Dedham
 Mima Weissmann, Jamaica Plain
 Karen Wolkoff, Somerville

*Five-year commitment.