Announcements

Mark your calendars for...

25th Annual AHTA Conference
Grand Rapids, Michigan
August 17-19, 1997

Opportunities include:

- a pre-conference intensive on Saturday, August 16, Healing & Therapeutic Gardens, to take place at Family Life Center’s one-acre garden for persons with Alzheimer’s.

- pre- or post-conference tours of the state capital, nationally acclaimed Children's Garden, All-America Trial Gardens, Frederik Meijer Gardens, Walters Gardens, and more.

For information, contact the American Horticultural Therapy Assoc. at 362A Christopher Ave., Gaithersburg, MD 20879; Phone: (800) 634-1603; Fax: (301) 869-2397; or E-mail: 75352.122@compuserve.com.

Therapeutic Garden Design Seminar Held

Taught jointly by HTR Nancy Chambers and landscape architect David Kamp, this seminar met Friday, November 1, 1996, at the Howard R. Rusk Institute of Rehabilitative Medicine. The concept of therapeutic gardens, their historic role in health care, and an overview of planning and design parameters necessary to create such a specialized environment were discussed. Participants also visited a health care facility with a horticultural therapy program. The seminar was sponsored by the NYU School of Continuing Education. For more information, contact Nancy Chambers, Director of the Enid A. Haupt Glass Garden, Howard A. Rusk Institute of Rehabilitative Medicine, NYU Medical Center, 400 East 34th Street, New York, NY 10036.

Dumbarton Oaks Roundtable

Studies in Landscape Architecture of Dumbarton Oaks will sponsor a roundtable entitled Landscape Architecture and the Health of the Public on Saturday, March 22, 1997, from 1:00-5:00 pm. One of the historic concerns among landscape architectures has been the influence of design on public health. Frederick Law Olmsted, for example, consciously linked park designs to mental “vigor” and physical “uplift.” This roundtable will explore the breadth of involvement of landscape designers working to improve the health of the public. Presentations are scheduled to be given by Linda Collie (University of Maryland), Susan Edwards (Denver Parks Department), Robert Hoover (Studio L.A., Maine), Robert Scarfo (Interdisciplinary Design Institute, Washington State University), and Joanne Westphal (Michigan State University). Early registration is recommended; for more information, write to Roundtables, Studies in Landscape Architecture, Dumbarton Oaks, 1703 32nd Street NW, Washington, DC 20007.

Therapeutic Horticulture Conference

April 22-24, 1997. The University of Reading, United Kingdom, is sponsoring a three-day course for people interested in using horticulture as a tool in therapeutic, recreational, or training programs. The course will include a look at international organizations and professions, sources of information and help, plant options, techniques, equipment, client assessment, and visits to horticulture units and/or projects. For more information, write to Mrs. Sue Simonds, Short Courses Organiser, Plant Science Laboratories, The University of Reading, Whiteknights, PO Box 221, Reading, UK RG6 6AS.

New HT Certificate Program at NVCC

The Continuing Education Office of the Loudoun Campus of Northern Virginia Community College announces the new Horticultural Therapy Certificate Program. The program is designed to provide information concerning treatment alternatives to a wide range of therapy professionals, educators, and other interested individuals. Students complete 140 required curriculum hours, 24 elective hours, and 40 hours of supervised internship/site visits. The Loudoun campus of NVCC is working toward having the 204 total hours accepted by the AHTA toward National Certification. For more information, contact the Continuing Education Office at (703) 450-2551 or 2552.

Learning Through Landscapes

...is an organization based in Winchester, United Kingdom, and is dedicated to the promotion of sustainable, holistic, and participative school grounds projects. Research shows that there are many benefits to using and developing grounds, including:

(continued on page 2)
• improvements to the environment that enhance the appearance, image, and popularity of the school
• creation of an outdoor teaching laboratory
• dramatic improvements in pupil behaviour and attitudes and a reduction in bullying, accidents, and vandalism
• the development of a better school ethos, stressing care, ownership, and responsibility

Learning Through Landscapes (LTL) offers a variety of services to members, including free information about sources of funding, a full-colour newsletter sharing best practices about school grounds use and development, advance notice of national events and projects, promotional materials for organizing a local school grounds development event, free access to LTL’s information hotline, and a free 30-day loan of any LTL video. If you would like more information, write to Jennie Day, Information Officer, Learning Through Landscapes, Third Floor, Southside Offices, The Law Courts, Winchester, UK, SO23 9DL; Phone: 01962-846258; Fax: 01962-869099; or E-mail: charity@tcp.co.uk.

Horticulture Therapy (HT)

... is a national charity in England dedicated to helping people enjoy a better quality of life through gardening. HT’s mission is to ensure that people with special needs and their supporters benefit from gardening and garden-related activities.

HT provides its unique service in a combination of four ways:
- information and advice to groups and individuals
- day-care placements through HT’s own gardens
- workshops and tailored education sessions to suit need
- training for professionals at Diploma and Certificate levels

Every year, HT helps around 20,000 people, from young children to the elderly. They may have a particular need or no longer find gardening so easy. HT works with individuals and groups who may have special needs themselves, be they family carers, professional health workers, or horticulturists. Support comes from government sources, but the majority of funds are generated by HT’s own fundraising. For more information, contact the national office: Horticulture Therapy, Goulds Ground, Vallis Way, FROME, Somerset, UK, BA11 3DW; Phone: 01373-464782; Fax: 01373-464782.

Flowering Bulb Grant Award for Schools

Schools interested in using flower bulbs to enrich learning and beautify school or community grounds are invited to apply for the Mailorder Gardening Association’s “Kids Growing with Dutch Bulbs” awards this spring. The program will award 40,000 flower bulbs to 200 schools nationally. For a copy of the award application (included in the January 1997 issue of Growing Ideas: A Journal of Garden-Based Learning), send your request to the National Gardening Association, Dept. MP, 180 Flynn Avenue, Burlington, VT 05401; Phone: 1-800-538-7476; E-mail: nga@garden.org.

Deadline for completed applications is May 1, 1997.

Fourth International People-Plant Symposium Recollections

John Dotter, Community Garden Coordinator, San Jose, CA

For those of you who were not with us in San Antonio, Texas, May 23-26 this year, here are some recollections about this marvelous event. The Symposium began with a reception at the Holiday Inn River Walk North terrace. This gathering set the tone for the next few days. There were animated conversations with raised voice levels among those present who were glad to connect with others in the interdisciplinary world of people-plant interaction. I remember sitting on the edge of the terrace with a large delegation of Japanese conference participants alongside Charles and Sherri Lewis. The translation and interpreting that took place were exciting to observe because everyone was seeking levels of understanding and meaning that go beyond literal words.

Throughout the Conference, I was impressed and amazed at all of the things happening, horticulturally speaking, in Texas and San Antonio. Drs. Jayne Zajicek, Joe Novak, and Calvin Finch along with Bonnie Hammett deserve our gratitude for making this special conference possible. The “grass-roots” strength of local programs was apparent on the tours, and the help of Texas A & M students throughout the event made everyone feel welcome.

For someone who has lived and worked in the San Francisco Bay area as a horticulturist for the past 30 years, I had developed an elitist perspective, giving little consideration to programs in other parts of the country, especially Texas. I must say that I left Texas with the overwhelming conviction that it has very important people-plant interaction programs that can be models for the world. We can look forward to publication of the proceedings in early 1997 to get the specifics on what happened.

In the News

Gardens in the Ukraine Mean Survival

The Wall Street Journal Europe, October 3, 1996, featured a piece that explained how “For Poor Ukrainians, Gardening Is a Matter of Life and Death” (Brzezinski). Vegetable and fruit garden plots are a critical source of food for many Ukrainians who are unable to afford grocery shopping in the winter months. Practices, such as pickling and canning, that seem nostalgic to Westerners are survival tactics for the 9 out of 10 Ukrainians who rely on them for basic nutrition. The plots are so intensively managed that they provide 57 percent of the nations’ fruits and vegetables while occupying only 4 percent of the arable land. Sociologists say that the plots are one reason why Ukrainians have not taken to the streets to protest rapidly declining wages since the fall of communism.

Health Benefits of Gardening Cited

“Less Pain, More Gain” Time, July 22, 1996. Gardening for 30 to 45 minutes and raking leaves for 30 minutes are among the activities that will burn 150 calories (comparable to jumping rope for 15 minutes) and provide some of the regular exercise recommended by the Surgeon General.
For its six-year history, the People-Plant Council and its participants have many accomplishments:

• establishment of research priorities in HIH and an increase in number of graduate students in this field;


• a symposium held at the International Horticulture Congress of the International Society of Horticultural Sciences (ISHS), August 1994, in Kyoto, Japan; symposium proceedings, *Horticulture in Human Life, Culture, and Environment*, in *Acta Horticulturae* No. 391 (available through International Society for Horticultural Science, K. Mercierlaan 92, 3001 Leuven, BELGIUM);

• the development of two annotated bibliographies: one addressing People-Plant Interaction and related research from a broad perspective (1,542 citations) and one focusing on Horticultural Therapy (1,184 citations) as well as a listing of books on children’s gardening;

• the production of two videotapes discussing aspects of People-Plant Interaction;

• HRI, ALCA, and others have expanded funding in this research area;

• two special issues of the ASHS journal, *HortTechnology*, were published, focusing on Human Issues in Horticulture (1992) and Horticulture Meeting Special Needs (1995);

• the development of this area into an official committee of the American Association of Botanical Gardens and Arboreta, the expansion of activities in ASHS, and the inclusion into the USDA Research Priorities developed by Dr. Marc Cathey;

• the establishment of a mailing list of 531 US and 260 international addresses plus an electronic bulletin board, PPC-L;

• mailing of four newsletters per year from which information is printed in numerous trade and professional journals;

• answering, on the average, 15 to 20 letters, e-mail messages, and telephone calls each week requesting information (most recent examples: interview with writers from the *Los Angeles Times* and *Boy's Life*);

• new courses offered at Clemson University in the area of HIH, titled *Horticulture and Human Well-Being* and *Garden Experiences in Youth Development*; at Virginia Polytechnic Institute and State University, titled *Horticulture and the Community: Professional Development through Volunteering*; and

• establishment of initial test of World Wide Web (WWW) files (text only); address: http://www.hort.vt.edu/human/human.html.

**PPC Affiliation and Contributors**
The PPC is not a membership organization, rather a link or affiliation between organizations. From 1990-96, affiliates have included the American Society for Horticultural Science, Associated Landscape Contractors of America, Society of American Florists, American Horticultural Therapy Association, and American Association of Nurserymen. Affiliation is open to all organizations within the horticulture and social science communities and allied or interested organizations. Donations are accepted from individuals and organizations.

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Funding of PPC activities has been through volunteer actions and affiliation contributions from industry and professional associations and the sale of the symposium proceedings, bibliographies, and videotapes.
U.S. Households Invest in “Green Home Improvement”

More than 20 million US households turned to landscape, lawn care, and tree care professionals for $14.2 billion worth of “green home improvement” in 1995, according to a Gallup survey released last May. The data shows that while overall spending was down slightly (6 percent), those consumers who did use these services spent more.

- Each household spent an average of $710 on services to improve their outdoor living spaces, up 5 percent since 1994.
- Baby boomers (ages 30 to 49) accounted for over half ($7.7 billion) of total spending on these services.
- Homeowners in the South again led the nation in total spending on these services, accounting for over a third of all expenditures.
- Spending increased for professional landscape installation and construction (up 5 percent) and tree care (up 19 percent), while spending decreased by $1 billion in the lawn and landscape maintenance category.

Despite the modest downturn in 1995 (which mirrored national economic trends), industry experts say that the market for professional landscape, lawn care, and tree care services is poised for growth. Factors to suggest this include an increasing focus on outdoor spaces to add value to a home; less time for homeowners to spend on their own yards and tree establishment and maintenance; the growing emphasis on the environmental benefits of a well-designed landscape; and the need to design, install, and maintain it with a high degree of environmental sensitivity.

The survey was sponsored by the American Association of Nurserymen, the Professional Lawn Care Association of America, the Associated Landscape Contractors of America, the International Society of Arboriculture, and the National Arborist Association. It was conducted in cooperation with the National Gardening Association.

Books of Interest

*Gardening: Equipment for Disabled People* [D. Hollinrake. 1992. G.M. Cochrane and L.P. Wassenaar, Editors. ISBN#1-873773-03. Softcover, 122 pages. The Disability Information Trust, Mary Marlborough Lodge, Nuffield Orthopaedic Centre, Headington, Oxford, UK OX3 7LD; Phone: 0865 - 227592] is a publication that presents facts and commentary on a wide range of products that can make life easier and bring greater independence. Practical advice is given on subjects including improving the soil, making compost, making the garden accessible and labor saving, dealing with pests, gardening in the greenhouse, pruning, and safety. The book includes specially manufactured equipment, everyday consumer products, and “do-it-yourself” ideas. A bibliography of useful related publications is provided, and there are many black and white illustrations throughout.

*Proceedings of the XIIIth International Symposium on Horticultural Economics* [Robin G. Brumfield, Editor. 1996. $60; make checks payable to: Rutgers, the State University; mail to Robin G. Brumfield, 111 Cook Office Building, Department of Agricultural Economics & Marketing, P.O. Box 231, New Brunswick, NJ 08903-0231, USA; Phone: (908) 932-9171 ext. 21; Fax: (908) 932-1100; E-mail: brumfield@aesop.rutgers.edu] from the conference of August 4-9, 1996, at Rutgers University. The proceedings include information on globalization and privatization of horticulture, greenhouse management, marketing, strategic planning, computers and information systems, consumer attitudes, preferences and demands, and sustainability.

*Horticulture as Therapy: A Practical Guide to Using Horticulture as a Therapeutic Tool* [Mitchell Hewson. 1996. $25; shipping is $5 each for Canadians and $7 each for shipping outside Canada; make check payable to Mitchell Hewson and send to Mitchell Hewson, H.T.M., Homewood Health Centre Inc., 150 Delhi Street, Guelph, Ontario, Canada, N1E 6K9] is a book by a well-known Canadian H.T.M. that contains detailed information both for novice and veteran therapists with chapters on diagnosis, therapeutic application, medication, plants and environment, tools, resources, and year-round projects for populations with specialized needs. Twenty years of the author’s life experiences are incorporated in this volume to guide in setting up a thriving horticultural therapy program.

*Accessible Landscapes: Designing for Inclusion* [Philip Evans and Brian Donnelly; Robert Natata, illustrator. 1993. ISBN# 0-9641244-0-8. $14.95 includes shipping; make checks payable to SF State University Accessible Landscapes Project; mail to The Accessible Landscapes Project, Department of Plant Operations, San Francisco State University, 1600 Holloway Avenue, San Francisco, CA 94132; Phone: (415) 338-1845; Fax: (415) 338-6265] is a publication of the Accessible Landscapes Project that involves a series of focus group sessions with those who have experience with disability. Chapter titles include Disability, Designing for Inclusion, Inclusive Paths and Plazas, Inclusive Furniture, and Creating a Planted Environment. Concepts are accompanied by sketches in this unique, dynamic publication. The Accessible Landscapes Project welcomes collaboration with interested individuals and organizations; call Philip Evans (415) 338-1568; E-mail: pevans@sfedu.edu or ricgomes@sfsu.edu.

*Gardens of Alcatraz* [Russell Beatty, Michael Boland, and John Hart. 1996. $14.95 paperback, $21.95 hardback (does not include sales tax). The Golden Gate National Park Association, Building 201, Fort Mason, San Francisco, CA 94123]. In three essays by the authors, this book tells the heretofore unknown story of gardens on the Rock and of the people who created and tended them. In “The Rock Garden,” John Hart relates the cultural history of Alcatraz in which the evolution of gardening as an integral part of life on the Rock is discussed. In the second part, “Long Enduring Patterns,” Russell Beatty delves into the meanings and significance of the gardens and demonstrates how the act of gardening made life on that bleak island endurable for both inmates, their keepers, and families. The third piece, “Paradise Reclaimed,” by Michael Boland discusses how whole new ecosystems have evolved from the efforts of people to create gardens on Alcatraz. The many individual garden areas on the island are described, their histories briefly discussed, and the major plants indicated. The book is illustrated with historic photographs.
**Paperback Book Release**

Harper San Francisco will be releasing a paperback edition of Marilyn Barrett’s *Creating Eden: The Garden as a Healing Space*. Priced at $10, it will be released in bookstores on January 19. In addition, the author has produced and narrated an unabridged audio-cassette recording of *Creating Eden*, packaged as a set of three 90-minute tapes. The tapes are available by ordering directly from the author by phone: (408) 656-9120 or Fax: (408) 656-0319 @ $24.95 per set.

**Bibliography of Children’s Books**

The Helen Crocker Russell Library of the Strybing Arboretum Society (San Francisco, California) has just produced a fourth revised edition of its annotated bibliography of children’s books in the library’s collection. The 1996 edition has been greatly enlarged to 42 pages from the 26-page 1992 edition. This new edition contains annotations for more than 500 children’s books (fiction and non-fiction) about horticulture, botany, and other plant-related topics. The bibliography can be purchased for $4 postpaid from the Strybing Arboretum Society Library, 9th Avenue at Lincoln Way, San Francisco, CA 94122.

**Research News**

**Request for Research Participants**

Are you a Psychotherapist who uses Horticultural Therapy methods in your practice? Are you a Horticultural Therapist who uses Psychotherapeutic methods in your practice? If you are interested in discussing your experiences and participating in a research project entitled *The Use of Horticulture as an Adjunct to Psychotherapeutic Treatments: An Exploratory Study*, please write to J. Léger at 286 North Silver Lane, Sunderland, MA 01375; Phone: (413) 665-0564; E-mail: Jeeger21@AOL.com.

**Research Abstracts**


Two environmental education classes at Missouri Botanical Gardens, “The Water Cycle: Making a Terrarium” and “The Tropical Rainforest,” were evaluated to determine their effect on attitude and knowledge change of elementary school children. A pretest/posttest design was used to compare experimental and control groups. Data indicated that “The Water Cycle: Making a Terrarium” class had a positive influence on attitudes toward learning about plants and the environment, while the “Tropical Rainforest” class had no effect. Neither of the classes significantly affected the children’s attitudes toward interacting with the environment. Both classes increased the knowledge base of participating children. There were no differences between male and female attitudes or knowledge in either class. Nonformal learning experiences of this type may be a more effective means of stimulating horticultural interest in young children than a traditional classroom setting.

**Survey Results on Interaction with the Environment**

Ms. Vivienne B. Jones of the Landscape & Countryside Services Department of the Wreckin Council of Telford, United Kingdom, recently forwarded results from a questionnaire entitled “Peoples Interaction with the Environment” (P.I.E.). Responses were received from 112 households, 75 percent of which were from people who had lived within Wreckin for more than five years. The main reason for spending time outdoors was peace, quiet, and relaxation, with fresh air, wildlife/nature, and walking also very popular. The main reason for not spending time outdoors was the weather, followed by being too busy/other commitments, and feeling unsafe. The three main things that would encourage respondents to spend more time outside were less vandalism, warmer weather, and cleaner areas/less litter. The three most important environmental aspects for the re-

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spondents were protection of wildlife and natural habitats, clean
air, and a litter-free environment. With regard to their local en-
vironment, respondents would most like to improve controls over
dog fouling and emptying of litter bins and to have better
cycleways and footpaths. Finally, the highest special needs citedy respondents were hearing, followed by mobility, then eye-
sight. For further inquiry, write to Vivienne B. Jones, Landscape
Development Manager, Wrekin Council Civic Offices, P.O. Box
211, TELFORD, UK, TF3 4LA; Phone: 01952-202506; Fax:
01952-290628.

Recommended Reading

From the AHTA journal, People Plant Connection 23(6), comes
the following recommendations for articles of interest.

The first two are provided by John Gilan, the executive director
of the Professional Grounds Management Society.

“Lanscaping for the Soul,” by Kathleen S. Pereira, Turf and
Recreation, April/May 1996, pp 36-37. An overview of presen-
tations of a gathering at the Calgary Zoo in Alberta, Canada
(March, 1996). There are interview comments from HTs and
recommendations regarding accessibility, rest and comfort ar-
reas, planting areas and materials, and basic maintenance.

“Lanscaping Outshines Whales at Sea World of Ohio,” American
Nurseryman, April 1996, p 18. A section that includes the statistic
that “98 percent of its visitors rated the park’s landscap-
ing as the most appealing feature” and an interview with horti-
culturist Rob McCartney, who describes the award-winning
“Total Access-A Landscape for All” garden.

The next five articles appeared in the Journal of The Landscape
Institute, April 1996, (ISSN: 0020-2908; 13a West Street,
Reigate, Surrey RH2 9BL, England; membership and queries:
6/7 Barnard News, Clapham, London SW11 1QU, England) and
were shared by Sally Williams, Garden Literature Press (398
Columbus Ave., Suite 181, Boston, MA 02116-6008).

“Access Not Excess,” by Peter Thoday and Jane Stoneham, pp
18-21. This excellent writing describes a developing concern
both in Britain and in the US. As landscape architects and de-
designers become more aware of designing with accessibility in
mind, some landscapes are resulting that meet the very specific
needs of a single disability population - to the exclusion of oth-
ers. According to the authors, “design created with only specific
disabilities in mind can create barriers for other special needs
groups.” The intent of the article is to encourage designers to
create for universal access. The authors also describe landscape
designing for hospitals, sheltered housing, and even private gar-
dens in residential settings where “by far the largest number of
people with disabilities” live.

“Learning Curves,” by Alan Frank and Val Cunnington, pp 22-
25, describes the one-year-old “Learning Curves” playground
at Meldreth Manor School, south of Cambridge, England. This
school serves over 90 residential pupils who come from all over
England and Wales, whose ages range from 5 to 19, and who
have a wide range of disabilities (severe, multiple learning, and
physical and sensory loss.) Learning Curves is a “sensory adven-
ture” that provides stimulating and interactive features for chil-
dren of all ages. This is a heavily constructed garden, as it is
described, including metallic structures, platforms, and ramps... yet offers a “wealth of different sounds, textures, colors, shapes,
smells, various movements, and changing perspectives,” ... a
place for exploration... and excitement.

“A Feast for the Senses,” by Bill Lucas, the director of Learn-
ing Through Landscapes, pp 26-28. This article describes the
powerful influence of the external environment on children and
the author’s findings that “successful design involves using a
mixture of sound, sight, and touch.” The author goes on to say
that “all children benefit from spending time in appropriately
designed school grounds” and that “for children with special
needs, these places assume an even more special influence in
their lives.”

“Gardens for All,” by Jane O’Connell and Tim Spurgeon, pp
29-31. With an emphasis on designing effective gardens for per-
sons who have visual disabilities, this article examines the crite-
ria for designing successful gardens that “everyone can enjoy.”
This article suggests that those design features that are tradition-
ally infused into garden designs for persons with visual disabili-
ties (texture changes in walking areas to denote path-edger, color
contrasts, aroma-generating plants, etc.) enhance the experience
for most garden visitors, regardless of visual acuity, and should be
employed universally in design.

Other reading...

Featured in the May 20, 1996, American Hospital Association
News: “Rooms with a View: Hospitals Find That Nature Soothes
the Body and Soul,” by Susan Edge-Gumbel. Highlighted are
the therapeutic benefits of woods and gardens at St. Michael
Health Care Center in Texarkana, Texas, and of a greenhouse
and perennial gardens at The Howard A. Rusk Institute of Re-
habilitation Medicine in New York. Both places make innova-
tive use of horticulture to create healing environments for both
patients and staff.

“A Vermont Hospital Turns Its Garbage Into Gold,” The New
York Times, October 9, 1994. Shared by Meg Smith of
Gardener’s Supply Co., this piece discusses the pioneering ef-
forts of the Medical Center Hospital of Burlington, Vermont.
The Hospital sends 600 to 900 lbs. of kitchen waste daily to a
composting facility two miles away where it is managed by the
Intervale Foundation, a nonprofit group promoting organic food
growing. The compost is then used in a plot to grow organic
vegetables for the hospital. The hospital has saved more than
$33,000 by hauling the waste to the compost pile rather than to
the dump.

“Flower Power: The Proper Garden Can Cultivate a Wealth of
Hospital Benefits,” Susan Edge-Gumbel, Health Facilities Man-
agement 9(6). Gardens provide healing benefits to patients, staff,
and visitors; they can also be an important public relations tool,
according to this thought-provoking article. “Flower Power”
explores the many ways in which hospital gardens can link the
community and the health facility, to the benefit of both.
“Healing Gardens,” Lynette Evans, *Metropolis* 16(3). The theme of this issue is “Being Well,” and this piece describes how designers are tapping into the use of gardens as restorative places to facilitate the healing, self-esteem, and relaxation needs of different populations. Several innovative garden sites are featured, including the Makahikilua Healing Gardens planned to surround the new North Hawaii Community Hospital.

“Plan Now for Easier Gardening,” *Kiplinger’s Retirement Report*, July 1996. Listed are adaptations to keep the garden enjoyable with less strain, including widening paths, installing lighting, building raised beds, creating more shade, and replacing high-maintenance plants.


**Research and Applications**

**Technology to Measure Value of Trees**

Word of new technology used to estimate the ecological value of trees in urban cities comes from recent correspondence and an article by Cheryl Kollin, Urban Forestry Director for the organization AMERICAN FORESTS, entitled “Helping Cities Save the Green.”

A computer application called Geographic Information Systems (GIS) has been used to conduct urban ecological analysis in five US cities. Among the findings:

- In Austin, Texas, a 30 percent canopy reduces stormwater runoff by 28 percent and saves $122 million in stormwater control measures. In Atlanta, the trees provide over $200 million in stormwater management savings.

- In Dade County, Florida, trees provide $5.3 million in direct summer energy savings to residential homes, and if live oaks were put in place of palms, these savings would increase about 20 percent.

- The Atlanta area has experienced a 60 percent loss in tree canopy over the last 20 years and a corresponding increase in urban heat island temperatures. Large areas of the city are 9 to 12 degrees hotter than the surrounding countryside, and air quality has declined by 12 percent.

Cities across the country are facing similar issues - a diminishing ability to protect their natural resources in the face of population increases and development pressures, a decreasing urban forest and open space, higher capital improvement and maintenance costs, and an inability to provide infrastructure services in light of escalating costs. Some cities are unable to meet federally mandated attainment status for clean water.

Urban foresters and a growing number of citizens know that our nation’s urban forests are a valuable asset, yet tree program budgets are continually cut back. The trees in a community are not valued as highly as the built infrastructure because citizens and urban foresters alike cannot convince public officials that the urban forest is an economic asset that can help cities address growth management issues. Community leaders need to understand the natural benefits provided by their local ecology.

AMERICAN FORESTS, the nation’s oldest citizen conservation non-profit organization, is trying to change this scenario. They developed an Urban Ecological Analysis (UEA) process to measure a community’s ecological benefits. It put the research applications developed by the US Forest Service, Natural Resource Conservation Service, and several universities around the country into a practical analytical package. Ecological benefits were assigned an economic value based on the contribution they made in terms of conserving energy, reducing stormwater runoff and peak flow, improving air quality, and maintaining wildlife habitat.

These values, converted into dollar benefits, represented dollars saved (such as reducing home summer cooling costs by shading homes with strategically planted trees) or dollars avoided (using trees to remove atmospheric carbon, rather than using expensive air pollution mitigation equipment, such as scrubbers, or using trees to slow stormwater instead of building concrete water containment facilities).

AMERICAN FORESTS recently conducted a UEA in Atlanta and found that the direct summer energy savings from trees shading homes were estimated at $4.6 million annually citywide. In one neighborhood, the residential canopy cover reduced stormwater flow by about 35 percent. This reduction of stormwater flow, when applied citywide, saved the city over $1 billion in stormwater management facilities. The city’s trees currently store approximately 475,000 tons of carbon (a major air pollution component) and sequester approximately 3,715 tons of carbon per year. The value of this annual sequestration is estimated to be $3.4 million.

Cities who want to map and measure their own urban forest resources can demonstrate their community’s values. AMERICAN FORESTS has developed CITYgreen™, a desk-top Geographic Information Systems software program, to help conduct the analysis. A community can use CITYgreen™ with Archview II software to conduct a UEA in-house. “Finally, we have a desk-
top computer tool that enables decision makers to take a natural resources approach to building cities,” says Ed Macie, urban forester with the US Forest Service in Atlanta.

With CITYgreen™, a community can simulate urban planning and planting scenarios and measure associated energy savings, stormwater management, and carbon sequestration benefits. In addition, the program can illustrate and calculate a city’s land cover changes over time. A stormwater analysis also performs “what if” scenarios for a changing environment to assist with planning decisions.

AMERICAN FORESTS offers regional training workshops and technical support for CITYgreen™. For more information, contact Tim Peterson by phone at (202) 667-3300 ext. 227; E-mail: timp@amfor.org; or see the web homepage: http://www.amfor.org.

Don't forget to subscribe to the PPC-list electronically by sending this message:
SUBSCRIBE PPC-L John Doe (replace your name)
to this address: LISTSERV@LISTSERV.VT.EDU

Also, the Virginia Tech Horticulture Homepage has a Human Issues section under construction including the topics of Horticultural Therapy and People/Plant Interaction. The address is http://www.hort.vt.edu/human/human.html.

Editor: Diane Relf
Chair, People-Plant Council
Assistant Editor: Michelle Buckstrup

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BOOKS

COMPUTERIZED BIBLIOGRAPHIES $15 each.
People-Plant Interaction (1542 citations) and Horticulture Therapy (1184 citations) bibliographies are available on 3.5-inch DS/HD diskettes containing the citations in WordPerfect 5.0. The material also can be ordered on 3.5-inch diskettes as DOS text files. Updates - return original diskette and $5.

VIDEOTAPES $15 each.
2) The Art of Rhonda Roland Shearer.

**** All prices in US dollars include shipping and handling. Make checks payable to Treasurer, Virginia Tech. ****

Trend Toward Gardening

In the British Airways magazine high life (1996), trendspotter Li Edelkoort looks over the next ten years and says that “...we will spend more time away from work, will take a keen interest in the world around us and in our surroundings - garden and gardening will be the in words.”

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