The Newsletter of The Ecological Landscaping Association

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A statement of ELA's purpose

Why ecological landscaping?

"I have found that the greatest help in meeting any problem with decency and self-respect and whatever courage is demanded, is to know where you yourself stand. That is, to have in words what you believe and are acting from."—William Faulkner

In an ideal world, the phrase "ecological landscaping" would be redundant, in the same way "health food" would be. Shouldn't all food be healthy? Shouldn't all landscaping be in harmony with natural processes? It's ironic that a field of activity which deals with plants, soil, water, and other essential components of the environment has so often become so dissociated from the key principles of ecology that there's a need to "improve" it. Yet,

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all too often, current, conventional landscaping relies too much on toxic chemicals, uses plants which can escape gardens and overtake natural areas, disrespects water, and commits other, unnecessarily abusive acts on a regular basis.

As our mission states, ELA focuses on education and bringing people together to network and share their experiences, with the goal of making landscaping practices more ecologically sustainable. When landscape professionals more completely understand the workings and interactions of natural systems, they are equipped to make better decisions, from the design process through field work. For the conscientious practitioner, information is as essential a tool as a shovel, wheelbarrow, or backhoe.

So, what makes for ecological landscaping? Ecology is the study and science of the relationships between organisms and their environment. Core concepts of ecology describe the patterns and processes by which nature sustains life. Ecological principles deal with interconnections between different parts of living systems, energy and materials cycling, dynamics and change, and notions of diversity, stability, and complexity. The more that landscape practice is modeled on or inspired and informed by these concepts, the more successful it will be.

As an organization, ELA neither endorses nor subscribes to any particular "system," methodology, or approach to landscape practice. Our goal is to provide a "big tent" where people who are concerned about issues of conservation, sustainability, wise use of resources, etc., as they manifest themselves in landscaping and horticultural practice, can come together and learn. We offer no rigid lists of prohibited materials, make no particular demands, and require no vows of purity for membership. Anyone is welcome to join and participate, regardless of their work specialty or level of knowledge.

We are committed to providing access to information, drawn from many sources, to help people become more aware of relevant ecological issues and solutions, to understand the effects of their actions, and ultimately to help in the creation of landscapes which combine the best aspects of beauty, utility, and harmony with the surrounding environment.

Renewal Time

If you haven't yet renewed your ELA membership for 2004, please do it today. Our continued success depends on you! Thanks! "Gramma said when you come on something good, first thing to do is share it with whoever you can find; that way the good spread out where no telling it will go. Which is right."—Little Tree in The Education of Little Tree, by Forrest Carter



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The ELA board meets throughout the year in various locations in eastern Massachusetts. All members are welcome. Contact us for specific dates and locations.

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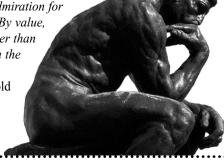
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"It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean something far broader than mere economic value; I mean value in the philosophical sense."

—Aldo Leopold



EDITOR'S TWO CENTS

How do we landscape? Let us count the ways. For some, this type work is just a another job. For many more, it is a chance to combine some mixture of a love of plants and the outdoors, physical activity, working with a diverse mix of people, in work with inherently challenging, dynamic qualities.

And there can be another layer of depth. Call it values or ethics; but generally, we can refer to some sort of philosophical foundation as it relates to the broader world and the place of us humans in it. Leopold called it a land ethic, some refer to ecological values, others to sustainability. All these impulses seek to move us in a direction of greater harmony with our environment, better quality landscapes, and a deeper sense of fulfillment.

Many systems, methodologies, theories, and philosophies have been developed that address these concerns, and all of these can motivate and inform our work on and with the land. They are all tools to be used, when useful, in the appropriate setting.

We solicited and collected contributions for this issue from a number of diverse individuals and practitioners of various, codified "systems" which speak to the issue of environmental values. (We had hoped to have views from an organic land-care group, and a biodynamics practitioner, but we received no submissions despite repeated requests.) We hope you find these essays and articles helpful in thinking about your own relationship to your work. As always, we welcome your thoughts on this or any other topic.—*Nick Novick*

"If I look confused, it's because I'm thinking."
—Samuel Goldwyn

CORRECTIONS

The wrong credit information for two articles was inadvertently printed in the last issue.

The credit for "Building soil systems," excerpted from The Once and Future Forest should have read: "From The Once and Future Forest by Leslie Jones Sauer and Andropogon Associates. Copyright © 1998 by Angdropogon Associates, Ltd. Reproduced by permission of Island Press, Washington, D.C."

The credit for "Humus," excerpted from Dirt: The Ecstatic Skin of the Earth should have read:

"From DIRT by William Bryant Logan, copyright © 1995 by William Bryant Logan. Used by permisson of Riverhead Books, an imprint of Penguin Group (USA) Inc." We regret the errors.

The philosophical landscaper

by John Hart

We are defined, to ourselves and to others, by the things we do. The things we do—our actions and behaviors—arise from our values. Our answers to the value-based question, "What is important?" lead to our life choices at all levels, from satisfying basic needs to selection of spouse and career path, to finding meaning in our lives.

I like to believe that a majority of the people involved in landscaping place a high value on conservation of the Earth's biosphere and share an understanding of our ultimate human dependence on ecological health. And while for most of us there is some discrepancy between our talk and our walk—some gap between our values and our actions—we are headed in the right general direction.

Aldo Leopold clearly defined the right direction 60 years ago: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

I read Leopold's *A Sand County Almanac* in 1970 while avoiding my graduate homework in forest ecology. It was a reasonable trade. The next year I found Ian McHarg's *Design with Nature*, and I recall wondering what all the fuss was about: of course you would do thorough site analyses and inventories, of course you would set priorities in keeping with good stewardship, of course you would conserve and protect sensitive areas,

of course you would aim toward best management practices. What I didn't realize at the time, being young and naïve, was that sites and developments were rarely designed with natural systems in mind.

Thirty years later, designing with nature should be the norm, but in reality we have a long way to go. There is still a lack of understanding of natural systems within the design/ development community; we continue to support a mistaken belief that sustainable design is more expensive; and most of us fall prey to the basic human aversion to change. The solution to all three problems is education: learning how natural systems work and using systems thinking; learning to include long-term costs and lifecycle analysis in the economic picture; and learning that if you don't change, you're history.

On a deeper level, progress is slow because of skewed values and cultural blindness. Sustainable design, development, and management require a balance of ecological health, human well-being, and economic feasibility. Much of human history has set the highest value on the economic side of the triangle (and narrowly defined: short-term profit for the few) at the expense of ecological and human health. There is immediate and personal reward for focusing on shortterm profit and on consuming at a high level in spite of obvious longterm deleterious effects on natural systems and future generations.

Because the instant rewards of

short-term profit are so immediate, remarkable, and pleasurable, and because the long-term problems are slow to materialize, have such indirect and varied causes, and seem to have little immediate relation to our individual lives, as a species we are blinded to the longer term ill effects of our ignoring natural systems and human community needs. It is much easier and more profitable (shortterm) to do a status-quo design/ development than to struggle to push the system envelope for all participants (client, designer, developer, planning and zoning board, realtor, financier, etc.).

The power of the dollar is seemingly infinite. The fatalistic side of me believes that this skewed pattern of de-valuing ecological and social necessities will only be broken when larger systems begin to collapse and it becomes inescapably obvious that the present approach is not sustainable. My more optimistic side reminds me to "Think globally, act locally," or as an activist friend corrects, "Think locally, act locally."

We do what we need to do, referenced to our values. We hope it will make a difference to the world. We know it will make a difference to our community and to ourselves.

John Hart is associate professor of Horticulture Technology at the Thompson School of Applied Science, University of New Hampshire, Durham. This article appeared in the New Hampshire Landscape Association newsletter, Oct. 2003.

"We are what we repeatedly do."—Aristotle

"Fertilize, annihilate. Fertilize, annihilate. It's a vicious cycle."—ad for Chindaiwa power equipment

Nozzle-Heads and Tree-Huggers

by Paul Sachs

Contemplating an ecosystem is an ambitious consideration. Comprehending its extraordinary complexity is challenging enough, but its evolution and ever-changing dynamics make it all the more unfathomable. Those designers and engineers of Biosphere 2—a structure built in the late 1980s to contain an independent ecosystem segregated from the rest of the planet—were humbled by the seemingly infinite number of animate and inanimate relationships needed to sustain an ecosystem. Unfortunately, those incredibly progressive revelations didn't mitigate the arrogance of those who still believe that N-P-K and pesticides are all that is needed to sustain a healthy landscape. Extremists from the chemical coterie (let's call this group the Nozzle-Heads) would have us believe that cultivated plants would be better off without any assistance (they might use the word interference) from nature; that turf, for example, would be healthier and less problematic in sand or some other abiotic growing medium fed and medicated at prescribed intervals.

At the other extreme are idealists who are just as dogmatic about their "natural" methodologies (let's call this group the Tree-Huggers). Aside from the philosophical differences of these two groups, the Tree-Huggers have one other notable distinction: They don't agree among themselves about which products or practices are acceptable and which are unacceptable. The Nozzle-Heads are unified. If a product or practice gives good results at a reasonable price, then it is acceptable. They reason that synthetic materials would not be available if they weren't safe for the environment, the applicator, and the

children or pets who play where the products have been applied. Tree-Huggers are not nearly as congruous. Some Tree-Huggers believe that only materials suitable for certified organic food production are acceptable for ecological landscaping (some would argue that even these standards are too relaxed). Others subscribe to a bio-rational approach in which ecocompatible products and practices are acceptable whether they are allowed for certified organic food production or not. Some Tree-Huggers may actually use some of the same products that Nozzle-Heads routinely apply but adhere to strict criteria that only allow their use in unusual circumstances. All of these approaches are less likely to negatively impact the ecosystem like a strict chemical regime would but, unfortunately, the dissension within the Tree-Hugger camp reduces their credibility.

If a homeowner asks three Nozzle-Heads if Roundup® is safe to use, they would unanimously answer yes. But, if the customer asks three Tree-Huggers if corn gluten is OK to apply, one might respond "yes," the second, "no, it adds too much nitrogen," and the third, "only if you know for sure that the corn from which the gluten is derived is not genetically engineered." Score one point for the Nozzle-Heads in the category of cogency.

Over time, ecologists have begun to understand many basic concepts—one of which is that the plant growing system does not function solely for plants any more (or less) than plants function for it. Plants are a component of a system and they provide for the soil flora and fauna as much as the soil biota provides for them. Ideally, amendments applied to the soil to enhance plant growth should also enhance and enliven all the other components of the system.

Unfortunately, we don't know enough about the ecosystem to manage it. We don't even know exactly what changes we initiate when we add seemingly innocuous and beneficial amendments like blood meal, bone meal, or compost. Tree-Huggers presume, with good reasons, that those changes are more productive and positive than those launched by adding glyphosate, chlorpyrifos, or 2,4-D, but no one really knows for sure how the ecosystem is ultimately responding (or reacting) to any of these materials. The Tree-Huggers believe their methods are more compatible with the ecosystem because they are providing resources for a system that functions on biological energy. Most Tree-Huggers agree on the basic tenet of ecological land care —that the system needs resources (nourishment) to function properly and that soluble, available N-P-K and pesticides are less likely to provide eco-nutrition than blood meal, bone meal, and compost. If we look very closely at everything that Tree-Huggers agree on, we would probably find that those beliefs in concert vastly outnumber the issues of contention. So why do we hear more debates than harmony of opinion?

One problem may be the level of research afforded to each camp. The Nozzle-Heads have the lion's share of research at their disposal supporting the effectiveness and benign environmental impact of chemicals. Although plausible, skepticism is growing as most of the research is funded by the chemical manufacturers. In contrast, there is a conspicuous dearth of evidence that the Tree-Huggers can use. They must rely on word-of-mouth, anecdotal evidence, small amounts of research, and some transcendental truths to establish their altruistic belief system. It is difficult to objectify, more difficult to sell, and nearly impossible to

"If we knew what we were doing, it would not be called research, would it?"

—Albert Einstein

agree upon. Unfortunately, without a unified voice of consensus, the Tree-Huggers aren't gaining credibility very quickly.

Over the past few decades, more and more people have adopted or are examining the Tree-Huggers' tenets. Fears about public health and environmental decline stemming from the immoderate application of chemicals are compelling millions to eat certified organic food, avoid pesticides, and have more respect for their environment. If the Tree-Huggers put

more energy into developing a bigger and more consolidated constituency, they might gain enough resources to reach more of their goals. Some of those resources from a larger membership could be used to fund ecological research—the kind that benefits the environment and humanity, not necessarily the corporate entity. If Tree-Huggers can establish their doctrines as academically valid, they will likely gain conventional credibility. And, convincing Nozzle-Heads that ecological land care is the

most sensible, most practical, and most effective methodology may be far less difficult.

Paul Sachs is founder and managing member of North Country Organics, a Bradford, Vermont-based manufacturer and supplier of natural land-care products, and of Ecological Turf Consultants, a firm that specializes in solutions for clients who want to reduce or eliminate the use of chemicals on golf courses, sports fields, or other expanses of turf.

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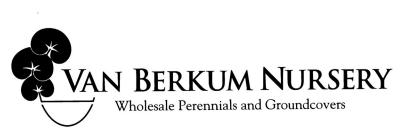


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Nature abhors a garden

by Peter Del Tredici

Tomeowners and horticulturists alike use the term ecological landscaping to express an awareness of the importance of environmental issues. Unfortunately their awareness does not extend into the realm of semantics. The phrase ecological landscaping, despite its popularity, is ambiguous, mainly because the word ecology itself has two distinct meanings. Within the field of horticulture, ecology generally refers to landscape maintenance techniques that are less destructive, polluting, or energyconsumptive than "traditional" techniques—basically what is referred to as being "green." From the biological perspective, ecology describes the structure, development, and function of ecosystems. The fact that people use the same word in different ways has led to significant communication problems among people who work with different aspects of horticulture. In the hope of bridging such communication gaps, this brief article highlights other important words and concepts that are bandied about in the literature without concern for their precise meaning.

While gardeners can learn many things from studying "natural" plant associations, there are clear limits to how far one can carry the comparison. The concept of succession is a case in point. In unmanaged landscapes, the processes that lead to the development of a community of plants and animals on any given piece of land are unpredictable. The apparent stability of that community at any given point in time is an illusion; the reality is an ongoing change in composition induced by unpredictable disturbances.

In contrast, designed landscapes typically consist of a limited number of plants assigned to fixed positions. There is little or no room for dynamic interaction among the various species, and no provision for additions or deletions to the design. Most landscapes are based on the assumption that the conditions that prevail at the time of installation will continue more or less unchanged into the foreseeable future. Gardening is essentially about humans controlling—even disregarding—the successional process to produce specific aesthetic effects, while ecology is about natural selection controlling plant succession based on the principle of survival of the fittest.

Closely related to the concepts of ecology and succession, and equally ambiguous, is the concept of weed. Deciding which plants to cultivate and which to eradicate is one of the most basic issues that a gardener faces. From the horticultural perspective, the concept of weed is relative and a function of the purpose of the landscape: a weed is a plant that the gardener does not want. From the biological point of view, there is no such thing as a weed. The nearest equivalent would be a colonizing, or early successional plant that requires some form of disturbance of the land to become established and survive.

The final element in this all-too-simple discussion of ecological landscaping concerns the crucial role that disturbance (i.e., environmental change) plays in shaping the development and structure of all plant communities, managed as well as unmanaged. Two basic categories of disturbance can be recognized: that which is part of the "natural" disturbance cycle—including wind, fire, ice, and water—and that which is a byproduct of human activity, know as anthropogenic disturbance. In its broadest sense, this latter category includes the insidious effects of all types of pollution including acid rain, air pollution, road salt, and fertilizer runoff—as well as the large-scale effects of ecosystem management programs that modify the normal nutrient, fire, or water cycles of a given region. The issue of global warming, which has the potential to affect large-scale weather patterns, is making it increasingly difficult to keep these two categories of disturbance separate from one another.

The different meanings of the words ecology, succession, weed, and disturbance play out in the different ways people view the contentious issue of introduced species. From a conservationist perspective, exotic species are general seen as disruptive elements that invade natural habitats and displace native plants. From a biological perspective, exotic plant "invasions" can be viewed as symptoms of human-induced environmental degradation rather than the cause of it. Invasive species, regardless of their nativity, typically display broad ecological amplitudes (i.e., adaptability) that allow them to exploit the chaos that ensues when existing plant communities have been destabilized by environmental disturbance, either natural or anthropogenic. As with so many things in life today, the ever-expanding human population is the real problem: exotic plants and animals are convenient scapegoats.

Like it or not, the world is constantly changing, and the forests and fields of the future are going to look quite different from those we see around us today. Globalization seems to have taken over our environment in much the same way that it has taken over our economy. The minute we stop maintaining our gardens, the ravages of wind, snow, ice, droughts, floods, weeds, pests, and diseases transform them into something we never imagined. Basically there's no such thing as a "natural" garden, even one that consists entirely of native species. Much as we might like to deny it, nature abhors the garden.

We cannot mimic nature in our gardens because nature is a process, not a product. The best we can do is stick to a few basic principles: get the right plant in the right place; practice consistent maintenance over the long term; and most importantly, know why we're growing a garden and how we want it to look in the future. Indeed, being able to visualize the future is really the only thing that keeps us working on our gardens in the present.

Botanist Peter Del Tredici is director of Living Collections at the Arnold Arboretum of Harvard University and a lecturer in the Department of Landscape Architecture, Harvard School of Design. He lectures frequently and his writing has appeared in numerous publications. This article, which appeared in Pacific Horticulture, July/Aug./Sept. 2001, appears by permission of the author.

ELA and the evolution of an industry

One person's perspective

by Michael Talbot

[Editor's note: Michael Talbot, one of the founding members of ELA, here recalls the early history of the group, and offers his thoughts on how change can best be affected in the landscaping industry.]

As best as I can recollect, it all started on a cloudy, December afternoon in 1990 in a small, hotel meeting room in Albany, New York. Our mood, as we came together inside that room, reflected the cold, gray weather outdoors. We had heard that Chemlawn was getting ready to launch an "organic" lawn-care program, and we were scared.

There were less than 20 of us, but we represented the principal core of a new approach to landscape management. Each of us in our own way had developed a landscape business that offered alternatives to conventional management—mostly organic land care, but also more sustainable design and installation of landscapes. We were generally new at this, mostly small scale, and most of us were still unsure of ourselves. Yes, Chemlawn scared the hell out of us.

Two significant ideas came out of that meeting. The idea of certifying professionals in alternative landscaping-organic lawn care first and foremost—led years later to an exhaustive, volunteer effort that produced an extensive professional guide to environmentally sensitive turf care. Originally conceived and written as certification standards for organic lawn-care professionals, there ironically turned out to be little interest in actually developing such a certification program. Today, the guide is used principally for education and reference.

What changed? In just a few years we had come of age. No longer scared by big, cookie-cutter land-care

companies that offered the same conventional service to all customers, we had come to learn that we could succeed in business while offering a legitimate alternative to conventional practices. The secret to our growing success? We had come to learn what it truly took to succeed at our chosen professions in ornamental horticulture, but if you want to know what that is you will have to read on.

The second idea emerging from that small, intrepid "band of brothers" (we acknowledged that we needed women in that room) turned out to be more significant. As the meeting drew to a close, one or two of us threw out a suggestion, a plea really. What if we formed an organization that would look out for our interests and continue the dialogue started at that meeting. Eventually, that simple idea became the Ecological Landscaping Association.

How that simple idea actually became ELA is what makes for an interesting—and instructive—story.

ELA began as a committee of the Northeast Organic Farming Association (NOFA), a regional organization concerned primarily with agriculture. My involvement with NOFA had actually started years earlier while doing community gardening and greenspace development in inner-city Boston, principally while working for Boston Urban Gardeners and the Massachusetts Horticultural Society. For a while I was even the token inner-city gardener on NOFA's board of directors. As I pursued my career in ornamental horticulture, I continued my links to NOFA—to the point where I provided some of the first programs on organic and sustainable land care at the annual NOFA conferences.

I was not the only one. Many of us in that early Albany meeting had links to organic farming organizations. Frankly, aside from some efforts at a few forward-looking state extension services, no other organizations we knew of in the Northeast were even discussing environmentally sensitive growing practices. It was natural, then, for us to start our organizational efforts under NOFA's umbrella. Eventually, we formed the Ornamental Horticulture Committee, which included in its agenda the establishment of certification standards for our industry.

All was not well, though, working with NOFA. NOFA is principally a farming organization, and some of its members and leaders looked upon us with a little suspicion, even disdain. Ornamental horticulture was seen by some as a lowly business—why would we waste any resources on mere aesthetics? Occasionally, these sentiments were even expressed publicly, and I and many of my colleagues felt a growing unease about this alliance.

More importantly, though, we were becoming increasingly sophisticated and our vision was growing. Most of us on the Ornamental Horticulture Committee and in other impromptu gatherings of like-minded professionals had come to believe we could make a real difference in our industry —a positive difference. But we strongly felt that in order to make that difference, we had to be a part of the industry, not apart from it.

The announcement that we would be forming a new industry organization, ELA, was not greeted well at NOFA. There was resentment that appears to still exist today. But I am more convinced than ever that leaving NOFA and forming ELA was the right choice. What credibility can a farming organization have in our industry?

ELA showed its commitment to the industry as a whole early in its history. The first ELA board of directors faced a crucial crossroads. Would we be exclusive or inclusive? Would we limit our membership to those who believed in just one philosophy or would we be open to the many perspectives and approaches that make our industry more environmentally sensitive? I was very proud of the board's decision to choose the

latter. It was another evolutionary step beyond our roots; a recognition that the really big gains in enhancing our industry—including a significant reduction in the use of high-impact pesticides—would come not from a choice between the two ends of the scale, but there in the middle where most of us reside.

Despite my evolution of thinking, I still owe much of my philosophy of horticulture to organic agriculture. This includes appreciating the importance of preserving and enhancing soils to enhance plant health and cultural management of pests.

But from early on, years before there was an ELA, I have preferred to call what I do "ecological" landscaping—in part because I seek to learn and apply those principles that sustain natural ecosystems to humanbuilt landscapes. An important part of my mission and my philosophy is to find the common ground between ecological restoration and ornamental horticulture, between conservation and landscape management. To do that we will need to learn from many teachers, and whether they call what they do "organic" or "IPM" or "sustainable" or whatever, if it enhances the environmental sensitivity of what we do—while serving our clients well—then it is valuable.

And so, there it is. For those of you waiting for the secret of success in our industry, I have let it out. One of the key differences between agriculture and ornamental horticulture, for example, is this: farmers produce a product—generally for people they will never meet, while in our industry we sell services to people with whom we have ongoing relationships.

First and foremost, we succeed when we serve our clients well. We do this by providing benefits they seek to enhance their lives, and do so while making a profit. It is important to remember that there are generally no "good guys" and "bad guys" in our industry. No professional I know wakes up in the morning asking what they can do to ruin the earth's environment. Instead, the successful ones ask, "How can I serve my customers and put food on the family table?" If they are steeped in conventional practice, then this is how they will achieve their success.

I leave it to environmental and other advocacy groups to lobby against such practices, even to outlaw them. When I lecture or consult to professionals, I do not promote ecological landscaping as righteous or holy. I tell them it is good for business. If you adopt a legitimate IPM approach to landscape management, for example, you will by design pay more attention to the particular circumstances and needs of your client's landscape, seek to make their landscape more sustainable, and use a least-toxic approach to pest control. When done well, this opens up new markets; distinguishes you from your competition; enhances your professional stature with your clients; shows you care about them, their families, and their pets; and improves client loyalty and retention.

So why "ecological"? Frankly, people tend to have a good feeling about the word "ecology," thanks in part to all of the animal, environmental, and even travel programs on television that people watch. Why not use the term? It certainly conveys a better sense of what we are trying to do for our clients and for their world than "IPM" or even "sustainable landscaping."

But regardless of marketing or philosophy, the key to success will always remain our ability to provide the benefits that our clients seek, even when we may not agree with them. This is where the need for compromise and for flexibility to please the varying desires of our many clients can muddy the waters of even the purist vision of environmental sensitivity. Last year I had one organic lawn-care client who was not happy with the spurge growing in the lawn ask me, "Can I be 90% organic?"

I know that for some, you are either 100% organic or 0% organic. Do I tell this client, then, to live with it, to stop being a bad person, or to get a conventional lawn-care company to do their five-step, pesticide-laden program because I will not meet their needs? Or do I spot-treat the offending weed with the least-toxic material registered for that pest, while educating them about the circumstances and conditions that enhance the growth of spurge in lawns and seeking to remediate those conditions?

We face these challenges all the time, and it is my hope that ELA will continue to be a place where we can discuss these tough issues in an atmosphere of mutual respect. ELA is unique in that it brings all the disciplines together—from landscape architects to maintenance contractors—over the issue of enhancing the environmental sensitivity of the entire industry.

My only regret is that ELA is not a national organization with chapters throughout North America and beyond. It's too good an idea to restrict to one part of the country. But I can still dream ...

Michael Talbot is president and principal consultant, Michael Talbot & Associates, Inc. of Mashpee, Mass. He is also an ISA Certified Arborist, Mass. Certified Horticulturist, landscape designer, consulting arborist (American Society of Consulting Arborists), conservation consultant and educator, vice-chair of the Mashpee Conservation Commission, and a member of the board of directors of the Rachel Carson Council, based in Maryland.

"Science is the tool of the Western mind and with it more doors can be opened than with bare hands.

It is part and parcel of our knowledge and obscures our insight
only when it holds that the understanding given by it is the only kind there is."

—C.G. Jung

"I am a man of fixed and unbending principles, the first of which is to be flexible at all times." — Everett Dirksen

Permaculture design: ethics first

by Claude William Genest

The subject of permaculture is design. Specifically, it is a system of practical, holistic, ecological design whose principles and practices are taken directly from nature. It is an all-encompassing vision designed to address basic human needs in the context of a global environmental meltdown—and its foundations are, to be sure, very much based on values, ethics, and philosophy.

One of the complaints levied against permaculture is that it's hard to succinctly define and "get" it. Often permaculture practitioners hear the reprimand that "if you can't define your subject in three sentences or less, you just don't know your subject!" This simplistic, reductionistic mindset is, we believe, very much part of the problem, and in landscaping terms often leads to applications of "one-size-fits-all" solutions across complex and diverse landscapes, climates and conditions.

There is, however, a three-sentence definition of permaculture. These are the phrases permaculturists use to begin and end any discussion of permaculture (indeed of anything that purports itself to be "sustainable," "ecological," or "green"). I am referring here to permaculture's code of ethics which, very simply, is: "care of the earth, care of the people, and returning a surplus" (or, as the British put it: "earth care, people care, and fair share").

I find this much easier to grasp and more relevant definition of sustainability than the myriad versions bandied about, most of which simply seek to, as architect William McDonough puts it, "do the wrong thing right" for as long as possible.

If a given landscape, building, or product meets these ethics, then we don't really care what it's called. As far as we're concerned, it's the highest expression of what permaculture seeks to achieve.

Deep philosophical roots

Permaculture has deep philosophical roots. The spiritual father of permaculture, and Bill Mollison's biggest influence, has to be Mansanobu Fukuoka whose classic text, *The One Straw Revolution*, brilliantly exposes the limits of scientific thinking as applied to nature and succinctly lays out the meaning of a system of working with nature and not against her. When you consider all the brutal, violent and dominating ways we try to "control" nature, this philosophy is not as simplistic as it might at first appear.

In order to work with the earth, we need to know a little about how the earth works. Here we borrow from the Gaia Theory which demonstrates that, in fact, the earth works extremely well as a cohesive, intelligent (some might say conscious) whole system. We need to begin thinking in terms of whole systems and, in my opinion, part of permaculture's brilliance is its amazing ability to "download" this ability to people rapidly and effectively.

For many of us, though, the first order of business will be to *unlearn* the notion that people, buildings, land, and animals are to be treated as separate entities. As Paul Hawken and Amory Lovins put it in *Natural Capitalism*: optimizing elements of a system in isolation tends to "pessimize" whole systems.

Making connections

Whereas the entirety of our Cartesian, reductionistic heritage involves separating and breaking things down (think of how "normal" it is to keep separate for example industrial, commercial, residential, and "natural" sections of the same city) permaculture is all about putting things back together again; about making connections

Thus, rather than simply throwing arbitrary elements into a design (a garden here, a pond there, and chickens out back) permaculture seeks to

understand how these might work together synergistically—that is, how they might be connected for optimal yield and benefit. Done right, each element would find itself supported by multiple other elements while providing multiple functions.

As an example, the chickens could benefit from the heat, protection, and accessible water source of the pond, while gardens benefit from the pond's nutrient-dense waters as well as from the chickens periodically visiting to work it on our behalf. This "chicken tractoring," as it is known in permaculture, is itself an example of working with nature—a chicken has natural instincts to "till" the soil, fertilize it, and eat pests. Why not put those tendencies to good use and derive ultra-nutritious eggs as a benefit?

Permaculture is in many ways akin to Aikido, the Japanese martial art. Armed with not much more than our nature-based principles and pattern recognition, we can do simple, effortless moves that utilize or redirect nature's flows, patterns, and energies in ways that can have tremendous impacts, leverage, and benefits.

This often leads to designs that, to a conventional landscaper, will appear insignificant, sloppy, and none-too-impressive looking, but that over the longer term will provide multiple yields, far beyond mere aesthetics.

While permaculture considers beauty and aesthetics imperative aspects of a successful design, they are not, by any stretch the principal objective. It's not that we wouldn't like people to "ooh and aah" over our designs, it's just that, as many of you probably know, "aesthetic," to large segments of our culture, means "clean, orderly, controlled, and manicured." These are considerations that for the most part totally ignore natural principles at best, and are ecological disasters at worst. Thus a landscape that meets the demands of our fickle idea of "pretty and clean"

is going to have quite some trouble meeting our ethical standards. (Although I am confident that as permaculture meets biodynamics meets landscapers such as the readers of this newsletter, it will inevitably get there; and the sooner the better.)

Cultivated ecologies and profit!

What we seek to do in permaculture is to literally cultivate ecologies, and create restructured backyard ecosystems that mimic natural systems in their diversity, resiliency, and diversity. The goal is sustainable human habitat that is ecologically beneficial, financially profitable and, yes, aesthetically beautiful.

The notion of "profitability" I have found to be of particular importance in the commercially minded North American context where ecological and environmental concerns have been very much relegated to a

dangerous back-burner position, in favor of what is perceived to be the more profitable bottom-line.

From our perspective, a typical homeowner with his acres of lawn, is paying to maintain a chaotic and ecologically devastating system. Add to that the health threats of chemically controlled landscapes, and you have a triple-bottom-line loss. Conversely, permaculture actively produces multiple yields. Food, fiber, fuel, fodder, forage, habitat, erosion control, and water conservation are just some of the yields one should reasonably expect from an ethical and productive system of land design such as permaculture. Therefore it can be truthfully said that we are producing a triple-bottom-line win sustainable human habitat that is good for you and your wallet, good for your health, and powerfully good to the planet.

Done right, we can easily move beyond the creation of "merely" sustainable systems and into the realm of repairing, healing, and regenerating the ecosystem services upon which we crucially depend.

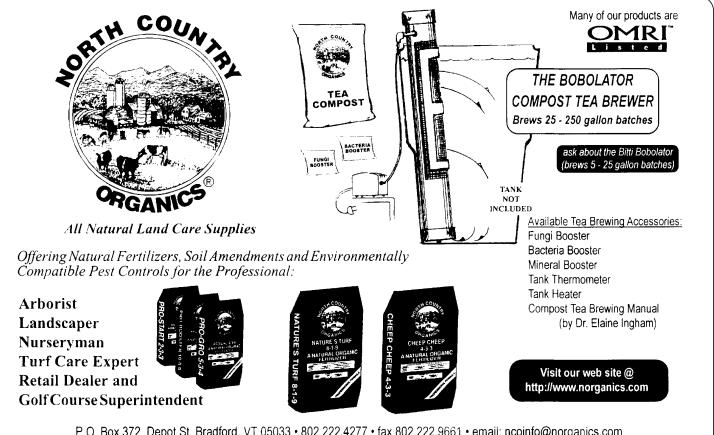
Claude Genest is founder of the Green Mountain Permaculture Institute of Vermont. A design certificate course will be taught there by Permaculture Activist editor Peter Bane May 28-June 5, 2004. For information check <www. greenmountainpermaculture.com>.

He is also vice president of the Green Party of Quebec and creator and host of "Regeneration: The Art of Sustainable Living," now in development with Discovery Channel, Canada.

Claude will be speaking on the theme of permaculture's approach to harvesting and managing water in the landscape at this year's ELA Winter Conference.

"At birth a person is soft and yeilding, and at death stiff and hard. All beings, the grass, the grees: alive, soft and vielding; dead, stiff and hard. Therefore the hard and inflexible are friends to death. The soft and vielding are friends of life. An unyielding army is destroyed. An unbending tree breaks. The hard must humble itself or be otherwise humbled. The soft will ultimately ascend."

— Lao Tzu, Tao Te Ching #76



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Integrated pest management (IPM) and plant health care (PHC)

by Robert D. Childs

Tn the mid-1940s, an amazing thing $oldsymbol{1}$ happened in the field of insect pest management: The idea of being able to totally control insect pests with chemicals seemed to have finally become a reality. The initial results, from such compounds as DDT, were so overwhelming that making converts to this new paradigm in pest management was easy; pest populations dropped dramatically, crop quality increased noticeably, and crop yields soared. These new compounds for pest control quite simply acted as a form of insurance for pest managers. They could apply these on a regular calendar basis and not have to worry about pests while their "clean" crops would most likely earn them a good profit.

As we all know, this new trend did not persist for more than four or five years. Somewhat abruptly, growers started to discover that the insect world was quite adept at developing resistance to chemicals, even those very harsh ones made by humans. Rachel Carson's book, Silent Spring, which appeared in 1962, was the most scientifically researched book on the subject of pesticides, human health, and the environment to have ever been written up to that point in time. Despite the fact that this book was the beginning of the environmental movement in the United States, it was not well accepted by some factions. The public became alarmed while industry, farmers, and county extension offices were slow to recognize and acknowledge the ramifications set forth by Rachel Carson. After all, it was the function of extension to help the farmer, and those pesticides played a major role. The American public "demanded" a bountiful and clean harvest, while the chemical producers claimed to be meeting those demands (while making a profit). All

of these are very legitimate issues, but were not addressed, to their full extent, in the first 20 or more years of using these chemicals.

Without delving into a deep history of this era, it is important to note that integrated pest management (IPM) for insect pest management originated during this time period. The essence of this new thing called IPM was not new. Plant pathologists never had the arsenal of chemical pesticides like that of the entomologist. Therefore, pathologists had to always encourage the smart use of cultural practices in order to prevent or minimize the occurrence of disease. Such practices included: culling out of infected plant material, planting disease-resistant varieties, paying careful attention to irrigation practices that might encourage pathogens, removal of plant parts (stubble, etc.) from the field that may harbor infectious organisms, and so on. Although these smart management practices were not called IPM at the time, they do represent the very foundation of what we practice

The reliance on chemical pesticides did not disappear; as we all know, their use is still an important factor today in pest management. However, the way we view and implement their usage has changed greatly. Today, pesticide users need to be aware of the connection between placing chemicals in the environment and that of human health effects. Also of great concern are the environmental ramifications (such as ground water contamination), preserving our beneficial organisms that help to keep pest organisms in check, public perception of chemical pesticides (issues that are both well-founded and sometimes not), pesticide resistance, secondary pest outbreaks, and political trends.

The first IPM programs to be developed through the 1970s and 1980s

primarily focused on food crops. Therefore, this area of IPM is now very well researched and documented. Implementing IPM for the Green Industry (non-food agriculture) came along after the initial work on food crops was fairly well established. It was slower to be accepted and implemented by this industry than it was by traditional farming. Extension services across the country began stressing IPM practices for all areas of agriculture, yet as late as 1990, the Green Industry had not yet begun to truly implement the foundations of IPM.

The fundamental aspects of an IPM program are outlined in the following steps and can be manipulated to develop an IPM approach for any plant commodity.

1. Identification

One must have knowledge of the associated plant material under one's care. This includes not only identification of the plant but its biological needs as it pertains to its growing environment, such as hardiness zones, soil pH, water requirements, and so on.

Inherent pests: Virtually every plant species has at least one potentially harmful pest associated with it. It is important to know this (these) pests, their life cycles, etc.

Beneficial organisms: Nature is a system of checks and balances. Most everything in nature is a potential meal for something else. IPM practitioners must know the insects and mites that feed on the potential pests and help to protect them with sound management techniques.

Incidentals: The vast majority (about 93 percent) of insect species are not pests. It is important to know when the occurrence of insect presence on plant material does not warrant any intervention.

2. Monitoring

This is the backbone of any IPM program. If one is not actively and regularly monitoring for pest activity, then IPM is not truly being implemented. Many university extension systems often provide such regular information to their clients in the form of growing degree day information (GDD), pest activity, and weather conditions. Monitoring techniques include visual inspection, the use of specialized traps such as those with pheromone attractants, branch-shaking with inspection via a hand lens, and other methods.

3. Knowing the economic/ aesthetic injury level

In traditional agriculture, it has long been known what pest population size, during the growing season, means in terms of crop loss at harvest time. In its simplest terms, the economic threshold is where the potential loss in dollars, at harvest time, equals the cost of managing that pest now. However, when one considers the "value" of ornamental plants, placing a dollar value on "potential loss" is much more subjective to the individual client's expectations. Given that the "value" of these plants varies with individual desires, it is probably safe to speculate that the need to implement pest management here occurs long before the long-term health of the plant is affected. The economic threshold aspect for ornamental plants is important when a pest presence either devalues the wholesale/resale potential of those plants. Oftentimes, only a small amount of noticeable plant injury (from insects) can significantly reduce a plant's value at the garden center while that amount of injury in no way is detrimental to the plant.

4. Knowing the correct treatment

Today, it is no longer a case of having a plant under your care, seeing a pest on that plant, and administering

a chemical pesticide. The choices now are far superior but require a greater knowledge of how and when they work. This issue will be addressed in detail later on in this article.

5. Knowing the correct timing of management strategies

When chemical pesticides were the norm for pest management, applicators could get close to within 24 hours of reaching the economic threshold, for many insect pests, and then apply an effective chemical that achieved almost instant results. This is still the case for the chemicals we have today. Our new bio-rational compounds can be very effective but require greater thought and more carefully timed implementation.

6. Recordkeeping

By law, all pesticide applicators must maintain timely and accurate records. Beyond that, in an IPM program, one should maintain additional records that allow for helping to make pest management better in the future. Such things to consider are: weather conditions, any other stresses the plant may be experiencing, planting history, irrigation history, pH of spray tank water, life stage of the target pest, and much more. This may become cumbersome and time demanding but may be of great value.

7. Evaluation

IPM is a toolbox. The most important tool in that toolbox is the practitioner's knowledge that is gained through continued education and experience. The development of this toolbox is a never-ending process and record evaluation is an important aspect toward this goal. It is always important to know why an attempt at pest management wasn't successful.

Dr. Ronald Prokopy (University of Massachusetts Entomology Dept. at Amherst) published an article in the *IPM Practitioner* (March 1993, Vol. XV, No. 3) entitled "The Stepwise"

Progress toward IPM and Sustainable Agriculture." Even though its focus area concerned the sound management of insect pests of apples, this work can be applied to the Green Industry just as easily.

The four steps that were outlined are as follows:

- Managing pests within a single class (such as insects, pathogens, etc.) by implementing multiple tactics (not just chemicals).
- Managing pests across all classes while implementing multiple tactics.
- Using IPM strategies in concert with horticultural practices (a holistic approach)
- Blending concerns of all groups having a vital interest in pest management. This relates to the psychology, social, political and legal implications associated with pesticides and pest management.

The third step in the above list is an important area for many pest managers in the Green Industry. It necessitates a great knowledge of horticultural practices, soil dynamics, biological needs of specific plant material, fertilization, specific pests, and available management strategies and implementation techniques.

It has often been said of IPM that it concentrates specifically on the pest and then develops strategies from there. Some viewed this as an incorrect or insufficient way to approach overall management in the Green Industry.

Bob Childs is an entomologist based in the Urban Forestry Diagnostic Lab at the University of Massachusetts, Amherst. In addition to his teaching, he lectures widely to Green Industry audiences, and presents numerous workshops on landscape pest problems and control strategies, with a focus on IPM. He has also contributed to many publications.

Part two of this article, dealing with Plant Health Care, will appear in a future newsletter.

"We still think in terms of conquest. We still haven't become mature enough to think of ourselves as only a tiny part of a vast and incredible universe. Man's attitude toward nature is today critically important simply because we have now acquired a fateful power to alter and destroy nature. But man is a part of nature and his war against nature is inevitably a war against himself."

-Rachael Carson, naturalist and author

Remineralizing the landscape: creating fecundity in the garden

by Owen Wormser Principal, Treefrog Landscapes, LLC

L and scape professionals and homeowners each year put countless numbers of plants in the ground. Their success and their clients' happiness require that these plants establish themselves quickly and then grow with vigor. Consequently, any experienced landscape professional attends to each plant's requirements, working hard to make sure each plant gets exactly what it needs. This usually means focusing on fertilization and pH requirements while locating each plant in a spot where it will get the necessary amounts of moisture and light for it to feel at home. All these considerations are essential for establishing healthy plants.

However, attending to these planting considerations only addresses the bottom line of planting. The ecological gardener—professional or amateur—is generally intent on the bottom line (they have to be), but they are also focused on much more than that. In our minds, further subtleties require attention. One such subtlety that is central to ecological design that constantly needs addressing arises out of the following question: How can the ecology of each entity fit into the ecology of the whole? This being said, let's apply this question to the practical matter of putting plants in the ground.

Each plant is its own ecological entity—they transpire differently, they feed differently, they require different conditions. The whole that they fit into is that which holds them —the soil. But while it is standard for each plant to get individual attention upon planting it is far less common to address the health of the soil as a whole. Yet, without a healthy soil layer, plant life is not sustainable in the true sense of the word. Without healthy soil to support them, it is

understood that plants will grow less while needing more fertilizers. Also they will be more susceptible to pests, diseases and extremes of weather. It is imperative that soil health be as robust as it can be in order to help plants be long-lived, resistant to outside disease and pests while being durable and robust. Most people would agree this sounds like a good idea. Sounds good, but all this begs the question: How does one bring about such healthy soil? While there are a number of aspects to consider in building healthy soil, a central piece of the picture can be achieved using soil remineralization (SR).

Soil remineralization is an easy and affordable way to boost the health of soil, and thusly any plants supported by the soil. While fertilization focuses on getting only a few of the most essential nutrients to plants, SR uses hard silicate rock dust to ensure that plants have access to almost all the trace minerals and elements that are essential for their health. When added to the soil, rock dust is digested and broken down by microbial life within the soil making it readily available to plants. These trace minerals and elements act as the building blocks that allow plants to perform essential functions (such as forming cellular nuclei). Although many trace minerals and elements are often present in the soil, SR offers a tremendous boost by making available a slow and steady release of trace minerals over a long period of time. By boosting microbial action, SR increases earthworm activity which in turn aids in the building of humus, reducing soil erosion while increasing storage capacity of the soil (this is a typical scenario with SR). Scientific research has shown over and over that remineralization boosts the strength, longevity, taste and nutritional value of plants. It has been shown that SR augments any organic agricultural practice. In short, remineralization can take whole gardens, meadows,

vegetable gardens, forests and any other ecosystem to new levels of fecundity.

It is important to know that SR is a simple process that can be easily achieved on any scale. You can begin the process of SR by locating a local source of rock dust. Throughout the industrialized world the aggregate industry stockpiles rock dust as a byproduct (within the industry it is sometimes known as "float" because it is very fine, but what name it goes by varies from quarry to quarry). The nearest gravel pit would be the first place to ask. Not only is float readily available, but it is very affordable (usually ranging from no cost to \$8.00 a ton). This very fine rock dust can then be applied on top of the soil area that you want to remineralize. On a small scale it can be applied by hand while commercially it can be applied with orchard sprayers (when sprayed directly on plants and trees, rock dust has been shown to deter insect infestations very effectively). In any situation application is easier if the rock dust is dry so that it takes on a powdery consistency (avoid inhaling). In most cases this fine powder can be distributed using a lime spreader or a shovel. It can be applied liberally wherever there is plant life in your yard. A suggested application rate would be three tons per acre (which equates to 14 pounds per hundred square feet). Since rock dust releases its minerals and elements slowly and because it is not a fertilizer, there is no risk of over application. One application can have immediate results. The finest dust is immediately assimilated while the larger material is broken down over time. For your own information you might want to check the soil acidity before and after application—SR routinely counters soil

Soil remineralization is a very effective strategy in pursuing healthy, full landscapes. Its effectiveness is an excellent example of how, if one

attends to the health of the whole as well as the parts, one can create such health and vigor that inorganic compounds such as pesticides or herbicides become obsolete. There are many SR resources available including many commercially formulated products that can be used alone or in combination with a local source to augment the broadest spectrum possible of elements and trace minerals. A resource list of these products will soon be available at <www.remineralize.org>.

You are also invited to e-mail Joanna Campe at jcampe@remineralize.org for a recommendation based on location and site conditions. Lastly, one other resource available is an open forum at the Web site where researchers are able to answer your questions directly.

The Ecological Landscaper

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VOL. 6, NO. 1, WINTER 1999 Natives/exotics discussion, continued: Issues in biological control; native street trees; minority opinion: myth of exotics; resources on natives and invasives; book

review (*The Once and Future Forest* / Sauer); coconut coir in potting mixes; underappreciated natives; 16 pages

VOL. 5, NO. 4, WINTER 1998-99 Exploring the natives/ exotics issue: Raulston's exotic/native philosophy scale; the weeds of Halloween; decisionmaking/evaluation process for exotics; natural landscapes—a little too wild?; 16 pages

VOL. 5, NO. 2, SPRING 1998 Protecting vernal

pools; design on your feet; New England ecological garden at Univ. of N.H.; nitrogen uptake by woody plants; book reviews (Natural Forms; A Practical Sourcebook for Landscape Design/Dubé; Dirt—The Ecstatic Skin of the Earth/Logan); national organic standards; 12 pages

VOL. 5, NO. 1, WINTER 1997-98 ELA roundtable notes: constantly creating your business; native shrubs for the winter garden; tools that work; university extension funding issues; 12 pages

From the Ground Up: Site and Soil Preparation

There has already been considerable interest in the first volume in ELA's Guide to Healthy Landscape series, now available for purchase. This 81-page booklet is packed with useful and vital information on topics from protecting site features and preventing soil compaction, to dealing with invasives and managing soil fertility. Illustrations and glossaries help explain key concepts, and contacts are given for other resources and organizations. Order this valuable addition to your library, or, perhaps, consider copies for key crew members or customers. Cost (including tax, postage, handling) for ELA members is \$26.25, \$31.50 for nonmembers; inquire about quantity discounts. Send orders, with payment, to: Attn. Soil Guide order, ELA, 60 Thoreau Street #252, Concord, MA 01742. Thanks!

Layout: A Builder's Guide/Carroll; Roadside Use of Native Plants/Harper-Lore and Wilson); 16 pages

VOL. 7, NO. 2, SUMMER 2000 Elements of natural design; chlorpyrifos restricted; book reviews (*The Landscaping Revolution*/Wasowski; Energy-Efficient and Environmental Landscaping.../Mofffat, Schiler, et. al.); 12 pages

VOL. 7, NO. 1, SPRING 2000 Soil as a living system; regenerating soils with ramial chipped wood; notes from ELA roundtable: lawn care tips; Winter Conference keynote highlights (Essential elements of ecology for the landscaper/

"Ideology is just an escape from thought." —John Kenneth Galbraith

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Annual appeal acknowledgements

Membership dues are important, but only cover a portion of what it takes to administer ELA. Every year we appeal for additional contributions to help support our mission and programs. We are gratified that the fall 2003 appeal has so far netted \$1,450. Thanks to all those who generously contributed.

Frances Clark Cornucopia Gardeners, Francis and Mary Jesch John Dumas **Dale Hendricks** Ann Loeffler Cheryl Lowe Elizabeth Ludvik Joe Moore Sal Salipante **Perennial Solutions Jack Stacy Elizabeth Stone Sue Storer Amy Vickers** Thomas Wirth Associates, Inc. Malcolm Wright and 10 anonymous donors

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ELA news

Roundtables

The second roundtable of this season's series—which focuses on soils—was held Jan. 23 at the Connecticut Agricultural Field station in Winsor. Tom Rathier, a soil scientist who runs the station's testing lab, spoke about soil test results, sampling techniques, differences between his lab and others, and some field experiments they are working on. Applause to ELA members Julie Meyer and Norm Corigliano for organizing this event.

The last roundtable of the season will be held April 3 at the Arnold Arboretum, Jamaica Plain, Mass. The topic is "Ponds; Beauty or the Beast?" and the speaker will be John W. Deering, founder, Earth Management: The Team Concept.

If you're having a problem with your pond or interested in building one, this workshop will help you learn about critical construction and maintenance issues. As you know, ponds are critical to the maintenance and protection of aquatic balance and our water supply. So, before we start literally "mucking around," we need to know the how-to's and understand the ecology of a pond.

With John Deering's documented presentation, we will track the transformation of a highly silted pond into a beautiful and healthy ecosystem. We'll explore the steps—including phasing, sequencing, and methods—both homeowners and professionals will need to consider in the pond-restoration or -creation process. John will also review some of the regulatory issues and permitting requirements for undertaking such projects.

Bring your questions and concerns to this thought-provoking session and leave armed with answers. Fee: \$30 member, \$40 non-member; Sat., April 3, 2004, 9 a.m.-noon; Hunnewell Building, Arnold Arboretum, 125 Arborway, Jamaica Plain, Mass.

John Deering is an associate of Connecticut College Arboretum; a member of the Task Force to revise Connecticut Guidelines for Soil Erosion and Sediment Control; a contributing author to a pond pamphlet for Connecticut DEP; and has over 48 years experience in construction and pond-related issues.

Introducing our newest directors

ELA welcomed two new members to the board of directors last summer; they've been working hard to help bringing you ELA's programs. Cathy Rooney and Bruce Wenning introduce themselves:

Bruce C. Wenning, director, Roundtable Committee—I believe in ELA's mission and practice their philosophy about applying ecological principles when working as the grounds manager at Massachusetts Audubon's Habitat Wildlife Sanctuary or as an independent consultant. I've been working for Massachusetts Audubon for 13 years and have been the grounds manager for 11 years. Prior to my current job, I worked as a lab/field assistant in turf entomology for Dr. Patricia Vittum for eight years at the Waltham, Mass., Field Station. I have two BSc degrees from UMass, Amherst (Plant Pathology and Entomology) and recently earned a master's degree (Biology) from the Harvard Extension School. My master's degree research investigated the effect of the turf insecticide, Mocap, on the beneficial soil inhabiting arthropods of field grass.

My interests are soil-dwelling arthropods, insect and disease problems of lawns, trees and flower gardens, integrated pest management, and organic pest management. I believe in the practice of conserving the natural enemies of plant pests associated with gardens, lawns, and woodlands when applicable. I am also involved with removing exotic, invasive plants at my sanctuary with volunteer groups on a regular basis.

Lastly, I believe that ELA is a strong and diverse organization that truly practices what they preach. The organization serves as an excellent role model for the landscaping industry. Cathy Rooney, director, Conference/Eco-Marketplace Committee—With a relatively new garden design practice, I am one of those lucky people who was able to take one of my life's passions and hobbies and turn it into a successful business.

I first heard of the ELA from their incredible conference flyers that came in the mail. The first year I started my business I was wandering around New England Grows feeling that some of the seminars had been worthwhile, but that not much of the trade show floor was very applicable to a person who was trying to landscape "lightly on the land." As I wandered down "Association Row" this feeling intensified until I happened to glimpse a sign that said Ecological Landscaping Association. I might have just taken the paperwork, stuffed it in my bag and moved on, but the guy staffing the table just happened to come from the same town that I did and he urged me to join and to check out their conference.

I loved the conference and told everyone I knew about it and that they should go. A couple of years later, with lots of classes and conferences under my belt, and a successful, growing business with ecological goals for my clients, it occurred to me that I should find a more substantial and sustainable way to contribute to "my community" in addition to the work that I did every year for the New England Wild Flower Society plant sale.

Because of my past work with the Boston Flower Show (1980-1994) it was suggested that I serve on the ELA Conference Committee. There I serendipitously met someone else who had also worked on the flower show and we shared the same ideal of creating an Ecological Marketplace to go with the conference. In that same meeting I also found out that ELA was creating a committee to write a manual of ecological landscaping for people just like me! So I agreed to work on the one committee because I knew that they could use my help and on the other so that I could not only learn and grow but help with this exciting project. Much

of my work for ELA results in my learning new things that are usually directly applicable to my business.

I continue to work on these committees and then joined the board because I think that the ELA is one of the very few organizations that can actually help individual households and businesses to garden and land-scape ecologically, while simultaneously promoting the goals of beauty and safety.

ELA provides an outlet for myself and others to work together to make a big difference in how people perceive their landscapes and the greater environment and to realize their individual role in helping to promote a more sustainable and safe planet.

Web site news

ELA's Web site is under renovation; the new, improved site should be up

and running in a few weeks with improved features, more information, and an attractive, new look.

There is also a sleeker address: <www.ecolandscaping.org>. The old one will continue to work for a while, but you should update your address book as eventually it will expire.

Do nothing else ...

...before you renew your ELA membership! The holidays are over, the outdoor work season hasn't yet begun, so, really, what's your excuse?

Seriously, ELA's lifeblood is you, its members. Your membership dues support our programs, our publications, and our modest but hardworking staff, all dedicated to providing information and connections to help improve our work. We'll need your renewal immediately to be able to

include you in this year's member directory.

If you find ELA valuable, if you've gleaned some new connections, sources, or useful information from the newsletter, a roundtable, or our conference, please renew today. We depend on you. Thanks!

Help wanted...

...a continuing story. We are always looking for people willing to contribute their time, energy, and talents to help with ELA's programs and growth. There's room for everyone, no matter how much time you have. Skills we could especially use at this time include fundraising, event planning, grant writing, Web maintenance, writing/editing/proofreading, and many others. Contact us today to get involved.

Westward, ho!

A group of energetic West Coast ELAers is working to create a larger ELA presence there and are helping recruit new members. Recently, the group, including Ken Foster, Owen Dell, Golden Love, and others, represented the ELA at the Eco-Landscape Conference in Sacramento. Here is their report and some photos from the day.

The Ecological Landscaping Association was well represented at the Eco-Landscape Conference in Sacramento, Calif., on Jan. 10, 2004. (See the conference Web site at <www.ecolandscape.org/>.) There was a table, banner, membership application forms, and the ELA newsletter available. The ELA table was very well received with both new members signed up and a long sign-up list of interested folks.

This was a very well-attended event with 200 attendees. There were about 10 speakers including Owen Dell, who spoke on the new urban watershed (see <Owendell.com> for information), and Ken Foster on a successful marketing strategies panel. Owen and Ken are two long-time



ELA members from the West Coast. Owen Dell, Ken Foster and Golden Love are working with others to bring the ELA to the West. Although the details are still being worked out, the goal is to generate a strong presence for sustainable landscaping and the Ecological Landscaping Association in California.

This event was sponsored by the Ecological Farming Association (EFA). The EFA is a 25-year-old association and sister to ELA. In the future we hope to see EFA and ELA sponsor conferences together. The flagship event for EFA is the



Ecological Farming Conference, a four-day conference held every January at Asilomar in Pacific Grove, Calif. 2005 will be the 25th year for the Ecological Farming Conference. Although it is a farming conference, there are home gardeners, landscapers, permaculturists, retailers, and brokers. This year there will be a mixer for ecological landscapers, and you can bet ELA's coming to the West will be the topic of the day. Check the Web site at <www.ecofarm.org>.

That's all for now from West Coast.

events

February 27-28, 2004

ELA's Winter Conference and Eco-Marketplace, Holiday Inn, Boxborough, Mass. Featured speakers Richard Pais on pre-construction planning and Donald Falk on the connections between physical, ecological, and social systems. Other presenters include Paul Sachs, Stephanie Cohen, Dale Hendricks, David Beattie and many others. From meadows to green roofs, insect pests to permaculture, there's something for every interest in this year's eclectic line-up. Registration before Feb. 20: \$185 both days, \$125 Friday only, \$95 Sat. only; after Feb. 20: \$215, \$145, \$110 respectively. For conference brochure: ELA (617)436-5838; for registration info: Lana Reed, N.E. Wild Flower Society, (508)877-7630 ext. 3303.

February 28

Natural Landscape Seminar,

Crystal Lake, Ill. 8:30 a.m.-3:30 p.m. Speakers include Dave Tlka, Melinda Myers, Wendy Walcott. (815)338-0393

March 3

Diagnosis of a Disturbed Site, Midwest Ecological Landscaping Association Mini-Conference,

Triton College, River Grove, Ill. Speakers include Suzanne Malec, Shawn Kingzette, Dr. Rex Bastian, Bob Porter, Geoffrey Deigan. MELA members \$50, includes dinner; \$75 nonmembers; <www.melaweb.org>.

March 3

13th Annual Native Plant and Ecological Restoration

Symposium, sponsored by Pinelands Nursery & Supply, Columbus, N.J.; Mark Renna on Hackensack Meadowland restoration plans, Alber McCullough on use of historical maps in ecosystem restoration, Glen Ballinger on a new slope stabilization technique, more; \$55 includes program, lunch; Pinelands Nursery 323 Island Rd., Columbus, NJ 08022.

March 6

Mass. Assn. of Conservation Commissions Annual Environmental Conference,

Worcester, Mass. Workshops, conservation commission training sessions, exhibits. MACC members \$85; government, nonprofit \$95; nonmembers \$110. (617)489-3930; <www.maccweb.org>.

March 7-8

Wildflower Association of Michigan's 17th Annual Michigan Wildflower Conference, "Woods and Water," East Lansing, Mich. Featured speaker Rick Darke. Contact: Marilyn Case (517)630-8546, e-mail: case15300@aol.com; <www.wildflowersmich.org>.

March 10

Historic Village Protection,

Conway School of Landscape Design speaker series, with Elizabeth Moore, formerly with the Southbury (Conn.) Land Trust, 7-9 p.m., Conway, Mass.; no charge, but reserve in advance. (413)369-4044; <www.csld.edu>.

March 10

Current Trends in Turf Insect and Disease Management, part of Realities of Organic Lawn and Landscape Care series, UMass Extension, Amherst, Mass.; (413)545-0895; <www.umassgreeninfo.org/upcoming.html>.

March 10

Natural Plans for Urban Lands Symposium, Garfield Park Conservency, Chicago, Ill., cosponsored by Midwest Ecological Landscaping Assn., City of Chicago Park District; <www.organicmattersonline.com/ naturalplansinfo.htm>.

March 10

Pennsylvania's Outdoor Heritage; Vanishing Before Our Eyes, 15th Annual Environmental Confer-

ence, Shippensburg Univ., Shippensburg, Pa.; will focus on accelerating loss and degradation of wildlife habitat and strategies to reverse the trend. Info: Kings Gap Environmental Education and Training Center, tel. (717)486-3799; e-mail kingsgapsp@state.pa.us.

March 10-13

Building Energy, Northeast Sustainable Energy Association Conference, Boston, Mass.; focuses on green building and sustainable energy, with some workshops of

energy, with some workshops of land development issues. More info and downloadable flyer available at <www.nesea.org/buildings/be/2004 index.html>; tel. (413)774-6051.

March 11

Building a Successful Landcape Design Business, a Residential Design Symposium, Chicago Botanic Garden, Glencoe, Ill; (847) 835-8261; <www.chicagobotanic.org/ symposia>.

March 13-21

Deeply Rooted, Mass. Horticultural Society New England Spring Flower Show, Bayside Expo Center, Boston, Mass.; (617)933-4970; <www.masshort.org>.

March 20

Native Plants Are for the Birds, 2004 Wildflower Symposium,

The Native Plant Center, Westchester Community College, Valhalla, N.Y., 9 a.m.-1 p.m.; (914)785-7870.

March 26

Renovation and Establishment of Lawns and Other Turf Areas,

part of Realities of Organic Lawn and Landscape Care series, UMass Extension, presented by Scott Ebdon; contact info as in 3/10 listing.

March 27

Early Spring Lawn and Soil Care,

Garden in the Woods, 1-4 p.m., Framingham, Mass., with Lindsay Strode (ELA member); (508)877-7630; <www.newfs.org>.

March 27

The Wildflowers of Westchester,

10 a.m.-noon, Native Plant Center, Valhalla, N.Y.; (914)785-7870; <www.nativeplantcenter.org>.

March 30

Trees for a New Horizon, UMass Community Tree Conference,

Amherst Mass., 9 a.m.-4 p.m.; featured speaker Gary Watson from the Morton Arboretum, Lisle, Ill.; \$50; (413)545-0895.

April 1

Plant Communities (continues 4/8, 15, 22, 29 and 5/1), Berkshire Botanical Garden, Stockbridge, Mass., with Ted Elliman; info: N.E. Wild Flower Society as for 3/27, above.

April 3

Ponds; Beauty or the Beast, ELA Roundtable, Arnold Arboretum, 9 a.m.-noon, presented by John Deering; \$30 ELA member, \$40 nonmember; pre-register on ELA's phone line (617)436-5838 and pay at the door; for details on the program, see ELA news.

April 20-21

The Practice of Restoring Native Ecosystems, sponsored by the National Arbor Day Foundation and others, Brodhead, Wis.; Steven Apfelbaum, William Young, and others; Nat. Arbor Day Foundation, P.O. Box 81415, Linclon, NE 68501-1415; tel.: (402)474-5655; <www.arborday.org/RNEworkshop>.

resources

Ecology of fruit crops

Those caring for fruit-bearing plants may find this useful. A 104-page book from the Michigan State University "explores growing fruit within a complex web that connects soil, plants, animals, humans, landscapes, and the atmosphere. Readers will learn how these factors interact in an environment where it is impossible to change one aspect of a farming system without affecting others. Fruit Crop Ecology and Management encompasses ecological principles and horticultural practices for both tree fruits and small fruits. The primary region of reference is the U.S. Great Lakes region; however, much of the information can be applied well beyond that area. The authors present fundamental knowledge rather than specific recommendations, anticipating readers will seek additional references for details about practices for integrated pest management, organic, or other

approaches to farming."

Cost is \$16 (Bulletin No. E-2759); MSU Bulletin Office, 10-B Agriculture Hall, Mich. State Univ., East Lansing, MI 48824-1039; tel. (517)355-0240; info, links and order form at: <www. ipm.msu.edu/Pubs_eco.htm>.

IPM for perennials

Published last June, the 42-page Integrated Pest Management for Herbaceous Perennials covers specific information on developing an IPM program, and includes key insects and their life cycles, diseases, weed control, biological controls, and the cultural needs of herbaceous perennials. The handbook, written by Leanne Pundt of the Univ. of Conn. and Tina Smith from the Univ. of Mass., includes 85 color photographs and six tables. \$15/copy (includes P&H) from: Office of Communications and Information Technology, 1376 Storrs Road, Unit 4035, Univ. of Conn., Storrs, CT 06269-4035. An order form can be downloaded at <www.hort. uconn.edu/ipm/greenhs/htms/03P RNFL2.pdf>.

What's Up at IDID 2?

Make your reservations now for March 26-27

he second annual **Integrated Design/Integrated Development** conference is returning to the Durham campus of the University of New Hampshire on March 26 and 27. Based on attendee feedback from last year, and lots of hard work by the planning committee, IDID 2 will be full of great opportunities to learn about and encourage ecologically sound and economically compelling site design and building practices. Workshops will demonstrate the opportunities, benefits, and challenges in adopting an integrated and sustainable approach to site planning, building design and construction, and operation/maintenance needs.

Again this year, for those interested in working toward LEEDTM accreditation by the U.S. Green Building Council, an intermediate-level LEEDTM training program will be offered all day Friday, March 26. Register early—last year this program sold out. Beginning at noon on Friday, there will be four optional on-site tours to choose from—two in the Concord area and two near Durham. Tours will feature award-winning, unusual, and/or unique solutions to integrated design and development.

The formal IDID 2 program will start in late afternoon at UNH with a panel discussion entitled "I DID on Campus," covering recent planning and design projects at UNH, Middlebury College, Dartmouth, Harvard, MIT, Princeton, Wellesley, and more.

On Friday evening the conference will open with a cash-bar reception for attendees, vendors and sponsors. The reception will be followed by a gourmet dinner showcasing locally grown and organic specialties. The dessert course will be topped off by keynote speaker Pliny Fisk. Mr. Fisk is nationally known as a co-founder and co-director of the Center for Maximum Potential Building Systems, a 28-year-old sustainable design and planning office which is now the oldest non-profit firm doing work in the sustainable architecture and planning field in the US. He is known as a visionary and as an energetic and charismatic speaker. Mr. Fisk will also be in attendance at the Saturday workshops and available for informal discussion. You can get more information about Pliny Fisk

and the Center for Maximum Potential Building Systems at <www.cmpbs.org>.

As an additional treat Friday evening, we'll be viewing the award-winning documentary Blue Vinyl immediately following the banquet. One of Sundance's 2002 best documentaries, this film is both enlightening and highly entertaining. Bring your own piece of vinyl siding as an entry ticket. An open discussion will follow the screening.

On Saturday the vendor fair continues, showcasing environmentally responsible products and services. Program sessions will focus on case studies of integrated design and development in practice. Presenters include Bill Reed, AIA, LEED, from NaturaLogic on "Regenerative Design, Moving Beyond Sustainability"; Peter Flinker, Dodson Associates, on "Integrating Watershed-Scale Greenspace Planning with Design of Sustainable Growth Centers in Small Towns"; Richard Pais, Pais Ecological Services on "Ecological Land Planning and Development: Everybody Wins"; Gunnard Hubbard from Fore Solutions on "High Performance Schools: A Collaborative Design Approach: 3 Case Studies"; and Jeff Taylor of JHT Planning Associates with an overview and analysis on "The PlanNH Charrettes."

Midday, Bert Cohen, adjunct professor in the Department of Natural Resources at UNH, will conduct an experiential learning session, "Dialogue as a Design Tool." This interactive session will focus on the power of the way we talk and listen as a means to enable new connections in design to emerge. Drawing on your own knowledge of what makes a space nurturing and supportive, you will learn how to use the tool of dialogue to discover the connecting principles that drive integrated design and development.

We have a great program planned, and look forward to seeing all of you at IDID 2. Watch for a brochure in the mail, or go to the AIANH website <www.aianh.org> and click on the IDID 2 logo to register. Note that the venue has shifted across campus, from the New England Center to the recently opened Holloway Commons, adjacent to the Memorial Union Building.

IDID 2 is presented by the Environmental Guild of AIANH, the Granite State Landscape Architects, the Jordan Institute, the Office of Sustainability Programs at UNH, and PlanNH. Major sponsors include Public Service Company of NH, Osram Sylvania, and Paradigm Windows and Doors.

unclassifieds

FROM THE GROUND UP seeks crew member. Woman-owned business providing sophisticated design work, installation services, specialized garden maintenance, and pruning care in Boston area. Focused on unique designs, organic and sustainable landcare, and high-quality work. Mid-March through Nov. with benefits. Be part of dynamic, small company! Call Christie Dustman, owner (617)323-7773.

GARDENING HELP WANTED: Fox Gloves is a small landscape gardening and design firm serving clients in Lexington, Lincoln, Concord, Cambridge, and Newton, Mass. Now in our eleventh year, we provide design, installation, and ecologically sensitive maintenance services for both large and small residential garden properties. Our approach is inspired by creative possibilities and a passion for making memorable places.

We are seeking responsible, strong, and energetic individuals who enjoy

being outdoors, with a great interest in gardening, a knowledge of plants, an eye for detail, and a desire to share ideas and learn. Applicants must have their own transportation.

AVAILABLE POSITIONS—Gardeners: 3-4 days/week commitment. Previous gardening experience preferred, but not essential; Gardening Supervisors: 3-4 days/week commitment. Pruning and perennial garden experience required; Designers/Gardeners: 2-3 week commitments every season to design and install seasonal pots.

Interested individuals should call Karen Meyers at FOX GLOVES (781) 862-6927. Please provide your phone and e-mail contact information.

ECOLOGICAL design and maintenance company in eastern Mass. seeks professional, motivated, self starters for maintenance and installation work. We are looking for both supervisory and general personnel, FT/PT pay commensurate with experience and the amount of available time per week. Experience with ecological or organic gardening practices a plus! Please e-mail resumes to <designerofgreens@verizon.net>. OR fax them to (508) 881-7084. Call (508) 561-0532 if you have any questions.

HELP WANTED: Small design/build landscaping business in Metrowest, Mass. seeks help for 2004 season: part-time bookkeeper/ office help, plus general field help. Experience/interest in ecological methods, native plants, etc. helpful. Work includes lawn fertilizing and pest control, installation, some maintenance. Inquire at (508)881-1517; <SmallPlanetLand@aol.com>.

Reach hundreds of ecologically minded land-care professionals, homeowners, and others! Put your ad in this space for as little as \$5 for up to 50 words (additional words, \$1/10 words). Send your ads to: attn. newsletter unclassifeds, ELA, 60 Thoreau Street #252, Concord, MA 01742. Next issue due late Jan./early Feb. 2004.



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