



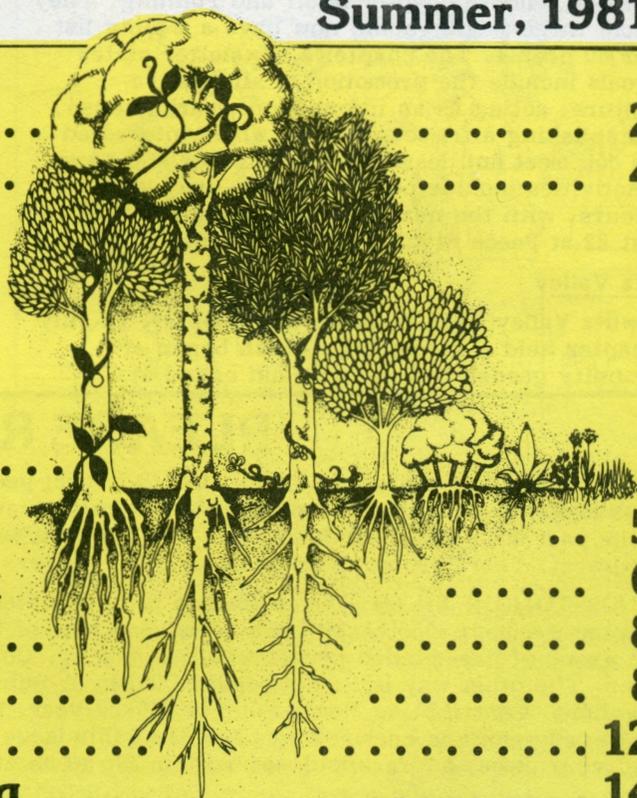
Tilth

BIOLOGICAL AGRICULTURE IN THE NORTHWEST

Volume 7, Number 2

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From Our Hearts, With Our Hands, For the Earth



a report on the permaculture conferences

—MARK MUSICK

This spring Tilth, Friends of the Trees and Children of the Green Earth hosted two special conferences on Permaculture in the Northwest. Conferences were held both in the Interior and Maritime Regions to bring together people intimate with the varied climates and soils of the Northwest.

Close to 150 people attended the Interior conference, April 3-5, at the Sagle Community Hall, not far from Lake Coeur d'Alene in Northern Idaho. A few weeks later, May 8-10, over 250 people attended the Maritime conference at a camp overlooking the Columbia River east of Portland, Oregon. From the land of ponderosa pine and quaking aspen to the land of Douglas-fir and red alder, a total of over 400 people attended the two conferences to learn how we might heal the earth, practice sustainable agriculture, and build our sense of community within the region.

WHAT IS PERMACULTURE, ANYWAY?

"What is permaculture?" was one of the recurrent questions during the conferences. Permaculture can be defined as the conscious design of self-sustaining agricultural landscapes. The term was coined by Australian Bill Mollison for the creation of agricultural ecosystems that embody the diversity, complexity and stability of natural environments. Our task is to learn to work with the abundance of nature to evolve a new, ecologically-based agriculture that is both bountiful and enduring.

Between the Idaho and Oregon conferences there were over 30 workshops devoted to specific aspects of permaculture in the Northwest. Topics included Windbreaks and Shelterbelts, Cottage Industries, Small Fruits and Berries, Budding and Grafting, Beekeeping, Seed Collecting, Edible Landscaping, Nitrogen-Fixing Trees and Shrubs, Market Gardening, Farmers' Mar-



Jan Kepley

Seed collecting workshop

kets, Nut Trees, Dryland Permaculture, CO₂ in the Atmosphere, Fungi, Integrated Pest Management, Permaculture in Forestry, Medicinal Herbs, Biological Agriculture, Ethnobotany, The One-Straw Revolution in the City, Aquaculture, Woodlot Management, Land Reclamation, and Livestock in Permaculture.

The conferences were intended as catalysts. The true mark of their success will be the new directions in agriculture and forestry that may emerge in the years ahead. ●

An Introduction to Agricultural Ecology

Larry Geno opened the conference series in Sagle, Idaho with an introduction to the principles of agricultural ecology. Larry is a researcher and ecologist who is currently developing a homestead orchard and nursery in Northeast Washington. In his talk he stressed the necessity of understanding ecological principles as the starting point for developing a permanent agriculture.

Larry first dealt with the problem of language. "The term permaculture is not clear," he said. "It's vague.

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The Permaculture Book Project

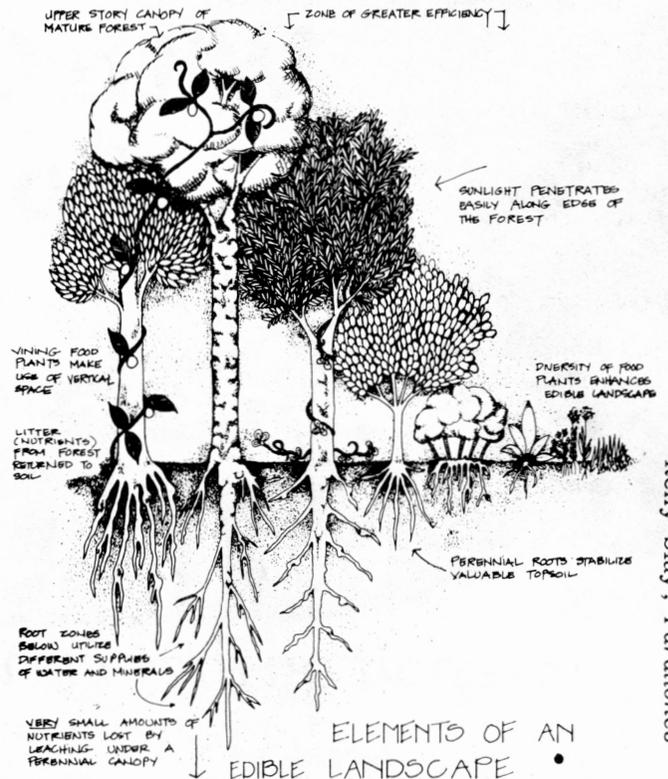
One of the primary goals of the Permaculture Conferences was the generation of as much information as possible on alternatives for a sustainable agriculture. Based on this information, Tilth will be producing a new book this summer and fall devoted to permaculture in the Northwest.

Planning for the book was motivated by a desire to synthesize the natural farming approach of Masanobu Fukuoka in Japan with the permaculture techniques developed by Bill Mollison in Australia. Drawing on our experiences in North America, we hope to bring together ideas from around the world as the starting point for a new agriculture in our region.

Editor for the book project will be Larry Korn. Larry was the keynote speaker at each of the Permaculture Conferences and editor of Masanobu Fukuoka's *The One-Straw Revolution*.

Rather than being a "how-to" book on permaculture in the Northwest (we all have too much to learn to attempt that one as yet), the book will emphasize the principles of agricultural ecology and elements for the creation of perennial food-producing landscapes in our region.

We hope to involve as many people as possible in the book project. Please let us know of any permaculture models, techniques or resources you are aware of. Our goal is to complete the book this fall, and we'll be back in touch with all Tilth members to let you know when it is available. ●



Reny Slay, Farrallones

agricultural ecology (continued from p 5)

People wonder if 'permaculture' is a new kind of yogurt or if it's something you do to your hair. I like the term ecological agriculture," he added, "because that is exactly what we're talking about. We're talking about an agriculture based on ecological principles." Larry then went on to outline the basic principles of ecology.

The ground rules, he said, are the environmental determinants that define habitat types. These are commonly called limiting factors. They include moisture, temperature and soil nutrients—all the resources that determine what can be produced in a given area. From there he went on to describe the edge effect, ecological succession, and ecosystem dynamics.

Conventional agriculture, Larry noted, is based primarily on maintaining a disturbed site at the lowest stage of ecological succession. Pioneer species—grains and annual or biennial vegetables—are emphasized because they yield the highest net productivity. We are all aware of the costs that have resulted from this approach to agriculture (soil erosion, dependence on chemical fertilizers, etc). However, Larry stressed that because of their high productivity, we must learn how to incorporate annuals in our permaculture systems.

"Later successional stages tie up a lot of energy and nutrients in their standing biomass, in their tree trunks," he noted. "So I think the idea of utilizing only long-lived large plants in the permaculture system is over-stressed. We're going to lose productivity in doing that." He added that "we can still incorporate a lot of annual plants within a framework of longer-lived plants. We should still call for a self-sustaining system, but not sacrifice too much productivity."

The keys to a sustainable agriculture, he said, are the encouragement of diversity and complexity. "The

general conclusion among most ecologists," Larry continued, "is that higher diversity and higher complexity tend to create systems that are more stable. Increasing diversity and complexity in our agricultural and forestry systems is essential for them to become more stable, more enduring and, in the end, self-perpetuating. However," he emphasized, "that is a far off goal."

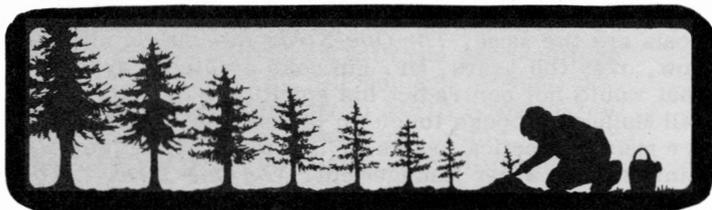
"It's hard to go from these basic ecological principles that are observed in natural systems to agricultural systems," Larry added, "because we don't have permacultural agricultural systems to observe and watch. I'm certainly as enthusiastic as any of you here," he said. "In fact, I'm devoting my life to these things, but we're going to have to be patient because there are going to be a lot of errors made. I don't see any way out of it."

In response to a question on how he would begin applying ecological concepts to agriculture, Larry said he would "begin slowly, but on a broad scale. Around our fairly conventional orchard (though we will be mixing in leguminous trees), I'm instituting a belt about 30 feet wide, primarily for wind control." To increase diversity, he said, "I would start incorporating bee forage plants, pollen sources for beneficial insects, nitrogen-fixing shrubs, perennial food plants (asparagus, raspberries, etc) around the orchard site. I would do it on a broad scale, but I wouldn't do it very quickly. I would watch the plants carefully," he noted, "until I knew what they did where." ●

LARRY GENO is one of several writers who will be contributing to the new permaculture book initiated at the conferences (see box above). He is currently preparing the section on agricultural ecology which will serve as the foundation for the book.

Work in Progress

The Permaculture Conferences provided a unique opportunity for people to share ideas and information on numerous projects underway in the Northwest. The projects described on these pages are just a sampling of the rich diversity of talent, enthusiasm and resources represented at the conferences.



Tree Friends Tree Sale

PLANT A BIT OF PARADISE! That's the slogan of the Friends of the Trees, and over the past four years they've been helping people in Northeast Washington and Northern Idaho do just that with their annual Spring Tree Sale.

Begun in 1978 by a small group of tree friends in Stevens County, Washington, the tree sale has gained in popularity and is providing a tremendous service to the people and the ecology of the Northwest Interior. This year 12,000 trees were distributed by the Friends of the Trees in Washington and Northern Idaho.

As the sale has grown, so has the diversity of plants offered, with over 50 different trees, shrubs, vines, and berries offered in the spring of '81. A large part of the stock each year is food plants, but ornamentals and plants for windbreaks, shelterbelts and soil conservation are also included.

The Spring Tree Sale is intended to provide hardy plants for the Interior region. This year the sale included Manchurian apricot, Nanking cherry, wild black cherry, American plum, damson plum, quince, four varieties of walnuts, sugar maple, lilac, golden willow, Siberian pea-shrub, honey locust, apples, strawberries, raspberries, and elderberries. With a selection like that, people can definitely plant a bit of paradise!

Begun by Michael Pilarski, founder of Friends of the Trees, the service has expanded and an independent sale was conducted this year by the group which formed North Idaho Tilth. To encourage more people to sponsor their own local tree sales, Michael has written a description of how the Spring Tree Sale was organized, for publication in the next issue of *Tilth*.

Faust Bio-Agricultural Services

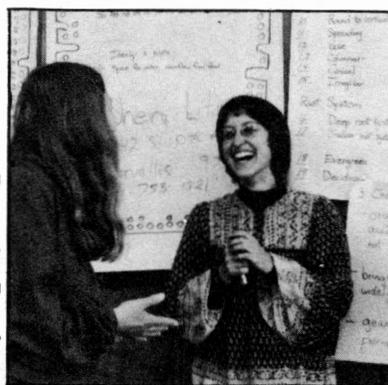
ROBERT FAUST, in an impromptu introduction to his Biological Agriculture Workshop, gave one of the most stimulating presentations at the Idaho conference. Robert has worked for years helping farmers in southern Idaho successfully switch to biological practices. Details on his approach, as well as tools and services, are described in a 48 page catalog available for \$1 from Faust Bio-Agricultural Service, P.O. Box 1150, Twin Falls, ID 83301.



The Plant Species Index

SHERY LITWIN'S proposal for a regional Plant Species Index sparked an enthusiastic response at the Maritime Permaculture Conference. Using a key sort card system, it would be possible to access information on a wide range of locally adapted plants based on dozens of criteria.

According to Shery, "This index is intended to be used as a tool for people setting up and/or working with outdoor, managed plant communities—for gardeners, landscapers, homesteaders, and small farmers in particular." Her proposal is to organize trees, shrubs, vines, and herb layer plants by criteria such as physical characteristics, height, form, life span, hardiness, soil requirements, and uses. Then, it could become an invaluable tool for landscape and permaculture design.



Beverly Reed

Shery's work thus far has centered on the design of the indexing system. Actually coding the hundreds of useful plants in the Northwest will require a great deal of time and extensive research. With the basic concept outlined, Shery is seeking sources of funding to actually implement the indexing system. In the meantime, she has

agreed to work with Tilth on the plant index for the permaculture book (see Page 6).

Shery is seeking help in making the Plant Species Index as effective a tool as possible. First, she would like suggestions on specific reference works, charts and other models for use in developing and refining the index. And second, she is seeking sources of funding for the research involved as well as suggestions of marketing strategies for when the index is completed. If you can help in any way, contact Shery Litwin in care of Tilth in Arlington.

Computer Networking

NANCY COSPER AND STEVE JOHNSON, of Rain Umbrella in Portland, facilitated an experimental computer link between the Maritime Permaculture Conference, a simultaneous Northwest food system conference in Pendleton, Oregon, and two national



Judith Rafferty

computer networks. The demonstration was initiated by Randy Son of the Washington Small Farm Network (WSFN), who is doing research on the potential of computer networking for small farmers.

A series of technical problems restricted the demonstration at the conference. The experiment did, however, provide an exciting glimpse at the promise of computer technology.

A 75 page print-out of the computer conference demonstration is available for \$3 from WSFN, 19 E. Poplar, Walla Walla, WA 99362.

Children of the Green Earth

"I have a dream of the earth made green again, an earth healed and made whole through the efforts of children."

Richard St. Barbe Baker

A group of people in Oregon is working with St. Barbe to make his dream come true. Last year, with the help of St. Barbe, Dorothy MacClean and Rene' Dubos formed Children of the Green Earth. The goal of Children of the Green Earth is to facilitate tree planting and education programs for children throughout the world.

Children have a natural vision of a whole and unified earth. The Children of the Green Earth is a movement to nurture these special whole visions of children throughout the world by allowing them to express their sense of unity through earth healing projects.

Children of the Green Earth was one of the co-sponsors of the Permaculture Conferences. With Hearthwind School, they cared for the children at the Maritime conference. Activities included tree planting and presentation of a special play for the grownups Saturday night. It was great fun, and people agreed that the children's participation was one of the things that made the conference a very special experience for everyone.

For more information on their work, write to Children of the Green Earth, Hearthwind Farm, Star Rt, Box 182, Umpqua, OR 97486.

I BELIEVE that this generation will either be the last to exist in any semblance of a civilized world, or it will be the first to have the vision, the bearing, & the greatness to say: 'I will have nothing to do with this destruction of life, I will play no part in this devastation of the land; I am destined to live & work for peace for I am morally responsible for the world of today and the generations of tomorrow.

I PRAY that I may be just to the earth beneath my feet, to the neighbor by my side, and to the light that comes from above & within, that this wonderful world of ours may be a little more beautiful and happy for my having lived in it.

SO MAY IT BE.
-ST BARBE BAKER



Northwest Chestnut Project

PARTICIPANTS IN THE CHESTNUT WORKSHOP had a rare opportunity to sample cakes made from sweet chestnuts. Once a major tree in the Eastern hardwood forests and a staple food crop, the American chestnut was all but wiped out by blight early in this century.



Cathy Cheney

Maryanne Caruthers-Akin, a Portland gardener and artist, has initiated the Northwest Chestnut Project to educate people about the history and potential of this once-major tree crop. Her aim is to combine art and agriculture, and she is conducting research on the chestnut as the central focus of earth-related art works.

Maryanne is planning to interview leading researchers in this country and photographically document the chestnut industry in Europe. All the materials she gathers will be used to educate people in the Northwest about the chestnut's potential in our region. "The project," she says, "is like a political campaign for chestnut consciousness."

Maryanne is currently seeking funding and public support for the Northwest Chestnut Project. For an informative brochure, write to The Northwest Chestnut Project, 2519 NE 14th Ave., Portland, OR 97212.

NEW CHESTNUT AVAILABLE

Speaking of chestnuts, the Summer 1981 issue of *CoEvolution Quarterly* reported on the release of a new, blight-free hybrid American chestnut. The tree combines the upright form of the American chestnut with the large, sweet nuts of Asian varieties. And, best of all, it is said to be the first variety proven to be resistant to the chestnut blight in over 60 years. According to the article, both one- and two-year old grafted trees are available. For information write to Chestnut Hill Nursery, Rt 2, Box 157P, Trenton, FL 32693.

Women of the Trees

WOMEN OF THE TREES has emerged as an idea for an eco-feminist organization that would support, inform and encourage women working towards healing the Earth through reforestation, permaculture, and organic agriculture.

The Eco-Feminist movement is based on the premise that the goals of feminism and ecology are essentially inseparable—in order to heal ourselves/heal the planet, we must nurture a sustainable relationship of mutual understanding, acceptance and respect for one another and for the Earth as our home. Trees have traditionally been a symbol of life, knowledge, and permanence. The vision of Women as Healers of the planet is embodied in the image of Gaia's Daughters planting trees.

As an organization, Women of the Trees

could help promote a sense of unity and interconnectedness among women who are already working in the fields of forestry and agriculture. It could also function to provide resource information access to women who are interested in becoming involved with reforestation or tree-crops culture.

Very much welcome, especially at this formative phase, are all inquiries, words of advice and support, and suggestions concerning the possibilities and potential of a Women of the Trees organization. Contact Maia Massion, 835 Delaware St., Berkeley, CA 94710.

The Bamboo Project

JIM ORJALA captivated people with his slide show on the potentials for bamboo in the Northwest. Jim is a member of Aprovecho, an international appropriate technology organization based in Eugene, Oregon.

Trained as an architect, Jim traveled throughout Latin America where he discovered the multiple uses of bamboo and its vital importance to people around the world. Upon returning to Eugene, he discovered that many species of bamboo grow well in our maritime climate.

The Bamboo Project began in 1979 with the acquisition of a large grove of timber bamboo. The Aprovecho Institute is now investigating cultivation techniques and is developing uses of bamboo for small farms and for low-cost construction. They hope to demonstrate that bamboo has the potential to become a mainstay of local self-reliance.

In addition to The Bamboo Project, Aprovecho is best known for its development of the Lorena system of fuel-conserving, sand-clay stoves, now in use in a dozen countries. This spring they began publication of Cookstove News, a newsletter which serves to link the international network of people developing cookstoves. Other projects include development of

appropriate low-cost housing, the development of windmills for pumping water and generating electricity, solar greenhouses, and solar water heaters. Aprovecho members also conduct a course on appropriate technology at Oregon State University.

Aprovecho is currently working with the Oregon Community Land Trust to acquire land for a rural demonstration center. A major aspect of the project would include establishment of a permanent bamboo research center. Goals of the center would be to cultivate a wide range of bamboo species, develop skills and techniques for working with bamboo, demonstrate the production of bamboo on small acreages in our region, and provide an educational center for bamboo and other aspects of appropriate technology for communities both in the Northwest and throughout the world.

Aprovecho is currently seeking help and support in two forms. First, they are looking for a botanist or an agriculturalist to work with them in the development of The Bamboo Project. And second, they are currently seeking financial support in their effort to establish a rural center. Please contact the institute if you can help in either of these areas. For more information write Aprovecho, 442 Monroe St., Eugene, OR 97402, or phone (503) 683-2776.

Tom Ward's Herb Book

EARLY MORNING HERB WALKS with Tom Ward were a highlight of the Portland Conference. Tom, a botanist from Ashland, Oregon, has been teaching

people for years about gathering wild herbs in the Northwest. He is now writing a new book on the ecology and use of medicinal herbs, and he needs help with getting it published.

Tom Ward's herb book will emphasize herbs as part of our ecological context and their role in the design of permaculture



Beverly Reed

landscapes. It will include sections on the history and theory of herbal medicines, and a description of their uses. The chapter on gathering will provide insight into the ecology of wild herbs and their place in natural systems. Through a series of essays Tom will lead readers on herb walks and de-mystify plant identification. It will also include an extensive plant list. In all of this, Tom promises that the book will read well and be written in a language that can be easily understood.

As the first book on the gathering and use of medicinal herbs from an ecological point of view, Tom's work will be a major contribution to permaculture in the Northwest. Tom estimates that the book will total about 350 pages, and it is now over two-thirds complete. There are still several months of work to be done on the project and Tom needs some help. First, he could use some funding so that he can keep his farm together and pay the bills while he completes the book. And, of utmost importance, he needs to find a publisher to produce and distribute the book. If you can help with either of these items, contact Tom Ward, P.O. Box 1282, Ashland, OR 97520, (503) 488-0462. ●



Maia Massion