

THE  
**PERMACULTURE**  
**ACTIVIST**

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*Village Design*

Ecovillages  
Conflict & Consensus  
Broadscale Settlement  
Design for Catastrophe  
Kids in Community  
Natural Building Materials  
Sustainable Spirituality



***The Future is Now!***



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# The State of Permaculture:

## A Lot More Than Organic Gardening

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### Peter Bane

Permaculture was conceived by its founders Bill Mollison and David Holmgren as a positive response to the ecological and energy crises which became globally apparent during the early 1970s. Emphasizing that individuals could make a difference, Permaculture during its first 10-15 years focused on training individuals and on designing individual properties; popular awareness of permaculture linked it with organic gardening. During this early period, however, myriad technologies for subsistence living and earth restoration were tested and perfected; seed organizations and networks were created in most regions, and a few advanced practitioners and teachers began to assemble global databases of experience which pointed to the commonality of the problems.

We discovered that there was a scale at which our work could make an enduring impact—and a scale at which we were merely spitting into the wind. Though much good work was accomplished in the early years, time and again beautiful, diverse, maturing permaculture systems on individual properties were sold, condemned, or bulldozed. Clashes of ethics and belief systems, dysfunctional relationships, and political pressures all too easily swept away the careful efforts of skilled designers. In the words of Lea Harrison, one of Permaculture's most experienced teachers, we were being called upon to "lift our game."

Since the mid-80s and the inception of *Lebensgarten* at Steyerberg in North Germany and Crystal Waters Village near Maleny, Queensland, Australia, permaculture designers have increasingly turned their attention to creating integrated human habitation at the settlement or village level. In the 1990s this development converged with the massive upsurge of interest in intentional community to yield a new synthesis called eco-villages.

The new ecological village can inspire cultural transformation at the depth demanded by the multiple global crises we face. These larger social and physical constructions—villages—while remaining tractable and of human scale, are also able to interact on a planetary stage, particularly now with the decentralization of access to information via computers. They provide the economic power required to break the grip of consumerism on individuals, and they are laboratories for the rapid transformation of human consciousness which these times demand. They also offer more stable stewardship of larger blocks of land and can begin to nurture significant political and cultural autonomy.

In this issue we take an in-depth look at one emerging ecovillage, Earthaven, and scan a handful of other models from different regions and different eras. We also examine the underpinnings and historical context of the New Village Movement, and we look at some important social design issues which impact communities everywhere: democratic decision making, educating children, making a place for youth, spirituality, making a living, and design for the unexpected power of nature.

Thanks go to the members of Earthaven for sharing so much of their heart, to Jill Tieman and Arjuna da Silva for providing some special photos, and to Mollie and Patricia who made it fun.

### Subscription Rates Rise

With this issue we are raising our subscription rates to \$19 per year. This is the first increase since 1990 and we undertake it reluctantly, but with the hope that you will continue to find the magazine a source of value and inspiration. Postal rates have risen twice since our last increase, paper costs are up, and we have increased from 152 to 180 the number of pages we publish in a year. Our economic margin remains razor thin, so your support matters. We run lean and we make good use of your subscription dollars. If you are reading this magazine from a newsstand, we ask that you subscribe and help keep us in print.

### Forthcoming Issues

Our next issue will be published in March, 1997 focusing on Climate and Microclimate. We invite submissions. That issue will also contain an index of *Activist* issues #24-35. We are also planning an issue on Tools and Appropriate Technology for 1997.

### Regional Co-Publishing

Readers in the Pacific Northwest will notice that your copy of *The Activist* carries an insert. We are co-publishing in that region with *Sustainable Living News*, formerly *West Coast Permaculture News & Gossip*. Editor Mike Lockman has put extra effort into improving an already useful newsletter and we are helping him to reach more readers. If you like this double offering, please contact Mike and support his work. If you are not already subscribing to the *The Activist*, please do so.

### Housekeeping

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### A Word to the Wise

When contacting permaculture organizations whether in North America or abroad, we urge you to include a self-addressed, stamped envelope (SASE) or a contribution for postage. Groups like *The Activist*, regional permaculture institutes, and individual consultants are invariably underfunded and cannot afford to reply to casual inquiries.

### Share the Surplus

In addition to subscribing for yourself, please think about giving *The Activist* as a gift to a friend—reduced rates are available (see page 51). The public library in your town is also a good candidate for a gift subscription. Help make permaculture a household word.

Best wishes for the holidays. We're all headed to the beach for a much needed vacation.

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# CONTENTS

FROM THE EDITOR	2
Prolegomena to a Pattern Language for the New Village <i>Paul Caron</i>	4
From Consensus to Democracy <i>Arjuna da Silva</i>	6
Lessons from Community Conflicts <i>Declan and Margrit Kennedy</i>	9
Sustainable Villages and the United Nations <i>Albert Bates</i>	12
A Visit to the Amanas <i>Albert Bates</i>	13
Cerro Gordo's Long Journey to Community <i>Toby Hemenway</i>	14
Arthurdale, West Virginia: A Public Experiment... <i>Deanna Hornyak</i>	17
A Village In Between: Artas, South Dakota <i>Larry Dalmation</i>	21
Planning for a New Tribe <i>Chuck Marsh</i>	23
Visions of Earthaven <i>Gangotri, Michaeljon Drouin, Gary Schwartz, Greg Marshall-Clark</i>	26
Rural Ecovillage & Urban CoHousing: Interview with Jill Tieman <i>Mollie Curry</i>	29
Learning a New Kind of Life <i>Darren Geffert</i>	32
Design for Catastrophe <i>Andrew Goodheart Brown</i>	33
Remembering Who We Really Are: Design for Eco-Spirituality <i>Patricia Allison</i>	35
Spirit in Community <i>Chiwa</i>	36
Schooling in a Village Home <i>Jean-Ann Marshall-Clark</i>	37
Design for the Next Generation <i>Patricia Allison</i>	38
Creating a Teenage Society <i>Patricia Allison</i>	40
Natural Building Materials <i>Ted Butchart</i>	41
Village Economics <i>Peter Bane</i>	44
Ecological Forestry in Action: The Waldee Forest <i>David Wheeler</i>	46

## DEPARTMENTS

Reviews	43
Permaculture Events	47
Letters	47, 50
Publications for Sale	47-49
Classifieds, Subscription	50-51
Calendar	52

## A NOTICE TO SUBSCRIBERS

From time to time The Permaculture Activist rents or trades its mailing list to other permaculture or sustainability organizations. If you would like your name withheld from these lists, please let us know.

# Prolegomena to a Pattern Language for the New Village

Paul Caron

Christopher Alexander's main premise in his own introduction to his method of Pattern Languages, set forth in a separate volume, *The Timeless Way of Building* <sup>(1)</sup>, is that there is a natural, intuitive—one might say "unconscious"—process at work in vernacular architectures around the world. In developing a structural understanding of this process, he hopes to make possible a Remembering and Return (to the Timeless Way) for us in the "West," which means the industrial/rational civilization stemming from Europe and now threatening to become world dominant.

That this is a threat is easy to say, and among the circle of the readership of this publication it is a commonplace. Responses to this threat, including Alexander's, generally organize themselves around this idea of "remembering and return." There exists a faith in some solid ground of human being that—if only we could connect with and rest in—would function to guide us out of our predicament and into a more sustainable future.

I also hold views along these lines. Yet I think too many times solutions are posed without enough consideration of questions which are fundamental to an understanding of the process we are involved in. It is easy to imagine returning to a slower-paced, more "grounded" or land-based way of life, and this image invokes an emotional response which cannot be denied. I think this feeling is valid as far as it goes. We are responding to an inner knowing of the higher potentials of human being. Nostalgia, however, is not a firm basis upon which to create strategies and tactics that will produce a truly sustainable form of life in the next century. What is required are answers to fundamental questions about human being, especially as they relate to history.

## From Satisfaction to Disenchantment

We imagine reshaping our lives around timeless principles. That such principles exist is indisputable. But what is the basis of their timelessness? I believe this question resolves itself into the nature of satisfaction for human beings. We can be intuitively in touch with the timeless way because we know in our bodies what works for us as humans. Alexander, et al propose a methodology for applying body knowledge to vernacular architecture in *The Timeless Way of Building*. I have employed this method and can report that it works. But then how have we become disconnected from something so close to us?

Some things (e.g. the human body and its physical needs) never change—or change so slowly as to seem constant—but the point is, some things do, and there lies the rub. Human being is a process of evolution which we call History. It does no good merely to bemoan the loss of past innocence, be it body-centered vernacular architecture or any other expression of the commons. Through the enchantments of the mind's search for dominance over a fearsome Nature, clawing its way out of unconsciousness, the older certainties of the body and a physical and social architecture appropriate to it have been fed into the maw of Leviathan. Now we need clear direction, because whereas in the recent past human history has been guided and shaped by huge forces (economy, politics, culture), developing, as it were,

outside of conscious control, in the present historical moment we are under an increasing demand to exert some kind of control over these very forces.

*"If 'consciousness' does not play a large part in the future of the human species, then what kind of future can we expect it to be?"*

— Terence McKenna

History is a "dialectical" process; that is, it proceeds in two opposing directions simultaneously. So on the one hand, the original pre-conscious psychological unity which tribal peoples experienced continues to break down into the sometimes cacophonous competition of individual self interests that we call "civil society." At the same time conscious awareness of the true interdependence of all humans on the planet and the possibility—for the first time really (Bosnia, Rwanda, Northern Ireland, and So. Central Los Angeles not withstanding)—of the emergence of a truly global identity for humanity is becoming possible. On the basis of what?

"History is the long march from animality to freedom," said Mao Tse Tung. So the question for us comes down to this: What will be the form of freedom we intend to create?

In thinking about structuring "Village" as a response to the challenge of creating a sustainable future, we need to think about the nature of the freedom that 10,000 years of History has brought us.

## The Threat of Civil Society

It has been noted that civil society, which is a society characterized by the supremacy of individual rights and responsibilities laid out in laws, rests on, and in fact only functions on the basis of a substrate of forms of society, values, and institutions which were created in previous stages of history. These are mainly the family, the nation, and the church or cult. These are all unconscious forms of identity which have allowed individuals to find rest and to function in society. At the same time, the functioning of the global industrial form of civil society acts to tear down and disrupt these very institutions upon which it rests.

*"If man will cut the same branch that he is sitting on, he will also fall down."*

— Sant Ji Maharaj

So here is our dilemma. We emerge with our freedom completed (ideally) after the long march, only to discover that the very creation of history that gave us our freedom, civil society, threatens to annihilate us, like Chronos devouring his children. Let me stress here that we are talking about freedom of the individual identity, which is still abstract freedom. Our choices are still limited by concrete inequalities of power which are with us from our primate past. The biggest monkey still rules the group. But, whereas our monkey forebears were content to put up with this situation, we are not. Freedom of choice in imagination demands to manifest itself in the world that we choose to create. Hence the call for the "New Village."

It is suggested in *A Pattern Language* that the largest group which can govern itself by direct discussion and agreement is

somewhere around 500 individuals. Since the people who are going to be seeking to create the New Villages have come out of modern society where the groups they participate in are both much smaller (the average person has a group of 5-20 close friends or associates) and much larger (many people being raised in urban settings where there were a thousand or more students in their school, and 50,000-100,000 people in their town),

participating in direct democracy is a still unfamiliar and yet crucial set of skills which must be learned by New Villagers. Education for consensus decision-making will be crucial to their success.

#### The New Social Glue

As society begins to feel the contradictions embodied in industrial global modes of production tearing down the stable basis of human life, two dialectically related processes will begin

to be apparent. First, the state, which is the concrete embodiment of the essence of civil society in law or public ethics, will react to disintegration in more basic levels of society—the family, civil and religious communities—by seeking regulatory control over more and more details of everyday life. This cannot be stopped. It is in the very being of a civil state. So there approaches The Totally Administered Society. The exact point at which this movement toward administrative control can be called Fascist may not be easy to identify, but we can feel movement toward it now, and we will recognize it after it is reached; there can be no doubt. In reaction to this, individuals are seeking to escape administrative control, and it is these individuals who will come together to form intentional communities of all forms. **This is the main pattern that will have to be addressed in developing the New Village.** As a response to historical forces at once creating and destroying individual freedom, the roles of conscious intention and personal affinity through choice will loom large, becoming the main social glue of the New Village, serving where blood kinship functioned in all previous forms of society.

Secondly, due to the already increased mobility of modern industrial society, but also because it is a practical way to escape administrative control, an increase in Nomadism will come to characterize the New Village. Here is a place where conflict may be experienced by many people who, reacting to the insecurity of modern society, are seeking a quieter, more "stable" form of life in an intentional community. Each community will respond to this challenge in its own way, but I would caution that this new Nomadism is not just a reaction to or a bad product of the breakdown of industrial civil society, it is a feature of who we are becoming. In the face of either the breakdown into chaos of the industrial world or its stiffening under total administration, the New Village will not escape into a sphere of nostalgia where we retreat into the woods, close our eyes, and wait for the smoke to clear. The only hope for the truly Angelic potential that we sense as our higher motive lies in globally coordinated actions between groups in all bioregions. Choice of affinity being the main glue on the global level as well, it will behoove the New Villagers to support Nomadism as the means to achieve global consensus

## From Villages to Cities...and Back Again?

Richard Register

Çatal Hüyük, near Istanbul, Turkey, is regarded by scholars as the first city in the world. It has been minimally excavated by archeologists, but has yielded astounding artifacts and glimpses of an ancient culture.

There was found the first mirror, of polished obsidian. There, in the lower ruins were homes made of mud built up into walls. In the upper ruins, almost 1,000 years younger, the mud was made into large adobe bricks held firmly with straw—an innovation of their own, it seems. There, was a fantastic town with no streets at all—people walked on flat roofs and dropped into the large rooms or courtyards on tall ladders. There, were sculptures of bulls' heads emerging from walls in many of the rooms, with sitting and sleeping platforms made of mud, such that the floors varied in height many times in each room. Under some of the platforms, the deceased relatives were buried after first being carefully dried, prune-like, in the sun. There also, were beautiful wall paintings of antelopes, wild boars, vultures, bulls and people, figurines of round women, and pots of fired clay, among the earliest known, all now on display at the Museum of Anatolian Civilizations in Ankara.

What was it like to be inventing the city from nothing more than the small villages of the past? Eight thousand and nine hundred years ago, back 40 times the age of the United States, a few thousand people did just this, surrounded by a whole planet of good hunting land, flat mostly, or low and rolling, with a few distant mountains. No other cities in sight, nor in memory, nor, probably in expectation. Nobody out there at all, save the hills, plants and animals, a few villagers, nomads, their gods, the winds and the unknown. Yet in a time so far removed that time itself would seem to stand still, it was not. Things were changing, not only seasons coming and going and everything cycling in ecology's endless way, but changing in evolution's way of something different arising for the first time to change the future forever.

It's called Çatal Hüyük, which means "fork mound" in Turkish, because the 70' high hill of earthen city built upon earthen city looks

something like a fork when viewed from above. We can be sure what *they* called it was nothing similar. It was wetter then. Now it's surrounded by irrigated agricultural fields and lines and patches of poplars all arching in the same direction in front of the hot winds. I felt it a fantastic privilege to sit there among the grasses and flowers, in the fine gray dust, looking into the open rooms 89 centuries old, contemplating beginnings. Would I find some creative magic here? Would some power fall into my hands—from then on, the force be with me, as they said in Star Wars—so that the struggle would be graced with splendid accomplishments? Would I participate in another urban beginning similar yet different from theirs?

The often broken and wildly varied history of cities that started here, I believe, needs another shot of the kind of imagination that must have been in the blood of those people. Not knowing for sure where we need to go, as they couldn't expect any particular future built upon their foundations, we might today vaguely comprehend that a transformed vision could lead to something of a different city, the ecocity that finally realizes again, something they must have known 8,900 years ago—that nature is its real foundation. Will we rethink and rebuild not just our cities for a healthy role in nature and evolution, but ourselves for our own creative and compassionate fulfillment?

Çatal Hüyük's builders were authoring their culture and their individual self knowledge then, from whole simple cloth. What were they thinking under those stars never dimmed by smog or urban glare? Who were they? Who were they to presume city building for the first time? Who are *we* and where, almost 10,000 years later, do we think we are going? Δ

*Excerpted from the June 25, 1996 EcoCity Builder Bulletin, 5427 Telegraph Ave., W2, Oakland, CA 94609. Phone/fax: (510) 649-1817. Richard Register, a dedicated ecocity advocate, was entranced by Earth's first city, located near Istanbul. He was in Turkey for the United Nations Conference on Human Settlements (Habitat II). He has a slide show of his discoveries there, and is available for presentations.*



between groups separated by geography but united in the evolutionary purpose of common survival.

If it is our destiny to survive the "chaostrophy" of the emergence of our potential "starseed" being, the way is a forward escape through the contradictions and painful uncertainties which characterize late 20th century society. We must become a people at the same time lost and groping, beset by a dangerous freedom, and guided by knowledge that what we are is only now being born. For above all the New Village is an incubator for the starseed. If we are to survive this final crisis it is incumbent on us to develop a human world that above all deserves to inherit this green planet.

And this brings me to my final point. Let it be understood that when we speak of sustainable futures we are talking about our own future. There is no need to "save the Earth." Life on this planet has survived worse than the crisis now present: asteroid strikes, ice ages, cosmic ray storms, reversal of the poles, you name it. Were it not for the seed of freedom that we possess, our extinction would be no special tragedy. And it is not our physical survival that is the question, though it may be momentarily at issue. The point is that the survival strategy we create must be worthy to survive. This can only be judged in light of the historical mission that a quirk of evolution has placed on us: To bring the oroboric serpent around, to complete the cycle of freedom which finally states "I am that I am." And perhaps then to be able to open a little export office...

#### Notes

1. Alexander, C., *The Timeless Way of Building*, Oxford Univ. Press, NY, 1979. Δ

Paul Caron is a partner in a company manufacturing and distributing footbags, *Good Medicine*, whose slogan is "Kick in the New Paradigm." When not kicking sack and spinning philosophical jive, he does custom cabinetry and furniture repair and sometimes designs novel architecture for Earthaven. He lives with an unruly tribe of cats at Rosey Branch Farm, and can be reached at 328 Stone Mountain Farm Road, Black Mountain, NC 28711.



## From Consensus to Democracy: In for the long haul

Arjuna da Silva

*Black Mountain, NC.* It's October 19, 1996. Just over two years ago, twelve graying baby boomers agreed to commit ourselves to a large intentional community project in the Blue Ridge Mountains, with permaculture underpinnings and a spiritual core, blithely entitled Earthaven. Some of us at that auspicious gathering had never met each other before, although other long-standing, close relationships among a few of us helped create an aura of confidence in what we were doing. But launching a collectively-held vision is a magical endeavor. Like falling in love, you *feel* the rightness but you can't explain it.

From that leap, committing the project to a consensus decision-making process was probably only millimeters short of insanity! After all, we were not only agreeing to come to agreement with people we didn't really know yet, we were committing to a vision of consensus with ten times as many as yet unidentified people! I suppose at the moment of deciding whether or not to jump into this particular abyss, the road back to where we were before we tasted the bait seemed even longer and more implausible than the crazy one in front of us. So we put our money where our dreams were, signed a bunch of papers, and transformed ourselves from private citizens into community builders.

On this glorious fall day two years later, twenty-one people, including friends, relatives, guests, and drop-in helpers are scampering over a building site like a troop of monkeys, a hive of bees, and a colony of ants. The roof and straw bale walls of our long-awaited first indoor kitchen and bath house are going up. Today I can finally believe that by winter there will be a snug and warm place for us to cook and eat, shower and bathe, and hang out together.

Until today, it was a hard notion to trust. Sure, everyone knows construction projects tend to take much longer than planned, but when most of the work is by volunteer labor, on a smaller-than-expected budget, and all the significant decisions leading up to the implementation of the project have been made by consensus, multiply the delay

geometrically.

When we started Earthaven, we were looking through a psychological telescope at a future that seemed much closer than it was. By Autumn 1996, we expected to be busy building our own homes. Our community center was to have been up and running. Facilities for workshops were to have been functional, if not finished. Why, come Spring, we'd be entertaining you on our beautiful lawn (oops)—er, meadow. At one of our early meetings, one member looked forward half a decade and asked the man he would become to send wisdom and blessings to us down through the years. We all thought that man of the future would be much more settled than we would now predict. And yet....

And yet every time we have an open house and guests witness our process, the way we make decisions, the way we freely communicate both good feelings and bad, the way heart more than head seems to be at the helm, they remind us that the atmosphere we've created with our slow pace isn't something you find most places. Something inner has been going on at Earthaven. I'd risk calling it an inner treasure, impossible to measure, yet undeniably present, sort of like "the quality without a name" that Christopher Alexander and his associates refer to in their seminal volumes, *The Timeless Way of Building* and *A Pattern Language*.

What is it about the atmosphere at Earthaven that's different? I guess (since I don't know what it's like in most other communities) one thing might be that we go beyond what Scott Peck called pseudo-community to real community. We're learning we don't have to be especially polite with one another, or expect good vibes all the time. We're learning individuals can be at significant odds without the community teetering. We're learning we can scrap a plan and keep our core vision. We're learning how important it is to balance labor with play, meetings with celebrations, and chaos with silence. All of these lessons may seem obvious, but the challenges involved in learning them have taken a good part of these first years, and we've only just begun!

Not everyone at Earthaven has the same vision or the same priorities, of course. And each of us has to work out the

puzzle of fitting a private life into a group life, or vice-versa. But all of us want something different from what most Americans choose. Possibly the one thing that we all agree on, even in the midst of powerful disputes, is that we want to live in the democracy we once thought our country was. So we're sacrificing crisp timelines and clear projections for something deeper.

When I was in elementary school, I remember being encouraged to have idealistic dreams about the future and about the fair, just, and loving country within whose protection I was growing. No wonder the 60s and 70s held such painful confrontations between expectation and result. The shock of discovering that the democracy we live in is just a word, that the high dreams of democratic visionaries have long been pushed aside by nearsighted materialists, was maddening. And even more maddening the public insistence that this *is* democracy—just look over *there* at how cruel and unjust *those* people in *that* country are.

Attempts to distract us from the truth have been fairly successful. On the surface, things look good enough in the U.S. We can choose our religions, our schools, and our careers. We can live almost anywhere. We can shop till we drop. We can vote and if we're in the majority we can win. The bare bones of democratic government are in place.

But democracy in skeletal form is not democracy at all. And majority rule is simply not democracy. It may be an expedient way for power groups to facilitate the appearance of democracy while they lobby and lure support for their causes through any means necessary to win, but it isn't government by the people. The joy and authority people should feel as a result of living in a democratic society cannot be achieved with it. Just check out the frantic and addicted American population.

The very need for majorities in decision making causes people to compromise their values and manipulate one another in order to form reluctant coalitions. A mixed society cannot function harmoniously this way. It takes a great deal of time, patience, individual education, and commitment to self-govern. Certainly a society run on a constantly rising standard of living based on a capital system of wealth has no place for this kind of citizen involvement.

When the majority wins, even if honestly, many people lose. When many

lose, even the appearance of democracy is lost. What then to say about achieving *deep* democracy, which Arnold Mindell, a co-founder—along with his wife Amy—of Worldwork, defines as “that special feeling of belief in the inherent importance of all parts of ourselves and all viewpoints in the world around us”?<sup>(1)</sup> How can we live in support of the importance of all our parts? Mindell suggests that consensus decision-making is a good tool for supporting “our sense that the world is here to help us become our entire selves, and that we are here to help the world become whole”?<sup>(2)</sup> Can we arrange things so that everyone feels their voice is being heard...and responded to? This is our path at Earthaven.



*Earthaven members discuss potential homesites*

Although its essential meaning is general agreement, technically an agreement by consensus is an agreement of the whole. If the whole agrees to do what the majority wants, I suppose that would be a consensus decision also. According to Amy Mindell, “Consensus is that special, temporary group condition in which people move unanimously together in a particular direction.”<sup>(3)</sup> Everyone may not entirely favor a proposal, but unless there are serious objections, everyone agrees to allow the proposal to pass so that something may be accomplished. However, if there are serious objections, those objections must be clarified and somehow resolved for the action in question to be taken.

At Earthaven, we've agreed to follow a consensus process called soft consensus. This means that if only one Council member objects to a decision, even after attempts to include or influence their

position, they will “stand aside”; in other words, they will not block the decision. However, concern about the value of a dissenting opinion has been great among many of our members, one of whom has even said she would “stand with” a single dissenter on principle alone. She has explained that if one among us feels strongly enough to block consensus, mustn't it be worthwhile to postpone action until we understand the dissent better? Perhaps because we've been willing and able to go slowly, to date no one has had to stand aside from a decision.

This movement toward democracy requires learning and practicing group participation and facilitation in new ways. We follow a meeting format outlined in

the book, *On Conflict and Consensus*, by C. T. Butler and Amy Rothstein. In this way, we are prepared to take at least three Council meetings (six to seven weeks) to resolve an issue of concern to all of us. It seems that at every level of our process, we have to make decisions about whether or when to focus energy on something. It is not always easy to know how we're doing. (Hint: that's an understatement!)

We are experimenting with a variety of group process approaches. I personally have been sharing as much as I can about Worldwork, gleaned both from reading Amy Mindell's books and from attending Worldwork seminars in Oregon last January. Looking at the human arena of feelings and interactions as an energy field in which many of the propositions of physics apply seems to bring on increased ability to stay in the present moment with the flow of events—a very healthy ability for groups.

Whether we're working on process or building projects or articulating a part of our vision, we keep having to turn alternately toward and away from the group to reflect on what we want and can do, before we can come up with a workable solution. All this takes time, and consensus decisions are clearly not always the sharpest, but the aftermath of generally good feeling seems to be worth it to us.

Once in the cauldron of deep democracy, we've found ourselves facing unexpected issues, issues we might have thought belonged to more disparate groups. But, perhaps, wherever humans long unraveled from the tribal tapestry engage, there is far more diversity of style and value present than apparent. We find differences not only in personal psychology and ethnic and religious background, but also in the subtler realms of individual and cultural rank and privilege. Worldwork addresses the need to be conscious of and responsible to these differences and the imbalances they cause in any group "field." Margo Adair and Sharon Howell, in a pamphlet entitled *Breaking Old Patterns, Weaving New Ties: Alliance Building*, also address this need. "Despite our best intentions," they write, "we find, more often than not, that we duplicate the patterns of power we find so abhorrent in dominant culture."

At the heart of any intention to equalize imbalances is the very difficult task of asking the more powerful to share, if not to surrender, their positions. Adair and Howell underscore this. After all: "Privilege is invisible to those who have it."<sup>(4)</sup> Adair and Howell as well as the Mindells counsel those willing to walk this rutted road similarly. Noticing and being willing to change what we take for granted in order to make room for the contributions of others is fundamental.

Here are a few recommendations for the equalization of power:

- Don't assume anyone is more "suited" for anything.
- Don't assume someone is exceptional compared to the "average" person of their group.
- Do make sure the context welcomes everyone's voice and listen.
- Don't reduce difficulties to personality conflicts.
- Don't overlook history and equate all oppressions as equal.
- Do name dominating behavior whenever you see it.
- Do understand individuals in the context of their social history.
- Don't assume the visible reality is the only one operating.
- Do appreciate the risk a person takes in sharing their experience with you.<sup>(5)</sup>

Are we, as some have suggested, developing a "group mind" in the process of creating intentional community? Although I find the phrase a little intimidating, I think it's meant to imply a oneness that functions spontaneously under both ordinary and extraordinary conditions. Perhaps it's hard to tell from the inside and easier to see from without. Again, comments by visitors lead me to believe we do have a group identity, a group way of thinking, feeling, and being, a group mind, if you will. I suppose the best example would be members' prompt and enthusiastic response to the recent flood that took two cars and most of our main road out of commission. But a group mind isn't built in a year or even two, and I'd say we have a way to go. Nonetheless, working with consensus the way we do, I'd also say we have a heck of a good start.

Within the next six months, Earthaven Council will have grown to about thirty-two individuals. At some point before we reach an optimal 100-or-so membership, we may have to consider the efficacy of a representative form of consensus democracy. I understand that people in the Ba'hai faith practice

such a thing, and by the time we are in need I hope to have had a more direct look at that and any other successful forms of self-government within reach. The key factor seems to be a willingness to work with where people are at rather than to push them. For consent is not consensus—as Army Mindell comments: "Leaders know how to push for consent. The multicultural elder, however, is spiritual. By focusing on awareness, an elder makes something magical happen. Unexpected solutions appear at the right moment."<sup>(6)</sup>

When personal growth is equal in importance to civic development, a rare balance may be achieved. According to the process-oriented view (again, Mindell): "...[T]he world has exactly those problems that we are meant to solve. They are just the perfect ones for us to grow with, and we are the only ones who can solve them."<sup>(7)</sup> Substitute community for world, and you have a window on the sustaining belief that has held Earthaven together thus far. Check with us in another two years and see if it's still holding!

#### Notes

1. Arnold Mindell, Ph.D., *The Leader As Martial Artist*, HarperCollins.
2. Ibid.
3. Arnold Mindell, Ph.D., *Sitting In The Fire*, Lao Tse Press.
4. Margo Adair and Sharon Howell, *Breaking Old Patterns, Weaving New Ties: Alliance Building*, Tools for Change.
5. Ibid.
6. Mindell, *Sitting In The Fire*.
7. Mindell, *The Leader As Martial Artist*.

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## In Support of an Ogbo Lifestyle

### Arjuna da Silva

In strolling past Asheville, NC's Downtown Books and News, I was struck by a photograph of African children in native dress on the cover of a book called *Ogbo: Sharing Life in an African Village*. Downtown Books being what it is, I was able to become the owner of the apparently new book for only \$6.

What a discovery! Ifeoma Onyefulu, a native of the Nigerian village of Awkuzu, returned to her home from London and captured its magic in story and photographs. In my view, this book may offer extraordinary lifestyle guidance for our own fledgling village life.

But what is an *ogbo*? Pronounced "orbo," it is an age group of villagers who grow up, play, work, and do service together throughout their lives. In Awkuzu, each *ogbo* spans a five-year period: "...every child belongs to an *ogbo* ... fat or thin, rich or poor—it does not matter. Everyone has a friend; no one is born alone...."

Six-year-old Obioma describes her own and the *ogbos* of her family members. Her brother is ten, the age children start helping in the village. His *ogbo*'s task is to keep the village fairground clean. Her mother's *ogbo* has a name meaning "the kind heart of a sister or brother." One of its jobs is sweeping dead leaves and grasses from the main village stream. Members also take turns supervising interfarm disputes, as well as chipping in to help others in need. Obioma's father is in a building *ogbo* called "together is strength." Her uncle Chike lives in the city, but comes back often to help his *ogbo*, known as "lighting a fire." If anyone needs a house but cannot afford to pay, Uncle Chike's *ogbo* builds it. Obioma's grandfather, now 70, belongs to an *ogbo* called "beauty," named when its members were young and beautiful. Says Obioma: "Now they are old and wise—and that makes them beautiful, too!"

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# Lessons from Community Conflicts

## Declan and Margrit Kennedy

Whether we refer to the questionable results of the so-called "green revolution," the exploitation of Third World countries, the global environmental pollution, the debt crisis, or the absurdity of European agricultural subsidies, we are now coming closer to the limits of what we used to define as "progress." The experiments with community living in Steyerberg, Germany show that our common co-existence depends, finally, on how we break through the narrow and limited attitudes with which we make communal or political decisions. We can imagine a wider use of our experiences of community and spirituality in other eco-villages, co-housing projects, and urban and rural intentional communities around the world.

### Why have we moved into a community?

We decided to join a community because we wanted to implement a permaculture model and we realized that was almost impossible to do by ourselves on a meaningful scale. For instance, we could imagine producing vegetables, but not selling them on the market. By living in a community, this necessity would not even arise.

However, we also wanted a very special combination of community characteristics. In our search for a place—which went on for exactly three years (1982-85)—we found two types of communities.

The first type was the eco-technological community, like Stanley, Tasmania; Langenbruck, Switzerland; Svanholm, Denmark; or Springe-Eldagsen, Germany. They did a very good job in terms of developing new ecological techniques, such as highly productive, low work, food producing systems; ecological stoves, cars, and solar collectors; organic food for the market; zero-energy houses; controlled ventilation; and root-zone sewage treatment systems—all in the middle of the 1980's. However, in our view, these groups underestimated the whole question of social relationships, assuming that when all members had the same ideal, i.e., ecology, this question would take care of itself. But it usually did not—and unresolved conflicts can make life rather unpleasant.

The second type was the spiritual community, like Findhorn, Scotland; Wetzhausen, Germany; some Sanyassin communities in Australia, or anthroposophic communities in Germany and Sweden. They developed unusually pleasant human interrelationships and practiced "love your neighbor as yourself"—and produced fantastic vegetables. But, either we found them too limited in their following of one guru and in their implementation of one particular path, or we found them lacking in ecological fervor. Therefore, we realized that we had to be part of creating a new community which would combine the social/spiritual aspects and the ecological aspects.

The community of Lebensgarten, which we became a part of, started when a businessman from Berlin bought a dilapidated housing estate which had been originally planned and built in 1939 as workers quarters for an ammunition factory. After the war, it was used as a barracks by the English army, then it stood empty for almost eight years. Together with six others, on December 17, 1984, he decided to initiate a spiritual and ecological center there.

The housing area has 65 row houses and various community buildings. We moved in in October 1985 and were the seventh

party present. Within three years after the purchase, all the houses had been either bought or rented by people interested in participating in this social experiment. There are now over 100 adults and approximately 50 children as members of this community—of different ages, social and professional backgrounds, religions, and objectives.

### How did it work out in Lebensgarten, Steyerberg?

Well, it was difficult. Particularly during the first five years, we had extremely severe conflicts among each other. None of us were educated to deal with the multi-faceted relationships in a community. We all had come from nuclear family backgrounds. We all had different dreams and visions, and we all wanted to implement our vision.

The first discovery we made was that we all had to let go of our dreams....before we could accomplish them in a somewhat modified form later on. We dreamt about a whole ecological technology center, something like the Welsh Centre for Alternative Technology. That never materialized because the members were more interested in their own self-development than being partners in a business and sharing the "capitalist's risks."



The second discovery we made was that we all had quite similar problems in accepting others—and, as it turned out invariably, mainly with those who reflected some unknown shadow side of ourselves. We remember a man who came along one day and wanted to be a member. He looked like a little grey mouse and had cold, sweaty, wet hands which we had to catch when we danced our morning dances. We both had problems accepting him at first—until we realized that, at some stage in both our lives, we had felt just as insecure and socially unwanted as he did when he arrived into what he perceived as a well-knit community. And, in fact, those similar negative experiences had been part of the driving forces in our lives. We had to look at them anew and love them. And then we could look at him anew and love him too. Since then, he works with us on things like geomancy, dowsing, and energy points in our community and elsewhere and has become a stalwart friend to both of us.

The third discovery, based on the second, was that once we understood and looked upon that shadow side of ourselves, lifting it up into the light of our consciousness, the problem within us—and with the other person who reflected the problem—began to disappear, sometimes instantly.

Since, fourthly, there are many people in our large community—by 1988 Lebensgarten was comprised of approximately 50 adults and 30 children—many opportunities for this learning process occur. We all had to develop very quickly. Otherwise, our conflicts would have destroyed the functioning of the group as a whole.

Fortunately, and this is a fifth communal point, it feels really good to learn to accept one's self and others, more and more, and one begins to look at conflict in a different way: "Hey! There is something to learn again—be creative and enjoy it!"

Therefore, in the "pressure cooker for personal development," as the two of us sometimes call the Lebensgarten, we begin to be able to communicate with people at a continuously deeper level of understanding. We noticed that learning was beginning to get easier, happen faster, and was happening with more and more fun involved, instead of pain. That, we feel, is real progress. Our growing sense of love and accomplishment is reflected in the outside world. Things are not only beginning to look better on the inside, but also on the ecological level in our immediate environment.

Ecology was certainly not second priority in our case, but for a time, the human aspects were paramount. However, now the Lebensgarten has also accomplished quite a bit in terms of recycling its old pre-World War II buildings into dwellings and facilities for the seminar program. The latter passes on part of what our community has learned about conflict resolution to others from the outside, for instance, in our school of mediation (the "Fight Light School").

How did this experience affect our professional lives?

In our answer to this question, we must explain one other common experience: that we all learned to do what we can do best; and to do it as well as we can. Thus we are better in contributing to the community, but also to ourselves and to the universe.

Margrit, while she wanted to implement our permaculture model, realized that first she had to write a book about money—or a sustainable money system—as a basis for a sustainable world economy. After having refused this idea for four years—for not being an economist, she wrote the initial book in four days. Many other small miracles happened in fulfilling this task, but the most amazing is how this message keeps spreading "on its own." The inner conflict of not being able to tackle such a worldwide task was resolved by a whole host of helpers all over the world—and up there too—taking the message further.

Declan continued his "permaculture" work and found others to help him. Lots of conflict in this process often made it feel like sowing and weeding on a human relationship level—and in

himself too. His "real" task was, however, networking and going out to other countries in Europe—spreading the message and the permaculture principles for rural and urban settings. He went to countries which had experienced peace for many years like Sweden, the Netherlands, Switzerland, Ireland, the USA, Brazil, and Italy, but also countries which were in a state of conflict: Poland before the change, Croatia during the war, Slovenia just after the separation from Yugoslavia, building up from nothing.

In almost all circumstances, the courses and the trainings were as much mediation as permaculture. Then came projects in Eastern Germany. After the reunification, this region was the target for those out to make a quick D-Mark, with some notable exceptions. For instance, Axel Wittig-Hohnstein, a "Westerner," tried to implement a complex ecological settlement adjacent to the old town of Hohnstein, where his ancestors had lived. Declan became the official ecological director, but again, his main task was to animate and mediate between different planning consultants as well as between them and the residents of Hohnstein.



*The Kennedy's home at Lebensgarten. The building houses two other private residences and rooms for the Permaculture Institute*

This trust in doing what we enjoy most and being true to our hearts has developed in the community. We did not only experience this within ourselves, individually, but also with others around us in the community, which made our lessons much more penetrating and real. Although we see ourselves as professional planners in almost all our projects, often this ability to mediate between people who have not learned to communicate with each other, or to listen to each other, has become almost as important as our professional knowledge.

## "Elective Villages"

*[quoted from Brian Beedham in Resurgence #174, in a review of The Villagers by Richard Critchfield (Anchor, 1994. \$27.50), with acknowledgements to The Economist.]*

...Critchfield spent twenty-five years learning, and writing, about what makes people feel they belong together—about what the word "community" means.

...The first conclusion, on which he never wavered, was that villagers everywhere share something like a common culture. ...Critchfield's other conclusion was that, if this culture of villagers collapsed, the world would bitterly regret it. ...The village life that took shape around the world after the passing of the primal hunter-gatherer era was, at its best,

a way of fitting self-interest into a recognition of other people's self-interest, into a sense of belonging together. If that were shattered, the consequent atomization of society would be explosive: as can already be seen, Critchfield argued, in any aspect of contemporary big-city life.

So, towards the end of his life, he began to hope that the idea of belonging together could be reconstructed in a new form in the post-village world. Perhaps men and women in cities and suburbs could begin to reassemble themselves into groups whose members will choose to define what is good for themselves in the context of what is good for others: a new sort of community, the "elective village."

...Critchfield was a liberal, a man who started with the necessity of individual freedom and loathed the imposition of authority. But he understood that liberalism does not stop with the assertion of individual freedom. It has to think about the ways in which these freedoms can live together.

The function of such planning groups is to find a proper solution to a particular situation or problem. What is mostly forgotten in this problem-solving mode, is that it is just as important to be able to feel the situation and to find a solution at the feeling level, which is usually seen as "feminine" and subordinate to rational thinking.

Here is where the next step follows—to have fun and to enjoy the path to synthesis. That is, creating situations which integrate

rationality, feeling, intuition, and the right use of will. Δ

*Declan Kennedy is the Global EcoVillage Network area coordinator for Europe and Africa. An architect and permaculture designer by profession, he lives with his wife Margrit in the ecological settlement Lebensgarten at Steyerberg in Lower Saxony, Germany. She is the author of Interest and Inflation-Free Money.*

## Hope is Not Enough: A Recipe for Community Glue

Glen Ochre

...There is a deep, ancestral connection between people. It is this connection on which I base my hope in our ability to make the people pathways needed to create the ecovillages, communities, and new ways of living that we are designing and living now. But unfortunately hope is not enough. As in contraception, hope has never been a very good method! Neither is it enough that we have the practical infrastructures, although they are vital. We could have the perfect set-up in terms of co-housing, permaculture, the balance between privacy and communalism, gardens, aquaculture, waste recycling... All that is

not enough. We might have the perfect set-up, but then there is us—imperfect humans—and I say that lovingly and supportively of myself and all of us...

...The way we were brought up didn't really prepare us for co-operation. We might, in our raised consciousness, have lots of good ideas about cooperation, but we do not exist solely above the neck. Below that neck, we learn to carry around messages that go against sharing and co-operation.

That's why we need reminders such as those below. This recipe contains all the elements I can think of that are necessary to the survival of any community.

### Glen Ochre's Recipe for Community Glue

**Clear Philosophy:** What brings us together? Why do we want to do this? Our beliefs and principles.

**Spiritual "Connectedness":** Often quoted as what keeps groups together—this does not need to be a religion. For example, at Commonground we celebrate our connection to the Earth in very simple ways, but this is a spiritual connection. We never forget that we walk on the Mother.

**Aims:** What are we going to do together? A good ingredient for keeping groups together is to be of service, to maintain in some way a connection with the world. Our aims do not need to be realistic.

**Membership:** Who are we going to share this vision with? How open is that membership going to be?

**Structures and Processes:** Legal structures, joining and leaving processes. Structures are often not liked by people attracted to community, but if we make them, we can change them if they don't work. How are we going to organize ourselves in terms of work? Do we share our skills or do we say "You're a terrific builder and I make great cakes, so you do the building and I'll make the cakes..."? Some gender awareness is probably a good idea!

**Decision Making:** If you only make one decision by consensus, it should be how you're going to make decisions. There are lots of creative ways of using consensus decision making models. We need to know what sort of expectations we're going to have of each other and make decisions

around them—about money, time, and raising children, for instance.

**Policies and Agreements:** How are we going to do things, what agreements do we need? However, agreements, can be used by groups to protect themselves from conflict and from having to talk to each other.

**Processes for Dealing with Conflict:** It is essential to have a clear agreed-upon process for dealing with conflict and to learn the interpersonal tools to make this work. We could try to have policies to cover every contingency, but it doesn't work. You're bound to have a situation that isn't covered by a contingency and you'll have to talk to each other.

**Reflection and Evaluation:** Every group needs to build in methods of reflection and evaluation to be more sustainable.

**Connections and Relationship to the Outside World:** It is very important that we have some connection to the world. Those of us who care for the planet and her people need ways to express this and to contribute to change.

**Courage:** We are going to have to have courage to work together and face the difficulties inherent to community.

**Heart:** You notice it is below the neck! It goes beyond the rational to the emotional and spiritual.

**Change:** If real change is going to take place, it has to happen in our own hearts first.

**Self Love:** Self love will lead us to a greater tolerance of other people because we'll discover that they're like us.

**Tolerance and Generosity:** Essential

ingredients and I mean the generosity that says, "OK, she's having a rough day today. She did speak to me a bit roughly, but I won't go and fall in a hole about it."

**Self Acceptance:** This will lead us to a greater degree of forgiveness—an important part of the tacky bit that goes into the glue.

**Persistence and Patience:** We need to keep trying if things are not working out.

**The Ability to Let Go:** I don't mean to give in, I mean to let go sometimes when it is important.

**Listening:** We need to be able to listen to each other with our hearts, not just our ears. Hopefully this will also help us to speak from our hearts.

**The Ability to Negotiate.**

**Love:** The opposite to fear—the love that comes when we fold back our fear and discover that we can connect with one another.

**Safety and Trust:** These come from all the other ingredients that are in here, and the way they gel.

**Hope, Optimism, and a Bit of Luck!**

**FUN:** Because it's got to be fun, lots of parties and celebrations.

**The Collective Energy of Goodness:** The final ingredient for cooperation. Δ

*Glen Ochre trained as a social worker and is a social activist who for 16 years has lived with friends in a rural commune in Australia called Commonground. A longer version of this article first appeared in Britain's Permaculture Magazine #12.*



# Sustainable Villages and the United Nations

## Albert Bates

You can't really blame the Habitat-II delegates who gathered in Istanbul in 1996 for not accomplishing any grand strategy for the future of cities. They were given an intractable problem to work with. Somehow they were supposed to alter a trend line begun 6000 years ago, when the entire human population of the planet could fit into one of our cities today, and shape it to meet the needs of a planet waking to 238,356 new people every morning.

Today cities are too big, too complex, too capital costly, and too violent. But what is a city planner to do? Buck the course of history?

Clearly, we need a change of direction. We need settlements that encourage social health. To borrow a phrase of Robert Loring's, we need Solar Streets and Wilderness Alleys, well-planned communities incorporating security for both the human population (including reliance on local and renewable resources) and for nature (ensuring that the present generation will not be the last).

Like all good things, such innovations start small and build on limited successes. Grand scale approaches are useful only when what is being accomplished is grandly good and appropriate for a larger scale.

That is why the best new idea to come out of Habitat II was "ecovillages" as an experimental model for sustainable development in the next century.

We shouldn't deceive ourselves into thinking that we can shunt 8 billion people into rural settings like some gigantic Campuchean revolution. Ecovillages will have to be located inside cities and suburban areas as well as on suitable tracts of unsettled land. Successful experiments will have to expand to 500 people, and 5000, and 50,000.

Presently, ecovillage experiments are blossoming in myriad climate regimes around the globe and show every promise of becoming a lasting revolution. In 1990, a group of us who had been living in such communities began asking how we best could share our resources to further the greater movement. In October 1995 we held a conference on "Ecovillages and Sustainable Communities" in Scotland, which was attended by over 400 people from 40 countries. Over 300 had to be turned away. The interest in the concept has been immense ever since.

### The Global Ecovillage Network

In 1996 our group, now called the "Global Ecovillage Network," met again in Tennessee, Istanbul, and Australia. We had a booth and ran some 40 workshops and seminars at the Habitat conference that attracted the attention of tens of thousands of visiting dignitaries and community developers from around the world. We had another booth and more seminars at the 6th Intl. Permaculture Conference in Perth. Our following has been steadily increasing. Our web site now gets more than 100,000 visits per month.

In Istanbul, we made a presentation to the United Nations in which we suggested that if 100 million dollars were allocated to furthering say, 50 to 70 ecovillage experiments now underway around the world, that more progress would be made to chart a course for sustainable development than all the academic, government and institutional studies being commissioned. We

said, give it to the people doing that work on the ground. It will pay back a hundred times faster.

It is still early in the process for this sort of funding, and in the meantime our Ecovillage Network subsists on the kind donations of thousands of small contributors who are willing to part with \$25 or \$50 to further a good cause.

The concepts of living collectively and for a common purpose cross cultural boundaries—from the United States to Russia, India to Argentina, Scotland, Hungary, Egypt, and Australia. In every case, these kinds of communities work because people set aside petty differences to make a positive contribution to society as a whole. The effect is contagious and inspiring—as shown by the continual stream of new and exciting experiments that we keep learning about.

Since the Findhorn conference, GEN has grown to include three additional network nodes in Argentina, Israel, and India. GEN will host meetings in Russia and in South Africa in 1997, and we'll be providing village design courses on five continents.

The prospective villagers we see at seminars tend to fall into three motivational categories: ecological, spiritual, and social.

The ecologically motivated are reacting to environmentally unsustainable policies, and tend to emphasize living in harmony with nature, adopting permaculture as a way of life, and becoming more self-reliant.

The spiritually motivated are reacting to the spiritually barren philosophy of materialism and consumerism and what they perceive as the dogmatic narrow-mindedness of many cultures. They tend to emphasize taking responsibility for their own lives and personal development.

The socially motivated are reacting to the alienation of the individual, the breakdown of the family, the increase in crime and drugs, and the marginalization of the weaker members of society. They tend to emphasize re-establishing "community" as a solution to social decay.

Irrespective of where people are coming from, the common factor seems to be a desire to create a system that can continue indefinitely, balancing family and human values, a respect for nature, and practical ways to earn a living.

### Riding the Wave of the Future

At a meeting of the Communal Studies Association in October, 1996, datakeepers for the institutions that follow such trends reported that the graph of newly forming intentional communities has taken a sharp turn upward in the past few years and could soon rival the explosive period of the early 70s. Their explanation? Ecovillages. Moreover, there is a qualitative difference. To quote one scholar:

*"...the ecovillage movement has a much better chance of achieving its broader utopian objectives than have previous ventures: (ecovillages) repudiate coercion, but can be widely attractive over time because they are simultaneously countercultural and procultural, being in touch with deep sources in both traditional thought and contemporary understanding. The ecovillage movement is not just riding a sort-term wave of economic and social disorder, but is at the front of an historic global transformation of human ways."*

— Robert Rosenthal,  
Hanover College,

"Villages, Ecovillages, and Ecotopia," 1996.

# A Visit to the Amanas

## Albert Bates

This was the Haight-Ashbury of the late Middle Ages—experimental communes, draft dodgers, spiritual journeys into mystic ecstasies, sexual liberation and anarchistic rejection of the dominant culture with all of its intransigent, imperialist insensitivities.

Starting in the 1680s there was a small cultural flowering in the Wetterau, that bioregion of Germany bounded by the rivers Main and Sieg, Rhein and Fulda. The Wetteranians practiced living the writings of Jakob Böhme, his Behemist successors, and the "Philadelphian" utopian philosophers of London in the early 17th Century.

### Wandering in Exile

By the turn of the 18th Century, the new Böhmenians had upset enough apple carts that the movement entered a period of persecution and exodus, carrying refugees—called Separatists—to other parts of Germany and into France, where they allied themselves with Pietistic Huguenots, also on the run. By the Autumn of 1701, there were literally hundreds of ersatz prophets, known as "The Inspired" (*les inspirées*), knocking around Europe teaching techniques of trance-like transcendental meditation.

Between 1714 and 1718, the original underground movement in the Wetterau coalesced to form Communities of the True Inspired (*der Wahren Inspirierten-Gemeinschaften*), a sort of organic certification system for prophets.

"Love feasts" were celebrated to draw Separatists together and to form new communities around the certifiably inspired. And these in turn spread their message of love, peace, and universal brotherhood to other peoples in other places.

Between 1843 and 1845 more than 800 members of *der Wahren Inspirierten* migrated from Germany and Switzerland to America. Sold a piece of Seneca Tribal land by an unscrupulous New York land dealer, the group first settled near Buffalo, building a community they called Eben-Ezer: "Hereto the Lord has helped us."

In Eben-Ezer, six villages adopted communal economics, established churches and businesses, and wrote home to describe their new lives. Elder Bruder and spokesperson Christian Metz gushed to his followers in the old country that his refugees had found a home "in a land free from persecution."

In the Spring of 1854, having outgrown Eben-Ezer, and perhaps a bit chagrined at the arrangement with the Senecas, the community dispatched a committee of four to the Kansas Territory to search for better land. They returned empty-handed, but that fall a second expedition was sent off "toward the setting sun." Legend has it that in farewell services for this second group Metz opened his Bible at random and his eyes fell upon *Songs* 8:4, which he read aloud to the gathering: "Go forth, from the heights, the hills, of Amana." Amana literally translates "to remain faithful" or "to be true."

In October, 1996, above the heights discovered by the Eben-Ezerians along the Iowa River, I viewed the valley of Amana, with its villages tucked into trees on hillsides above vast fields of cattle and corn.

On Sunday, the Church of True Inspiration in each village—a "plain" building of locally quarried sandstone and clay brick—comes alive with a *cappella* hymns. The women wear

traditional black aprons and caps with lace edging. The service is in the first language of the 2000 villagers—now seventh-generation Iowans—Wetteraunian German. In this old tongue, laced with bits of polyglot vernacular picked up over 300 years of exile, a lay elder reads ancient testimonies of the True Inspired.

### Amana Then and Now

Amana today is somewhat changed from the Amana of 140 years ago. In old Amana, each village had its cabinetmaker. Today there is a large furniture factory. The icebox factory which still bears the Amana trademark was sold to Raytheon decades ago. The woolen mills still run in Main Amana, but no longer are they powered by the mill race from the Iowa River, which bore the barges carrying fleece in and blankets and garments out to distant markets. The race itself is in need of repair, its dikes breached by the floods of 1994 and '95.

In old Amana there were kitchens on every corner and five meals served every day. The population was broken up into groups of 30 to 45 diners in each kitchen. You could eat in the neighborhood dining room, take your meals home in a basket, or have food brought out to the field or workshop. Each kitchen was run by a head cook, or "Küche Baas," who directed a staff of four to five women, working in rotation with the other jobs in the village.

Kitchens were supplied by large vegetable and spice gardens, fruit trees, and vines that covered the spaces between and up the sides of buildings in the village blocks. Each kitchen had its own root cellar, woodshed, and porches where children sat in the summer, peeling potatoes and shucking corn.

Today the large kitchens are in German-style restaurants catering to the thousands of tourists who come for not only the traditional German cuisine but also the local wines, cheeses, wood carvings, furniture, and woolens.

### The Great Change

The "Great Change" at Amana came from a spark that occurred in a flour mill at high noon on August 12, 1923. The explosion which followed destroyed the mill and granary, and the fire quickly engulfed the Woolen Mills, burning the industrial center of Amana to the ground. While the villagers managed to rebuild, the enormous expense and the abysmal market prices of the time, as well as frictions mounting from uncharacteristically rigid social uniformity (for instance, forbidding musical instruments and baseball as "too worldly") contributed to stresses that in 1932 brought about decollectivization and reorganization.

Today most of the 2000 residents of the Amanas are stockholders in the Amana Society, which still owns many of the businesses and historical properties and still farms the 26,000 acre freehold for the benefit of its members. While changed as a community, the spirit of *communitas* remains. Each shareholder receives cradle-to-grave medical care, discounts at the shops, and an annual dividend from the profitable enterprises.

The farming crew of 25 people harvests almost 9,000 acres of crops—mainly wheat, soybeans, and hay. They raise heifers, steers, and other animals. They also keep 11,000 acres in forest reserve for selective harvest of oak, walnut, and other hardwoods, planting 10,000 to 15,000 seedlings per year. Year round, Amana schoolchildren follow bike paths into these forests where they hunt for nuts and mushrooms and watch the deer.

Some former cornfields have been reclaimed to restore native

wetlands disrupted by construction of the mill race in the late 19th Century. A hundred-acre lily pond provides fresh tubers in summer months that I'm told taste like yams. In a ten-year experiment, the colonies have planted nitrate-filtering forests of poplars in the ravines leading from the cattle barns and pastures.

#### The Enduring Gift of the Past

Modern Amanans have woven the ways of their past with the needs of their present, demonstrating a flexibility that is now the hallmark of their sustainability. While the society owns the Amana Furniture and Clock Shop and employs many skilled craftsmen to build oak and walnut chairs and tables, many smaller woodcraft shops thrive in the different villages. Quilting, basketweaving, broommaking, blacksmithing, tinsmithing, rug-weaving and a variety of needlecrafts are still thriving businesses, with skills being passed on to a new generation of Amanans.

Young people in Amana are confronted with their heritage as both a blessing and a curse. The blessing is a sustainable lifestyle that allows them to live with lifelong friends and relations relatively free from want. The curse is the inertia of the past that retards innovation and resists adoption of new ideas. Young people say they could do with fewer tourists and perhaps a movie theater or arcade. And while each of the Amanas is itself self-contained, the distances between them make the culture still overly reliant on automobiles and large trucks. For their part, old people complain that too few people attend church, which was once a daily ritual, and the gradual entry of newcomers into the community is diluting the founders' vision. Still, there is a willingness here to experiment, and with those experiments will come the improvements that are the source of the Amanas' resilience.

In the quiet of the evening, as the sun hung low in the western hills, I walked the footpaths that linked the common yards behind the houses in Middle Amana and followed the trail to the village cemetery. There seven generations are buried in the chronological order of their passing, their headstones marked only by name, date of birth, and their time on Earth in years, months, and days. To Amanans, there is no more social hierarchy in the cemeteries than there was in the common kitchens. You are given only some number of days in which to "sing God's praise," and then, in the end, we are all the same in the presence of God. A

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## Cerro Gordo's Long Road to Community

### Toby Hemenway

When they signed the mortgage to 1200 acres in Oregon's Cascade foothills, Cerro Gordo Community's planners had an ambitious vision. They foresaw, tucked into the forest and meadows, a village free of cars, a few clusters of energy- and land-saving housing. It would be a community grounded in ecological principles, growing to 2500 people, with the majority employed in village businesses. Sustainable harvest of the land's ample forests would fill the community's coffers. Homes were to be carefully sited on unproductive soil at the margins of meadows, leaving streams, wildlife, and trees protected and enhanced. The planners saw land owned debt-free. A symbiotic community created by its participants, one that would be a contributing part of its ecosystem.

Cerro Gordo bought their land in 1974. The county government said approval of their plan would take "a year or two." These words would be repeated regularly over the next 16 years, while Cerro Gordo shepherded their plan through a morass of rejections, overturnings, state denial of the county land-use plan, and an appeal to the state supreme court. The final zoning go-ahead didn't come until 1989.

Today, about 35 people live at Cerro Gordo. Financial supporters total over 500, and 200 of these have invested directly in the site. But the planning battle took its toll: some have abandoned their investment, others have gone away mad, and controversy over leadership and direction has periodically erupted. In the minds of most, though, the dream remains alive, and the climate at Cerro Gordo is perhaps more optimistic than in years. Cerro Gordo's journey, long from over, illustrates what happens when a vision intersects the realities of finance, zoning codes, and personalities.

#### Inspiration and the Plan

One of Cerro Gordo's founders and its

principal architect, Chris Canfield, says the idea of a symbiotic community came in part from Lewis Mumford's book *The City in History*. Mumford describes our cities as command-and-control centers that extract the wealth of the surrounding country. It's a predatory approach that ends inevitably in the population exceeding the land's carrying capacity. Mumford proposes a better model, that of cooperative villages functioning as organs in the healthy body of the biosphere. These villages would be nourished by, contribute to, and be in balance with their local ecosystem. Cerro Gordo's planners saw the ecosystem as the ultimate economy, and the human economy as an integral but lesser component. Conventional economics behaves as if the environment were subservient to its needs, but the opposite is true. Cerro Gordo hoped to mirror that truth.

Cerro Gordo's planners envisioned a pedestrian village as the hub of an "ecosystemic, symbiotic community." The village would feel like a traditional one, but be planned, and based on ecological principles. Its buildings would be passive solar, well insulated, and fabricated from local materials when possible. The designers foresaw a biologically-based water treatment system, no cars, and residents actively engaged in directing their community.

The planning team spent two years looking for the right site, hoping for a naturally-bounded ecological community to encompass the human one. They eventually found a 1172-acre parcel in a south-facing watershed 18 miles south of Eugene, Oregon. A diverse, young conifer forest blanketed nearly half the land. Meadows and open oak savanna sprawled over the remainder.

To assess the valley's carrying capacity, the planners began with an approach outlined by Ian McHarg in his book *Design With Nature*. McHarg inte-



grates roughly two dozen environmental factors, such as hydrology, wildlife, and soil type, in comparative analyses to derive land use guidelines. He also urges that we observe nature's use of a site, and then design analogous functions. If the forests are healthy and the creek bottoms lush, don't pave that fertile soil over with housing. Instead, use the clay soil at the meadow margins as building sites.

McHarg's technique suggested that the village would best be nestled between two of the property's creeks. But a Nature Conservancy biologist, walking the site while preparing Cerro Gordo's wildlife protection plan, found that this site straddled a primary wildlife corridor. The planned village was shifted. The lesson:

were to be two sites for light manufacturing. Some ten residential clusters would be scattered outside the village, leaving most of the land jointly-held open space.

#### Phasing-in Community

Cerro Gordo was to unfold in four development phases. In the first, individual owners could buy parcels for homesites and investment. Up to 35 dwellings would be built on selected residential sites. Phase 2 would ramp up to 125 residences in several cluster subdivisions, each with small private lots and large commons. Once again, zoning played a role. Cerro Gordo's 1172 acres are zoned for 10-acre lots, but the law is malleable. This meant that 120 or so houses could be clustered onto small sites,

a walking commute. Cars would be relegated to the periphery, leaving the village to pedestrians.

#### Commitments and Controversy

While Cerro Gordo's designers wrote the initial plan, they wooed the first round of investors and future residents. These formed first the Cerro Gordo Community Association, and soon after a Community Cooperative, as development and investment vehicles. Although originally the whole community was to have a voice in planning and ownership, the delays in zoning approval and resulting serious financial crises played havoc with the egalitarian intentions of the group. In 1979 the members elected three men, Canfield, Nick Cutting, and Jim Hinman, to direct Cerro Gordo and devise a unified course.

**We had the right site, but in the wrong county...**

In the mid-1980s, when zoning headaches slowed investment to a trickle, the project teetered on bankruptcy. In response, five members personally guaranteed a new \$225,000 mortgage to pay the balance on Canfield Associates' original mortgage of \$262,250. This was a gutsy commitment to Cerro Gordo.

Financial vehicles at Cerro Gordo have proliferated. Eventually, investors held either land, shares or credits through six different Cerro Gordo organizations. Land ownership and the overall financing of Cerro Gordo has undergone evolutionary convolutions whose comprehension almost necessitates a degree in finance. As much as we wish that communities could be built simply on good will and a shared vision, they must be grounded in the practicalities of human commerce. This means an acquaintance with zoning law, and corporate and partnership structure. It also doesn't hurt to get to know your local government and planning board. As Chris Canfield quips, "We had the right site, but in the wrong county."

The delays in development and the remedies suggested by various groups created schisms among the membership. Some believed that strong central leadership was critical for the project to survive. Others felt that the spirit of Cerro Gordo was too badly compromised by the perceived lurch toward authoritarianism and urged dissolution, or simply opted out.

But some could not opt out: they lived there. Resident Sally Gray, to illustrate what she calls a "chasm" between



*A new home at Cerro Gordo*

seeing what's actually happening on the ground is a more authoritative design tool than the theoretical preciseness of two dozen calculated factors. Chris Canfield notes also that they had given each of McHarg's factors equal importance. Instead, each factor should have been weighted to reflect the community's specific needs and directions. For example, Cerro Gordo would rely on the forest for income, thus forest soil became a heavily-weighted element. The planning team now drew firm protective boundaries around the forests.

In the revised plan, near the parcel's center would lie the village with its residences, shops, offices, visitor's lodge, conference center, and demonstration projects in solar energy, agriculture, and water treatment. Just south of the village

provided that the average over the entire property didn't exceed one house per 10 acres. This meant most of the land could remain undeveloped and held in common. The money from these 120 houses would fund the community's supporting infrastructure and pay back all investors.

Phase 3 will shift zoning to 5-acre lots, allowing 250 residences. This development would generate the money for community and commercial buildings. In phase 4, Cerro Gordo hopes to amend the county plan and be designated a rural community, which would permit 750 residences, the ultimate target. The population, by then 2500 people, could support schools and a doctor or two—in theory, enough residents to create a self-servicing village. Most of Cerro Gordo's inhabitants would work in the community,

homeowners and investors at Cerro Gordo, tells the story of the farmer who invites a pig and chicken to his Easter ham and egg breakfast. The chicken enthuses that she is "committed" to making the breakfast the best ever. The pig responds, "Oh, my friend, with your eggs you are merely making a 'contribution' to the breakfast, while it is I who is making the 'commitment.'" Gray believes the residents, who have committed their lives and homes to Cerro Gordo, have more at stake in the project's success than the investors and their financial contribution.

Canfield doesn't try to hide the divisions and controversies that have followed Cerro Gordo. Both the official newsletter, *Cerro Gordo Forum*, and an alternative put out by disgruntled members Stephen and Christina Kahn, *Open Forum*, document the occasional flare-ups. Canfield, as the central and most visible figure in Cerro Gordo, has borne the brunt of the criticism. The Kahns have accused Canfield of unethical behavior and have threatened lawsuits, claiming he "so obviously exploits people and their dreams." But most members have stayed behind Canfield, and whatever their disappointment at the project's slow pace, believe that his guidance has kept it alive.

And slowly a community has formed. An early poll of supporters showed that two-thirds wanted to live in single-family dwellings on some acreage. This is hardly an eco-village. Canfield explains that as the future residents worked together on planning, and got to know both each other and the implications of their choices, their views shifted. Rather than fleeing the city, people's desires were moving toward the village and their new friends. Now over two-thirds of the prospective residents want to live near each other, in the village and clusters.

With many of the zoning and financial hurdles cleared, in late 1987 the three directors asked to relinquish their authority and redistribute it among the members. Debate over the new decision-making structure has continued to the present, in part because the current plan involves exchanging land ownership for shares in the project. Some investors swallowed hard at the thought of their tangible investment in land being converted into more ethereal corporation shares, but most have supported the new plan.

#### Sustaining a Village Economy

Investors brought capital for Cerro Gordo's development. But what about income for the community? For Cerro Gordo, sited in the tree-rich Northwest, forestry was the obvious linchpin of their economy. They wanted a timber program that would sustain both forests and lumber in perpetuity.

The property's ancient forest had been logged in the century's early years, and some second growth was cut in the 1960s. Today the trees are from 35 to 100 years old. Douglas fir predominates in the young ecosystem, but the diverse mix also includes incense cedar, hemlock, and pacific yew, and hardwoods such as Oregon white oak, chinquapin, big leaf maple, alder, and cottonwood.

In 1985, Cerro Gordo hired Portland-based consultant Scott Ferguson to craft their sustainable harvest program. Ferguson espouses a forestry technique called individual tree selection. This system was pioneered by an 18th-century Dane named Reventlow and was adapted for Pacific Northwest forests in the 1950s by Richard F. Smith. It mimics, through selective cutting, nature's creation of forest clearings by blowdown, decay, insects, and lightning strikes. Each tree's harvest is planned to benefit the forest, either by taking out rotting or slow-growing timber, or by redirecting growth to shade-suppressed trees and seedlings.

When he cuts, Ferguson scatters the limbs and tops of logged trees so they'll decay and build soil. He won't log so heavily that the debris creates a fire hazard. Permanent roads and log-skid trails

minimize damage to other trees and the understory, and the crews seed and mulch road-banks and landings to slow erosion. The result is sustained yield from an uneven-aged forest. The method eliminates replanting, herbicidal weed suppression, and the other expensive and wasteful hallmarks of industrial forestry. By reseed-ing naturally, new trees carry the genes selected for the site over millennia, not some commercial grower's non-specific choices.

How sustainable is the system? Cerro Gordo measured its forest volume in 1985 at 4.2 million board feet, and over the next six years, selectively harvested 1.4 million board feet. A second timber cruise in 1991 showed 5.1 million board feet standing in the forest. That's almost 20 percent growth, beyond what was harvested. Cerro Gordo had proven that their forest could supply income, and grow capital as well.

Individual tree selection can respond flexibly to market conditions. In the mid-1980s, incense cedar sold at a low price. Conventional loggers would have slashed down their cedar in clearcuts and planted a more valuable species—to be harvested 40 or more years later. Cerro Gordo let their cedars grow and harvested other species. Today, cedar commands a high price, and Cerro Gordo has mature cedars to sell.

Cerro Gordo plans to use timber revenue to fund their development with cash, rather than the usual debt. They can mill logs on-site for housing, or sell them at market.

#### A Dose of Reality

How far has Cerro Gordo come in realizing its plan? Obviously, the zoning struggle has slowed development. At most of the cluster sites stand not 20 or 30 buildings, but a single dwelling or a duplex. Roads lead to each home, and although the residents often park at a common lot, the pedestrian village remains in the future. Cerro Gordo's 35 or so permanent residents, like the rest of us, have yet to be weaned from their cars.

Most residents work in the nearby towns, although there is a construction company and a bed-and-breakfast on-site. For a time, a bicycle trailer business operated at Cerro Gordo, a hopeful first local enterprise. But it recently moved to town, and now that the multinationals dominate the bike trailer business, it's nearly dormant. Ianto Evans, who lives in a cob house at Cerro Gordo but operates the Cob Cottage Company offsite, warns that people have naively driven thousands of miles to see Cerro Gordo's eco-village, only to find the description and the reality far apart.

But, because the forest provides enough timber to build 25 houses per year, Cerro Gordo has an income. This gives the community an edge over many of its counterparts, and should help push vision and reality closer together. Construction at Cerro Gordo proceeds: several new buildings are going up right now.

Cerro Gordo recently held its 23rd annual pancake breakfast for residents, contributors, and the merely curious. There, one of the long-time supporters spoke to me and wondered if a spiritual focus might have sped up progress at Cerro Gordo. "It's as though the place needs a heart, something beyond just the land and a dream to draw people here," he said.

As I toured Cerro Gordo, I walked through one of their gardens, a set of raised beds rife with vegetables. Three people were weeding and harvesting, and they pressed on me a bulging bag of squash, beets, kale, and cucumbers. Admiring a lush stand of comfrey, one of the gardeners and I considered the plant's many virtues. She told me, "We planted comfrey because the garden devas said its energy is good for healing after controversy. And there's been so much controversy here." Δ

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# Arthurdale, West Virginia

## A Public Experiment in Subsistence Homesteading

Deanna Hornyak

Back in the 1930s, the future looked bleak — in Appalachia certainly no less than in the rest of the United States. America was in the throes of the Great Depression and countless industrial workers found themselves out of a job. How could the country help these newly unemployed?

First lady and social activist Eleanor Roosevelt hoped that part of the answer could be found in Arthurdale, a small rural community cradled in the rolling hills of northern West Virginia, one which she was instrumental in creating.

Arthurdale made national headlines in 1933 as the very first subsistence community founded under the National Industrial Recovery Act. This act established the Subsistence Homestead division within the Interior Department. This division administered a \$25 million revolving fund to assist workers by creating subsistence communities. The idea of the Subsistence Homestead program was to provide stranded miners, displaced industrial workers, migrant farm workers, and owners of marginal farmland with rural homes on small plots. Families could grow their own food and supply most of their other needs by bartering goods and services supplemented by part-time industrial employment. This was just the latest manifestation of a nationwide back-to-the-land movement that dated back to mid-19th century.

There has always been a belief in America that the individualism and self-reliance found in rural communities build a strong democracy and provide economic security for its citizens. The early democrats assumed that when people, wealth, and power are concentrated in urban areas, individual freedoms become more limited. Landowners were more likely than landless urban workers to elect a stable, responsible government that respected individual freedoms. So even while the country moved toward urbanization and industrialization, agrarianism remained the ideal.

### Looking to the Past

People in America often face trying times by reaching back into the agrarian past to find a model for a better future. During the mid-1800s, for example, many realized that urban industrial workers were at the mercy of the boom-and-bust economy with no means of providing for themselves or their families during periods of low employment. As a result, several successful attempts were made to locate families on individual plots of land that would provide a subsistence living. For example, religious groups such as the Shakers at New Harmony, Indiana, and the Mormons throughout Utah created self-reliant communities. In addition, several private individuals and groups sponsored back-to-the-land colonies. In 1870, newspaper editor Horace Greeley founded a successful private colony in Colorado, and in 1898, the Salvation Army started three such farm communities in Colorado, California, and Ohio for the urban poor.

During the early 1900s, the back-to-the-land movement had a sizable following. Many books and magazine articles glorified the concept of "Three Acres and Liberty," which was viewed as a solution to urban problems such as overcrowding, unemployment, and crime. Leading politicians adopted the movement which romanticized rural life and its benefits. As

early as 1913, Franklin Roosevelt, then New York's governor, supported legislation to provide suburban farms for city dwellers. He believed that "the political salvation of the country lies with country men and boys — not because they are more honest or more patriotic than their brothers in the cities, but because they have more time to think and study for themselves."

By 1933, with the entire country in the grips of the Depression and an unemployment rate in the neighborhood of 20 percent, the need for subsistence farms was at its peak. The Roosevelt Administration was looking for a pilot community which could serve as a model for the entire subsistence farm program. Lorena Hickok, an Associated Press reporter and friend of Eleanor Roosevelt, traveled throughout western Pennsylvania and northern West Virginia, observing the poverty and despair in the area's coal camps. She was traveling the country in search of a story, but she was also looking for a place of despair — one in which Eleanor could begin her subsistence community.

### Shacks and Gutters

She came across an area called Scotts Run, located near Morgantown in Monongalia County, WV, where she observed



*The first homesteads at Arthurdale, W. Va., were very similar in appearance to this early sketch of the planned community.*





While waiting for their new homes, many prospective residents were paid \$3 a day to help construct other buildings, such as the community center

conditions that were appalling. "In a gutter, along the main street through the town, there was stagnant, filthy water which the inhabitants used for drinking, cooking, washing, and everything imaginable. On either side of the street were ramshackled houses, black with coal dust, which most Americans would not have considered fit for pigs. And in those houses every night children went to sleep hungry, on piles of bug-infested rags, spread out on the floors."

Conditions in Scotts Run had not always been as desperate as Hickok found them in 1933. Back in the late 1800s, the residents of this area were mostly farmers scattered over the countryside. But as the industrializing nation's need for coal increased, the population of the coal fields grew tremendously as coal companies brought African Americans and immigrants from southern and eastern Europe into the area to work in the mines. The coal business thrived during World War I and on into the 1920s.

This period of prosperity came to an end for two reasons: a seven-year strike by both unionized and non-unionized miners against the coal companies, and the beginning of the Depression in the late 1920s. The Depression hit the coal fields especially hard. Local relief agencies, along with the Philadelphia-based American Friends Service Committee (AFSC) and the Extension Service at West Virginia University in Morgantown, were at work providing assistance to the unemployed miners and their families. They helped establish plot gardens to provide the families with fresh produce, they initiated children's feeding programs, and they taught miners crafts such as carpentry, furniture making, and shoe repair as a way of helping them develop other marketable skills.

In August 1933, Eleanor Roosevelt made an unannounced trip through Scotts Run. Unrecognized by the residents, she investigated conditions there. As Stephen Haid wrote in a 1975 West Virginia University dissertation: "At one company home, she met an employed miner who produced a pay envelope which left less than one dollar a week to care for a family with six children after deductions were made for his bill at the

company store, his rent, and oil for his mine lamp. On the dining room table was a bowl of scraps for the noon meal. As Mrs. Roosevelt left the house, two of the children stood in the doorway, one little boy holding his pet white rabbit in his arms while his sister told Mrs. Roosevelt, 'He thinks we're not going to eat it, but we are.'"

What she saw prompted her to return to Washington and encourage FDR to initiate the Subsistence Homestead Act to provide relief for these miners. FDR was so persuaded by his wife's account of the conditions of the mining community at Scotts Run that he gave her and his assistant, Louis Howe, free rein to found a model subsistence community in West Virginia.

### The Reedsville Project

That October, at the recommendation of AFSC executive secretary Clarence Pickett, the federal government purchased the Arthur Farm from Pittsburgh hotelier Richard Arthur to serve as the site of the first homestead project. Located near Reedsville, WV in Preston County, about 30 miles from Scotts Run, the farm was on land that had been surveyed by George Washington and was formerly part of the Colonel John Fairfax estate. Howe immediately ordered 50 prefabricated homes from the E. F. Hodgson Company in Boston to be ready for occupancy by Christmas.

With the actual houses on order, a committee set up by West Virginia University with members from area relief organizations solicited requests from miners who wished to relocate to the "Reedsville Project," as it was then called. The committee carefully screened candidates for their knowledge of farming, animal husbandry, other skills needed for subsistence living, and "proper attitudes and ambitions," in the words of the committee. They only considered intact nuclear families; there was no point to even the most stable of foreign-born or African-American families bothering to apply. Bushrod Grimes, a West Virginia Extension Service employee who served as the first project manager, explained that "in the garden club work we found that while the colored people were easy to work and pliable, they did not make much of an effort on their own count and foreigners were even worse in this respect than the colored people." (sic) There were also protests from Preston County residents about

Courtesy of the Library of Congress



The first 50 homes were prefabricated Cape Cod-style houses ordered from the E. F. Hodgson Company in Boston

bringing African-Americans into the community.

Once chosen, the prospective residents moved to the town of Reedsville or into the Arthur mansion where they lived while they helped to build the community at a salary of \$3 a day. Some of the men brought their families to the Scotts Run area; others waited until their homes were complete. Plagued with delays, Arthurdale's official opening missed the original target date of Christmas by six months. It was not until June 1934 that Eleanor Roosevelt returned to the area to dedicate Arthurdale's first homes.

#### A New Community Takes Shape

Recalling moving day, Glenna Williams, the then 17-year-old daughter of homesteaders W. W. and Hattie Williams, remarked, "All I know is that in one day's time, my life changed dramatically. We come from that period painted with the dark colors into this little white house set against a green backdrop of trees and green fields." The houses all had central heating, running water, electricity, bathrooms, refrigerators, and other "modern" amenities which were not common in rural America at the time. Each two- to five-acre site had a barn, a chicken coop, and an orchard.

But there were problems that surfaced almost immediately. The first 50 houses were basically Cape Cod summer homes not designed for the harsh Preston County winter. In addition, the press and opponents of the Roosevelts criticized the Reedsville project for the inclusion of "luxuries," such as plumbing and electricity. Eleanor Roosevelt was not swayed by such disapproval. She felt strongly that each family deserved a life without want, a life with a full measure of personal dignity. She was supported by U.S. Rep. Jennings Randolph, a freshman congressman from West Virginia who said, "You are pioneers in more than one sense ... Arthurdale is an experimental laboratory of the great homestead program. Success here means happiness to thousands of others in homesteads throughout the nation."

C. E. Pyncheon, general manager of the federal Division of Subsistence Homesteads, brought in architect Stewart Wagner, a consultant who worked under him, to design homes for the rest of the project. These homes were one-and-a-half or two-story cinder block-and-frame structures. Because they were without basements, a root cellar with a smokehouse was built on each site to preserve and store food. Seventy-five Wagner homes were built, along with 40 additional stone houses which used the same basic design as the original frame versions but which were faced with locally quarried stone.

#### The Arthurdale School

Simply moving people from Scotts Run to Arthurdale did not automatically create a cohesive community. Eleanor Roosevelt strongly believed that the school could serve as a focal point for the new community, and so she hired Elsie Clapp to design and implement a plan for a progressive school. Elsie Clapp was a graduate of Vassar College and Columbia University and an experienced educator employed as principal of the Ballard Memorial School in Kentucky. She was also a disciple of educational reformer John Dewey, who was known for his belief in "the school as a social institution." Like Dewey, she perceived education as a cooperative endeavor that involved the entire community. When Clapp arrived in Arthurdale, she found that many homesteaders "could not shed a feeling of insecurity and suspicion although deeply stirred by the hope of a new life." She hoped that the citizens of the new village would feel a greater sense of belonging and trust as they helped to get Arthurdale's new school up and running.

Courtesy of the Arthurdale Heritage Association



*Mothers of the Arthurdale School pupils prepare hot lunches.*

She recruited local teachers whom she trained in her methods and brought in other teachers from her former school. Clapp strongly encouraged all of them to live in Arthurdale so that the teachers could interact daily with both the students and parents, engaging in such activities as attending community dinners and doing volunteer work. Students' mothers canned food and prepared hot lunches for the students by day, then had the opportunity to attend adult education classes along with other community members in the evening.

During that first year, classes were held in the newly built community complex dubbed Center Hall, in the old Arthur Mansion, and in two sheds. Thirty-six preschoolers and 246 other kindergarten, elementary, and secondary students enrolled in the school. The preschoolers included children as young as two years of age, who were enrolled in a unique nursery school program which combined health care, custodial care, and parental education.

Dewey visited Arthurdale in 1936 and pronounced it one of the best schools in the country. Yet until 1938, West Virginia failed to accredit the Arthurdale School. After Clapp left the homestead community in 1936 due to the precarious finances of the privately funded school, the Arthurdale School became part of the Preston County School system. Once the curriculum lost its progressive elements and met the West Virginia educational standards of the time, the school received its accreditation.

Despite the early demise of Arthurdale's educational experiment, the school system did accomplish what it set out to do: It fostered a deep and abiding sense of community in Arthurdale. Since a quality education for their children was important to the homesteaders, most were eager to participate actively in the school system. No other component of the community could have served to pull together so many people in such a short time.

#### The Beginning of the End

The residents organized themselves into various cooperatives which turned out goods designed both for the use of Arthurdale residents and for sale to the general public. For example, the Mountaineer Craftsmen Cooperative Association (MCCA) made furnishings, while a forge not only provided metalware for members of the community but also manufactured pewter and



*School children play in front of the Arthur mansion, which housed temporary classrooms before the school was built. The progressive education program included evening adult classes and a unique nursery school.*

Ethel Johnson. Courtesy of the Library of Congress

copperware which sold nationally. In conjunction with the MCCA, The Eleanor Roosevelt Farm Women's Association, a forerunner of the Extension Homemakers Club, built a weaving room for the women, where they produced rugs, coverlets, aprons, pillows, and some clothing. Other cooperatives included a farming co-op, a poultry co-op, and a store.

However, the Subsistence Homesteads division failed in its efforts to locate a major industry in Arthurdale, one which would have provided the part-time industrial employment so essential to the subsistence homesteading scheme. The Public Works Administration constructed factory buildings and tried out various enterprises which manufactured items such as vacuum cleaners, shirts, and radios. However, during the Depression, the government still had to subsidize many of the jobs. Then, once the nation began its massive effort to increase production during World War II, many of the men returned to the coal mines, the factories began operating at full capacity, and the unemployment rate virtually disappeared.

The Arthurdale project, and the 180 similar homestead projects located around the country, received their share of criticism from the media, including the local *Preston Republican*, other West Virginia newspapers, and national magazines such as *The Saturday Evening Post*.

To be sure, the program had serious problems. The homestead projects were expensive, and they never returned the initial investment to the government. Decisions by government agencies were often arbitrary and resulted in inconsistent policies. Over the course of the 14-year program, these New Deal communities found themselves passed around from government agency to government agency, each with its own particular agenda.

Even some members of the Roosevelt Administration had serious doubts. For example, as early as December 1933, Secretary of the Interior Harold Ickes confessed to his diary, "I am becoming concerned about the Reedsville, West Virginia, project. I am afraid that we are due for some criticism for our work there. In the first place, we undertook it too hastily. Colonel Howe, in a rash moment, told the President that we would start work within three weeks ... This was too short a time considering that no foundation had been laid. The result has been, in order to make good on this rash boast, that we have rushed ahead pell mell." By 1943, the Cooley Committee, a

congressional committee headed by U.S. Rep. Harold D. Cooley of North Carolina and investigating the Farm Security Administration, carried out a full-scale witch hunt. Farm Security administrator C. B. Baldwin admitted then that the homestead projects should be discontinued. Finally, the Federal Public Housing Authority completed liquidation of the homestead projects in 1947.

Critics erroneously assume that just because these homestead projects were not unqualified successes, they were complete failures. Such critics fail to consider the significant social and economic impact that these programs had within the individual communities and the long-term consequences for the homesteaders and their descendants. For example, Arthurdale is one of many homestead communities that survived and prospered, with higher education levels, better housing, better jobs, and higher incomes than many of the surrounding coal camps. Although these communities could not achieve everything that the supporters of subsistence homesteads planned, they provided what was most important at the time — a refuge

for the families who desperately needed a second chance. The dream may have had some fatal flaws, but it was a dream that made — and continues to make — a difference. Δ

*This article first appeared in the Summer 1996 issue of Now and Then, a publication of the Center for Appalachian Studies and Services at East Tennessee State University. © Center for Appalachian Studies and Services, 1996. It is reproduced here by permission. Deanna Hornyak is the executive director of Arthurdale Heritage, Inc. A graduate of Fairmont State College and a part-time public history student at West Virginia University, she lives in the Arthurdale community with her two children, Heather and Andrew, and her husband, Bob, who is the grandson of original homesteaders Clarence and Edna Ault.*

### Living the Dream

In 1994, Arthurdale celebrated its 60th anniversary with the slogan "Arthurdale—The Dream Lives On." The dream of a better life seen in so many of the homesteading families is still alive within the community which today numbers approximately 1,000 inhabitants, some of whom are descended from the original residents. All of the 165 original homes are still standing, and four of the school buildings are still functioning.

In 1985, following the 50th anniversary celebration, a group of residents and supporters formed a nonprofit organization, Arthurdale Heritage. They got to work, purchasing the badly deteriorated Center Complex and beginning to restore the original buildings and preserve the history of this first New Deal community. The organization has several projects in the works: forming a national New Deal Community Association to network various homestead and farmstead sites throughout the U.S.; looking for a home to purchase which they can then operate as a living history museum; and developing an archive for the entire homestead movement. A museum, forge, and a 1930s-vintage service station are already open to the public.

Now a historic district on the National Register of Historic Places, Arthurdale still has an intense communal spirit. For many residents, the dream of a good home in a quiet, peaceful, and prosperous community has truly been fulfilled. —DH



# A Village In Between

Larry Dalmation

- *Little spinning fireworks bounce down the icy porch steps and then shoot into the sky with the dogs barking and trying to catch them with their teeth. The six of us are talking and laughing at the dogs, clapping our hands in the cold night air, warming ourselves near the bonfire. Winter begins tomorrow, and we are celebrating the longest night of the year. It is my solstice dream, realized. A dream I didn't have until just now.*

I moved to Artas, South Dakota, in October, 1995. This tiny village is also like a dream half remembered. On the map we are just four miles below the North Dakota/South Dakota border and a finger's width east of the Missouri River (Lake Oahe). Some people think this is the middle of nowhere, but I see it as the middle of the United States.

It's often hard to tell if we are in the middle of the 1990s or the middle of the century. I've never "felt my age" either - usually older, sometimes younger - so Artas is temporally comforting to me. Time, in a village of 25 people, is measured by calendars, not by clocks. The church bell rings on Sunday. The cute garbage collector drives by - and waves! - on Friday. The newspaper comes in the mail on Wednesday.

In the winter everything becomes grey and white, like old episodes of "Mayberry, RFD." One day I looked out the kitchen window and saw a small herd of cattle being driven down the main road by a couple of fellows on horseback. The Luncheonette ("since 1926"), in nearby Eureka, sells a slice of homemade pie and a cup of coffee for \$1.58. Granite and I helped a farmer move his riding lawnmower up the steps of the old church, where he stores it, and he brought us a tractor load of manure for the garden. The gas station, Bob's Wrench House, is closed on Sundays, but Bobby walked over to pump a tankful for Sergio so we could drive back to San Francisco. I'm hoping that the arrival of spring's colors (and more faeries) will make Artas look more like "Petticoat Junction."

On an autumn evening, before the storm windows have replaced the screens, you can hear a car a mile away slow down to make the turn into Artas.

Sergio and I heard about Artas from Kirby, who grew up here. We were all at a gathering hosted by the River Circle, in Northern California, and Kirby painted the picture of a little town on the prairie withering away. I was intrigued by his claims of houses practically being given away just so they would have somebody to mow the lawn. My mind danced imagining a town transformed by faeries.

Four months later Sergio and I drove into Artas on an unusually hot September afternoon. We descended into a shallow valley, a hollow in the rolling prairie, and immediately saw that Artas was a different kind of place. Unlike other small western towns we had driven through, this one had beautiful tall

trees. Little white wooden houses nestled among sixty-foot cottonwoods, spreading green ash, and graceful elms. There were no dusty, boarded-up, smashed-window, falling down shops. There were no businesses at all. Instead of muscle cars from the seventies on jacks, there were only a couple of ancient Dodge Brothers sedans rusting away in a field, like cows resting. **South Dakota Dreaming**

After five days in the Honda, Sergio and I almost fell out of the car. We were immediately greeted by seven faeries, a couple of dogs and a garden of waving sunflowers. Somebody brought out a quilt and we collapsed under a tree with lemonade and watermelon. That weekend we ate homemade bread, cinnamon rolls, and pickles, plus squash, tomatoes, and herbs from the garden. They were flavors not found in the hustle of San Francisco and I decided I liked them. That weekend I purchased a building, a permanent part of my dream.

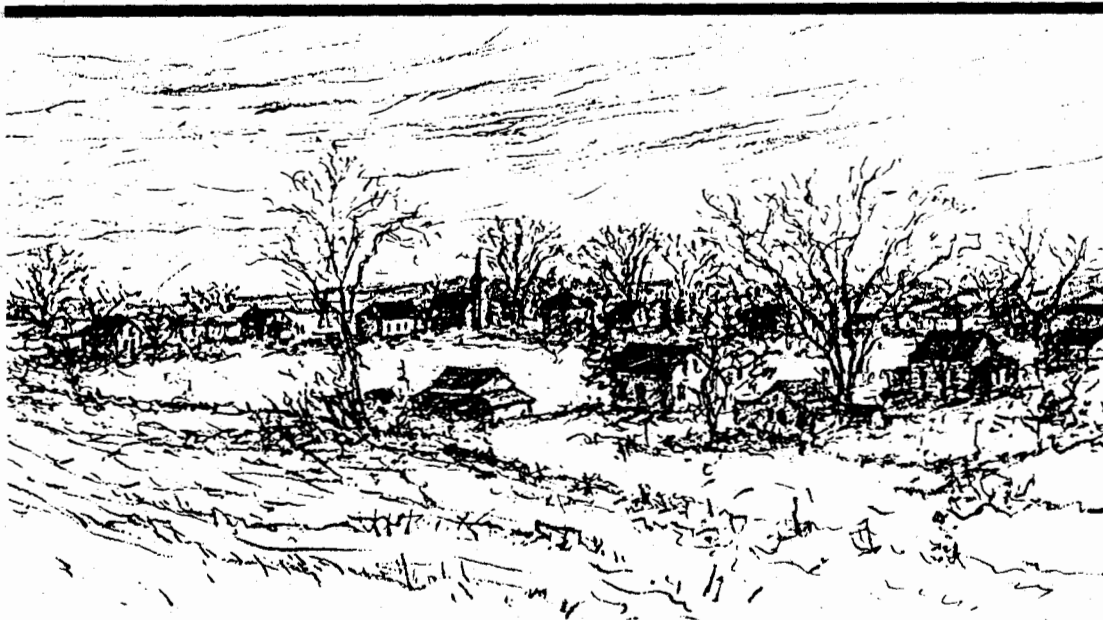
One thousand dollars bought me a 2500 square foot two-storey brick-and-plaster building on two lots in Beautiful Downtown Artas. I've since sold it to Granite, who has a dream of creating an artist's gallery and workshop there, and bought myself a house instead. Ten percent down and one hundred dollars a month for four years gets me a compact two bedroom house on an acre of land. I have all the modern conveniences - sewer, hot and cold water (well), telephone, oil furnace, electricity - and I have the traditional conveniences of a full basement, chicken coop, small barn, a view south into town, and a view north to open pasture land.

Numbers describe the house, but not the home. Three years ago I was bankrupt, self-employed (barely), and demoralized. I would never qualify for a loan to buy the American Dream in California and I was worn out by the constant struggle just to pay my \$1200 monthly rent. My friends were, more or less, grappling with similar circumstances of small apartments, high rents, and higher stress. It was our reality. Moving to South Dakota helped me change that reality. My home is a place where I have time to do things and a place where I have time to enjoy doing nothing.

My city friends ask questions about my new life that I would have asked a few months ago, but which seem inconsequential now. The most frequent queries are: "Where is the nearest city? The nearest grocery store? Are there any gay bars? What do you do out there? Isn't it cold?" Well, the nearest gay bar is 285 miles away in Fargo (it just opened); there is a gay activities group (through PFLAG - Parents and Friends of Lesbians and Gays) 112 miles away in Bismark, a lumber store 16 miles away in Eureka and groceries, post office and propane seven miles away in Zeeland. The cold weather (down to -40°F plus wind chill one night) doesn't bother me because I stay home, and because it is an arid, dry cold unlike the wet cold of heavy snow areas along the Atlantic and near the Great Lakes.

## Homegrown Pleasures

Local restaurants specialize in heavy, fatty, meat-laden German foods, so I stay put and make fresh Mexican salsa with homegrown tomatoes, bake crusty whole wheat bread, brew excellent amber beer or stir-fry spinach crowns with ginger. In San Francisco I ate out to "save time" or to "escape." Here I cook with whole ingredients and spend time instead of money.



Artwork by Mikee Neuschwanger

I've been reading gardening books and seed catalogs and can hardly wait for spring to arrive so I can plant tomatoes, basil, and garlic! I've already got lavender, rosemary, and parsley on the windowsills, plus weekly batches of alfalfa sprouts to liven up the sad produce available in supermarkets.

#### An Opening Toward Self-Reliance

Money is an important topic to me (still). I've seen people and communities fall apart over money, or the lack of it. Artas is a de-tox site for compulsive spenders (no stores = nothing to buy) and I've been able to step out of the rat race to examine my relationship with money. My monthly budget of food, fuel, telephone, taxes, and mortgage is about \$350.00. With a house mate to share some of these costs and with my garden producing vegetables in the summer, I expect to reduce the budget to \$250.00. I plan to take the money saved on food and invest it into a solar water heater, and then to set up an electricity generating windmill. The longer I'm here, the less it will cost to live on the land, to live with the land.

My bag of kitchen trash at the end of the week is my barometer of how well my money is spent. A bag full of boxes, wrappers, and bags is money thrown away — literally. When I cook from scratch my energy is put into food that is good for me, rather than into a job to make money to pay somebody else to make food for me. I'm also saving money on clothes (and dry cleaning) because there is nobody to impress with my sartorial sophistication. In the city even the grunge-clone look has to be just-so. And the thrift stores out here have great prices! I had often thought it would be "nice" to live a full and simple life, but never saw my way out of the system I was in. Artas was the opening I needed, the toe-hold.

Living simply and not needing much money are means to a greater end. I feel safe in taking time to discover a new livelihood without the persistent need to pay the bills. Knowing that I need to earn \$75.00 this week - and not \$500.00 - means I can afford to learn at my own pace, to make some mistakes, and to wait for jobs to develop. I can afford to pursue work in line with my values and I can afford to turn down work that compromises health, spirit, or the environment.

I am a creative person; I connect with life through my hands and mind. I design, make, and fix things. I get a spiritual joy from preparing a four-course Japanese meal (from locally

available foods) as well as from sharpening a saw or designing a house. Carving wood and repairing furniture integrates my thoughts and actions, and it helps me pay the bills. This autumn I felt complete while Mikee and I were building the new porch steps to my house.

#### Overcoming Isolation

Artas life is not perfect (thank heavens!). I love to read and the nearest bookstore is two-and-a-half hours away. The public library in Mobridge, 60 miles distant, sends me books via inter-library loan, but the cost of postage is a

barrier. Our low prices are the result of few people, few businesses, and few jobs. Even at \$350.00 a month one must still have some form of income. Supplemental Security Income (SSI), food stamps, and unemployment income will go a long way out here, but a skill is a safer bet as those programs are whittled away. South Dakota has the lowest wage levels in the USA - don't expect to get rich out here. I have always been blessed with good health, so I'm not too worried that the nearest hospital emergency room is an hour away.

The other drawback of rural life - a diminished social circle - is one I hope to see change over the next few seasons. We have already enjoyed the visits of half-a-dozen Minnesota faeries, a handful from California, and the queer gang from Bismark. I'm hoping we can host migrating flocks of feys and that some will decide to alight and help our community grow. I imagine a summer season of long-term guests as well as an ever growing permanent population. With monthly rents of \$35 to \$50, the most significant expense for a holiday in Artas could be the gasoline or airfare to travel here.

#### The Freedom to Dream

Mikee and I are both architects. His vision is to fix up the derelict houses in town, and I've become interested in alternative building techniques like straw-bale houses, yurts, and earth-berm dwellings. I picture queers gathering here in the warm months - some in houses, some in tents, others in trailers, tipis, or truck campers. Suddenly a flotilla of Winnebago motor-homos rolls into a field and the games begin! In the fall the squashes are gathered, the cukes pickled, the tomatoes put up, herbs dried, and the campsites are seeded with a winter cover crop of clover or rye. The faeries disperse, heading south.

That day may be near or far and other radical faeries will arrive with new ideas and new energies. Artas is ready: we have sewers, electricity, telephones, water, trees, land, and sky. All we need now are a handful of magic beans, some faerie dust, and a smile. A blank canvas can intimidate or inspire, or it can be in-between. A dream waiting to be dreamt. Δ

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# Planning for a New Tribe

## Chuck Marsh

Beginning about 1992, I became involved with a small group of people, collectively known as Earthaven, who sought to create a new eco-village in the mountains of western North Carolina. We knew that permaculture would be the foundation for our work and would help us to shape the land, but we also knew that we had to create a new way of living with each other and the earth if we were to succeed. This call to visionary, even spiritual work would require us to dance at culture's edge with nature, for we were undertaking a piece of the work that theologian Thomas Berry called, "reinventing the human at the species level." There appeared no other way forward.

### The Vision of Earthaven

Earthaven Village is envisioned as a permaculture-based eco-spiritual community that will learn and demonstrate the skills and technologies of a viable village culture appropriate to our historical moment and our bioregional context (the southern Appalachian mountains). We believe that education by example is the most powerful tool we have for effecting positive social change. Within this context, there are a number of supporting goals that we hope will help us to realize our vision.

We think that this culture we are creating will balance the integrity of the individual and our need for privacy with the synergy of the community and our need to connect with each other at many levels daily. In order to minimize our human impact on the land, we expect to develop compact and integrated garden neighborhoods of efficient solar homes made from locally abundant resources: wood, clay, stone, and straw. We plan to build our energy-conserving economy on solar-, water-, and plant-based systems. We expect to live off-the-grid. We aim to reserve and restore our agriculturally suitable lands as commons so that we can ultimately provide most of our own food.

We want to reduce our dependence on the automobile and discourage commuter lifestyles by creating a viable local economy so that we can work where we live and live where we play. We plan to restore and care for our waters so that they leave our land cleaner than when they entered. We intend to restore biodiversity and health to our forests and to create a sanctuary for native, endangered, and useful plants and animals.

Centered within and primary to all of these goals is the creation of a non-profit learning center for sharing our experience and teaching people how to create for themselves successful, sustainable communities. We will focus our educational programs on permaculture and village design, earth-friendly building systems, restoration ecology, ecological agriculture, the healing and creative arts, group process work, and skills for a new tribal culture.

It will take a while to bring all this to fruition, but we have begun. Indeed, if we do not act now, how will we be able to answer to future generations?

### Choosing the Land

Once we had agreed upon a vision, we needed to find land on which to create it. Permaculture—a design system for creating sustainable human settlements—kicked into action at Earthaven as soon as we began that search. We had to get clear about what we needed and why if we were to thread our way through the maze of real estate offerings that faced us. We inspected hundreds of properties; finally, after two years of looking for a

suitable village site within an hour of Asheville—the hub city of the NC mountains—12 pioneers purchased 325 acres south of Black Mountain. It was not an ideal site, but we felt the property had the potential to be developed into a viable small village community.

The Earthaven land was attractive for a number of reasons. It shares common boundaries with two other intentional communities, Full Circle and Rosey Branch, whose members are supportive of our efforts. The presence of new settlers in an otherwise depopulating rural area helps us to integrate socially with long-time residents. We are not the first new faces on the block.

Located near Asheville/Black Mountain and connected to the Buncombe County metropolitan grid by local telephone service, mail, and good roads, our property nevertheless lies mostly within rural Rutherford County, not populous Buncombe. This means that we are governed by less stringent building and development ordinances, and that our tax rates are lower than they would be 100 yards farther north. This significantly lowers our cost of development and permits us greater flexibility in meeting our ecological aims.

Abundant clean water was high on our list of determining factors in selecting land, and we are blessed with it: our rainfall averages 60 inches per year, spread evenly through the seasons.

Another major consideration was the suitability of the land for agriculture. The terrain at Earthaven is quite complex and consists basically of three joined valleys with their attendant flood plains, bottom lands, lower terraced slopes, and steeper ridge slopes and tops. A relatively large portion of the land is usable.

Though uninhabited for the past two generations (55-60 years), the land we bought was once the site of a small farming community. Our oldest living neighbor has described fields of wheat, barley, and melons growing where now a young forest covers the land. A post office stood at the confluence of our two major creeks, so we know that settlement in the area was fairly dense. That population filled even the small side valleys—quite steep slopes were cultivated, with consequent loss of soils.

Before white settlers came to the mountains, local legend and archaeological evidence suggests the area had been the site of a native village, perhaps of the Catawba tribe. Early coach roads from the Piedmont up to Asheville went through our valley. These historical indicators point to the reasonable prospects for subsistence living. Our once-fertile and well-watered valleys were chosen as homesteads by people who had only human and animal power to make their livings. We can also be confident that having lain fallow and in forest for the entire chemical agriculture period, our land has never been poisoned.

The choice of a forested rather than a cleared site committed us to "landscaping by removal." While we acquired timber resources, we have also assumed significant energy costs in developing the land. Our bottom lands and hillsides are currently in the secondary stages of forest succession (mature pines, black locust, yellow poplar and other pioneer tree species are nurturing younger saplings of the dominant hardwood species of our region—red and white oak, maple, beech, and hemlock—which over the next 20 years will replace them). Managing this succession will necessitate careful timber harvest as we clear land for dwellings and agriculture. Our hope is that through sensitive forestry and careful placement of the human elements, we can improve both the diversity and productivity of the land while



leaving most of the forest cover intact.

### Ethics and Finance

Consistent with our ethics of self-reliance and our aim of demonstrating accessible alternatives to conventional development, we have chosen not to seek bank financing but instead to finance the project privately through the sale of leased site holdings and memberships, and the development of a member-owned investment cooperative, called Earthshares.

While this decision has limited our development capital somewhat, it has also freed us to build the village as we choose, while learning to make the most of the human and natural resources that we do have. This process inherently fosters creative solutions, community- and self-empowerment, and the development of consciously interdependent relationships.

### The Importance of Design

How well Earthaven succeeds in manifesting our vision of a new village culture will be determined by the quality of the work we do as both social and permaculture designers. Most community failures stem from inadequate design, either social or physical. Design takes time, but up-front investment in good design will more than pay for itself in the long-term health of the community and its members. Design and planning are highly complex disciplines that are most often relegated to professionals. This can be disempowering to those directly affected by the decisions. Community-based design and planning, on the other hand, while a much slower and occasionally frustrating process, has the distinct advantage of investing the participants in an outcome that is more likely to meet their real needs.

The role of the Earthaven design team, led by myself and Peter Bane, is to facilitate and guide the community's co-design process. Our main approach has been to train community members in permaculture principles and practices. We are also providing the community with our accumulated experience in permaculture design and planning, landscape analysis and assessment, and patterning.

Designing human settlements involves all the basic principles of permaculture. These include designing for redundancy, placement for beneficial relationships, multi-functional elements, the use of biological and locally available resources, and zone, sector, and slope analysis for energy conservation. Community design also demands recognition of another very important principle—design for conviviality.

### Conviviality and Privacy

Design for conviviality means optimizing the quality of human interactions. Among other things this involves balancing our need to connect with our need for privacy and personal space. Many of us have been so traumatized by the fast pace of modern life that we feel we need lots of space around us to protect us from a harsh and dangerous world. I find that one of the greatest challenges at Earthaven is to find ways to meet people's privacy needs while keeping our homesites compact and not sprawled all over the landscape. We have not yet reached consensus on how to achieve this most gracefully. However, we are experimenting with compact settlement and cooperative living in our campground and first neighborhood—what we call our neo-tribal village—as a means of extending our experience and transforming our attitudes.

Designing for conviviality also involves placing our access ways and buildings in patterns that allow for, and in fact encourage, quality human interactions as we go about our daily activities. In good design, conviviality happens spontaneously among the

inhabitants of the settlement because the physical spaces are “tuned” to the wisdom of our bodies. Buildings create positive outdoor spaces; entrances are prominent and transitions are marked by gateways; paths meander and cross; places to sit or to tarry are frequent, people feel safe to sleep in public or to make love in the woods. Permaculture design should nourish not only the earth and our bodies, but also the individual's soul and the group soul.

### Adaptive Design

I have discovered over the years that good design has a complex and non-linear nature; it is truly an evolutionary, living process. It helps me to embrace the complexity and non-linear

*...design should nourish not only the earth and our bodies, but also the individual's soul and the group soul.*

nature of the process. Once we begin to think ecologically, we discover many similarities between the way ecosystems function and the way the design process works. For example, we can model our energy dynamics after the feedback loops in ecosystems. After a project has been designed, it is inevitably changed during the building process in response to the needs of the moment and the real world (feedback). Upon completion the project is tested, observed, and undergoes redesign to improve its functioning within the environment (adaptation).

We have already experienced this in the building of huts. We set criteria for height of buildings at 12 feet, but then discovered that everyone wanted variances from the rule in order to build a second story on their buildings. Vertical design is of course more cost-efficient, as our members were telling us, so we modified the design of the guidelines to permit taller buildings. Feedback allowed us to improve the design.

### Design: What we have done

Design and planning involve both logical and intuitive processes. There is an order to good planning which can be taught, and there is an art to the unfolding of landscape potentials which can perhaps only be suggested or demonstrated. Together the many steps in village planning should serve as tools and methodologies for meeting a community's goals.

Good maps are essential for good planning. Shortly after we purchased the Earthaven property we contracted for a boundary survey of the land and arranged with an aerial cartography firm to fly the land and generate high resolution aerial photographs for us. (Aerial photography work needs to be done in the winter or early spring before the trees leaf out and obscure the ground.) The photos were then digitized and with the help of permaculture friends and professional cartographers we developed a detailed contour map of the property.

While we were waiting for the map work to be completed, we spent many days walking the land and familiarizing ourselves with its complex terrain. On these land walks we identified springs and stream courses, flood plains, old roadbeds, plant communities, evidence of past land use, erosion gullies, agriculturally suitable lands, sacred or high earth energy sites, usable and accessible slopes, pond sites, south-facing slopes, potential home and business sites, and possible choices for locating the village center. During this time, Peter and I gave weekend workshops to community members on permaculture and brainstormed about the location and design of the village center.

Once we had the contour maps in hand, we ground-checked

them for accuracy, made the necessary revisions, and got our mapmakers to correct the data. We now had a good quality map that would prove valuable throughout our planning work.

With a working map and the experience gained from several seasons of observation on the ground, we were ready for the next phase of site design: identifying and overlaying the key components of the village onto their most suitable locations. On the broad scale, these components were:

- sacred sites
- land to remain in forest due to slope, aspect, or inaccessibility
- agricultural or horticultural fields or terraces
- orchard sites
- roads or access ways
- the village center
- the neo-tribal village and campground
- business sites
- the education center and healing center sites
- pond and hydro sites
- the neighborhoods

We are still refining the design details of many of these locations and determining the methods and timing of their development. **Choosing homesites**

Based on solar and road access, the design team has identified nine neighborhood clusters and flagged nearly 60 house sites. The community is about to engage in a series of neighborhood design sessions in which members will decide who they want for neighbors, where they want to live, and what they want their neighbor-

hood to look and feel like. This co-design process makes a radical departure from the usual approach of the developer laying out lots, and owners choosing from among them. For co-design to work, it will be incumbent on each member to stretch beyond self interest to make decisions for the benefit of the greater whole.

### Patterns of Settlement

As we have gone about the work of building Earthaven village from the ground up, mostly with hand labor and simple tools, it has become apparent that we have been following the archetypal flow of human settlement from times past. The first order pattern is a temporary camp. The first year on the land we developed our campground with very primitive facilities and camped in tents. The second order pattern of settlement is to create fixed dwellings: simple huts and gardens in the forest. At the end of our first summer the first hut began to go up, even while its builders lived next to it in a tent. The third order pattern of human settlement is the growth of a hamlet of clustered houses. Our second year on the land has seen the beginning of what we call our neo-tribal village, located on the south facing slope adjacent to our campground. As larger and more permanent dwellings, workshops, and buildings for community functions as well as more refined agricultural processes are built, a village takes shape. This is the fourth order pattern in a sequence which extends through town, city, and metropolis. We expect to see the emergence of the village stage over the next year or two and to spend the next ten years or so elaborating it. We don't know

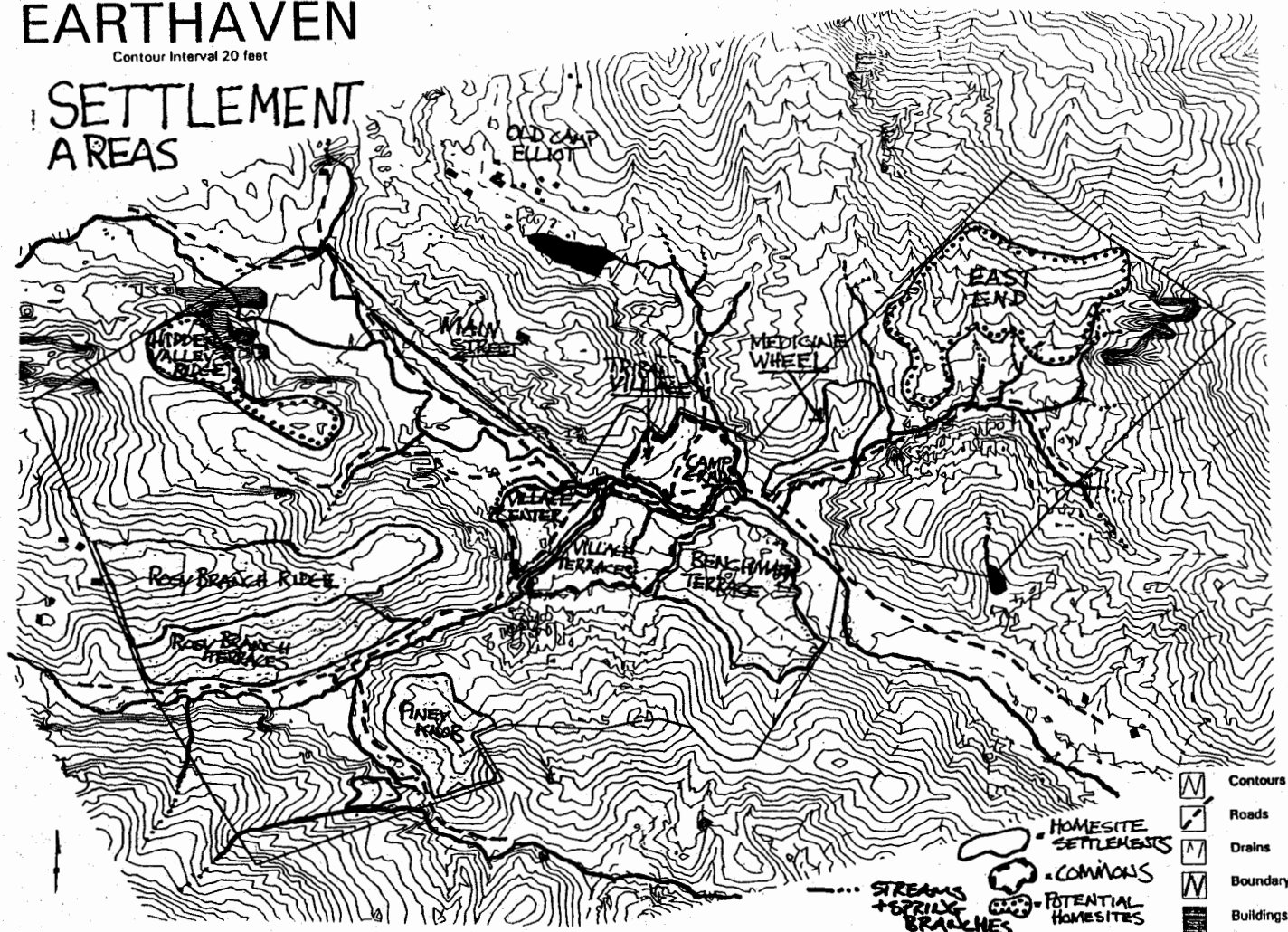
Digital cartography by Hilary & Sharon Mesick

continued, page 28

## EARTHAVEN

Contour Interval 20 feet

### SETTLEMENT AREAS



# Visions of Earthaven

*The Activist* asked four members of Earthaven to describe their visions of the community over the next 20 years. This is what they saw...

## Staying in Awareness...

### Gangotri

*Spring, 2001* - Blue skies, warm earth bursting with new life. The community is popping, literally popping up all over the place.

Four years ago, grant money came through and we have been using it well! Council Hall, the central structure of the village is completed—a fanciful building rising out of the ground solid and steady with a roof vaguely resembling eagle wings on the downstroke, powerfully lifting. Members have migrated from the small cottages of the old campground to sites all over the land. These sites are becoming small jewels of colorful beauty with ponds, flowering trees, gardens, and interestingly shaped buildings gently merging into the surrounding wild woods and meadows.

Paths, often lined with “grazing while you walk” plants, carry neighbors to community food gardens and the newly begun community living room/dining building. This structure is extended home for people on the land—private, cozy, and inviting. Culture’s Edge, the non-profit foundation which administers the grants, is completing an office also in the village center. Meanwhile, the main teaching facility will be integrated with the agricultural fields, the neighborhood school, and the new campground near the front gate. An exciting time—there are still some sites available to lucky newcomers.

The land arrangement of increasing areas of privacy lends an air of well-being and calmness in the middle of growth and chaos—a generous mix of energy savored by those who live, meditate, eat, and play as a *sangha*—a gathering of people committed to the process of

transformation. Here lies the real base of this intentional community—the commitment to help each other stay in awareness. This alone protects the aliveness here, just as fertile soil protects the aliveness of the plants it hosts.

*Summer, 2016* - Warm breeze bringing an afternoon shower.

I’m 72 years old now and as I walk about this land it is an anthropologist’s delight! For instance, I’m walking past the old hut village now largely gone back to earth. The foot bridge here is still called “the cabin crossing” even though the cabin left in a flood years ago. We, the homesteaders of 23 years ago, have participated in the making of traditions and the launching of experiments. Some have blossomed, others have faded.

The paths now wind through a forest of large trees. The paths themselves have changed, sometimes taking a new route, sometimes becoming paved to accommodate small sun-powered vehicles. We have matured and we have grown mature children—children who grew up in an atmosphere of awareness, around adults who demonstrate that what we really are is a wondrous being in a play.

Well, we have many years into the play, into the experiments of learning to act out of being rather than doing for doing’s sake. Often we gather in Council Hall to tell tales of strife and of awakening from the programming of a hierarchical society. We have learned cooperation and the skills of individual innovation that give spark to the creative atmosphere, and all this in a matrix of heart-centered decision-making—the quiet mindfulness that comes from learning to listen inside, and then acting from the power of being that links all—really all—creation.

So our people go into the world and come home again and our numbers shrink, grow, and change. We are connected to many dedicated communities that our example has helped create. Life is sweet in this garden and the garden is still growing. Δ

*Gangotri is the Airspinner of Earthaven Council and a founding member of the community.*

## Teaching the Children

### Michaeljon Drouin

I have been an organic gardener, an environmentalist, a self-sufficient homesteader, an intentional community member, and a metaphysical seeker of truth since 1972.

I am not at all at home in our present day society with its present day madness; it is my intention to do my part to help restore and replant our precious planet. Part of that work is to help co-create at Earthaven a tribe of people who really know, appreciate, and work with “The Great Spirit” - becoming involved with such things as nature spirits and moon sign planting and harvesting. We need this spiritual involvement to truly care for our land, crops, ecosystems, water quality, and most of all, our minds.

Our group/tribe at Earthaven has a splendid opportunity to monitor our individual egos and merge into one voice of praise for our Mother/Father/God of Love. Growing and cultivating love, forgiveness, and thankfulness should be and can be our most important harvest.



I am also happy to be involved with the revival of low-tech, owner-built, earth-friendly homes. I am a father of three fine sons, and it still pains me deeply to remember how I did not have significant time to really be a father because so much time was spent working away from my family to pay off 30 years’ worth of interest on our small home. I say, “To hell with that!”

I want Earthaven to feed us—body and soul. Gardens, orchards, vineyards, ponds with algae and trout, fish emulsion fertilizers, perhaps a horse for logging and manure. My desire is to give space to native and established fruit and nut trees and berry patches (I’m a grazer), and to plant clover fields, and wildflower meadows. Feeding us spiritually will be zendos, chapels, and sunset/sunrise observation towers on our mountaintops.

I am also choosing to be a part of our community school, once it gets established. I desire to teach nature appreciation and woodworking.

Obviously, I am an idealist; however, I am well aware of the work and time this vision is going to take.

Imagine a group of aware, in tune individuals, in harmony, who really dwell in the now moment frequently, who co-create with positive thought, imagery, and work, the manifestations that are desired and needed.

What a wonderful place to be.

*Michaeljon Drouin is a woodworker and tree crop aficionado. He is presently at work on the community’s first water reservoir.*



# Sustainable Living News

## *A West Coast Journal of Environmental Design*

Number 14

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Stewardship • Permaculture • Bamboo • Community Development

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### **Vision of the Green Grass World: Bamboo & The New Ecology**

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*by Simon Henderson*

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"Bamboo is more than just a plant." – Richard Waters,  
Chair on Arts & Crafts, American Bamboo Society

#### **The Vision**

*...An Eastern Woodland's prophecy speaks of a time when the two-leggeds will have to choose one of two pathways in a forked road. One pathway leads to the Charred Earth World, while the other leads to the Green Grass World. For years I have pondered the consequences of humanity's logical choice of envisioning a Green Grass World; yet I bear witness to a world on the brink of charring...*

Last year I attended the Fourth World Bamboo Conference in Ubud, Bali (Indonesia), hosted by the Environmental Bamboo Foundation. The theme for the Congress was, "Bamboo, People and the Environment." The congress title enthralled, then enveloped me. I heard the words over and over again, "Bamboo needs people." That simple; that profound. Bamboo's co-evolution with people in its indigenous range throughout the world is evidenced by more than 1,500 different uses, such as pulp, food, housing, fuel, tools, furniture, handicrafts, construction, and sports.

*...And then I heard the words of the First Nation Elder speaking to me from so many years ago, "Bamboo is the Vision of the Green Grass World..."*

#### **The New Ecology**

As the twentieth century comes to a close, the promise on the new millennia hold symbolic hope. For many of us involved in earth restoration it promises a new view of the ecology of human built landscapes. As we begin to craft this new ecology, bamboo will play a prominent role.

Bamboo may be the fastest growing plant in the world, as well as an evergreen perennial. Because it is ready to harvest in five years after planting and can be harvested every year thereafter for its lifespan (between 35 and 80 or more years,

depending on the species), bamboo out produces softwood trees by eight to thirteen times. David Farrelly points out in *The Book of Bamboo*, "forests in general increase two to five percent yearly in total bulk or 'biomass'; groves of bamboo increase ten to thirty percent."(1)

The Proceedings of the National Seminar on Bamboo in 1990, documents that "the yield from a properly managed [bamboo] plantation is calculated to be 28 times more than that from a natural forest." Of further encouragement is the documentation that bamboo under human cultivation and good management can annually increase in yields when shoots and poles are being harvested sustainably. It is no wonder then, that in Asia it has long been understood that "bamboo needs people."

#### **Bamboo on the Farm**

Using permaculture principles and observations gleaned from Asian bamboo management of both native and "captive" groves, the diversified American farmer can plant bamboo on the margins of farmland not usually utilized by conventional crops, realizing a lucrative income from a small acreage of bamboo.

This would include areas adjacent to ponds, faces of dams, riparian areas, slopes, as browse for livestock just outside fences, at forest woodlot edges, along sloughs and irrigation canals (where bamboo acts as a soil stabilizer and controls erosion with

continued on page 2

### **Inside**

**Editorial: How this Journal will continue to grow;  
and a new alliance w/ the Permaculture Activist...2**

**Restoration and Community Volunteerism  
at a Seattle Park...4**

**Letters; Up-coming Themes...6**

**Calendar; 1996 Pacific NW  
Permaculture Rendezvous...7**

its web-like rhizome system), the small triangles and other odd shaped areas of the farmscape not accessible to tractors.

In its natural ranges through Asia, I have observed bamboo associated with stands of conifers and deciduous trees. As an "edge" species bamboo performs superbly. Plants that may indicate areas most suited for bamboo planting would include areas where blackberries, nettles, horsetail (equisetum), and reed canary grass grow (though not in the wetter areas). In the Pacific Northwest, land supporting cottonwoods, maples and elderberry are indicative of rich, loamy soils, ideal for bamboo. In Western Washington state, I have observed bamboo thriving at the edges of alders, Douglas fir and western red cedar groves.

The mitigating factor of using and creating microclimates, or sun buckets, has been demonstrated repeatedly at Blue Heron Farm in Rockport, WA and at Northern Groves Nursery near Portland, OR. At Northern Groves Nursery, Rick Valley has ingeniously designed nitrogen-fixing windbreaks on the windward side of his groves, creating a fertile and protected niche for the bamboo. More recently, at Coyote Ranch Bamboo Research Station in Stanwood, WA, I have planted bamboo in a true agroforestry association utilizing large stands of alder and western red cedar for microclimate enhancement. Black walnut, American persimmon, Siberian pea shrub, paulownia (Empress tree), albezia (mimosa), Cascara sacra, as well as a host of understory species have been interplanted with and around the bamboo groves.(2)

The Permaculture principle of "stacking" layers of plant growth in multiple horizons can be utilized for the first three to five years before the canopy of bamboo closes, usually excluding understory growth by shading. However, research is being undertaken by Bamboo People—following the traditions in China and Japan—of inoculating the understory of bamboo groves with spores of high value, edible mushrooms that thrive in the silica-rich leaf litter. Recent USDA research has also shown that bamboo benefits from colonization by mycorrhizal inoculates.

### **A Green Grass World**

Yields of bamboo vary according to variety. Current data from shoots harvested annually in Southern Oregon average 13,000 lbs. per acre. The Chinese report yields ranging from 2 to 10 tons of shoots per acre. That pencils out to \$8,000 to \$40,000 per acre of bamboo shoots when sold through a broker. One extraordinary variety of temperate bamboo, *Phyllostachys praecox*, averages 33,000 lbs. per acre, though this variety has just recently been introduced into the US. In the winter there is a second harvest of 3-year old poles, which can average 2,000 poles per acre.(3)

According to the International Trade Commission's 1990 figures, over 280 million dollars worth of bamboo products are imported annually into the United States. Of this amount, over 180 million dollars were spent for bamboo shoot food products. The US Department of Commerce estimates that 30,000 tons of bamboo shoots are imported into the US annually (1994 figures).

The primary drawback to large scale plantings of temperate bamboo in the United States, aside from the cultural

continued on page 3

## **Editorial**

Welcome to Issue No. 14, the first issue to be called the *Sustainable Living News: A West Coast Journal of Environmental Design*. Previously entitled the *West Coast Permaculture News and Gossip*, the newsletter had a limited audience. In order to reach more people and not exclude anyone, the title of the publication has changed. The new title reflects an on-going commitment to publishing timely and useful articles to people on the West Coast who want hands-on information about sustainable living, natural building, permaculture, environmental design, etc. Whatever you want to call it, this journal will be a source for practical information on how-to live with, rather than against, nature.

I apologize for this issue being late, my computer has caught a nasty virus. The good news is that starting with this issue, the *Sustainable Living News* will be inserted into the West Coast edition of the *Permaculture Activist*, the North American permaculture magazine. The *Sustainable Living News* will continue to keep its own subscribers and a quarterly publication schedule. (The *Activist*, on the other hand, is published three times a year.) This means that if you subscribe to the *Sustainable Living News*, over the next year you will get three issues bound with the *Permaculture Activist* and one issue on its own. Think of it as if the *Sustainable Living News* will be the West Coast affiliate to the *Permaculture Activist*, yet continue to grow and develop on its own. We hope you will subscribe to both publications. The *Permaculture Activist* costs \$19/year which includes three issues with a regional insert and three newsletters. Please drop me a line and let me know what you think of our new adventure.

There are at least three ways you can help support this journal. The first is to write and tell us about your experiences. The more we know about who is doing what, the more we can learn from each other and begin to network our ideas and resources. The next issue, Number 15, will focus on **Natural Building Strategies**. Number 16 will be devoted to **Bamboo**. (See page 6 for details.) The second way to support the journal is by becoming a subscriber. (See subscription form on page 8.) Thirdly, you can place an ad. (Please write for advertising rates.)

**Michael Lockman**

The *Sustainable Living News* is a quarterly publication. Our primary goal is to provide timely and useful information and resources to people working in the fields of environmental & ecological design, permaculture, sustainability, natural building, and community development on the West Coast.

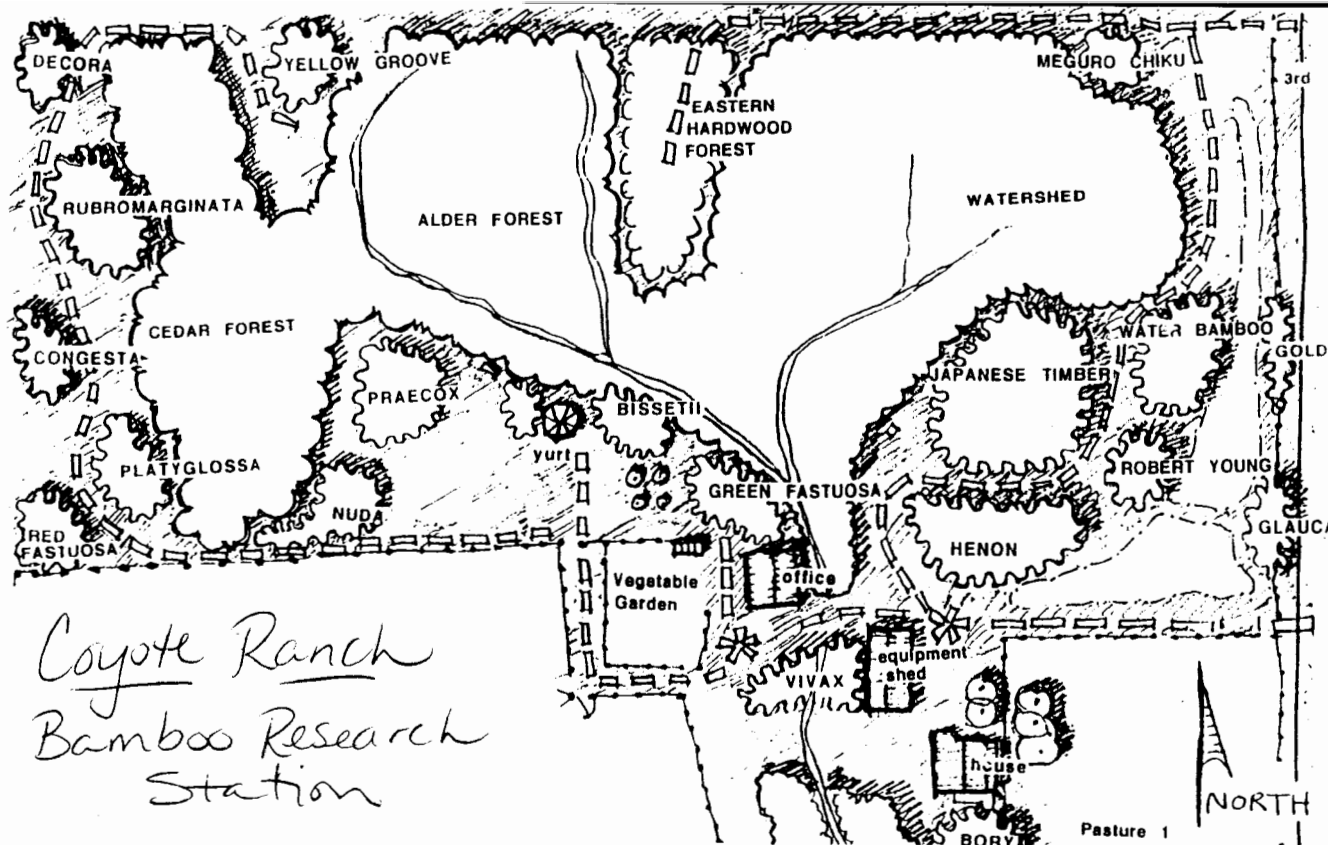
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ignorance, has been the initial high cost of acquiring plant material from rhizome divisions. Technology is now being advanced to perfection through propagation by tissue culture (cloning), which can bring down the cost from \$15 to \$20 per plant to .50¢ each. Within the next five years, it will be a matter of course to order bamboo plants from firms like West Wind Technologies, Inc. in Tennessee, who are currently working on adapting protocols for cloning selected bamboo species and developing systems for mass production.

In a recent call to promote bamboo agroforestry in the US and specifically in the Pacific Northwest, Gib Cooper of Tradewinds Nursery in Gold Beach, OR shared that,

"...Production of raw bamboo in China for processing doubled in the last decade. Export of bamboo products from China and other producer countries to meet world demand escalated by gigantic proportions in the last few years alone. Increasingly, manufacturers utilize bamboo as a substitute for traditional conifer or hardwood lumber. The world demand for bamboo may be growing faster than supply can allow.

Simultaneously, American interest in bamboo production is increasing. Traditional domestic fiber sources in the US are shrinking. New ways of processing bamboo fiber into products are in development. Bamboo as a food is found nationally in Asian cuisine. A demand for fresh shoots is currently being developed by local agriculturists. These efforts—by many people—enhance employment opportunities for displaced forest workers and future bambuseros."(4)

In the new ecology for North America, "the agroforestry initiatives advance the prospect that bamboo can and should become a widely planted commercial crop in the United States. As before, this is the gateway to the emergence of a bamboo culture in America."(5)

The captivating landscape of the new millennia will have an unfamiliar look and texture, like an exotic safari park, with more emphasis on cultivated pulp and fiber materials such

as hemp, kenaf, and bamboo. Perennial hardwoods—especially fruits and nuts—will provide a greater portion of our food-stocks and proteins. The large and familiar herbivores will disappear or downsize in favor of more efficient grazers including cameloids—llamas, alpacas and vicuna—and dwarf heirloom cattle and leaner red meat from ratite fowl such as ostrich, emu and cassowary. Agriculture systems will form a key element in ecological systems design, and generate substantial nutrients as well as incomes from the mono-cropped systems formerly known as "farms".

A year after installation has begun on Coyote Ranch Bamboo Research Station, I can gaze out my window at the beginning of autumn at the sea of young bamboo culms waving in the September breeze—a dancing field of green plumes singing up the Vision of the Green Grass World.

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3. Lewis, Daphne. *Bamboo on the Farm*, Bamboo People, Inc., p. 6.
4. Cooper, Gib. *Bamboo and the Pacific Northwest*, The Pacific NW Chapter of the American Bamboo Society.
5. Meredith, Ted. Bambusero, Seattle, WA. E-mail communiqué, September 6, 1996

For further information, contact Simon Henderson, c/o Bamboo People, 30816 3rd Ave NE, Stanwood, WA 98292. Phone (360) 629-6160; email, [simonh@sos.net](mailto:simonh@sos.net); website, [www.highway99.com/bamboo/](http://www.highway99.com/bamboo/)



# Meadowbrook Park: A Look At Restoration and Community Volunteerism

by Sarah Van Sanden

## Introduction

When Seattle Parks Department Officials first heard of the idea to restore a wetland at Meadowbrook Park, they scoffed at such a pipe dream. Now, with the initial phase of the project enjoying its fourth successful year since installation, it is a forerunner for what has subsequently become a trend in communities throughout the city of Seattle. The ultimate success of the project draws mainly on volunteer commitment.

In this article, I will examine the natural and developmental history leading up to the restoration and stewardship of Meadowbrook Park, the process of planning and implementing the projects, and the effects on the natural processes of the area and on the community. I hope to present a picture of these projects as a holistic approach to community involvement.

## Natural History of Meadowbrook

The land formation of the Meadowbrook area, like most of the Pacific Northwest, is attributed to the effects of glaciation during the Pleistocene era. Glaciers excavated huge valleys, compacted a layer of hardpan till and deposited sediment of sand, gravel and clay. Meadowbrook Park is located in one of these valleys. With a high water table and clay-loam soils over impervious hardpan till, the area has very poor drainage.

Meadowbrook is situated in North Seattle. Part of a larger watershed, Meadowbrook Park was once a wooded peat bog. A rolling slope, forested with conifers used to lead down to Thorton Creek. Large amounts of runoff were collected and retained by the bog during storms, controlling flooding in the area.

Meadowbrook was clearly host to a rich variety of wildlife. Muckleshoot Indians inhabited the site and later settlers hailed it for salmon and trout fishing.(1) Unfortunately, neither of these species exists in the creek today, nor do most of the former wildlife inhabitants of the area.

## Developmental History of Meadowbrook

Settlers bought the land which is now Meadowbrook Park and the hillside above it from the government around 1860. They cleared the land for farming and planted much of the hillside in fruit trees, a number of which still stand today. In the 1930's the land was converted to a golf course. Much of the orchard was cleared and the creek was straightened and channeled.(2) Concurrently, rapid development began in the area, resulting in more runoff for the creek to handle.

By 1960 the golf course had been purchased by the Seattle Department of Parks and Recreation as a future site for a high school and play field.(3) The gradual slope was cut at a steep angle, exposing the water table. The soil was used to fill the boggy lowlands. According to landscape architect

Peggy Gaynor, the west end of the bog received as much as nine feet of fill. Meadowbrook Park play fields and tennis courts, and Nathan Hale High School were constructed on this fill.

The cut and fill approach was common at the time. Wetlands were often considered useless or even dangerous. But once filled, wetlands became "productive" land. Such use, however, hindered the area's ability to perform normal wetland functions. Cutting the hillside left water which would normally saturate the soil, to run off the hillside and pool in the play fields. Despite installation of a drainage system, the play fields remained soggy throughout the year and were rendered unusable in the winter.

## The Wetlands Restoration Project

Janię Van Sanden recognized a possible solution to the soggy play field. If a drainage swale or pond existed, the ball fields would have a way to drain the standing water. Van Sanden, a neighborhood resident and member of the Meadowbrook Advisory Council, proposed to the council the idea of restoring part of the original wetlands at Meadowbrook. The council enlisted the help of Peggy Gaynor.

The plan consisted of excavating a series of eight geometrical ponds joined by a channel at the base of the hillside to collect groundwater and ball field drainage in place of an inadequate closed drain system. An underground outflow pipe would connect the ponds with the south fork of Thorton Creek.

Soil from the excavation would be utilized to construct an adjacent berm to shield and screen the ponds. Boulders would be placed in and around the ponds and a path constructed for passive recreation access. Throughout the wetlands, volunteers would install a plant palette limited to appropriate native species. Finally, benches would be placed and a timber bridge erected over the channel. Labor for the entire project would be provided by community volunteers.



*The completed wetlands photo by Bill Clark*

Janine Van Sanden became the project coordinator. She spoke to neighborhood groups, community councils, schools, and civic groups to publicize the project and obtain pledges of volunteer support. Leaflets were posted throughout the community to recruit volunteers and invite feedback. Many Meadowbrook Advisory Council members donated professional services such as accounting skills to budget the plan. Local businesses donated plants, heavy equipment and refreshments for the volunteers. After applying in March 1991, the value of the professional services, volunteer hours, materials, and heavy equipment pledged, was matched with a grant awarded to the project by the Seattle Department of Neighborhoods matching fund.

Despite community support and enthusiasm for the project, the Seattle Department of Parks looked upon the project skeptically. Peggy Gaynor suspects they assumed the project was too ambitious for volunteers to complete successfully. Also, despite being a return to a natural system, wetlands restoration was a departure from the Department's traditional method of dealing with drainage problems.

With the eventual permission of the Parks Department and with all the necessary permits, the wetlands restoration began in the spring of 1993—three years after its conception. Labor was carried out in a series of work parties led by Van Sanden and Gaynor, and attended by community members. Volunteers came from such diverse sources as Nathan Hale horticulture and biology classes, the Audobon Society, and a local baseball team. Over 250 people donated their time and effort to the project, exceeding the required grant match by \$12,000 worth of work.

#### Impacts on Natural Processes

The physical results of the work completed are visually apparent. Drainage in the play fields has significantly improved, creating a firm, dry surface more conducive to the heavy traffic it sustains. The ponds serve the function of collecting groundwater and providing wildlife habitat. Revegetation of the wetlands and the hillside has also enhanced habitat, leading to sightings of killdeer, heron, and hawks.(4)

#### Impacts on the Community

Meadowbrook Park is now more attractive to people as a site for recreation and education. Opportunities for passive recreation in the wetlands draw visitors, making them a neighborhood feature. Through informative signs, visitors can learn more about the wetlands. A new community center is planned and will use the wetlands as part of their outdoor curriculum. The biology students at Nathan Hale High School are monitoring this new aquatic ecosystem as it develops. They are sharing their compiled information via the Internet with other schools in the Thorton Creek watershed and to students as far away as Israel and Sweden.

The wetlands project is perceived in many different ways—as a solution to a drainage problem, as restoration of a natural system, and as neighborhood beautification. Peggy Gaynor sees these different styles of understanding the project as strengthening its success. Community backing on all of these level is testament to the project's impact.

The various projects at the park have been successful in bringing people together. Working together has improved familiarity with the community. This promotes networking and

fosters trust among neighbors. With hard work and commitment of volunteers, a sense of shared ownership has developed for community members. This is demonstrated by Kevin Burkhardt's hillside stewardship (see sidebar below). Informally, citizens keep watch over the park, monitoring young plants, keeping an eye out for wildlife, and deterring vandalism. Community members seem committed to the success of the park's restoration for the long-term.

#### Summary

To date, the Meadowbrook Wetlands Restoration Project is the most ambitious project of its kind carried out on Seattle Parks Department Property by volunteers. In fact, the Parks Department is now using this project as a model for future volunteer endeavors. Members of the community conceived of a viable solution to help restore the natural processes and habitat. Some see it as healing a scar on the landscape which corresponds to a scar on the community, while some see it simple as a creative way to overcome a drainage problem. In either case, the community has benefited from the enhancement and resulting stewardship.

#### 1996 Update

- The Community Center is in the final stages of construction.
- Detention Ponds have been installed adjacent to the wetland to handle flood water and provide wildlife habitat.
- A creek will eventually connect the wetlands with Thorton Creek.

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2. Ibid., p. 21.
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#### Hillside Stewardship

Inspired by involvement on the wetlands restoration, Kevin Burkhardt, a local resident, decided to take on enhancement of the adjoining hillside and stewardship of the area. With the help of volunteers and a matching grant from the city, he created a switchback trail, cleared the hillside of invasive, non-native plant species, and planted an edible fruit and nut orchard and hedgerow for community enjoyment. In the past three years Kevin has led over 15 work parties on the Meadowbrook hillside. In the future, he plans to plant more edible trees and shrubs, and to continue working with volunteers from the community.

#### **Meadowbrook Park Work Parties with Kevin Burkhardt:**

**November 9 & December 8**

**Come tour the park, hear about fruit forests,  
wetlands, and community projects.**

**10 am-3 p.m. Call Kevin at (206) 362-5149 with  
questions.**

## LETTERS

Dear Michael, I was just about to write and ask what was up with the newsletter when it showed up. Good issue—you've covered a lot of ground well. But I too, lament the lessening of outside input. I've been thinking about how you can turn your readers into writers. Here are some musings:

1. Specific topics. You've had ideas for themes in the past, which I think helps a lot. If you got even more specific it might work even better. When you send out a broad call for writing on, say, urban permaculture, my reaction is, "Well, gee, I don't know much about urban permaculture..." It helps to have a list of micro-topics to start me thinking. But if you were to clarify that by posting something like:

*The theme is urban permaculture. Have any of you readers tried greywater in the city? Composting toilets? Fruit-trees, food-producing window boxes? A mini food-forest? Edible subtropicals in your greenhouse? Swales in your backyard? Food hedges to screen your hot tub? Got any good wildlife? Networking? Urban gatherings or groups? We need specific stories, your experience of what works and what doesn't.*

2. Reader-written newsletters. I subscribe to a couple in which most of the material comes from readers describing their experiences. The editors make it clear that they need and value reader input. The readers understand that they don't need a graduate degree in a topic to write a letter, just a tiny bit of relevant experience. We've got lots of folks on the Left Coast here with huge gobs of experience. How can we get them to share it in writing?

Again, I think it comes down to assuring people that they what they know is valuable, which means asking them specific questions. Here are some things I'd love to hear about:

What are effective polycultures in the maritime Northwest? Ianto Evans listed a couple in an old *Permaculture Activist*, but others must have evolved their own. And how about effective vegetable successions: the ones in most books are far too slow due to our cool summer nights—the broccoli is just getting underway when the peppers are supposed to go in. Has anyone built ponds? What's the life expectancy, how are they doing? What are people's favorite permaculture plants? Who's tried composting toilets? What are some workable plant guilds? What cover crops do people like? Who's seen a straw-bale house hold up in the Pacific Northwest climate? Or cob? What experience do people have with animals, chicken tractors, and the like?

There are about 9 million questions I'd like to see answered, a zillion issues battered around. I'll bet you could come up with lots more. If you put specific questions in the journal, with a plea for those with experience to write or call, I'll bet you'd get some great responses. My experience has been that many people respond to specifics, but don't feel qualified to speak to a broad topic.

So there are my latest rantings. I'm really enthusiastic about the journal, so don't dare take any of this as criticism—I'm just trying to figure out how to get more reader input. And feel free to put any of my questions into the journal.

All the best,

Toby Hemenway

Ashland, OR

## Upcoming Issues of the West Coast Sustainable Living News: We Want to Hear From You! *Issue No. 15: Natural Building Strategies*

What are your experiences from working with cob? Who's seen a straw-bale house hold up in the Pacific Northwest climate? What kinds of plasters are being used? Who has built a cob house? Oven? Bench? Gazebo? What about using recycled /salvaged materials? Any experience with bamboo as a building material? We want to hear from you. Send first hand accounts, interviews, how-to projects, diagrams and photos by January 1, 1996.

## *Issue No. 16: Bamboo*

Who has experience with timber bamboo? Tropical bamboo? Anyone planted a bamboo hedge? What about bamboo paper? What are some effective bamboo polycultures? Send first hand accounts, interviews, how-to projects, diagrams and photos by April 1, 1997.



Hello Michael,

Hope this finds you well and enjoying a fruitful summer. Sorry I will not be joining you all for the permaculture gathering (see page 7). I had previous plans.

All is going well with me. Been busy with my design business and also with research on small farms with compost teas used as foliar feeds. Enclosed is a sample copy of a brochure on hedgerows that will be distributed through Oregon State Extension and Department of Fish and Wildlife. It is going through the final editing process.

I have compiled a resource library and the brochure with a small grant from Oregon State Extension and The Kellogg Foundation. We are looking for other grants to continue the research. Hopefully to design and implement hedgerows on several sites in the Willamette Valley.

I've also been involved with a group that wants to vermicompost [composting with worms] on a large scale with restaurant and grocery store food "waste". So life is fun and interesting and I look to see what's next.

We are planning another course in December. [Permaculture Design Course at LVEC. See calendar page 7.]

Please give my regards to everyone,  
Jude Hobbs  
Eugene, OR



# 1996 CALENDAR OF COURSES, EVENTS AND CONFERENCES

**Bioneers Conference:** October 25-27, San Francisco, CA. Interactive sessions with visionaries and pioneers in environmental work and green business initiatives. Inspiring and practical earth restoration. Contact (505) 986-0366, fax (505) 986-1644.

**Soils: Grow Your Own:** October 26, Sebastopol, CA. \$20. Contact Sonoma Permaculture Center, 3696 Burnside Rd, Sebastopol, CA 95472. (707) 829-5524.

**Introduction To Permaculture:** October 26; November 30, Dexter, OR. \$25-\$40, sliding scale. Contact Lost Valley Educational Center, 81868 Lost Valley Lane, Dexter, OR 97431 (541) 937-3351; e-mail, lvec@aol.com.

**Deep Ecology Introduction:** October 27, November 10, Dexter, OR. \$15. Contact Lost Valley Educational Center, (see address and phone above).

**Council of All Beings:** November 3, Dexter, OR. \$30. Contact Lost Valley Educational Center, (see address and phone above).

**Tilth Producers Fourth Annual Conference:** November 8-10, Leavenworth, WA. Kent Whealy of Seed Savers Exchange in Iowa will be the keynote. Contact Jody Padgham, Tilth Producers, PO Box 85056, Seattle, WA 98145 1-800-731-1143.

**Advanced Permaculture Design Course:** November 11-17, Pearce, AZ. \$500. Contact Karen Brooks, (505) 281-8425.

**Mushroom Propagation Workshop:** November 23, Sebastopol, CA. \$50. Contact Sonoma Permaculture Center, (see address and phone above).

**Permaculture Design Course:** December 1-14, Dexter, OR. Certification course taught by Rick Valley, Jude Hobbs and Tom Ward. Contact Lost Valley Educational Center, (see address and phone above).

**Fall Mushroom Retreat:** December 5-8, Orleans, CA. \$105. Contact Sandy Bar Ranch, PO Box 347, 797 Ishi Pishi Rd, Orleans, CA 95556 (916) 627-3379.

**The Dynamic Relationship of Earth and Cosmos: The Calcium and Silica Processes:** December 13-15, Dexter, OR. Sponsored by The Oregon Biodynamic Group. Contact Lost Valley Educational Center, (see address and phone above).

## 1997 EVENTS

**Permaculture Design Course:** January 11-12; 18-19; February 1-2; 15-16; 22-23, Marin, CA. Certification course taught by Larry Santoyo, E. Allain VanLaanen, and guests. Contact Cheri Tatum, (415) 488-4935.

**5th Annual Deep Agroecology Apprenticeship Program:** June 1-August 29, at Lost Valley Educational Center, Dexter, OR. Skills taught will include home garden and orchard management, saving seed, composting, preparation of herbal salves and tinctures, solar cooking, pond building, carpentry skills, ecological camping, community building, and more. Program Tuition \$1,830 includes food. To receive an application packet, write to Lost Valley Educational Center, (see address and phone above).

### Permaculture Convergence Report: Fourth Annual Puget Sound Rendezvous August 17-18, 1996

Over 100 people turned out for a weekend of networking, workshops, and hands-on learning at historical PRAG Tree Farm in Arlington, WA. In the 1970's, PRAG Tree was home to the early pioneers of Seattle Tilth and the first permaculture research station in North America. Signs of this work are very evident after 20 years. The hedge rows are well established, blueberries are everywhere, and the chestnut trees are producing bumper crops. The catch, however, is that for many years no one has been taking care of this property—until now. The Where Art Is Living Collective now stewards this property, that is part of the Evergreen Land Trust, and the members hope to turn it into an arts and ecology center.

Needless to say, it was a perfect site for this year's rendezvous. Facilitated by Michael Pilarski and Michael Lockman, the weekend was packed full of workshops. Guest Instructors included, Penny Livingston, Larry Santoyo, Simon Henderson, Ianto Evans, and Doug Bullock. In addition, there were two hands-on activities where we began the restoration process on the old orchard and sheet mulched a raspberry patch. As always, old friend re-connected and shared stories, while new friends were made. See you next year.

### Friends of the Trees & Michael Pilarski

**November 14 - Olympia, WA -**  
International Slides with M.P.

**November 16 - Olympia, WA -**  
Wildcrafting Seminar with M.P.

The Bellingham Permaculture Guild meets every second and fourth Wednesday of the month at Friends of the Trees office at, 1401 13th St. in Bellingham.

**Friends of the Trees,**  
**PO Box 4469**  
**Bellingham, WA 98227**  
**(360) 738-4972**

**Permaculture West,** a non-profit based in Olympia, WA was incorporated this year. An Environmental Design Conference is planned for 1997. **Contact Kirk Hansen,** (360) 352-6509.



# Classifieds

Classifieds cost 15¢ per word

Send ad and a check payable to Michael Lockman

**The Eden Project** is an Environmental Land Cooperative forming in Mendicino County, CA. It will be run by a consensus council of all the people who buy in to the community. The land will be 1,680-acres. The Eden Project will be big enough and have enough good land to become a self-sufficient village. To find out more, send \$3 for 20-page prospectus on the Eden Project to, Timothy McClure, PO Box 849 Glen Ellen, CA 95442.

## Introduction To Permaculture by Bill Mollison.

\$25 postpaid from Michael Lockman. PO Box 45472, Seattle, WA 98145.

**Help Wanted: Experienced Landscaper/Gardener** wanted for employment and membership in cooperative hot springs business near Mt. Jefferson (pahtoo). Grounds and greenhouse maintenance, composting, garden development, and recycling management. Excellent perks and housing provided, hourly wage, winter living adventure. Green thumbs and fairy friendly please. Personnel, Breitenbush Hot Springs, PO Box 578, Detroit, OR 97342. (503) 854-3321/3320.

**Organic Grower Position.** March to October, 1997. Lost Valley Educational Center is seeking a grower for our 3/4 acre of gardens in Dexter, Oregon. The position requires the experience and energy to grow organic, preferably biodynamic, produce for our conference center and community. We are offering a contract for approximately \$5000. Room and board included. The position is a wonderful opportunity for someone interested in teaching organic growing skills, growing vegetables, and living in an intentional community of people working toward a sustainable culture. For more information or an application, LVEC 81868 Lost Valley Lane, Dexter, OR 97431, (541) 937-3351; e-mail, lvec@aol.com

**Garden Partner Wanted.** Long-term partnership wanted to help develop gardens, including fruit trees, fencing & micro-livestock in a permaculture manner. Located in West Seattle on 3 bus routes. Melinda McBride (206) 767-7334.

**Bill Mollison Lectures on Video,** Trees; Water; Pattern Application. Available from Networks, 3145 Geary #451, San Francisco, CA 94118. (415) 346-1846.

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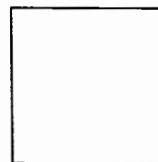
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## Dreaming a Collective Self

Gary Schwartz

**Buildings and infrastructure, year 2006:** Sixteen individual houses are attractively situated on the land along with two co-housing units. One is an eight-unit co-housing complex for families and one is a six-unit complex for singles. The cottage village has 15 small cottages and shares a common kitchen and bath facility. Three thousand acres to the south have been purchased for preservation and limited expansion of the community. We established a sister community in Guatemala in 2002, which now has a co-housing/hotel complex for long lush winter vacations.

**Technology:** All electrical power is generated on the land by renewable, non-polluting means. All of the members' vehicles have been converted to run on hydrolyzed water. Members have access to a satellite-based worldwide communications facility and information database.

**Commerce:** There is a light industrial complex located nearby for several Earthaven member-owned businesses. One produces energy-generating devices and employs a dozen Earthaven members. Four members are employed full-time growing herbs and other specialty crops on the land. There are

thriving community gardens producing ample food. Pasture land with two Pasifino horses is shared by the farmers and other members who like to ride. The main meeting hall is adjacent to a number of businesses including an artisan's co-op which provides studio space and a retail shop, a healing and rejuvenation spa, a bed-and-breakfast, and the Night Owl Cafe and Grocery. There is also a thriving education center which offers a variety of programs including permaculture, building methods, psychological growth, meditation & spiritual studies, and the art of celebration.

**Culture:** Most of the day-to-day life includes artistic expression, the development of philosophy, meditation and worship, performing arts, religious theater, play, and celebration. A growing number of members who have learned to set aside individual identity are enjoying themselves as a collective Self. Miracles are becoming commonplace. The art of manifestation has been mastered and monetary concerns are incidental in this thriving environment.

Earthaven enjoys good relations with the local and global communities.

*Gary Schwartz is founding member of Earthaven, as well as a father, counselor, meditator, inventor, and proprietor of LightWorks, a company supplying renewable energy equipment. He has more fun kicking footbag than anything else.*

## ...a Swim, a Nap, a Game of Hacky-Sack

Greg Marshall-Clark

As I wake up, the morning birds sing their welcome to another day, ten years from now at Earthaven Village. My home, which I share with three adults and three children, is located in the Medicine Wheel Cluster southeast of the Village Commons. Descending from the upstairs adult bedrooms, I am greeted by my youngest daughter who is up early to go on a day long trek with the village healer to collect medicinal plants. She and I have a quick breakfast together in the southeast facing kitchen with sunbeams splashing across our faces.

A gong sounds once which announces the beginning of morning meditation at the Zendo, down the path and across the river. Gathering some tools and work gloves, I pause to enjoy the Medicine Wheel Garden which the six households of our cluster have lovingly created over the last few years. I observe that our natural defenses have failed somewhat at keeping one of our sister deer from the kale and lettuces. We'll certainly need to meet to plan new ways of protecting the foods we grow to sustain us throughout the year.

Walking down the path towards the Hidden Valley Cluster, I admire the apple trees with branches full of fruit. I recall that a work party has been called for the day after tomorrow to harvest the apples and begin the processing of organic cider which will be sold throughout the region. I come up to the day's work site and join a group of men and women in a circle to offer thanks to Mother Earth/Great Spirit for bringing us all together in harmony with the land. Straw and clay slip are mixed and lightly stuffed in the bamboo woven forms for the walls of this new home which faces South at a view of the mountains surrounding Earthaven. A delivery truck arrives with the solar panels soon to be installed on



the roof; a neighbor walks up with a new drum and soon drumming and singing fill the air as we work hard, yet joyously. A dip in the nearby swimming hole refreshes all of us for the noontime meal.

The afternoon brings the arrival of groups of students (young and old) who will participate in a week long workshop on permaculture design. As I finish the registration of students, I make my way to the offices of Culture's Edge, a non-profit organization supporting

regenerative culture. Booting up my computer for some graphic design work, I consider the impact Free Energy Machines have had at Earthaven. Utilizing low temperature phase change technology, most of our electrical, heating, and cooling needs are met by these machines. Soon, however, my own needs compel me toward a short nap.

When the sound of laughter wakes me, I rise to join a group playing hacky-sack. Work and play are always intermixed throughout the day, and I grin to myself, so in love with all life.

*Greg Marshall-Clark lives with his family at Earthaven Village. The former executive director and now consultant to the Haywood County Arts Council is also vice-chairman of the board of Culture's Edge, the educational non-profit which administers learning programs at Earthaven.*

what cities will look like in 21st-century America, but we don't foresee Earthaven reaching that order of magnitude. That's where things seem to be falling apart today. At Earthaven we hope to match the consciously chosen limit of our growth to the optimum carrying capacity of our land.

### The Tribal Village

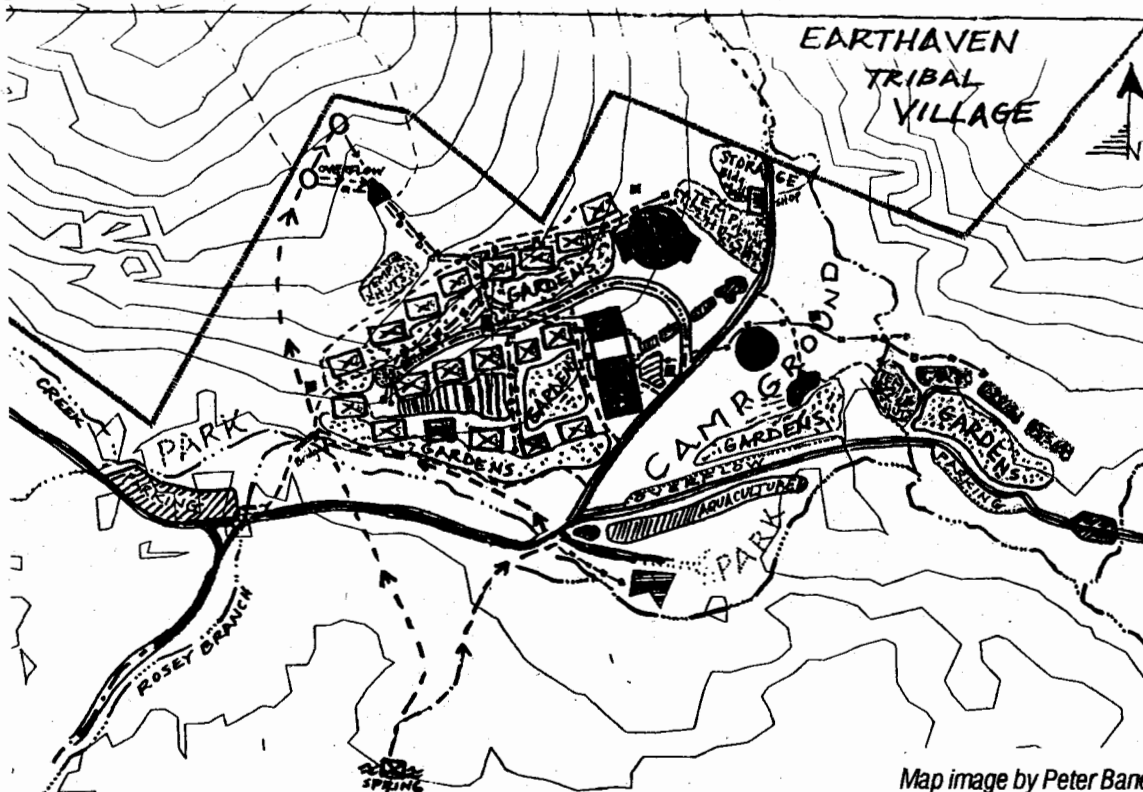
As noted above, Earthaven is developing a first cluster of small dwellings. The goal of this neo-tribal village—or hamlet within the village—is to experiment on a small scale with earth-friendly building techniques and compact settlement patterns that we hope will serve us in the development of our permanent homes and neighborhoods. By building many different small huts or bungalows with footprints of no more than 300 square feet, we can become skilled in the use of locally available and inexpensive natural materials including straw, clay, stone, and timber. We have buildings going up using post-and-beam timber framing, pole beam, rough-cut green wood conventional framing, straw bale, clay/straw slip form, cob, wattle-and-daub, and earth-coupled clay floor construction methods. This summer we built a large capacity composting outhouse and are currently completing a central kitchen/dining and bath building to serve the hut dwellers so that none of the huts will require their own plumbing, kitchens, or bathrooms.

In the same way that permaculture first tested plants and garden systems, we are trying out many ideas, making lots of small mistakes, and learning from them so we don't repeat them on a larger and more costly scale.

Another function of the neo-tribal village is to create ways for more community members to get to the land and have some infrastructure support while they build their permanent dwellings. We have established limited occupancy times in huts to encour-

age people to move on to building permanent dwellings, freeing up huts for the next wave of village settlers. Ultimately we expect that the huts will convert to intern housing or lodging for guests or workshop participants, incorporating succession and multi-functionality into the design. The neo-tribal village, like Earthaven itself, is designed with enough flexibility to grow, change and evolve over time to meet the community's changing needs.

Earthaven is very much a work in progress, a constantly evolving attempt to more deeply inoculate permaculture and eco-village culture into our bioregion. We welcome your help to further the good work. Come visit and lend a hand if you're traveling our way. Be sure to let us know you're coming well in advance.



Map image by Peter Bane

For more information, write Earthaven, Box 1107, Black Mtn., NC 28711. Δ

*Chuck Marsh is a co-founder of Earthaven Village, a permaculture teacher and designer, and a cultural evolutionary who thoroughly enjoys dancing and drumming on the edge. Contact him at 55 Grove St., #15, Asheville, NC 28801. (704) 254-5454.*

### The Traditional French Village

The countryside of France is sprinkled with market towns (*bourgs*) usually found about ten miles apart. But it is the area between them—the *pays*, which was served by the bourg and in turn sustained it—that was important to the French peasant. Because each *pays* is a unique physical expression of the relationship between human and nature, extraordinary diversity was produced—in farming and building techniques, folklore, custom, livestock, dialects, even language.

Contained in the *pays* were the villages, around which a self-sufficient farming community existed. Although farming was the primary activity of the people, survival could rarely be achieved solely by working the land. Every person was part farmer and part tradesperson. Among the necessary professions were wheelwright, sawyer, clog-maker, mason, carpenter, blacksmith, midwife, herbalist, and animal doctor. At harvest time, however, most people abandoned

their trades to work in the fields.

Each village occupied about 2,500 acres, usually arranged in concentric circles of land management. The best land—that which could endure more frequent crop rotation—was near the village center. Here were gardens, hemp patches, and orchards. In the middle zone was arable land for grains, rotated biennially or triennially. All villagers had grazing rights on stubble after harvest, in meadows after hay cutting and on fallow land. The outer zone, often the largest, was uncultivated and contained not only wilderness but also the remnants of abandoned civilizations. All villagers had the right to its use for grazing, and for collecting fuel, animal feed, and fertilizer.

This system of land management and self-sufficiency resulted in the relative isolation of village communities, which contributed greatly to the development of distinct and separate identities. Δ

*excerpted from French Farmhouses & Cottages, by Paul Walshe.*



# Rural Ecovillage & Urban CoHousing:

## A Perspective on "Sister" Communities

*In October, Mollie Curry, Assistant Editor of The Permaculture Activist, interviewed fellow Earthaven village member Jill Tieman at the Westwood CoHousing site about her membership in not one but two communities in western North Carolina. Jill says she was molded for community by growing up in a Minnesota family with 15 children. She works as a sign language interpreter, and took permaculture design training in 1993. Jill lived at Earthaven during the summer.*

**Mollie:** Earthaven (EH) and Westwood CoHousing (WCH) are two intentional communities in the development stages. Westwood is within the Asheville city limits on four acres and Earthaven occupies about 325 acres of wooded land an hour's drive from the city. One is rural and the other, urban. As a member of both communities, I'd like you to compare their purposes, visions, physical realities, and processes. Do the communities share a common vision of what's important? And what parts of their visions are similar?



*Jill at the wheel of the Earthaven tractor. Upper right, her hut under construction in mid-August with cousin and sawmiller Jon Tiemann (L) and EH member Michaeljon Drouin (R).*

**Jill:** Incorporating permaculture principles and sharing common facilities really stand out to me as the two main similarities, and of course, they are both planned, intentional communities.

Environmental consciousness is a shared thing. Bill Fleming, a permaculture design graduate and a member of WCH, who works with alternative energy, has incorporated into the Westwood design a solar panel system that will heat water for domestic use as well as for the radiant floor heat systems.

**M:** What do you see as the main differences in the two visions of what these communities will be like?

**J:** Well, because they're in different settings—urban and rural—they attract very different groups of people. The people that are with WCH are more mainstream. The people attracted to Earthaven seem to be more willing to live out there on the edge.

**M:** ...and to make their own electric power, or build their own houses?

**J:** It's also that the social graces are more present at Westwood. I find myself being a little more careful how I act there. We're at the stage where we're still very polite. I don't feel yet that the level of openness at WCH reflects as much of who I am. We have mostly content-oriented business meetings and once in a while things happen in the business meetings that create little ruffles. But anything that might rock the boat too much is pretty much withheld.

At Earthaven, on the other hand, there's a big part of me that gets to be real. People don't withhold as much. We do regular "check-ins." [Meetings where everybody reports what they have been doing, feeling, or thinking.] I value that because it's been my way to get to know people. Since I recently proposed it, we are starting to do check-ins at WCH like we do at EH. I don't know everyone very well, and that seems like a good way to start. I also want to initiate "special membership meetings" where members tell their life stories. We've been doing this at EH and I feel that this sharing is helping us grow together.

Since I first joined Westwood in January of 1996, there has been intensive publicity to attract the critical mass to build the physical community. A lot of new people have joined and there has been a lot of pressure with deadlines and major decisions with big design, legal, and financial consequences.

**CoHousing design requires construction all at once**

because all the dwellings are tied to the common house and all the owners help to pay for the common house through purchase of the dwellings.

Some people at Westwood have been members for years and know each other well, while others have been members for only a short time. Some members are local and come to meetings, some live in other parts of the country and the world. One member lives in Israel. The focus this year has been to include everyone in important decisions. We have a proxy partner system for those members living out of town. Most meetings have had visitors who are considering joining, so there's been constant outreach.

M: Westwood probably has shorter meetings than Earthaven.

J: There's a big difference. Westwood's meetings are two hours. A certain amount of time is allotted to each topic. Once in while if we need more time for something and if we haven't used as much time in another area then we can extend the discussion. At Earthaven, we often give more time to an agenda item than we planned. Both communities run their meetings on consensus.

We have a color card system at Westwood. We come to a meeting and we put name tags on and get these cards, which are five different colors. If you have a question, then you hold up the yellow card, which means you have a question rather than a comment.

M: So everybody knows the nature of why you have your hand up.

J: Right. The green ("yes/I agree") card goes up a lot. Everybody can look around and see the general sentiment at a glance.

M: That sounds good. Sometimes at EH meetings you're just not sure how the people who haven't said anything feel—are they in agreement or not?

J: Also, it's a smaller group at Westwood. We have 24 townhouses. In the end, there might be 60 people living here. As it stands now, there might be 15 members at a meeting, plus visitors.

M: Versus 20-25 members currently at EH, with the numbers expected to increase to between 75-150.

J: Right. One of the Westwood members teaches people how to facilitate meetings. I've told her that our meetings at Earthaven tend to go on and on, and she's offered to come help us learn some other techniques. And, if you're looking for differences.... In our meetings at Earthaven, it seems like there's a lot more scrutiny, which sometimes feels like

distrust. For example, a committee of people might research something, report on it, make a recommendation, but then get interrogated in the process. At WCH our project manager, Elana Kohnle, does most of the research and comes to the meeting with a report. Complex decisions go to a committee first for study and recommendation and then are brought back to the group. We put a lot of trust in Elana and in committees to make decisions, and as a group we usually come to consensus on the recommendations quite easily.

At Earthaven, no one person is running the ship. Whereas we definitely have somebody running the ship here at Westwood, and we can see the course that we are on. At Earthaven, sometimes I don't know where the ship is going! Without a hired project manager, it often takes longer to come to consensus and the deliberations can be tiring.

...Earthaven is a much bigger project with a lot more land. We aren't tied into the public utility grid. We're out in the country. We're building an education center. We don't have a hired project manager. These two communities are different in a lot of ways.

Another difference is that Westwood already had the property—they didn't look for land like Earthaven did.

M: WCH land was owned by a few people who are now members.

J: Well, the owners of the land heard about the concept of cohousing and liked it and took off on it. They became the development company. And they've really had to do a lot of recruiting because they didn't have a large core group of interested people at the start. In contrast, EH began as a group of people looking for land for a community. Though the communities have both been in the forming stages for about four years, the common house and individual homes at Westwood are scheduled to be completed by late 1997. They will be built by one contractor. EH homes will be built or contracted out by the individual owners.

M: And we know that the building of homes at EH will not be done by 1997.

J: No. And Westwood won't really be done, but we'll be able to move in.

After the townhouses are done, we'll just be finishing up the things that we're going to do on our own, like building a bridge across a ravine, some of the fencing for the common house, and the landscaping, and really getting to know each other.

These two communities feel so differ-

ent. I love getting to be part of both, despite the fact that it's sometimes a lot to juggle.

M: So what inspired you to join two communities?

J: I joined Earthaven in order to be involved in a sustainable development project where I planned to live for a long time. I have been involved with other such projects, but without planning to become a permanent resident. For example, I volunteered on a CSA farm one summer, and have helped people working on sustainable-type projects every summer since 1992.

I joined Earthaven first, but my work is in town and I realized the drive from EH was going to be too much to do every day, so I joined Westwood too.

I wanted some kind of a base in town but I felt overwhelmed by the caretaking responsibilities involved in owning a house. By joining Westwood, I have a different kind of responsibility. For about the same price as an older house that I probably would have to refurbish, I bought something new.

At Westwood, I'll have a 712 square foot two-bedroom townhouse. It's smaller than any house I would have bought for that price, but part of my purchase buys me the community center. In the community center we have a large kitchen and dining area, a place to store bicycles, a workshop, an exercise room, a library and meditation room, rooms for guests of the members, a place for kids, a laundry facility. We have all of that. And so I don't need that in a house. Of course, there will be things to do to upkeep the community center, but—since I go away a lot—I felt that it was something that could be taken care of by the people actively using it.

M: Will you stay with both communities?

J: Yes, initially I plan to live at EH on the weekends, during the summers, and maybe partly into the fall. I'll be in town at WCH during the week in order to work. I'll probably have a renter in town since I'll have two bedrooms. I want to maintain both memberships, and eventually I might be able to stay at EH more—depending on how we grow. It might end up being half-and-half.

M: You're close by, either way.

J: Right. I couldn't do all of it at WCH and I can't do it all at EH. Now I feel I can get the best of both worlds. One of my big wishes is to garden on a large scale. WCH is trying to buy an adjacent property for extensive gardens, but it is questionable when that might become

available. At EH we're starting to open up garden space, and I'm real excited about that. I think gardens and food production should be the basis of every community. I'm concerned with the limitations at WCH. Where can we grow our food?

M: Let's talk about a different topic. Earthaven is planned as an ecovillage, with housing clusters, gardens, orchards, offices, a village center, etc. There will be cooperative home schooling, a learning center, and cottage industries of unknown number and variety. A lot of people at Earthaven hold the vision that it will be a self-sustaining village. The village will have an economic base: people will not have to leave to create income. What aspects of a village do you find or expect to find at Westwood? I read that word "village" in one of the brochures....

J: It is a kind of village. It's a little community within a larger community. We're all connected through having the community center where we will have the option to eat together about four or five times a week. And we will know each other better than typical neighbors.

Right now we're trying to attract more families with children. It really rounds out a community to have different ages, from children to adults, retired people, and grammas and grampas. The connections that make it feel like a village really are the community ties.

M: Is WCH attempting to be "sustainable?"

J: We're incorporating some alternative design, but as a piece of property that doesn't have enough land for people to grow most of their own food, we can't be completely sustainable, though we'll come closer than most other urban or suburban neighborhoods. My attraction to EH is that sustainability seems more possible there. A whole system of commerce and food production is planned right in our own backyard. —Within walking distance! At WCH, there will be more interdependence with the wider community in terms of food and commerce.

M: Let's compare the processes of becoming a member at Earthaven versus at Westwood. Can you tell me about the provisional period at EH?

J: When I came to Earthaven I joined as a provisional member and paid a partially refundable membership fee. I then had six months to get to know people and people had six months to get to know me. After the six months was up, we made a mutual decision that it was a good match.

Before joining Westwood, people are oriented to the concept of CoHousing, and are given Westwood's information packet, by-laws, and development agreements. They are required to observe a business meeting and meet members at a potluck. They are given a tour of the land we will build on and shown blueprint plans for the

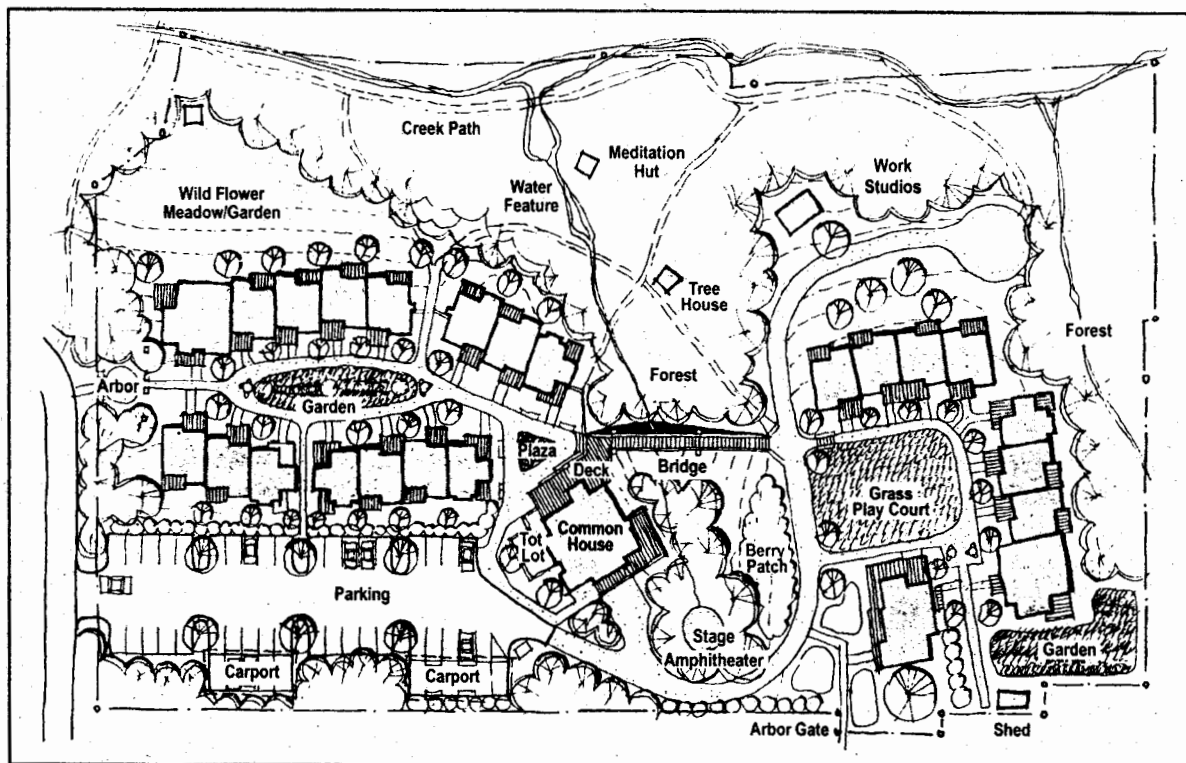
issues that might stymie our process.

M: How often do clearings happen at WCH?

J: Mostly as the need arises. Recently the group started again to have clearing meetings, social gatherings, and check-ins for members only, getting the social aspect back in balance with the business aspect of our interactions. At Earthaven we have check-ins every two weeks or so. And now that more people live at EH, we have found a need at times for what Westwood calls a clearing meeting to deal with interpersonal issues. We haven't had regular check-ins at Westwood until recently. We've not been as personally open as people are at Earthaven.

M: Perhaps when you live together at Westwood that will change.

J: It's already beginning to change, but I



whole development, pointing out what is still available. There are four units left out of 24 and we have a waiting list for some of the more popular ones. The process of joining is basically a self-selection process. If there's discomfort about a person, the members have a chance to express it. In practice, "problem" people sort of disappear on their own.

M: Are there other ways to address "problem" people or problems in general?

J: We do have occasional "clearing meetings." These are to bring up issues that might not be appropriate to address at a business meeting and to clear the air of

don't think it will be like Earthaven.

What's refreshing about Earthaven is that people are honest and are willing to meet and work through difficult issues.

M: Talk a little about the role of spirituality in the two communities.

J: It's not something we talk about at Westwood. We have our own private practices, but we don't do ceremony and ritual like at Earthaven, which I love.

M: Do you think EH is religious-based?

J: I would say Earthaven is spiritually based. We do certain rituals and ceremonies that a lot of people in the mainstream might be uncomfortable with



because of the depth of personal sharing involved. At Westwood, it's not really taboo, but it's not talked about within the context of the community; individually it's talked about.

**M:** It's talked about a lot out at EH. A lot of people are very open to talking about spiritual concerns.

**J:** And they are open to prayer, or being in touch with the universe, open to the Spirit. At WCH, in whatever way we are connected with the Spirit, it's not a collective celebration or ceremony or ritual. That's a big difference.

**M:** What do you think is the best thing about each community?

**J:** When I came to Earthaven, I thought I was joining a permaculture community and my attraction was that this was going to be an ecovillage. Then another EH member asked me "Do you belong to a permaculture community or a community that practices permaculture?" At first, I thought that permaculture was paramount, but now I realize that community is paramount. So now I would say that I belong to a community that practices permaculture. What I am most attracted

to about EH is the eco-spiritual bent: that it's ecologically based and also that we have ritual and ceremony shared in the context of a rich community connection.

What I'm attracted to about Westwood is that it gives me a base in town with a group of people that seem to share certain values, particularly being environmentally conscious. One of my goals is to live as sustainably as possible and I get closest in a rural setting. I need the urban setting because my work with deaf people is always based in an urban area. Δ

## Learning a New Kind of Life

### Darren Geffert

It's a cool clear fall evening in the southern Appalachian Mountains. We've just finished a delicious vegetarian community meal when someone suggests we build a campfire. Everyone is pretty worn out from a long work day but we agree that a campfire would be a great way to end it.

So we circle around the fire. Soon, gentle drumming and singing fills the air. The conversation drifts back and forth, weaving a pattern around the hot nucleus. Eventually, one by one, everyone has retired for the evening. For the first time today I am alone.

Staring up at the stars and listening to an occasional screech owl, I contemplate the day's events. I laugh to myself—sometimes it seems that I learn more around this campfire than anywhere else at Earthaven.

It's been three months now since I left my job as a Project Engineer and came to Earthaven to work as an intern. I left because of my disillusionment with the corporate world and my desire to live simply, in harmony with our Mother Earth. Since childhood I dreamed of living on the land and being self-sufficient.

A year ago I discovered Permaculture and have since completed the fundamentals and practicum courses. The most important concept I learned from the permaculture courses was the power and necessity of community. I realized the importance of living and working in communion with my fellow beings. From the moment of that realization I became committed to obtaining the skills required to build sustainable community. That quest has led me here to Earthaven.

My life here at Earthaven and my former life in corporate America present a

complete dichotomy. My days as an engineer were filled with ruthless competitiveness, superficial relationships, and fear. It was a place that valued obedience, not individual growth.

Here at Earthaven, we encourage cooperation and participation by all, regardless of skill level. There is no boss and no corporate ladder to climb. We try to make jobs fun, not drudgery. The individuals exercise their freedom to think creatively, offer suggestions and question the course of action. Sometimes this leads to hours of discussion, but at least every voice is heard.

For me, permaculture and communal living are vital steps, necessary for surviving environmental degradation and social disintegration. Being an intern at Earthaven offers me an opportunity to learn the skills and concepts of permaculture and to grow as an individual. Each member of Earthaven has a unique gift to give, and collectively we hold a broad and eclectic body of knowledge here. The application of this knowledge to the creation of an eco-tribal village is a step towards sustainable living.

Community living at Earthaven is an attempt to live as a tribe, in the spirit of our indigenous predecessors. Together we establish interpersonal bonds that enhance our growth as spiritual beings and caretakers of Mother Earth. Community living also presents many challenges. Most of us have been raised in nuclear families, in a culture that stresses the individual. To live as a tribe means that meeting community needs is as important

as meeting the needs of individuals.

My goal at Earthaven is to learn the skills necessary to create sustainable permaculture communities around the world. I'm learning community dynamics, alternative building techniques, sustainable agriculture, and an understanding of natural systems and our relationship to them.

My work at Earthaven varies from day to day. One day I'm plastering a straw bale wall and learning how to prepare enchiladas; the next day I'm digging a swale and resolving dishwashing conflicts. Most of all I'm learning about life and gaining an awareness of myself, others, and the natural world.

So as the campfire flames wane against



*Heave ho! Author fourth from left.*

the cool evening breeze and the fall leaves flutter to the ground, I realize how lucky I am to be living in these mountains, with good brothers and sisters, helping to create a way to live sustainably in these modern times. Not only that, but tomorrow we're going to build a tree house! Δ

*Darren Geffert at 28 describes himself as a "retired engineer." An accomplished candlemaker, amateur mycologist, and student of H. D. Thoreau, he is experimenting with various forms of low-cost housing at Earthaven's neo-tribal village.*



# Expecting the Unexpected: Design For Catastrophe

## Andrew Goodheart Brown

If most readers are anything like me, the mention of designing for localized catastrophes elicits a "...yeah, yeah, I know..." response, followed by skimming the material through to the next topic.

This has been my response, even though I would say I know better.

However, events of the past year have awakened me from my slumber of ignorance, and changed my perceptions of the utter importance of design for natural catastrophes.

### Fire comes calling

On the last morning of a 3-day EcoVillage Design course held last April at The Farm in Summertown, Tennessee, Max Lindegger was showing us an exercise he had employed at Findhorn to help residents there envision cleansing the landscape of old constructions as a prelude to fresh design thinking. As he described wiping away the old scene as if it were so many papers on a wall, Max swept his long arms dramatically across the horizon. At just that moment Training Center coordinator Albert Bates strode urgently into the meeting space to announce a fire in the tractor barn; all hands were needed! Wondering how life could so fantastically mimic art, we scrambled for the doors—50 people from all walks of life, who'd been together less than 72 hours, diving in a controlled panic for scraps of support: caps, boots, water bottles. Out of our fleeting recollections of the scene and with the help of some of the youth from the Farm School across the road, various shovels and rakes were rounded up, and within a few moments all participants were packed into a motley caravan of vehicles following a lead car towards the barn.

A billowing cloud of black smoke rising from the forest ahead resolved into a scene of intense danger: the whole structure of the barn was aflame, the raging firestorm whipped to a frenzy by a strong breeze blowing across the adjacent field. Nearby trees exploded into flame.

The barn was set back into the forest where the open ridge began to drop into a wooded valley. An impenetrable wall of heat pressed out from the fire nearly a hundred feet in all directions, igniting leaves and duff on the forest floor and

setting the smaller branches of the canopy to burning. Spot fires leapt ahead of the front as exploding embers cascaded downwind. The fire began spreading down the small valley, threatening nearby businesses and homes located a scant hundred meters away. Grabbing rakes and shovels we spread out and began pulling the smoldering duff back to create fire breaks ahead of the flames.

No water mains were accessible (the biggest supply line was only 2"), nor any large water storages, so others of our crew headed for the nearest house taps, scanning the landscape for buckets and

wide blackened tattoo just 20 meters from a nearby residence.

Roving teams of shovel-wielding troopers, their bandana-wrapped faces smudged with smoke, worked around the edges stamping out smoldering piles of leaves, while a hastily formed chorus line splashed water at the base of trees ahead of the fire front.

At one instant, the wind dropped, the breeze-driven flames changed direction, and—at last behaving favorably—they raced uphill, back towards what had been the tractor barn; the fire, in effect, had created its own back burn. Ceasing its advance, the fire was contained, and within moments the local fire department arrived. All that was left to be done was to spray down the smoking carcass of the barn.

### Learning the lessons

Afterwards, as we were eating lunch, I



*The author inspects damage to Earthaven's main road following spectacular flooding.*

containers in a desperate attempt to slake the ravenous hunger of the fire. Two hundred yards up the road the residents of the next house were surprised to learn of the fire raging nearby as our volunteer firefighters commandeered a garden hose and trash cans to begin supplying a thin stream of the precious liquid to a nascent bucket brigade. The output of the hose was pitifully slow and meager compared to the fury of the raging fire, but they began ferrying cans filled with water back to the fire front, and in doing so, discovered an escaped aerial bomb that had erupted in a small blaze well out of sight of us scurrying fire-breakers. They efficiently put it out, leaving a seven-foot-

conducted a quick interview of each person, asking, "what did you learn from this experience?"

With the awesome power of fire still vivid in our minds, the answers provided important clues for designing against fire catastrophe.

Two of the most noted observations were the great value of roads as firebreaks, and the tendency of fire to move upslope. The one place where the fire stopped cold was at the road: no more combustible material. (In the case of a tree-tunneled road, this would not be so.) As mentioned above, the moment the wind off the ridge slowed, the fire rushed uphill, back upon its own path, creating a natural back-fire.

It was obvious to almost everyone in our group that as permaculture designers we must be aware of the multiple functions of every road placement as a fire break, and that Zone 1 landscape design should discourage fire moving in, especially from down slope. Even with fire's tendency to move uphill, a home needs to have some firebreak on all sides. This could include: a chicken run, a roadway, a pond, garden space, or short-cropped grass. No conifer-lined driveway, please! (This makes an irresistible fire alley leading right to your house.)

Another point mentioned repeatedly among the impromptu fire-fighters: have fire extinguishers handy, and make sure they are operable. Tragically, the first person on the scene of the tractor barn fire rushed up when the fire was small — hence containable — with an extinguisher that failed to operate. In the early stage of a fire, an intervention point exists where the least amount of effort achieves the greatest effect. A working extinguisher or other appropriate tool applied at the right point in the early phase of a fire can prevent a tragedy.

Many people commented on the need for stored water — pumped water can be more than adequate for domestic and agricultural needs, but still fall far short of what is needed for fire control. That water needs to be available near every building — no less in rural areas than in urban — thus, catchment from every roof seems advisable. Other sensible suggestions included making a central location for storage of fire fighting tools, training fire response organizers, and establishing and practicing community fire plans and response.

Lastly, storage of combustible materials around a structure was noted as a time bomb ticking away. (How many of us readers have similar materials stored in and around our homes and businesses, and have been lulled by the passage of time into not considering the potential dangers?)

#### **An ounce of prevention...**

The overwhelming experience of most of us was awe and astonishment at the power and rapidity with which fire moves. There can be no substitute for preparation. In the event of fire, there is no time to develop resources; they must be already at hand, their use must be familiar and practiced, and there should be many layers of redundancy in the systems of response. The shock of encountering the fire left many of us in numb confusion, taking away the little power we did have to make a difference. Thus, experience and training for fire are necessary to overcome the body's natural fear and flight responses.

Almost all of us commented upon the value of community, and that a group of folks — going just on gut reaction — can achieve quite a lot.

In summary, design for prevention of fire-induced loss needs to include: strategically placed roads and ponds, low combustible Zone 1 area, water catchment, functioning extinguishers and other fire-fighting equipment at hand, and a planned community response. **Water's Extremes**

Two catastrophic events moved through Earthaven EcoVillage in 1996, leaving unmistakable footprints of destruction, and alerting us to the power of natural phenomena: the extreme faces of water.

The aftermath of a severe ice storm in February left Earthaven's woodlands looking like a war zone. The destruction to trees was painful to see: broken trunks and snapped branches in every direction. Residents said it also sounded like a battle zone, with continual snapping and crashing throughout the night. (The storm left a plethora of wildlife trees and far too many shiitake mushroom logs).

The situation generated two layers of concern. First, quite a

few big trees went down, enough to spook the community into wanting all trees taken down within falling distance of future dwellings. The result of this was a more thorough look at the role and quality of trees in the Zone 1 landscape. Indeed, trees leaning towards dwelling sites were marked for removal (to be sawn into lumber and used in the buildings), and all community members were encouraged to mark any trees in the area that they felt attached to or special towards. The community's Site Committee and Keeper of the Trees evaluated potential safety concerns, then, in effect, the remaining trees in the village area were timbered by horse loggers and cut into lumber on site by a portable sawmill. Trees also blocked our road immediately after the storm, raising questions of evacuation, supply to an isolated rural settlement, and having equipment on hand to clear large numbers of fallen trees.

The second concern was of a damaged forest made more vulnerable to fire. The broken timber was primarily mature and

***"The overwhelming experience of most of us was awe and astonishment at the power and rapidity with which fire moves."***

dying jack and short-leaf pine and some red oaks. With a massive amount of combustible litter on the forest floor, the summer and fall ahead looked to be an especially dangerous time. Eventually, a regular program of selective harvest will reduce the overburden of dying pines (which reflects the successional stage of this young forest) and speed succession toward a more stable species composition. We can also expect to design our road system to create firebreaks around future dwelling areas.

#### **The power of flowing water**

As it turned out, the following early autumn was a wet season, which relieved us of concern about fire during this usually dry period. But the rains brought another form of danger. After two especially heavy nights of rain and thunderstorm, a 400-year storm event descended upon the mountains surrounding Earthaven, dropping 11 inches of rain in three hours. The earth was already saturated from a month of almost daily rain: there was no place for the water to go but downhill. And that it did!

The creeks in the Earthaven watershed had been flowing without problem—even with all the previous rains—yet under torrential downpour the creek waters rose several feet within 15 minutes, inundating all the adjacent floodplain: two cars floated downstream, the lower section of an "Airstream" trailer near the creek was buried in large river rock, a massive oak footbridge (35 feet long, 29 inch diameter) previously perched five feet above creek level washed several hundred feet downstream, and all three stream fords and footbridges blew out. In addition, the creeks jumped their beds in several locations, scoured out several sections of road surface (removing several thousand dollars of freshly laid rock and gravel), and at one vulnerable spot, the creek jumped its meander and took a huge bite several feet into our main road, leaving just enough room for a light vehicle to squeeze by between the drop-off and an up-sloped cliff. (See photo)

In effect, the community was cut off: no other way in or out, except by foot. To pitch the drama even higher, the flood roared through at midnight, when a response to it was most difficult. The waters obviously disrupted the patterns of many animals besides the humans. One particularly disgruntled copperhead (a poisonous snake) struck a community member (though with little effect as it hit the ankle bone), another man was nearly swept away in his car, the phone line was cut by the flood waters, and Hur-

ricane Fran was due to hit the next night!

(The story goes on, but not to leave the reader suspended, Fran never showed her face in western NC, the cars were dug out and moved to higher ground before being hauled to the local mechanics—one is still in use, although its owner says that on occasion it releases a smell of mud and salamanders; the other didn't respond to resuscitation. The road was moved several feet away from the stream cut, and the stream rerouted at that spot. However, its natural propensity is to move in the direction that the road happens to occupy).

From a village design perspective, these disasters contain a silver lining, for they bring to the forefront the necessity that design include and respect all possibilities of extreme natural phenomena, including fire, flood, and ice. (Wind and earthquake are also possible catastrophes, but haven't struck us yet.) They also reveal to us the force of the elements we must reckon with. We are better informed of the potential flows of water across our road, for example, and can more accurately place berms, drains and revetments to divert future floodwaters and reinforce vulnerable streambanks. We have learned that maintenance of our streambanks is important to prevent the damming effects of fallen logs. We will not use floodplain areas for parking, let alone for buildings. We will prepare evacuation plans, take care to have emergency supplies well cached, and look into back-up communication systems.

We often excuse shortcuts in implementing thorough design under the illusion of "too costly, not enough money available, would be nice to do but..." Yet not to consider, or worse, to ignore these implications, may result in unnecessary loss of life or property to a family, community, or village. One only needs to look catastrophe squarely in the face once to learn the cost of ignoring the power of nature.

Permaculture seeks to avoid these disastrous potentials through observation followed by good, thorough design patterning, working with rather than against the forces of nature—both wonderful and fierce, thereby creating sustainable relationships with each other and our surroundings. Δ

*Andrew Goodheart Brown is the Earthdelper of Earthaven Council and a special voice for the tree beings of its forest. He teaches permaculture design as a member of the EcoVillage Training Center faculty.*

## Remembering Who We Really Are: Design for Eco-Spirituality

Patricia Allison

Spirituality is an individual thing; in many traditions it is even considered a private thing. In creating a village, we need to design for the impact of the combined spiritual beliefs and practices of many individuals and, at the same time, design to influence spiritual practices toward a recognition of our true relationship with Earth.

We need to ask some questions: What does our spirituality teach us about the place of human life in the Universe? How does our spirituality define the role of Earth in our lives? How does our spirituality help or hinder us in creating sustainable human systems? How does our spirituality integrate with our daily life? Let's take them one at a time.

### 1. What does our spirituality teach us about the place of human life in the Universe?

In the Judeo-Christian religions, we learn that we are made in the image of God, that our bodies, our selves, are sacred temples to be respected and cared for as God's creation. In order for spirituality to be ecologically sustainable, it is necessary to redefine the individual, to expand the sense of self to include the consciousness of Earth and the consciousness of each of the cells of our bodies.

When we begin to understand that our blood is part of Earth's waterways, that Earth's forests are part of our lungs, that we are indeed inspirited "sacks of mud," we can begin to understand our place in the Universe as children of Earth united with Spirit. Not until we can know that our bodies and Earth are inseparable, are one whole entity, will we earnestly begin to pay attention to ways of healing and preventing further damage to Earth and its ecosystems.

### 2. How does our spirituality define the role of Earth (or Nature) in our lives?

Patriarchal religions tend to see Earth as a playground for humans, or a tool for the use of humans; at best, it is seen as God's property, of which humans are stewards. Nature-bonded spirituality accepts that humans are only one of many kinds of Earthlings, and that there is no hierarchy among the creatures. We are all made of Earth, created by its own life

processes, for its own purposes. When we see ourselves as equal with other life forms, we cannot justify indiscriminately cutting down forests, killing animals, draining marshlands, using pesticides and herbicides, or building nuclear power plants. We see Nature as our teacher, the Prime Intelligence of Earth.

### 3. How does our spirituality help or hinder us in creating sustainable human systems?

Most modern religions see Nature as something "out there," apart from humans. As long as we feel separate from Nature, we may fear it, we may idealize it, we may desire to exploit it. Many religions claim moral superiority over other religions or other peoples, or over Nature. The results of this supposed superiority have been slavery, war, factory farming, pollution, strip mining, and myriad other behaviors which certainly don't lead to sustainability.

### 4. How does our spirituality integrate with our daily life?

For many in our Western culture, worship is a once-a-week event which entails dressing in expensive, uncomfortable clothing, driving a car across town, and sitting on a hard bench in a square building which is devoid of fresh air, sunshine or the sounds and smells of Earth. Spirituality and the practical details of life are



kept strictly compartmentalized, making it all too easy to forget our spiritual precepts when we are making business deals or social plans.

When we remember who we really are, where Spirit really dwells, we know that every act is a spiritual act. Brushing one's teeth is a love song to God, planting a garden is an act of devotion to the Goddess, taking a nap is a spiritual practice. In a Nature-bonded, Spirit-filled life, prayer, play, work, and meditation all blend together; all are a way of making love with the Universe.

To enhance sustainable spirituality, we must pay attention to both physical design and social design. In designing the physical space, the first and most obvious factor is contact with Nature. We need lots of it! We need trees, gardens, meadows, woods, flowing water, still water, and access to uncaged, undomesticated, non-human animals. An essential need is an area which is absolutely left alone by humans, a place of wilderness - in permaculture terminology, Zone V. In order to create homes in harmony with Earth's cycles, we must have solar access, non-polluting ways of recycling our body wastes, building materials suited to passive heating and cooling, and clean water.

Spaces (both outdoors and in) for the entire village to share worship, ritual, and ceremony need to be planned, as well as little niches for private prayer or meditation. A retreat hut, or several, can also be placed in a quiet corner of the land, for times of contemplation and spiritual renewal. A small design item can be the placement of "reminders" in scattered spots on the land, such as the mynah birds in Aldous Huxley's utopian novel, *Island*, whose sole utterances were, "Here and now, here and now." Another reminding device, used in Buddhist temples, is the mindfulness bell, rung at irregular intervals.

An important first step in social design is creating non-hierarchical groupings of people. Let the village be a leaderful group, with different people taking on leadership roles and, when their work is done, stepping back and allowing another to step forward. Create economic niches in the village, to provide people with opportunities for earning a livelihood in a sustainable and spiritually rewarding way.

Much of social design consists of giving people permission to be the holy human animals that they are. Let us have permission to pray and sing and dance in public, on any occasion! Let us have

permission to cherish our bodies, and others', without the bonds of false modesty. Let us have permission to love many people, in many ways; let us be free of the concept that intimacy is only available in sexual relationships.

If there is a particular practice which most Earth-bonded people practice, it is celebrating the seasons and cycles of Earth and of Earthlings. Design for seasonal rituals, for initiation ceremonies and for rites of passage. These are the spiritual glue which will hold a village together and see that it remains an asset to Earth for many generations.

Earth-bonded spirituality is not a religion. It is an attitude toward life which is held by people of diverse spiritual belief

systems - pagans, Hindus, Buddhists, Christians, wiccans, Taoists, Native Americans, and Jews have been among some of the participants in Earth-bonded rituals which this writer has facilitated. We can all be a part of recreating a healthy place for humans on earth. As the words in a song by Steve Torma say,

*"Gather round, my brothers, gather round,  
Let us harvest our fields of love.  
Gather round, my sisters, gather round,  
Let us harvest our fields of love.  
To heal and to celebrate is why we are here.  
To heal and to celebrate is why we are here."*

Patricia Allison and Steve Torma are both new members of Earthaven.

## Spirit in Community

### Chiwa

The elusiveness of Spirit in the physical makes this subject interesting to wrap words around, and yet how can we speak of community without it? The quality without a name, the fifth sacred thing, the sixth sense, the Fourth Dimension, all allude to this amorphous part of us - the earth, the sky, the clear bead in the center. We try to break it down into chewable parts. We create duality, Yin and Yang, which for me, because of Spirit's movement and ever changing quality, at least becomes a hand hold.

Once defined, even in the slightest of ways, then it becomes that juice, that giggle that we desire to have wrapped around us like a warm fog blanket to cushion us as individuals... then to step out to grasp another's hand, without bruising, without smothering—listening, tiptoeing out into the open circle. How to sustain THAT without fences, without needing armor to protect, because by its nature armor also inhibits.

Consensus, and deep love for the Earth and its glorious envelope of air, wind, and water - commitment to THAT on an individual basis, bringing the life force up through ourselves

consciously each day, reminding ourselves of the beauty surrounding us, connecting with that beauty in ourselves each moment, and helping others by example, and compassion (for we have all been on both sides of the veil many times) - that is the Way.

Now is the time to experiment with ways to step out together. Let's be the living experiment, let's make it happen this time. Let's hear from everybody. This is only a spark. What works for you? Let's not keep it a secret anymore.

Sharing deeply about our personal lives, connecting with the parts of ourselves and others that need to be voiced, works for me. Consensus works, allowing all voices to be heard, and encouraging them to be heard. Helping each other heal with our variety of ways. Honoring each others' paths and delighting together as each one of us explores a new cove of the ocean of being. My knowing tells me that, though it's all the same ocean, each of us has a gift to share from it, in our own unique way. Community, and permaculture, is about giving those gifts to each other into eternity. Δ

Chiwa is a potter living in Asheville, NC. She is a founding member of Earthaven.

### Los Angeles Ecovillage

L.A. Ecovillage, located in the middle of the city, recently acquired its first piece of real estate—a 40-unit apartment building in the center of the "village." Loan money to buy the \$500,000 building came from an encouraging array of private and public sources. Significant loan assistance came from the sustainable communities movement, including Gaia Trust and The Fellowship for Intentional Community. These monies from committed private sources helped convince the L.A. Community Redevelopment Agency (CRA) Advisory Committee to grant \$25,000 for the acquisition, and The L.A. Housing Department to approve

a low-interest loan for what it perceives as a viable innovation in affordable housing.

As Lois Arkin, the coordinator of L.A. Ecovillage, points out, "Maybe the most important point is that some public decisions are becoming a natural outcome of all the work that thousands of us across the globe have been doing for decades.... An interesting-sounding 'innovation,' [sustainable community], becomes the logical way to do things."

How does it feel to live in the L.A. Ecovillage, where they are celebrating their first big purchase? Lois says it well:

"Every morning now, I wake up to the sounds of ducks and chickens in the heart of Los Angeles. I expect that as I live here in my

*continued, next page—>*



# Schooling in a Village Home

## "It Takes a Village to Raise a Child"

### Jean-Ann Marshall-Clark

"Mom, I don't mind what I'm learning, it's just how I'm being taught that doesn't feel good." So stated my nine-year-old daughter, Morgan, after attending a traditional public school for two months. Our family had relocated in March, 1996 from California to Western North Carolina to become a part of Earthaven, a permaculture village near Black Mountain, N.C. Since a formal school has yet to be established at Earthaven, those of us with children have to be creative in structuring an educational environment for them.

In California, Morgan and my other daughter, Galen (age 6), attended an alternative public school named after Christa McAuliffe, the teacher killed in the Challenger space shuttle explosion. At that school, risk taking is encouraged, conflict resolution is taught beginning in kindergarten, and as much as possible the education is holistic and contextual. The arts are viewed on an equal level with science and math. Parents are required to attend an aiding course and to teach in the classroom; they raise funds and attend field trips. Environmental education is extremely important, each class has a garden to care for, and beginning in the third grade children go on week-long outdoor educational trips twice a year.

Though that school was wonderful and was a community in and of itself, it only went through the sixth grade. After that the children, for the most part, were

"mainstreamed" back into the traditional education system. My husband Greg and I wanted a longer lasting and more complete community in which to raise our family. Can we live with the public schools?

When our children enrolled in the local public school in North Carolina, Greg and I faced a philosophical turning point in parenting. Would we keep our children in the public school and make do, offering supplemental education at home? Would it be enough? Our children gave us our answer: Morgan's and Galen's daily questions about why this and why that, and the needless rote memorization and unnecessary repetition of facts which was required as part of their classroom work helped us to decide to "walk our talk." We first looked at two of the more progressive schools in the Asheville area. They had fine programs, but they didn't promote parent-teacher participation, and they were expensive. Our next choice was homeschooling.

It was a challenging choice for me. At the time of our decision, Greg worked full-time as an arts administrator, which meant that I would be the primary teacher. I was re-establishing my career as a dancer and creative arts teacher locally, and the commitment to homeschooling promised to make doing that much more difficult. Moreover, I was brought up to believe in the public system—eight members of my immediate family teach in public institutions. The public schools are supposed to be for the good of all.

### The changing face of public education

Historically, public schools were community-oriented environments where families came together and hired a teacher, often housing that teacher and providing daily necessities. The reason most schools in the United States have summers off is because the children, in the predominantly agricultural days of our country, were needed at home to help on the farms. Public schools were conceived as places where children of all classes, races, and religions could get a basic education. Politically this idea supported the very American idea of equality.

I was fortunate enough to attend a progressive integrated public school, strongly supported by its community, in Berea, Ohio. Greg went to a private Quaker school in Baltimore, Maryland. Unfortunately, most public schools today are not supported by their communities, or to be more accurate, the teachers, children, and parents are not supported.

This lack of support is due to various cultural pressures on the family, including the breakdown of communities, declining real incomes, and the pitting of social groups against one another by politicians covering up corporate greed and public corruption. Also, public schools are increasingly out of touch with what we are educating for and what future generations really need to learn; generally schools educate for the status quo. Many schools, public and private, measure their quality

### L.A. Ecovillage, cont'd

neighborhood over the next 30 or so years, those animal sounds, along with the sounds of children, will ring clearer and stronger. And the sounds of cars, and the general polluting buzz of the mechanical city, will give way to the natural sounds of a city in harmony with its life support systems, neighborhood by neighborhood."

A lovely, strong vision, now farther along on its way to becoming true.

*Reported in issue #91 (Ecovillages) of Communities: Journal of Cooperative Living. Contact Communities—Back Issues, Alpha Farm, Deadwood, OR 97430. Single issue \$5 to Communities. Subscriptions are \$18 USA (\$22 foreign) for four issues. Send payment to FIC, Rt. 1, Box 155-C, Rutledge, MO 63563. Phone: 816-883-5545.*



by how high students score on standardized tests and how many graduates go on to socially acceptable careers in the professions or the corporate world.

**Different values**

When I registered with the state office in Raleigh to "open" our homeschool, I discovered that many Western North Carolina families are educating their children at home. The officials I spoke with suggested that the state's large rural population and the official sanction of corporal punishment in the public schools accounted for the popularity of home schooling. Another impetus for home schooling is philosophical. Researching homeschooling materials and support groups I discerned two distinct contingents. One is families homeschooling to preserve traditional or fundamental religious beliefs and the other is families with progressive or alternative social values.

In developing our curriculum, Greg and I drew on our own knowledge as well as the education and experience we had had at Christa McAuliffe School in California. I also joined a support group of families who, like ourselves, viewed homeschooling as a more nurturing learning environment for their children. The books by E.D. Hirsch Jr., *What Your First Grader Needs to Know* and *What Your Fourth Grader Needs to Know* have been helpful resources.

#### **Learning from life**

We then began to develop how and what we were going to teach. We believe in an integrated lifestyle, where daily activities are also learning opportunities. In a permaculture sense, we really want to use our "edges." In an educational setting this is demonstrated by projects such as the construction of a Japanese screen which my daughters and I are building for our cottage at Earthaven. The skills and knowledge for this project include math: calculating measurements; art: studying a Japanese painting method and then creating with it; architecture and culture: researching how the screens were originally constructed, why they were used, and how a traditional Japanese house was built. We still need to work on basic skills but projects such as the Japanese screens make real the reasons for learning how to measure and compute area and perimeter! In conjunction with the screens, Morgan, Galen, and I studied *haiku* (a style of Japanese nature poetry) and wrote several as an integrated way to practice language arts. But to us, education is more than "academic"

activities. It's a nurturing of mind, body, and spirit and it is here that our village community is an invaluable part of our daughters' educations as well as a special joy and support to us as parents.

#### **It takes a village...**

Earthaven is a community in its initial creative processes. Buildings are being built, land is being readied for use, and our human infrastructure is being generated. Our family spends almost every weekend at the village. In addition to what Greg and I design for Morgan and Galen at home, there are hands-on educational experiences for them and for us at Earthaven. Many of the members have embraced our children and include them in their work activities.

Morgan worked with Leon one day mixing earth plaster for his cottage walls, Galen gathered sawdust with Jill to supply the composting toilets, Darren sat with Morgan and explained hydrology, as the hoses were being laid to our reservoir.

It was a memorable day for the girls when the horse loggers came to Earthaven to cut trees. We all witnessed how humans and animals can have a special working relationship, and we saw that that partnership was a relatively harmless way to work the woods. Last weekend the girls joined in on the building of Earthaven's straw bale kitchen. I delighted to see the adults including them in the activity and watching Morgan and Galen as they clambered over the roof. *cont'd next page->*

## **Design for the Next Generation**

### **Patricia Allison**

We begin with the highest ideals: we want a clean place to raise our families, a place where our children can grow up in safety and know themselves as part of Nature, and so we seek community to support and realize these ideals. All too often what happens is that young families move to community, their children grow up, and their children leave.

This is the worst thing that can happen to us, if our aim is to create sustainable community. No matter how much earth healing we do, how many sustainable systems we implement, all is for naught if we don't have new people coming in to maintain the systems we've begun, to continue the vision.

Why do so many young people leave?

Well, I've given the matter some thought, read a few books, and talked to some folks - other parents and several young people. I have a personal stake in all this research, of course. I'm a member of a newly-forming community which is just beginning to create a policy on teenagers, and I have a 16-year old son who is currently floating in indecision between community, city, or "the road," and between homeschooling, college, or job.

What it looks like to me is:

- **They leave because they are in puberty,** and feel isolated and different from everyone else on the planet, including the other kids in the community. If ever there is a time in the human life cycle when it is "natural" to leave home, puberty is that time.

- **They leave to have worldly experiences.** Often they feel isolated from cultural events - especially music, media and education - that define young adulthood in the larger culture. They leave to "check out" the mainstream.

- **They leave because they are often more idealistic than their parents,** wanting an even simpler lifestyle than their community offers them. Says Melina Bloomfield, who has recently returned to The Farm, a large

intentional community in Middle Tennessee where she was raised as a child, "The people who created the Farm did as much as they could, taught us as much as they knew. They gave us their tools and we can use them now to grow and make it an even better place."

- **They leave because they feel marginalized in the community culture** - not valued as individuals, but seen as just someone's kid. They don't see a place in the community for their ideals to be pursued, their needs to be fulfilled.

- **They leave because they feel pushed out.** Sometimes there is no distinction made between children of members and other adults wanting to join the community, and the financial burden of becoming a full member is too great for a young person to bear.

Sometimes kids feel pushed out because of their parents' unrealistic expectations of them. "It seems like some parents might be having regrets about some of the decisions they made, and may be wanting us to fulfill paths they didn't take, especially in the straight world," says Melina. This can lead to constant criticism about school, appearance, and choice of friends.

Sometimes the community doesn't want particular kids around because of the apparent lack of a "work ethic." At The Farm, there is a strongly held opinion among some adults that "these younger kids just don't know how to work." The kids I interviewed felt that this was a direct result of "the changeover" - from communal living to private ownership in 1983. Before the changeover, households and individuals were directly engaged in service, helping other people through communal sharing and by volunteering with PLENTY (an international relief organization created by The Farm); the first generation of children raised on The Farm learned this ethic of work-as-service by seeing it in action. After the changeover, people were directly engaged only in taking care of themselves. It seems that the younger group

*continued on page 39*

## Earth and Spirit

The land itself presents other learning experiences. Galen is becoming an expert on frogs. She catches these tiny creatures and proudly, carefully, brings them to us to show and then replaces them where she found them. When rains from September's hurricane generated a flash flood at Earthaven, we all witnessed the aftermath of its amazing power. Normally the creeks are gentle and quiet and both girls enjoy building rock ponds and "homes" for the fish. Morgan loves to climb the trees. The girls are safe on the land; community members keep them in their awareness as Morgan and Galen freely roam the current village area.

Spiritual questioning and a desire for awareness begin early in children.

Answering their often very astute questions is not easy. Meaningful rituals are extremely important for children as well as for adults. All ages are welcome at ceremonial gatherings at Earthaven. Morgan and Galen recently participated in our Fall Equinox celebration which included reflective sharing in pairs; dancing, singing, and a welcoming ceremony for new members. Morgan constructed origami boxes and helped to give ritual gifts to the members being honored. Galen assisted in the lighting and distribution of candles in another part of the ceremony. Both girls joined in the singing and dancing. After the evening had concluded, Morgan and Galen expressed how much fun they had had, and when was the next gathering. (How

many of us adults have remembrances of fun at church?)

It is our hope to have a school for young people at Earthaven. But we already have a "classroom without walls." Earthaven is a rich laboratory for Morgan and Galen in which to explore the natural world as we create new ways to live with the Earth and its beings. We are teaching our girls to be life-long learners, to live with mutual respect for other beings, and to continue to seek answers to spiritual questions. Greg and I are proud of the homeschooling we are doing with the children, but community is the context and framework in which it all makes sense.  $\Delta$

*Jean-Ann Marshall-Clark and her family live in the Earthaven tribal village*

## Design for the Next Generation, continued

of kids learned a work ethic of selfish survival, which neither convinced nor inspired them.

- **They leave because they haven't learned the value of their difference from the rest of the world,** the value of community itself. They don't find out until they leave, and then, as Melina put it, "I found out I was a celebrity because I had been raised at The Farm."

So, with all these reasons for young people to leave us, how can we keep them home?

Well, as permaculturists, we can treat young people the way we would any other valuable ally in our garden - we can encourage their presence and make it easy for them to leave and return again.

- **They need peers.**

The first ingredient needed is often the hardest; they need other young people living in the community. This is the most often-heard complaint of young people living in intentional community - "There's not enough people my age living here!"

This truth is borne out by the experience of the kids at The Farm. According to Ryan Straton, one of the blessings of an early childhood on The Farm is that he got to "run with the pack," got to experience tribal culture, and at the same time felt free to be an individual in "the youth tribe."

- **They need friends and role models of all ages.**

When children have a chance to work and play with people of all ages over a long period of time, relationships get brewed and stirred through the years, building respect, security, and trust. The function of having role models of different ages is to facilitate knowing what to expect at each stage of life.

One of the benefits of living in community is the opportunity to have intimate friendships with older people and to have other adults - aunts, uncles, neighbors - who are as much a part of your daily life as your parents. All of the kids I talked with at The Farm had had meaningful relationships with other adults.

Melina had radical pacifist grandparents as role models and, as she entered teenage years, Stephen Gaskin became a mentor for her. Milia was blessed in her early teens to have had three women in her town who created a series of awareness and communication workshops for her and some of her friends.

It's important that kids and older people get a chance to have fun together, not just to work together. Creating plays and concerts, fruit- and berry-picking, making found-art sculptures, telling stories and playing games are all very real ways of building relationships.

- **They need meaningful work - real work,** not make-work or the dregs left over from "important" work done by older people. In a settled tribal society, there are age- and size-specific jobs which people will float in and out of, as their physical and mental abilities and interests change through the years.

Youth from 15-25 years are the steam engine of any community. They have the energy which the community needs to make buildings, bridges, and babies. If not channeled into physically creative activity, this energy may be lost or become destructive.

- **They need opportunities for training/ apprenticeships or higher education,** so that they can become financial equals with other adults, while living in the community. Although the long-term vision of informal learning happening as an organic process is an ideal to be pursued, present-day teenagers want formal agreements about specific learnings and specific duties, for agreed-upon periods. The medieval guild system, with mutually beneficial relationships between different ages and skill levels - apprentice, journeyman, and master - offers us a good model to build on.

"What's missing is the feeling of the youth being an integral part of it all. Sometimes it feels like the adults came and created this whole scene and we are just reaping the afterglow - and that's really not all that rewarding. Kids need to know that they are a part of the build-

ing process, that they have the skills needed to continue what's been started," says Melina.

- **They need to be acknowledged as no longer children.**

Celebrating the stages of the human life cycle with ritual and ceremony is an essential part of reclaiming our birthright as dwellers in the land. Through initiation ceremonies, young people receive acknowledgment from the community that things are different now. Claiming them as members of the tribe affirms their individuality and, at the same time, bonds them to the land and to the community.

The young people at The Farm agreed that a tribal initiation was of highest importance, and that it is important to welcome young people into Women's and Men's Circles with appropriate rituals. They recognize that a lot of good work can be done in the Circles to heal the rift between genders. They realize too, that because they have had the privilege of forming close friendships that are relatively free of gender bias, part of their work is to prevent the occurrence of sexism.

It is important that there be a real community into which the young person is enfolded. If the adults of the family/ community have no union, there will be no place of spirit from which to receive the young person, and the "rite of passage" will be but a hollow ceremony. To whatever degree it can be done, the rifts in the adult community must be healed first, so that there will be a real, whole tribe to welcome the new member.

It is also important that initiations work real magic. "I don't think that doing some ceremony or saying some words or doing a dance is going to change who I am or how people feel about me. I want something real to happen," says Robin Allison. He recently read of an initiation in which a Men's Circle "kidnapped" a young man of their tribe, blindfolded him, took him to a strange place, and told him to walk three paces forward and jump. He jumped - into water, and into the circle of men that he trusted to do him no harm.



Now that's something *real*!

• **They need to get out and see the world.**

We need to create ways for young people to leave and to come back (ideally, with a little money earned along the way). The adult community can provide a network of social and educational opportunities through their connections with other intentional communities, which will serve traveling youth in two ways.

First, there's a security in having a destination when traveling - knowing that there is a friendly face at the end of the road, knowing that it isn't necessary to completely cut yourself off from family connections in order to prove your independence. Second, the community's travel/outreach network becomes a matrix onto which the young person can form his/her own unique network of relationships.

Writers Robert Heinlein (*Time Enough for Love*), and Ursula LeGuin (*Always Coming Home*) both describe utopian futures in which communities trade teenagers for a period of months or years. This seems like a sane way of meeting the young person's desire to experience other lifestyles and his/her need to obtain training or apprenticeships - while providing her/him with a support system/safety net.

Another good reason for teenagers to travel is that often it is necessary to get away from home in order to recognize the treasure of living communally. The advice from Milia is that parents need to "... keep talking to their kids, telling them why they live like they do, ... what values made them choose the paths that they chose."

• **They need housing separate from their parents.** "If a teenager's place in the home does not reflect his need for a measure of independence, he will be locked in conflict with his family," say Christopher Alexander, et al, in *A Pattern Language* (an excellent, readable book which continues to surprise me with delightful news ways of thinking and seeing). A teenager needs a place from which she can come and go as she pleases, a place where her privacy is respected. At the same time, she needs to establish a new, less dependent relationship with her family. Therefore, Alexander's advice is "... to mark a child's coming of age, transform his place in the home into a cottage that expresses in a physical way the beginnings of independence. Keep the cottage attached to the home, but make it ... far away from the master bedroom, with its own private entrance, perhaps its own roof."

Another pattern that Alexander defines is the "Teenage Society" - a place apart from but within the community, which would take the place of high schools. It would be a mirror of adult society, in which kids could find empowerment in being responsible for their own space, for their own social life, and for their learning process, while being watched over and helped by adults.

Probably the thing that kids (in fact, all of us on the path of healing Earth's wounds) need the most is lots of **encouragement**. It takes a lot of courage for kids to enter the present-day cultural and environmental reality and decide

to do something about it; they need our continuous respect and support.

So, we may not be able to keep them home. What we can do is recognize their need for autonomy, respect their wisdom, and encourage their idealism to flower. We can trust that, given the right information, our young people will find true community of the heart, and all communities will be blessed with a goodly portion of these young fireballs as they settle to

Earth and begin their nesting processes. Δ

*Patricia Allison birthed her son Robin at The Farm in 1980 and now lives at Earthaven Village in the North Carolina mountains. She teaches permaculture design both at home and at the Ecovillage Training Center, and contributes often to The Permaculture Activist. Her ambition in life is to become a subsistence gardener and earth sculptor.*

## Creating a Teenage Society

### Patricia Allison

I spent a delightful evening in the kitchen of the Ecovillage Training Center at The Farm in October, visiting with four passionate young people who have some exciting ideas about community, networking, and youth empowerment. With me were **Melina Bloomfield**, age 21, who was raised on The Farm, spent a few years mostly away, and has recently returned; **Ryan Straton**, age 20, who spent his first 10 years on The Farm and returned this year; **Milia Lando**, age 22, who lived on The Farm for only a few months as a young child, but who has visited and has now returned to live there; and **Annetta Müller**, age 23, who is visiting The Farm from Germany.

These Farm fireballs have got big ideas and high ideals. They want to create a global Teen Society, a network of teen villages linked electronically through the Internet, physically through visiting, economically through trade and work exchange, and spiritually through a common vision of eco-balance and the empowerment of all persons.

The first step is to establish a Youth Village at The Farm—a village within a village. They have begun by restoring a building to serve as the youth center. Three or four "kids" (*Note: this is the word the kids use, and is not considered demeaning.*) will live in and manage the center. It will have a communal kitchen and places to sleep, play music, and dance—a space for creating a "group head."

A major function of the Youth Village will be to welcome traveling youth. The visitor would be given a tour of The Farm, shown the work projects available, and offered the opportunity to live in a communal household of young people.

From the beginning the Youth Village will integrate art, service, education, and economics. Young artists will be encouraged to display or perform at the Center for sale or trade. The Center will be developed along permaculture principles, with solar energy, composting toilets, orchards, and gardens. Part of the plan is to seek college credit for internships at The Farm, with participating kids housed at the Youth Center.

The Youth Center is only the beginning of the projected Youth Village. The long-range plan is to build cabins around the central building, creating a co-housing complex, and to allow youthful entrepreneurs to create small businesses in the Village. Annetta has visited

Auroville, a spiritual community in India, where the youth have created their own sub-village. She says, "I think the sense of freedom to experiment, and the lack of rigidity about how things are supposed to look is what allowed Auroville to create a Teen Village." These qualities would well serve us all in our quest to encourage individuality for the good of the whole.

The most Farm-like aspect of their plan (taking the cue from the historical example of The Farm's nationwide caravan of the early 1970s) is for the kids to take their message on the road. The Kid Village Bus Tour will be a traveling workshop about teen empowerment and communal living. The basic message: create community, live communally; youth can do it. "I can't comprehend any other way than sharing. I want to spread propaganda about how it works," says Melina.

"I grew up in a small village and would have loved to know about communal living," says Annetta. "Other kids need this information, too - in my village in Germany, there were gangs of boys going around destroying things because there's no place for them; nothing for them to do with their energy."

Another aspect of the bus tour will be economic. The kids plan to sell their own crafts, and items that adults from The Farm may offer for sale. Aside from generating some income, the kids know that acting as sales representatives will help to generate trust from the adults.

"Adults seem afraid we'll screw it up; they seem to forget how important they felt the vision was when they were carrying it. They're afraid we'll make the same mistakes they did. But we've learned from them," say the kids. They've learned things like not taking on just anyone who shows up at the door and the importance of doing personal growth work. Most importantly, they've learned that change has to be gradual.

In many ways the vision of the Farm kids is not too different from what their parents' vision was 25 years ago, when The Farm was first settled - creating a comfortable communal home with world impact. Says Milia, "We just want to continue living in the country, with our friends, in a way that feels good to us, surrounded by beauty, and have networking and activism that keeps us in touch with the greater community." Δ



# Natural Building Materials

## Ted Butchart

"Nature's imagination is richer than ours," according to physicist Freeman Dyson, and that has certainly been true when it comes to building materials used in the last half century. Natural and local materials have almost dropped out of American and Canadian building practices, not because they are inferior in any way, but because of the amount of hand labor required.

After World War II, the U.S. launched a concerted effort to build huge numbers of single-family houses. Below-cost logging was initiated, national transport of manufactured items was subsidized, and, as a result, it became no longer cheaper to use labor-intensive materials. The evolution of building technologies since, to reduce the need for trained, or even untrained labor on-site, has led to mechanizing the building process. Materials and applications for "standard" built homes are often so technical and complex that ordinary folks are unable or unwilling to tackle a project.

Conversely, natural building techniques offer accessible alternatives during construction and often yield far superior living spaces:

- Intriguing surface texture and form
- Significantly cheaper to build
- Less toxic indoor air quality
- Anyone can help, regardless of strength or ability

My bias is to use materials that are as local as possible, and with as little added refining as possible. What is on-site, and what is readily accessible should be the first questions in the process of determining major building materials. The appropriate choice among the many natural building techniques will be determined largely by:

- Local climate
- Your individual or collective physical strength
- Time constraints
- Size and complexity of the structure
- Desire for sculptural expression

As you consider the use of natural materials, be aware that in general they take time. Sometimes lots of time. On any project there are three interrelated qualities: Speed, Quality, and Price. You

can have any two of them. If you have little money then you either have to spend more time, or accept lower quality. If you want to save time, you have to expect the project to cost more or accept lower quality. If you are willing to spend time, then you can have high quality and a lower price.



*Timber framing; mixing clay slip*

The advantages of investing extra time on your project can be invaluable and unexpected. Ianto Evans of the Cob Cottage Company relates tales of cob builders physically healing during the course of a workshop just from getting down in the dirt and making a building with their own hands. I have watched hope rekindle in people introduced to straw bale building. A whole house made of clean, non-polluting "waste" material makes a huge contribution to a better environment — and renews inspiration that one person can truly make a difference and live beautifully. The ability truly to invest yourself in a building, and have it truly reflect you, is greatly enhanced by taking time: time for the structure to evolve, time for you to feel the poetic potentials of the space, time for your evolving craftsmanship to be expressed.

### A Natural Builder's Palette

The techniques described below fit within a spectrum running from pure soil to pure straw, with most of them

somewhere in-between. Toward the all-soil end is rammed earth: pure mass. Adding a bit of straw for reinforcement results in adobe, cob, and earth plaster. Moving farther down the spectrum toward all straw is the traditional North European technique of clay/straw, or light clay: essentially loose straw with a very light coating of clay slip. At the far end of the scale we find straw bale construction, where the mass is almost negligible and the insulation factor is increased substantially. Some of these techniques are thousands of years old, straw bale barely a century. Yet even the latter is venerable by comparison with the plywood construction that is today's norm.

All of these techniques use local soil or straw, which is an agricultural waste product. There are other natural materials available to the designer, but their appropriate use is harder to argue and depend entirely on local conditions. For instance, cord-wood construction requires an abundance of small diameter trees (i.e., Alaska) and lack of a higher use for those trees. Stone walls may work in some places, but the high mass can easily make buildings as hard to heat as an English castle. This article will stick to the soil-to-straw spectrum of materials.

### Why It Works

First, a couple of Science Fun Facts, to aid in deciding which method is most appropriate for your site. Fun Fact #1: Everything radiates. Your body radiates, the wall radiates, the window radiates. The rate of that radiation depends on the temperature of the thing radiating. So, if you are hotter than the window you will radiate more heat than the window will radiate back at you, so that side of you will feel chilled. Conversely, if the wall is hotter than you, the net radiation is back at you and you will be warmed (or overheated) by the wall.

Fun Fact #2: The amount of heat an object can store is related to its mass. A fist-sized stone can hold more heat than a fist-sized piece of wood. Dense wood can hold more than light wood. A light stud-frame wall can hold less heat than a solid wall of soil. That light wall will be easier to heat up, but it also will cool down very quickly compared to that heavy soil wall, and will give little shielding from intense heat.

### What Works Where?

As a very general rule, in a Hot-Humid climate you want the building to cool off as quickly as possible. You do not want to use great mass here. Leave it open to the breeze and use light-weight materials. For

example, galvanized roofing here will yield a stiflingly hot interior during the day and will continue to radiate uncomfortably on into the night, whereas a lightly thatched roof absorbs and re-radiates very little heat.

In a Hot-Dry climate we go just the other way. Here mass can be used to absorb excess heat during the day, yielding a relatively cool interior temperature. If the massive wall is correctly sized, the heat will migrate through the wall by day's end and then radiate heat into the interior during the cool night. Using very light materials here would cause the building to overheat quickly during the day and require outside heating at night.

Traditional construction in hot-dry zones was of heavy adobe or stone; desert dwellers have also used natural caves and underground dwellings. However, if that massive building is not picking up adequate solar gain during the day, it can act as a very uncomfortable "freezer." The walls can absorb a great deal of heat both inside and out. If they are not pre-heated by the sun, they will be cooler than you are and will accept and capture nearly all of your body's heat radiation, leaving you miserably cold or requiring massive amounts of heating. Where solar radiation is not dependable, you are better off using high levels of insulation in a relatively light wall.

For similar reasons, the use of heavy mass materials in cold-dry and cold-wet areas can yield a structure that is nearly impossible to heat up: it just keeps absorbing everything you radiate toward it. By moving the mass to the inside of the building, and putting insulation around the outside, you can compensate for the lack of dependable solar gain: once interior mass (slab floor, stone chimney, etc.) is warmed, it stays warm because it is insulated.

One way to get a hint of what techniques will work best in your region is to look at local indigenous buildings for clues: How were they designed to accommodate sun and weather patterns? What materials did they use? What do you have nearby? Local availability saves energy, money, and time. It makes little sense to use an energy-saving material if it must be trucked in from some other region.

With this very quick overview in mind, let's survey a few of the natural building methods on our palette, starting at the mostly-soil end.

Soil - Sand - Straw - Water

Cob is the traditional English cottage material. Mix clay soil with sand, or very sandy soil with clay. Add water and mix well (preferably with your bare toes moving to a lively beat) until a stiff mud is formed. Then knead long-ish loose straw into it to bind it together, just like kneading a loaf of bread. Each of the resulting loaf-shaped lumps is a cob. A load of these cobs is wheeled over to the rising wall and the lumps are stacked and worked together to make a monolithic structure. Usually the walls start out quite broad at the base and taper as they rise.

Cob is the ultimate sculptural building



*Applying earth plaster to a clay-straw wall which has been slip-formed*

material. Arches, coves, bends, benches and sculptured relief come easily and almost necessarily from this material. Imagine building an entire house from modeling clay. That is how easily it can be shaped.

That is also how heavy and massive it is to work with. Cob takes time and manual labor. Lots of manual labor. It has excellent thermal mass, but in some climates that mass needs to be joined to an insulating material to work most efficiently in the heating and cooling of your structure. Cob is also perfectly fire proof and earthquake resistant.

Adobe is one of the oldest building materials. The recipe is not as critical as for cob, and the mix is placed into forms and sun-baked, rather than being placed onto the wall wet. These hardened bricks are then "mortared" together using wet adobe mud. Consisting basically of large

bricks, adobe walls cannot be sculpted as easily as cob walls, but otherwise will function in a similar manner. Again, lots of time, heavy labor, high mass and low insulation, fire-proof, but collapses easily in earthquakes.

Earthen (adobe) Plaster and Adobe floors are also made with the same mix as cob. The difference here is simply that the binder straw is chopped finer (about 3 to 4 inches), the sand and soil is a bit less coarse, and the mix is soupy. Cob sand can be angular or rounded, but plaster sand should be angular. The finished mix has the consistency of a gypsum plaster, but none of the alkaline harshness. Be sure to mix the dry ingredients thoroughly before adding any water. It is strenuous enough to mix dry; after adding water it gets very heavy.

Trowel earth plasters onto the wall in 1/2" (maximum) layers, and allow each coat to dry completely before the next layer is added. The finish coat is made with more sand, (2 parts sand to one part soil, depending on clay content of the soil), and the straw binder is small enough to go through an 1/8th inch screen: very silky. This finish coat goes on much thinner than the base coats, and can be troweled as smooth as you like. Finished with linseed oil and beeswax, you get a surface that is durable and beautiful, fire-proof if not breached, and easily repaired.

Floors can be troweled on a little thicker. Start with a 2" to 6" base of rough cob, or compacted soil, then trowel down two layers of 1/2" to 3/4" of high-sand mix.

Clay - Straw - Water

Light-clay, or clay-straw is an old, old material that was used for centuries in Northern Germany. As with cob, there are houses up to 700 years old still standing made with clay-straw. The walls of those beautiful North European half-timbered houses were filled between the timbers with this mixture. The clay should be harvested from a clay deposit when it is dry and powdery, kept dry until used, and then mixed with water until it is fully suspended. This is known as a 'slip,' and has the consistency of thin pancake batter. Toss together six parts loose straw and one part clay slip like a salad, until the straws are covered with a thin coat of clay.

The coated straw is picked up and dropped into slip-forms that are temporarily attached to a timber-frame or post and beam frame. The clay-straw is tamped down firmly into the form, then the form is remounted higher up on the posts and the process is repeated. With a

bit of training, six workers can form the walls of a 1,000 square-foot building in five days, while having a lot of fun. (This assumes that the timber-frame is already in place.)

Once the walls are formed, there is no further work to do before plastering. Just wait for the walls to dry out completely (at about one inch per week in dry windy weather). Internal walls can be left unplastered, exposing a beautiful surface much like a *tatami* mat. Please note: the walls must be able to dry out initially, making their construction during very rainy seasons problematic. However, once dry they should work well even in moist areas.

Clay/straw is an interesting material. It has a fairly high mass, due to the clay content, yet is also an excellent insulator, running about 1.8 R per inch. With the mass able to hold heat, the dynamic insulation value is even higher. Moisture moving through the wall is intercepted by the clay, which is highly absorbent, allowing the wall to breathe without worry about condensation. Clay/straw is inherently fire-resistant, again due to the clay. Earthquake resistance is provided by the wooden frame.

#### Straw Bale

Straw Bale construction uses only an annually-renewable waste material to form the walls of the building. Ordinary straw bales from grain fields are used, not some specially prepared bales. Any cereal grain is appropriate. Compared to the other methods listed here, straw bale is the quickest and best insulated. You can raise the (unplastered) walls for a 1,000 square-foot building in a day with six people.

Bale walls are thick like adobe or cob, are more sculptural than adobe, but much less so than cob. The bales can be curved somewhat, and we often build curved walls with them. Straw bale construction best lends itself to larger, more rectangular buildings as compared with cob which is most appropriate for small, complex buildings.

Basically, you lay up the bales like giant bricks, and pinning them together with bamboo. There are two ways to build with bales, either using the straw wall itself to carry the roof load (the load-bearing "Nebraska" style of the pioneers), or carrying the roof on a timber-frame or post-and-beam frame, and just using the bales as insulating in-fill. In the latter case you can use slightly looser bales, even two-string tied bales. Weight-bearing

buildings must use hard, dense, three-string tied bales. The bales must be protected from direct contact with water to avoid the growth of fungus, so proper detailing of the bale walls is important.

Cover the surface with stucco (outside) and earthen or gypsum plaster (inside). Once coated, the bale wall is highly fire-resistant; even uncoated it takes a long time for a bale wall to burn through. Straw works very well in combination with massive materials. Insulation values range from R-45 to R-50, with relatively little thermal mass. This means you must be cautious in adding too much solar gain unless you add mass to the floor or the inside of the wall to moderate temperatures.

#### Summary

These natural building techniques have several things in common. They lend themselves well to owner-builders and to community participation. They require few if any mechanized tools, making them quiet to build and to dwell in. They generally require minimal precision, meaning virtually anyone can build with them without a lot of training, strength, or mechanical aptitude. They are all easily learned, being "self-instructing materials" to quote Robert LaPort. You will gain immeasurably by taking a hands-on workshop from someone who knows the material intimately. Once introduced, the material itself can teach you how to proceed.

This survey was intended to be a quick description of the options. *The Activist* will carry an in-depth article on each of these materials in coming issues as well as listings of the local natural builders, teachers, and designers in your region.

The following experts can provide detailed information, hands-on workshops, and design assistance.

#### Clay/Straw; Timber-Frame

Robert LaPort, The Natural Building Center  
2300 W. Alameda, Santa Fe, NM 87501 505/471-5314

#### Cob

Ianto Evans, Cob Cottage Company  
Box 123, Cottage Grove, Oregon 541/942-2005

#### Earth Plasters; Adobe Floors

Lance Saeber, Eco Construction Company  
305070 Grimes Rd., Prineville, OR 97754 503/447-5336

#### Straw Bale Construction

Ted Butchart, GreenFire Institute  
1509 Queen Anne Ave N, #606, Seattle, WA 98109  
206/284-7470

*Ted Butchart is an architect and permaculture teacher. He leads workshops in straw bale construction and directs the GreenFire Institute in Seattle, Washington*

## REVIEW

***Eco-Building Schools: a Directory of Alternative Educational Resources in Environmentally Sensitive Design and Building in the United States.***

Sandra Leibowitz, 1996.

Reviewed by Patricia Allison

A real boon to the person wanting to learn alternative building methods, this little booklet (20 pages) is a comprehensive listing of educational programs in ecologically-based design and building. Ms. Leibowitz presents a very detailed chart outlining program content, educational setting and structure, organizational framework, and projects for 36 schools in 19 states in the U. S., along with a description and contact information for each school.

\$6.00 from Sandra Leibowitz, 2765 Potter Street, Eugene, OR 97405  
email: sleibowitz@aaa.uoregon.edu



*Cob is formed from soil and sand to which chopped straw is added. The loaves or cobs, are worked into the wall.*

# Village Economics

## Peter Bane

Earthaven Village occupies a remote mountain valley 15 miles from its post office and market town and 30 miles from the nearest city of any size. The last people who lived on this land were old-time mountaineers who paid their taxes making moonshine. The scars on the hillsides from their farming are just beginning to heal. We don't have many living examples of functioning local economy in the vicinity, just a few clues about what *not* to do.

As new settlers we have a double challenge/opportunity. We have to create a place for ourselves to live *on* the land and we need a way of supporting ourselves *from* and *with* the land. Neither can work without the other. We're too far from town to support commuters, so we need to generate income and employment within the village or the local area. There aren't any large employers within 20 miles and even service jobs are mostly 10-15 miles away over winding mountain roads. So we have to carry our businesses in on our backs, so to speak, or develop them from the resources of the land.

I think that our economy consists of nine sectors which I list below in a rough successional order.

1. Real Estate and Finance
2. Forestry
3. Wood Milling
4. Construction & Development
5. Education & Ecotourism
6. Local Services
7. Art & Culture
8. Electronic Businesses & Merchanting
9. Value-Added Agriculture & Horticulture

Each of these areas is already present in our individual or collective economic activities. The first five sectors are prominent or have already occurred at the village site. They represent the pioneer phase of the economy: they will dominate during the first 5-10 years and will gradually transform or recede in importance after that. The last five listed sectors are climax economies: they will increase and become more prominent over time. Notice that #5 - Education and Ecotourism falls in both groups.

It's worth looking at each of these areas in some detail.

### Real Estate and Finance

Earthaven is in the real estate business—we have homesites for sale (or rather for long-term lease). We're doing all the things developers have to do: purchase raw land, have it surveyed and divided, put in improvements, create demonstration models, advertise and promote sales, woo customers, develop contracts, and negotiate deals. This layer of the economy is a common or "public" layer, done in the name of Earthaven Association. It is being developed by volunteers, members who perform community service and receive vouchers for their time. (More about this internal currency system in a bit...) The immediate "profit" or benefit is accruing to Earthaven, which is all of us. But eventually, these real estate services—the skills and experiences we gain—may be applicable to the brokering or facilitating of other ecovillage and community start-ups.

We're also finding that we are having to finance some of our customers (who become our members). Because of the nature of our landholding (one title, no subdivision) our members can't

easily obtain bank financing. So, in order to keep our membership economically and socially diverse, a private partnership of members has put together an investment group, called Earthshares, to enable the community to purchase its land without demanding a large initial investment of every member. This fund—about a quarter million dollars—now carries the largest part of the "mortgage" on the village property. As the community's debt is gradually retired, the fund will be able to lend money for new member site purchases and for home construction and business loans. Profit in this sector, in the form of return on money invested, is going to some members privately, but remains within the community.



Logger Richard Hall and his horse, Bob Marley, at Earthaven

The prospect for Earthshares is to transform into a community credit union which can support the financial prosperity of the village. Over time, participation can expand from the present dozen members to include most households in the community. At 100 adults we should be able to support a financial institution based on our collective wealth and income, and that financial institution could provide 1-3 livings in local services.

### Forestry

In order to build upon and garden this land we'll have to remove a part of the forest which now covers it, perhaps up to 80 acres of the total of 325. The value of that timber will be greater to us if we process and use it on site than it would be sold to a logging company. The standing forest belongs to the community, but extracting it will require an investment in equipment and perhaps in hired skills.

This summer we selectively harvested timber from our neotribal village area—mostly mature pines and some red oak knocked over in last winter's ice storm. We hired a horse logger to fell and snake the logs down off the hills and out to the road. The area we cut was sloping land, some of it steep, and the work went on amidst construction of village infrastructure. Two men working with a team of horses brought about 15,000 board feet of lumber out of the woods in one week. We paid them \$1900.

The logging was remarkably quiet and made very little impact on the forest floor, yet the presence of the great draft horses and the partnership of humans and animals was thrilling to see. We all liked the energy of the loggers and their horses so much that we would like to work in this way again, but we want to employ people who live in the village to do it. After all, the aim is to keep the money at home. One of our goals is to recruit a horse logger for the village or train one of our own members in these skills.

Since most of Earthaven will remain forested, we will have about 250 acres to manage perpetually. We will need to



inventory the forest and develop a long-term management plan which includes placement of permanent access roads for timber harvest and firebreaks. We are attempting to obtain government support under the Forest Stewardship Incentive Plan for some of this preparation work. If we are successful, some members of the community may be paid to perform forest inventory and to develop the management plan.

At present the stand averages about 60 years in age. Some older trees exist at the backs of steep valleys, but on the whole the Earthaven forest is young. It needs significant timber stand improvement to release preferred species and superior trees for faster growth. Devastation of the herbal understory by generations of farming, and now by heavy browse pressure from deer means that we must reintroduce the native and useful wild herbs. Selective seeding in conjunction with tiny patch clearcuts will speed succession and increase diversity as we restore the forest to health and vigor.

Managed for seed stock, veneer, sawlogs, fuelwood, and poles using horses and human labor, Earthaven forest could support 2-4 livings within the village. Timber extraction will increase at first as we become better able to manage the work, reaching a peak upwards of 120,000 board feet per year in perhaps five years and declining slightly to a stable harvest level of perhaps 50-70,000 board feet per year. These numbers should be taken with some caution until a field inventory can be done. As timber extraction declines, non-timber forest production should come to dominate this sector. Mushrooms, honey, resins, medicinal herbs, nuts, seed, and craft material could represent 4-6 livings.



*Jon Tiemann cuts pine logs felled nearby on his portable band saw*

### **Lumbering**

With as many as 150 buildings to be built at Earthaven, there's a big need for lumber over the next ten years. In conjunction with the horse logging this summer, we hired a portable bandmill to saw the logs into boards. About 13,000 board feet were milled over the course of several weeks at a cost of around \$1800. Community members working for vouchers put in a couple of hundred hours handling logs, boards, and stacking lumber to dry.

As a result of land clearing for development, we will have over a half-a-million board feet of timber available over the next few years. The value to be derived from sawing this timber represents at least one full-time living over and above the investment in a sawmill; timber harvest and milling work could continue indefinitely. The added value of the lumber will increase over time as more valuable hardwoods (oak, walnut)

become available and as the presently low value of local mill-run lumber increases due to rising global demand.

The need in this sector is for a financial arrangement which captures the economic potential of Earthaven's timber for its members. A number of partial livings are available in the first few years if a sawmill can be purchased within the village.

### **Construction and Development**

This sector is set to boom. Demand exceeds supply for construction labor at present. At least 4-6 livings are available in building construction during the next ten years as an average of 10 or more buildings per year will go up. In addition there are ancillary services in planning, surveying, design, architectural consulting, excavation and grading, landscaping, and materials handling and brokerage which could provide 2-3 more livings or partial livings during this period. Key to success in construction at Earthaven will be diverse skills with local earth-based materials: clay, timber, and stone, and versatility with many different aspects of construction.

As building starts decline, remodeling and construction of outbuildings will provide some continued work, while provision and installation of energy technology should continue to support 1-2 livings. Cistern construction might become a specialty along with irrigation and piping.

### **Education and Ecotourism**

This sector promises to be a driving engine of the economy at Earthaven. Workshops in permaculture design and various community disciplines were among the first money-making activities at the village. In addition, the educational program has attracted supplementary labor in the form of resident interns; this has eased the temporary shortage of construction help. A full-featured educational facility with classroom and meeting space for groups to 50 or more is planned. Half a dozen community members already make significant parts of their livings from adult education. The community at full capacity should easily support a full-time teacher to coordinate schooling for children. The community could eventually support a bioregional training institute for youth.

In addition to workshop presenters, a manager/organizer will be required and the educational program should support a significant amount of promotional work (graphics, brochures, flyers, electronic notices, advertisement). Accommodations will be required for some participants beyond the community campground, so niches will be created for event cooking, bed-and-breakfast, and perhaps a dormitory facility. At least 6-8 livings can be generated by this sector and sustained for as long as the national economy remains coherent.

Travelers should help make up for irregular demand on the accommodations facilities, and additional ecotourism livings might be available in retreats, wilderness programs, and hosting overseas students (WWOOFers, cultural exchanges, and language programs).

### **Art and Culture**

Outdoor theater, eco-spiritual ritual, festivals, pottery, woodcarving, instrument making, painting, jewelry making, cards, weaving, tribal clothing and more are all within the arena of activities which will become more prominent as Earthaven Village develops. The community may become home to artists who market their wares elsewhere. Perhaps 7-10 livings may be made in the arts and cultural work.

### **Local Services**

Health and body care, child care, cooking in the common house, shuttle transport to town, auto mechanics, tree care, laundry, elder care, counseling, haircuts, local food shop and

coop, cafe, housesitting, village tours, library, village administration, and more will provide increasing numbers of jobs as the community grows in population. Upwards of 15 livings might be made in this sector.

#### Electronic Businesses and Merchanting

These are graphics, publishing, and information businesses as well as accounting and tax services, reception and office support services, packaging and shipping, Internet management services, computer programming, drafting, music studios, and photo and video production. Since these goods are easily exported, they represent a significant cash income sector for the local economy. A dozen or more livings may be made in these ways at Earthaven. **Specialty Agriculture, Horticulture, and Food Production**

Nursery crops including rootstock, bedding and ornamental plants, medicinal and culinary herbs, organic fruits, preserves, wines and vinegars, gourmet vegetables for area restaurants, cheesemaking, brewing, mushrooms, cut and dried flowers, poultry, aquatic plants, trout, beneficial insects, sheep, bamboo, seed production, dyestuffs, tinctures and salves, honey and beeswax, hemp when legalized, basket willows, and nut crops could provide agricultural income and services for as many as 20-30 villagers over the next 15 years.

#### A Community Currency

Earthaven has created an internal currency based on labor hours to equalize contributions from members to the community's work. When community members put in more than their required hours (4/week), they receive these currency vouchers corresponding to their contribution of time. The vouchers are redeemable in resources from the land, eg. timber and other materials, and are tradeable within the community. A lively exchange already occurs between some folks on the front lines of construction and the community's massage therapists and healers. We imagine that our currency will come to support a larger and larger internal trade economy as more of us take up residence on the land. When our mortgage is retired in six more years, the community may begin to accept these vouchers in payment of certain fees, just as they are now tradeable for service hours.

Earthaven's members presently include a doctor, two nurserypeople, a theater designer, three psychotherapists, two yoga teachers, a plasterer, a non-profit manager, a dancer, a painter, two publishers, a wildlife biologist, two potters, a sign-language interpreter, a massage therapist or three, several teachers, carpenters, and religious workers, and that's just what we're doing these days!

Our community consists of 29 adults and a handful of children. In addition we have a half-dozen live-in friends and long-term guests working with us, some of whom may decide to stay. We live in 23 households, mostly in the Asheville/Black Mountain area. Seven of us already live in the village. Resettlement onto village land will allow most of us to reduce our cost of living while increasing our quality of life. We expect to have more and better social interaction, a cleaner environment, less need for auto transport, lower energy costs, lower housing costs, and higher quality food, primarily from our own and our neighbors' gardens. Our health should improve and our need to earn income should diminish as we settle into Earthaven's embrace.

These same benefits will become available to the next 80 or 100 members who join us. To find out how, write PO Box 1107, Black Mountain NC 28711. Δ

*Peter Bane is the publisher and editor of this magazine, a founding member of Earthaven, and a dancing fool. He's very fond of fruits and nuts.*

## Ecological Forestry in Action: The Waldee Forest

### David Wheeler

Walton and Dee Smith live on 150 acres of mountainside land in Macon County, North Carolina that has been in Dee's family for four generations. Over the last 40 years the pair have created on that land a working model of ecological forestry practices.

Walton Smith is a retired forester with 35 years experience with the US Forest Service and 22 more years as a private consultant. He has received the Nancy Susan Reynolds Award for his environmental work as a leading proponent of "uneven-aged management practices" - a type of silviculture that maintains a continual forest cover of diverse tree species of all ages and sizes.

A walk through the Waldee Forest leads the visitor through green, pleasant woods along dirt roads planted with grass.

"It is a far cry from the ravaged hillsides one has come to expect of a working forest," commented one visitor.

Different parts of the forest demonstrate various principles of uneven-aged silviculture. A 60-year old poplar (*Liriodendron tulipifera*) stand that grew up in an old pasture was "thinned from below" in 1970 when forked and low-quality trees were removed to favor large, straight trees that will produce the highest quality veneer logs. Recently the stand was entered again and several mature trees and other low-quality trees were removed to open up a group of promising young trees. Oak and ash seedlings were also planted in the openings to increase species diversity.

Visitor James Sullivan walked the stand two years after this work was done. "We had to look closely to find the trails used to remove the saw logs, and a beautiful forest still occupied the site," he said.

In another area, tall white pines stand in what was a badly eroded field in 1948. Smith planted the pine seedlings in that year with his daughter Deanne, who was eight years old at the time. The erosion has long since ceased, fallen pine needles are rebuilding the soil, and young hardwood seedlings are sprouting up naturally among the towering pines. Recently Walton cut some of the trees for interior paneling for a new house. "It makes you proud to harvest a two-foot thick tree that you have planted and saw it into 12-inch wide boards for beautiful paneling," he said.

The forest also includes "The Big Tree Trail," an area of large trees that the Smiths keep simply for the enjoyment they bring - another important objective of the Waldee Forest. One of the trees is a 200-year old yellow poplar tree that is four feet in diameter. Some of the trees are hung with poison ivy and wild grape vines, which Smith keeps to provide food for turkey and wild grouse.

"There are other reasons for a forest besides providing timber," he says. "I'll sacrifice some timber to build up the wildlife population."

The Waldee Forest is equipped as a complete home industry with a small sawmill, a drying kiln, and a woodshop that together could turn trees into saleable, finished wood products right there on the land. There are also beehives, a trout pond, a small garden plot, and a greenhouse that complete the Smiths living environment.

"Seen from the outside by someone who is unfamiliar with it, the forest may seem threatening," said Smith, "but once one gets in among the trees, the forest becomes an entirely different place. It's a place of beauty, a good place to be - a good place to live." Δ

*David Wheeler is the former publisher of Katūah Journal.*

### HERB WORKSHOPS IN NICARAGUA & COSTA RICA

*January 5, 1997*

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## Fundamentals of Permaculture—Two 1997 Courses Tennessee

**Dates:** April 4-12; June 20-28, 1997  
**Location:** The Ecovillage Training Center  
Summertown, Tennessee

**Description:** The purpose of these courses is to offer practical training in permaculture design principles so that you can begin to take responsibility for your own life by learning to meet your basic needs for food, shelter, energy, gainful employment, and supportive community. The courses will focus on building the support systems, networks, and alliances we all need in our work as Earth healers. There will be a balance between classroom time, hands-on experiential learning, and personal empowerment work. The Farm, located on 1750 acres, is one of the largest and best known intentional communities in the US. Completion of this course and an additional Design Practicum fulfills the requirements for the Permaculture Design Course Certificate. A Design Practicum will be offered at the EVTC Sept. 12-20, 1997.

**Instructors:** Peter Bane, publisher of *The Permaculture Activist*; Chuck Marsh, permaculture landscape and village designer; Patricia Allison; Goodheart Brown; Albert Bates; and Bob Kornegay.

**Cost:** \$600 includes tuition, natural whole foods meals, dormitory lodging or camping space, and a subscription to *The Permaculture Activist*. \$100 reserves your space (non-refundable). \$50 discount for payment in full by March 15 for the spring course, or by June 1 for the summer course.

**Contact:** The Ecovillage Training Center  
PO Box 90, Summertown, TN 38383-0090  
615-964-4324 email: ecovillage@the farm.org

## 6th Annual Intensive Permaculture Design Course Oregon

**Dates:** December 1-14, 1996  
**Location:** Dexter, Oregon

**Description:** This two-week course will teach how to design integrated systems of food production, housing, technology, and community. Discussion topics and hands-on learning will include permaculture philosophy and methodology, site analysis, ecology, animals in the system, edible landscaping, IPM, agroforestry, building design/energy conservation, urban permaculture, village design, community economics, soil building/erosion control, ponds, swales, and more. Participants will receive Permaculture Designer certification.

**Instructors:** Jude Hobbs, Rick Valley, and Tom Ward.

**Cost:** \$650-800 (sliding scale) includes tuition, meals, shared dorm room, field trips, some curriculum materials, and a subscription to *The Permaculture Activist*. \$100 reserves your space.

**Contact:** Lost Valley Educational Center  
81868 Lost Valley Lane, Dexter, OR 97431  
541-937-3351

## Permaculture Design Course: Pc and Earth Magic Northern California

**Dates:** May 9-23  
**Location:** Humboldt County, California

**Description:** This two-week intensive course, subtitled "Designing with the Elements," will teach us how to use knowledge, observation, and our deep intelligence to work with nature to create self-sustaining living systems of complexity and beauty. Magic is "the art of changing consciousness at will." Penny, Blythe, and Starhawk combine their expertise in gardening, landscaping, and consciousness change to create a new approach to design. The tools of magic—meditation, visualization, trance, and energy work—deepen our understanding of the natural systems we work with. Hands-on experience planting, pruning, and building teach us the real-life skills we need to ground our visions. This course leads to a Certificate in Permaculture Design.

**Instructors:** Penny Livingston, Blythe Reis, and Starhawk.

**Cost:** \$900-750 (sliding scale) includes meals & housing.

**Contact:** Sandy Bar Ranch, PO Box 347  
Orleans, CA 95556 phone (916) 627-3379

## CENTRAL ROCKY MOUNTAIN PERMACULTURE INSTITUTE Announces

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Francis Harwood, Anthropologist  
John Cruickshank, Appropriate Technology Expert  
Dan Howell, Water Use Expert & Desert Homesteader  
Ruth Chalfont, Gardener & Designer  
Dennis Stensen, Biodynamic CSA Farmer  
Ken Kuhns, CSA Farmer  
Diana Christianson, Editor, *Communities Magazine*

**COST PER COURSE:** \$850, or \$800 if registration is received one month prior to the course

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## Letters

### Irish "Ecotarians" Learn Deep Lessons

Dear Pc Activist People,

We already have a subscription to your magazine via Permanent Publications UK, and find it to be really wonderful, the best by far of the permaculture magazines. I want to make a gift subscription for someone we know doing brilliant work with local community deep in guerrilla-ruled Columbia. They are really starved of information and need all the support possible....

We ourselves are working hard on a seven acre forest garden deep in the southwest Irish mountains, and beginning to do outreach in our local village to steer its change to a sustainable eco-village. If you hear of any designers hanging loose looking for projects, we could use some trained help! We have no certificates being self-taught from the earth itself. Traditional bureaucracies do like a certificate or two. Uncertified volunteers wouldn't be turned away either. So if anyone fancies a free working holiday in beautiful Kerry, write to us.

It was interesting to read Andrew Goodheart Brown on chickweed. Chickweed has been working with us

this year too—one of our most vociferous teachers.... Since turning shoeless ourselves and eating a 100% organic rawfood mad mixed wild salad diet, we have begun to experience direct communication with the plants and creatures who live on our land, and so have plunged into a really new radical learning curve, learning very challenging (to human control-hungry egos) new ways to relate to nature. Tools lie idle, interference policies backfire, and we have even begun to make peace with slugs.... It has been a real revelation, uncovering the fear of scarcity that we humans carry. Breathing deep—viewing the REAL abundance and relaxing into a trusting sharing of the bounty of this land, freely given for the well-being of all creatures.

I want also to tell you of a new word we coined—"ecotarian." An ecotarian consumes from the basis that ecology comes first, and what the taste buds want comes last. So everything we buy is 1) organic (preferably own grown), 2) local, 3) unprocessed, 4) unpackaged, 5) eaten as uncooked as possible. If we can't get it to fit these criteria, we learn to do without. To spend money in any other way is to personally finance the ongoing destruction of nature. In the end, we were forced to stop. Anyone interested in working on the ideas of ecotarianism please write. We are still working it out and like to imagine it's the next great movement. Vegetarian —> vegan —> ecotarian. You may

# Permaculture Books

## **Introduction to Permaculture**

22.00

Bill Mollison w/Rene Mia Slay. 2d ed. (1994) 216 pp. paper. illus. The basic argument for permanent agriculture: how to feed and house yourself in any climate with least use of land, energy, and repetitive labor. New material on patterns, cold climate. Supersedes *Pc I & II*.

## **Permaculture in a Nutshell**

9.00

Patrick Whitefield. (1993) 75 pp. paper. illus. A back pocket gem, this book draws on the best examples in Britain and elsewhere to show how and why permaculture works. Excellent primer for introducing to friends.

## **The Permaculture Designers Manual**

55.00

Bill Mollison. (1990) 576 pp. cloth. 450 illus. + 130 color photos. Global treatment of cultivated ecosystems. A resource for all landscapes and climates. Lucid illustrations by Andrew Jeeves bring Mollison's concepts to life. Essential, in-depth treatment of earth repair and practical design.

## **Earth User's Guide to Permaculture**

16.00

Rosemary Morrow (1994) 152 pp. paper. Abundantly and charmingly illus. An informative and practical guide to permaculture, with exercises and real-life examples. Learn how to design a permaculture system on your own land, whether city balcony, suburban garden, or country farm.

## **The Best of Permaculture: A Collection**

18.00

Max O. Lindegger & Robert Tap, eds. (1986) 136 pp. paper. illus. Original essays in building biology, urban forestry, land restoration, health, nutrition, energy. Examples from the field.

## **Living Communities:**

### **A Permaculture Case Study at Sol y Sombra**

13.00

Ben Haggard. (1993) 152 pp. paper. illus. Permaculture through the eyes of a master gardener and the design of a particular place, the Miller estate at Santa Fe, NM. Valuable for its insights into the observation process. Haggard's prose is lyrical and his conclusions reach beyond his desert home.

## **Restoration Forestry:**

### **A Guide to Sustainable Forestry Practices Worldwide**

27.00

Michael Pilarski, ed. (1994) 526 pp. paper. illus. A combination resource guide to organizations and collection of essays on all aspects of sustainable forestry. Undoubtedly the most complete collection of material on the subject to date. Indexed by books, periodicals, articles, and general subjects.

## **Tree Crops: A Permanent Agriculture**

22.00

J. Russell Smith (1987) 408 pp. paper. illus. Reprint of the 1950 ed. with a new intro. by Wendell Berry. First published 1929, and still radical more than 60 years on, Smith's seminal work remains too little heeded. His proposal for "two-story agriculture" is both lively and well researched.

## **Forest Gardening**

18.00

Robert A. de J. Hart. 2d ed. (1996) 256 pp. paper. illus. Revised for No. American gardeners, this classic collection of essays on seven-story permaculture by the grand old man of agroforestry

presents a gardener's ecology: water, energy, craft, herbs, health. Hart's tales of tree life and forest cultures thrill to the root.

## **How to Make a Forest Garden**

25.00

Patrick Whitefield. (1996) 192 pp. paper. illus. + 8 color plates. The most comprehensive guide to the subject: clearly written, well organized, and attractive, with British examples. Whitefield details garden design, pest & weed control, and planting techniques for temperate zones. Descriptions of 125 useful plants.

## **The Flywire House:**

### **A Case Study in Permaculture Design for Fire**

10.00

David Holmgren. (1993) 15 pp. paper. illus. spiral-bound. Succinct and illustrated with professional drawings of both building details and landscape plans, this slim volume covers a much-neglected aspect of property design with grace and clarity. Like good insurance, it's worth more than you pay.

## **The Independent Home:**

20.00

### **Living Well with Power from the Sun, Wind, and Water**

Michael Potts. (1993) 300 pp. paper. illus. Weaves 27 inspiring stories of the new energy pioneers and how they did it—nuts and bolts, diagrams & photos. Chapters on siting and building the home, repair & maintenance, economics of permanence, biologic energy, and community cooperation.

## **The Straw Bale House**

30.00

Bill and Athena Swentzell Steen, David Bainbridge, David Eisenberg. (1994) 297 pp + xxii. paper. Extensively illustrated, with hundreds of b/w and 26 color photos. Straw-bale construction is sweeping the country. This book explains why in thorough detail. The best reference we've seen.

## **New Title! Build It With Bales:**

### **A Step-By-Step Guide to Straw-Bale Construction**

20.00

S.O. MacDonald and Matts Myhrman. (1995) 80 pp. paper. A thorough instruction manual. All you need to know to go out and do it, loadbearing or non-loadbearing. Packed with drawings.

## **Chicken Tractor:**

### **The Gardener's Guide to Happy Hens and Healthy Soil**

16.00

Andy Lee. (1994) 230 pp. paper. illus. Chicken tractors are mobile coops, a clever way of using domestic poultry (or other animals) for pest control and garden fertility with very little work on your part. Lee is thorough, witty, and consistently upbeat about the permaculture value of chickens.

## **Cornucopia: A Sourcebook of Edible Plants**

35.00

Stephen Facciola. (1990) 678 pp. paper. Lists over 3,000 species with all commercially available named cultivars, sources of seed, plants, descriptions, uses, cultural notes, food products; indexed by common name, families and genera. A monumental work useful to every garden designer.

## **Seed to Seed:**

### **Seed Saving Techniques for the Vegetable Gardener**

20.00

Suzanne Ashworth. (1991) 222 pp. paper. illus. The best single-volume guide to saving our vegetable heritage. Discusses techniques and references botanical classification, pollination, crossing and isolation, seed production, harvest, processing, and viability for more than 150 vegetables and herbs.

## **Kiwifruit Enthusiasts Journal Vol. 6**

15.00

Michael Pilarski, ed. (1992) 192 pp. paper. illus. A good cross-section of info about fuzzy and fuzzless kiwifruit: Research, plant societies, sources of genetic material, periodicals, commercial growing, economics, propagation, botany, and enthusiasm!



### ***The Permaculture Garden***

16.00

Graham Bell. (1993) 170 pp. paper. illus. An elegant tour of the home system, treating water, soils, perennials, trellises and greenhouses, children in the garden, forest and community gardening, and design. With delightful quotations from Jung, D.H. Lawrence, Alice Walker, others.

### ***Designing and Maintaining***

#### ***Your Edible Landscape Naturally***

25.00

Robert Kourik. (1986) 370 pp. paper. illus + 19 color photos. Permaculture in the home garden: mulch gardens, double digging, root zones, pruning, companion crops, natural pest control. Excellent diagrams, charts, species lists.

### ***The Permaculture Book of***

#### ***Ferment & Human Nutrition***

30.00

Bill Mollison. (1993) 288 pp. paper. illus. 35 color photos. Comprehensive global survey of methods extending the author's life-long concern with core human survival issues. Treats food storage, preservation, cooking, fungi, yeasts, grain, legumes, roots/bulbs, fruits, flowers, nuts, oils, aguamiels, fish, algae, meats, birds, insects, dairy, beer, wine & beverages, condiments, agricultural ferments, hygiene, food toxins, vitamins, enzymes, trace minerals & nutrient sources, and use of earths to enhance food value.

### ***The Humanure Handbook:***

#### ***A Guide to Composting Human Manure***

15.00

Jos. C. Jenkins (1994) 198 pp. paper. illus. Delves deeply into the ever-present subject of human waste. Examines the various systems for disposal and treatment, and recommends thermophilic (hot) composting as the simplest, cheapest, most ecological method. Writing from personal experience and extensive research, Jenkins answers all the questions you never dared ask!

### ***The Earth Manual:***

#### ***How to Work on Wild Land Without Taming it***

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Malcolm Margolin. (1985) 238 pp. paper. illus. A friendly guide to earth repair in the wild, with chapters on wildlife, tree-planting, felling, pruning and repair, mulch, erosion control, seeding, transplanting, trailmaking, ponds, and doing it all with children. Filled with good common sense.

### ***The Man Who Planted Trees***

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Jean Giono. (1985) 56 pp. paper. This timeless and inspiring tale of one man's dedicated efforts to reverse desolation has been beautifully illustrated with 20 woodcuts by Michael McCurdy. A story for all ages.

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Newly Revised (1995) 426+ pp. paper. illus. More than 500 North American and 50 international communities, 250 alternative resources, 31 articles on community living. Comprehensive, exciting survey of a maturing movement for cultural transformation.

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### ***Urban Permaculture: A Practical Handbook***

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David Watkins. (1993) 152 pp. paper. illus. How-to's of growing food and saving energy in the urban household. Domestic waste, green economics, non-toxic cleaners, garden layouts, species lists, breeds of small animals.

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#### ***Conceptual Permaculture Report***

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Thomas H. Greco, Jr. (1994) 201 pp. paper. illus. Demystifies money and describes how it may be transformed to support local economies. Describes L.E.T.S. and other local trading programs, alternative currencies, barter and labor service systems, with historic examples. A prime resource!

### ***Interest and Inflation-Free Money***

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### ***The Global Gardener***

30.00

120 min. VHS. (1991) Bill Mollison's review of permaculture accomplishments around the world. Made for Australian Broadcasting Corp. and aired to national acclaim. Four half-hour segments highlight subtropical, drylands, temperate, and urban systems with footage from developed sites in India, Southern Africa, Australia, the US Southwest, Pacific NW, California, Europe, the U.K., and New York City.

### ***In Grave Danger of Falling Food***

45.00

56 min. VHS. (1989) A wacky romp through Mollison's life as an outlaw. Cartoon cutaways and bizarre sound effects seem no stranger than Bill loping along the street in front of Aussie suburban sleaze, guerrilla planting hazelnuts. A campy period piece, this film tells the permaculture story with verve and imagination.

## Back Issues of *The Permaculture Activist*

- I, 1 July '85 Permaculture In Oz  
I, 2 Nov. '85 Fruit & Nut Trees  
II, 1 Feb. '86 Garden Design  
II, 2 May '86 IPC 2 & PC Design Courses  
II, 3 Aug. '86 Int'l PC Conference Program  
II, 4 Nov. '86 Fukuoka; Keyline; Genetic Cons'vn; City Farms; Oceanic PC  
III, 1 Feb. '87 Networking; Natural Farming; D-Q Univ.; Children's PC  
III, 2 May '87 PC Restoration of Wild Lands; Design for Sacramento Farm  
III, 3 Aug. '87 Annual Planting Cycle  
III, 4 Nov. '87 Trees for Life  
IV, 1 Feb. '88 Marketing PC Products; Bamboo; Home Wastewater Treatment  
IV, 2 May '88 Urban-Rural Links: Economics & Community Development  
IV, 3 Aug. '88 Social Forestry; Gabions; Jap. Org. Ag.; Prodc/Cons. Coops  
IV, 4 Nov. '88 Multi-Story Tree Crops; Greening Dom. Repb; Runoff Gardens  
V, 1 Feb. '89 Permaculture: A Designer's Manual; Tree Bank; Water in PC  
V, 2 May '89 Plant Guilds; Roof Gardens; Small Livestock  
V, 3 Aug. '89 Rainforest Conservation in Ecuador; Gaia; Weed Gardens  
V, 4 Nov. '89 PC Defs; Water Conservation; Small Dams; Ponds; Keyline  
VI, 1 Feb. '90 Household Greywater Systems; Soil Imprinting  
VI, 2 May '90 Insectary Plants; more Greywater; Land Use for People  
VI, 3 Aug. '90 Water: Forests & Atmosphere; Catchment; Nepal; Pond Design  
VI, 4 Nov. '90 Urban Permaculture: Ecocity Conf, Soil Detox, Suburbs & PC  
#23 May '91 Politics of Diversity; Greenhouse Mkt Gdn; PC in Nepal  
#24 Oct. '91 Creativity in Design: Examples; Index Issues #1-23;  
#25 Dec. '91 Design for Community: CSA's, Restor'g Forest; Garden Ecol.  
#26 May '92 Soil: Our Past, Our Future: Fertility, Worms, Cover Crops  
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Garden Polyculture; Pattern Learning; Living Fences  
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### more LETTERS...

hear from us soon with an article on these things. Keep up your good work. On optimistic days I do believe we are winning—and your inspiration helps me be optimistic.

Love,  
IBar Ban  
Bocare People  
Sneem, Kerry, EIRE

### Of Paving and Redwoods

Dear Peter,

I'm enjoying issue #34. The cover story on bamboo polyculture in Vietnam taught me a lot; I didn't learn as much on the scene in Kerala, India, in a month, as I did from your story! I found other articles of crucial interest,

even though I'm overly urbanized. Anyone working with the land and wanting to learn more should get your magazine.

Since we last spoke, in the hopeful days of *ecostroika* and ecodemocracy, we have evolved the Paving Moratorium Update into the quarterly Auto-Free Times (intl.) and occasional Road Fighters' Alerts. I am certain that many of your readers understand already much of our work, so I invite them to communicate any road/car/depaving information, or threats by road builders' planning a highway or giant parking lot, to us at this address: Alliance for a Paving Moratorium, PO Box 4347, Arcata, CA, 95518, USA. Tel: (707)826-7775. Here's a toll-free number to hear a recording on joining/ subscribing and fighting the NAFTA Superhighway: 888-ACT-4-APM.

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For a copy of the recently published *Bamboo and the Pacific Northwest: Proceedings of the 1994 Pacific NW Bamboo Agro-Forestry Workshop*, send \$18 (includes postage) to Gib Cooper, Tradewinds Bamboo Nursery, 28446 Hunter Creek Loop, Gold Beach OR 97444. Tel./fax 541-247-0835. - 35

**BILL MOLLISON AT IPC-VI** (Sept '96): Audio tape of opening keynote. \$6 plus \$2 shipping. Global Village Video, Box 90, Summertown, TN 38483. (615)964-2200. - 35a

### Miscellaneous

**Crossbreeding Florida permapeople** with regional allies. New genes needed. Offspring will be released. John Rogers, 115 E. Ave C, Melbourne, FL 32901. 407-725-1923. - 35

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**BUDDING + ESTABLISHED DESIGNERS!!** The Institute for Sustainable Culture, Portland, OR, needs committed, knowledgeable, volunteer designer/manager for highly visible demonstration garden. Plenty of ready hands! (503)736-1143. - 35a

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#### Business Opportunities

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**Earthaven Village**, a permaculture community and learning center growing in the North Carolina mountains, has home and business

sites available for skillful pioneers able to co-create an eco-spiritual, bioregional village near Asheville, NC now! To find out more, send \$15 for info packet and 6 mo. subscription to our newsletter to PO Box 1107, Black Mountain, NC 28711. - 35a

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Small group of Permaculturists seeks families or individuals to homestead and create Eco-Village in Rocky Mtn. region or Pacific Northwest. Please send your vision and a brief bio. We will respond to all replies. John English, 420 E. 7th St., Durango, CO 81301. - 36

Twin Oaks is an intentional community of 100 people living on 450 acres in central Virginia, sharing values of cooperation, non-violence, and egalitarianism. We offer regularly scheduled tours and visits. Please write or call ahead: 138-PA, Twin Oaks Rd, Louisa, VA 23093. (540)894-5126. - 35a

Female homesteader seeks mature, motivated partner(s) to help create permaculture centre and demonstration site. Beautiful land, supportive community. Share work, good times, ideas, resources. SAE and \$2 for details to: Rainwalker Farm, Lasqueti Island, BC V0R 2J0, Canada. - 35a

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# CALENDAR

November 8-10. Rock Hill, SC. Carolina Farm Stewardship Association's 11th Annual Sustainable Agriculture Conference. Alyx Perry, CFSA, 115 W. Main St., Carrboro, NC 27510. 919-968-1030.

November 8-10. Leavenworth, WA. Tilth Producers Fourth Annual Conference. Tilth Producers, PO Box 85056, Seattle, WA 98145. 800-731-1143.

November 11-17. Pearce, AZ. Advanced Permaculture Design Course. Vicki Marvick, PO Box 133, Pearce AZ 85625. 520-824-3465.

November 17-24. Tepotzlan, Morelos, MEXICO. Turtle Island Bioregional Gathering VII. Beatrice Briggs, 4035 Ryan Road, Blue Mounds WI 53517. (608) 767-3931, fx/-3932, email: beabriggs@aol.com or Fabio Manzini, A.P. 4-253, Cuernavaca, 62431, Morelos, MEXICO. tel/fax 52+73-230963, email: manzini@servidor.dgsca.unam.mx.

December 1-14. Dexter, OR. Permaculture Design Course. Lost Valley Educational Center, 81868 Lost Valley Lane, Dexter, OR 97431. 541-937-3351.

December 6-8, 1996. East Troy, WI. Organic-Biodynamic Vegetable Growers Workshop. Michael Fields Agricultural Institute, W2493 County Road ES, East Troy, WI 53120. 414-642-3303.

January 5, 1997. Teotecacinte, Nicaragua. Herb Workshop. Central Rocky Mountain Permaculture Institute, Box 631, Basalt, CO 81621. 970-927-4158. email: permacul@rof.net.

January 22-25. Pacific Grove, CA. 17th Annual Ecological Farming Conference. CSA PO Box 838, San Martin, CA 95046. 408-778-7366, fax/-7186.

February 12-15. Gainesville, FL. "Building Bridges with Traditional Knowledge: An Exploration of Issues Involving Indigenous People, Conservation, Development, and Ethnoscience." Alexandra Paul/Christine Kelly, BBT Conference, PO Box 110329, Gainesville, FL 32611-0329. Fax: 352-392-7127. email:itd@gnv.ifas.ufl.edu.

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April 4-12. Summertown, TN. Fundamentals of Permaculture Course. The Ecovillage Training Center (EVTC), Permaculture Course, PO Box 90, Summertown, TN 38383-0090. 615-964-4324. email: ecovillage@the farm.org

April 14-18. Summertown, TN. Sustainable Villages: Fundamentals of Design. The Ecovillage Training Center (EVTC). 615-964-4324. email: ecovillage@the farm.org

May 9-23. Humboldt County, CA. "Permaculture and Earth Magic: Designing With the Elements" Permaculture Design Course with Starhawk. Sandy Bar Ranch, PO Box 347, Orleans, CA 95556. 916-627-3379.

June 16-27. Southern California. Permaculture Design Course with Bill Mollison. Bay Area Permaculture Group. 1850 Union St., Ste 1138, San Francisco, CA 94123. 415-761-8220.

June 20-28. Summertown, TN. Fundamentals of Permaculture Course. The Ecovillage Training Center (EVTC). 615-964-4324. email: ecovillage@the farm.org

July 2. California. Public Lecture by Bill Mollison. David Blume. 415-365-2993.

July 14-25. Northern California. Permaculture Design Course with Bill Mollison. Bay Area Permaculture Group. 415-761-8220.

July 21-August 2. Basalt, CO. Permaculture Design Course. Central Rocky Mountain Permaculture Institute, Box 631, Basalt, CO 81621. 970-927-4158. email: permacul@rof.net.

August 25-September 6. Basalt, CO. Permaculture Design Course. CRMPI. 970-927-4158. email: permacul@rof.net.

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