The Bullock's Permaculture Homestead

Spring Newsletter 2009 (v. 9)

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News & Upcoming Events

- Upcoming Course Dates
  - Introduction to Permaculture – April 11-12, 2009 – Hale Akua Garden Farm, Maui
  - Food Forest Agroforestry – April 14-18, 2009 – Hale Akua Garden Farm, Maui
  - Introduction to Permaculture – May 29-31, 2009
  - Permaculture Design Course – July 19 – August 8, 2009
  - Permaculture Youth Camp – July 19 – August 8, 2009

Words from the Daver

Spring is around the corner! Here at the Homestead we'll all soon be buzzing about in the garden and munching strawberries again. This winter has afforded me some time away from the farm. I've had the chance to step out of the "Permaculture bubble" and reconnect with the world as most folks are living in it.

One day I was visiting some friends in the suburbs when I decided to take a walk. I had just finished reading a case study on Village Homes, a successful subdivision in Davis, CA designed with agriculture and the environment in mind, and I was thinking about how much productive space was available in the suburbs. Then, as I perused the neat and tidy yards, I also thought about the way productive, permaculture landscapes are often viewed from a more conventional perspective: messy (there is fruit dropping on the sidewalk), shaggy (those plants are growing

over one another), and a maintenance nightmare (who has time to care for all those plants?). Even at Village Homes, upon looking at the largely illegible landscape, some people state, "It looks like a slum."

Reading Josho Somine's article in the last newsletter (Autumn 2008 – v. 8) and taking a fresh look at the mainstream has made me ponder a few questions:

Does permaculture design need to flex to appeal to conventional aesthetics? If so, how should it change and what happens when sustainability and aesthetics conflict? Conversely, do conventional aesthetics need to change to recognize the beauty of less "tidy and orderly" landscapes? If so, how can that aesthetic shift be accomplished?

At first blush seems like the age old battle of form versus function. However, analyzing the problem critically seems to indicate that the problem can, and seemingly must, be approached simultaneously from two angles: 1) Changes in permaculture design and 2) Changes in people's aesthetics. Working toward this crossover point between sustainability and aesthetics is incredibly important if Permaculture Design is to remain relevant in a future offering more and more solutions to our present "unsustainable" state.

1) Changes in Permaculture Design

One thing is for sure. If permaculture design is going to be relevant in the future of design it will have to meet people where they are at on a number of fronts. A designer will not be able to impose a productive, lush, verdant permaculture landscape into your average suburban yard without acknowledging dominant attitudes with regard to aesthetics, property values, and maintenance.

The dominant aesthetic we see in landscapes today speaks to order and organization. Everything is in the right place and it is neatly separated from everything else. Many of the plants serve specific aesthetic functions such as winter bloomers, dense foliage for screening, and accents along paths or around trees. With regard to non-plant elements we often see brightly colored beauty bark, concrete pathways, and strategically placed rocks.

Instead of trying to convince a homeowner to replace this with a jungle-like food forest, perhaps a designer would meet with more success by starting small. Try adding in some plants that are both productive and widely acknowledged as attractive (*e.g.* rosa rugosa,

chives, culinary sage, etc.). Perhaps one could replace the concrete paths with pavers or permeable material to encourage groundwater infiltration. In this way designers can begin to slowly move toward productive landscapes without creating a landscape where the owner does not comprehend the beauty.

Concerns regarding property values are very challenging to address. To some extent the very idea of commoditizing land leads to abuse. The idea of land as an investment, unless tempered with ethics, usually results in a degraded landscape. However, this is still a very real parameter for any permaculture designer today. If you provide a design that a causes a homeowner to worry about their property values they may choose not implement it. Similarly, if your design leads to a landscape that affects neighbors property values you could inadvertently create friction in the neighborhood. Our designs should seek to enhance community, not damage it.

Therefore, if we place property values into the permaculture designer's design brief, he or she must be prepared to preserve or enhance them in most cases. There are a variety of ways to accomplish this. For example, a designer can speak with neighbors about his or her design ideas so they know what is coming and can have input. Designers may also want to become familiar with any covenants or rules that have been imposed by neighborhood or condominium associations. If a designer wants to do something outside these parameters (without creating a stink) it seems prudent to speak to the community.

Another obstacle that permaculture designers face today is maintenance for the landscapes they design. People today are busy. In most cases people are seeking low maintenance systems so they can minimize their input of time and money. Unfortunately, it is easy to design systems that require quite a bit of maintenance (at least until they are established).

Perhaps it would be best to reserve the higher maintenance systems for clients who are ready for it. By sticking to a palette of plants and landscape elements that will require minimal maintenance for the average client a designer will provide a landscape design that does not overwhelm a homeowner's agenda or pocketbook. The happier that homeowner is the more likely they will be open to suggestions in the future.

However, it seems that while low maintenance is good, allowing some opportunities for a homeowner to interact with their landscape may pay off in the future. If you can create a landscape that requires a small amount of enjoyable interaction from the homeowner (*e.g.* harvesting raspberries, chopping green manure crops, and for some, pruning) you may actually do them a favor in terms of exercise, time outdoors, and healthy interaction with nature.

2) Changes to our Conventional Aesthetics

While permaculture designers definitely need to understand and incorporate an understanding of conventional aesthetic issues into their designs, it is also important to work on the other end of the issue and do what is possible to help shift the conventional landscape aesthetic to something that more closely resembles a natural system. Methods for accomplishing this include increasing clients' understanding of ecology, teaching people to use senses other than vision when interacting with a landscape, and incorporating clients into the design process.

Currently, there is a great deal of literature addressing the psychological, physiological, and sociological effects of our culture's lack of connection to Nature. In tandem with a lack of understanding of basic ecological principles, this forms a foundation for the dominant aesthetic we see in most landscapes today. If one improved his or her understanding of the hydrologic cycle they would be better equipped to comprehend the relationships between seemingly disparate things such as groundwater recharge, impervious surfaces, pesticide use, and the quality of what comes out of the faucet.

In order to increase people's understanding of ecology each and every permaculture designer must acknowledge their role as an educator. If your clients understand some of the basics of ecology they will be better equipped to look at a landscape through the lens of permaculture. This can be accomplished simply through talking with clients. Why not suggest a picnic for your initial meeting? You will have a classroom all around you. Permaculture designers can also take steps to help the general public understand ecology by offering classes and workshops. By stepping into the role of educator in addition to designer, one can deepen the understanding of those in the community while publicizing his or her design services.

Another shift that would help people to become more accustomed to permaculture landscape aesthetics is, in many ways, a return to childhood. Too often it is only children playing outside that take the time to stop and sniff a lilac in full bloom, snack on a fennel plant growing in the yard, or notice the clacking sound of wind blowing through a bamboo grove. Too often adults are so busy that the only interaction they have with their landscape is glancing at it on their way to the car or mowing the grass once a week.

What if designers took their clients to arboretums and nurseries in order to "test drive" their other senses? What if we encouraged people to touch, taste, and smell the plants we suggest for them. The sense of smell alone has an incredibly strong effect on people, with the ability to calm them or bring them to tears with nostalgia. Remind your clients that can have rich textures that go beyond just the visual. They may even thank you for the reminder.

Finally, if permaculture designers want to see more sustainable landscapes it is crucial to incorporate clients into the design process. As a design system permaculture provides us with a set of steps to take in order to create a design, a set of principles to use as filters for decision-

making, and design methodologies to help think outside the box. By incorporating clients in every step of the process they will doubtless feel like they are more a part of the outcome. If the designer creates their design in an office somewhere and brings in the client when the process is done it is far more likely that key pieces will not suit the client.

There are many ways to get clients involved. For small projects, it could be as simple as checking in with a client at each step of the design process to make sure that you are both on the same page. It could also involve educating the client about why the designer made each decision. By proxy, this involves teaching the client a bit about permaculture, which can go a long way. For large projects that will affect a broad range of people in the community processes exist to get them on board. Design charrettes are a tool that can help bring together all stakeholders in a community and make sure they are heard. The design that results from the charrette process is often much better received than the one done without public input.

Indeed, it is only through working on both the responsiveness of our permaculture designs to conventional aesthetic concerns and working to shift those mainstream aesthetics toward the models we see in Nature that permaculture designers will be able to see their work increase in prominence. If the permaculture design community can accomplish aesthetic shifts both internally and externally we can begin to look forward to a future in which sustainable landscapes are the norm, not the exception.

That's all for this newsletter. Hopefully everyone is enjoying the dregs of winter. Spring is starting to happen here, so I need to get moving on the garden. You probably do too!

Daver

Poland Through Permaculture Spectacles: Examples for Europe & Beyond by Douglas Bullock

Through our several visits to Poland during its transition into the EU, I have had the chance to see several outstanding examples of building and agricultural practices of the past. Many of these climate-appropriate practices could be incorporated into sustainable urban systems, permaculture farms, and eco-villages of the future throughout Poland, Central Europe, and similar places in North America. Most of these examples persist not only in Poland, but scattered throughout Central Europe. I hope you enjoy this sampling of techniques that you may find useful in your own permaculture endeavors.

Like much of North Central Europe, Poland is blessed with a mild summer and about 25 inches of rain distributed throughout the growing season. Large areas of excellent soils have fostered major farm production for centuries. Most of this production has occurred on small family farms, many of which are now changing as young people depopulate the countryside in search of the glittering trinkets so seductively proffered by the modern corporations in Poland's urban centers and the cities of Western Europe.

Markets

Open air markets and roadside vendors were ubiquitous. These markets were equally likely to be found along the highway in the hinterlands or in downtown Warsaw (3.5 million people) adjacent to a modern financial district. Wherever they were, these markets provided incredibly diverse offerings ranging from masses of local produce and wild-crafted mushrooms to cheap Chinese clothes and hardware. Other notable offerings included fresh-baked breads, a variety of sauerkrauts, and wicker baskets and furniture.

At the open air markets there were often mobile bicycle shops on trucks or trailers that sold new and used bikes, parts, and handled repairs on the spot. You could get your bike repaired while you shopped. There were also many vendors of nursery stock, such as bare root fruit and nut trees, shrubs, and vines, doing brisk business in the autumn. Some of the markets even had local forged farm and garden tools, which seemed to be holding their own against inexpensive Chinese imports.

Occasionally, these markets also had a large area for selling small farm animals including chickens, ducks, quail, rabbits, and other stock. They also offered animal feed, cages, and hutches so you could find everything needed to get your home flock or farm up and running.

Overall, most of the produce was local, fresh, and relatively chemical-free. The only notable item I thought was lacking in the markets was a diversity of greens. One notable point of diversity, especially greens, came from the small Vietnamese population. As one might expect, diverse dietary traditions lead to increased diversity in market offerings. Vietnamese folks at the markets often sold fresh sprouts, greens, tofu, and a variety of tropical fruit flown in from Asia.

Allotment Gardens

In and around Poland's larger urban areas exist "Działki" (pronounced 'jauky') or allotment gardens. These gardens were established 50-60 years ago as rural people moved into the industrializing cities. The new "robotnik" (factory workers) were dissatisfied with the lack of good food and connection to earth. So, large allotment gardens were established. Often the land was owned by a factory. As a worker in that factory one would be assigned a plot where they could grow food and have some access to bucolic surroundings. Perhaps it was a perk. However, it also served as a way to keep people from leaving and returning to a rural existence.

Today, many of these allotment gardens still exist. Poland's allotment gardeners are well organized with meetings, political strength, and a good national magazine specifically focusing on organizing, gardening tips, and resources for gardeners.

Much larger in scale and numbers than community garden plots in North America, these "jauky" or allotments exist throughout the former Socialist Republics and they rock! Laid out on a grid, the allotment gardens often look much like a mini subdivision. In fact, each allotment often contained a tiny house or tool shed hidden in a forest garden of useful, functional trees, shrubs, vines, and animals. An amazing amount and diversity of high quality produce comes from these gardens. Crops I commonly saw in allotment gardens included nuts (walnuts and hazelnuts), seeds and grains (rye, buckwheat, sunflower seeds), and fruits and vegetables (cabbage, potatoes, plums, pears, and tomatoes). This local food production meant that people consumed fewer packaged foods off supermarket shelves (actually there were far fewer supermarkets).

Forestry

Greenspace and large, established parks exist throughout the cities and small towns. These parks often connect with a forested buffer on the urban periphery. Frequently, forested areas could also be found adjacent to riparian areas running through town or city. In all, the line between forest and city was a blurry one.

In sandier soils, forests tended to be characterized by pines (usually *Pinus silvestris*) planted for timber harvest. In the understory a deciduous mix of broadleaf forest species including oak, cherry, beech, birch, and others develops naturally. Eventually, the pines are harvested and the deciduous understory is thinned. The result, a mixed hardwood plantation, emerges. Throughout the entire cycle non-timber forest products, such as blueberries and an incredible diversity of mushrooms, are harvested.

Farming

Many of the farms seem to be in the ballpark of ten hectares in size. Often these farms provided a diversity of products and demonstrated the types of techniques we often use in permaculture designs. For instance, many had a basketry willow patch tucked into a wet spot and young apple trees inter-planted in the cabbage rows. Techniques such as crop rotation, use of animal manures on-site, and cover cropping were commonplace. And, of course, there were stork nest platforms placed on many roofs and power poles.

Most farms incorporated vegetable crops, fruit trees, and animals. Though modern farm equipment does exist, many farms use beat-up, old Russian *Ursus* tractors and/or horses. Horse farming is not at all rare in Poland today. With regard to animal products, there may be large dairies in Poland, but I did not see the characteristic big herds, feedlots, and hog confinements in two thirds of the country.

One impressive strategy I saw for large animal containment used an alternative form of fencing.

The fence consisted of large willow and poplar living fence posts planted on five meter centers. These posts were pollarded annually and the branches were interwoven between them as fencing material. No energy intensive posts and no wire. Pretty slick! I also saw several living willow fences of different designs and basketry panels for moveable small animal containment and room division. One can easily see how much the craft of basketry offers to the Polish people.

Winters in Poland are harsh with lows of -20 – -30 degrees C. In order to get through these long periods many rural folks had large root cellars to store food locally. Root cellars are typically vaulted brick construction with bricks made from the clay dug out of the ground where the root cellar is half-submerged.

Particularly due to the lack of excessive opulence and monetary wealth over the past sixty years, there has been relatively little use of modern biocides on the agricultural and residential landscapes. Not to say everything is clean and pure, but on average it seems to be far better than most of the modern, Western world.

Structures

Throughout Poland there exist both beautiful, old farm

buildings and impressive larger community or urban structures built using time honored traditions and local, natural materials. Walls of earth, brick, or stone are commonplace. In some areas log or heavy plank structures with dovetail joints at the corners were the norm. Occasionally, I would see post and beam structure with wattle and daub infill. Roofs of cut slate, rye thatch, and poplar shingles are common in older buildings and are still used on some newer construction. These are often the techniques natural builders use here in North America.

Many areas have cobblestone road surfaces, occasionally made with rounded river stones, but more often with stones roughly cut or broken into square or rectangular blocks. These blocks are set into sand in arching patterns on the roads and grid patterns on sidewalks. Large curb stones create the division between the two. The best part can be seen when road work or excavation needs to happen. Stones are simply removed, pipes or utilities are repaired, soil and sand are replaced, and all the same stones are set back into a packed sand bed with no asphalt or cement products. This often requires no heavy equipment at all.

Energy

Rural winter heating is usually accomplished with wood- or coal-fired boilers with radiators. Boiler/radiators are also commonplace in small towns and horticultural/greenhouse heating. In one farmhouse renovation I saw a boiler/radiator system serving a cluster of farm buildings, which ran an auger-feed furnace fueled with cherry pits from a fruit processing plant. This system turned a waste product into heat.

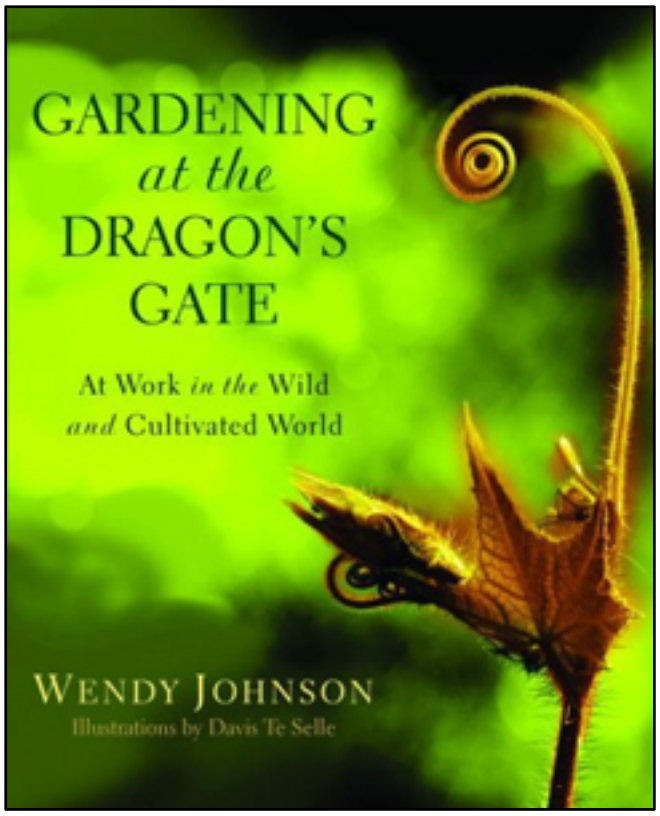
Alternative energy is starting to crop up in Poland. Photovoltaic panels are around a bit. Wind farms are starting to sprout in appropriate locations. Some thermo-electric generators exist on coal and wood burning stoves. Propane and compressed natural gas are commonly available for vehicles and rumors of Russian cavitation generators are floating around.

By looking at food production systems, markets, buildings, and energy in Poland one can easily see how much we could learn from the examples that can be seen throughout the country. All this and more give Poland an interesting hue when looked at through Permaculture spectacles.

* Douglas Bullock is one of the original residents and masterminds at the Bullock's Permaculture Homestead on Orcas Island. An "old growth" permie, Douglas has been designing

and teaching permaculture for over twenty years. Douglas is also a director of the international environmental design company, Exos Design.

Cultivating Wisdom: Pushing Your Permaculture Edges by Sarah Sullivan



Review of:

Gardening at the Dragon's Gate: At Work *in the* Wild *and* Cultivated World

By Wendy Johnson

Bantam, 2008

464 pp. Paper. $25.00

Twelve of us were hunkered down in the rainforest of Eastern Hawaii at La'akea Permaculture Educational Center. We were desperately and passionately attempting to coax food from the ground, facilitate several permaculture courses a year, and do our best to live off the land.

The fruits were prolific; the timber bamboo was staggeringly abundant; the tropical greens and tubers grew when simply tosses on the ground. But we all lacked basic knowledge of soil science, and were fairly new to farming. The greenhouses and our production of the persnickity European cultivars to which we were accustomed were challenges beyond measure: the bugs, the mold, the blights, and the pounding heavy tropical rain (all two hundred inches a year of it), were winning.

The ground was short on soil and mostly made of black, porous lava rock. Shovels were useless. We dug in that acidic, nutrient-deprived, young earth with what Hawaiians call O'o bars: long, crowbar-looking, idealist-driven jungle jackhammers.

Needless to say we could have used some help. We were left humbled, and often defeated.

That jungle farm and so many other radical permaculture projects I have seen desperately needed Wendy Johnson and her beautiful new book Gardening at the Dragon's Gate- At Work in the Wild and Cultivated World.

Johnson's musings on patience and the parallels she makes between farming and personal growth, coupled with her keen insight on soil chemistry, pest management, and biodiversity are

presented in a poetic yet straightforward way in her first book. Johnson is co-founder of the organic Farm and Garden program at Green Gulch Zen Center in Marin County as well as a Buddhist meditation teacher, and an advisor and cornerstone to the Edible Schoolyard program of the Chez Panisse Foundation in Berkeley. As such, her unique skill sets provide her the insights necessary to address "Zone-0" ethics in the earth-based, practical language that only comes with decades of farming experience.

Without calling it permaculture, Johnson digs deeply into many permaculture principles such as the concept of dynamic edges in a landscape.

> The best gardeners I know continue to find time both to sit still and to walk the margins of their land. This walking is not to arrive anywhere in particular, and certainly not to plan what needs to be done in the garden. It is in the walk of a mangy coyote exploring soft edges, the boundary line where garden and wilderness meet. This kind of margin-line walking is a matter of finding your true peace, your coordinated breath with your steps in mindful ease. (90)

Along with her non-dogmatic, earthy insights on personal growth in the garden, Johnson speaks knowledgably on what secrets weeds tell, the medicinal magic of natives, the complex cooking of the compost pile, and the importance of seed production. Her reverence for the earth shines through her technical advice, making each chapter easy to read.

> Weeds are powerful plants tenaciously and forthrightly of their place and *in* their place. They are firmly settled right where they are, and whether they are invasive exotics or native weeds, they are supremely good indicators of soil condition, climate, water flow, nutrient balance, and fertility levels in all of the many places where they grow. Weeds always indicate the history of the soil and its land use where you are gardening, so by staying close to the weeds, you can see how to work the land that you are gardening. They are made of the soil you cultivate. (177)

She goes on to talk about the mystical plant dock:

> Yellow dock is not only an indicator weed but also a remedy for the very conditions it thrives in. Endeavor to dig out the long, brawny roots of dock and you leave open a significant drainage channel to siphon off excess water from the field. If you leave the dock alone, its taproot opens deep channels that help to drain boggy soils. (178)

Gardening at the Dragon's Gate is an homage to Johnson's bioregion, and makes clear her intricate understanding of the landscape in which she has spent almost her entire life gardening. She is clearly a master of observation, favoring hand watering and reading the lines of the landscape.

> Before you break ground for a new garden and occupy the site, take some time to consult the genius of the place. Sit still on the spot where you are plotting paradise, perhaps by surprising it with a midday visit, or by coming in a driving rainstorm, without even an umbrella to protect you from your garden dreams. Consider spending the night camped

> out on your proposed garden site, enjoying the night sky and the dawn chorus of hidden birds. Mostly, walk the land every day, pacing the open ground, no matter how small your plot is, before you occupy the site…The important point is simple and manifest: gardens occupy the sites where they grown, and they change their sites and themselves as they root and take their place. Additionally, gardens occupy their gardeners as well, ripening the mind, body, and imagination of all who step inside their green gates. (320)

Though Johnson's method of gardening is inspired by her studies with Alan Chadwick and bio-intesive, double-dig methods she does pay homage to us permaculturists at least twice by name in the book. She also encourages us to expand our ways and explore the infinite methods for tending to the land.

> I recommend that you experiment with cultivation. You will soon know whether you are a "digger-down" gardener, a "mounder-up" cultivator, or a patient permaculturist. Once you know how you are inclined, experiment. Try a sheet-compost bed if you never have before. Or if you are a fanatic no-dig gardener, seek out one moonlit night and locate a corner of one of your permaculture beds and dig it up with a fork and a spade and see what happens in the light of day. The primary work of every gardener is to stay alert and playful within the heft and heart of your soil. In this way garden and gardener culture each other, well inoculated with surprise…Trust the garden and your love of the garden and just continue, under all circumstances. (119)

Pick up Johnson's book in the last days of winter before the spring comes, and consider expanding your concept of all that the garden has to teach.

*Sarah is a Permaculturist recently moved to Portland, OR. Previously, she dwelled in Hawaii where she grew a variety of crops, taught Permaculture, and served as a leader in the GMO-Free Hawaii movement.

Contributions

We are always looking for good contributions for our newsletter. Here are a few guidelines:

- We prefer "how-to" articles, or articles of broad interest in the Permaculture community (*e.g.* how to make ice without electricity, a new design for a portable animal enclosure, new ideas about establishing a community Permaculture guild, etc.)
- We prefer not to have project updates, project promotions, or other things that are not of interest to a wide Permaculture audience.
- Target Release Dates / Submissions Due

Target Release Dates	Submissions Due
Spring – March 1	February 15
Summer – June 1	May 15
Autumn – September 1	August 15
Winter – December 1	November 15

If you are thinking of writing an article, please contact Dave at info@permaculturereportal.com to discuss your topic and get ideas.