

PV1

THE BEGINNING

THE NATIONAL heirloom EXPOSITION

September 9 – 11, 2014
11 a.m. – 8 p.m.



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Sonoma County Fairgrounds, Santa Rosa, California
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“The Worlds Pure Food Fair”

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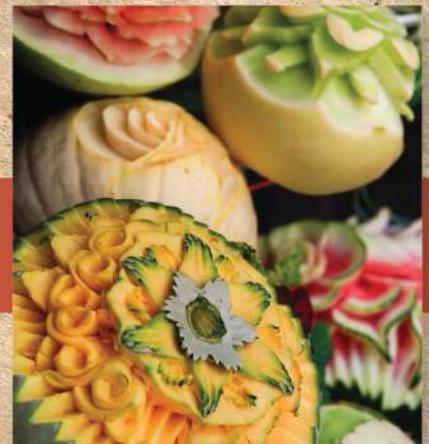
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The Largest Display of Heirloom Produce



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Talented Chefs

THE FIRST PERMACULTURE VOICES IS OFFICIALLY HERE! Wow. What a ride! The past year has been an amazing journey. A true roller coaster ride filled with ups and downs. And I mean UPS and DOWNS! At times it was grueling and very hard, but luckily there were more ups than downs, and we made it. Here we are today. Changing the world.

I want to thank my wife, Kim, for supporting me through the process, and putting up with all of the stress, long hours, and time commitments that come with being married to an eco-entrepreneur. She risked A LOT alongside me, allowing me to follow my dreams creating this event. Not because she wanted to (at first), but because she loved me, supported me, and believed in me. Being on the spousal side of a start-up isn't the easiest position to be in, so thank you from the bottom of my heart.

When I sit here today typing this and looking back I don't even know how it all got done. Thousands of hours of work got done around an already busy schedule, the birth of my second daughter, and raising two young daughters as an active and engaged dad. It was intense. Yet it was awesome.

Stepping into the unknown I started the process only a year ago, from scratch, with minimal event planning experience, minimal internet skills, and a small bankroll. The risk was high and very real. Failure would not have been fun. Nevertheless, here we are today. So much built from so little. I say this for one reason...

Follow your dreams and strive to do great work that you love and can pour your heart and soul into. You won't always know how it turns out in the end, but at least you can be content in knowing that you are trying. Take some risks and learn from your failures. If you are reading this then think about that thing you always wanted to do... **and go do it.** Start tomorrow. **TOMMORROW.** Five years from now you will thank me and yourself because it's totally worth it.

I want to thank everyone in the Permaculture Voices community. I truly believe that we have some of the most action oriented, and over achieving fans in permaculture and agriculture. You all are amazing. If our audience is only a small segment of the greatness that is out there, then I believe that the future is in good hands. Because there are truly remarkable things being done by people out there. Everyday I am blown away by the stories that I hear from folks who are changing their own lives and helping others in the process. **TOTALLY AMAZING.** It is you all that are the change-makers. On the ground getting stuff done in the face of a lot of adversity. I know it isn't always easy, so keep it up. I will be right there with you.

I want to thank everyone that helped make this event possible. I couldn't have done this alone. I set out to make an impact by creating a huge event that jammed as much value into four days as possible. I wanted big changes to happen and I didn't want any excuses. So I strove to over-deliver as much value to you as I could. I know that this process wasn't 100% perfect at times, and I want to thank everyone for their understanding, kindness, and support during the process. Because that is what this is a process. I am in this to make a big change, not a million dollars. I am in this for the long haul. And I need your help.

Thank you for sticking with me, going through this journey alongside me, and I hope we can grow bigger and better together long into the future.

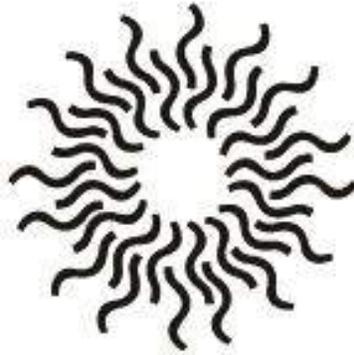
Go out there and be the change that you want to see in the world. Live the life that you want to live. Together we are going to change the world.

Diego

"Take the first step in faith. You don't have to see the whole staircase, just take the first step." Martin Luther King, Jr.

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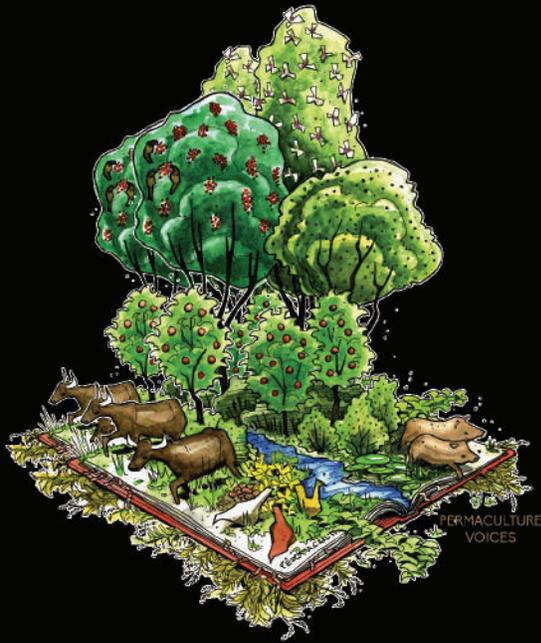
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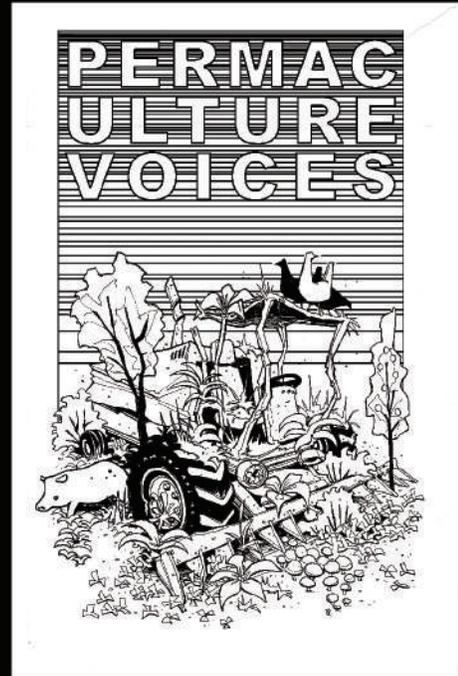
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Want to get your book signed?

Stop by our bookstore to get information on book signings taking place during the conference.



'The Book'
by Kearsley



'The Combine'
by Kearsley

Paul Kearsley Art & Design

I am often asked, "When did you start drawing?" My usual response is "When did you stop?"

Art has always been a big part of my life and working in permaculture has provided a huge source of inspiration and opportunity.

Whether sharing silly ideas, sorting through a site design or explaining a new concept, I am usually working with a pencil in hand and a smile on my face.

This skill set has offered me some excellent opportunities and it has been a pleasure to collaborate with the organizers of Permaculture Voices.

If you are interested in collaborating, please write to KearsleyDesign@Gmail.com

'The Rooster'



SHIRTS FOR SALE AT REGISTRATION

Permaculture Voices Conference

Thursday, March 13

Grand Ballroom West Ballroom Eagles View Mtn. Lion, Turtle

8:00-9:30

Registration

9:45-11:15

Joel Salatin
Keynote: Fields of
Farmers &
Opening

11:30-12:30

Larry Santoyo:
Permaculture for
Humanity:
Moderating the
Urgency of
Urbanism

David Eggleton &
Steph Kent:
Learning for Life

Sarah Aubrey: Is
there really any
grant money out
there?

11:30-1:45

Joel Salatin: Ballet
in the Pasture

12:45-1:45

Jack Spirko:
Building a
Profitable
Permaculture
Business

Neil Bertrando:
Tree Systems in the
High Desert

Adam Brock:
Greening the Food
Desert

2:45-3:45

Owen Hablutzel:
Permaculture
Horizons –
Dynamic Design
for the
Anthropocene

Jimmy Schmidt:
Marketing
Sustainable Products:
A New Paradigm to
Broaden Your Reach

Sarah Aubrey: 5
Steps to Successful
Grant Applications

Jane Higginson:
Attracting Native
Pollinators

2:45-3:45

4:00-5:15

Joel Salatin
Keynote: Stacking
Fields

6:30-7:00

Book Signings - Vendor Area

7:00-9:00

Curtis Stone,
Rob Avis, Javan
Bernakevitch:
What are the top
3 permaculture
businesses you
could start
tomorrow?

Grand Ballroom West Ballroom Eagles View Mtn. Lion, Turtle

Permaculture Voices Conference

Friday, March 14

	Grand Ballroom	West Ballroom	Eagles View	Mtn. Lion, Turtle	
8:00-9:15	Toby Hemenway Keynote: Why Agriculture Can Never Be Sustainable				
9:30-10:45	Geoff Lawton: Reading the Landscape	Paul Wheaton: Wood Stoves 2.0. The latest in Rocket Mass Heaters.	Joseph Simcox: Ecological Adaptation Strategy. Why agriculture must use plants that are naturally adapted to their environments.		9:30-10:45
11:00-12:15	Michael Pollan: The State of the Food Movement. What Needs to Happen Now.				
1:15-2:00	Michael Pollan & Danielle Nierenberg: The Year of Family Farming				
2:15-3:15	Rob & Michelle Avis: Lessons & Learnings: Starting A Permaculture Based Business	Craig Sponholtz: Harvesting Water By Healing Watersheds	Mitra Sticklen: 5 Dialogue & Deliberation Design Tools for Permaculturists		2:15-4:30
3:30-4:30	Peter Ash: Rehabilitating Polluted Ecosystems with Compost	Nicholas Wooten & Jessica Schilke: Working with College Students	Adam Brock: Towards Pattern Language of Invisible Structures	Greg Judy: Profitable Methods Used to Heal the Land with Mob Grazing	
4:45-6:00	Geoff Lawton Keynote: The Permaculture Designers Manual in One Hour				
7:15-8:30	Willie Smits: Village based permaculture approaches in Indonesia				
	Grand Ballroom	West Ballroom	Eagles View	Mtn. Lion, Turtle	

Permaculture Voices Conference

Saturday, March 15

Grand Ballroom West Ballroom Eagles View Mtn. Lion, Turtle

8:00-9:15	Paul Wheaton Keynote: Increasing the Velocity of Permaculture				
9:30-10:30	Mark Shepard: Restoration Agriculture, Designing Your Perennial Farm	Louis Fox: Putting the PR in Permaculture, communicating beyond the choir?	Larry Santoyo: Permaculture for Humanity: The Economics of Sharing & Caring	9:30-1:00	
10:45-11:45	John Kitsteiner: Permaculture, The Missing Key to Health	Greg Judy: Multi-species Grazing on Leased Land	Chris Arnold: Reinventing Fast Food: Better ingredients from more sustainable sources.	Dr. Elaine Ingham: Soil: It's All About Life. A soil workshop	
12:00-1:00	David Barmon: Urban Lumber	Adam Klaus: Biodynamics for Better Farming	Rishi Kumar: Advanced Suburban Permaculture		
2:00-3:15	Dr. Elaine Ingham Keynote: Building Soil Health				
3:30-4:30	Owen Hablutzel: Drought Resilience for the 21st Century	Ryan Harb & Bill Bean: Building Actionable Plans for Your Permaculture Initiative	Fraser Bliss: Life's too short for 9 to 5: How to find your niche and start or grow your own business.	3:30-4:30	
4:45-6:00	Allan Savory Keynote: The role of livestock in a new agriculture that can save city-based civilization.				
7:00-11:00	Curtis Stone: Spin Farming Intensive				
	Grand Ballroom West Ballroom Eagles View Mtn. Lion, Turtle				

Permaculture Voices Conference

Sunday, March 16

	Grand Ballroom	West Ballroom	Eagles View	Mtn. Lion, Turtle	
8:00-9:45	Geoff Lawton: Permaculture Earthworks	Willie Smits & Peter Hirst: Permaculture in a half million-acre forest concession in Indonesia	Phil Rutter: Plant trees, but just not any tree...		
10:00-11:15	Allan Savory Keynote: Why management needs to be holistic to avert tragedy beyond imagination.				
10:30-11:30	Craig Sponholtz: Reversing Desertification With Sticks, Rocks and Ancient Wisdom: Simple Ways to Heal Erosion	John Roulac: Can a business be a tool for real change?	Adam Klaus: Small Dairy Herds for Small Farms	Paul Greive: Using Social Media to Generate Farm Revenue	10:30-11:30
12:45-1:45	Nadia Lawton: Working with Traditional Communities from a Woman's Perspective	Neil Bertrando: 3 Years and 1 Acre in the High Desert	Javan Bernakevitch: Finding Your Niche	Pat Foreman: Why Chickens are the Enablers and Heroes of Permaculture Design and Healthy Sustainable Living	12:45-1:45
2:00-3:00	Michael Gold: Chestnut, Building a Perennial Industry	Doniga Markegard: Wildlife, Ranching, Carbon and Policy.	Paul Kersley: Conceptual Illustration for Permaculture	Marco Barrantes: PDC complete, now what? Professional career pathways in permaculture.	2:00-3:00
4:00-5:00	Jonathan Todd: Restoring the Waters	Valerie Loew: Edible HOA's	Nicholas Wooten & Jessica Schilke: Working with Educational Admin & Officials	Avery Ellis: Designing for Disaster: The Fire/Water Duality	4:00-5:00
5:15-6:15	Toby Hemenway: Backing Away from the Energy Cliff	Paul Wheaton: The Design of Intentional Community	Mark Shepard: Alleycropping and Silvopasture: Transitioning to Restoration Agriculture		5:15-6:15
6:30-8:00	Geoff Lawton Keynote: Permaculture and The Tipping Point & Closing				
	Grand Ballroom	West Ballroom	Eagles View	Mtn. Lion, Turtle	

The Talks of Permaculture Voices

[Allan Savory](#)

Livestock for Regeneration

The role of livestock in a new agriculture that can save city-based civilization. Allan will discuss how animals can be used to heal landscapes, combat climate change, restore economies, increase soil fertility, produce clean water, provide healthy habitat for wildlife, and more. (KEYNOTE, 1.25HR)

Managing Holistically

Allan will discuss why management needs to be holistic to avert tragedy beyond imagination. He will explain how decisions and policies should be made in a context that recognize that economic, environmental, and social/cultural issues are part of an indivisible whole. (KEYNOTE, 1.25HR)

[Dr. Elaine Ingham](#)

Building Soil Health

A revolution in our understanding of soil has been taking place. “Conventional” agriculture requires ever-increasing inputs and energy into the system to maintain production, while natural systems reduce the disturbances in the system, while increasing production. Historically, soil science ignored or dismissed soil life as important, in large part because the methods used to study organisms in soil were mis-leading, inaccurate and missed about 99% or more of the species present in soil. With the advent of microscope methods and genetic assessment of soil life, we are beginning to unravel the mysteries of the soil. A framework to help growers easily understand the differing specific sets of beneficial organisms required for healthy growth of different types of plants will be presented. Understanding soil life is critical if we want to be sustainable; we need to work with nature, instead of waging war on natural laws as we do in our agricultural systems, to the detriment of people and the planet. (KEYNOTE, 1.25HR)

Soil: It's All About life.

What is soil? As opposed to dirt, for example. Where do nutrients come from to keep natural systems growing, increasing plant production, building soil over centuries of time, holding nutrients, and carbon in long-term recalcitrant forms. It is all about the life in soil. so, what is that life? Are some of the organisms in soil “bad”? All depends on the point of view. If what is wanted is a swamp, then what are the organisms needed to make that happen? What combination of conditions are necessary to reach that goal? but what if you want to grow tomato, without needing toxic chemicals to kill the weeds, the diseases, the pests, and yet maintain balanced nutrient concentration in the tomato, so the produce tastes exceptional. It is all about life. The groups in soil will be discussed, as well as their nurture. growth, and the conditions that select for the exact set of organisms desired.(3.5HR)

[Geoff Lawton](#)

The Permaculture Designers Manual in One Hour (KEYNOTE, 1.25HR)

Permaculture and The Tipping Point (KEYNOTE, 1.25HR)

Reading the Landscape (1.25HR)

Permaculture Earthworks (1.75HR)

[Joel Salatin](#)

Successional Success: Fields of Farmers

The average age of America’s farmers is 60 years old. If young people can’t get in, old people can’t get out. In the next 15 years, nearly 50 percent of America’s farmland will change hands. More than 50 percent of all farming equity is owned by people old enough to retire. Hermit curmudgeon farmers need to invest in the next generation. Young people need to invest in hermit curmudgeons. In this can-do presentation based on 20 years mentoring interns and apprentices to germinate young entrepreneurial farmers, Salatin will offer a road map for both generations to create fields of farmers for tomorrow. (KEYNOTE, 1.25HR)

Stacking Fiefdoms

Using Polyface farm as an example, Salatin offers templates for structuring symbiotic partnership fiefdoms for multi-generational farm success. Rather than building a business around employees, Polyface germinates entrepreneurial stand-alone fiefdoms. Former interns and apprentices develop their own production and compensation requirements under the Polyface umbrella, enabling young farmers to be fully employed from day one without capitalization. As a model for creating scalable and viable localized food security clusters, farm partnership offer community, efficiency, and lowcost entry. (KEYNOTE, 1.25HR)

Ballet in the Pasture

From fence building to paddock layout to calculating cow-days, Salatin walks you through the infrastructure and integration of multi-species pasture management. Polyface Farm produces salad bar beef, pigearator pork, pastured layers, broilers, and turkeys, and forage-based rabbits. Portable infrastructure, efficient water delivery, portable control, and off-season housing roundout the package with broad principles for universal application and local customization. (2.25HR)

[Michael Pollan](#)

The State of the Food Movement. What Needs to Happen Now. (KEYNOTE, 1.25HR)

The Year of Family Farming

with Danielle Nierenberg (PANEL, 45 MINUTES)

[Paul Wheaton](#)

Increasing the Velocity of Permaculture.

Why isn't permaculture a household word? How can we increase the velocity of permaculture projects and innovation? The owner of the largest permaculture site on the Internet shares his vision for how to support and grow permaculture knowledge until it dominates and rules the world! (Bwa ha ha ha!) (KEYNOTE, 1.25HR)

Wood Stoves 2.0. The latest in Rocket Mass Heaters.

Paul Wheaton and crew have been innovating with four rocket mass heaters at Wheaton Laboratories over the winter in Montana. Hear what is working and not working with what Paul and many believe to be the cleanest and most sustainable way to heat a conventional home. (1.25HR)

The Design of Intentional Community

Homesteading and permaculture living often overlap with creating one form or another of an intentional community. Paul Wheaton discusses his research and experiments in community design and his unique model for making it work. (1HR)

[Toby Hemenway](#)

Agriculture, Horticulture, Permaculture: Why Agriculture Can Never Be Sustainable, and a Permacultural Solution

Ten thousand years of agriculture has devastated every ecosystem it has come in contact with. Horticultural societies point toward a solution, and permaculture can help us design a way to overcome agriculture's deficiencies, preserve many of the best features of our culture, and create a horticultural society that has a good chance of proving sustainable. This lecture shows how we got into this mess, and offers a route out of it. (KEYNOTE, 1.25HR)

Backing Away from the Energy Cliff: A Permaculturist's Guide to Thinking About Energy

Fossil fuels are the underpinning of our civilization, and our desperate attempts to keep cheap oil flowing runs the risk of collapsing ecosystems and cultures. This lecture uses a permacultural approach to evaluate energy sources and to design possible energy futures. (1HR)

[Adam Brock](#)

Greening the Food Desert: Urban Permaculture in Denver

How can the principles and ethics of permaculture make a real difference in long-neglected inner-city communities? What physical and invisible structures are necessary to rebuild a broken food system in Colorado's most polluted neighborhood? Join urban permaculturalist Adam Brock for an interactive session exploring his work at The GrowHaus, a permaculture-based nonprofit located in a repurposed 20,000 square-foot greenhouse in the heart of one of Denver's poorest neighborhoods. (1HR)

Towards a Pattern Language of Invisible Structures

It is becoming increasingly clear within the permaculture movement that designing regenerative landscapes and built environments are not sufficient to build a regenerative culture – we must also find a way to methodically apply the ethics, principles and design process to invisible structures such as education, economics, and governance. The “pattern language” framework developed by Christopher Alexander and his colleagues presents an ideal way to design for and apply these invisible structures in our permaculture work. Join permaculturalist Adam Brock as we explore the possibilities for a pattern language of invisible structures, and devise a framework for collaboratively developing one. (1HR)

[Adam Klaus](#)

Small Dairy Herds for Small Farms

On fertile ground, with good management, a complete dairy herd can be maintained on a surprisingly small amount of land, as little as 5 acres. The cow herd acts as a source of farm labor to maintain areas that are not optimal for horticulture; with our stewardship they increase the fertility of their pastures while yielding milk, meat, and manure to further enrich the rest of the farm. Our stewardship begins as grass farmers. Pasture for healthy cows is a rich polyculture of grasses and legumes, forbs and flowers. It is beautiful, soil enriching, and nutrient dense forage. The synchronization of grazing and resting, irrigating and regrowing, is an amazing process.

Our choice of the Brown Swiss breed was guided by the desire for a dual purpose animal, producing milk quality rather than quantity, with natural mothering instincts and robust health. One of our cows, on pasture only, milked sensible one time per day while still raising her calf, will yield 4 gallons of milk on average through the entire 250 day milking season- that's 1000 gallons of milk!

There is a great local demand for raw milk, a unique product generally not available through supermarkets, so customer loyalty is ensured. A single gallon of milk can be transformed into a half pound of butter, a pound of mozzarella cheese, and a bucket of microbe rich whey for the chickens. Male offspring are raised for beef, yielding 200 pounds of top quality meat at one year of age, with a very minimal of input from the farmer. The relationship between farmer and dairy cow is a rewarding partnership that shares many similarities with natural horsemanship. Our herd is milked seasonally, when the pastures are lush and nature would prefer its calves to be born. Winter is a rest time for our cows and ourselves, our farm aligning to the yearly cycle of life.

Incorporating small dairy herds into small farms has historically been a huge source of wealth and satisfaction for farmers. (1HR)

Biodynamics for Better Farming

Biodynamic farming is a method of working with natural rhythms and biological processes. In its essence, biodynamics lays out a system of farming that interacts with the patterns of nature to create healthier farms.

The farm is recognized as a singular super-organism, a complete ecology of itself. Animals are raised according to their intrinsic qualities and needs, to be naturally vibrant like a herd of elk in the wilderness. Integrating our farm practices with the natural rhythms of sun and moon, we grow healthier plants. Participating intimately with the reproduction of vegetable seeds and breeding animals, we cultivate a unique farm biology that is optimally suited to our specific needs and circumstances. Cooperating with the unseen microbial world of the soil, we utilize specifically inoculated composts that enrich our farms from the sub-microscopic level. Treating our farms as complete farm organism results in an efficiency that is wasteless and profitable.

The demystification of Biodynamics is a key concept for the evolution of best farming practices. As many farmers will tell you, the healthiest and most vibrant farms they ever have visited, have been biodynamic farms. (1HR)

Avery Ellis

Designing for Disaster: The Fire/Water Duality

The very nature of disaster is that it surpasses our expectations. As our global climate shifts, localized disasters are becoming more prevalent. In recent years fire and then floods have ravaged Colorado and other Western states, while the Coasts of every continent have seen storm waters rise higher than ever before. These disasters have had long lasting effects on the stability of our centralized infrastructure and as a society we need to be learning from these events to become better prepared for the future. Permaculture can provide us with some simple solutions that will reduce the intensity of these events on our homes and communities and teach us how to rebuild with greater resiliency and intelligence. This workshop will explore our modern experience of disasters, focusing on the relationship between fire, floods, extreme weather, and human living spaces. (1HR)

Bill Bean

Building Actionable Plans For Your Permaculture Initiatives (Including the UMass Amherst Case Study)

We already know that permaculture design works, there are projects and examples all across the world. People are no longer asking “*why do this*” but rather, “*HOW do we do this*”, that is, create impactful, world-changing projects that engage local communities, are economically regenerative, and demonstration ecological restoration.

This presentation focuses on *the how-to piece*. You'll learn how to get your project endorsed, get the resources you need and make your project successful, and it all starts with setting clear, quantitative and actionable objectives. We'll both demystify the mechanics of strategic and tactical planning and explore common start-up hurdles such as initial fundraising strategies, social structure design, and building project support at all levels.

A portion of this talk will focus on the UMass, Amherst Permaculture Initiative, which quickly became one of the most well-known institutional examples of permaculture in the nation. In 2012, The White House named UMass Permaculture the top university project in the country that's changing the world for the better. We'll examine the nuts and bolts of how this project was crafted and implemented from Ryan Harb, a permaculture consultant who specializes in creating “beyond sustainability” projects for institutions, and Bill Bean, a sustainability consultant with over 30 years of experience in strategic planning and coaching and a growing presence in the permaculture space.

Co-presented with Ryan Harb. (1HR)

[Chris Arnold](#)

Reinventing Fast Food: Better ingredients from more sustainable sources.

Chipotle Mexican Grill is on a mission to change the way people think about and eat fast food. That's a big undertaking. Fast food has become so prevalent in America, and is generally characterized by cheap, heavily-processed ingredients and uninspired restaurants. But Chipotle has chosen a different path. Using better ingredients from more sustainable sources, preparing food in its restaurants using classic cooking techniques, serving customers in a way that lets them choose exactly what they eat, and doing it all in an environment that says something about the food, the company is showing that consumers can have it all. Great food, made with the best quality ingredients, in a way that is accessible for people on the go. (1HR)

[Craig Sponholtz](#)

Harvesting Water By Healing Watersheds

We all live in a watershed and everything we do on the land has consequences for the surrounding watershed and ecosystems. Because of this, watershed awareness is critical. There are many natural processes that effect watershed and ecosystem health and it is our job as designers to understand and harmonize with those processes as much as possible. This is especially important when it comes to harvesting our shared, life-giving resource of water. This talk will describe a simple method to assess the ways that surrounding landscapes influence project sites as well as regenerative design principles that help to harmonize water harvesting earthworks with natural healing processes. Craig will expand your concept of what water harvesting and land restoration can be and how the ethic of leaving a fair share can be applied to water harvesting systems. (1HR)

Reversing Desertification With Sticks, Rocks and Ancient Wisdom: Simple Ways to Heal Erosion

Desertification is a pervasive process in many of the earth's landscapes. While it is often dramatic, it can also be a very subtle process occurring in surprisingly humid environments. This talk will focus on the ways that landscape degradation and soil erosion lead to the de-hydration of vast areas. More importantly, Craig will share techniques that use readily available natural materials and time tested dryland farming techniques to heal eroded landscapes in all climates. (1HR)

[Curtis Stone](#)

SPIN Farming Workshop

Make money as an urban farmer in the city – with SPIN farming! Learn how the SPIN-Farming system, which is now being practiced by a growing corps of farmers across Canada and the U.S., can be used to create a high-income producing farm or improve your current operation. SPIN is the first organic-based production system for land bases under an acre in size, and it can be implemented by aspiring and practicing backyard, front lawn and neighborhood lot farmers everywhere. All you need is to equip yourself with the right gear and a radically new understanding of what it means to be a farmer. SPIN-Farming Basics with Urban-farmer Curtis Stone. Curtis Stone is the owner/operator of Green City Acres, a commercial urban farm based out of Kelowna, BC. Farming under an acre of land on a collection of urban plots, Green City Acres grows vegetables for farmers markets, restaurants, retail outlets, and a sixty member CSA box program. See SPIN-Farming in action as Curtis Stone shows you how he assembled a multi-locational SPIN farm that grossed \$20,000 in its first year and \$55,000 in its second. He'll describe the design of his farm, equipment used, planting plan and target markets. Though records are not yet kept on how quickly farms can get in and off the ground, Curtis got his farm up and running and generating income in 6 months, which has to be some sort of record. It certainly gives new meaning to the term "fast food"! (4HR)

[Danielle Nierenberg](#)

The Year of Family Farming

with Michael Pollan (PANEL, 45 MINUTES)

[David Barmon](#)

Urban Lumber

Four billion board feet of potential urban lumber is annually chipped for compost, cut up for firewood, or worse, discarded into landfills. Over the last few decades a growing number of individuals and small companies have started to mill urban trees with portable bandsaw mills and chainsaw mills. While utilizing existing trees as they come down is important, trees need to be planted with urban lumber in mind. In fifty years, billions of board feet of urban lumber could be harvested and processed efficiently and sustainably every year in the US. (1HR)

[David Eggleton](#)

Learning for Life

Self-directed lifelong learning is a vision and a possibility with much promise for the shift to a culture of life, by life and for life. Such learning involves steady investments of attention, time and energy that almost any person can make.

In this session, you will acquire and work with a set of considerations that enhance investments in learning – yours and others' – both during this conference and for years to come. You'll get clearer about the choices that brought you to the conference, the choices you have at the

conference and choices you'll have henceforth. The clarity, awareness and skills gained will improve your uptake and retention of information, and your benefits from self-directed learning.

David Eggleton, an old-and-new permaculture designer, and Steph Kent, an interpreter, analyst and multi-channel communicator will present and, with a worksheet and exercises, walk you through considerations of paradigms, concepts, relationships and activities that comprise the culture-shifting system that David has devised. The system is flexible and adaptable, as the pair's focus on your learning at this conference will demonstrate.

The considerations merge learning theory with the permaculture principles.

This session is co-presented with Steph Kent. (1HR)

[Doniga Markegard](#)

Wildlife, Ranching, Carbon and Policy. *Creating Lasting Change*

In this workshop Doniga Markegard will guide participants through ways to create change starting from the soils and leading all the way to the Capital. By practicing permaculture and regenerative ranching Doniga has drawn attention from policy makers, climate change groups and community activists.

Doniga uses the tools she gleaned from wildlife tracking a permaculture to put into practice a successful ranching operation built on the principles of Holistic Management and the triple bottom line. Doniga soon realized that she was in a position to influence policy change that would impact the ability for other farmers and ranchers to practice agriculture that is regenerative to soils and communities.

Doniga has successfully introduced a Bill to the State legislators that will allow for the previously illegal practice of sharing fresh unprocessed milk from family milk cows with neighbors and friends. Doniga is coining this first bill: Common Sense Laws the things our grandparents practiced that are now illegal! Doniga hopes to work on a series of bills that will enhance agriculture practices that store water and carbon, build soil and build resilient local economies. Join the movement to create change that is lasting. (1HR)

[Fraser Bliss](#)

Life's too short for 9-to-5: How to find your niche and start or grow your own business.

Tired of the rat race and want to be a farmer, food hub or permaculture professional? But how to discover your niche and startup a sustainable and booming business?

Entrepreneur and permaculture teacher Fraser Bliss quit a corporate career to travel around the world for 5 years in search of answers. Once Mollison's farm manager, now he runs a software company that supports local food and farmers all over the world.

You'll shortcut your path to success from the lessons that Fraser has learned over the past decade as a corporate consultant, world nomad, permaculture teacher and founder of a tech company.

Don't reinvent the wheel, in one hour you'll find out how to avoid common first-time mistakes and hit the ground running when you get home.

It's vital that you succeed. Not just for you, but for the planet. (1HR)

[Greg Judy](#)

Multi-species Grazing On Leased Land

This talk will cover the steps used to find leased land and build a multi-species grazing operation from scratch. By using a variety of livestock to manage the forages it allows better utilization of plants. Harvesting much more solar energy through the wide selection of different plant leaves. (1HR)

Profitable Methods Used to Heal the Land With Mob Grazing

Using a mob of livestock is the quickest and most profitable method available to build soil, catch rain water, increase plant diversity and produce healthy food with very little purchased inputs. Will cover all the steps in setting up a mob grazing operation that mimics nature. (2HR)

[Jack Spirko](#)

Building a Profitable Permaculture Business

As more and more people learn about Permaculture a new business segment is developing. There is a strong desire in many individuals to do Permaculture as a full time business, either as a consultant, a teacher or as a small farm holder or even do all three. Can it be done and by more

than just a few of Permaculture's "rock stars". Join this discussion to learn how a Permaculture business can be established in any part of the world, how to develop multiple income streams, earn a good living and still remain true to permaculture's ethics. (1HR)

[Jane Higginson](#)

Attracting Native Pollinators to Your Permaculture System

Insects, bats, and birds have co-evolved with plants in many ways. One of these coevolutions of great relevance in permaculture is pollination. This presentation will introduce you to major groups of native pollinators, with an emphasis on bees and butterflies. You will also learn about additional ecological services that pollinators provide. The talk will cover the basics of how to assess pollinator habitat. You will then learn key ways that you can attract native pollinators, and sustain them on your permaculture site. The means for attracting them are very feasible actions that you may begin to implement right away on your site, thereby increasing the yield, the biodiversity, and the complexity of ecological interactions of your system. (1HR)

[Javan K Bernakevitch](#)

Permaculture Life Design: Finding Your Niche

Be it property or person, permaculture and Holistic Management are approaches to design desired outcomes. Using decision making strategies as well as Zones, Analysis of an Element, Backcasting and Origin of Element this session introduces a developing technique in helping permaculture students to focus their efforts after receiving their Permaculture Design Certificate. From three previous PDC's this technique has helped establish students effectively and efficiently into right livelihoods that are based on the individual's Zones of Brilliance. The saying "right plant, right place" is as necessary as, "right person, right place", through group and individual dialogue facilitation this emerging technique is providing passionate content fuelled PDC students the focus to create businesses and income streams that are based on a Planet and People First paradigm. (1HR)

[Jessica Schilke](#)

Working with College Students

This presentation focuses on student engagement in the permaculture community and our struggles to gain a foothold at academic institutions. We believe that it is time for this to change. Colleges and Universities offer permaculture unique opportunities to impact communities across the world. By engaging students directly we can begin to assist in shaping the way permaculture will develop in higher education.

During the presentation we will feature pictures, video, and stories about student engagement while we discuss the intricacies of working with them in a college environment. They have a broad range of tools at their disposal when pursuing permaculture, including access to activities organizations, the chance to organize speaking events and ability to pursue permaculture initiatives on campus. When undertaking permaculture projects they often have access to equipment for metal work, pottery, and carpentry. Campuses also offer libraries, campus infrastructure, and lab equipment for research related to academic studies. These communities offer permaculture a highly complex ecosystem in which it may manifest vision for the future.

While there are many advantages and resources available when working with academic institutions; it is important to accept the culture that students are so often a part of. Which is often transient, highly stressed, idealistic, extremely passionate, and still growing up. Students possess an incredible amount of energy, a broad range of skills, and an understanding of social networking in the 21st century that permaculture has for too long ignored. How do we harness this raw enthusiasm for the permaculture community with respect and empowerment while avoiding the perception of exploitation?

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- Student Empowerment
- Student Organizing
- Ideas for students to get involved with permaculture
- Options for organizations to engage students
- Trials and Tribulations of working with Students
- Joy and Rewards of working with Students
- the Power of Students
- What does permaculture offer students?
- What do students offer permaculture?
- Idealism vs. Reality

Topic is co-presented with Nicholas Wooten. (1HR)

Working with Educational Administration and Staff Officials

This presentation focuses on working with the Administrative and Staff Officials at Academic Institutions. Permaculture has something to offer everyone, especially academic institutions. Although often perceived as being averse to change, once they make a decision to support a project or idea these communities are able to implement them rapidly. Each stakeholder brings to the table unique strengths while also presenting new challenges. We must embrace and work with both when pursuing permaculture objectives. While many permaculture projects are constructed on private property; implementing permaculture at public institutions brings with it in an almost unnatural level of bureaucratic process and public scrutiny. It is important to have solid negotiating skills, the patience to navigate institutional politics, a willingness to meet the standards of academic institutions, while having an ability to carrying out long term projects. When partnering with educational institutions it is important to ask “What are your needs?” and “What can I offer you?” rather than only asking “What can you offer me?”. During this presentation we will share our experience and explain what we believe permaculture has to gain by partnering with Academic Institutions.

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- Institutions Averse to Change?
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- Compromise
- Partnering vs Combating
- Rewards and Challenges of Working with Administrative and Staff Officials
- Politics: Like It or Not
- What do Administration and Staff Officials bring to the table?
- What does Permaculture offer to Educational Institutions?

Topic is co-presented with Nicholas Wooten. (1HR)

[Jimmy Schmidt](#)

Marketing Sustainable Products: A New Paradigm to Broaden Your Reach

Beyond production, a farmer requires a viable, consistent market for economic sustainability. The challenges are daunting: crop selection, connectivity, communication, sales & distribution complicate the process of keeping a roof over your head & feeding your family.

To date, there has been no consistent infrastructure providing the farmer the support that informs regional markets. Sustainably grown foods are available but not accessible. Farmers spend valuable time seeking sales & distribution with outdated tools & distribution is weak and inconsistent.

Three times James Beard award winning Chef Jimmy Schmidt, founder of the 150,000 member Chef's Collaborative and author of multiple cook books, will present a new paradigm of marketing & distribution addressing this problem. The approach connects farmers to progressive chefs, home chefs & foodies throughout the farmer's region and if necessary beyond.

Attendees will learn a new tool assisting them in making their business successful. The Foodshed Exchange is an outreach, marketing & sales program created to aid farmers in developing & maintaining a sales continuum by connecting them with an appreciative market.

Using the power of the Internet the The Foodshed Exchange:

- Markets to a broad base of chefs
- Promotes crop planning
- Facilitates peak harvest information
- Automates sales & distribution
- Increases profitability
- Captures surplus for local food banks
- Drives CSA & Coop sales
- Pools packaging & shipping resources
- Affirms the progressive foods movement through profitability

Keeping the joy in growing is every farmer's goal. Using modern technology & educational tools can provide a path to meeting that goal. (1HR)

[Joe Simcox](#)

E.A.S. (Ecological Adaption Strategy)

Something so evident yet so ignored by industrial agriculture, why agriculture in the future must use plants that are naturally adapted to their environments.

In our present day world man has become so detached from nature that he imagines that he can grow wheat in parched deserts and oranges in the arctic, and while this is only a partially true statement, the fascination with gene tinkering in the laboratory with apparent obliviousness to natural forces has scientists trying to create “organisms” with super powers. The disciples of such approaches to agriculture preach of corn and rice that will withstand brutal temperatures and drought and supposedly bring humanity to food security when the thermometers pop because of climate change. Curiously, these people so intent on creating “super” plants in the laboratory, don’t seem to observe that such plants already exist in nature!

E.A.S. is such a simple concept that it is almost elementary school logic, yet for all the brilliant scholars around the world, practically no worldwide cohesive effort has been directed to amassing and trialing all the food plants suited to desertic conditions. Joseph Simcox will explain his bio-adaptive approach to creating effective agriculture in the world’s dry lands, and he will lay out a plan to produce food in them in an ecologically relevant and suitable way. His basis lies in the world’s food plant flora, hundreds if not thousands of plant species around the world have been utilized for food in the deserts by indigenous peoples for millenia, now is the time he argues, to take a closer look and put these plants in the spotlight for cultivation and selection. (1.25HR)

[John Kitsteiner](#)

Permaculture: The Missing Key to Health

Modern agricultural practices combined with poor food choices and a sedentary lifestyle have resulted in an unhealthy, obese (yet malnourished) population. Permaculture motivates and guides the production of nutrient dense foods that are raised how nature intended leading to healthier diets and communities, enabling (as Hippocrates stated) food to be our medicine, and our medicine be our food. (1HR)

[John Roulac](#)

Can business be a tool for real change?

An environmental visionary’s journey to revolutionize the way the world eats. How business can fund NGOs, leverage social media, and create innovation in an entrenched industry. (1HR)

[Jonathan Todd](#)

Restoring the Waters: Ecological Design in Wastewater Treatment and Remediation

Water pollution and wastewater treatment both threaten our freshwater sources, but Nature holds the keys to restoring them to their full health. Learn how Nature’s tools can be employed and accelerated to sustainably treat wastewater and rapidly overturn degradation in the Earth’s waters while harvesting valuable nutrients from the water. John Todd Ecological Design has been a fully fledged business partner of Nature for over 30 years, designing and building Eco-Machines™ to treat and remediate waters. Illustrated with examples of Eco-Machines™ from around the world. (1HR)

[Larry Santoyo](#)

Permaculture for Humanity: Moderating the Urgency of Urbanism

Most of the world’s human population is now urban. We will examine the permaculturist’s role in city planning and it’s direct relevance to wilderness protection, resource management and cultural curation. Larry Santoyo will lead a frank discussion and share his lessons learned on projects in Los Angeles, New York, Detroit, Mexico City, Panama City and Cite Soleil, Haiti. (1HR)

Permaculture for Humanity: The Economics of Sharing & Caring

Resiliency is a byproduct of preparedness.

Economic Development or “Invisible Structures” as it described in permaculture is perhaps the most compelling approach to preparedness of the permaculture design curriculum. How to create abundance, leverage strengths and strengthen weak-links in community development. Lecture and discussion about using permaculture to design businesses and industry that fill real needs of a community and create the conditions for resilience to happen. (1HR)

[Louis Fox](#)

Putting the PR in PRmaculture, communicating beyond the choir?

Louis Fox, director and co-writer of viral video hits, such as The Story of Stuff and The Meatrix, has repeatedly translated difficult topics to millions of minds. Like all perma-converts, he dreams of permaculture moving from the fringes of society into the mainstream spotlight. In this presentation, Louis walks you through the process of creating his latest offering to this cause, 'Sustainable [R]evolution', a new book distributed by Random House, designed specifically to help define and introduce the international culture of permaculture to wider audiences. Come

celebrate the breadth of the movement, and join a group discussion on how we can apply permaculture principles to it's evolving public profile. (1HR)

[Marco Barrantes](#)

PDC complete, now what? Professional career pathways in Permaculture (1HR)

[Mark Shepard](#)

Restoration Agriculture: Designing Your Perennial Farm

Mark Shepard, Manager of New Forest Farms and author of the book Restoration Agriculture, will offer a critique of annual crop-based staple food production, while laying the ecological framework and reasons for designing a perennial staple food crops farm. Attendees will gain the basic skills to begin the transition from annuals to a permanent, perennial agriculture incorporating everything from nuts and berries, to livestock and fruits and vegetables. Shepard's talk will introduce the concept of ecosystem mimicry, Keyline water management and will help you to chart a path forward to a truly ecologically designed farm. (1HR)

Alleycropping and Silvopasture: Transitioning to Restoration Agriculture

Mark Shepard, Manager of New Forest Farms and author of the book Restoration Agriculture, will introduce the simple Agroforestry practices of Alleycropping and Silvopasture as a method of transitioning your farm from a production system based on annual crops to one dominated by a diversity of long-lived perennial crops including nuts, berries, fruits, and livestock. Attendees will learn detailed information on the establishment, maintenance and harvest of long-lived woody crops while simultaneously maintaining current cash flow. Plenty of photos will be used to show what your farm will look like as it grows and changes through the years increasing in fertility, diversity and resiliency. (1HR)

[Michelle & Rob Avis](#)

Lessons & Learnings – Starting A Permaculture-Based Business

Want to combine your love of permaculture or ecological design with generating income? Thinking of starting a new business?

Rob & Michelle started Verge Permaculture in 2009 with a small budget and few business skills. They did one thing particularly right: they sought out mentors and businesses to learn from and model. Fast-forward to 2013 and Verge is one of Canada's premier permaculture education businesses. They have two staff, have taught over 2000 students, have had more than 50 consulting clients and manage an active website (with over 15,000 pageviews/mnth).

Join Rob & Michelle as they discuss and answer your questions about the things they did right, their best learnings and what they would do differently to start over again. (1HR)

[Michael Gold](#)

Chestnut – Building a Perennial Specialty Crop Industry from Scratch

Locally grown chestnuts are emerging in Missouri and surrounding states as high-value specialty crops with potentially large and profitable markets. Specialty crops like chestnuts offer opportunities to introduce economically, socially and environmentally sustainable on-farm enterprises that create new opportunities for family farms and rural communities. Cultivar-based chestnut orchards yield high-quality locally grown nuts that command top market prices. Chestnut cultivation in the U.S. is a proven enterprise due to high product demand (based on growing consumer interest in local and healthy sustainable produced food) and favorable prices (chestnuts sell for \$1.50-\$4/lb. wholesale and \$5-\$8/lb. retail). Chestnuts have favorable nutritional characteristics (e.g., low oil and fat content, high vitamin C, high fiber). Chestnut flour is sweet and gluten free, making it appropriate for the growing gluten free market including people with celiac disease. In recognition of the growth of the U.S. chestnut industry, USDA added chestnut to the 2007 national agriculture census. The Center for Agroforestry at the University of Missouri (UMCA) has the nation's leading chestnut research program, one of only two such programs in the U.S. (Michigan State University being the other one), laying the foundation for a new chestnut industry in Missouri and surrounding states. UMCA has conducted field research since 1996 to identify the best chestnut cultivars, develop management practices suitable for commercial chestnut production, conduct market and consumer research, host chestnut festivals and grower training programs, and provide guidance to the commercial nursery industry in Missouri and the Midwest. (1HR)

[Mitra Sticklen](#)

Five Dialogue and Deliberation Design Tools for Permaculturalists, and One Live Demo

The most complex moving parts of permaculture designs are often the people involved. In this engaging session, participants will learn a pattern language for engagement with other people, using permaculture as a lens to understand five forms of dialogue and deliberation. The majority of this session will be an interactive (shortened) demonstration of the "World Café" dialogue process. The most popular technique for dialogue and deliberation in permaculture circles is the "charette", but this is just one of many processes.

Dialogue and deliberation tools are necessary to navigate diverse situations with diverse stakeholders. Just like permaculture landscape design tools, a few dialogue and deliberation design tools are an essential part of any permie's toolkit. First, participants will learn the four 'engagement

streams' described by the National Coalition of Dialogue and Deliberation: exploration, conflict transformation, decision-making, and collaborative action.

For facilitators, the first question is: what is the goal of your group conversation? Dialogue and deliberation skills will be essential whether your group seeks to solve a dispute or problem, find common ground with diverse stakeholders, influence public policy, build collective knowledge, or almost any situation.

Participants will consider permaculture design examples across five popular dialogue and deliberation techniques. This brief overview concludes the lecture part of this session. The remaining 45 minutes will be a (shortened) participatory run-through of the "World Café" dialogue process, which normally lasts 90 minutes or more. In our quick exploration, we'll set the context and create a safe space before splitting into small conversation groups of four or five people. Each group responds to one open question for the first 15-minute round, doodling or writing notes on a shared tablecloth/posterboard.

At the end of the first round, one 'host' stays while the others travel to a new group. Each 'host' welcomes the new group with a quick rundown of main topics and thoughts from the first round. This second 15-minute round offers a new open question that builds upon the first question. Usually there are three rounds, but our demo will conclude after two rounds by harvesting the collective knowledge in the larger group.

What trends and patterns have emerged? By cross-pollinating ideas and building our permaculture knowledge collectively, participants will experience how the World Café offers an exploratory dialogue framework for permaculture designers. (1HR)

[Nadia Abu Yahia Lawton](#)

Working with Traditional Communities from A Woman's Perspective (1HR)

[Neil Bertrando](#)

Tree Systems in the High Desert

We will look at the climate context of the High Desert, specifically the Great Basin of North America, and appropriate patterning, locations, and functions for tree systems in this climate context. Presentation and discussion will primarily be theory focused and will present some real-world examples of successes and failures. Attention will be given to the development of home-scale, commercial scale, and landscape scale tree systems. To provide balance, we will look at where and why not to apply tree system patterns in the High Desert context and discuss appropriate alternatives. (1HR)

3 years and 1 acre in the High Desert

My personal journey and community adventure to transform our home into a High Desert Permaculture site. Beginning with our goals and site assessment and travelling through our design and development strategy, I will share my successes and failures, photo timelines, current experiments and future visions. Some of the focus topics will be application of Keyline Design to small scale sites, developing living local plant nurseries and databases, windbreaks, homesteading, eco-literacy, and applied agroecology. (1HR)

[Nicholas Wooten](#)

Working with College Students

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Topic is co-presented with Jessica Schilke. (1HR)

[Owen Hablutzel](#)

Drought Resilience for the Twenty-First Century

Explores what it means to be resilient to drought in a 21st century context along with a variety of practical strategies to get us there. (1HR)

Permaculture Horizons – Dynamic Design for the Anthropocene

Explores the fruitful integration of Permaculture approach with other practical sustainability frameworks (Holistic Management, Keyline Design, Resilience Science, Participatory Group Process...) and peeks at emerging avenues of further collaboration and integration with great potential to increase the positive impact of Permaculture at needed scales. (1HR)

[Patricia Foreman](#)

Why Chickens are the Enablers and Heroes of Permaculture Design and Healthy Sustainable Living

This cutting-edge workshop explores the ever-expanding ways to employ chickens to help navigate these transition times. Learn how family flocks create & enhance food-growing topsoils, help grow vegetables, berries, nuts & fruits, sequester carbon and decrease carbon foot-prints and even be part of emergency preparedness plans—all the while saving community taxes. Understand that employing family flocks is truly a community service. (1HR)

[Paul Greive](#)

Using Social Media to Generate Farm Revenue

Learn practical tips to leverage this powerful and often misunderstood marketing tool. This talk will teach you to focus on generating farm revenue while avoiding the popularity contest trap. (1HR)

[Paul Kearsley](#)

Conceptual Illustration for Permaculture

A picture is worth a thousand words and graphics are an invaluable tool for conveying permaculture concepts. Inviting and accessible images allow others to share our vision for a positive future. This workshop will demonstrate how to use illustration to communicate designs to peers, clients and the public. We will cover a breadth of drawing techniques from simple thumbnail diagrams to polished conceptual illustrations. With a simple process and few new tools for developing simple and effective drawings, attendees will feel more confident in their approach to visualizing their big ideas. (1HR)

[Peter Ash](#)

Rehabilitating Polluted Ecosystems with Compost

Often when we speak of regenerative systems we are talking about restoring degraded landscapes that have been deforested, or negatively impacted by chemical agricultural. In this presentation I will describe how extremely polluted ecosystems can be rehabilitated using composts in conjunction with mixed plantings. India holds is one of the world's top 10 waste-generating nations in the world. While visiting the tropical wetlands of Southwest India in 2009 I had the opportunity to design and implement a solid waste management system for a large international humanitarian organization where lack of government infrastructure leads to dumping and burning mixed waste in any available open space—often this means along roadways or dumping directly into the tropical backwaters. This presentation describes the eco-restoration of a major hospital's open landfill in a wetlands ecosystem. Through the use of thermophilic compost and vermicompost made on site, and the planting of a forest garden a drastic reduction of heavy metals in the soil and the return of hundreds of species of birds and insects resulted—in just 3 ½ years. (1HR)

[Peter Hirst](#)

Biochar Basics

Peter will introduce the fundamental principles of biochar: its characteristics, sources, application and uses, establishing the four basic standards of his practice: (1) producing the best biochar possible, (2) with no net negative outputs, (3) with as much energy capture and use as practical, and 3) realizing the optimal return. From these basics we will identify of the shared characteristics of biochar and Permaculture principles, and the unrealized potential of integrating biochar in Permaculture. (1HR)

Permaculture in a half million-acre forest concession in Indonesia

The presentation will address a large scale integrated forestry operation in East Kalimantan, Indonesia, where a zero waste system is being developed that nevertheless produces vast amounts of materials and energy in cost efficient ways.

In the area of the Integrated Tree Corporation Indonesia systems are implemented to make use of local nutrients to grow various crops and process the products of the various (tree) crops in ways that recover almost all nutrients so that they can be returned to the forest. The systems include fish ponds and animal husbandry as well as production of torrefaction pellets and ethanol and use of process heat for a variety of other services.

Local people get jobs in reforestation that resembles agroforestry and makes use of biochar and are taught to achieve permanent production from the same land compared to the former practices of slash and burn agriculture under shifting cultivation.

One of the key components in the success of this system is the use of the very high producing sugar palm that grows in mixed forests but also fat producing jungle trees such as the local illipe nut trees of south east Asia and a range of other non timber forest products.

The project attempts to show that triple P approaches based upon permaculture on a large scale can be commercially attractive.

This session is co-presented with Willie Smits (1.75HR)

[Philip Rutter](#)

Plant Trees, but not just any tree...

Permaculture focuses on trees as the coming food source for the world. And – the Florida citrus industry is collapsing (again).

Philip Rutter, an Evolutionary Ecologist who has bred trees for 40 years explains why YOU need to understand some genetics; why the word “hybrid” means 4 different things, or nothing at all; shows examples from his 3 tree crops; why the most expensive thing you can do is plant

cheap trees; discusses how small growers can work to maintain, and improve, genetic diversity (without setting invasive species loose...), and how YOU can bring new species into the food crop mix.

Tree crops detailed will be hazelnuts, chestnuts and hybrid pecan/hickory; proteins, oils, and complex carbohydrates. (1.75HR)

[Rishi Kumar](#)

Advanced Suburban Permaculture

How to feed your family, make money, connect your community, educate the world, and creating lasting change on small-scale suburban spaces

Since 2011, Rishi Kumar has been making waves in the Los Angeles (sub)urban permaculture scene with his project The Growing Home. In his small, 5000 sq ft lot, Rishi grows fruits, vegetables, herbs, and protein for his family, operates a business selling dried herbs and fruits, teaches classes on urban ecology, and consults with homeowners and governmental agencies on using permaculture in small-scale gardens. Come and learn how you can apply the same principles and models to create a successful and abundant small-scale, intensive permaculture farm, business, and social-change organization. (1HR)

[Ryan Harb](#)

Building Actionable Plans For Your Permaculture Initiatives (Including the UMass Amherst Case Study)

We already know that permaculture design works, there are projects and examples all across the world. People are no longer asking “*why do this*” but rather, “*HOW do we do this*”, that is, create impactful, world-changing projects that engage local communities, are economically regenerative, and demonstration ecological restoration.

This presentation focuses on *the how-to piece*. You’ll learn how to get your project endorsed, get the resources you need and make your project successful, and it all starts with setting clear, quantitative and actionable objectives. We’ll both demystify the mechanics of strategic and tactical planning and explore common start-up hurdles such as initial fundraising strategies, social structure design, and building project support at all levels.

A portion of this talk will focus on the UMass, Amherst Permaculture Initiative, which quickly became one of the most well-known institutional examples of permaculture in the nation. In 2012, The White House named UMass Permaculture the top university project in the country that’s changing the world for the better. We’ll examine the nuts and bolts of how this project was crafted and implemented from Ryan Harb, a permaculture consultant who specializes in creating “beyond sustainability” projects for institutions, and Bill Bean, a sustainability consultant with over 30 years of experience in strategic planning and coaching and a growing presence in the permaculture space.

Co-presented with Bill Bean. (1HR)

[Sarah Aubrey](#)

Is there really any grant money out there?

For this one-hour session, expect high energy and realizing common ground with fellow entrepreneur and farmer, Sarah Beth Aubrey. From the second story loft of an old farmhouse, Sarah operates her strategic grant consultancy where she now helps clients understand how and when to use grant funding. This session will help listeners understand ‘the world of grant funding’ specific to permaculture projects. She’ll cover the size of the market, the players-including states, federal and foundations-and the pluses and minuses of using grants for project funding. Sarah encourages permaculture practitioners to consider grant funding as a portion of a project’s cost. Her session will show that, indeed, dollars abound, and how to plant to seeds of Prosperity! (1HR)

Five Steps to Successful Grant Applications, A Prosperity Process

Even if you missed Sarah’s first presentation, you’ll want to join her for this how-to, tactical session where she rolls out her proven five-step process for securing grants. Straight from her new book, *Find Grant Funding Now! A Five-Step Prosperity Process for Entrepreneurs and Business*, in this session, Sarah will cover key areas including:

- Efficient Grant Searching
- Understanding Grant Eligibility and Feasibility
- Basic Application Components
- And, her Top Five ‘Insider’s Tips

Attend this class and leave being better informed about how to find and use grants for your business or non-profit organization! Sarah Aubrey will be on-hand during the conference offering her books for sale and signature. She’s also looking forward to networking with her peers and answering questions about unique angles to fund permaculture endeavors on the farm or in the community! (1HR)

[Steph Kent](#)

Learning for Life

Self-directed lifelong learning is a vision and a possibility with much promise for the shift to a culture of life, by life and for life. Such learning involves steady investments of attention, time and energy that almost any person can make.

In this session, you will acquire and work with a set of considerations that enhance investments in learning – yours and others’ – both during this conference and for years to come. You’ll get clearer about the choices that brought you to the conference, the choices you have at the conference and choices you’ll have henceforth. The clarity, awareness and skills gained will improve your uptake and retention of information, and your benefits from self-directed learning.

David Eggleton, an old-and-new permaculture designer, and Steph Kent, an interpreter, analyst and multi-channel communicator will present and, with a worksheet and exercises, walk you through considerations of paradigms, concepts, relationships and activities that comprise the culture-shifting system that David has devised. The system is flexible and adaptable, as the pair’s focus on your learning at this conference will demonstrate.

The considerations merge learning theory with the permaculture principles.

This session is co-presented with David Eggleton. (1HR)

[Valerie Loew](#)

Edible HOA’s

Want to plant edibles and live in peace with your HOA?

What if there was a way to create an edible oasis that looked just like a ‘traditional’ landscape and stayed under the radar of CC&Rs? Valerie Loew will discuss the unique opportunity to bring edible analogs of ornamental plants, specifically perennial vegetables, into the accepted lexicon of landscaping choices made by home owner associations (HOA’s) and other residential communities.

- Learn how to seamlessly integrate perennial vegetables and edibles into the landscape pallet as trees, shrubs, vines and groundcovers.
- Observe the diversity of suitable edible plant material for all zones and microclimates
- Discuss how children, pets and wildlife are safer with non-toxic plant options near living areas

Get a full introduction to this breakthrough opportunity for all who want to make easy edible choices for their landscape. These unique plants will be available for tasting. (1HR)

[Willie Smits](#)

Village based permaculture approaches in Indonesia

Sulawesi is an Indonesian island with steep topography, overpopulation and very special local cultures. Willie Smits will talk about the problems of deforestation and the resulting impacts for local people and Sulawesi’s very special endemic biodiversity. Then he will talk about how working with the local people has led to more environmentally friendly agricultural production systems being put in place and how reforestation through agroforestry approaches has created more and better jobs for the local people while at the same time helping local flora and fauna and providing environmental protection for local populations. The application of a joint planning module for environmentally friendly agricultural production can only work when there is trust and the work is based upon the local cultural approaches. Smits will present the results of working with a big farmers cooperative in North Sulawesi as a potential blueprint for other communities to implement permaculture principles. (1.25HR)

Permaculture in a half million-acre forest concession in Indonesia

The presentation will address a large scale integrated forestry operation in East Kalimantan, Indonesia, where a zero waste system is being developed that nevertheless produces vast amounts of materials and energy in cost efficient ways.

In the area of the Integrated Tree Corporation Indonesia systems are implemented to make use of local nutrients to grow various crops and process the products of the various (tree) crops in ways that recover almost all nutrients so that they can be returned to the forest. The systems include fish ponds and animal husbandry as well as production of torrefaction pellets and ethanol and use of process heat for a variety of other services.

Local people get jobs in reforestation that resembles agroforestry and makes use of biochar and are taught to achieve permanent production from the same land compared to the former practices of slash and burn agriculture under shifting cultivation.

One of the key components in the success of this system is the use of the very high producing sugar palm that grows in mixed forests but also fat producing jungle trees such as the local illipe nut trees of south east Asia and a range of other non timber forest products.

The project attempts to show that triple P approaches based upon permaculture on a large scale can be commercially attractive.

This session is co-presented with Peter Hirst (1.75HR)

For more information and biographies of all of our great speakers you can visit:

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LESS CORN & SOY 5

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7 THERE'S STRENGTH IN NUMBERS

8 MORE NUTRITION LESS TOXINS

Industrial food contains cheap toxic materials. For example, the hormone disrupter BPA, banned in other countries, is still deemed acceptable in the USA. There's also arsenic in chicken feed, azodicarbonamide in bread, and soy brands processed with hexane (a gasoline by-product).

9 WE DESERVE A BETTER FOOD SYSTEM

The power combo of Wall Street and Big Ag has acquired iconic food brands, swapping out organic ingredients to increase profitability. Their takeover strategy includes funding organic nonprofits to weaken organic standards.

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The Myth of the Perfect Job

John Kitsteiner, M.D. - Temperate Climate Permaculture

I was the child who never stopped coloring. I loved to draw. I would spend hours after school and on weekends working on a project. I only took one formal art class as a child, but it didn't matter. I loved it.

I got a scholarship to go to art school, and I spent two years studying art to earn a degree in graphic design. I worked for a year at a marketing firm that went out of business. The next month, I started my own business. I ran this business successfully for five years. I loved the freedom of working for myself. But I lost something along the way. I had lost any desire to create art for myself.

I had a job, but I lost a hobby.

Other than art, I had always been fascinated with science. When my wife developed a skin issue, and we had some rather arrogant, dismissive dermatologists caring (or, rather, not caring) for her, I did a little research and figured out what was wrong with her skin. Something that she was "going to have to learn to live with" hasn't been much of an issue for well over a decade.

I became passionate about health. I went back to school, earned a biology degree, and then I went to medical school. Now, after almost seven years of being a physician, I am tired. My passion has been slowly sucked away by all the things that have little to do with health and everything to do with lawsuits and budgets... not my own lawsuits or budgets, but the system that works in fear of lawsuits and is dictated to by budgets and not patients.

I have a job, a very good one at that; but frankly, I am burned out. Why has this happened... again? Do I just have a pattern of being unhappy in my work?

I don't think so. Many people don't really enjoy their work. Some do, but most would rather be doing something else. They are glad they have a job. They are glad they have the paycheck. But if you asked them if they could change jobs and do something else, a large number would say yes.

So what you do if you had the choice? Most would state that if they could get paid for their hobby, they would be happy. This is what we are told so often by career counselors and our mentors. But is it true? I have often quoted Confucius who stated, "Choose a job you love, and you will never have to work a day in your life." Well, I had done this twice, and was still working everyday.

So, are we stuck? Are we destined to feel like a hamster in a wheel? Are we supposed to go through life thinking that there may be perfect jobs for some people, just not us? I don't think so. There is another way, but it is not easy. It is against conventional wisdom.

First, we need to identify our passions. Jack Spirko, often asks people, and I am paraphrasing, "If you won the lottery, what would you do after the initial travel and spending? Let's look at your life two or three years after you won the lottery, and you still had millions of dollars left... how would you spend your time? What would you do every day?"

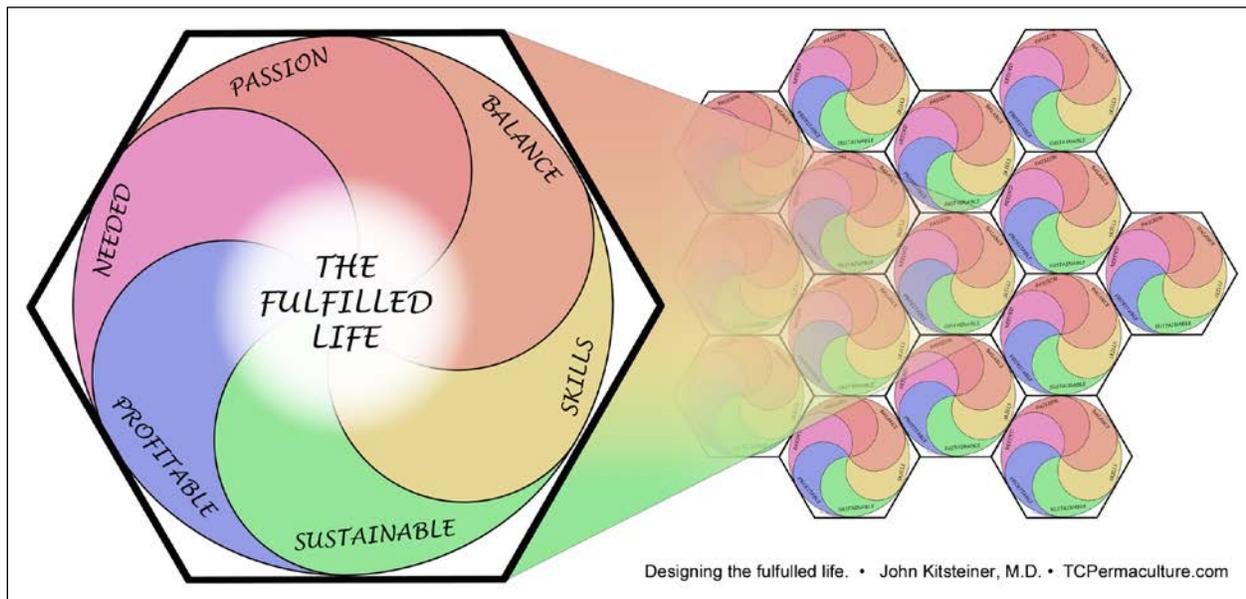
Next, we need to identify the things we are good at. What are our skills? What is it that we do easily, which others find difficult to do? What is it that our friends and family come to us for, asking for advice or help?

Then we need to identify where our passions and skills overlap and identify ways we could get paid in those areas. This is where the majority of career coaches stop. According to their research and professional opinions, if we can do this, we should be happy. For some people, this does lead to a fairly happy life, but I know that this has failed to work, twice now, for me. So there must be something more.

I have found a few career coaches and researcher/writer-types that have added another factor: "What does the world need?" The goal in adding this factor is to try and give us meaning to our work. I don't say this lightly. If we can work in a career where we are making the world a better place, we often feel better about what we are doing (or less bad about what we are missing). But I think if we stop here, we are setting ourselves up for even greater frustration. Imagine that we do find something we love, something we are good at, something we can get paid for, and something that the world needs, yet we are still unhappy or frustrated. Then what? We can find ourselves feeling like there is no other choice but to suck it up and try to push through, because if we can't find happiness with this "ideal" combination, then maybe we just won't find happiness. I became a physician, and this combined the first three factors and added the fourth. I was doing something the world needed; yet I still ended up frustrated.

So what else is missing? I have identified two additional factors.

We must consider if a career is sustainable. Can I do this every day, and is there enough variety and meaning in what I do to avoid getting bored? When it came to graphic design, I ended up asking myself, "At the end of 20 years, how satisfied will I be with my life to say that I designed 500 brochures, 200 magazines, and 100 websites?" My answer was, "I would not be very satisfied." I thought that with medicine, because of the vast amount of information known and information that continues to be discovered, there would be no way I would get bored. That is correct. But I didn't consider all the other factors pertaining to the practice of medicine, the paperwork, administration, lawsuits, bureaucracy, lack of time for my patients, my family, or myself. I



Designing the fulfilled life.

We must choose to spend our time pursuing work about which we are passionate, that utilizes our skills/talents, that is profitable, that is needed, that is sustainable for us, and balances our biological, psychological, social, and spiritual needs. By having multiple concurrent careers that meet these criteria, we will truly have a fulfilled life.

didn't consider burnout. If we look at a career, and see a high rate of burnout, then we need to strongly reconsider that career. As it stands now, up to two-thirds of physicians experience symptoms of burnout, and female physicians have a suicide rate twice as high as the average population. This doesn't sound very sustainable to me.

The last factor I have added to the list is balance. We must consider ourselves as a biological, psychological, social, and spiritual being. This is a big topic, but in brief, we should only consider careers that allow us to keep these components in balance.

There is another factor that I have not yet mentioned; yet I feel it is vital for me and anyone like me. It is such a revolutionary (some may say unrealistic) concept, that I don't know how many people will adopt it. This factor is a primary part of Permaculture, and I never really considered it pertaining to a career until recently when I was taking Geoff Lawton's PDC. That factor is diversity. Geoff Lawton stated (and, once again, I am paraphrasing) that every person should have one or two primary careers and another two, three, or four secondary careers. He didn't dwell on this very much, but it hit me like a ton of bricks. It was that "eureka moment" for me that provided the last piece of the puzzle. Diversity in careers is where we can truly find stability in building a fulfilled life. Let me be clear that this is not one career after the other, but it is multiple part-time careers running at the same time. I have also recently learned that Bill Mollison said we should have six careers, one for each working day of the week.

Diversity in careers offers many benefits. It provides variety. It reduces boredom. I am certain it will decrease burnout. It provides resiliency – if one career doesn't pan out or suddenly stops, we have others to fall back on. It is that classic Permaculture example of a fishing pole versus a net. If the single line of a fishing pole is cut, the fishing pole ceases to catch fish. But a net continues to function, nearly at peak performance, even with many lines cut. In fact, we have to cut a tremendous amount of lines before the net's efficiency is significantly dropped.

In summary, there is not a perfect job. Not for me. There may be a number of very good careers which I would enjoy, but I don't think I would be living a fulfilled life if I tried to do just one. What about you?

This article is a significantly shortened version of John's original six-part series that can be found on his website: TCMaculture.com

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All Hands on Deck: Our Functions and Niches in the Anthropocene

Javan K. Bernakevitch

The latin root of the word **competition is *competo, to strive with***. Last week I connected, laughed, brain stormed and deeply shared my insecurities, fears and hopes with three of what Kevin O'Leary would call my competitors. Since Sunday, it's Wednesday at time of writing, I've already emailed or talked to them each more times than in the last 3 months combined. The **fertility of these meetings of minds** cannot be overstated. Refreshed, refocused and recharged (perhaps not on sleep), connecting with my colleagues and literally **thinking outside the box provided rare opportunities** to connect as individuals and to be vulnerable as men speaking our hopes, truths and fears. *Secure in each other's company connections swayed from professional proposals, to unexpected collaborations, to self examination, all of which brought me back to a thought I had a few months ago...*

If currently we face an anthropocene extinction, then **isn't it all hands on deck?**

There is a trend of individual isolation within North American culture, **in permaculture this isolation tends to be exaggerated** for a few obvious reasons and I'm sure a few not so obvious ones as well. Already living in an anti-participatory world which, through urban planning, has removed the commons to dissuade dissension our isolation serves to separate us from one another and facilitates meeting our needs through capitalistic consumption rather than through community. As a herd animal we cognitively and physically do better with others (albeit with beneficial vs parasitic relationships). The dissolving desire to **give a vulgar gesture to the establishment and "wood shed" ourselves** has turned even Bill Mollison (and a great many others) away from isolation and back towards community. Anti-establishment coupled with a fierce streak of independence creates a rare breed of person, one who takes action on their perception of the world through alternate means, including permaculture. Of course not all people strike forth on a **lone wolf's quest** but most... most... if they do turn back to the pack after the struggle and frustration of forging ahead alone return to offer, "I have brought some rabbit to share"

What do I mean **all hands on deck?** The 72 hour **Permaculture Design Certificate (PDC)** is the standard method of introducing new students to this canon of education and design. In many ways this is the **first "pass" at the buffet table of permaculture**. It's an **inspiring buffet that empowers and provides high octane** content, so much so that there's a module entitled: "The Permaculture Pit" which identifies the frustration upon returning to conventional society. The rate of students moving forward on land design and regeneration is not traditionally tracked or studied however a few students do go on to teach, design and implement, yet a large number of students persists that think **"that was a neat experience I wonder what's next"**, this is for a few reasons.

Sure, a **PDC provides high octane fuel** for students, but do they also have a **good steering wheel and map** when they go out into the world? Where do they look for their second helping from the buffet of permaculture? A pilgrimage of sorts takes a few students out into the world seeking answers to the encompassing questions, "What do I do with my empowered self now?" More often than not these impassioned souls default to, **"what does the world need of me?"** Missing an important first observation and often committing a "Type 1 error" of the highest personal degree, they fail to address the questions: **"what are my functions within the system?", "what are my internal needs?", "what are my internal yields?"** and more surprisingly **"what are my personal, intrinsic, characters that influence my function as an element within the system?"**.

If a chicken was caged in a 1mx1m enclosure without a run and without any other chickens our observations of her would not be indicative of an average chicken of her bred heritage. These observations would be of a diminished chicken, one who has normalized abnormal behaviors dictated by her environmental surroundings. It's no measure of health to feel normal in a sick society, either inwardly or outwardly.

So I ask: Are you in that **place**, are you addressing your **needs** and identifying not only your **yields** but **linkages** to other **elements**, what allows for the **fullest biological expression of your function?**

Take a moment to look at all of those pieces: your place/environment, needs, yields and functions not only as a member of our species but a sub cultivar or breed. Then as an individual in the world of the anthropocene, **each of us fill niches in the world, what are yours?** Permaculture is not just designers, teachers or installers, we also need map makers, preservers, marketers, policy advocates, community organizers, financial analysts... In essence we need everyone to put their **distinct functionality into the niches in which they are most biologically expressed** to take responsibility for themselves and become a productive, conscious, community members.

If the need/demand for **fully expressed and functioning individuals is at a peak**, What is your **function?** What is your **niche?**

It's time for all **hands on deck**.

Javan K. Bernakevitch is a permaculture designer and educator with experience in Africa, Canada, Cuba and The United States. Yearly he works in East Africa establishing training centres for local teachers and farmers. He founded Permaculture BC and co-founded the Southern Vancouver Island Permablitz Network. He currently is working with post-PDC students to identify individual functionality and niche(s) through his program Finding Niche(s) in Permaculture that helps students jump start their permaculture related businesses. www.permaculturebc.com www.svipermablitz.com www.allpointslanddesign.com

The Elusive Spinach Seed (and Why I Love It)

Tom Stearns, President and Founder, High Mowing Organic Seeds

Spinach has got to be one of the tastiest vegetables out there. When I first started growing seed crops, I tried spinach because it was such a favorite of mine. That's when things started to get complicated. Spinach has four genders, pollen that can blow 3 or more miles, it needs to be grown for seed in a very dry region that doesn't get much above 80 degrees, and it has to be at 45 degrees latitude or higher. There are also some serious diseases that need to be handled. If everything is right, a spinach seed crop can yield a lot of high quality seed. But with seemingly minor challenges, it can bomb completely. It is a fragile crop, hence the concentration of seed production in specific and special regions.

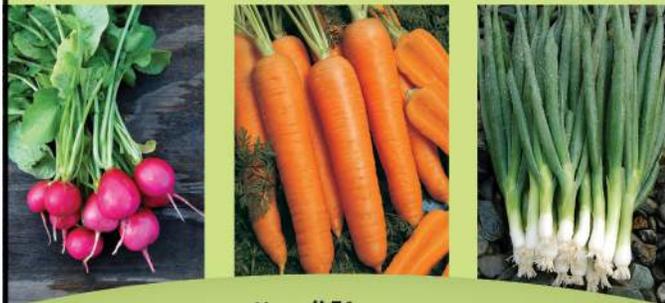
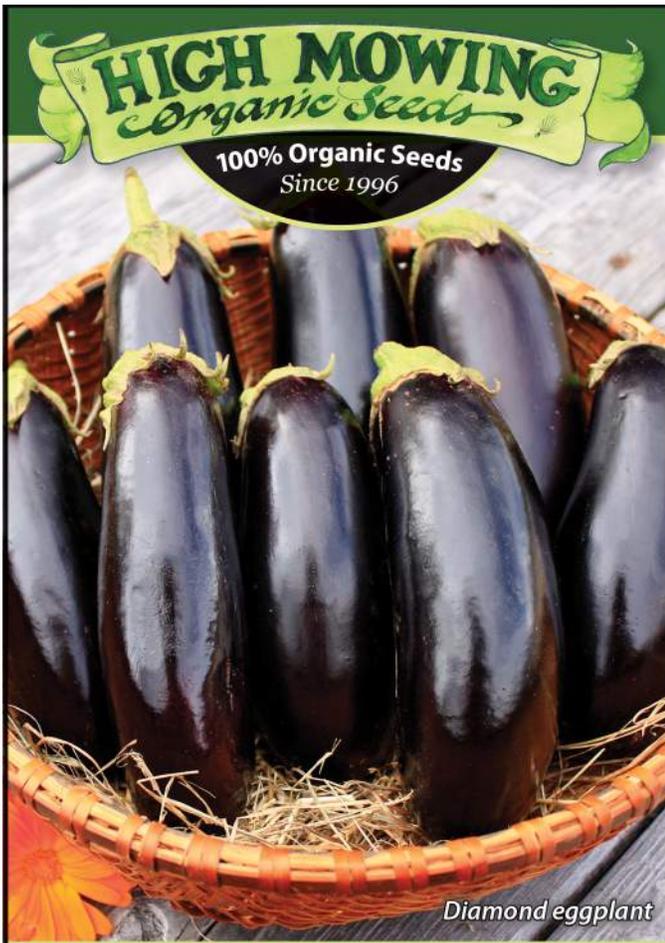


Corvair Spinach from High Mowing Organic Seeds

One of the main spinach seed producing areas in the world is Skagit County in Washington State. This county used to produce 90% of the world's spinach seed, but a few other spots are also good as well, especially Chile and Denmark. While the magic Skagit is arid in the summer, it is sandwiched between the coast and the mountains so it has a nice cloud cover and fresh cool air delivered each night. When a growing spinach seed crop gets exposed to temperatures above 85 degrees, it simply stops growing. That means a lot of small seed. But enough about all that. I know what you really want to know more about is all these spinach genders. They are: female, vegetative males, quick males and hermaphrodites and each plant is a different one. The females make the seed of course, but everyone has a role and has evolved that way for a reason. Let's just say that when being so darn particular about the conditions you need to succeed, it is good to keep your options open.

Because it is wind pollinated the plant does not bother with making a showy, large or colorful flower but rather has tiny non-descript, light green flowers on the sides of the stalk and branches. The seeds form in little clusters next to each leaf. No fruit, no pod - just stuck there. Without the protection of a pod, the seed is subjected to everything that nature throws at it. Rain or even high humidity causes mold to develop and can damage the seed. Several diseases - *fusarium* especially - can become huge issues in seed production, so most fields in the Skagit only grow spinach seed once every 20 years.

The growers in the county have developed an intricate mapping system to communicate and collaborate to ensure that everyone's fields are sufficiently isolated from each other. If two varieties were accidentally cross-pollinated that would be a problem for the integrity of the variety. Sometimes a mile between varieties is okay if they are very similar but often 3-4 miles is needed. So, I guess I love spinach seed so much because it is just so different from most other seed crops. I love remembering that so much stands behind this little leaf that we all eat so often.



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Agriculture and the Sacred

Robert Karp, Executive Director, Biodynamic Association -
biodynamics.com

To live, we must daily break the body and spill the blood of Creation. When we do this knowingly, lovingly, skillfully, reverently, it is a sacrament. When we do it ignorantly, greedily, clumsily, destructively, it is a desecration.—
Wendell Berry

In ancient times agriculture was intimately connected with the sacred. We find evidence of this in a host of texts and in many traditions that survive to this day. We know, for example, that for the indigenous people on the American continent, the corn plant is believed to have come into being through a long process of cooperation between human beings and the gods, and growing corn is still a sacred activity for many Native American people today.

If we try to discern the ultimate source of these traditions, we discover that people in ancient cultures experienced the natural world much differently than we do. Where today we might see, for example, simply a corn plant (tall stem, tassels, ears, husks, silks, kernels, etc.), they saw the body of a spiritual being whom they felt to be the ultimate source of the unique traits and gifts of that particular plant species. These spiritual beings endowed all creatures and all creation with a special kind of dignity.

It was thus not enough for ancient cultures or indigenous people to simply plant a corn seed at the right time in the right soil and then cultivate the plant during the growing season until harvest. Growing corn also required prayers and rituals that would invite the spiritual being of corn to participate in the growth of the plants and so bless the people with her radiant wisdom and health-giving powers. Maintaining this sacred connection with the gods through agriculture was at the heart of the life of ancient cultures, and echoes of this religious feeling toward nature survived in indigenous and rural farming communities for centuries.

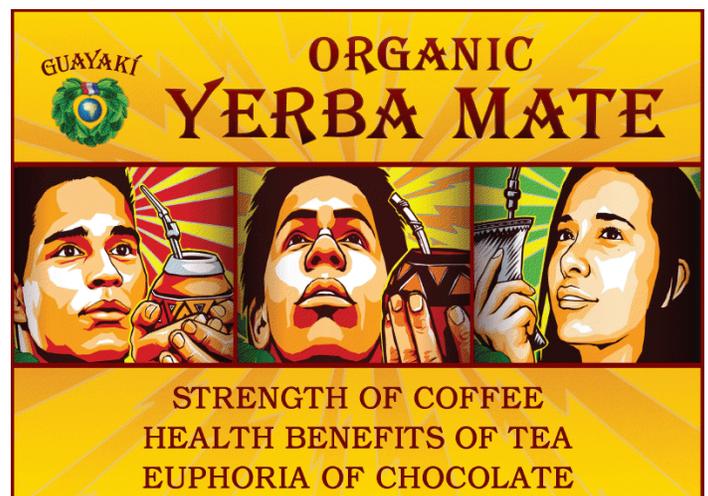
In his lectures, Rudolf Steiner indicated that the gradual loss of this way of experiencing the world among the majority of the world's population was an inevitable and necessary part of the evolution of human consciousness. This loss paved the way for a much clearer way of seeing the physical world, and eventually led to the discovery of the physical laws of matter and to modern technology. Through this process of evolution, we have also come to experience ourselves more and more as unique individuals independent of nature, culture, race, and one another. With this independence comes freedom: the freedom to choose our own vocations, community, and ideals—as well as the feeling that we are responsible for our own actions. This sense of individual freedom and responsibility is the gift, the silver lining, you could say, of materialism.

The healthy age of materialism has long since passed, however, so that today we bear witness primarily to the shadow side of materialism rather than its gift. We have become so enamored of

our seeming power over nature that we are undermining the very fabric of life on earth. This is perhaps nowhere more evident than in agriculture. Practices like confined animal feeding operations (CAFOs) and genetically engineered plants and animals (GMOs) betray a consciousness completely devoid of any remaining sense of the spiritual dignity of organisms, creatures, and species.

There is a silver lining, however, to this era of post-materialistic devolution of values. In the depths of the crisis brought on by these destructive trends, a new, individualized, eco-spiritual consciousness of the world is emerging. From thousands of humble, everyday people—farmers, eaters, scientists, educators, artists, and business people—a grassroots awakening to the ecological and spiritual realities that sustain the earth and her creatures is taking place. This new consciousness, I would suggest, is the ultimate source of inspiration for the growth of the ecology movement of the 1960s, the health food movement of the 1970s, the environmental movement of the 1980s, the organic farming movement of the 1990s, the local food movement of the 2000s, and a host of other allied movements too numerous to mention. It is also, of course, the inspiration for the biodynamic movement, which seeks to demonstrate the many practical ways this new consciousness can bring renewal to the earth and to the practice of agriculture.

Yes, the sense of the sacred is reemerging in the food and agriculture movement of today, as the quote from Wendell Berry at the beginning of this article so beautifully expresses. But this new consciousness of the sacred is not the same as that possessed by ancient cultures. This awakening is not embedded in hierarchical, collective religious practices or cultural norms, but rather has emerged as a natural extension of healthy scientific inquiry and in the context of a cosmopolitan confluence of diverse philosophical perspectives and cultural traditions. This new sense of the sacred is thus rooted in and sustained by a contemporary sense of individuality and freedom of thought. In this otherwise deeply troubling moment in human history, this awakening, this growing movement toward a reunion of agriculture and the sacred, can give us hope.





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My Passive Solar Greenhouse

Rob Avis, *Verge Permaculture*

The interplay between thermodynamics and biology has fascinated me for as long as I can remember, and passive solar greenhouses—greenhouses that heat and cool themselves without additional gadgets or energy—perfectly intersect these two realms of science.

I've been fortunate to experiment with a passive solar greenhouse that I designed and built in the fall of 2010, and since then I've learned a great deal about what does and doesn't work. The process of discovery continues each year as I make new mistakes, learn innovative ways to grow in a controlled environment, and gain new insights into how I could have designed it better.

The greenhouse was built on a concrete parking pad located behind our house. It is 10' x 20' with a 10' ceiling (3m x 6m x 3m). We also designed a shed style roof with an overhang to capture rain and reject some of the overhead summer sun.

The building is made from structurally insulated panels (SIPs). These prefabricated panels consist of an insulating layer (styrofoam) sandwiched between two layers of structural board. Although the idea of building the greenhouse from natural materials (i.e. straw & cob) was very appealing to us - the truth is that I did some engineering consulting for the SIP panel manufacturer which resulted in getting the building materials below cost. There are also some great advantages to using SIPs - they are mold and rot proof which is very important in high humid environments. These particular panels are also fire proof and do not off-gas. They are highly insulative with an average R-value of 25 (better than most homes) and because the panels are prefabricated, the main structure itself went up in less than one day.



Rob in his greenhouse, summer 2013 - Calgary, Canada

For glazing we chose to use triple glazed polycarbonate with an R-value of 2. This is dramatically less insulative than the walls and so we will

need to install thermal blinds if we want to do any winter growing.

The small rocket mass heater combined with a cob bench for thermal storage is enough to keep frost off the plants in the spring and fall, meeting my goal to extend the season. It is also very inexpensive to run since it burns waste wood I collect from the city.

My biggest mistake of all was not putting enough ventilation up on the rear wall or roof. There wasn't enough airflow and the greenhouse would overheat, stressing the plants and causing diseases like powdery mildew. Fans have solved the problem for the moment, but as soon as we install additional ventilation up top the fans will rarely be needed.

Early on I recognized a fundamental challenge for home greenhouse projects: plants prefer to live outdoors. Greenhouses separate plants from the external environment, and so create ecological pressures that wouldn't exist outdoors in the fresh air, sun, wind, and rain. As such, we end up having more issues with insects and diseases than you might expect in an outdoor garden.

So why do I keep at it? In short, to grow more food – and more diverse food – in my harsh climate. We live and garden on an urban lot in Calgary, Canada, located on the 51st parallel north and approximately 80 km east of the front ranges of the Canadian Rockies. This northern climate presents many design challenges, including less than 100 frost-free days but my greenhouse more than doubles that, up to 250 frost-free days. I'm close to the mountains that slow outdoor plants with cold nights and winds, but in my greenhouse tomatoes are ripe by mid-summer. I also live in one of the most aggressive hail belts in the world, where frequent storms threaten unprotected crops with devastation.

Other reasons are just as important, and I truly believe that the benefits of the greenhouse extend far beyond the glazing. Designed properly, passive solar greenhouses are extremely productive, fun and healthy places. They offer year-round learning opportunities and, when I need a quiet moment, my greenhouse offers a sanctuary.

Increasing evidence points to a failing industrial food system, so it has become more important than ever to control our own food supply. As we grow our food—and lots of it—we gain that control and empower ourselves, starting right in our backyards.

In less than 10 years, Rob Avis left Calgary's oil fields and retooled his engineering career to help clients and students design integrated systems for shelter, energy, water, waste and food, all while supporting local economy and regenerating the land. He's now leading the next wave of permaculture education, teaching career-changing professionals to become eco-entrepreneurs with successful regenerative businesses. Get a copy of his 52 page e-book "Passive Solar Greenhouses: A DIY Design Guide" at www.vergepermaculture.ca – it's available free for a limited time.



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Growing Sustainably, Growing Together: A Grange Returns to its Roots with the Farmers Guild

Evan Wügg, The Farmers Guild

Convention can survive in a vacuum; resilience requires community. And the newest wave of agriculture, lucky for us, is anything but conventional. Given the economic, ecological and technological change in which we live, farmers must be ready to learn, adapt, and innovate. And do it together.

Walk into any gathering of the Farmers Guild and you won't find bored and weary farmers memorizing standard operating procedure, but rather enthusiastic agrarians arguing the merits of no-till farming, comparing notes on rotational grazing or sharing tips, stories and solace over this year's drought. Born out of a weekly dinner around a farmhouse table, in under two years, the Farmers Guild has grown into a regional network of monthly face-to-face meet-ups and online conversation between farmers and ranchers—new and experienced—all in search of new ideas, partnerships, collaboration or just a place to share a beer with those who understand the daily toil of farming.

From Mendocino to Marin, Sebastopol to Sacramento, these gatherings arise from a growing intrigue around local food webs that not only brings the producer and consumer closer together but must also bring producers closer to each other. Guild members share tools and information and invite other community members and organizations to share resources: new avenues of distribution, business opportunities, and even advice on passing down land.

Farming has always been isolating, but more and more, the innovative and creative are craving new ways to cross-pollinate; to sustain them we must reconceive of agriculture as an integrated, dynamic and connected way of life. While the technologies are new—from social media to solar-powered mobile chicken coops—the allure of uniting farmers is not. Almost 150 years ago, railroad companies were encroaching upon the prospects of family farmers all over the country, ushering in the mass disparities of the Gilded Age and challenging the grass-roots traditions of rural America with corporate consolidation. In response, an organization of agricultural solidarity formed to protect those traditions and reassert that the farmer is the central character upon which all society relies. They called themselves the Grange.

At its peak, the Grange movement comprised over 1.5 million members and thousands of halls all over the country. As a social

and co-operative movement, Granges came together to purchase farm machinery, grain elevators, warehouses and even steamboat lines; they circulated crop reports, taught classes, founded co-operative dairies and a farmer could travel from coast to coast in search of fertile land or honest work, welcomed by Grange Halls along the way.

The past century saw many changes in the Grange movement, from fluctuations in membership to the recent rupture between the National Grange and the California State Grange over, among other things, their stance on GMOs. But the most drastic change for many halls has been their reflection of America itself: when the Grange began, farmers comprised more than sixty percent of the population; today they comprise under two percent. Likewise, these Grange halls—even those in a renaissance of active and civically-engaged membership—are home to very few working farmers.

But last year, when the Farmers Guild in Sebastopol, CA outgrew its first venue, they found in their local Grange not a predecessor grown obsolete but rather an opportunity. By partnering, not only did the Guild find a new location to meet each month, but the Grange is now revitalizing a space left behind by its agricultural community. Today that space is uniting producers and their surrounding community: carpenters, lawyers, store clerks, website designers—all of whom must eat and understand the importance of where that food comes from. As the Grange motto goes: "In things essential, unity; in all things, charity."

So how does a Farmers Guild form? Easy. It's happening all over the state! Just gather a few friends from the field—farm interns, ranch managers, local farm advocates—and evaluate the resources, needs and wants of that group. Is there a Grange Hall in your neighborhood? (California alone has over 200 halls!) Spark a relationship and pick a convenient monthly date. Send out invites to your peers and tell everyone to bring a dish to share.

Then tap into the wider Farmers Guild network on FarmsReach.com. Get advice from farmers from all over the state, find jobs, stay up to date on the latest policy effecting our farms and lastly: keep it casual. The Guild is a hub, a place to kick up your muckboots after a long day and make a toast to feeding your community. So cheers!



Prosperity's Five Steps to Grant Funding-Start with Project

Sarah Beth Aubrey of Prosperity Consulting

My first year 'in the grant business', I wrote two grants. I won one and I lost one. The second year I did 49 grants and won 95 percent of them. In nearly 10 years, I've now written a thousand successful grants resulting in millions of dollars. People invariably ask me how I 'got good at it.' Early on, I kept making decisions based upon the feedback from the agencies, always looking at the grant application from the Grant Funding Organization's (GFOs) perspective. Eventually, I realized that I made decisions for grant applications in a particular fashion and that ultimately I used just five basic areas needed to develop, package, submit and win a grant-*project, peruse, ponder, prepare, and patience*. Over time I've honed these five areas into a system of steps that I call the Prosperity Process ©.

Measurable

All grant applications must demonstrate that the work being done has measurable components that can be accomplished and reported. Measurements can be hard data, changes realized or implied as a result of your project. They could also be accounted for in the number of participants you enroll and just about anything that can be compared from a before and after standpoint.

Targeted Outcome

The grant agency is seeking to award money for a purpose. There are not dollars for those simply needing money without a specific project. Perhaps we call that something else entirely, such as an aid program or even an entitlement program, but we do not call aid for the sake of aid a grant award. Do not mistake this to mean that in applying for a grant you don't have to indicate some need for the funding, you do, however, that need may be financial or it may not.

Aligns with the GFO's Goals

Just because your project meets all the other criteria to be considered a solid project, it is not likely to be a project that a grant agency will fund if you do not explain convincingly how it meets their goals. I've had many an entrepreneur argue this point with me, particularly in the case of federal government funding. I will often hear this refrain: "Well, my project is so important and will positively affect so many people and create so many jobs, that the government will want to/have to/be begging to fund it!" This is incorrect thinking for grant funding. Seek the GFO's objectives and then tell them how your project meets those.

Has Designated, Realistic Milestones

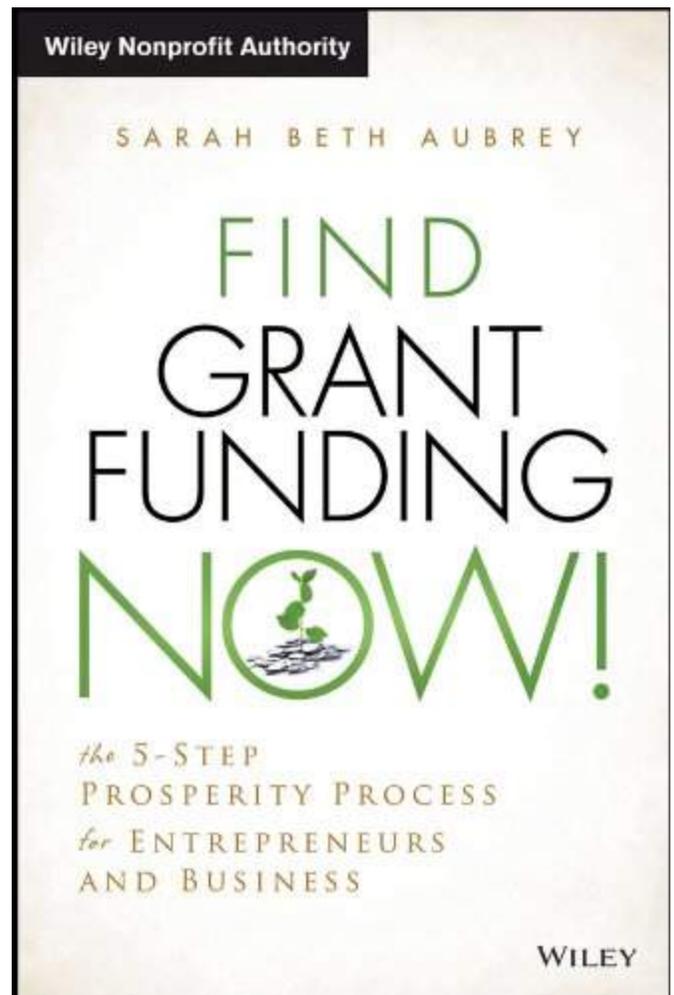
These include points in the application and project description as simple as start and end point for the funding and completion of the work and possibly as detailed as the specific step-by-step processes employed in a technically complex proof of concept. For construction projects, completion of actual work and timelines for ordering equipment, installation, and start-up will be paramount. For programming work, the milestones will be centered on developing curriculum and hiring staff or utilizing certain operating expenses.

Justifiable, Workable Budget

All grants require some kind of budgeting. If you're lucky, this might be as simple as gathering quotes for the work you intend to complete and creating a simple budget of the costs and when you'll be incurring those. In some cases, the budgets can be complex and you will be required to use the GFO's format. I use the term workable to mean simply that your budget adds up. Justifiable is more a 'granty' term. As you may guess, it does mean that you have to provide justification as to how you will use the funding.

Demonstrates Ability to Sustain After Grant Funding

All grant funds come to an end so projects must be able to explain their longevity plans even before they get off the ground. Financial projections and income producing opportunities are likely a way to show this. For programming, future endowments or simply a certain end point to the program where dollars being directed at it will cease can be the route to show.



Sarah Beth Aubrey Principal, Prosperity Consulting, LLC

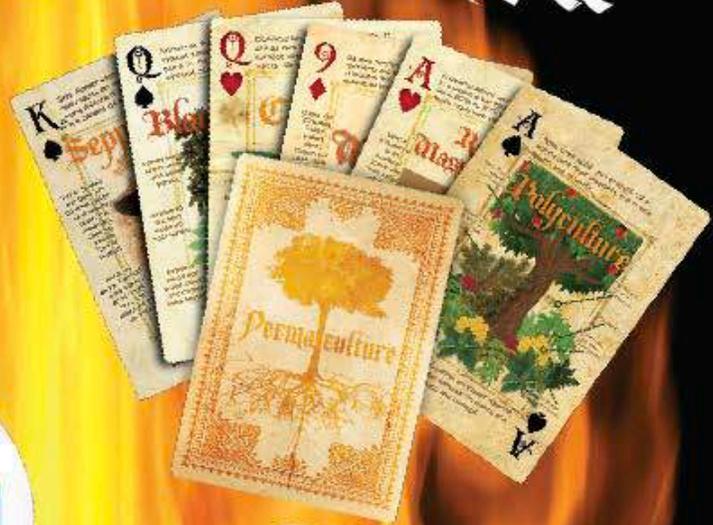
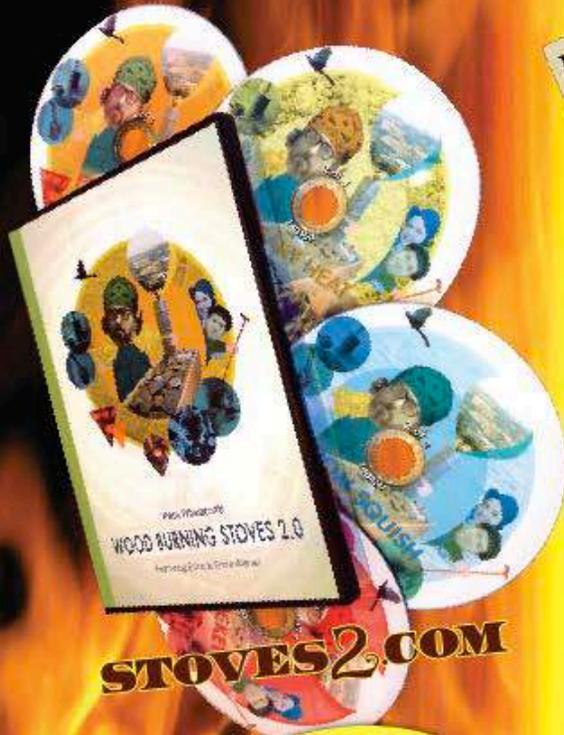
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Family Farming at Bella Farm

Adam Klaus of Bella Farm

A century ago, small family farms constituted the majority of our nation, and American farmers were the most skilled and prosperous farmers the world had ever seen. Times have changed, but the value of small family farms has not. My choice to raise my family on the land, operating a first generation family farm, is born out of a reverence for farming as a way of life. The healthy children nourished by living soils, the endless enjoyment of homegrown recreation on the farm, the peace and satisfaction of a hard days work are qualities that need to be shared with a new generation of Americans who have become removed from the joys of farming.

In a world with many problems, family farms act as a simple and singular solution to most of what ails us. It is a complete life, a decent and good life, and a life many more would choose, if they knew how to make it possible. Farming is not merely an occupation; it is a complete life that meets our human needs in the most fundamental ways. The nourishment and nutritional quality of truly farm-fresh food cannot be bought from any store. The simplification of home economics, by minimizing purchased needs and directly providing for ourselves, creates genuine security. A quality of thought and being comes from working on the land and learning with our family. In past times as well as today, family farms offer the best possible quality of life.



Figure 1- Herding Dairy Cows on a Family Farm

Diversification on small family farms has always been intrinsic. Peasant farms and permaculture farms share basic common characteristics. A focus on integrated systems, zero waste, holistic management, and a broad array of farm products makes these small farms profitable. At Bella Farm, we combine the traditions of historic American family farming, with permacultural design, and Biodynamic soil fertility. Our systems of production mimic nature to be efficient, productive, and satisfying for the farmer.

Bella Farm produces a huge range of food products for our valued customers. A Brown Swiss cowherd produces raw milk, grazing diversified pastures without supplemental feed. We have developed our own breed of homestead chicken, the Eldorado, to produce excellent meat quality on pasture, and lay eggs during cold weather. Our market vegetable garden raises many crops from seeds we have saved ourselves, grown in rich polycultures that stack functions and increase yield. Young peach and apricot trees are being planted to slowly replace our century-old

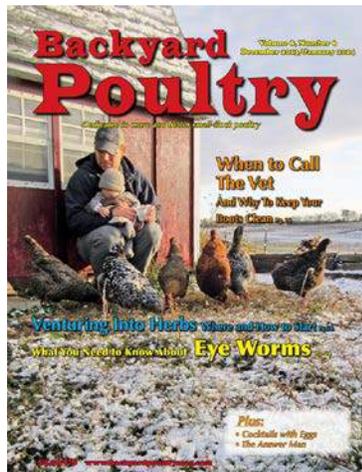
apple orchard. Medicinal plants are cultivated and processed into herbal compounds for human health. A year round food forest thrives in our greenhouse, enabling us to produce Mediterranean crops in the mountains of Colorado. Each of these production systems is integrated with the others, creating a farm where the whole is greater than the sum of the parts.

Now in our ninth season, with our farm systems well developed, Bella Farm is looking to teach the next generation of progressive farmers. A new apprentice program has been created, with the focus on farmer education. A select number of passionate, positive, and persistent young people will be offered the opportunity to live, work, and study at Bella Farm for the six month summer growing season. The apprentice program at Bella Farm has been structured to improve upon the problematic standard internships common to organic farms. Rather than working interns into exhaustion, with teaching a secondary thought, the Bella Farm apprentice program will charge its participants a fee, in compensation for their on-farm education. Learning will be the primary focus, with fieldwork tailored to the educational aspirations of the individual participants. Interested individuals should contact Bella Farm for an application to this inventive program of hands-on agricultural development.

I hope that showing you my farming life here at Bella Farm can demonstrate a path to a better future for both ourselves and our children. America once became a great nation through the inventiveness of its family farms. Children were raised strong and smart, and communities were healthy when rooted in an agrarian heritage. Bringing back this rich cultural legacy is our deepest life's passion at Bella Farm.

-Adam Klaus, Owner and founder of Bella Farm, located in beautiful, mountainous Paonia, Colorado.

Contact us, via email at BellaFarmer@gmail.com, or through our facebook page, www.facebook.com/pages/Bella-Farm/483294111765723



Towards Decolonizing Permaculture

Adam Brock of *The Grow Haus*

For as long as I've been involved in the permaculture movement, there's been a lot of hand-wringing over lack of "diversity" within our ranks. Despite any number of scholarships, targeted outreach, and courses held in marginalized communities, most self-described permies continue to be white and college-educated – and most of us in the spotlight are men. A quick look at the speaker list for this conference is enough to confirm permaculture's bias towards the privileged demographics in our society.

None of this, of course, is intentional. Most permies I know genuinely want our movement to be diverse, and make a sincere effort to invite women, people of color, youth, and others to our table. So why do these efforts so often fail? In my experience, they're not going far enough: all too often, they're subtly (and unintentionally) perpetuating centuries-old patterns of exclusion and exploitation. A truly inclusive permaculture movement IS possible, but only if we're willing to identify these patterns, and re-orient our efforts towards healthier ones. Inviting others to our table won't cut it. We've got to be willing to change the size of the table, the material it's made out of, and when we sit down at it... all while preserving the integrity of the ethics, principles and design process that form the heart of Permaculture Design.



Let's start our analysis at the top at the watershed, with what you might call "founder bias" – the tendency of an institution to reflect the personality of the people that started it. Nearly 40 years after *Permaculture One*, the culture of our movement largely flows from the examples set by Mollison and Holmgren. And rightly so: these two did a brilliant job sowing the seeds of a global paradigm shift. But as white, college-educated, land-owning men, they did so with a certain lens that the majority of our population doesn't share. In theory, the core concepts of permaculture have relevance to any community: rich or poor, urban or rural, white or black or brown. Indeed, our own ethics of peoplecare and fair share would suggest that it's our obligation to focus first on those communities that are most vulnerable. But founder bias has meant that – at least here in the US - permaculture has mostly been applied in situations that benefit those with privilege.

To that end, here are some tips to help frame our efforts at “decolonizing” permaculture. These suggestions just scratch the surface, and they’re sure to reflect my own cultural blind spots and finite experience. Still, my hope is that they’ll help shed some light on how we can all move towards a more just and inclusive permaculture movement.

- **Ask for permission, not for forgiveness.** White society, and permaculture along with it, has a tendency to draw from other cultures without permission or credit. Many concepts in the *Designer’s Manual*, for instance, were taken from Mollison’s time spent with indigenous Tasmanians, whom he seldom mentioned in his writing or talks. Let’s end this practice of cultural exploitation and start giving credit to the people that allowed us to get where we are.
- **Adopt an attitude of “working with” rather than “working for”.** Much of what we like to call permaculture is just common sense to folks that haven’t lost their connection to the land. As my colleague Michelle Gabrielloff-Parish puts it, we should start with the assumption that the communities we encounter are *already* doing permaculture, and use our skills as designers to amplify and complement what they already know.
- **Think “permanent culture”, not “permanent agriculture”.** Listen deeply to identify a community’s real and immediate needs, which may have very little to do with food production. Then, use the ethics, principles and design process to creatively meet those needs.
- **Think outside the PDC box.** The Permaculture Design Course remains a uniquely powerful format for changing lives, but it will never be a one-size-fits-all solution. We’ve got to be more creative about imparting permaculture design skills in culturally-relevant ways, and provide services like childcare, translation and transportation to make our efforts accessible.
- **Support the cultural translators.** These are the permies that have social capital in communities that most of us don’t. They’re the ones that should be the face of permaculture as it expands, and they’re the ones that can help us break out of founder bias.

Ultimately, building an inclusive movement is more than a mere justice issue. It’s one of practical self-interest: in the same way that diversity leads to greater resilience in landscapes, a culture where every voice is heard is better equipped to thrive. Making it through the next couple generations will require the wisdom of every sector in our culture. Now’s the time to start tapping into that wisdom to help collaboratively build the future we know is possible.

For more information on Adam Brock and The Grow Haus visit www.thegrowhaus.com



Listen At: permaculturevoices.com/podcast

Heirloom Varieties in Permaculture

Randel A. Agrella Rare Seed Production Manager, Baker Creek Heirloom Seed Company

Heirloom varieties have a definite place in permaculture design. In fact, they are pretty nearly indispensable! Numerous traits make heirloom and open-pollinated varieties superior in a wide range of permaculture situations and environments.

First, and arguably most important, heirlooms are renewable, year after year, right in the garden. You can save true seed from heirloom varieties, generation after generation, provided you don't allow accidental, chance crossing. (You can't do that with hybrids, which won't breed true, and often re-segregate into approximations of their inferior parent lines.) The ability to save seed is a big advantage, not only for the short-term fact that you don't need to purchase seed each year, but also because, with careful selection over generations, you'll actually achieve superior strains, uniquely adapted to your own permaculture setting.

But heirlooms have a lot more to offer. By choosing your foundation varieties carefully, you can stack the deck in your favor, when it comes to meeting human needs from the soil you steward. Heirloom types have for the most part been developed and maintained by holistic methods. Often, specific varieties emerged as a result of careful choices made by generations of gardeners in a single region or even on a single farm. These canny growers may not have known a lot of formal botany, but they certainly knew a good thing when they saw one! Earliness, resistance to disease- or insect pressures, productivity, hardiness, drought tolerance, and superior flavor were all traits that they could recognize and appreciate. Carefully saving seed only from their very best plants, they fixed and intensified these traits over time. You can tap into the work that has gone before, by choosing varieties that developed within your own region, or in regions with similar climatic conditions to your own, using them as a foundation for your own selection efforts.

Since most of this work was done before the existence of chemical fertilizers and pesticides, you're starting with plants that are already well adapted to organic conditions, which is vital in a permaculture setting. Modern types, by contrast, have often been selected for cultivation under a chemical regimen—you can't be sure they'll do their best under organic practices!

Do you garden in a short-season area? Consider crops that originated at high elevations or high latitudes. Are you working in a dry climate, or maybe on a slope that doesn't hold moisture well? Look to types that originated in the desert Southwest, or other arid regions. If heat or humidity are limiters at your site, consider types hailing from the Southeast, or from tropical settings like Thailand or Central America. No matter the challenges confronting your

permaculture design, there are heirlooms that will thrive where others would likely fail!

Saving seed allows your plants to complete their life cycle, which is often undervalued in conventional gardening but fits in perfectly with the imperative of stacking functions of the plants that you introduce into your permaculture design. Make use of the edges of your plantings to isolate one variety from another, to help produce true seed. Observe the diversity within your plant population, and interact with the land by making the best selections of parents for your future gardens.

So give heirlooms a shot when planning and refining your permaculture design. You'll enhance the yield of your design, develop a deeper understanding of your crop species, and hand off even better varieties to future growers. Now that's good stewardship!

Further Reading:

Seed to Seed, by Suzanne Ashworth, published by Seed Savers Exchange, Inc, 2002—covers requirements and methods for saving viable, true-to-type seed, seed extraction, isolation requirements and more

Breed Your Own Vegetable Varieties, by Carol Depp, published by Little, Brown and Co, 1993—explains how to make the best selections, examines basics of plant heredity, and so on.

Organic Seed Production and Saving: The Wisdom of Plant Heritage, by Bryan Connolly, published by Northeast Organic Farming Association Interstate Council, 2002—a more concise how-to with emphasis on organic methods and major crop types.

Baker Creek Heirloom Seed: www.rareseeds.com



The Importance of Knowing Your Local Farmers

John Kitsteiner, M.D. *AgriTrue*

I recently read about a recall of over 14 tons (12,700 kg) of ground beef in Vermont that occurred a few years ago. This got me thinking about a number of things...

First, this is a lot of meat. I wondered how many steers (or old dairy cows) it takes to make 14 tons of ground beef. This is not such a simple question to answer. Was the beef made from mostly old dairy cows, which would be used almost entirely for ground beef, or was the beef from large-breed, healthy steers, which would be used for steaks, roasts, and other cuts, with a much smaller portion going into ground beef production? Let's, for argument's sake, pick a number somewhere in the middle of the two realms... 500 lbs. (225 kg). This means that it would take 56 animals to produce 14 tons of ground meat. I'm not anti-meat by any means, but this is a completely unnecessary loss of life. Unfortunately, this recall pales in comparison to the 71,500 tons of beef recalled in 2008. Using our math, this would be over 280,000 animals "wasted". I can understand why people become vegetarians, not for health issues, but for moral reasons.

I also thought about how these types of recalls are really a product of large-scale agriculture. Is there anything inherently wrong with large-scale agriculture? I don't know. I do know that there are a lot of problems that arise from the practices associated with it. I know that there is a lot of waste. I know that there is a lot of environmental damage. I know that the product being produced is typically far inferior in flavor and nutrition. I know that when a mistake is made, that mistake is proportionately as large as the corporation behind it. So, yeah, maybe there is something inherently wrong with large-scale agriculture.

Of course there can be contamination and illness issues from small, local producers. However, these issues are going to be significantly smaller. They will affect substantially less people. In addition, when it is a smaller operation, fewer mistakes are made. This is just logical. When you are only processing five animals from your farm, you have much greater attention to detail. Staying small means you are doing something new or different the whole time. You will not shift into autopilot mode like when you are doing the same thing over and over again. Unfortunately, this is exactly what happens on the factory floors of the large animal processing facilities. I understand that the small-scale beef producer rarely processes his own meat, but the point is that smaller is usually safer.

Kenny Mattingly is a dairy farmer, cheese-maker, and friend I met when I lived in Kentucky. He was troubled with the future of dairy farming in America, and he set out to change his path. I have eaten in well over two dozen countries on five continents, so I feel confident to say that he produces some of the world's best cheese. His Old World, handmade method of cheese making is what sets Kenny's Farmhouse Cheese apart from the mass-produced dairy products found on most supermarket shelves.



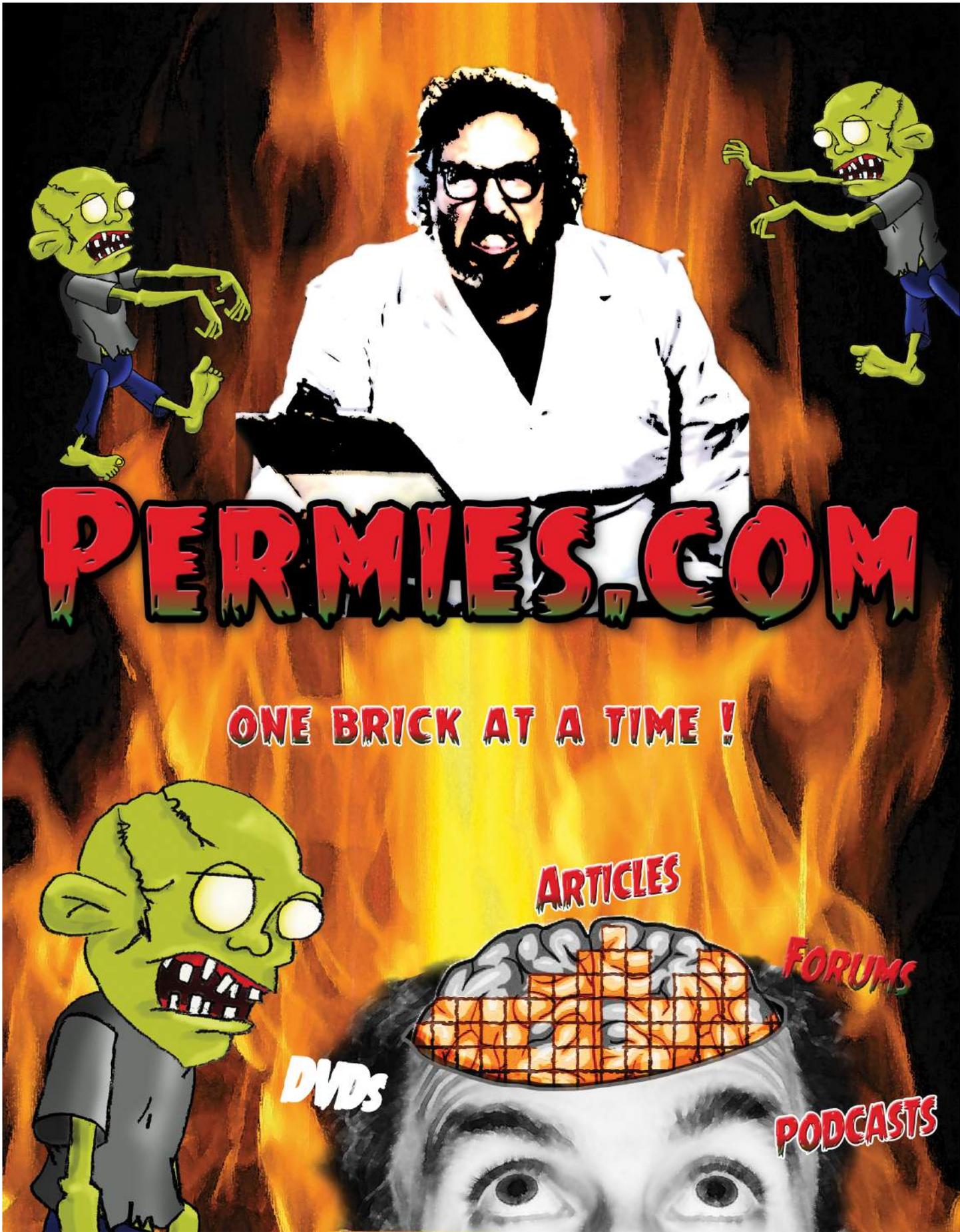
Kenny Mattingly teaching local elementary school students how he makes cheese with his hormone and supplement-free raw-milk.

I currently live in the Azores, a group of small Portuguese islands that rise up in the middle of the North Atlantic Ocean. These remote islands have been forced to be sustainable in their food production. Just a few weeks after moving here, I was delighted to meet Telma (the Portuguese version of Thelma). She and her two sisters run a dairy and beef business. Their father was a dairyman, and the sisters realized that the quality of milk and meat in the island were much lower than it could be, so they set to work creating a sustainable, healthy agricultural system using quality products. They now produce some of the only fresh milk for the island, and they have created, and sell, a class of meat that in the U.S. would best be described as organic grass fed.

These are just two examples of local food producers I have met over the years whose commitment and passion for the food they produce make it all but impossible for me to buy at the local supermarket any more. Both of these people saw how things were being done and thought, "We could do better." And they did. These are the people we need to get to know. This is the food we need to eat.

If we all started to do this across the country, maybe our grandchildren would only hear about food recalls in stories about the old days before they were born. Let's do more than hope. Let's do better. Let's make it happen. Get to know your local farmers.

In addition to running his Permaculture website (TCPermaculture.com), Dr. Kitsteiner has partnered with Jack Spirko to create AgriTrue (AgriTrue.com), a website that connects people with their local farmers and ranchers.



You Don't Need Money to Buy a Farm

Fraser Bliss, founder of Farmwell.com



It's one thing to own your own farm, but what if you're young and don't have any savings at all? How can you become an independent, self-employed and profitable farmer when land is so expensive?

It's easier than you might think. Let's take a look.

Where to start

I will assume you have taken a Permaculture Design Certificate (PDC) course or have enough farm experience to know that you want to be a farmer. Perhaps you've done some WWOOFing. Great. If you're going to be a successful farmer, you'll need to be hungry to eat up all the material you can find on modern sustainable agriculture. I'm talking about articles like this and reading a book a week, at least.

"I can't" does not exist in your vocabulary.

You're also going to need a can-do attitude, because you *will* face challenges. You *will* make mistakes. There will be times when it seems all hope is lost. You must keep going and know that you can't have success without failure. So fail early, fail fast and fail often. Learn from it. "Pick yourself up, dust yourself off, and start all over again", as the song goes. This will be easier if you're still young and flexible.

You're going to need a bucket load of self-discipline too. It is nice to fantasize about being your own boss, but that means you're going to have to kick your own ass. It'll be easier if there's no plan B, if you have something to lose. Your chances of success are much higher when your own investment is on the line.

Trim the fat

But you won't need any money in the bank. There isn't a person reading this article that doesn't have something they can't sacrifice to pursue their dreams. This should be pretty easy in today's age of consumerism. Sell or downgrade your car, sell your smartphone, your iPod, auction off designer clothes on Ebay (but keep your laptop, you'll need it later). Do odd jobs to scrape a few extra bucks together. Cut all the fat, all the excess in your current lifestyle.

Trust me, you'll feel much better for it. In 2007 I sold everything, from my car to my phone, and went ultra-low budget traveling all round the world for 5 years. It's not about money, it's how badly do you want it? All that stuff is just slowing you down anyways. If you dream big, you can't afford to keep it. Get rid of it.

Start small, start now!

Ok. You're living lean, your head is bursting with ideas from all the farm and permaculture books you've been reading, you've got a few hundred to a few thousand tucked away under your mattress. You're chomping at the bit.

Now you need some real honest-to-god hands-on experience. Parents got a backyard? Permablitz it. Does the old lady next door have a garden that looks like a jungle? Make her a deal she can't refuse. Are there any flat rooftops in your area? Be creative. You have a lot going for you. But you need to start somewhere. Anywhere. Don't dilly-dally. Do it now!

Mistakes are great!

Everybody has a learning curve to go through. When you start small, you are free to make mistakes without the whole world watching you. Small mistakes are cheap mistakes, valuable mistakes. Did you just lose \$300 worth of young fruit trees to predators or drought? No worries, you probably just learned more than on a \$1000 course in horticulture. Good. Be happy. After all, it wasn't a \$30,000 mistake and you don't have mortgage payments to worry about.

When you start small, you grow organically and learn as you go. If you keep putting one foot in front of the other, you will get to where you want to go. It's much better than complaining at the start that the journey is too long, or zooming to the final destination by artificial means with zero experience and huge debts.

Think for yourself

Oh, and be prepared to ignore all the people who tell you can't along the way. Be a contrarian. In the finance world, it's the contrarian that's selling when the whole world is buying and buying when everybody's selling like mad. Guess who ends up with all the money? The guy who went against the crowd. It's not easy, but with practice, you'll get used to it. I personally start getting nervous when too many people start agreeing with me, but that's another story.

Farming 2.0

By now, you're well on your way. You're lean, agile, gaining valuable experience and knowledge every day. You're probably already gardening in most backyards on your block. Maybe you're running chicken tractors, keeping bees, or you've come to an arrangement with a neighbor to tend and pick fruit off their neglected trees? You're probably having a great time and bringing the community closer together too!

So what if you don't own a hundred acres. In my books, you are a farmer, a steward of the land. Keep at it. Maybe one day you'll outgrow your little urban farm and move into the countryside. If not, who cares, if you're having fun! If you do move, great! You'll be taking your experience and customers with you. I'd rather start up on 1 acre with a 100 customers than on a 100 acres with 1 customer.

Let your customers buy your farm. Unlike banks, you can pay them with food.

Article by Fraser Bliss, founder of Farmwell.com

What is Permaculture – The Principles

By Maddy Harland of *Permaculture Magazine*

The 12 permaculture design principles are thinking tools, that when used together, allow us to creatively re-design our environment and our behaviour in a world of less energy and resources. These principles are seen as universal, although the methods used to express them will vary greatly according to the place and situation. They can be applied to our personal, economic, social and political reorganisation and the ethical foundation of permaculture guides the use of these design tools, ensuring that they are used in appropriate ways.

Each principle can be thought of as a door that opens into a whole system of thinking, providing a different perspective that can be understood at varying levels of depth and application. David Holmgren, the co-originator of permaculture, redefined permaculture principles in his seminal book, *Permaculture: Principles and Pathways Beyond Sustainability*. When I started giving talks about permaculture to all sorts of different audiences, I decided to write my own explanations and apply the principle not only to designing gardens and farms but to business, society and culture. Every principle comes with David's 'proverb' and is followed by my explanation.

1. OBSERVE & INTERACT: "Beauty is in the eye of the beholder."

For me this element of stillness and observation forms the key of permaculture design. In a world of instant makeovers, of 'fast' every-thing, having the capacity to observe the seasons, watch the changing microclimates on a patch of land, understand how the patterns of wind, weather and slope affect the frost pockets and plant growth, is an opportunity to begin to learn the deeper aspects of Earth Care. It also makes us more capable of making wise decisions about how we design or eco-renovate our houses and plan our gardens and farms.

2. CATCH & STORE ENERGY: "Make hay while the sun shines."

Intimately connected to observation is the art of capturing energy in a design, so that we minimise the need to seek resources from the outside. In a garden this is about avoiding planting tender seedlings in frost pockets in spring or maximising solar gain by siting a greenhouse/conservatory on the south side of a building so that we can both extend the season and heat a house with passive solar gain. We are attempting to capture water, sunlight, heat, soil, biomass and fertility whenever we can in order to become more self-resilient.

3. OBTAIN A YIELD: "You can't work on an empty stomach."

Food can account for as much as one third of our ecological footprint so it makes sense to grow as much as we can, even if this is limited to tasty sprouted grains on the windowsill of a flat. So a permaculture garden is by default an edible landscape with good floral companions to attract beneficial insects, and a building is a potential heat store and structure for solar panels. But the concept of 'yields' is not merely about renewable energy or veggies; a yield can be about social capital. At PM, to see people changing their lives for the better, building community links and reducing their carbon after reading our books or magazines is the ultimate positive yield for a publisher.

4. APPLY SELF-REGULATION & ACCEPT FEEDBACK: "The sins of the fathers are visited on the children of the seventh generation."

When we burn fossil fuels we release CO₂ into the atmosphere, trapping heat and increasing temperatures. This causes ice to melt which leads to loss of reflective surfaces, leading to more absorption of sunlight and even higher temperatures. We must accept responsibility for our actions.

5. USE & VALUE RENEWABLE RESOURCES & SERVICES: "Let nature take its course."

Whenever possible, permaculture seeks to use resources that can be renewed. This naturally applies to energy but also to ecological building, coppicing, soil conservation, and the planting of perennial food crops, as well as annuals with seed saving. The dangers of relying on non-renewables, technological fixes and speculative money are becoming ever more evident.

6. PRODUCE NO WASTE: "Waste not, want not. A stitch in time saves nine."

In the UK, we throw away the equivalent of 24 bags of sugar per household per week: 14.1 kg. That's 29 million tonnes (55% of that is household) per year. I have a favourite saying that the landfill of today will be the 'mine' of tomorrow. At PM we have no waste collection and our business is designed on permaculture principles. We reuse first and recycle all possible materials: paper, cardboard, textiles, glass and compost all organic materials, from kitchen waste to shredded paper. The subsequent compost feeds the edible container garden outside our office and provides a medium for growing plants for other projects at the Sustainability Centre.

7. DESIGN FROM PATTERNS TO DETAILS: "Can't see the wood for the trees."

When Tim Harland and I designed our house and garden, we read up on permaculture design, forest gardening, renewable energy, eco-architecture and eco-renovation as much as we could. We spent a year observing the land before we started planting and planned how best to make our house a happy, energy efficient place to live in. We observed the seasons, the climatic variations, the weather, the soil patterns, slope and our own human activities on the site as a family.

We also considered the 'edge' between house and garden and how we might make this both aesthetic and productive in terms of food crops and energy harvesting. In other words, we started off looking at the bigger picture, the pattern of what sustainable living might be, with examples from other places, and then we refined our exploration into the detail appropriate for our particular site. We didn't make a 'shopping list' of individual items or projects and try to mesh them together in a hotchpotch of what might be regarded as 'green'.

8. INTEGRATE RATHER THAN SEGREGATE: "Many hands make light work."

We have a cultural tendency to separate veggie gardens from flower gardens and use hard edges to design our spaces. Companion gardeners will know however that the more integrated the orchard is with the wildflower meadow, or the vegetables are with flowers frequented by beneficial insects, the less pests will prevail. The same is true for people. Cultural diversity yields a robust and fertile culture, whereas a rigid monoculture of politics and religion can bring sterility, even social and political repression.

9. USE SMALL & SLOW SOLUTIONS: "The bigger they are, the harder they fall."

Our society currently depends on vast inputs of fossil fuels, whilst our biosphere is over-loaded by their outputs. The more accessible and fixable our technology and chains of supply are, the more robust the system. This principle speaks of hand tools, of appropriate technology that can easily be fixed, and of relocalisation.

Currently we have a three day 'just in time' supply chain of supermarkets. If the fuel supply is interrupted, the super-market shelves will empty at an alarming rate. Better to build resilience into our systems by relocalising our essential needs as much as possible and having technological alternatives that we can fix.

10. USE & VALUE DIVERSITY: "Don't put all your eggs in one basket."

Biodiversity creates healthy ecosystems. Diversity in terms of crops, energy sources, and employment, make for greater sustainability. Valuing diversity amongst people makes for a more peaceful, equitable society. Conflict and wars are the biggest slayers of sustainable development.

11. USE EDGES & VALUE THE MARGINAL: "Don't think you are on the right track just because it is a well-beaten path."

Examples of 'edge' in nature are: where canopy meets clearing in the woodland, inviting in air and sunshine and a profusion of flowers; where sea and river meet land in the fertile interface of estuaries, full of invertebrates, fish and bird life; where the banks of streams meet the water's edge and fertility is built with deposited mud and sand in flood time, giving life to a riot of plant life; where plains and water meet, flooding and capturing alluvial soils...

Edge in nature is all about increasing diversity by the increase of inter-relationship between the elements: earth, air, fire (sun), and water. This phenomenon increases the opportunity for life in all of its marvellous fertility of forms. In human society, edge is where we have cultural diversity. It is the place where free thinkers and so-called 'alternative' people thrive. where new ideas are allowed to develop and ageless wisdom is given its rightful respect. Edge is suppressed in non-democratic states and countries that demand theological allegiance to one religion.

12. CREATIVELY USE & RESPOND TO CHANGE: "Vision is not seeing things as they are but as they will be."

In nature, there is a process of succession. Bare soil is colonised by weeds that are in turn superseded by brambles. Then pioneers follow; like silver birch, alder and gorse which stabilise the soil. The latter two even fix nitrogen to create an environment that can host slow growing temperate climate species like oak, beech and yew. But nature is dynamic and succession can be interrupted by brow-sing animals, storms that fell trees and create clearings or a changing climate that is less hospitable for certain climax giants like oak and beech.

The challenge of a permaculture designer is to understand how all these factors interact with each other in a landscape or on a part-icular plot of land, and design accordingly. It is no good restoring coppice without fencing out deer, or planting trees if they will shade out the solar panel in a decades' time. Equally well, we need to appreciate how climate change will affect our agriculture, with higher summer temperatures, greater volumes of rain in winter and springtime, and more violent storms with higher wind speeds. Hotter summers may allow more vineyards on the gentle southern slopes of the chalk downland. They may also make English oaks less viable in the south. What then do we plant and how do we design in resilience to our settlements?

One example is to plant more shelterbelts for farmland as well as housing estates and forgo building on floodplains. The principle is deeper than this, however. It invites us to imagine a future world, a world without cheap oil, and a world that necessarily radically reduces its carbon load in the atmosphere. By doing this, we take the first steps towards creating it. We stand on the bedrock of permaculture ethics Earth Care, People Care and Fair Shares, and are empowered by a set of principles that can inform our planning and actions. Human beings can either be the destroyers or the self-elected stewards of our planet. We have the capacity to put our ethics into action, literally to 'walk our talk'.

With permaculture design, we create the potential for a powerful beneficial relationship with the Earth. We can become stewards for our world whilst still maintaining an openness and humility to accept nature as perhaps our most powerful and wisest of teachers. What a culture we could build if these two perspectives were the bedrock of our civilisation! I believe that as we awaken as human beings and our awareness grows, we turn away from designing our own private Eden and engage more fully with the rest of humanity and the biosphere. We cannot build ecological arks on a failing planet. We are part of an inter-dependent ecological system. There can be no 'them' and 'us' in ecology. Permaculture is about low carbon, eco-friendly, even abundant living. It is also an ethically based design system for people who want to not only transform their lives and the lives of the people around them, but also to play their part in bringing an ecologically balanced, equitable and kinder world into existence. That is our challenge.

By Maddy Harland of Permaculture Magazine

"YOU ARE NEVER TOO OLD TO SET ANOTHER GOAL OR TO DREAM A NEW DREAM." C.S. LEWIS

"Most men lead lives of quiet desperation and go to the grave with the song still in them." Henry David Thoreau

"A goal is not always meant to be reached, it often serves simply as something to aim at." Bruce Lee

"Do what you can, where you are, with what you have." Teddy Roosevelt

"YOUR TIME IS LIMITED, SO DON'T WASTE IT LIVING SOMEONE ELSE'S LIFE. DON'T BE TRAPPED BY DOGMA — WHICH IS LIVING WITH THE RESULTS OF OTHER PEOPLE'S THINKING. DON'T LET THE NOISE OF OTHERS' OPINIONS DROWN OUT YOUR OWN INNER VOICE. AND MOST IMPORTANT, HAVE THE COURAGE TO FOLLOW YOUR HEART AND INTUITION. THEY SOMEHOW ALREADY KNOW WHAT YOU TRULY WANT TO BECOME. EVERYTHING ELSE IS SECONDARY." STEVE JOBS

"If you don't design your own life plan, chances are you'll fall into someone else's plan. And guess what they have planned for you? Not much." Jim Rohn

"IF YOU WON THE LOTTERY, WHAT WOULD YOU DO AFTER YOU DID ALL THE INITIAL TRAVEL AND SPENDING YOU WANTED TO DO? LET'S LOOK AT YOUR LIFE TWO OR THREE YEARS AFTER YOU WON THE LOTTERY, AND YOU STILL HAD MILLIONS OF DOLLARS LEFT... HOW WOULD YOU SPEND YOUR TIME? WHAT WOULD YOU DO EVERY DAY IF MONEY WAS NO OBJECT?" JACK SPIRKO

"The two most important days in your life are the day you are born and the day you find out why." Mark Twain

"YOU CAN'T CONNECT THE DOTS LOOKING FORWARDS; YOU CAN ONLY CONNECT THEM LOOKING BACKWARDS. SO YOU HAVE TO TRUST THAT THE DOTS WILL SOMEHOW CONNECT IN YOUR FUTURE. YOU HAVE TO TRUST IN SOMETHING — YOUR GUT, DESTINY, LIFE, KARMA, WHATEVER. BECAUSE BELIEVING THAT THE DOTS WILL CONNECT DOWN THE ROAD WILL GIVE YOU THE CONFIDENCE TO FOLLOW YOUR HEART EVEN WHEN IT LEADS YOU OFF THE WELL-WORN PATH AND THAT WILL MAKE ALL THE DIFFERENCE." STEVE JOBS

“CREATE THE HIGHEST,
GRANDEST VISION POSSIBLE
FOR YOUR LIFE,
BECAUSE YOU BECOME
WHAT YOU BELIEVE.”

OPRAH WINFREY

PERMACULTURE VOICES IS DEDICATED TO MY WIFE AND TWO DAUGHTERS - THE FUTURE.
EVERYDAY I TAKE STEPS TO CREATE A BETTER WORLD FOR THEM TO INHERIT.

