

## THE PERMACULTURE-ECOTHERAPY DIALOGUES

### Linda Buzzell and Craig Chalquist

*Permaculture principles provide one lens for helping to identify the useful pieces of modernity and combine them with those from nature and from pre-modern cultures in a new designed synthesis.*

~ David Holmgren, co-creator of Permaculture

Can the permaculture principles and practices of ecological design offer guidance not only for external processes like remediating damaged land and building ecovillages but also for the healing of both individual and collective psychological and social terrain? And what might nature-based permaculture thinking contribute to the healing of the sorely wounded human-nature relationship?

Santa Barbara psychotherapist/ecotherapist Linda Buzzell and California Institute of Integral Psychology professor Dr. Craig Chalquist, co-editors of Sierra Club Books' *Ecotherapy: Healing with Nature in Mind* -- both graduates of the Permaculture Design Course -- explore the possibilities through this very preliminary dialogue that will hopefully open a much wider conversation about whether -- or even if -- the ecologically-based principles of permaculture can address the remediation of devastated psychological and social ecosystems as well as abused and neglected places.

Comments are welcome and can be sent to [lbuzzell@aol.com](mailto:lbuzzell@aol.com)

### THE PERMACULTURE PRINCIPLES

*(Note: we have listed the permaculture principles as they are presented in Permaculture: Principles & Pathways Beyond Sustainability, by David Holmgren, the co-creator of the permaculture concept. We highly recommend this book for anyone wanting to learn more about permaculture.)*

#### 1. OBSERVE AND INTERACT.

Linda: The profound wisdom of this primary principle just dawned on me: it requires the activation of two diametrically-opposed perspectives. Observation involves the Witness and Interaction involves the Participant. Together they offer a wholistic view of whatever one encounters: a piece of land, an experience, an animal, plant or human individual or group. Without this both-eyes-open, dual vision, no wise action may be taken.

Craig: It seems to me this principle also offers a corrective to our normal habit of wanting to rush in and fix everything without regard to consequences. This habit goes by many names: chemical farming, GMO, stimulus package, "too big to fail," "pre-emptive strike," and so on, all just names for impulsive disregard of the need to observe intricate systems first, make minimal interventions, and observe again to assess results. If we practiced that we'd be in a lot less trouble as a species.

Linda: Yes, even in psychology now the focus seems to be on the quick fix. Some of the older analytical depth psychologies took a more patient approach, allowing the patient to observe their own thoughts and dreams over time, as well as interacting with them through processes like active imagination. The exact opposite of the modern therapy situation -- six behavioral sessions and you're done.

Craig: Programming. A logical procedure when the mind is considered a machine to repair instead of an ecosystem closely related to its surroundings.

## **2. CATCH AND STORE ENERGY.**

Linda: Typically permaculture students and practitioners focus on observing, capturing and storing the external energies of the material world like sun, water and wind. But what of the inner energies of the individual and collective psyche?

Craig: You and I have previously discussed "no-till ecotherapy," one form of which involves being still with one's feelings, however painful, and participating fully in their unfolding instead of rushing off to fix or cure them. When I've done this I've found a remarkable reserve of energy afterwards, as though the emotions were somehow turning themselves into passion or drive. Beyond that, we waste a phenomenal amount of human energy in this country doing things that make no sense. Think about something as simple as stopping at a stop sign when nobody is around. Nowadays you pretty much have to stop or some camera will click your photograph and send you a ticket. It's ridiculous. People waste entire lifetimes doing what they think they "should" do instead of what fulfills them.

Linda: Yes, we repress a lot of psychological and physical energy just "fitting in" to conventional cultures instead of channeling it into productive directions. Even Freud noticed that! Just as the sun has always been with us, so perhaps the powerful energies of individual and collective psyche and spirit have as well, untapped by so many of us until we learn how. The technology of tapping into the power of internal and external energies in a constructive (non-destructive) way may involve solar collection, windmills, meditation or ecotherapy -- but it's all about catching and storing energy.

## **3. OBTAIN A YIELD**

Linda: This is one of my favorite permaculture principles. It has trained me to look for and appreciate many different "yields," both physical and non-physical. (It took me a while to fully understand that beauty is as important a yield as carrots in my veggie garden!) I think the idea of obtaining a yield also relates to the previous principle, in that there is encouragement not to waste energy pointlessly or destructively, as we have been doing in the last decades, but to use it productively for meaningful purposes. Permaculture is a very practical way of thinking, based on nature's principles. And of course nature itself abhors senseless waste.

Craig: I like the abundance thinking behind this principle. Psychologically, it asks us to look at how receptive we are to receiving. Many of us give, give, give all the time--at work, at home, everywhere--without pausing very long to receive good things. Why is this? Do we feel deep down that we don't deserve them? Do we fear that receiving somehow obligates us uncomfortably?

Linda: You're so right about this. Many of us find it hard to harvest the yields available to us. The universe is unbelievably abundant and generous if we work in harmony with nature's laws and limits. This third principle inoculates us against deprivation thinking and stupid martyrdom. If we begin to understand the powerful energies all around and within us, and plant and tend the seeds of abundance, we will "obtain a yield" beyond our limited imaginings.

## **4. APPLY SELF-REGULATION AND ACCEPT FEEDBACK.**

Linda: Wow, this is a big one. On a physical level, we had better start to pay attention to the responses we get when we mess with an ecosystem. We need to read nature's responses to our behavior and accept what they're telling us. We don't seem to hear the loud and clear messages of the melting ice, changing weather, dying species. It's like we're tone deaf. On the psychological level, this is actually one of the principles our field seems to understand. Most therapists would certainly accept the importance of self-discipline and feedback from others to mental health. In therapy we routinely help people listen to others' responses to their behavior

and encourage internalized self-regulation of unwanted behaviors. How strange that we haven't figured out how to listen to the signals sent to us by the rest of nature! Maybe it's because we think of "nature" as dead?

Craig: Yes, and ourselves as masters of it. What master pays attention to what the enslaved have to say? Beyond that, governments and corporations cooperate to mute nature's feedback. The U.S. Government under "Yes We Can" Obama is now cooperating with BP to prevent reporters from photographing oiled birds and sick people suffering in the Gulf of Mexico. BP has told its cleanup personnel not to wear respirators even though record numbers of the ill and the contaminated are ending up in hospitals. Activists are attempting to reconnect the feedback loops by smuggling photographs and stories out of the Gulf.

Linda: This latest Oil Spill disaster is in itself powerful feedback and in spite of the powers that be trying to suppress the message, it's impacting hearts and minds around the planet. If we continue to scramble after the last drops of oil in ridiculously risky and destructive places, here's what we can look forward to. If we start to cooperate with nature's renewable energies of all kinds, we can have a much more desirable outcome. It's astonishing how stupid we are, isn't it? Nature keeps trying to teach us, but we are dull creatures indeed...

Craig: As you know, I see our blindness more as an artifact of empire--and of the insularity of life in the wealthy U.S.--than as having anything to do with us as a species. Empires tend to be that way. Lewis Mumford wrote that when the Visigoths came to destroy the Roman city of Hippo, the first noise they heard was the roar of the crowd in the public circus: citizens enjoying the spectacle of the games, totally oblivious to the danger bearing down on them.

## **5. USE AND VALUE RENEWABLE RESOURCES AND SERVICES**

Linda: This is certainly the feedback nature is trying to get us hear, isn't it? We're undervaluing what's being given so freely to us, and over-exploiting resources and natural services shamelessly. The very definition of un-sustainable!

Craig: One could think of healthy, open relationships as renewable resources. It's worthwhile to pause and ask: Who are the wise people in my life? Who supports and energizes me? On whom can I count, and what is required of me to sustain relationships with such people?

Linda: That's a lovely way of applying this principle to human relationships. We can observe and interact with the energy flow of psyche, both internally and in our interactions with others. As you say, we can notice who or what increases that energy and passion for life, and who or what diminishes or drains it. This feedback loop can guide us in making better choices, contributing our energies where they will be met and multiplied by the energies of others. And in this principle there is also the reminder that some of our resources and services need periodic renewal -- and rest.

## **6. PRODUCE NO WASTE**

Craig: In a kind of Ben Franklin way one could think of not wasting time or opportunity. Going a bit deeper: What do I produce that ends up going nowhere? Where are my efforts badly directed? Also, which aspects of my complexes, "issues," and "negative" emotions contain insights and messages, energies and inspirations that I would waste by trying to get rid of them in order to feel better? When students complain about "writer's block" and it turns out to be the old Inner Critic derailing efforts from within, I ask students to invite the Critic to help write the paper. Doing this often transforms the Critic into a useful voice, or at the very least a bringer of a different point of view that needs looking into.

Linda: My parents, who lived through the Depression era, were great proponents of "waste not, want not." Everything was carefully considered as to its possible uses and reuses. This kind of

deep frugality is coming back into fashion again and rather than being a pinching down of possibility, respect for the preciousness of physical and psychological/spiritual resources is incredibly freeing and creative. Frittering away our gifts and energies without a "yield" of any kind (including pure joy) is thoughtless waste. And careful consideration of even the most seemingly negative situations can, as you say, reveal hidden gifts we might have overlooked. In an awe-inspiring, sacred alchemy, "waste" is transformed into food for the next cycle of life.

## **7. DESIGN FROM PATTERNS TO DETAILS**

Craig: This principle, which refers to taking nature's lead in our designs by following natural patterns--the way a river runs, the shape of a slope--instead of imposing unsustainable ideas on the landscape, translates into learning our own patterns: what I'm good at, what interests me, what kind of work wakes me up instead of boring me, what kind of spirituality suits my personality, and then arranging the details of my life accordingly.

Linda: Yes, the first principle of observation comes into play again here, doesn't it? Taking time to deeply and respectfully observe and value our basic, intrinsic nature and that of other people and living beings with whom we interact. I also see a need here for ecoliteracy to be expanded into psychological and even spiritual realms. For the first time in human history, we can now begin to grasp the broad patterns of human nature and culture over many eras and geographical locations. I'm particularly grateful for the pioneering work of Joseph Campbell and others who have spent lifetimes studying myths and stories from many different lands and times, searching for the broad patterns in the human psyche.

Craig: We desperately need an ecoliteracy education. Speaking of Campbell, another pattern question: What is the archetypal pattern running through my life? And: what personal myths inform it?

Linda: So few of us have any training in how to go about determining this personal pattern for ourselves and others. Understanding the "story" of our lives and how that fits into the larger stories of humankind now and in the past and future -- that's a great challenge for each of us.

## **8. INTEGRATE RATHER THAN SEGREGATE.**

Craig: On the land this would mean relating its elements to each other: compost bins to garden, worm bins above plants benefitting from their castings. One difference between a monoculture farm and a permaculture design is that the elements of the former aren't linked together. In the social sphere, the Civil Rights Movement and the Women's Movement have worked hard toward forms of integration that overcome the need to wall off, cast out, and exile the demonized elements of society. From this perspective a "smart fence" at a border or down the middle of a city like Jerusalem is a contradiction in terms.

Linda: We seem at long last to be (re)entering an age of more integral thinking, where we realize that everything truly is connected to the whole. Segregation, like hyperindividualism, is a natural impossibility. Once we see the interconnections and the mutual dependencies and cooperations, it's so much easier to stop isolating ourselves from other people and the rest of nature. Walls or boundaries may exist, but they must be permeable.

## **9. USE SMALL AND SLOW SOLUTIONS**

Craig: I just did a class exercise I frame as a "food meditation": eat one strawberry or blueberry or carrot slowly, noticing how it feels in your mouth, how it tastes and smells, its texture, the mood it induces, what you think about as you eat. Reflect on how you partake of nature's generosity one bite at a time. Then, if you are overweight and tend to mood-alter by sugar-loading or downing "comfort food," do the same with ice cream loaded with high fructose corn syrup: one slow bite at a time. The same with doughnuts or cake or pizza. Do you really like that much sweetness? Can

you feel it changing you? Where does this food come from? What ethical sensibility does the company that makes it display? Look up the chemicals on the label, and learn what each does, and which are carcinogens, which haven't been tested, etc. You see the logic of this? I wouldn't ask someone to diet or totally change their lifestyle. Just slow down and think about what you eat and what it does to you. I've noticed that this all by itself can change mood, diet, attitude. When I found out what chicken sandwich spreads were made of I couldn't eat them anymore.

Linda: What a great exercise! Yes, slowing down and paying close attention to what's actually happening seems to be a key to all successful permaculture designs. And I think this practice is equally important for healing the psyche. In both therapy and the 12-step programs, desirable change happens "one step at a time" or "one day at a time." The culture itself, of course, is constantly speeding up and complexifying, so deep awareness becomes extremely difficult unless we engage in slow meditation, yoga, guided imagery, hypnosis or some other practice that stills the jittery mind. And not only do many modern people get caught up in going too fast, we also succumb to the cult of "bigness," where we try to solve every problem in a grandiose way, not honoring simple, time-honored or new solutions for living in harmony with the rest of nature.

Craig: I just came across a piece by James Hillman linking bigness to the Titans, the race of giant gods that became so troublesome and destructive that Zeus had to lock them up at the bottom of the ocean: same place where the *Titanic* now rests. As I recall, the Titans were also forever in a hurry. Today, I look around at giant buildings, financial empires, "mega-churches" and realize that some of them must have escaped and got loose again.

Linda: No kidding! And as this principle tells us, the way back to sanity lies in slowing down and shrinking our dangerously inflated egos.

## **10. USE AND VALUE DIVERSITY**

Linda: As in nature, diversity creates an abundance of redundancy and resilience, two important concepts in both permaculture design and sustainability. Monocrops -- of corn, potatoes or people -- are incredibly fragile. Reliance on a single cultivar of potato led to the terrible 19th Century potato famine in Ireland that killed or displaced millions of people. If we apply this principle to social systems, it's clear that cultures that appreciate and tap the gifts of many different kinds of people have a tremendous advantage over those that utilize the skills of only a limited, homogenous group. At a workshop I attended in the 1970s, family therapist Virginia Satir led us through a wonderful exercise that clearly demonstrated the stupidity of human monocropping. She asked the audience of 1000 people to stand up and close our eyes. Then she asked various groups of people to sit down -- without opening their eyes. Women... under 20...over 55...ethnic minorities of various kinds...religious minorities...gays and lesbians... the list went on. Then she had us open our eyes. Only a few rather embarrassed straight, white Protestant men between 20 and 55 were still on their feet. We got it! By resisting diversity we were diminishing our chances for collective success.

Craig: Yes. It's nice when the point is made through the body too. Jung often pointed out the treasure hidden in exactly what we dislike about ourselves, want to lose, or project onto "others." The whole therapeutic mess of the beauty and health industries plays on what we want to fix, cleanse, clear, correct, thin out, and whatnot, entirely away from an appreciation of what makes us unique AND what pinches in the psyche. It seems to me almost a rule of human nature that when we ask ourselves, "Where do I need to grow next? Where could I stand some reflection and maturity?" the answer almost invariably is: In just what we hate about ourselves and haven't learned to listen deeply in on.

Linda: Culturally, it's taken us way too long to understand the treasures embedded in diversity. And as you point out, we also resist seeing and cherishing the "differentnesses" in our own psyches as well.

## **11. USE EDGES AND VALUE THE MARGINAL.**

Linda: This is a great permaculture principle to apply to psyche. Edges can be extremely fertile places in psychological awareness as well as at the intersections of forest and field, water and shore. As the early psychological pioneers discovered, we can discover so much of value at the periphery of our waking-state, egoic consciousness. Dreams, fleeting awarenesses, odd thoughts, sensations, inner or outer voices that flit across our minds -- all are fertile soil for inner growth. In communal life as well, what has been pushed aside as Other may offer the richest rewards to the whole if listened to, acknowledged and welcomed into the center.

Craig: This principle goes nicely with number 10 above, and as a depth psychologist it holds a special place in my edgy heart. I would add to your elegant deepening of 11 only that my work with land and place has taught me to include the marginalized voices of nature--the animals, the insects, even the plants and storms and waters--as well as the symbolically rich language of landscape and planet, a language that terrapsychology tends. What is Earth telling us? When a tornado bends toward a team of storm-chasers pointing cameras at it, then opens its eye wide, couldn't we say that in addition to them witnessing it, it is also witnessing them in some mysterious elemental way?

## **12. CREATIVELY USE AND RESPOND TO CHANGE**

Linda: "The Problem is the Solution" is a popular permaculture slogan. In land-based ecological design this often involves reframing a difficulty. So a ranch may not have "too many grasshoppers" as its owners think, but "too few turkeys" as permaculture designer Larry Santoyo once advised some Texas landowners. Reframing is of course already a popular technique in psychotherapy, helping us look at things in a new way that helps us open up avenues for positive action. So change can become opportunity. This principle also challenges community and global-view ecotherapists to look at seemingly intractable problems like overpopulation and climate shifts in radically new ways. Rather than digging our heels in and resisting change in a futile attempt to save an unsavable way of life, we can embrace change, however unwelcome, and respond creatively.

Craig: This comes up psychologically and socially all the time: for example the obnoxious person in one's life. This problem provides an opportunity to ask: what is this person (or this group) bringing back to me that now lives in exile in my own psyche? Each of these encounters is an opportunity for coming home to oneself. When the problem is in one's surroundings--the leaky house (where am I leaking?), the squirrels eating the garden (what am I hungry for?)--we have the chance for a double movement: taking the problem more deeply inside and alchemizing it into wisdom and insight, but beyond that, moving outside again to ask what the world is saying to us with these gestures.

Linda: I love the idea that challenges contain their own helpful messages if viewed with out-of-the-box thinking processes. I hope this is true of the current environmental crisis, which tells us that unless we begin to understand that what happens to one of us, or to the land and the animals, affects all of us, we will continue our self- and world-destructive behavior -- with dire results.

## **THE PERMACULTURE ETHICS**

The permaculture ethics are core values that underlie all permaculture principles and practices. Here we discuss how they can be applied to the care of psyche.

### **1. CARE FOR THE LAND**

Linda: Permaculture puts first things first. Many ecopsychologists and ecotherapists have pointed out that there can be no human health (mental or physical) in the absence of a healthy planet.

Craig: Absolutely. Beyond our customary dualistic thinking, care for the land IS care for oneself and for others.

## **2. CARE FOR THE PEOPLE**

Craig: This principle reminds us that permaculture isn't just about growing food for ourselves. Humanity evolved as a species in which making sure we all survived well was the norm until historically recently, when huge financial markets and institutions convinced some of us that being selfish is "human nature." Selfishness is actually a symptom of emotional immaturity. Any decent person with a decent heart will do what's needed to make sure someone doesn't go hungry or thirsty.

Linda: I agree that it's a dreadful form of psychological and spiritual immaturity to believe that "taking care of number one" is a recipe for success. Just as there can be no human health in the absence of planetary health, there can be no individual success, health or happiness in the absence of others' health and welfare. Also, we may want to follow the wisdom of the Lakota Sioux and other indigenous traditions in expanding the definition of "people" to include "all our relatives" on this planet, including the other animals and plants.

## **3. FAIR SHARE**

Craig: This of course is derided as "socialism" by certain sectors of the United States: namely, those that don't mind corporate bailouts but do mind setting aside money and resources for people who need both. "Fair share" does not mean robbing the rich to give to the poor; it means keeping an abundance circulating so that everyone benefits and communities stay lively. Psychologically, when we give of our humanity, empathy, and abundance to those around us, everyone becomes more alive and self-related. As an educator I also feel very strongly that what we have received comes with an obligation to share our knowledge widely.

Linda: Yes, "fair share" reminds us to balance what we receive with what we give. It also raises the issue of limits and boundaries. There is a lot of discussion in the permaculture community about what the third ethic really entails. The popular shorthand description is "fair share" but a version on *Wiser Earth* adds: "Returning any surplus and setting limits to population and consumption. By governing our own needs, we can set resources aside for the earth and others." Another version reads: "Set limits to consumption and reproduction, and redistribute surplus," which is closer to the original Bill Mollison (co-creator of the permaculture concept with David Holmgren) version. This last is, of course, the most overtly political. And there is really no way to approach the concept of "fair share" without addressing the inequities and stupidities of our present individual and collective behavior, so this ethic is a definitely a challenge to business as usual. And as a final note, if we include "all our relatives" in the fair share ethic, we also must leave enough land, food and water for the other animals and plants with whom we share this planet to survive.

## **ADDITIONAL PERMACULTURE SLOGANS AND CONCEPTS**

Permaculture isn't limited to the permaculture ethics and principles. There are many other useful, nature-based permaculture ideas and practices that can be applied not only to land care but also to people care and community building. Here are a few:

**BERM.** An area of elevated soil, usually on the downhill side of a swale. (see "swale")

Building productive berms and swales is a profoundly satisfying activity, allowing us to "obtain a yield" of water by better aligning ourselves to the contours of the land. As we become aware through observation (Principle #1) of the flows of energies on our land and in our lives, we can learn to conserve what we'd like more of and allow what we don't want to flow away from us -- psychologically and spiritually as well as agriculturally.

### **CREATION THE CONDITIONS FOR ...X... TO HAPPEN.**

Permaculture helps us understand that things often happen because we have created the conditions for them to happen. This idea is also expressed as "calling in the ...x..." So if we have, for example, a pest in the garden -- we can look at whether or not we have created conditions that invited it onto our land.

This concept reminds us that to get a different result, we may need to change the prior conditions. So if we don't like the circumstances in our lives or gardens, we can ask ourselves if we have created the preconditions for them -- and then we can explore how to change those conditions to create less tempting circumstances for the forces we'd like to minimize or eliminate from our lives. So permaculturists ask often themselves questions like: Have we invited in the ants by providing sugary food for them? Have we invited destructive people into our lives with a passive and undiscerning apathy that invites domineering bullies?

**CHOP AND DROP.** The practice of not moving resources far from their source. In garden care, chopping up trimmings and leaving them in place as a mulch.

Linda: This has become a form of meditation for me -- a profoundly moving and relaxing outdoor practice. As I trim, chop and drop I am part of the circular flow of nature, recycling useful nutrients from branches and prunings, transforming them alchemically into a protective and nutritious mulch for other plants. It is also a game -- seeing how little I have to remove from our property or import from elsewhere. Psychologically, perhaps this can practice can provide guidance for recycling, reframing and repurposing the experiences and events of our lives, creating no waste!

**ENERGY FLOWS/SECTORS.** The energies or forces that impact our land or lives.

Careful observation of natural energy flows as they impact our land can help us make intelligent, strategic decisions about where to place plants, animals or homes in our permaculture designs. And awareness of the energies that flow through social and economic situations -- or even our own psyches -- can also guide us in the wise investment of our own resources and emotions.

**FOOD FOREST.** A forest ecosystem designed to mimic nature's own forests, while favoring plants useful to people and animals.

Food forests, pioneered by the Maya and other native peoples around the planet, include a wide diversity of plants and animals in a single, highly productive system. Like a natural forest, they include overstory and understory trees, shrubs, vines, berries, herbs and annuals. Permaculturists excel at the sophisticated design of extremely productive food forests that offer food, fiber, medicine and homes for all their inhabitants.

The human psyche and community can also benefit from this kind of complex nature mimicry, consciously making space for a variety of harmoniously-interacting elements that work together in a synergy of highly productive cooperation.

**GABION.** Rocks contained within a wire or other porous container used to divert or block a stream.



One of the energies we need to be aware of as we do a permaculture design is the flow of water. For example, what can we do if torrents of water are washing our topsoil downstream, carving deep gullies and ravines on our land and depriving people, plants and animals of the moisture they need? We can build gabions: stout barriers that hold back and slow down the too-rapid flow so rain can soak into the soil. Perhaps we can catch and preserve the critical energies in our personal lives and communities in a similar way by creating stalwart boundaries to restrain, slow down and dissipate destructive forces.

**GUILD.** A community of elements working harmoniously together to perform a function or various functions.

A food forest guild is a wonderful metaphor for healthy human systems. A wide diversity of "companion plants" with different strengths, skills and contributions (see "needs and resources") can come together to create a robust and resilient family or community. And even in the intrapsychic terrain of our own hearts and minds, we can welcome all the multiple elements and sub-personalities to conscious awareness, encouraging cooperative productivity rather than internal strife.

**INVISIBLE SYSTEMS.** Non-physical systems that are critical for individual or community sustainability.

Some permaculturists view "invisible systems" as primarily limited to things like financial or legal systems, but others are extending this concept to include the permaculture redesign of cultural, social, psychological and even spiritual "inner landscapes" that are an important part of the human and more-than-human Whole.

**KEYLINE.** Where convex meets concave.

Keyline can be a tough concept to understand. Basically it's the point on sloped land where the convex hill turns concave, and it is considered to be the ideal point to store water. Special keyline plows are used to prepare the soil at keyline points to receive and store this life-giving water. Some native peoples believe that land above the keyline should be considered sacred land and never built upon. This would certainly prevent a lot of the problems fire-prone cities are now having with unsustainable hilltop homes.

Perhaps one way of applying this concept to "inner landscape" situations would be to understand the appropriate where and when of doing things. This awareness helps us find the best time and place so interventions can be made most effectively, saving us a lot of wasted energy and disappointment.

**LOW TECH SOLUTIONS.** Exhaust biological solutions before using technological solutions.

This permaculture concept calls into question the high tech drug and behavioral protocols that have become the fashionable and insurance-approved psychological interventions of choice in the last few decades. Permaculture thinking tells us that if we start with "small and slow" interventions, made at the critical "keyline" points -- we will radically increase our chances for long-lasting success, with fewer nasty side effects.

**NATURAL SUCCESSION.** How nature gardens on open land. First come the pioneering species, naturally followed by other species, leading up to a climax forest.

We can't run before we can walk -- and this applies to human behavior and emotions as much as to physical development of people or forests. In psychotherapy and ecotherapy it is often necessary to return to previous stages of life to understand and remediate a current situation. Once we have restored a natural life flow, things proceed and evolve forward as nature dictates.

**NEEDS & RESOURCES.** In assessing any situation, it is wise to make a list of needs and available resources before beginning a permaculture design.

The "Needs and Resources" inventory is a staple of permaculture design. It makes sense to apply this exercise to psyche as well as land, especially when we are in crisis. The therapist may start with assessing existing resources, emphasizing the strengths already present in an individual, relationship or community. Then we can address needs -- especially unmet needs -- and become creative about how they can be met most productively. The goal is not self-reliance, but interdependence: meeting each other's needs and sharing resources.

**PATTERNS.** Observing the patterns in nature, we can then apply these to new situations.

The circle and the spiral are key patterns in nature. For example, time is a spiral based on the movement of the earth around the sun and the movement of other celestial elements. The linear straight line is not a common natural pattern.

Since the 19th Century, psychology has attempted to understand some of the basic patterns of individual temperament/behavior and social systems. These are often subtle and perhaps even more difficult to distinguish than the patterns of land, water, animal form or behavior. Yet how can we build permaculture projects or create healthy communities without an understanding of and appreciation for natural human patterns and development?

**PIONEER PLANTS.** Plants that pave the way for other plants.

Permaculturists speak of pioneer plants and "nurse" plants that open the soil, accumulate bionutrients from deep underground and protect valuable food-bearing plants that will come later in the natural succession of things.

Permaculture teacher Larry Santoyo talks about "pioneer people" as well. These pioneers -- like thistles -- are sometimes rather prickly! But we need to recognize the value and critical functions of our innovators -- and our own unique natures as well -- so we can honor and benefit from each person's contribution to the whole community. More permaculturists are becoming interested in understanding the different natures or temperaments of individual community members in the same way that they take the time to study and deeply understand the nature of a particular plant or animal before introducing it to the food forest. This prior understanding prevents later misunderstandings and weeding problems!

**REDUNDANCY.** It is wise to include multiple elements to perform a single function. Good backups create resilient systems.

Redundancy and resilience are at the core of individual and community mental health and wellbeing as well as properly-functioning land-based permaculture designs. We need lots of backup to survive the challenges of survival in good heart.

**RESILIENCE.** The ability of a system to survive various shocks. See "redundancy."

This concept is important for mental health as well as physical well-being. Our whole way of living in modern Western society is anything but resilient and redundant. We separate from our families and communities, living "solo" or with temporary sets of "friends" who disappear as we change or move on. We try to raise children with no extended family support and no geographic stability or ongoing connection to land. When shocks come -- as they must to all of us -- we may find ourselves unable to cope unless we have consciously done a permaculture redesign of our personal lives as well as our land!

**SPIRAL.** A commonly-used natural pattern used in many permaculture designs.

I've come to believe that the spiral is the core pattern in nature and in human lives. Nature doesn't offer many straight lines or linear processes. Growth, learning, living -- all happen in a cyclical, spiral rhythm, often bringing us around to places we've already been, but at a different level.

**STACKING FUNCTIONS.** Being sure that a single element in a design performs multiple useful functions.

Being creative about having every single element in your design (or your life) providing multiple benefits can be so economical and heart-satisfying. Why just plant a lone landscape tree in a barren space when you can plant a fruit tree surrounded by food-bearing companions, creating a guild that yields beauty, shade and food? So in our personal and collective lives, we search for the win-win-win solutions rather than just trying to get a single yield from each of our activities and relationships.

**SWALES.** On-contour ditches that capture and hold water, making it available to plants on the berm created by the dug-out soil on the downhill side of the swale. (see "berm")

Digging swales to create berms is one of the most satisfying permaculture activities. By opening up ditches we create space for water to pool and be absorbed. And we don't waste the topsoil we remove, but rather pile it up as the basis for planting trees that can benefit from that water.

To apply this metaphor to psyche, perhaps we can find the right places in our lives to open up spaces that invite in what we want to receive -- while also building up fertile new places that welcome new people, ideas and behaviors that can feed upon the forces now gathering in our "swales."

### **"WHERE ARE WE? WHEN ARE WE?"**

Permaculture teacher Larry Santoyo loves to ask his students these quintessential permaculture questions. They remind us that before we make any changes or interventions, we need to deeply understand the existing terrain we are considering changing and where we are in the sequence of natural succession. Time and place are critical, in human affairs as well as land care.

**ZONES.** Designing by zones involves starting at Zone 0 (the self, family or home), expanding to Zone 1 (right outside your door), and outwards to Zone 5 (wilderness).

This pattern can be useful in understanding and improving psychological and social systems as well as land use. We don't need to do everything at once. We can focus on those areas that receive most frequent, even daily, use. We can then plan for the areas that we visit less frequently, leaving other areas of our lives "wild" and unmanaged. Permaculturists are talking more frequently these days about applying permaculture thinking to People Care, the inner landscape and "Zone 0." Some even refer to "Zone 00" -- the individual psyche. This is a cutting-edge frontier in permaculture, offering the potential for the kinds of amazing innovations that are already evident in the application of permaculture to land care, food production and sustainable building.