

Plant Aloha Sustainable Farming Series

Hawaiian Sanctuary

Thursday January 5, 2017

Wade Bauer of Malama Aina Permaculture facilitating

This class is part 1 of a 24 part permaculture class series entitled:

How to Grow a Complete Diet with Permaculture Principles: Tropical Subsistence Gardening.

Part 1 Introduction to Permaculture

Acknowledgements:

A special thanks to Hawaiian Sanctuary, County of Hawaii Research and Development (Plant Aloha's main grant funder) and all others involved in helping obtain grants and providing the venue and support to make these classes a reality! We are still looking for support to complete and enhance this amazing FREE program. Please give what you can: <http://hawaiiansanctuary.com/donate>

Introduction: Why grow our own food and eat local? food security, resiliency to natural disaster, health, environment, \$, etc.

Understand the problems but don't fight them... **focus on the solutions.**

Permaculture is: a design methodology that incorporates, indigenous practices, modern scientific knowledge, and works with nature to create sustainable human systems.

Origins: Bill Mollison/David Holmgren

Permaculture Ethics: care for earth, care for people, share the abundance.

Key permaculture principles: Are the "tools" in our "toolbox" for site assessment and design. While permaculture principles are often applied to plants, landscapes and structure they can also apply to our lives in many other ways.

Work where it counts: Least effort for greatest effect. Eg. Perennials, choosing locally adapted long lived food plants and tree crops, Efficiency! **Obtain a yield.**

Redundancy: each important function has many supporting elements, Eg. Bananas and Ulu main carb crops but if fail due to drought cassava will still produce. Multiple water storage structures. catchment, pond, barrel.

Multi-functional elements: each part performs many functions, eg. living gliricidia fence posts makes mulch, is a trellis for food vines, as well as barrier.

Cycling of energies, nutrients and resources: Use energies/objects to their highest purpose Eg. Kitchen waste to chickens, then to compost. Weed free mulch may be better used as weed suppressant rather than just a compost pile, cardboard as sheet-mulch weed barrier, pond at catchment overflow. Slow the flows of energy.

The problem is the solution: Weeds and weed trees as mulch, and soil builders.

Using biological resources. Timing is key: to managing biological resources Eg. Coppicing (cutting back mulch trees) before the mulch trees get too large and shade crop trees. Harvesting a crop before it goes bad. beneficial interactions foster productivity.

Efficient energy planning:

Zones: objects and plants arranged according to frequency of use, and needs for attention eg. Annual beds close to house, large trees that won't be pruned farther from house. "Relative location"

Slope: Working with contour, eg swale, bunds

Sectors: where are outside energies entering the site? Sun, wind, water, fire, etc.

Start small and intensive: and expand from there. Stacking in space and time.

Work with Nature: guilds, polyculture food forest "everything modifies it's enviro"

Observation: allows sites to "design themselves" each site is unique, by observing elements, microclimate, vegetation, design becomes obvious.

Further Reading: Mollison's "Introduction to permaculture" & "Permaculture: A Designer's manual"

Homework: observe your site, draw a simple map, (does not have to be to scale) locate 2 microclimates hot/dry shady/wet, draw zones and sectors, go through the list above and think about (write down) how each could apply to your site.

See <http://hawaiiansanctuary.com/plantaloha/> to view and register for upcoming classes.

Contact: Malama Aina Permaculture: Edible Landscape Design, Education & Nursery

We provide consultation, design, install, maintenance, edible plants and on farm work-exchange.

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