The Ethics, Principles and Methodologies of Permaculture (Bill Mollison)

ETHICS

The only ethical decision is to take responsibility for our own existence and that of our children. Cooperation, not competition, is the very basis of future survival and of existing life systems. The three core ethics of Permaculture are as follows:

1. Care of the Earth: includes all living and non-living things, plants, animals, land, water, air

2. Care of People: promotes self-reliance and community responsibility and access to resources necessary for existence

3. Setting Limits to Population and Consumption, Benevolent Distribution of Goods and Resources

   System yield is the sum total of surplus energy produced by, stored, conserved, reused, or converted by the design. Energy is in surplus once the system itself has available all its needs for growth, reproduction and maintenance. Unused surplus results in pollution and more work.

PRINCIPLES OF PERMACULTURE

There are many, many principles of Permaculture. Some folks focus on twelve basic principles, but we work with many more. These include:

1. Relative Location: Components placed in a system are viewed relatively, not in isolation.

2. Everything is connected to everything else: Recognize functional relationships between elements.

3. Every function is supported by many elements (redundancy): Good design ensures that all important functions can withstand the failure of one or more element.

4. Every element is supported by many functions: Each element we include is a system, chosen and placed so that it performs as many functions as possible.

5. Local Focus: “Think globally-act locally”. Grown your own food, cooperate with neighbors. Community efficiency, not self-sufficiency.

6. Diversity: As a general rule, as sustainable systems mature they become increasingly diverse in both space and time. What is important is the complexity of the functional relationships that exist between elements, not the number of elements.

7. Biological Resources: We know living things reproduce and build up their availability over time, assisted by their interaction with other compatible elements. *Use and reserve biological intelligence.*

8. One calorie in/one calorie out: Do not consume or export more biomass than carbon fixed by the solar budget.

9. Stocking: Finding the balance of various elements to keep one from overpowering another over time. How much of an element needs to be produced in order to fulfill the needs of the whole system?

10. Stacking: Multi-level functions for single element. Multi-level garden design, i.e., trellising, forest garden, vines, groundcovers, etc.

11. Succession: Recognize that certain elements prepare the way for the system to support other elements in the future, i.e., succession planting.

12. Use onsite resources: Determine what resources are available and entering the system on their own. Maximize their use.

13. Edge effect: Ecotones are the most diverse and fertile area in a system. Two ecosystems come together to form a third which has more diversity than either of the other two, i.e., edges of ponds, forests, meadows, currents, etc.

14. Energy recycling: Yields form system designed to supply onsite needs and/or needs of local region.

15. Small scale: Intensive systems start small and create a system that is manageable and produces a high yield.

16. Make least change for the greatest effect: The less change that is generated, the less embedded energy is used to endow the system.

17. Planting strategy: 1st-natives, 2nd-proven exotics, 3rd-unproven exotics-carefully on small scale with lots of observation.

18. Work within nature: Aiding the natural cycles results in higher yield and less work. A little support goes a long way.

19. Appropriate technology: The same principles apply to cooking, lighting, transportation, heating, sewage treatment, water and other utilities.

20. Law of return: Whatever we take, we must return. Every object must responsibly provide for its replacement.

21. Stress and harmony: Stress here may be defined as either prevention of natural function, or of forced function. Harmony may be defined as the integration of chosen and natural functions, and the easy supply of essential needs.

22. The problem is the solution: We are the problem, we are the solution. Turn constraints into resources.

23. Mistakes are tools for learning

24. The yield of a system is theoretically unlimited: The only limit on the number of uses of a resource possible is the limit of information and imagination of the designer.

25. Dispersal of yield over time: Principle of seven generations. We can use energy to construct these systems providing that in their lifetime they store or conserve more energy that we use to construct them or to maintain them.

26. A policy of responsibility (to relinquish power): The role of successful design is to create a self-managed system.

27. Principle of disorder: Order and harmony produce energy for other uses. Disorder consumes energy to no useful end. Tidiness is maintained disorder.
28. Chaos has form but is not predictable. The amplification of small fluctuations.

29. Entropy: In complex systems disorder is an increasing result. Entropy and life-force is a stable pair that maintains the universe to infinity.

30. Metastability: For a complex system to remain stable there must be small pockets of disorder.

31. Entelechy: Principle of genetic intelligence, i.e., the rose has thorns to protect itself.

32. Observation: Protracted and thoughtful observation rather than protracted and thoughtless labor.

33. We are surrounded by insurmountable opportunities.

34. Wait one year.

35. Hold water and fertility as high (in elevation) on the landscape as possible.

METHODOLOGIES

Three key methods of examining a property include zone planning, sector planning and slope. We will examine each in turn to see how we can use these concepts to maximise energy efficiency in our Permaculture designs.

A. Zone Planning

B. Sector Planning

C. Slope

Zone Planning

In zone planning the location of an element designed into a site is determined by:

- How often we need to use an element
- How often we need to service an element

Things used most often, and things you have to pay the most attention to, are placed closest to the house in the design.

Things used least often, or that require little or no attention, are placed furthest away in the design, and things that fall somewhere in between are placed accordingly.

By situating the most often used or serviced elements in a design closest to the home, it makes it easier to access them efficiently.

Sector Planning

Sector planning is concerned with energies that come into, course and pass through a site. These are elements and forces of Nature.

- Summer winds (seasonal prevailing winds)
- Winter winds (seasonal prevailing winds)
- Sun angles throughout the year (equinoxes and solstices as markers)
- Salty or damaging winds
- Water flow from neighboring properties and rain events
- Views and lines of sight
- Fire danger

Since these wild energies come into our system from outside, we can strategically place elements in our design to manage or take advantage of these incoming energies.

Slope

- Contour of the land has a pronounced effect on the flow of energy and materials in a system.
- Gravity will move things from the highest point to the lowest, and we can take advantage of the work performed by gravitational force to make our system more energy efficient.