

PERMACULTURE “WHAT IS IT?”

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The term permaculture originally meant permanent or sustainable agriculture, but it has a much broader meaning as inspired by Mananobu Fukuoka, a Japanese farmer who saw natural farming philosophically in his book “The One Straw Revolution”. It is a philosophy of working with nature rather than against it and of thoughtful observation rather than thoughtless action. It is one of looking at natural systems and all their functions and allowing them to demonstrate their own evolutions. The term was coined by David Holmgren from the Department of Environmental Design in Tasmania. He and Bill Mollison from the University of Tasmania developed a design system of assembling conceptual, material and strategic components in a pattern which functions to benefit life in all its forms. The cornerstone of permaculture is ethics which say that we must always put the earth first and fulfil people needs such as shelter, education, real food and clean water, safety and security and meaningful occupation all in harmony with nature. The third is “Fair Share” and return of surplus meaning that whatever comes from nature goes back to nature and nothing is wasted.



The primary focus of permaculture is the soil which determines the quality of food grown. Food rich in micronutrients and trace minerals. Living soil is enriched by microorganisms which break down organic material, water and heat are required with insects, bugs, small mammals and manure interacting to create soil. Composted material becomes the soil for plants grown. It is an on-going process where plants take nutrients which are replaced through composting. It is a sustainable system of rebuilding soil, rich in microorganisms, bacteria and fungi. Soil is our most important resource and over the past 150 years the health of soil has been ignored, which has resulted in serious depletion. Permaculture advocates “**no-dig**”. When soil is disturbed it disrupts the on-going process of building of soil.

Permaculture is probably best known for the concept of “**Food Forest**” which mimics a natural forest. A natural forest is an ecosystem which has seven layers. Canopy trees are the top layer which dissipate water, prevent erosion and regulate the microclimate in the forest. The understory layer is fruit trees and beneath that a shrub layer followed by a herbaceous layer. Next is root vegetables then ground cover such as strawberries and also a vine layer growing up the canopy and understory trees. When established a food forest is a stable, abundant, self-replicating system which requires very little maintenance.



The aim of permaculture is to conserve water on a site for as long as possible. “**Swales**” are troughs dug to capture water and irrigate the roots of plants and trees next to “swales”. Water is captured off the roofs of structures and where possible grey water from the house is used on the site. Trees and vegetation act as storage of water during drought.

Monoculture is where one species is cultivated on a site. This method depletes soil and requires inputs. Permaculture supports diversity where there is a wide variety of vegetables and herbs, fruit trees and shrubs, vines and ground covers planted on a site. “**Multi and intercropping**”, “**crop rotation**” and “**Companion Planting**” are all permaculture practices. Companion planting is a very effective method of increasing productivity and controlling pests. An excellent available resource is from the Permaculture Research Institute web-site.

“**Nitrogen fixing plants and trees**” are of primary importance when planting a garden, not only because of their fertilising properties and the production of many grains and vegetables, but because of their value as mulch.

Permaculture never uses chemical fertilisers, pesticides or herbicides, but uses compost and NFT (nitrogen fixing trees) as fertiliser and predatory species and plants to deter pests. Natural substances such as vinegar to get rid of unwanted weeds (in a pathway perhaps), comfrey and clumping grasses as a barrier, but mainly accepting most weeds as assets to indicate what is going on underground. However, in a food forest where there is aggressive mulching, dense planting and no-dig, weeds are rarely an issue.

It has been realized for a long time that industrialized farming is unsustainable, bad for human and animal health, damaging to the environment and is a major cause of pollution. There are several systems of natural farming, but permaculture is scientific and offers many solutions for living in harmony with nature, not just in the production of food. It is the only solution for food security and as climate change becomes clearly evident, a flexible method of food production on small, local, diverse organic farms will be the best way forward. “Though the problems of the world are increasingly complex, the solutions remain embarrassingly simple.” Bill Mollison

To learn more about permaculture go to www.geofflawton.com Go to “Learn” At the bottom of the page there is a green button saying “Get Started Now” You can become part of a world-wide circle. There are 70 free videos online.

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