

The word 'agriculture', comes from the word 'agrarian' which relates to soil, and 'culture' which relates to its enrichment. Ironically, today agriculture seems to have become a process of destruction and extraction of soil. With the onset of the industrial revolution, we as a society, in a matter of a few generations, have begun to deplete the enormous stores of fossil fuels like coal and natural gas, that took the Earth billions of years to create². In fact, many of our modern systems, be it economic, social, health or governance, tend to neglect a fundamental reality that we are part of nature, mistakenly putting our human needs at the forefront, without taking into consideration the impact it has on our entire ecosystem. To move towards a permacultural mindset, first and foremost requires us to develop a philosophical approach to living: transforming ourselves and our interactions with life to see ourselves as a part of a whole, and entering a beneficial interrelationship with nature.



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Mollison

CONCIOUS OBSERVATION & INTERACTION

As Mollison and many proponents of permaculture point out, the means and goals outlined under permaculture are not a novel invention. They are simply a set of universal ethical and design principles derived from the natural world and traditional societies¹, to enable us to construct our life in line with patterns in nature. In fact, the first and primary design principle of permaculture relates

Nature, if we know how to work with her principles, has every solution we need. to developing the art of seeing, to cultivate thoughtful observation rather than thoughtless action³. Mollison summarizes: "All we need to live a good life surrounds us. Sun, wind, people, buildings, stones, sea, birds and plants. Cooperation with all these things brings harmony, opposition to them brings disaster and chaos." Permaculture principles beautifully prescribe to this maxim, allowing nature to flourish when we are able to work with her, rather than against her. For example, rather than to impede natural elements such as weeds, permaculture suggests using them to retain soil moisture, prevent erosion and add to the microclimate. Similarly, pesticides are avoided, because it leads to the creation of drug resistant pests, and reduced population of pest predators, that eventually result in larger imbalances rather than effective solutions. Instead, introducing companion plants that deter pests, or fowl that regulate pest population, can allow for a thriving, healthy and selfsustaining ecosystem. Nature, if we know how to work with her principles, has every solution we need. Permaculture encourages us to become practical philosophers in our daily life, redeveloping our sensitivity to the world that we belong to, with the humility to assume our roles as custodians rather than consumers of nature. It emphasizes the need to develop a deep respect and gratitude towards nature, not only for our physical sustenance but for the extraordinary messages of wisdom she provides4.

INTEGRATE RATHER THAN SEGREGATE

Current agricultural processes involve creating large expanses of fields where the tilling of the land, in addition to machinery,





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pesticides and external water supplies extract top soil and its nutrients, all towards a single 'monocultural' crop cultivation purely for human consumption, killing all other life forms in the process. Permaculture instead proposes a 'polycultural' ecosystem, integrating plants, animals and human beings in a symbiotic relationship, that benefits the whole, with the most efficient use of energy and resources. Plants provide food, medicine, oxygen, nitrogen fixation, water retention, and prevent soil erosion. Grazing animals efficiently decompose plant waste to nourish the soil, while fowl remove pests and weeds while naturally tilling the earth. This is another core principle of permaculture: 'Integrate rather than segregate'. Here human beings facilitate the creation of a functional and self-regulating ecosystem, by correctly placing elements in a manner where each serves the needs and accepts the products of other. Our earth, along with every living being that inhabits her, is one coherent and interconnected whole. In a time of increasing separation and divisiveness, this is a powerful principle that can be applied to all aspects of our lives. The diversity of nature is what makes her vibrant, beautiful, and bountiful, yet the countless forms all exist in clear unity. Perhaps, starting with our relationships with fellow human beings, we need to recognize that what unites us is far stronger than what divides us. Can we learn to celebrate our differences, without losing sight of the unifying whole that each of us is a humble yet integral part of?

SELF - REGULATION

In fact Mollison's definition of a pollutant as "an output of any system component that is not being used productively by any other component of the system", implies that there are





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maximizing yield, that we justify our current industrial system based on mass production and long distance transport, ignoring the irreversible damage to water, air and soil quality and the unquestionable impact it has on all of Earth's living beings. As Native Indian Chief Seattle predicted in 1854, "Man did not weave a web of life, he is merely a strand in it. Whatever he does to the web, he does to himself... to harm the earth is to heap contempt upon the creator... contaminate your bed, and you will one night suffocate in your own waste"5. Permaculture points out that ironically, we have even managed to turn useful waste like human excrement into sewage, polluting our water, rather than as biomass to replenish our soil. Tribes in North African deserts, for example, have lived for generations sustaining themselves with as little as goats, camels, date palms, sparse scrubs and some simple grains, finding ways to maximizing the beneficial relationships between their modest resources. This compared to a modern teeming metropolis that couldn't survive for 24 hours without any external inputs⁵, given our unchecked needs and "have it all" mindset. Permaculture reminds us that cooperative, mutualistic systems are more stable and resilient than predatory or competitive interactions, and can only be sustained if each contributing member takes only what it needs. From our economic systems propagating unlimited growth, to our consumerist way of life, we seemed to have developed a sense of entitlement and ownership of nature's wealth, forgetting that without in turn learning to give and participate in this dual movement of life, we threaten not only our own future but the longevity of all life on Earth.

VALUE THE MARGINAL

We are so conditioned into viewing our world as divided by borders and boundaries, mine and yours, that we forget that our planet comprises a series of communities and ecosystems, that together make a single biosphere. Permaculture highlights that the edges and margins of bordering

1 Homegren, David. Essence Holmgren Design Services. 2004 2 Boutsikaris, Costa (Director). Brennan, Emmett (Producer). Inhabit: A Permaculture Perspective. 2015. [www. 3 Mollison, Bill. Permaculture: A Designer's Manual. Tagari Publications, 2002 4 Guzmán, Delia Steinberg. Philosophy for Living. New Acropolis Cultural Organisation. 5 Designed Visions Permaculture Guide to Permaculture, Designed Visions Permaculture. 2011 6 Allison, Patricia. The Principles of Permaculture. 2009 7 Cullis, Tara. Suzuki, David. Declaration of Interdependence. David Suzuki Foundation. 1992

ecosystems are often teeming with more species and productivity than either system on their own. Estuaries are the most bio-diverse areas on earth, with shallow waters promoting algae growth and nutrient exchange, rich plant and marine life, and foraging animals and birds. Forest edges have the strongest trees due to wind, and accumulation of nutrients⁶. Yet in reality, we tend to ignore the edges and margins of our societies and systems, focusing only on prime agricultural lands and staple crops, large cities, big businesses, and majority demographics, often at the detriment of marginalized communities and species, small businesses and satellite townships. Ancient traditions and martial arts spoke of the value of peripheral vision in expanding our area of focus and offering a more holistic perspective¹. This permaculture design principle shows us that instead of ignoring the edges and margins, we need to recognize their value and use their strength to contribute to the health of the whole.

While there are many more principles of permaculture ethics and design that are both profound and practical, enumerated here are only a few that can encourage us to live a more collaborative and regenerative way of life. There are numerous ways of living these principles, enabling us to design a template that can allow us to meet our own needs, while making our planet rich and bountiful in the process. We as human beings are one of 30 million species on earth7. We need to change our relationship with our home and our co-habitants, shifting our approach from "dominance to partnership; from fragmentation to connection; from insecurity to interdependence"7. It is in our own hands to rediscover our roots, redefine our direction as a society, and recognise that it is indeed possible to lead an abundant and fulfilled life, while leaving our world a little better, because we lived. /XX\