

Chapter 1 : Permaculture Principles – Mollison's Permaculture Ethics and Design Principles

This is the "Bible" for permaculture and food forest production. However if you are just getting into or are just interested in the general concepts of permaculture, I would buy "Introduction to Permaculture" by Bill Mollison or "Gaia's Garden".

History[edit] Several individuals revolutionized the branch of permaculture. A Permanent Agriculture, a book which sums up his long experience experimenting with fruits and nuts as crops for human food and animal feed. This book inspired many individuals intent on making agriculture more sustainable, such as Toyohiko Kagawa who pioneered forest farming in Japan in the s. Yeomans introduced both an observation-based approach to land use in Australia in the s and the Keyline Design as a way of managing the supply and distribution of water in the s. In the late s, Bill Mollison and David Holmgren started developing ideas about stable agricultural systems on the southern Australian island state of Tasmania. Dangers of the rapidly growing use of industrial-agricultural methods sparked these ideas. They responded with a design approach called permaculture. This term was first made public with their publication of their book Permaculture One. By the early s, the concept had broadened from agricultural systems design towards sustainable human habitats. After Permaculture One, Mollison further refined and developed the ideas by designing hundreds of permaculture sites and writing more detailed books, such as Permaculture: Mollison lectured in over 80 countries and taught his two-week Permaculture Design Course PDC to hundreds of students. Provision for all life systems to continue and multiply. This is the first principle, because without a healthy earth, humans cannot flourish. Care for the people: Provision for people to access those resources necessary for their existence Fair share: By governing our own needs, we can set resources aside to further the above principles. Permaculture design emphasizes patterns of landscape , function, and species assemblies. It determines where these elements should be placed so they can provide maximum benefit to the local environment. Permaculture maximizes useful connections between components and synergy of the final design. The focus of permaculture, therefore, is not on each separate element, but rather on the relationships created among elements by the way they are placed together; the whole becomes greater than the sum of its parts. Permaculture design therefore seeks to minimize waste , human labor, and energy input by building systems, and maximizes benefits between design elements to achieve a high level of synergy. Permaculture designs evolve over time by taking into account these relationships and elements and can evolve into extremely complex systems that produce a high density of food and materials with minimal input. Permaculture draws from several disciplines including organic farming , agroforestry , integrated farming , sustainable development , and applied ecology. Principles and Pathways Beyond Sustainability: By taking time to engage with nature we can design solutions that suit our particular situation. Catch and store energy: By developing systems that collect resources at peak abundance, we can use them in times of need. Ensure that you are getting truly useful rewards as part of the work that you are doing. Apply self-regulation and accept feedback: We need to discourage inappropriate activity to ensure that systems can continue to function well. Use and value renewable resources and services: By valuing and making use of all the resources that are available to us, nothing goes to waste. Design from patterns to details: By stepping back, we can observe patterns in nature and society. These can form the backbone of our designs, with the details filled in as we go. Integrate rather than segregate: By putting the right things in the right place, relationships develop between those things and they work together to support each other. Use small and slow solutions: Small and slow systems are easier to maintain than big ones, making better use of local resources and producing more sustainable outcomes. Use and value diversity: Diversity reduces vulnerability to a variety of threats and takes advantage of the unique nature of the environment in which it resides. Use edges and value the marginal: The interface between things is where the most interesting events take place. These are often the most valuable, diverse and productive elements in the system. Creatively use and respond to change: We can have a positive impact on inevitable change by carefully observing, and then intervening at the right time. Layers[edit] Suburban permaculture garden in Sheffield , UK with different layers of vegetation Layers are one of the tools used to design functional ecosystems that are both sustainable and of direct benefit to humans. A mature

ecosystem has a huge number of relationships between its component parts: Because plants grow to different heights, a diverse community of life is able to grow in a relatively small space, as the vegetation occupies different layers. There are generally seven recognized layers in a food forest, although some practitioners also include fungi as an eighth layer. Large trees dominate but typically do not saturate the area, i. Includes most berry bushes. Plants in this layer die back to the ground every winter if winters are cold enough, that is. They do not produce woody stems as the Shrub layer does. Many culinary and medicinal herbs are in this layer. A large variety of beneficial plants fall into this layer. May be annuals, biennials or perennials. There is some overlap with the Herbaceous layer and the Groundcover layer; however plants in this layer grow much closer to the ground, grow densely to fill bare patches of soil, and often can tolerate some foot traffic. Cover crops retain soil and lessen erosion, along with green manures that add nutrients and organic matter to the soil, especially nitrogen. Root layers within the soil. The major components of this layer are the soil and the organisms that live within it such as plant roots and rhizomes including root crops such as potatoes and other edible tubers, fungi, insects, nematodes, worms, etc. Guilds[edit] A guild is a group of species where each provides a unique set of diverse functions that work in conjunction or harmony. There are many forms of guilds, including guilds of plants with similar functions that could interchange within an ecosystem, but the most common perception is that of a mutual support guild. Mutual support guilds are groups of plants, animals, insects, etc. Plants may be grown for food production, draw nutrients from deep in the soil through tap roots, are nitrogen-fixing legumes, attract beneficial insects, and repel harmful insects. When grouped together in a mutually beneficial arrangement, these plants form a guild. Permaculturists argue that where vastly differing systems meet, there is an intense area of productivity and useful connections. An example of this is the coast; where the land and the sea meet, there is a particularly rich area that meets a disproportionate percentage of human and animal needs. This idea is played out in permacultural designs by using spirals in herb gardens, or creating ponds that have wavy undulating shorelines rather than a simple circle or oval thereby increasing the amount of edge for a given area. Frequently manipulated or harvested elements of the design are located close to the house in zones 1 and 2. Manipulated elements located further away are used less frequently. Zones are numbered from 0 to 5 based on positioning. Here permaculture principles would be applied in terms of aiming to reduce energy and water needs, harnessing natural resources such as sunlight, and generally creating a harmonious, sustainable environment in which to live and work. Zone 1 The zone nearest to the house, the location for those elements in the system that require frequent attention, or that need to be visited often, such as salad crops, herb plants, soft fruit like strawberries or raspberries, greenhouse and cold frames, propagation area, worm compost bin for kitchen waste, etc. Raised beds are often used in zone 1 in urban areas. Zone 2 This area is used for siting perennial plants that require less frequent maintenance, such as occasional weed control or pruning, including currant bushes and orchards, pumpkins, sweet potato, etc. This would also be a good place for beehives, larger scale composting bins, etc. Zone 3 The area where main-crops are grown, both for domestic use and for trade purposes. After establishment, care and maintenance required are fairly minimal provided mulches and similar things are used, such as watering or weed control maybe once a week. Zone 4 A semi-wild area. This zone is mainly used for forage and collecting wild food as well as production of timber for construction or firewood. Zone 5 A wilderness area. There is no human intervention in zone 5 apart from the observation of natural ecosystems and cycles. Through this zone we build up a natural reserve of bacteria, moulds and insects that can aid the zones above it. There has been a growing awareness though that firstly, there is the need to pay more attention to the peoplecare ethic, as it is often the dynamics of people that can interfere with projects, and secondly that the principles of permaculture can be used as effectively to create vibrant, healthy and productive people and communities as they have been in landscapes. Domesticated animals[edit] Domesticated animals are often incorporated into site design, ensuring the efficiency and productivity of the system. The nutrients are cycled by animals, transformed from their less digestible form such as grass or twigs into more nutrient-dense manure. A more specific explanation of how the animals can be used is seen in the chicken design. Chickens can be used to scratch over the soil, thus breaking down the top soil and using the fecal matter as manure creating a sustainable system. However, in the domestication of these animals, the complexity and elegance lie in an effectiveness and efficiency of the

design, including factors like timing and habits to specific areas of a farm. For example, animals require daily attention in a way that is much more demanding than plants. It combines agricultural and forestry technologies to create more diverse, productive, profitable, healthy and sustainable land-use systems. Forest gardens, like other permaculture designs, incorporate processes and relationships that the designers understand to be valuable in natural ecosystems. The terms forest garden and food forest are used interchangeably in the permaculture literature. Bell started building his forest garden in 1978 and wrote the book *The Permaculture Garden* in 1988, Whitefield wrote the book *How to Make a Forest Garden* in 1991, Jacke and Toensmeier co-authored the two volume book set *Edible Forest Gardening* in 2009, and Lawton presented the film *Establishing a Food Forest* in 2010. It is not self-evident whether these tree gardens derived initially from experiences of cultivation and forestry, as is the case in agroforestry, or whether they derived from an understanding of forest ecosystems, as is the case for permaculture systems. Many studies of these systems, especially those that predate the term permaculture, consider these systems to be forms of agroforestry. Permaculturalists may obscure the distinction of permaculture and agroforestry when they include existing and ancient systems of polycropping as examples of food forests. Food forests and agroforestry are parallel approaches that sometimes lead to similar designs.

Chapter 2 : Permaculture a Designer's Manual by Bill Mollison (books forum at permies)

The book ends with a glossary of key terms used in the book and few pages about Bill Mollison (One of the founders of permaculture) and the permaculture institute including info on their 72 hour PC Design Certificate Course.

While our patch might be sustainable, the rest of the world can go to hell. I agree completely that we need to be withholding support for destructive systems, but to move towards a refusal to cooperate with all authority, rather than merely the destructive authority of our current systems, reflects a dangerous solipsism incompatible with principles of cooperation although this is ameliorated heavily in the final chapter – if you get that far. Some central authority is going to be necessary in order to protect the land from irresponsible or misguided misuse and self-centred control without regard for others. He does talk about a nature-centred ethic: I think we need one ecocentric ethic, not two arguably three separate and largely incompatible ones: I concur with a lot of his conclusions in terms of sustainability: I see humans as part of a broader community, and Mollison does not quite seem to get this, and this is where many of his problems emerge. Meanwhile he advocates a healthy emphasis on cooperation while emphasising, in the next paragraph, a dangerous individualist libertarianism. This is key to his other main problem: That editor should also have prevented him from getting bogged down in unnecessary detail. For example, there is some good stuff here on patterns, but a torus is utterly irrelevant as a usable pattern on the surface of a piece of land. Ultimately, I think the problem is that the book has dated badly, as better understandings of ecology, and more sophisticated intellectual tools for relating to it, have become available. This means he makes some serious errors: It is limited by predictable limiting factors, of which water and sunlight are perhaps the most obvious. If you get this wrong you start mining the soil for scarce nutrients. As soon as you introduce nonhuman animals to the system you decrease yields: Mollison argues that vegetarian diets are very efficient only under certain circumstances, but these are precisely the conditions found in home gardens! Meanwhile, industrial meat production is grossly inefficient, as anyone who is paying the slightest attention will have realised. He is also dead wrong about rangeland meat production, although he probably had no reason to know this at the time of writing, because it took more recent research to demonstrate the ecological destruction involved in these practices, which are not as horrific as intensive meat rearing, but are light years from being the friendly, sustainable activities its adherents would have you believe. This is, in part, what has allowed some downright unsustainable practices to be lumped under the Permaculture banner. It is also unclear how he expects people to be educated. We might be able to take out middlemen, but we then need to find something for them to be doing because I suspect Mollison would disapprove of guaranteed income schemes, and there is no way we should be getting rid of students. The thing is, all this dangerous individualism is contained within ideas that actually work. There is a lot of very good material here. I also found it difficult to find a single chapter where a separate book would not provide more up-to-date, often better advice. There are now better texts on design, updated material on guilds, and he failed to fully anticipate the growing threat of climate change. Most of it is worth a read, but none of it should be treated as the last word on the subject. I do like his discussion on Bioregionalism which is not the same as the ecological concept outlined by Wallace: In contrast, he is strong on the subject of intraspecies co-operation, and this should be recognised. Again, there are points to be discussed, such as the abolition of consensus his cure seems as bad as the disease, but he provides a starting point for thought on the subject. This book was well ahead of its time. The trouble is, thirty years on its time has now passed. It often feels like the author was trying to get ideas down on paper without attempting to make his ideas consistent, or even checking and crediting his sources. It needs to be put on a more sound, or at least consistent, philosophical foundation I would argue for a more ecocentric one, given the nature and severity of our growing environmental crisis. It could be argued that, with the massive growth in publishing in the field, that teachers should be working to a longer reading list rather than relying on the classic set text. It also needs to be rewritten for a more modern understanding of science in general and ecology in particular. With the demise of Gaianism, many of the basic assumptions need a serious review again, Jacke and Toensmeier do a better job. This raises the question of what Permaculture actually is. To practice Permaculture, one needs to subscribe to

a set of principles. Those principles can be retained under that ecocentric viewpoint, but that ecocentric viewpoint will preclude some forms of agriculture currently under the Permaculture banner. Forest gardening will probably remain, as will the concept of the home garden, almost certainly with the growth of annual crops. Seeking a long-term partner to establish forest garden. Keen to find that person and happy to just make some friends.

Chapter 3 : Permaculture - A Designers' Manual by Bill Mollison

Bill Mollison with David Holmgren are the first to coin the term Permaculture. Today millions of people follow the Permaculture principle. But I will say that is an hard book to read about the subject it will be better to start by reading Gaia's Garden who is also a really great book and much easier to grasp.

Permaculture is an ethical and sustainable design system that can be applied anywhere, from windswept desert areas to inner city apartments. It is adaptable to all climates as well as to local cultural, religious and social beliefs. While there are numerous versions of the permaculture ethics and principles available there has been a need for a clear and comprehensive set of the permaculture ethics and principles. The Permaculture Design Certificate PDC course was developed by Mollison, and this card set has been designed to be taught in PDC courses as they cover the original permaculture ethics and principles in full. To enable PDC teachers and students plus interested members of the general public to easily access the full permaculture ethics and principles I have organised them into a 21 card set, and am making them free to download from this site. I am also working on developing non-English versions of the cards and they will also be free to download from this site. I have been teaching the PDC since and this organisation of the ethics and principles come from my many hours spent preparing for courses. The 21 card set I finally came up with consists of 3 ethics cards and 18 principles cards. They are taken from Permaculture: When Bill Mollison was given a draft set of these cards he stated these are the clearest and most comprehensive layout of the permaculture principles he had ever seen. The cards have been divided into categories and are designed to be laid out in a pyramid shape to help with learning and memory retention. The main ethic card crowns the pyramid followed by the ethics on natural areas and the ethics of resource management cards. These are followed by the three energy principles, the four functional design principles, the five principles from nature, and the six attitudinal principled at the base. In addition to a graphic and brief description of the ethic or principle I have also included practical examples, turning the card set into a great design tool. A set of accompanying A3 mindmaps are also available from this site and are in black and white to allow for cheap copying and distribution. Just click the link at the left of the page. I have been a permaculture designer since and jumped in the deep end, and just months after gaining my PDC I was running a two year permaculture based overseas aid project in a village of Penan in the middle of the Borneo rainforest. Due to a bad fall in while building food gardens in an Aboriginal community in the Australian desert I ended up with no meniscal cartilage and chronic arthritis in both knees. I only work part-time and focus on community projects rather than seeking private commissions and still try to do as much permaculture aid work as I can. I still have deep links with the Borneo village I initially worked in back in and organised a Penan Cultural Festival in the village a few years ago. The Green Warrior style of permaculture was developed by Steve and is based on his decades of work in the field, and I was very much the junior teacher on this PDC and was there to learn as much as to teach. Paulus was first introduced to permaculture in when he was just 14 and spent a lot of time with me on my first 2-year stay in his village as he could speak a little English. As well as learning more English he was one of my main teachers in learning to speak Penan, which was necessary as the majority of the village only spoke Penan and Malay. Now he is in his late 30s with a wife and three lovely children of his own and wants to be the first Penan permaculture teacher to teach in his own language. I am seeking donations to help fund a trip over this October so I can assist Paulus in establishing an alley crop trial as a demonstration of a more sustainable agricultural practice than slash and burn, as the village is running out of suitable flat land and are encroaching on their own rainforest reserve area. More details are at the left under Penan Permaculture Project and there is a link to my gofundme page. If you appreciate the card set and want to assist me in return it will be very appreciated.

Chapter 4 : Permaculture - Wikipedia

Permaculture: A Designer's Manual by Bill Mollison. This is the definitive Permaculture design manual in print since It is the textbook and curriculum for the hour Certificate course in Permaculture Design.

Chapter 5 : Permaculture Designers Manual | USA | Bill Mollison

Bill Mollison, the permaculturists' father. Bill Mollison was born in Stanley. He left school at the age of 14 years and thereafter took odd jobs at different times working as firewood splitter, fisherman, baker, and later as researcher at the Inland Fisheries Commission.

Chapter 6 : Introduction to Permaculture by Bill Mollison

AN INTRODUCTION TO PERMACULTURE This is the first in a series of 15 pamphlets based on the Permaculture Design Course given by Bill Mollison at The Rural Education Center, Wilton, New Hampshire, USA.

Chapter 7 : Bill Mollison - Wikipedia

Bill Mollison is the Executive Director of the Permaculture Institute, which was established in to teach the practical design of sustainable soil, water, plant, and legal and economic systems to students worldwide.

Chapter 8 : Permaculture: A Designers' Manual by Bill Mollison

The book is set out as a step-by-step Introduction to Permaculture with detailed instructions. Using simple language it describes the range of Permaculture for general consumption. Very little content of Mollison

Chapter 9 : Permaculture: Bill Mollison: www.nxgvision.com: Books

In , Mollison began his collaboration with Holmgren, and in they published their book Permaculture One, which introduced this design system to the general public. Mollison founded The Permaculture Institute in Tasmania, and created the education system to train others under the umbrella of permaculture.