

Permaculture promotes sustainability and self-reliance by creating managed ecosystems—modeled on natural ones—right in our backyards. It’s “garden farming,” says Peter Bane in *The Permaculture Handbook*. Think you don’t have enough room? Bane grew more than 150 species on less than 2,000 square feet. He identifies 12 principles to guide your permaculture project.

1. Observe and interact.

Learn the patterns of your land. Where does the rain run off? Where does the wind come from? What’s sunny and what’s in the shade?

2. Catch and store energy.

You get a gift of energy from the sun. Use it to replace the fossil energy that’s changing our climate.

3. Get a yield (or harvest).

Natural systems produce a surplus, representing the captured free energy from the sun. In a managed ecosystem, we can harvest that surplus. The harvest may be as direct as picking an apple or it may take several steps: grass makes hay to feed goats that produce both manure to feed more plants and meat for humans to eat.

4. Self-regulate and accept feedback.

Taking too much out will make the system break down. If your harvest is sparse, take it as a lesson: find a balance between yield and maintaining the soil.

5. Use and value nature’s gifts.

If we focus only on products, we can miss the bonuses that nature provides. Chickens, for instance, produce eggs and meat. At the same time they increase soil fertility and will do light tilling as they scratch for bugs and seeds.

6. Make no waste.

In nature, everything’s food for something else—there’s no “away” where waste can go. Use animals, worms, and composting to make food for the soil.

7. Design from pattern to details.

Nature has had billions of years to work out how to design systems. Follow natural patterns to make the movement of nutrients and the interactions between plants, animals, and humans as efficient as they are in nature.

8. Integrate, don’t segregate.

There's no separate living space in a forest and nothing that serves a single purpose. Trees provide shade for plants on the forest floor, habitat for birds and animals, and an annual supply of food for plants, animals, and birds. Integrating living and growing spaces makes for more production and more comfort.

9. Choose small and slow solutions.

The fast pace of modern life is not the pace of nature. It also requires huge amounts of fossil energy. Use the simplest, lowest-energy tools and processes. It may take more time, but it's sustainable.

10. Cultivate diversity.

In natural systems, there's always a mix of plants and animals. Include native plants and a wide variety of cultivated ones. It's more resilient, more productive, and more interesting.

11. Mind the margins and look to the edges.

Where different environments connect is where the most biological action is: the edges of swamps and rivers, the border between forest and meadow.

12. Cultivate vision and respond to change.

Once your ecosystem is in place, the richness of its life allows it to adapt to changing conditions. Your observation and interaction allow you to help with that adaptation.

Doug Pibel wrote this article for [What Would Nature Do?](#), the Winter 2013 issue of YES! Magazine. Doug is managing editor of YES! The information in this article was sourced from [The Permaculture Handbook](#) by Peter Bane.