

Permaculture

A Partnership With Nature
Creating Sustainable Socially Responsible Solutions

Presented By Kathleen Miller
of Gaia's Farm & Gardens



What is Permaculture?

Permaculture is a philosophy of working with, rather than against nature; of protracted & thoughtful observation rather than protracted & thoughtless labour; & of looking at plants & animals in all their functions, rather than treating any area as a single-product system.

Permaculture is derived from 'Permanent' and 'Culture', as follows:

Permanent: From the Latin permanens, to remain to the end, to persist throughout (per = through, manere = to continue)

Culture: From the Latin cultura - cultivation of land, or the intellect. Now generalized to mean all those habits, beliefs, or activities that sustain human societies.

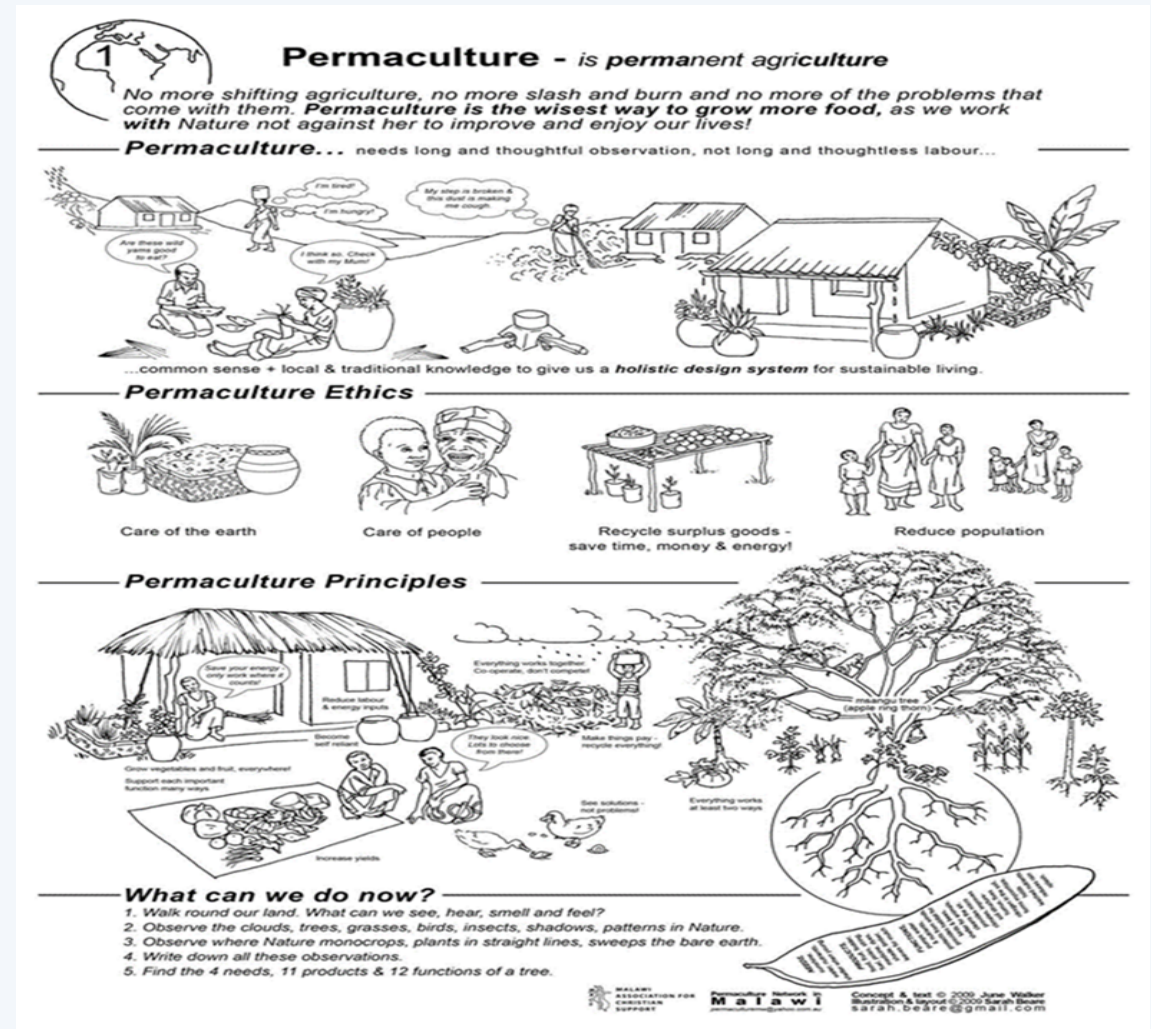
Thus, Permaculture is the study of the design of those sustainable or enduring systems that support human society, both agricultural & intellectual, traditional & scientific, architectural, financial & legal. It is the study of integrated systems, for the purpose of better design & a systems.

- Permaculture is a holistic approach to landscape design and human culture. It is an attempt to integrate several disciplines, including biology, ecology, geography, agriculture, architecture, appropriate technology, gardening and community building.
- Permaculture integrates people into Nature's design. A permaculture design provides us with shelter, food, water, income, community and aesthetic and spiritual fulfillment within a balanced and healthy biological community.
- Permaculture is Applied Science and Ecology; Ethical design of human systems for a sustainable future. It offers practical solutions to the global environmental and cultural crises we now face.
- Permaculture (Permanent Culture) is the conscious design and co-creative evolution of agriculturally productive ecosystems and cooperative and economically just social systems which have the diversity, stability and resilience of 'natural' systems. It is the harmonious integration of landscape and people providing their food, energy, shelter and other material and non-material needs in a sustainable way. The practice and development of liberating mental, emotional and spiritual ways of being. It seeks to provide a sustainable and secure place for living things on this earth.



Permaculture

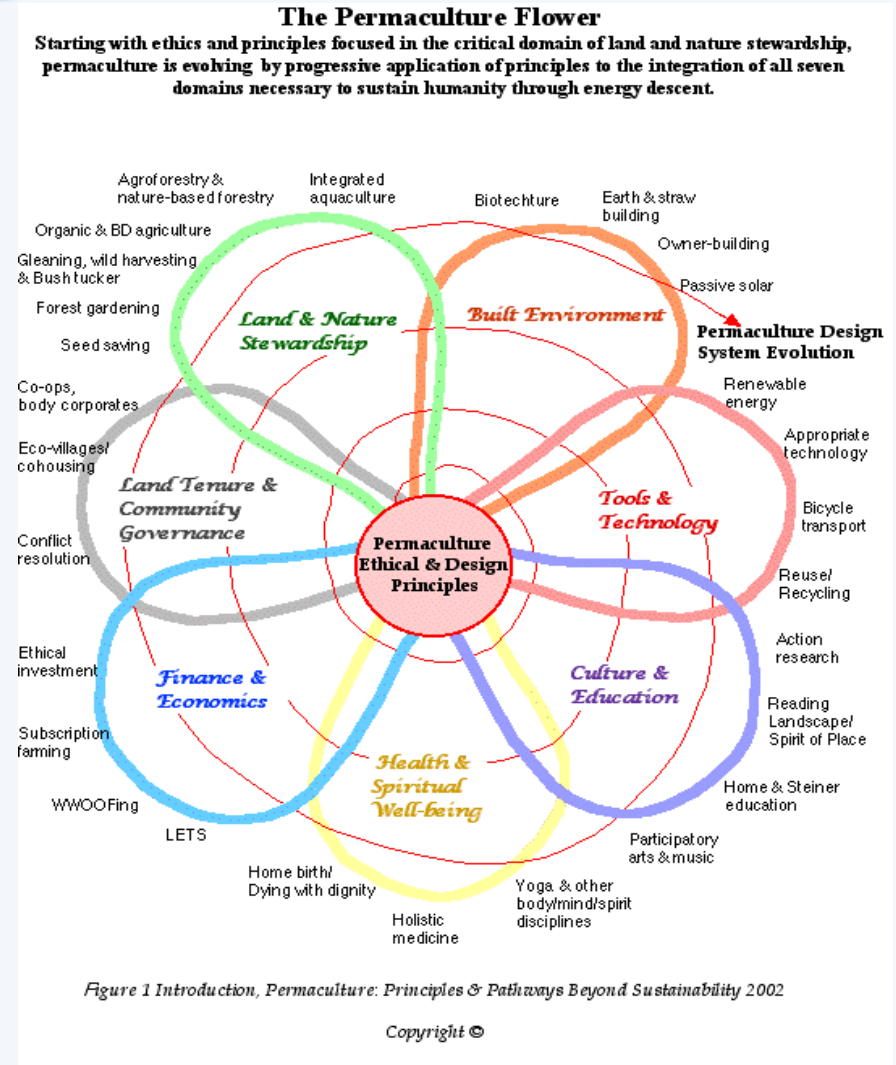
Permaculture shows how to observe the dynamics of natural ecosystems. We can apply this knowledge in designing constructed ecosystems that serve the needs of human populations without degrading our natural environment. Permaculture farms integrate plants, animals, landscapes, structures and humans into symbiotic beneficial systems where the products of one element serve the needs of another. Once established, a permaculture system can be maintained using a minimum of materials, energy and labor. By recycling "waste" resources back into the system, it also minimizes pollution. It serves human needs efficiently by incorporating useful, high-yielding species. A permaculture system is designed to be diverse, so that even when one element fails, the system has enough stability and resilience to thrive. This gives it greater potential than a conventional system for long term economic



History of Permaculture

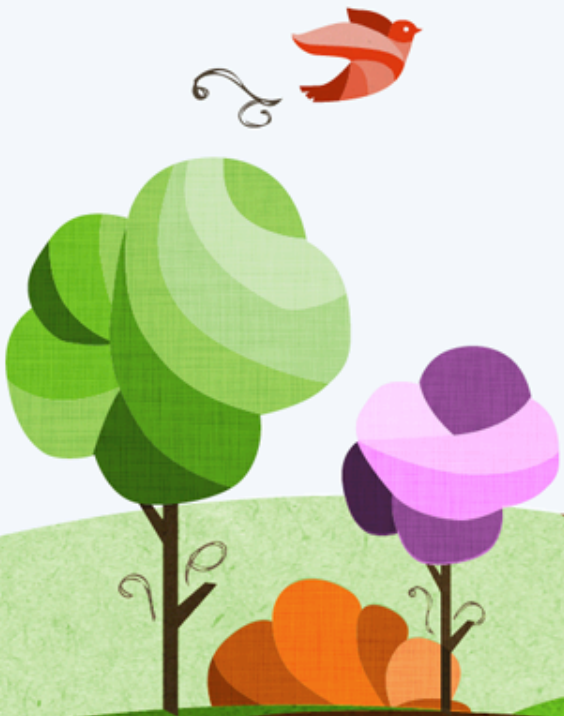
Permaculture was developed in Australia in the late 1970's by Bill Mollison and David Holmgren. It has since grown into an international grassroots movement.

Permaculture is a unique blending of traditional practices and scientific knowledge, of ageless wisdom and innovative ideas, of time-tested strategies and useful information from around the world. Demonstration sites span the globe.



Permaculture Design Principals

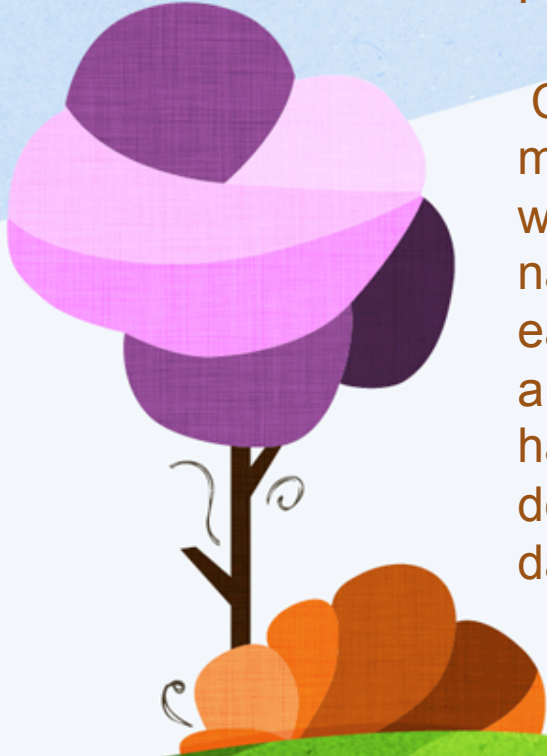
By observing natural ecosystems, we can learn to imitate Nature and create constructed ecosystems that are productive and non-polluting. Permaculture is a system of design. Through careful observation of the natural cycles, energies and resources on a site, we can design a system that imitates Nature and takes on a life of its own. Once the design is implemented on the ground, the system can be largely self-maintaining. It can yield a variety of high quality food, fiber and energy to meet basic human needs. The basic design principles are universal. They can be applied in designing constructed ecosystems anywhere on earth, including cities, deserts, farms, ranches and backyard gardens. The design process starts with the house and other areas of high use, and moves out to encompass the whole site. Permaculture design lends itself to an appropriate scale, making the best use of human energy and resources without overtaxing either. By intensively working with a relatively small area, we can maximize its productivity, use resources efficiently, and leave some land in its wild state. Each farm is different, as are the humans living and working there. A good design will therefore be unique in creatively adapting to the needs and circumstances of each individual system



Permaculture Principals

Principal One

CARE OF THE EARTH: Provision for all life systems to continue and multiply. Permaculture works with natural systems, rather than in competition with them. It uses methods that have minimal negative impact on the Earth's natural environment. In everyday life, this may involve buying local produce, eating in season, and cycling rather than driving. Its about choices we make, and how we manage the land. Its about opposing the destruction of wild habitats, and the poisoning of soil, water and atmosphere, and its about designing and creating healthy systems that meet our needs without damaging the planet.



Permaculture Principals

- Principal Two

CARE OF PEOPLE: Provision for people to access those resources necessary to their existence. As a part of this planet, you matter! This is about ensuring the wellbeing of both individuals and communities. As individuals, we need to look after ourselves and each other so that as a community we can develop environmentally friendly lifestyles. In the poorest parts of the world, this is still about helping people to access enough food and clean water, within a safe society. In the rich world, it means redesigning our unsustainable systems and replacing them with sustainable ones. This could mean working together to provide efficient, accessible public transport, or to provide after-school clubs for kids. When people come together, friendships are formed and sustainability becomes possible.

Permaculture Principal Three

The third ethic recognizes that:

- a. The Earth's resources are limited.
- b. These resources need to be shared amongst many beings.
- Permaculture seeks to divide these resources fairly amongst people, animals and plants alike, not forgetting future generations who will need food, water and shelter just as much as we do now. Its 'one planet living'.

Additionally

- The 'Prime Directive of Permaculture "The only ethical decision is to take responsibility for our own existence and that of our children." Bill Mollison.

Permaculture

Vision & Ethics

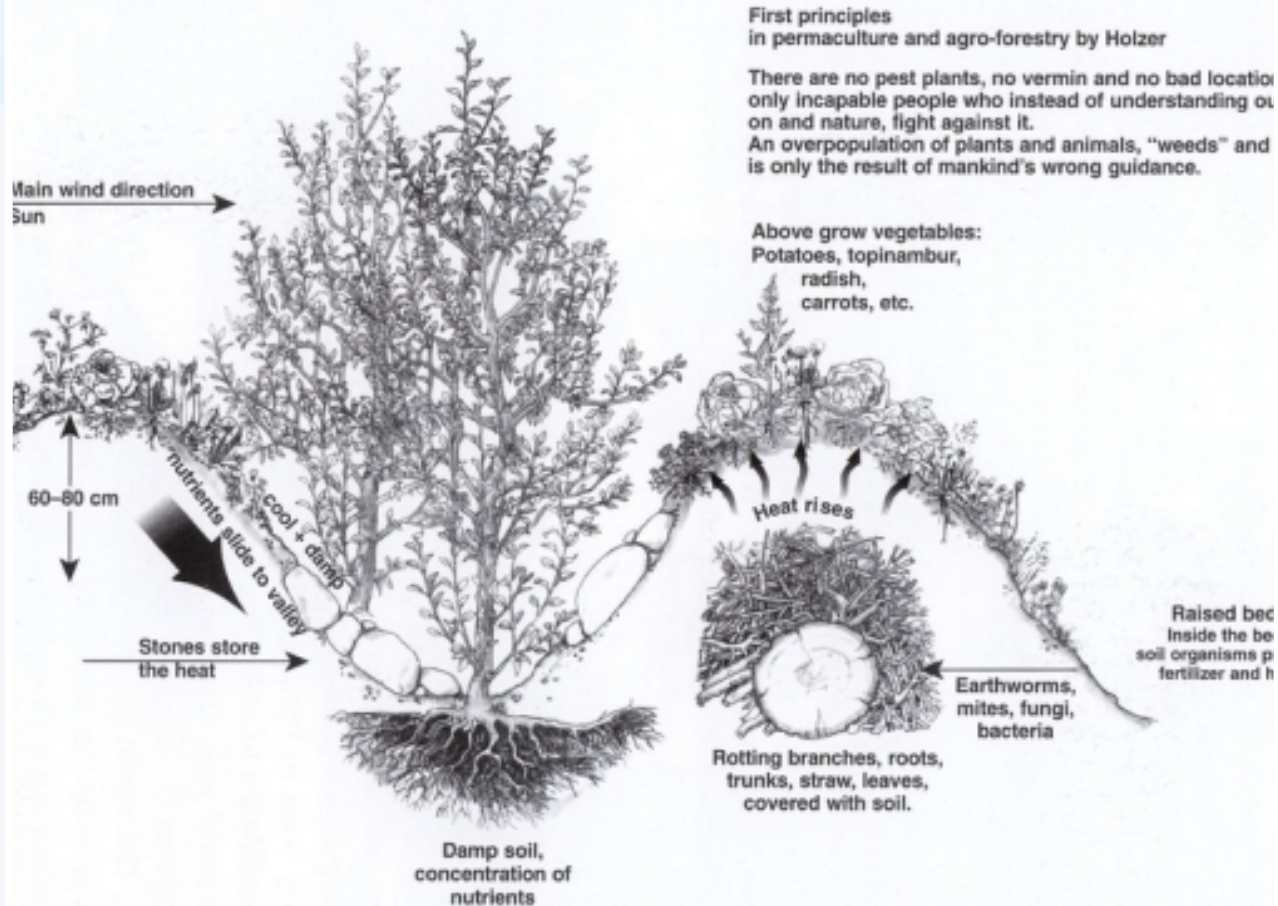
Nature is always caring for the earth, caring for people, and reinvesting in the future. These basic ethics form a solid foundation on which humans can build a stable and sustainable future. In Imitating nature We can derive specific goals, values and intentions from the basic permaculture ethics, developing a clear vision of the systems we want to create.

Farmers can promote caring for people, for example, by converting their market gardens into Community Supported Agriculture (CSA) projects. On a CSA farm, local families pay a share of the annual production costs in exchange for part of the harvest each week. Members share risks and rewards with the farmer, provide extra labor when needed, and guarantee a market for everything produced. They receive a wide variety of fresh, ripe, high quality, locally grown produce through-out the year. By helping out on the farm, members also have an opportunity to connect with Nature and with other members.

The ethic of caring for people can thus help farmers transform an uncertain marketing situation into a stable economic enterprise and supportive community



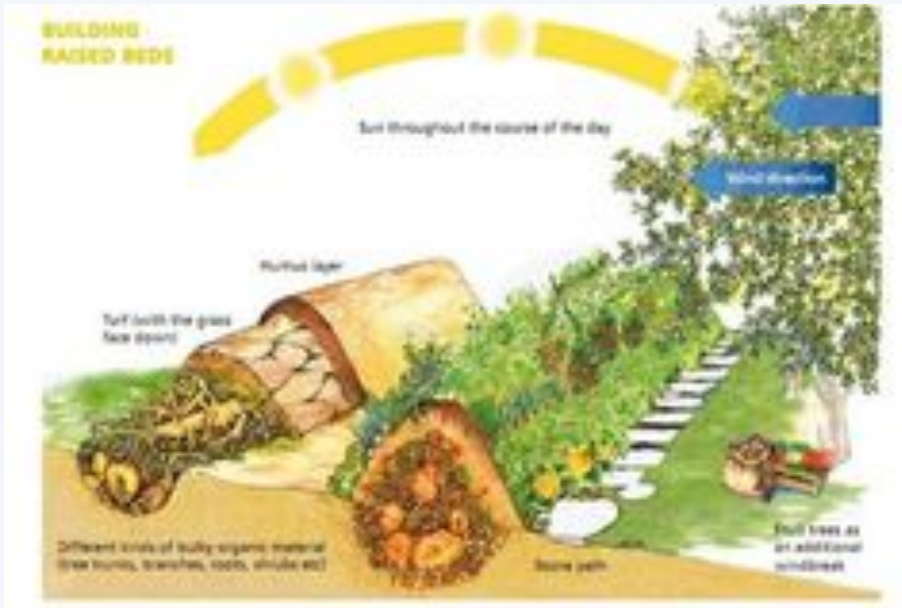
Holzer's methods of gardening and cultivation

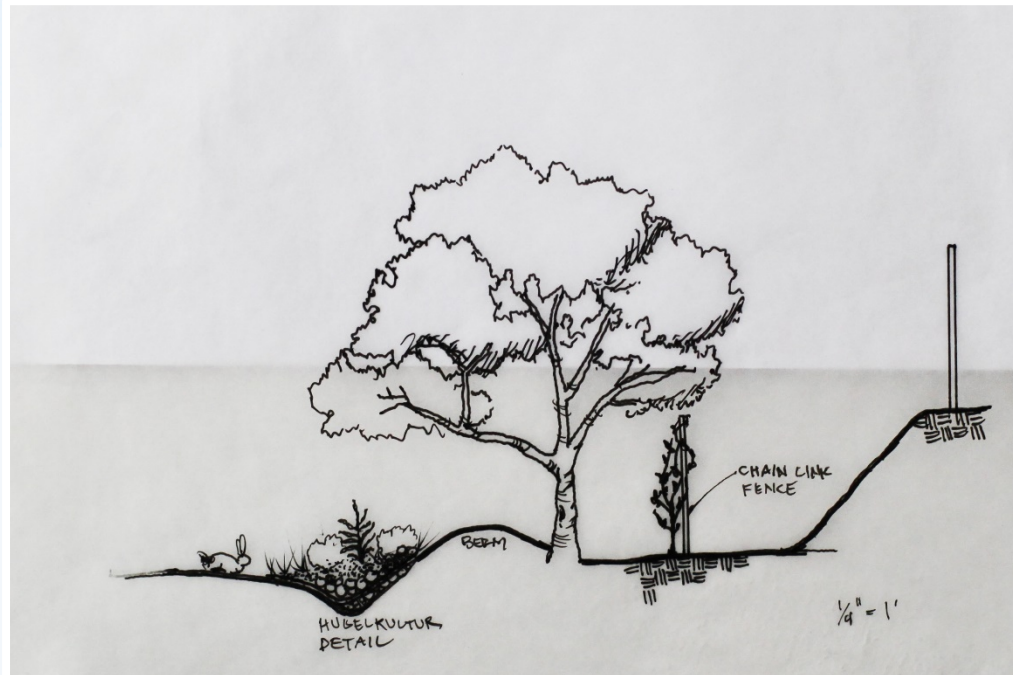


Hugelkultur

Hugelkultur, pronounced Hoo-gul-culture, means hill culture or hill mound. Instead of putting branches, leaves and grass clippings in bags by the curbside for the bin men... build a hugel bed. Simply mound logs, branches, leaves, grass clippings, straw, cardboard, petroleum-free newspaper, manure, compost or whatever other biomass you have available, top with soil and plant your veggies.

Examples of Hoglekultur





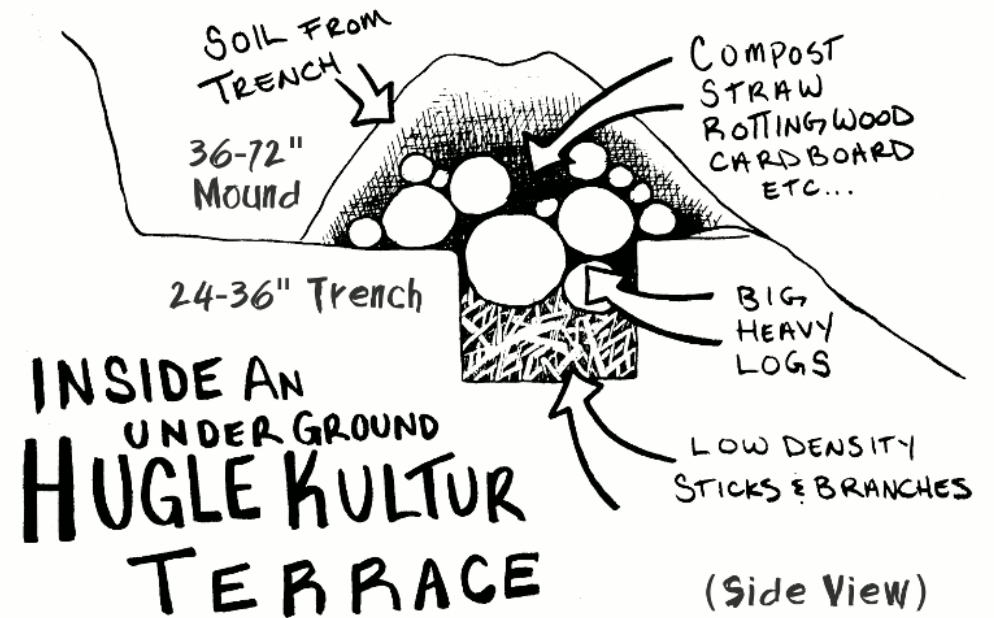
The advantages of a hugelkultur bed are many, including.....

The gradual decay of wood is a consistent source of long-term nutrients for the plants. A large bed might give out a constant supply of nutrients for 20 years (or even longer if you use only hardwoods). The composting wood also generates heat which should extend the growing season.

Soil aeration increases as those branches and logs break down... meaning the bed will be no till, long term.

The logs and branches act like a sponge. Rainwater is stored and then released during drier times.

Sequester carbon into the soil.



- Start out by cutting out the sod
- Digging a one foot deep trench and filling the trench with logs and branches.
- Then cover the logs with the upside down turf. On top of the turf add grass clippings, seaweed, compost, aged manure, straw, green leaves, mulch, etc...



After the 1st Frost



Huglekultur Beds at
Gaia's Farm & Gardens



Still Blooming



Llamas are a perfect element in the Permaculture Farm providing multiple functions

- Protection/Security
- Llama manure compost tea
- Manure for Hugelkultur Beds or Free Fertilizer
- Lawn mowers and weed eaters, fall garden cleanup!
- Why rake the leaves if they will eat them and turn them into poop



Making the Transition To Permaculture

In converting a farm to a sustainable system, an important permaculture strategy is to make the least change possible to yield the greatest effect. With clear vision, careful observation, thorough analysis and some Ingenuity, we can design an integrated plan to be implemented in stages over the course of several years. An audit can reveal how energy and nutrients leave a site, and what resources are brought in from external sources. The first stage often includes the capture of wasted resources, such as manure and straw, that can begin to produce income or increase fertility and biological activity on the site. Rotating crops, planting cover crops, incorporating crop residues into the soil, and using rotten hay as a mulch are simple steps that can reduce external inputs and expenses. After the first obvious changes, we can select one project, such as building a solar greenhouse, to get the transition process moving. A solar greenhouse can provide such multiple benefits as helping to heat a home, increasing food self-reliance, and sustaining bedding plants for the garden and for sale. It can also serve as a nursery for tree seedlings to stock an orchard or reforestation project, or to provide extra income. By making changes from the house or other center of activity outward, we can implement the system in manageable stages. The transition zone can move further out on the site as each area is stabilized. To maintain the morale and financial stability of the operation, it is helpful to start small and to build on each success as the transition process unfolds



