

INTEGRATING PERMACULTURE INTO A PLANTING DESIGN STUDIO FOR LANDSCAPE DESIGNERS

Elizabeth Mogen, Department of Horticulture and Landscape Architecture



What is Permaculture ?

Permaculture is an internationally recognized sustainable design philosophy that began in Australia over forty years ago. Bill Mollison, the ecologist who coined the phrase from “Permanent Agriculture,” is ferociously independent and considered his design concepts unsuitable for the confines of an Institution.

Mollison’s Definition of Permaculture:

“the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability and resilience of natural ecosystems. 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. It seeks first to stabilize and care for land, then to serve household regional and local needs, and only thereafter to produce a surplus for sale or exchange.”

Philosophical Paradoxes:

Fantasy is an environment where the typical rules that play into creating a satisfactory design for a client do not apply. From a Permaculturist perspective this means that the primary consideration for design decisions rely on the needs of the land, plants, water, insects, animals and beyond survival including the social needs of people as a whole. None of these are more important than the other yet none can be ignored. Financial considerations and client goals are not separate objectives from all other aspects of creating a functioning integrated environment.

Major Concepts for Instruction

Permaculture is a vast subject however a few foundational principles are highlighted for presentation. Creating simplicity and ease for “gardeners” is a primary Permaculture goal achieved by “zone and sector planning” (locating elements by the frequency of attendance needed) and “stacking functions” (every elements needs to serve a minimum of two functions). The drawings illustrate how students used these ideas to develop their own fantasy landscape.

Abbreviated Assignment Example

PERMACULTURE - PRELIMINARY DESIGN FANTASY Hort 431
Focus on creating “Outdoor Rooms”

The intent of this project is multi-layered 1) become more familiar with size, scale and proportion, 2) identifying outdoor rooms you create while 3) creating your own Permaculture Fantasy Landscape. As we discuss the design principles of Permaculture keep in mind a specific permaculture topic you want to apply to your design. For example: topics can include edible plants, water harvesting, integration of insects and animals, income stream etc. which you may need to do research on. However, the concept of **Zone and Sector Analysis** should be evident in all designs.

- Create a Base Map:**
For this assignment you will begin with a two acre (one acre = 43264 sq. ft.) site zoned for light agriculture. Decide on an appropriate scale. Establish a footprint for a house minimum of 1,500 s.f. and can be larger, two-story, L-shaped etc. See p. 154-163 of text on lot sizes to help you with this process (note the example 5-6 is of a ¼ of an acre. Also, you must establish an entrance drive (10’ min. width), two-car garage (a small garage is 20’ x 20’).
- Site Analysis:** (not to be turned-in) (Review p. 191-204)
Using a trace overlay add **Site Analysis** information such as landform (drainage), existing plant material, solar orientation, primary and secondary circulation and access, utility locations, surrounding environment and neighbors, views off site and into the site, general location of rooms within the house, soil, microclimates
Your only restriction is that it be a single-family dwelling. You may choose the regional environment. So get creative and have fun. Use markers and shapes to make bold graphics. Feel free to jot down notes that describe the site.

Readings: Text: Ch.2, 4 and Review all handouts on Permaculture.

- Program:**
While you are preparing the Site Analysis the **Program** will also be forming. Who is going to live there, what do they want, what is their story? And, how are you going to fulfill those desires. Think of describing the lot, the person or persons living there in a paragraph, and identify 5-10 primary goals you intend to address in your design. Plus a specific permaculture idea incorporated into the design goals. As the process continues you may make changes in the program.

- Concept Plan:** (not to be turned-in)
Use bubbles, arrows, stars to illustrate how you are going to create space. Be sure to include circulation, proposed use areas, grouping of plants, and focal points or focal point zones.
A **Concept Plan** must show a designer is cognizant of realistic functional relationships. In short it must be done with scale in hand so that use areas will be appropriate when it is time to do the Preliminary Plan.
- Preliminary Plan:** (to be turned-in) (Ch. 9)
The **Preliminary** is a continuation of the refinement process from the Concept but does not include the level of detail found in a Planting Plan. It is a plan that shows recommendations. **Plants are described in terms of use, purpose, color, size etc.** Use the design vocabulary from the lecture and book to convey your intent. **Labeling plant groups and the uses for spaces with strong descriptions is a crucial part of this assignment.** Typically a designer would return to the client at this point for further discussion before beginning the final plan. Graphically the symbols show evergreen and deciduous trees and shrubs, groundcover and perennial masses. Hardscape is depicted as a design element showing shape, size and material. This is also the point you will be deciding on **Form and Geometry**.

Time Line

9/6 Tues: Lecture: Permaculture and Outdoor Rooms (Ch.2)
9/08 Thurs: Lecture: finish design process and Permaculture
Come to class prepared with a base map and ideas on your particular interest in permaculture.
9/13 Tues: Work - day
9/15 Thurs: Due at 2:00 – Preliminary (24” x36”), with Program describing Permaculture subject and focus.

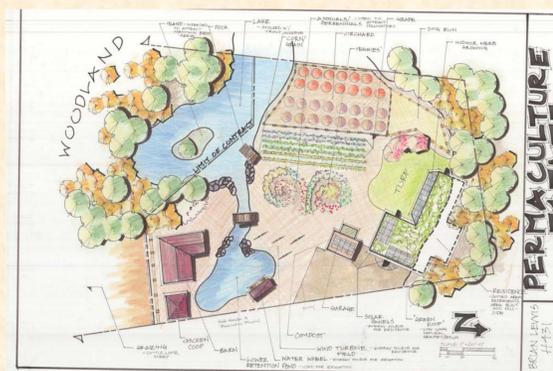
Materials for Evaluation

Preliminary: 24” x 36” sheet, material of your choice (not trace) – Colored	
Use of Permaculture ideas	30%
Technical – Professional Standards	30%
Creation of out-door rooms and their connections	30%



Heidi’s Design

Aesthetics and edible plants are united in creating an entrance alle of fruiting trees. “Apple tree guilds” are used as focal points and terminal points creating a gateway effect. Vegetable and herb gardens requiring daily supervision are located near the home.



Brian’s Design

Solar orientation and integrating the residence into existing landforms were two of the main factors in this design. A south facing ridge was used to create a “earth” house and also take advantage of passive and active solar opportunities.



Forest’s Design

The social and economic benefits of a residential retreat are united with a wind farm that will educate visitors as well as provide the electrical energy needs for the resort. Rental cottages are located near the main road so less pavement is needed.

References:

Mollison, Bill. Permaculture A Practical Guide for a Sustainable Future. Island Press, Washington D.C., 1990.