

e24

**ELFIN PERMACULTURE
P.O. Box 69, Sparr FL 32192-0069 USA**

**ELFIN PERMACULTURE
ANNUAL PERMACULTURE DESIGN COURSE ONLINE
Schedule of Reading Assignments and Report Deadlines
Also used for the Elfin Permaculture Online Design Clinic**

Reading assignments shown here may be superseded by specific assignments issued before and during the course. This schedule represents the default assignments for each week. Read in advance; readings are due on the first day of the specified week so that we may discuss them. Items marked with an asterisk are included in required reading list. **All items on the course reading list must be read by certificate candidates, whether or not they match specific weekly reading assignments. We strongly recommend reading through this entire document at the beginning of the course and frequently thereafter, so that you do not miss deadlines. We urge students to begin reading as soon as possible. Keeping up with reading assignments while you work on your design practicum is exceptionally difficult.**

NOTE: ADDITIONAL ASSIGNMENTS are made in the Weekly Posts on the Course CD-ROM. Read all posts for each weekly unit before it begins. We do not include a list of weekly posts in this document as they are thoroughly explained on the **CD**, which includes a table of contents for each week. In order to participate, you should read the weekly posts well before the specified week, so that you have time to complete on time any assignments located there. Readings in the HortIdeas CD-ROM are **mainly** assigned in the weekly posts or by email during the course. Instructors may make new assignments to students at any time during the course.

Discussing the Readings

In sending email about the course content, please put the course week and topic in the subject field plus the specific theme of your comments. For example, if you have a comment about our emphasis on teaching rather than consulting in our courses, you could address it as follows in the Subject Field:

Week 1: Style, schedule, intent ..., Consulting by Design Course Graduates

In that way, we can file your comments exactly where they belong. Do not expect anyone to memorize your email address. Generally, you should **not** send comments or questions as an attachment. See the Course Protocol.

Always label posts with your NAME. You may not get credit for assignments submitted if your name is not in the title or subject field. If you **must** submit an assignment as an attachment, be sure to label the attachment with your name and the topic, too. Attachments that do not carry clear identification as to contents and the student's name may never be read at all!

Copyright

Your comments to the course are automatically copyrighted by US copyright law and probably by the laws of other pertinent countries. (There has been strong movement toward uniformity of these laws in recent decades.) The **registration form** that you signed grants us the limited right to use your comments and other submissions in our teaching of permaculture. We will not ask for any further waiver of copyright unless we wish to publish your comments in some other way. All other rights belong to you. If you wish to use material submitted by another student, contact that student directly for permission. **It is not permissible to forward course posts to people not enrolled in the course, including "list-serve" type discussion groups.** This pertains to posts from other students as well as from instructors, etc. Violation of copyright rules can result in dismissal from the course without refund. Likewise, do not transmit to the class the work of anyone outside the course without express permission of the author. We feel strongly about any violation of copyright. All written and electronic materials are copyrighted unless the AUTHOR has expressly put them in public domain. Ask in class if you have questions about this. Therefore, as an example, you cannot get blanket permission from the 'owner' of a listserve to reproduce submissions, any more than I can give someone permission to use your car. One cannot give away rights that s/he does not own. That's conspiracy to defraud.

Schedule

We number the course weeks for convenience. We may extend such a "week" to 14 days if we decide to continue a discussion or make allowance of some sort. There are extra weeks in the course schedule to allow for this. Basically, the designation Week 1, Week 2, etc., allows us to use the same outlines in each course cycle without changing a batch of dates. Originally, each week corresponded to one day in our live certificate course. It has been convenient to retain this method of identifying the teaching units. Every course 'week' begins on Sunday and ends on Saturday.

Assignment Deadlines

Assignments are due on the Sunday or Monday of the week for which they are assigned. Since holidays vary with nationality and religion, we do not acknowledge any holiday. If your assignment is late because it is due on a day you observe, you have not met the deadline. You can avoid this problem by requesting permission to submit the assignment early, with an explanation.* **Work submitted late may not be credited for certification.** * *Except for design drafts, you should **not** submit assignments before the deadline unless we have granted permission because you have no other option for meeting the deadline. **Obtain permission from the instructor BEFORE submitting early or late assignments. Make any such request the earliest it is reasonable to know that you need a variance. Remind the discussion leader of the variance again just before the assignment is due.***

Discussion Deadlines

Comments and questions about course materials may pertain to reading assignments, instructors' posts, student reports and any other topic scheduled for the week. You may initiate discussion on any such topic during the week that it is due to be read or reported. The class may continue such a discussion into the following week, at the discretion of the lead instructor. However, you can only begin a discussion thread in the week in which the material is scheduled. You may assume that threads initiated after Wednesday usually will not be continued. **Never discuss topics for which you have not yet completed the assigned readings.** Email sent after Monday of the appropriate week may not receive a response from an

instructor, as we are not committed to check the course email every day. The later in the week that you send an email, the less likely it is that you will receive a response.

Please do not discuss in class student reports, comments, or other assignments submitted after the deadline. You may discuss any portion of the course at any time in your assigned study group, of course. The schedule includes three weeks widely spaced, in which review of previous work is appropriate, so no pertinent question or observation need go unexpressed.

Feedback

Provide feedback on the course structure, pace, teaching, and so forth at any time, preferably ASAP. Unless you are reporting a personal problem that **uniquely** affects your participation, all feedback should go to the entire class, but not to monitors. The instructors will deal with private matters privately, of course. You are assigned to complete a course evaluation at the end of the course cycle. Please make notes on any matter that you want to mention in your evaluation. Evaluations that are highly specific help us most in improving the course.

About Reading Assignments in the Handbook and in the HortIdeas CD.

The *Handbook* is located on your course **CD**. *HortIdeas Online* retrospective is on a separate **CD-ROM** included with your reading package. Subscriptions to the current volume of *HortIdeas* through Yankee Permaculture is a course requirement and included in the reading package fee. Readings may be assigned in current issues. If, a month after the course cycle begins, you are not receiving *HortIdeas*, tell the lead instructor. You paid for it! Monitors and Clinic participants do not have the *Handbook* (and a few other items) on their **Self-Study CD**.

ASSIGNMENTS BY WEEK

WEEK 1 Introduction/Bad News

In Week 1, we examine the environmental crisis, look briefly at the nature and potential of permaculture, and learn how this online course works.

Introductions--Send your personal introduction to the class. This is an assignment, due Sunday or Monday, the default deadline. Please do not participate in any discussions until we have your introduction. The format for the introduction is specified in a Week 1 post. Following the **required** format is part of the assignment.

Style, schedule, intent, and content of course

Overview of permaculture

Bad News -

Water

Soil

Air

Climate

Forests

Population and energy issues.

Good News -

Permaculture

Feedback and questions

Reading for Week 1:

Required:

- **"The Fate of Our Forests, A Time to Choose" by Dan Hemenway, TIPSYS #4.
- **"Permaculture Design: A Warning, a Vision, a Gift" by Dan Hemenway, TIPSYS #3.
- **"Solar Age or Ice Age?" by Don Weaver, TIPSYS #4.
- **"A Green World Instead of the Green House" by James Duke, TIPSYS #3.
- **"Climate & Ozone: The Stratospheric Link" by John Gribbin, TIPS I, 3.
- **"Politics and Genetic Resources," by Cary Fowler, TIPSYS #3.
- * *Permaculture Design Course Pamphlet 1* by Bill Mollison. **CD**
- * *Permaculture Design Course Handbook* (Section 1, p. 1). **CD**

Also recommended:

State of the World (Current & past editions), WorldWatch Inst. [web site:](#)

<http://www.worldwatch.org>

[gopher site: gopher://gopher.igc.apc.org:70/11/orgs/worldwatchemail](http://gopher://gopher.igc.apc.org:70/11/orgs/worldwatchemail)

Global 2000 Report

Robin (Volumes IV-XI)

Survival of Civilization, by John Hamaker & Don Weaver

*"Farm Debt" by Wes Jackson TIPSYS #4.

* *Rights to Our Genetic Resources* by Sahabat Alam Malaysia.

The Man Who Planted Hope and Grew Happiness (A mythical account.) by Jean

Giono.

Note: This week's readings, which span about 25 years, describe some of the destructive processes at work on the planet. We cannot design repairs to the planet, or adapt where damage has been irreparable, unless we understand the nature of the destruction people have caused and the ecological mechanisms thereby disrupted.

DEADLINE for students, monitors and instructors to submit their introductions.

Late introductions accepted only from students who join the course in progress.

WEEK 2 Basic Principles

In Week 2 we look at the discipline of permaculture designers, fundamental principles of wholistic design, appropriate scale, principles of sustainability, functional diversity, entropy and affinity, and related basics of natural design. A list of deadlines is provided.

Feedback and questions

Entropy

Principles of natural design

Mollison's design principles

Succession

Reading for Week 2:

Required

*"Living Lovingly on the Earth" by Dan Hemenway, found in the 'Unrestricted' folder, inside the Papers, Articles, Etc., folder in the Mac version of the CD, freestanding in the Windows version. (Read this version, which is updated over the one in TIPS Y 2.)

* *Permaculture Designer's Manual* by Bill Mollison (Chapters 1 and 2)

* "Forests: Green Gifts from Gaia" by Bill Mollison. TIPS Y #3 (pg. 22 ff.)

* "Traditional Practices of Farmers," Sahabat Alam Malaysia, TIPS I, 1.

* *Introduction to Permaculture* by Bill Mollison (Chapt. 1-3)

* *Permaculture Design Course Handbook, Approaches to Design*. pp. 2-5. **CD**

Also Recommended

Entropy by Jeremy Rifkin (Viking Press)

DEADLINE to arrange your personal report topic and set a date to present it.

WEEK 3 Permaculture Design Basics

In Week 3 we consider properties and requirements of design elements, permaculture zones, permaculture sectors, and other matter relating to the design process. We characterize Type 1 errors, look at classes of resources, and begin work on both the design base map and the client survey/interview. See Week 5 for more on the permaculture design report.

Feedback and questions

ASSIGNMENT: Generate a list of questions to ask your client (even if the client is yourself) for your design project. **Due: Week 4.**

Permaculture design

+ Design examples (instructor's option)

Reading for Week 3:

Required

* *Permaculture Design Course Pamphlet VIII*. **CD**

* *Permaculture Designers' Manual* (Chapter 3)

* *Permaculture Design Course Handbook, Approaches to Design*. pp. 2-5. **CD**

Also Recommended

Ocean Arks and City Farms, John Todd

WEEK 4: Idealized Landscapes

In week 4 we examine characteristics of humid landscapes, arid landscapes, high and low islands, and granitic landscapes. We can discuss tropical conditions on request. (See also Week 9.) We begin study of keyline, consider factors of slope and contour, organizing elements, and more design resources.

Deadline for submitting client interview questions. See post 03xx08 for details.

Feedback and questions

Humid landscapes
Keyline
Arid landscapes
Other landscapes

Reading for Week 4

Required

* *Permaculture Design Course Handbook* Section 4. Classical Landscape Profiles. pp.

7-13. **CD**

* *Water for Every Farm* by P.A. Yeomans

* *Permaculture Design Course Pamphlets II, III, IV, V, and VI.* **CD**

* *Permaculture Designers' Manual* (Chapters 10-12)

* YPC Pamphlet #11, *Arid Lands Water Harvesting* by John Farghar. **CD**

* YPC Pamphlet #10, *Erosion: Principles & Management* by John Farghar. **CD**

WEEK 5. Patterning/Edges/The Permaculture Design Report

In Week 5, we discuss patterning and edges as they affect permaculture design and establish course standards for the student permaculture design report. Students receive examples of approaches to species lists and databases. Some technical support is provided for preparing graphics and presenting the staging portion of the design report. We share a list of tools and materials useful in preparing the design report. Dan introduces the concept of bioishelter. Some approved references to scientific ('Latin') names of species are provided. We discuss client interviews. See also Week 19 for information on the Economics Section of your design report.

SPECIAL: The **Course CD** contains examples of student designs with review comments, etc. These are not examples to emulate, necessarily, but indicate the sort of expectations that I have as instructor. I strongly recommend that you read through the designs on the **CD**, though they are not assigned for any particular time. I will assume that you will have read them before submitting a draft. Since every report included predates the latest version of the instructions for preparing a design report, they are **NOT** an example of proper style and content. Refer to the post (05xx01) in the Week 5 folder of your **CD** for that information. The latest version may also be downloaded from our web site.

DEADLINE--You should have posted to the class a description of your intended design project if you are registered for the full course or the design practicum. **SUMMARIZE WHAT YOU HAVE DONE ON YOUR DESIGN SO FAR IN LESS THAN 500 WORDS, INCLUDING QUESTIONS, PROBLEMS TO BE SOLVED, ETC.**

Feedback and questions

Edges, edge effects, edge harmonics
Client Interviews
Overview: The permaculture design report

Practical Tips for Your Permaculture Design Project

Reading for Week 5:

Required:

Permaculture Design Course Pamphlets VII and IX*. **CD

**Permaculture Designers' Manual* (Chapter 4)

*Patterning - * * *Permaculture Design Course Handbook* Section 3. *Pattern in Design*. pp. 5-6.
CD

* Report Writing, *PDC Handbook*, p. 37. **CD**

* "A Look at Permaculture Design..." by Robert Kourik. **CD**

WEEK 6: Feedback, Catch-up, Review, Field Work

In Week 6, students report their client interviews for discussion. We review Dan's efforts on Principles of Transformation. Students may present questions or comments regarding material covered in Section I of the course.

DEADLINE: Report on your client interview and preliminary field visit to your design site.

Feedback and questions

Principles of transformation, presentation by instructor of a study in progress.

Principles of transformation, discussion by class

WEEK 7 Work on your design.

Week 7 completes section I of the course. The time is mainly for working on your design report. The instructor comments on originality, receiving specialized assistance, and common flaws in student permaculture designs.

DEADLINE You must have completed tests of program compatibility with other students. You do this by sending attached test documents to everyone in the class. You should check compatibility with new students as soon as they are introduced. You have an opportunity to submit your design work to date at the beginning of this week.

DEADLINE: You must have approval of a base map for your site by the end of this week. Allow no less than 5 days for approval. Add 2 days for every student in excess of 5 in your cycle.

Feedback and questions

Pursue student questions or themes special to this course.

Students do more field work and research for their design report.

Reading for Week 7:

Required

- Re-read course protocol.

YOU HAVE NOW COMPLETED THE FIRST SEGMENT OF THE COURSE.

This has been an introduction to natural design principles and considerations. IN THE NEXT SEGMENT OF THE COURSE WE WILL LOOK AT TECHNIQUES, STRATEGIES, AND THEMES that may be included in a Permaculture Design. A major purpose of the following segment of the course is to exemplify the applicability of the design principles. Another purpose is to make you aware that bodies of information exist that you can study in detail when appropriate for a given design.

WEEK 8 - Energy

Feedback and questions

Week 8 readings cover a wide array of energy technologies, strategies, applications, with emphasis on solar energy. A special glossary introduces basic concepts useful in energy conservation, generation, and management in permaculture designs.

Conservation and edge: Solar and conservation vocabulary and concepts.

Biomass

Wind power, wind breaks, natural cooling, & water power

Reading for Week 8:

(The field of energy has a good many useful books. We list just a few resources here.)

Required

Energy Paper #1*, by Bill Mollison (YPC Paper 13 - North America edition). **CD

Energy Paper #2*, by Bill Mollison (YPC Paper 14). **CD

**Permaculture Designers' Manual* (Chapter 5)

Also Recommended

How to Live... Chapt 5.2-5.9, Chapt 5.12-5.13(appropriate technologies), Chapt. 8 & 9, (transport); Chapt 11 (solar/electric);

Permaculture I (pg. 41 ff. - Windbreaks)

Methane Generation from Human, Animal and Agricultural Wastes (NAS)

Energy for Rural Development & Supplement (NAS)

The Methods of Jean Pain (Difficult to read)

The Solar Greenhouse Book (McCullagh)

The Passive Soar Energy Book (Mazria)

Low Cost Passive Solar Greenhouses by National Center for Appropriate Technology

[alas, out of print]

WEEK 9 Nutrient Cycles-A-Soils

Week 9 addresses the basic principles of soil health underlying various soil management techniques such as double digging, mulching, Fukuoka's method, keyline cultivation, etc. Observing these principles enable users to modify and hybridize techniques without loss of effectiveness. The course CD provides a database showing the fertility of hundreds of salvageable materials. We explore factors regarding mulching, container growing, organic vs. sustainability, etc. The CD provides a list of commonly misused soil management terms such as compost, mulch, green manure, cover crop, and so forth. This is the first of three consecutive weeks on nutrient cycles.

Feedback and questions

Soils

Soil treatments

Soil shaping

- # Shaping time as a dimension of soil
- # Hybrid systems - Fukuoka
- # Keyline cultivation

Reading for Week 9:

Required

- * *TIPS I*, 3. Special soils issue. Very important.
- * *Water for Every Farm and the Keyline Method*
- * *Designers Manual* (Chapters 5 & 6)
- * *Erosion: Principles and Management*, Yankee PC Paper 10, by John Fargher. **CD**
- * *Circle Gardens*, by Richard Webb & Dan Hemenway. Yankee PC Paper 20. **CD**
- * *Introduction to Permaculture*, Chapt. 5.
- * *Handbook Section 5, Soils*. p. 13. **CD**

Also Recommended

- How to Grow More Food Than You Thought Possible...* by John Jeavons
- The One Straw Revolution* by Masanobu Fukuoka
- Any of Ruth Stout's books from Rodale
- Worms Eat My Garbage*, by Mary Applehof

**"Information for Using Gesteinsmehl" translated by Christian Campe, TIPS I, 1.

Guidelines for Development Agents on Soil Conservation in Ethiopia, Ethiopian Soil Conservation Research Project. [Excellent! The main tools required are a line level and a lot of good string.]

Gardening Articles, Yankee PC Paper 16, reprints, Dan Hemenway. **CD**

Articles about Soil, Yankee PC Paper 30, reprints, Dan Hemenway. **CD**

"A Comprehensive Review of the Effects of Mulching" on your **Course CD** in the Xtras file.

WEEK 10: Nutrient Cycles - B- Microclimate/Composting Toilets/Seed Saving/Biological Pest Control

Week 10 covers a grab-bag of nutrient cycle issues, including composting toilets, pest management, microclimate, animals in permaculture (including wildlife), seed saving, food storage and processing, and closely related themes.

Feedback and questions

- # Microclimate; Phenology
- # Perennial gardening, self-sowing, tree crops, food parks
- # Composting toilets
- # Livestock
- # Seed saving, food storage
- # Biological pest control

Reading for Week 10:

Required:

- * *PDC Handbook Section 11*.(pp. 22-27). **CD**

*"The Massachusetts Fruition Program," by Judy Heiman and "Proposed Criteria for Evaluating Plants Suitable for Fruition Projects" by Dan Hemenway, both in TIPSY #1.

*"A Fruition Guide to Design," TIPSY #2.

*"A Plea for Phenology," by James Duke, TIPS I, 1.

* *Composting Human Wastes*, by Dan Hemenway & David Stephens, Yankee PC Paper 17.

*"Diversity among Plants," by Dan Hemenway, TIPSY #1.

* *Rights to Our Genetic Resources* by Sahabat Alam Malaysia.

*"Humanity at the Crossroads of Biotechnology" by Asia-Pacific People's Network, TIPS I, 2. **CD**

*"Standards vs. Hybrids," by Rob Johnston, TIPS I, 2. **CD**

*"An Integrated Pest Control System for a Rice Paddy," by Lonna Nachtigal & Dan Hemenway, TIPS I, 1.

Also Recommended

How to Live..., Chapt. 5.6, 5.20, 5.22,.

Seed to Seed by Susan Ashworth (Seed Savers Exchange). (See also SSE reference volumes on available varieties of garden seed, fruit and nut plants, etc.)

For reference: *Cornucopia II: A Source Book of Edible Plants* by Stephen Facciola.

Highly recommended!

Horticultural Management of Solar Greenhouses, by Klin

For reference: *Dictionary of Cultivated Plants & Their Regions of Diversity*.

For reference: *Plant Propagation*, by Hartmann & Kester.

The Future is Abundant (TILTH, out of print, possibly available on the web).

The Onions, by Mollison (Yankee PC Paper 1).

"One Man's Search for Biological Control of Poison Ivy," by James Duke. TIPSY #3.

"Annuals and Perennials in the Permaculture Scenario," by James Duke, TIPS I, 2. **CD**

"Collecting Tree & Shrub Seed," by Michael Pilarski, TIPSY #2.

"Collecting Tree and Shrub Seed - Part II" by Michael Pilarski, TIPSY #3.

"Genetic Design for Permaculture Systems," by Eric van Lennep, TIPSY #2.

"Indecks Cards: An Effective Alternative to Computers for Permaculture Species Selection," by Earle Barnhart, TIPSY #2.

Gardening When It Counts: Growing Food in Hard Times. An excellent, rather iconoclastic book. If you can read this before this week, we will discuss your questions and concerns, as the author, Steve Solomon, takes a very different view of growing food than most of your readings. I would include this book in required readings if I could somehow hold down the cost of the reading list by cutting something else.

The Humanure Book by Joe Jenkins, 2nd edition.

WEEK 11: Nutrient Cycles-C-Cultivated Systems/Forests

Feedback and questions

In Week 11, we consider forests, forest gardens, agroforestry, tree crops, and related, edible landscaping, and related themes, with special materials on bamboo. Discussion on special cultivated systems, such as dryland, sub-arctic, or tropical landscapes, marshes, etc., will be included at the request of students from such areas.

Cultivated systems including edible landscapes.

Tropical reforestation/agroforestry

Reading for Week 11:

Required:

- * *Handbook Section 9, Forests and Trees*, pp. 16-30. **CD**
- * *PDC Pamphlets VII & X*. **CD**
- * "Forests: Green Gifts from Gaia" by Bill Mollison, TIPSY #3.
- * *Designing and Maintaining Your Edible Landscape Naturally*, by Robert Kourik
- * *Designers Manual* (Chapter 6).

Also Recommended

How to Live..., Chapt 6.

Tree Crops, by J. Russell Smith.

The Book of Bamboo, by Farrelly.

Plants for Use in Permaculture in the Tropics by Frank Martin, Yankee PC Paper 31.

The Grafter's Handbook by R. J. Garner. First published in 1947, multiple updating editions thereafter, this remains the unexcelled reference for grafting technique and principles. Oxford University Press.

Grafting by Leo Manuel on your **Course CD** in the Xtras file.

Echo Development Notes, Vol. 100 on your **Course CD** in the Xtras file.

See other articles in TIPS and TIPSY including materials on oaks, chestnut blight, and specific tree crops, particularly in TIPSY 3.

WEEK 12: Design for Health

In Week 12, Cynthia presents material on alternative approaches (modalities) to health and healing. She provides posts on herbology, nutrition, Raphaelite healing, homeopathics. The CD includes a sample table from Barking Frogs Permaculture Center on delivery of nutrients from fruit trees over the year. Another table looks at nutrient contents of mainly tropical and subtropical foods, with emphasis on fruits. A sample short monograph on Echinacea exemplifies the sort of information needed to include medicinal species in design recommendations.

[Assignments to come]

Recommended (not required):

How to Live..., Chapt.5, sections 18 & 19.; Chapt 6 (nutrient tables); Chapt 14 (Be Your Own Bush Doctor)

121313NutrientContentTropFoods on your **Course CD** in the Week 12 file.

Analyses of the Effects of Global Change on Human Health and Welfare and Human Systems on your **Course CD** in the Xtras file.

WEEK 13. Design for Catastrophe

Week 12 materials present design strategies for anticipating, avoiding, or ameliorating a number of kinds of potential catastrophes in the permaculture design. We place special emphasis on fire.

Feedback and questions

Reading for Week 13:

Required

* *Handbook, Section 6, Design for Catastrophe.* p. 14. **CD**

* *Permaculture for Fire Control* by Bill Mollison, *PDC Pamphlet V.* **CD**

Also Recommended

How to Live..., Chaps 11 & 12.

* *Design Client Survey* (YPC Paper 21). **CD** (Certificate Student Version Only)

WEEK 14: Teaching Permaculture

In Week 14, students make their first report on 'teaching' permaculture and the class discusses problems and successes. The CD provides scripts, outlines, and other materials relating to Elfin Permaculture teaching programs. This is a light week to give you extra time to work on your design.

Feedback and questions

Teaching permaculture, discuss experiences.

DEADLINE: STUDENTS EACH REPORT ON A TEACHING EXPERIENCE. See **CD** for assignment details.

WEEK 15 Discuss Design Project Progress.

Week 15 provides opportunity for students to outline progress on their design reports, discuss problems and ask questions relating to their design projects. This is another light work to support design work.

DEADLINE. Submit **one** of the following:

• a report of up to 1,000 words indicating your progress, problems, questions, and plans (Reports of 1001 words or more will not be read).

• a complete outline of your design.

• a draft of the design.

The design aspect of this course is now getting into high gear.

WEEK 16: Water

Week 16 covers many themes relating to water, including catchment from ground and rooftops, cisterns and other storages, wet environments (e.g., marshes, tidal zones), water quality, chinampas, swales and water conservation. A reprint from ICRAF describes laying-out of contours with A-frames and with line levels.

Feedback and questions

Water

- Aquaculture, Mariculture, etc.
- Discuss design project water treatments.

Reading for Week 16: -

Required:

- * *Handbook Water in Landscape, Section 10, pp. 20-22.* **CD**
- * *PDC Pamphlet XI.* **CD**
- * *Water for Every Farm*
- * *Permaculture Designers' Manual* (Chapter 13)
- * *TIPSY #4* (Wet environments issue)
- ** "Chinampa Agriculture in the Valley of Mexico: Coevolution of Technology and Ecology," by Bill McLarney. *TIPS I, 3.*
- * *Water Storage: Tanks, Cisterns, Aquifers & Ponds* by Art Ludwig.

Supplemental Reading:

- Ponds--Planning, Design, Construction* (SCS).
- Rain Catchment and Water Supply in Rural Africa.*
- More Water for Arid Lands* (NAS).
- The Freshwater Aquaculture Book* by Bill McLarney.
- Useful Plants of Wetlands* by Bill Mollison, Yankee PC Paper #6.
- "The Farmed Wetland Alternative: Crawfish and Bald Cypress" by Michael Miltner, *TIPS I, 1.*
- "T. O. Warren on Mayhaws," *TIPS I,3.*
- How to Live..., Chapt. 5.3.*
- Rainwater Harvesting for Drylands, Vol. I* by Brad Lancaster (Very useful for other areas and for a simple, sometimes simplistic, treatment of other permaculture considerations. Disregard the Keyline description.)
- Ditto, Vol. II. Water-Harvesting Earthworks. Highly recommended.*

WEEK 17: Shelter, Access

Week 17 takes up windbreaks and shelterbelts, access throughout the site and beyond, shelter resources, sample shelter designs, house site selection, green roofs, patterning of shelter design, bioshelters, green streets and parking areas, and sample alternative construction techniques.

Feedback and questions

Student presentations on building experience

Students present design questions and problems

Reading for Week 17:

Required:

- * *Handbook, Buildings and Structures, Section 7. p. 15.* **CD**
- * *Permaculture Technique*, by Bill Mollison, *PDC Pamphlet IX* . **CD**

Outlines for Permaculture Village Development*, by Bill Mollison. **CD

**Introduction to Permaculture* by Bill Mollison, Chapt. 4.

Supplemental:

All of the Ken Kern books

Cordwood construction books by Rob Roy and/or Jack Henstridge

How to Live..., Chapt. 5, Section 12

YOU HAVE NOW COMPLETED THE SECOND SEGMENT OF THE COURSE. By now, you should have a clear idea of what constitutes a Permaculture Design and be well along on your own design project for the course.

WEEK 18: Review/Design Work

In Week 18 students are encouraged to focus mainly on their design reports. Also you may present any questions or comments about the foregoing course materials. You may ask questions about your design project, submit sample chapters for which you require help or other feedback, or you may submit an entire draft of your design. Because of the time required to review design reports, that would likely be the last opportunity to submit a draft in the current cycle. If you wish to work further on the full draft, submit it in week 19 or 20.

This week is set aside for reviewing any areas where students still feel weak and for discussing design issues in the student design projects

Feedback and questions

Reading for Week 18:

Required

*PDC Pamphlets VIII and IX

DEADLINE—This is your last chance to discuss your design as a whole before submitting it. This is optional, but highly advisable. Both fast-track and deliberate-track students should use this opportunity.

WEEK 19: Invisible Structures

Week 19 covers an array of topics that you don't need for the student design report, but that are required for certification. These include alternative economic strategies, urban permaculture, bioregionalism, CSAs, leadership in the permaculture movement, permaculture design of education, and regional food systems. The economics section of the design report is also discussed.

Feedback and questions

- # Urban Permaculture
- # Bioregionalism
- # Alternative Economics

DEADLINE TO REGISTER FOR A COURSE CERTIFICATE. If you do not have a form, please ask for one. If you miss this **deadline**, you do not get a certificate.

Reading for Week 19:

Required:

- *Bioregional Organization, by Bill Mollison, Yankee PC Paper 8. **CD**
- *Introduction to Permaculture, Chapt. 8.
- *Permaculture Designers' Manual Chapt 14. **CD**
- *Permaculture for Urban Areas & Urban-Rural Linkages by Bill Mollison, PDC

Pamphlet XII. CD

- *The Permaculture Community by Bill Mollison, PDC Pamphlet XIII. **CD**
- *The Permaculture Alternative by Bill Mollison, PDC Pamphlet XIV. **CD**
- *Permaculture for Millionaires, by Bill Mollison, PDC Pamphlet XV. **CD**
- *TIPSY #1 and TIPSY #2, Urban Permaculture Sections.
- *"Ethics, Environment and Economics -- A Bioregional Perspective" by Dan Hemenway,

TIPS I, 1.

- *Kudzu Utilization Concept Paper, by Dan Hemenway, Yankee PC Paper 34. **CD**

SUPPLEMENTAL

YPC Pamphlet #15: *Outlines for Permaculture Village Development* by Bill Mollison.

CD

Robin (Early issues.)
The Integral Urban House
How To Live..., Chapt. 3, Chapt. 4.

WEEK 20: Receive and Discuss Student Design Reports

Week 20 is reserved solely for reporting the last full draft of your design report in the current cycle. Late drafts are not accepted, except by **prior** arrangement.

DEADLINE. Fast-Track Students Deliver Their Permaculture Design Report . (Optional for deliberate track and 2-cycle students.)

[NOTE; Students may submit designs at any time prior to this. The course fee covers up to two readings of the design report by the lead instructor. After that a design fee may be required. A design is not considered submitted unless it has been received on disk with print out by conventional mail, in addition to email transmission. Do not submit hastily repaired reports. The instructors reserve the right not to read slipshod work or further reports by the offending student.]

Feedback and questions

Design reports

Reading for Week 19:

Required

Designing for Permaculture* by Bill Mollison, PDC Pamphlet VIII. **CD

WEEK 21: What Next? Evaluation.

In Week 21 students share their plans, favorite resources. Further resources and programs are presented by the instructors. Students submit the formal evaluation, which should NOT be discussed. Every evaluation is regarded as sufficient and valid unless feedback is requested within the evaluation itself. This is the last opportunity for review questions and discussions in this cycle.

Feedback

Final questions

Role of Permaculture Trainees

Advanced training for commercial designers and/or teachers.

Resources and networking for permaculture, worldwide.

Students individually discuss commitments, networking, plans, etc. A statement by each student is a certification requirement.

Evaluation A COURSE EVALUATION COMPLETED ON TIME IS A REQUIREMENT FOR CERTIFICATION. Please add comments on areas not covered by the evaluation as well.

MONITORS ARE WELCOME TO SUBMIT EVALUATIONS. Evaluations are important stimuli to the evolution of the Elfin Permaculture Design Course.

DEADLINE SECOND REPORT ON PERMACULTURE TEACHING EXPERIENCE. (See posts for details.)

Teaching permaculture-- Q & A

DEADLINE for submitting course evaluation.

DEADLINE for submitting plans on how you will use permaculture

DEADLINE for any comments or questions pertaining to the course (until the next course cycle).

Course cycle ends

Basic References to Use in the Months and Years Following the Course

• **TRIP**- *The Resources of International Permaculture*, Dan & Cynthia Hemenway, Eds. (A directory of thousands of groups working on issues related to aspects of permaculture. Paper or disk.) **TRIP is on the course CD.**

• *The Permaculture Resource Directory*, by Richard Webb. A comprehensive listing of reference material for teaching and practicing permaculture. For additional books, check the book review sections of TIPSYS and TIPS for descriptions of hundreds more useful publications. The *Dirctory* is included in your reading package. **CD**

Permaculture journals and newsletters in various countries carry announcements of courses and sometimes offer lists of national or regional graduates. See **TRIP** for a list of these publications.

Elfin Permaculture Supplier List (**PSL**), hundreds of suppliers of seeds, plants, tools, shelter, water, alternative energy, energy conservation, and other products for living lightly and deliberately. Available on disk and as special order print out.

ASSIGNMENT: Students & monitors: Please post your favorite permaculture resources.

Following Week 21 any remaining 'flex' weeks may be used for discussion of design reports submitted during Weeks 18 through 20.