

051401

Requirements:

The Permaculture Design Project & Reports

DRAFT 16 – 9/1/09 Copyright, ©, Dan and Cynthia Hemenway

THIS POST PERTAINS TO STUDENTS WHO HAVE REGISTERED FOR THE DESIGN PRACTICUM OR WHO PLAN TO BEIGIN THE DESIGN PRACTICUM IN ONE OF OUR LIVE 10-DAY DESIGN INTENSIVES. If you are not taking the course for certification, you still have to comply with all the formatting instructions, deadlines, draft submissions, etc. You should consult your instructor before undertaking variation from other requirements.

Formatting requirements pertain to all reports of any kind, even personal reports.¹

We try to keep all materials consistent, however with more than 300 items on the course CD alone, sometimes there are inconsistencies. This document trumps all other documents provided to students, except in the case of updates announced during the class by the lead instructor. This document is your bible for preparing your design reports and other reports. Consult it frequently.

¹ Personal reports may be of such a nature that formatting requirements are irrelevant, for example, poetry, a video presentation, etc.

Permissions

You may copy this post to your hard drive or you may print out one copy. Be sure to file it where you can easily find it. You will want to consult it frequently. This is supplemental information and not intended to replace the information on permaculture design presentation in the readings and otherwise presented to the class. The latest version of this post will be available ASAP on our web site, also. You are responsible to comply with the version of this post in effect at the time that you submit your report.

Coverage Requirements

The formatting and style rules below apply to all reports submitted by students, not just design report drafts. You are responsible to meet the requirements of the latest version of this document that has been posted at the time of your report submission. For design report drafts only, you may use the pre-existing version if this document was updated less than two weeks before your draft is postmarked. (We always use the date received, not the date sent, for a deadline.) We will try to keep any changes during a course cycle to a minimum, and all such changes will be announced to students via email.

DESIGN DRAFTS AND STRATEGIES:

*This section treats the strategic considerations of various options in the design process. **Other matters are addressed later in this post.***

Drafts

Submit drafts or comparable design progress reports as you go through the course. I have scheduled times for this. A good start is an outline of your design report. (See below.) **You should submit drafts, even if you are a deliberate track student participating in the first of your two cycles.** Only the final report draft is deferred until a later time in these tracks. Missing an opportunity to submit a draft greatly weakens your chances of certification and prejudices the instructors against providing extra help.

You have three situations when you may ask questions or seek feedback pertaining to your design:

- *When the topic is covered in class.* For example if you have a problem figuring the correct angle for glazing on a solar greenhouse, you can ask for help when we discuss ENERGY in Week 8. You may do this even if you have not registered for the practicum. Have relevant data ready and send the question and background information **at the beginning of the week.**

New material follows in this box:

You may, but are not required to, submit the question to the discussion leader before the relevant week. This is helpful if you think that some research is required to answer the question. Depending on details, the instructor may then assign the question back to you, probably with guidance on how or where to get the information. Advance questions of this sort must be submitted no later than a week before the relevant topic week begins. Otherwise, there is no point, as research takes time.

Remember, this option pertains **only** to questions relevant to making suitable design recommendations on the design you are working on in this class.

This special off-topic provision applies to all questions relating to your specific design project, but not to other questions that you may have, except for review weeks where any advance question is allowed to help the instructor prepare.

- *When we have a regularly scheduled session to discuss student designs.* Please try to submit a draft or supporting material with your question. If the question pertains to readings, course posts, or course discussion, include the exact quote (or reference if a long passage from a book) with your question. **Do not paraphrase!** Be sure to include your question or concern so I can focus on it. Reviewing design

work is very time-consuming and I may not have time to go over everyone's submission in the week allowed. I give fast track certificate candidates priority. Piling multiple questions about different matters into one post may get your questions ignored. We are unlikely to answer them all, in any case.

Always use one post for each topic.

- *During any scheduled review session.* Whether, or not you are registered for the practicum, as above, you may ask questions **if they pertain to topics that we have covered.** We try to schedule review sessions just before the times for you to submit a draft for discussion. (This also lightens the reading load so you have more time for last minute touches to your report draft.)

Note: As always, you do not get to select which instructor answers your question. The discussion leader will decide if questions should be forwarded. Specifying an instructor may get your question ignored.

If you have an emergency question that prevents you from proceeding on the design, ask your study group for help. If this does not resolve the question, refer it to the discussion leader. The instructors may defer it or they may get to it immediately, but at least we will be advised and can take the best action (by our lights) to help within the context of the course. In this connection, topics relating to WATER often are the subject of early design questions, because this subject comes late in the course cycle. **Please do not ask premature design-related questions on this or any topic until you have read in advance all assignments and posts for that topic week!** Then, if an issue still seems to block progress on your design, submit it to the discussion leader.

In very rare cases, we may insert a flex week to discuss very important topics, including those that arise from design work, without regard to the rest of the schedule. *There are just four flex weeks per cycle, and if not used they provide the option to extend discussion of design drafts at the end of the course cycle.*

Finishing a Design in Six Months

I originally designed the online course to allow students to complete their design while they progress through sections 1, 2, and 3 of the course. After all, students in the live **3-week** course do this, and, invariably, well in about one tenth the time. We support design work for fast track and non-certificate students over only one course cycle. If a certificate student fails to be certified by the end of the cycle, certification is withheld.

Advantages of this timetable are:

- 1) You *may* achieve certification by the end of the course cycle. This may be important for college credit, a job, or some other external factor. Sometimes, certification is secondary to the other purposes, as well.
- 2) Implementation of the design can begin early. This can be important, for example, if you or another wishes to occupy the site soon.
- 3) You have support during the entire design process.

The **disadvantage** of this approach is that you are learning about what to include in your design at the same time you are trying to put it together. You do not have the whole picture yet. The Course CD helps here, as you can read ahead where you need information that

is scheduled to be discussed later. It is possible, but difficult, to meet certification standards as a fast-track students.

Carryover Designs

Deliberate track students carry a design over to the next course cycle. This has the potential of giving you more time and full information to do a good job. But this arrangement also has potential pitfalls.

Advantages are:

- 1) You have all the course material in time to make best use of it in your design.
- 2) You have more time to research aspects of the design, resources, and so forth.
- 3) You get to experience the design site with “permaculture eyes” for a full year, through all seasons, and then about a year to gain certification.
- 4) You can concentrate more on the content of sections 1, 2 and 3 in the first cycle.

Pitfalls of this approach are:

- 1) The instructors are not available between cycles to support your design process except *maybe* on a paid consulting basis. We encourage you to form a peer review group for mutual support in carryover designs. We will help you set up such groups on request.
- 2) Some people do not work steadily on their design over the six-month intersession. Instead they rush the process as the deadline approaches. However, the information is six months stale for them because they have not regularly

worked with it. Their design will fail to meet certification standards.

- 3) Implementation is delayed.
- 4) Circumstances can change over the intersession, and the student may no longer have the time to do the final work correctly.
- 5) Students who plan to carry over their design project sometimes do not use the first cycle design review and other design support opportunities well. This is a major error since these may be the only times this support will be available to them before the final draft is due. **You must start your design in the cycle for which you register, or you will not get enough chances to have your work review and direction corrected.*²**
- 6) If a student fails to satisfactorily complete all other assignments during the first cycle in which s/he is enrolled, s/he may not, without paying more tuition, participate any further in the course, regardless of what track s/he has enrolled in.
- 7) Tuition for a carry-over design track costs more. (You forfeit the extra tuition if you fail to complete other assignments in the initial course cycle.)

Generally, if you are self-motivated and self-disciplined, you can succeed as a carryover student.

² In a very few cases, students *who so arrange in advance* can take their entire practicum in a later course cycle at no surcharge. Usually, this is the student who is in the market for a new home which s/he will wish to design with support of the course. Very infrequently, we make exceptions for other reasons beyond the student's control in every regard.

Students who have not completed section 1 because of late registration **must** carry their design project over to the following course cycle.

Most carryover designs will be submitted and reviewed in section 1 of the second cycle. However, students who need to “make-up” section 1 will report in section 2.

Hybrid Design Projects

As described in the course protocol, a student may attend one of our 10-day or two-week design intensives as a first step in developing a practicum design. The design produced by that group becomes the basis for the student’s practicum. Up to 20 students can work on this design, if they all attended successfully the design practicum.

The hybrid approach is absolutely the best training we can offer. You probably will have to organize the live workshop yourself. We almost never organize these, but teach where invited if we have time. You can find more information on organizing workshops for us to lead in the **BFPCInfoSheets** folder on your Course CD or on our website. [For personal reasons, we have restricted our availability for travel to an absolute minimum as of 2007. Florida students therefore have an advantage, as we can still arrange workshops over much of the state from about Sarasota north, exclusive of the western Panhandle.]

Team Designs

Students may form teams to work on a single design. This is a much better approach than solo designs, but is seldom practical in the online course because rarely do students live near one another. The students on the team must all have frequent access to the design site. As suggested above, the hybrid design project readily lends to team participation. Husband and wife or other forms of life partners almost always work as a team. Special tuition discounts apply to teams. See the Course Fee Table.

Students who have all participated in the same Permaculture Design Intensive may also form a team, to carry the design begun in that workshop forward into an online course cycle. In this case, they may live distant from the design site, as they are already intimate with it. However, it is best if at least one team member lives near the site, as usually designers need to check site details that they did not think to observe and note initially.

In parts of Florida (see above), we are available to teach parts of the Permaculture Design Course over a series of weekends. Certification students may register for the online practicum to meet that portion of course requirements. This option will only be available if suitable hosts step forward to organize such a program.

Advantages of Designing in Teams

- You learn more.
- It is less hectic, providing more time to study.
- It most often results in better designs.
- You bring more resources to bear on the design recommendations.

- You form liaisons that may result in long term mutual support.

Disadvantages of Designing in Teams

- In the online course, there may not be anyone living near you to work with. This is usually necessary, but may be a lesser problem if you have worked together on a 10-day workshop that is the basis for your design project.
- Your certification is somewhat hostage to the other team member(s). This resulted in failed certification once in the online course. I don't recall it ever being a problem.
- A team member (or members) may not pull his/her (their) weight. I am not aware of this happening in the online course but it did happen once in a life course about 20 years ago.
- In the online course, meshing schedules, arranging meeting places, etc., could pose logistical problems. The potential for this problem does not exist in live courses, when everyone sets aside other parts of their lives for a while, and where everyone is gathered at one time to work on permaculture.

THE DESIGN PRACTICUM

For certification, the design practicum consists of two interlocking elements, the permaculture design itself and the design report, the means by which you communicate the design to your clients (and the instructors). If you are a not-for-certification student, it is still useful for you to read these requirements. If you plan to deviate from them, first consult the lead instructor. Many of the report requirements are for the benefit of the instructor, to make it possible for him to focus on the design. Some requirements accommodate the limitations of beginning designers and the time line of the

program. We very probably will not read designs that deviate from these requirements. Within them, there is almost infinite room for creative and intelligent design.

THE DESIGN SITE

1) The design site should be small. **You are a beginner. Do not attempt complex designs,** particularly not in the email course in which most of you are working alone. A ¼-acre to ½-acre site is good. A whole acre is OK but pushing it. The limit is two acres or **less** than a hectare. Designing two acres in Kansas is likely to be a lot more design work than two acres in Western Massachusetts. Open land requires more work than forest. You also may design just the Zones 1 and (maybe, or parts of) 2 of a site larger than two acres. That is OK. You need to take context into account, of course, and you are required to rough out details of the overall property and surroundings to properly site a dwelling and develop water supply and access, for example. Good. Start very early.

At some time in the future we may offer an online or local course for people who want to predesign a larger site.

2) The design site should be real. We are not interested in reading hypothetical designs, ever, for any reason. We absolutely will not review hypothetical work.

3) If you are not designing for yourself, you need to be sure that the people who control the land **want** a permaculture design. *Allowing* you to do a design is not enough. If they do not enthusiastically *want* a design, your practicum will fail. Rental residents can also implement permaculture designs, but of course the design needs to take into account the limitations

imposed by the rental arrangements. These are real constraints, no more onerous than a mountain blocking the best solar access. A permaculture design can contribute considerably in these situations, since renters can take many actions to improve their settings. Because there are three sets of clients (residents, owner, and the reviewer in our program), rental designs require more time and effort. Allow for it.

- 4) The design site should be **residential** and contain a full zone 1 at a minimum and, preferably, a full zone 2. I will consider exceptions to the zone 2 requirements in urban designs on a site-by-site basis. **There cannot be an exception to the residential requirement,** if you want to use your design for certification. I need to see how well you design to meet human needs. It is possible to have a design for non-humans, principally, e.g., a butterfly farm. But I need the human clients for certification purposes. **Only one residence per site is appropriate for beginning design work.**

Note” Design for communities is very advanced and requires much more training than we can fit into this basic course.

It is smart to design for yourself first if possible. You do not need to OWN land to do this.

- 5) Avoid multiple clients, institutional designs, and so forth. These require advanced skills. Avoid designs where the residents are sure to move on soon, for example a student residence or a halfway house. These sorts of designs take more time and experience than you will be able to bring to bear. While we do not absolutely forbid such design projects in the online course, be advised that you probably will not meet certification standards within the time available.

THE DESIGN REPORT

1) Presentation Quality

a) The design report must be clearly written and in good English. (English is OUR limitation—obviously you can write designs in any language once you are qualified.) While we do not require design reports to be literary works, they must efficiently and effectively communicate your recommendations. Since you have a computer, make good use of the grammar and spell-check features of your software. These set a minimum standard. We are looking for a professional quality consultation report, not a term paper! A report that would get you an ‘A’ in college could well fail to meet our certification standards. This has happened. Emulating academic approaches courts failure in this course.

b) Use an 18 point sans-serif type for the body text.

c) **Identify plants and animals by their scientific binomials. These must be correctly spelled.** An inaccurate binomial will disqualify your entire design from certification. I may decide to stop reading when I encounter a wrong binomial. I will definitely ignore sections of non-certificate design reports with inaccurate binomials. We will make exceptions in unambiguous circumstances, for example if refer to a dog or some chickens you can leave out their scientific names. If in doubt, though, look up the binomial. I spot-check these, and often I know when they are wrong without checking. For more information about binomials and what they mean, read: “Diversity Among Plants” in **TIPSY 1**, which you all have in your reading packages. Our standard reference for plant binomials of plants is

Hortus Third. We may fall back on *Cornucopia II* for edible plants. After that, we have assorted references that cover the less commonly mentioned species. The *Plants for a Future* web site has a lot of this information, but we do not regard any web site as a primary authority. Reliance on the web for accuracy will be regarded as a Type 1 report error.

d) The final draft should be as perfect as you can make it in every way. The final draft is normally presented before the Week 20 deadline with carryover drafts typically due by Week 3 of the following cycle. We will not allow time for extensive revisions. Your earlier drafts should take care of that. Remember, permission is required to carry over a design project to the next cycle.

2) The design report should include all necessary visuals—maps, drawings, schematics, etc. Present graphics and tables imbedded in text, not as a separate section. Color illustrations are OK, but bear in mind that I am dazzled only by brilliant design. **We almost never give permission to put the graphics at the end or anywhere except within the text where they belong.** A design is not useful if one has to be going constantly back and forth between the copy and the illustrations at the end. **The design report is a tool, and, like any tool, it should be easy to use.**

3) Every connection between different design elements must be clear. Use keys, footnotes, parentheses, whatever works. Always refer to the exact page number in the “final” draft. (For example: “See especially *The Manual of Dog Manure*, Appendix VII, p. 352.”) Be consistent. Make keys very clear. Use 14 point sans serif or larger on keys. If I can’t easily

read it, you'll have to do it over, wasting everyone's time. Keys for graphics should be on the graphic, not on some other page or somewhere in the design narrative.

Note: If you reproduce a document (See copyright rules) in your report, the type still has to be the equivalent of 18 point in body text and no less than 14 point anywhere. You may retain the body type in scanned documents (but not if you use OCR)—otherwise, use a sans-serif font such as Helvetica.

- 4) Red text and yellow highlight are reserved for Dan Hemenway's review. Neither the designer nor any other reviewer are to use these colors.
- 5) Every design requires a very good staging section. Bad staging is the commonest failing of permaculture designs, particularly student designs. If your staging simply presents a list of tasks, it is very weak. All design recommendations require justification, including staging.
- 6) No Type 1 errors are acceptable. If you disagree when I point out a Type 1 error, you may state your case once. Then I decide. We will not further debate my determination.
- 7) Sections required in every student design are listed below. Use exactly these titles. Unless you have strong reasons, arrange chapters in the order below. If I disagree, you may have to do the report over.

In addition, you may need special chapters for themes, for example, flooding problems and remedies, urban community options, children in this design, etc.:

Chapters-Introduction

- **Client Description.** Make it brief and relevant to the design. Include detailed client interviews in an Appendix, not in the body of the report.
- **Site Description.** This is the site as you first find it. Include the base map here. Photographs may help.
- **Community.** Include relevant data about the community. Maps locating the community in the region are very helpful, but beware the potential for copyright infringement. (Site sources of all graphics you do not personally create.)
- **Region.** Describe briefly the bioregion and the region. Locate the site on a map of the region. For example, if your site is in Southern Ontario, locate the site with respect to the surrounding Great Lakes. Remember, we have students and instructors from all over the world. We may not know about your region at all.

Chapters-Design Recommendations

*The order of these chapters is up to you, **except as noted below.***

- **Water**
- **Shelter** (not just buildings)
- **Access** Access usually follows Shelter but may come before if it is relevant to selecting the dwelling site. Include access inside of structures, access throughout the site, and access outside the site, e.g., commuting, getting to medical facilities, shopping, etc. Parking space comes under access, as does storage. Include public transportation facilities (bus, air, interstate highways, etc.) if they are relevant to the clients. Travel to work, shopping,

etc., are access concerns. Efficiently accommodate moving materials around the site. Boundaries to access, such as fences, moats, etc., should also be considered here, though you may simply reference to another part of the report where the feature is more important.

Example:

Access-Moat. See water pp. 83-88, and pp. 101-110.

- **Energy** Energy and access are interrelated and usually we place them one after the other in the design. Address all forms of energy, including power and fuel purchased or generated on site, human energy needed to do tasks, energy storage (including potential energy), etc. **Do not forget to address transportation energy.**

Generally, we want to see energy treated in **each** of two ways:

+ *Sources of energy*, e.g., grid electricity, solar thermal and PV, purchased and site-generated fuels, conservation, etc.

+ *Uses of energy*, e.g., food cooking, processing and storage, hot water, personal, private and public transportation, space heating and cooling, garden cultivation, etc. See the sample designs for a more complete list.

- **Nutrient Cycles**, which includes
 - i. **Soil Management**
 - ii. **Food production**
 - iii. **Human excreta management**
 - iv. **Food processing and storage**
 - v. **Animals recommended in the design**

[Do not call this chapter anything but “Nutrient Cycles!]

- **Community**, which includes:
 - vi. **Markets, job opportunities** (Can be included under ‘Economics’ with specific page references here.)
 - vii. **Educational opportunities** (some designs only)
 - viii. **Implementation skills available for hire or barter**
 - ix. **Material resources for design implementation and management**
 - x. **Pertinent building codes and other regulations affecting design implementation**
 - xi. **Often other considerations**
- **Economics**, which includes
 - xii. a **budget** for design implementation showing anticipated costs, anticipated income, and capital expenditures, e.g., from savings, loans, etc. The best way to present this is in a spreadsheet or table.
 - xiii. A **narrative** describing how you reached these numbers. Add an appendix if extensive background information is relevant. (But do not include information for its own sake!)
 - xiv. An **analysis** of on-site income potential. You may here profile several income-producing opportunities that suit the client’s skills and potential. You must assess markets as well. (See ‘Community’) If you are exporting materials generated in the site (e.g., food, water), state how these affect site sustainability. If you have detailed information on

an enterprise, make the details an appendix. (You may end up with a *standard design*.) Sometimes students have enough information to draft a **Business Plan**. This is ideal.

xv. Economic contingency plans. Describe backup strategies that you have built into the design if implementation does not proceed as expected due to economic factors. Avoid putting the client into debt, and if debt is unavoidable or already incurred, design strategies to protect the client against interruption of income. (This is usually a good idea anyway.)

xvi. Savings vs. cost. The design should save the client money. It should not cost money in the long term. Investment in implementation should be staged so that funds are almost certain to be available. **Under no circumstances put your client into a situation of economic stress.**

Locate the economics section just before staging at the end of the design.

- **Hazards.** Put this near the end of the design, usually third from the end, just before *Economics*.
- **Staging.** *(See also course posts on staging..)* Your staging should not just be a list of recommendations, but a justification for their placement in the staging, e.g, time (calendar dates) and spequence. A table may well suit this task. You might do a subsection, showing required staging sequences. This would duplicate the table, but break out allied sequences. For example, you might recommend keyline cultivation, followed by annual cropping, followed by tree planting, followed by intercropping for a number of

years until canopy closes. The necessity of this sequence and the reasons for it should be covered here.

A staging table may have the following headings:

xvii. Task

xviii. Reference (page numbers in design recommendations where the task is discussed)

xix. Justification including synergies and relationships. Certain recommendations constitute clusters that affect one another's staging. Describe these clusters as part of the staging chapter.

xx. Sequencing (requires this task, must precede that task, etc.) Indicate if the timing of certain events depends on external factors. For example, some actions will depend on seasons of the year, e.g., planting trees. Or they may depend on cash flow affected by off-site forces. In our site, we wait for particularly dry years to harvest muck from the bottom of our canal for chinampa building. You get the idea.

xxi. Calendar of staging actions Find a way to indicate how much flexibility is in the calendar. *Tell how to proceed if the client falls behind.*

Staging should be the last section of the design narrative, just before the appendices.

Appendices required Your design recommendations should be painstakingly cross-referenced to these. A report reader should be able to go quickly from a section of the report to the location of relevant information, for example the name and address of a

supplier. Maintain your page numbering system in the Appendix and cite page numbers in the report to show where details are located.

Example:

“Caragana arborescens will produce a good windbreak here, trapping snow to enhance spring adjacent spring growth of grasses for poultry forage, fixing nitrogen and providing excellent feed and food from the abundant seeds. The flowers make a attractive swath of yellow color. [For more on *Caragana*, see Appendix VI (Plant Species Table, page 188; Appendix VII, page 196, and Appendix XI, Poultry Forage, page 229.”

The page numbers are where the exact reference to *Caragana* occurs, not just the first page of the appendix.

- **Client responses** to your questionnaire. This is a convenience to the client, so that the material is kept with the rest of the design report. In the case of this course, I may need to refer to it to evaluate the design, also.
- **Resources.** This would be the sort of information you get from **TRIP**, mainly places to get information and skills support. We use **TRIP** extensively in our design reports, identifying entries by serial number in the report narrative. (See the predesign on the CD for an example.) You would also list non-commercial sources of materials (scrounge sites, etc.) and labor (internships, volunteers, etc.) here.
- **Suppliers.** You don't list sources of ordinary supplies such as a 1/4-inch bolt, but you would list vendors of uncommon supplies, such as a toilet seat that snaps onto a 5-gallon bucket. Again, we use our database, ***The Permaculture***

Supplier List, for this, again referencing serial numbers.

Always include physical addresses and phone numbers, not just email addresses and URLs. Designs will fail certification if you only list internet contact info.

Always verify contact information before including it in the design. This sort of information changes frequently. Don't just copy the information from another source. Mail to physical addresses, call phone numbers, verify URLs and email addresses, etc.

References. This is NOT a bibliography citing where you got your information. It tells the client where to get further information. Obviously there is overlap. Do not rely on one book for any crucial reference, since that book may be unavailable to the client. Include books, periodicals, and CDs. **Web sites are a desperation measure.** They are ephemeral. A topic for which you have only a web site is a weak reference. I maintain a database of references that I use in designs, so I can just print up a list relevant to a specific design when I need one. Again, designs that only list web and email contacts for crucial resources **will fail certification.**

The References Appendix of your report, like all resources that you mention, should strive to give **complete information** about where to get materials. In the case of literature references, you need to tell people the physical address of the publisher to the full extent that it is listed in the work. Most modern texts do give the full address of the publisher in the page with the copyright notice, ISBN, etc. You should also give ISBN and/or ISSN whenever you can get that info, as they help

vendors or librarians run down publications. Email addresses are good. Web sites are OK, but not as the sole contact point.

Never list any URL in a design report that you have not checked yourself no earlier than a month before the report date. I also mail to physical addresses to verify them if they have not been verified recently. (We have fields for verification dates in our databases, e.g., **TRIP**.)

- **Climate information.** Here you provide at least seven, preferably 10, years of data for rainfall (precipitation expressed as rainfall), wind, temperature. **Average data is not enough.** We also need high and low figures for **each month**. Averages DO help you spot trends, if any. You don't plant crops by the average frost-free date to mature before the average first frost. If your averages are May 30 and Oct. 1 but you can get frosts as late as June 15 and as early as Sept. 15, then you plant frost-sensitive crops to grow during the latter period. If someone shoots at you and misses to the right by 3 feet with three shots but hits you between the eyes on one, you are not, on average, alive. (Why this is hard to grasp mystifies me.) You **must** have data on extremes. Average data is a minor luxury.
- After the appendices, include an **Index**. This is not required if your report is less than 10,000 words, though it is always helpful. If the index is not thorough, I will not approve it. See the course Index for an example of what I consider to be adequate. Because page numbers change with each draft, we only require indexing in what you hope will be your final draft.

Additional Appendices

There are almost always some appendices that you add to meet requirements of the design. In one design, I did a special appendix including all the information I could find on termite control, and another on growing potatoes from seed (eliminating the need to store tubers in unfavorable storage conditions). This is where your **standard designs** go. You may have more extensive economics information here, such as a **business plan** or a list of potential funding sources for some project. You also can put in **papers** to support the design, or even package one or more **books** that provide key information for design implementation. (If you do the design for hire, you add your cost of these to the cost of the design. Don't go overboard.) For example, if I did a design that really required the Kourik edible landscaping book, I would include a copy and charge for it. You may be working in a country where a certain reference would be almost impossible to get. So you supply it. Etc. This is also where you put the **county soil survey, aerial photographs of the place, supplemental contour maps, demographic reports, utility bill summaries, a copy of the building code, zoning regulations, species lists, etc.**

A URL is not complete information and should only be used to supplement reliable data. For example, do not simply put in a URL for the relevant building code. Include the relevant sections of the code in the report. I require this.

Treat each appendix like a separate chapter. Customarily, Appendixes are given roman numerals, e.g., Appendix I, Appendix II, etc. Do not depart from convention without good reason. Whimsical deviations distract.

- 7) **Do not try to reinvent the wheel.** If someone has written a book that describes the sort of composting toilet you recommend, refer to the book and provide clear details on where to find the book in the **references** appendix. If there are experts on the subject available, list them (**including complete contact information**) in the **resources** appendix. **Do not list species, services, or products that are not very commonly available without making a note in the Resources or Suppliers Appendix telling where to get each item or service. You should not strive for originality unless existing, proven approaches are inapplicable.**
- 8) **Always give credit.** Be sure that you know and honor the difference between fair use of previous thinking and theft. (Copyright violation will **permanently** bar you from certification in our courses.) None of us designs without using ideas we have gotten elsewhere. If you do not understand the principle of Standard Designs from the reading and class work, ask about how this works in permaculture.
- 8) **Be specific.** Quantify wherever reasonable. For example, you would quantify the capacity of a tank for roof catchment storage, but obviously you cannot quantify discussion of a view, which can be equally important in the design. Do not write things like: “You will probably need a really big tank to hold all the water.” This is garbage. If you can’t work the numbers, you need to ask some very specific questions in the next review session. If you start on your design after we have done all the review sessions, you have shot yourself in the foot. See you next time we offer the class! (...or not 😊)
- 9) When writing for others, be friendly, not stuffy, and not overly familiar, clearly professional, in tone. While your design

must meet the requirements of the “client,” bear in mind that the client is a temporary event on the site. Be sure that the next resident can pick-up your design and continue following your recommendations...and that the recommendations will be relevant to the new people living there! The design report becomes part of the equity of the property, to put it in materialistic terms. As I have stressed elsewhere, the Earth is our principal client, with the people we work for being temporary representatives of the Earth, aspects of Her. We do not work for people whose aims are hostile to the Earth, though if they seem to be of good will we try to explain the problem before we blow them off.

10) Write the class design report as for another, even if it is for yourself. I must see how you present material in this way. It also helps you step back and look at the design from another perspective. **Also, remember than in addition to the on-site client, Dan Hemenway is a client and you must write the report with his review process in mind.** If you assume experience of some feature of the site, for example, we cannot properly review the design. We have never been there! Even if for some reason I’ve visited the site, the rest of the class has not, so you still need to explain every feature relevant to the design. Do not assume that everyone remembers discussion that explains site features at some time during the course. Put needed information in the design report!

11) The following is the **style** that is required in permaculture designs submitted in this course:

- a) Use 8 ½ x 11 inch paper or the nearest metric equivalent if you are in a country where metric is standard.
- b) Bind hard copy reports. Do not submit a bunch of loose pages. I recommend using a ring binder in a

standard three-hole arrangement. This makes it easy and inexpensive for you to make last minute changes. Spiral binding seems popular among our students, and is perfectly OK, too.

c) Use 18-point type of an easily to read sans-serif font, like Helvetica. (Larger fonts can be used for headings.) My eyesight is failing. Do not use smaller than required type and tell me to zoom in. I do that anyway. Think about the word: 'requirement.'

d) Use standard formatting (Italics for book titles—that sort of thing.) Get an MLA style manual if rules of style mystify you.

e) Headings, subheadings, captions, and so forth should be formatted to make the design easier to use. (Captions may also be 14-point type, as well as footnotes. Avoid endnotes.) If the report is not easy to use, you have not designed it well. Permaculture principles apply to all activities, including report writing. Your report design is an example to me of your design ability. I evaluate it as such.

f) All designs should begin with a **Table of Contents** that is specific. See the table of contents for the Northern Ontario design that I have included in the course CD. Sometimes a list of tables and/or a list of illustrations, is included, each with page numbers.

g) Again, thorough indexing is **required in design reports of more than 10,000 words**. The design is not only a guide, it is a reference work and will be followed more closely if it is easy to “find one’s place,” to find information about a project when the time for implementing that portion of the design comes up.

- h) All pages should be clearly numbered. **The numbers should be in the center or outside corner, top of the page.** I'll make you do it over if you don't observe this rule. A really spiffy design will have the chapter heading and subheading at the top of each page, too. This is not required, but it does make the design easier to use. Word processing programs do that more easily than the desktop publishing programs that I've used.
- i) Do not use **red** text. This is reserved for Dan Hemenway's review.
- j) Do not use **yellow highlight**. This is reserved for Dan Hemenway's review.

Any device that makes the design easier to use, makes the relationship between parts clearer, and makes it easy to find subjects for reference, is a good one. If your report is sloppy and difficult to follow, one might suspect that the design itself will have similar limitations.

- 1
- 2) Remember that **this is a DESIGN report, not a research report.** Research is always required, obviously. Put research results mostly in appendices, **if the client really needs them.** **Do not** put detailed research results in the body of the report. Reserve the body for the design recommendations and your justification for them. The connections and synergies and staging will be clearer if you do not clutter the design with your brilliant research. You are NOT writing a term paper or a thesis. **I will not review a design report written with all the extraneous material put into the body.** You must put this in an appendix, **if you include it at all**, and I will require you to do so before I read it. I want to read the design recommendations and the thinking behind them (justification) in the body text. Make clear, specific reference to where **(always including page**

number) the supporting appendices or associated parts of the report are located.

13) Avoid jargon and indirect ways of saying things. Strive to write in the active voice. State that the design consists of recommendations at the outset, so that you can write: “Dig a trench 8 inches wide by 2 feet deep.” Not, “A trench 8 inches wide by 2 feet deep is recommended.” Semi-garbage.

***Do not use permaculture jargon. Anyone** who comes along must be able to use your design report. There are reasons behind terms like "zone 1" and "stacking functions" and the reasons must be clear to someone who has not read permaculture books. So do not refer to the zone concept in the design report. I don't care if you think that the client understands the concept.*

COMPATIBILITY ISSUES:

Present designs to the class in a format that everyone can open and read. I strongly recommend that you conduct tests with each of the students and monitors to be sure that they can open the design in the way you will need to send it. (This was scheduled to be completed weeks ago.) Common word processing programs, such as Microsoft Word, or universal format programs such as Adobe Acrobat (pdf files), are best. It is helpful to send word processing documents in versions that are a few years old.

While we can read PDF files, we cannot **review** them as conveniently as on Microsoft Word. We do have GraphicConverter, that will open most nonproprietary graphic formats, but do send tests. JPEG graphic files are best for compatibility. We also have Adobe Photoshop. Since graphics for reports will be embedded in

the document, graphics formats only become relevant if you send a picture to the class for discussion, outside of the report context. Not everyone will have the very latest version of your program. Verify compatibility in the first weeks of the course. (See the schedule.) If someone cannot read your design report and you have not tested for compatibility, you have a problem. **I will not take up your report until everyone has a copy s/he can open, unless a person who does not has failed to speak up during a test. Your report is not for yourself alone, it is a learning experience for everyone in the class.** For some reason, this seems to be difficult for many students to understand.

SUBMISSION RULES

Early Drafts

Early drafts may be submitted via email attachment in compatible programs. These drafts will be reviewed by the discussion leader. All drafts that require or seek my input should be sent to me on CD, as well. I can be more thorough in my review of your draft if you submit it on Microsoft Word or some format that I can import into Word. Otherwise, you should provide an extra hard copy for me to mark up. All hard copy must exactly match the electronic version that you provide. We must receive all hard copy and the CD before the deadline.

All Drafts for My Review

- 1) Email the design draft to the entire class. If there is any chance of compatibility problems, you may need to send the draft as hardcopy to affected students by conventional mail. Again, your report is not considered to be submitted, and I will

not consider reading it, until every student has a copy s/he can read.

2) To me, send **also**, by real-mail (**NOT A DELIVERY SERVICE**), a hard copy plus the design on CD. Rarely, I may try to open floppy disks if I'm, convinced there is no other option. **Send test floppy disks** in advance so you are sure that I can open what you will send. Otherwise, the delay in achieving compatibility may be fatal to your design review and to certification. I will not extend the end of the course. Your design is not considered "received" until we have all formats to work with. Do *not* send designs on DVD.

3) In other words, **I will have your report in triplicate formats, email attachment, CD, and hard copy**. Note that we can read many word processing programs, but we cannot read most desktop publishing programs, which are otherwise yummy for preparing designs. (You can render a design with a desktop publishing program and then convert it to Adobe Acrobat, however.) JPEG images seem to be universally accepted. Microsoft Word works pretty well cross platform if you happen to have it. We can translate quite a few other PC formats, and almost all Mac word processing programs. You will know if we can open documents generated by your software because you have already done your compatibility tests. 😊

4) **FILE SIZE LIMIT AND DEADLINES**. Our ISP does not accept attachment file sizes greater than 16MB. To be safe, consider 15MB the limit. If your report draft exceeds this size, make it smaller. If you need help, usually there is someone in the class who can provide it. Often, resetting the resolution of graphics to a lower, but still adequate, level will do the job. Also review your writing. Direct, active declarative sentences save

space. Good writing uses fewer words and many fewer syllables than bad writing. I will happily edit a sample from a report for one student each cycle to demonstrate how you can save space by better writing.

If all efforts to make the file smaller still do not bring it within 15MB, you must rely solely on a CD sent by mail. THIS REQUIRES MY PERMISSION. As stated elsewhere, ***I will not attempt to read a design split into two or more files.*** You may, if you wish, provide a split file to the others in the course, except that other instructors may also refuse to work from split files.

To receive permission to send me only a CD because of file size, you must first report what you did to reduce the file size and how much you shaved from it. Be clear and complete. The deadline clock is ticking and you don't want me to have to ask questions about your report on the file size. And I don't want to have to bother asking them.

The CD meets the deadline only if I actually RECEIVE it before or on that date, providing it was mailed on or after I approved this option. When you send it is immaterial. If you require a signature, the date received is obviously the date when Cynthia or I sign. Within the USA, you may waive the signature on Express Mail. Since we are rarely at the post office when it is open for over the counter business, requiring a signature could substantially delay when we receive your draft. So your Express Mail might miss a deadline that you could have met with Priority Mail. While I generally try to have mail picked up from our box shortly before deadlines, it is wise to allow extra

days because we don't get to the post office on a daily basis. Three days in addition to normal delivery delays should be safe. Note that mail to our Post Office takes one to two days longer than normal. Add that in too.

Except when arranged prior to the deadline, I will grant an extension only in case of catastrophic circumstances, e.g., a death in the immediate nuclear family, your house was blown away by a tornado, etc. "The computer ate my homework," never suffices as a valid reason for an extension. Back up work and print out drafts regularly. Part of permaculture is preparing for potential catastrophes.

If you receive an extension and do not successfully complete your design by the assigned deadline in the next course cycle, you may chose to register for another design practicum. We have discounted the fee for this. See the fee table in your course CD **CourseTools** folder for details. Successful completion includes my review time and approval.

There is no limit to the number of times you sign up for a design practicum, in theory. However, if we are at full enrollment, you must wait for an opening. Once you are a graduate of the course, you can also register for the practicum to get feedback on additional designs done after you are certified, so long as we have room in the course. The limit on designs that we can responsibly read and critique is specified in the **Course Protocol**. Some of the other instructors may be available to read designs, as well.

Outside of the course structure, our minimum reading and comment fee for a design is \$2,500³. **You can earn advanced**

³ Check our web site. This figure is likely to increase.

certification in design using the practicum approach in follow up course cycles. Generally graduates who wish to design for others should get some kind of support from an experienced designer for a few years. This is **one** way to do that.

The deadline for applying for a practicum extension is announced at the beginning of each course. **We strongly recommend request weigh the pros and cons carefully. Carryover designs will serve you best if you know you can and will follow through and work on them throughout the intersession.**

5) See the **Course Protocol** for the maximum number of readings that we will provide for your design report.

Subsequent design readings between cycles require payment of consulting fees, if we have time at all. Otherwise, see the latest **Course Fee Table** for re-enrollment in the course practicum. Questions pertaining to a design decision, or portions of a design submitted during the discussion of the relevant material, such as your greenhouse design submitted during the Energy module, do not constitute a reading. We want to discuss your design with you but we also need some provision that it does not become a career.

6) **We very, very highly recommend that you do not wait until the end of the course to submit your design.** No one who has waited until the end of the cycle to submit a full draft has ever achieved certification. Any time from week 7 through week 20 you can submit your first draft. Allow some weeks for us to review your design before the end of the course. We may not be able to drop everything to review your design at the last minute. Generally, we strive to reply within two weeks. If we take more than 30 days (after the submission deadline) for

feedback, I may grant an extension. At six months from the first day of a course cycle, it is over.

We have scheduled draft review sessions scheduled around Weeks 7 and 15, with the final draft due to be received by the first day of Week 20. Your course CD and course calendar will have specifics for the current cycle. We schedule carryover design drafts earlier to benefit new students and ensure that we don't get bogged down with a lot of drafts to review at one time.

7) We have found that students who take the extra six or so months to complete their designs for the next cycle have a better experience and a higher rate of certification. Therefore, we now recommend that you take the extra time if you can possibly do so and have a proven record successfully of working alone. For the most useful design experience, work on the design continually after you complete Section I of the course, submitting drafts at each opportunity. Then take six months to perfect the design for the next cycle. Remember, you have no support for your work in this six months unless you join a peer review group or pay us consulting fees (which work we may not accept, anyway). **You need to get our design support during your initial course cycle with us.**

8) If you are uncertain about any aspect of the design practicum, it is unwise to fake it. Ask questions. State concerns. **Do not submit garbage just to get some sort of draft into our hands. This wastes everyone's time and strongly prejudices me against ever certifying you. I can refuse to review a carelessly thrown together design.**

DESIGNS CARRIED OVER FROM LIVE WORKSHOPS

From time to time, we teach a 10-day or two-week design intensive. These are organized by people who want such programs in their area. In these programs, the class forms teams and puts together a draft design for the site. Students may arrange **in advance** to use this design as the basis of their practicum. We give a credit against the tuition for the online course if the practicum is begun in this way. See the fee table or protocol for details. Because of the live teaching, site work with the instructor, and slides, this is a superior training to either live or online programs separately. To get practicum credit, the student(s) must submit the design to the next online course at a time that I specify. **These designs must meet all the requirements of the online course.** This means that the student(s) must:

- polish the design including writing, organization, and graphics,
- develop resources and appendices, etc.,
- flesh out, complete, add-to, and/or revise design recommendations made in the live program, and
- make any changes that I require when I review the design.

One draft in the online course will be allowed before submitting the final design for certification. I strongly advise taking advantage of the opportunity to submit a draft, because I will be able to scrutinize the design much more carefully online than after a verbal report in a classroom. So I may require additional changes. (I always have.) This early draft should be as good as you can make it or you will not have enough time to make further improvements required.

If two or more students from the same workshop choose this option, they must work as a team in preparing and presenting the design

in the online course. I don't want to review multiple versions of the same design! Life is too short.

If you have questions about the practicum, please reread this post plus the protocol. If the questions remain, address them in a class post at the proper time. *Feedback* posts are always in order.