The Northern School of Permaculture

Permaculture Design
Group Project Brief
and
Design Guide

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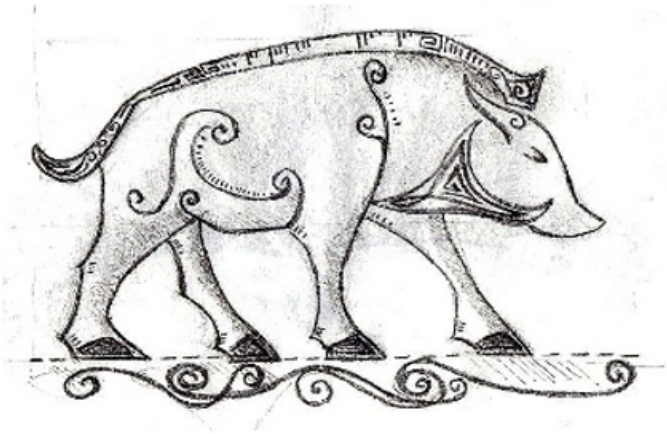
Rooting for the future



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Design Brief

Rationale (the reasoning)

Permaculture design is a complex process, involving both creative and analytical skills. We are asking you to do a design project because attempting and practising a task is a good way to learn it .You are encouraged to work with others on this project if that is possible. The advantages are:

- the overall yield from the project can be higher if it is done by teamwork
- working in a team can provide a better learning environment
- work design and team activities are key tasks for permaculture designers

The first part of this document is presented as a professional brief, to give you an idea of what that can look like.

Scope of work

Each project will have a designer or a design team which will liaise with the "site manager". This person is **the client.** (The client is always right – until you can convince them otherwise!)

The design team will produce an outline design for the client and prepare a report to them. The report will then be delivered to the whole course.

In carrying out this work, you are asked to apply the permaculture design principles, tools and techniques that you have learned on the course and through your own study. Your tasks should include:

- Consult with, and ask appropriate questions of, the client to develop and clarify a more detailed design brief.
- Create an inventory of the resources available on site.
- Work with the Design Cycle to monitor where you are in the process. Use BREDIM or SADIE (OBREDIMET or other variations you choose)
- Agree on what methods you are going to use at each stage of the process
- Prepare a report that will take the form of a 10-15 minute "table-top" presentation

The key points are listed for you in the **Design Guide– 'How to approach it'.** **Your work, including the presentation, will be assessed on how well you refer to this document. Use the technical terms to explain what you have done, and why you have done it.**

The presentation should include short sections with reflections upon team work and observations on how well the process went, with any lessons learned.
More information is given in the **'Project Guidelines'** section.

Budget

The budget is, in this case, your time rather than money. Use it wisely. Do not overwork.

Delivery

A presentation will be made on [a date and time to be arranged with the participants].

Terms

A reward of a permaculture design course completion certificate will be given to each participant.

Design Brief Guidelines

we are giving you these guidelines to help you with the management of your project.

This part of the brief is a guide, we want to give you enough specific guidance to support you, but please use your own initiative and if you feel you need to deviate from this on particular things. Use your sense to work to what is appropriate for your particular project.

Don't make this too difficult, we don't require to much detail. The idea is to show you have gathered information, clarified the brief and got your design to a stage where it can be a useful working proposal. In your presentation we would like you to reflect on how the design process went.

Process skills:

- As a group, agree strategy for doing the design project and prioritise tasks
- Decide on how to allocate tasks (are you going to work together as a group on all of it or are you are going to allocate tasks to individuals or pairs.)
- Take regular breaks from the tasks to review these and your progress.
- Seek help from tutors – use the tutors as your own private consultants!

Scope of work

A separate page shows the check-list for your report-back.

Please remember that we are looking for an outline of a working design, and we are not expecting it to be ready for full implementation. It is worth stating some of the things that what we are **not** looking for:

- Detailed planting plans
- Detailed species lists
- Detailed descriptions of alternative technologies
- Exact costings
- Finely crafted drawings
- Fancy computer-based presentations
- etc.

We **are** looking for evidence that you have read this brief and that you look for creative ways to get you information across **with the least effort for maximum effect** !

Presenting your Design - Check-list

Presentation and Supporting Folio

The presentation of your design should be appropriate to the needs of the client and to your own well-being as a designer. It is a design exercise in itself. Remember that around 80 per cent of the result can be achieved in around 20 per cent of the time it would take to get a "perfect" result. Use the principle of "least effort for greatest effect".

Consider including the following:

- **Description of the Project and Site: I**nclude photos/maps if you can to illustrate. Note
- the location information about the site (see appendix)

- **Summary of the brief from the client.**

- **Show information gathered at Observation stage, for example:**
  - Client interview
  - Base-map – with date, scale and orientation.
  - Survey/Resource inventory – water, vegetation, physical and financial resources.
  - Observations of the site. - your own and client/others' observations.
  - Client needs e.g. "wish lists", PASTE sheet (Plants-Animals-Structures -Events)

- **Show your work at the Analysis stage:**
  -Include Sector Analysis and any other appropriate analysis work.
  -Tabulate yields required, risks to achieving those yields. From here, describe how the new system will function.
  -Select the elements that will carry out those functions.

- **Provide a concept design (see Appendix).** Show how the different elements can be arranged into a productive system. (Just use outlines of your ideas at this stage.) Can you see the general patterns of interaction there? Explain the reasons behind choosing the different elements of the design. Show how you've used relative placement when positioning the elements.

- **Show any "working" designs** – either your 'finished' design or design options that you have worked up (acknowledging that your report is a working document to be taken back to the client and reviewed periodically.)

If your team is big enough, and if time allows:

- **Show some examples** where work was done in a bit more detail.

- **Outline Implementation** - Identify phases of implementation. Show in an outline plan. Produce a more detailed implementation schedule for the first year and include costings (rough estimates are sufficient).

Finally:
Make references to Permaculture Design terms that are demonstrated by your design and your work. Do this throughout your presentation (see Appendix "Permaculture design – how to do it")

Comment briefly on **how your design upholds the ethics of permaculture**.

Permaculture Design Guide

How to approach it

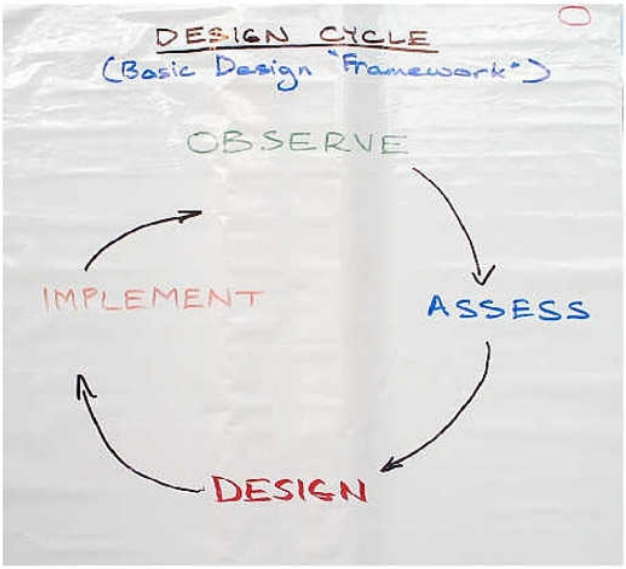
Information for Permaculture Design students starting their design project

Permaculture design has its own language. We have introduced this throughout the course. If any of the points here are not clear, your tutors will be happy to explain them to you and give some examples of their application.

You can also use the following as a check-list for things to put in your final presentation.

Design cycle

How to go about the whole project in distinct stages: Observe, Reflect, Design, Do



Some memory-prodders may be useful, for example:

S.A.D.I.E [survey, analyse, design, implement, evaluate]
or B.R.E.D.I.M [boundaries, resources, evaluation, design, implement, maintain]

Design methods

A variety of approaches and methods are available to apply within the overall cycle:

- **observation** – direct observation of site or situation, and expanding on it

- **observation** – adopt the lessons learned from nature, transfer them to your own situation

- **analysis** - list the characteristics of your elements/components (like we did with the chicken)

- **analysis** using overall patterns (such as zone and sector analysis)

- **analysis** by flow diagrams – for access and movement, such as workplace layout and work flow design

- **options and decisions** – map the different options and decisions to show possible pathways to the desired result, compare the probabilities of success for the different pathways

- **data overlay** – map various features individually, then overlay them to gain the overall picture.

- **random assembly** – identify elements/components required and put them together randomly, stimulating unexpected solutions

- **incremental design** – continuous improvement by adjustment over time

- **design by limiting factors** – identify the constraints and let these define a creative solution
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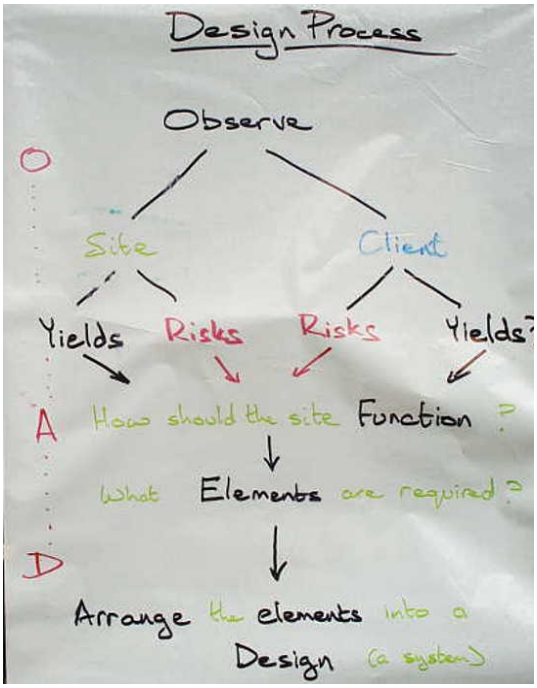
Design Process

Much of permaculture design is about **placement** and **connection** of the elements in the systems that you are designing. We use ecosystems as a model for our own designs. Here is a simple flow chart to help you achieve this.



- **observation –** “protracted and thoughtful observation rather than protracted and thoughtless action “
- decide what **yields** are required from the **system** you are designing.
- **evaluate the risks** that may impact on the new system.

- list the **functions** that are required to meet those yields and protect against the risk(i.e. say what the system will do)
- list the **elements (** the components, the things) that will provide those functions.

Decide how those elements will be arranged.

- consider each element in terms of its **inputs** and **outputs** (needs and products)
- place elements to **maximise the beneficial relationships** between them
- place elements to **minimise the expenditure of energy** within the system

Design Directives

Are general principles that give you directions towards success with your designs.

In carrying out this work, you should keep the following directives in mind, and reflect on how you have used them:

- Use the principles of relative location – get things in the best possible place

- Make sure that:
  a single element carries out many functions
  a single function is served by many elements

The more important the function, the more we apply this. [robustness, 'redundancy'

- apply **patterns** observed in nature to a specific situation so that you increase the yield

"Nature" includes human activity that integrates with the rest of nature. As well as food forests, nutrient cycling and use of water in the landscape, consider also the layout of buildings, social spaces and human interaction
[pattern, relative placement, beneficial relationship, yield]

- show preference for **biological resources** and re-vegetation of the planet.

[energy cycling, "living within limits"]

- encourage **diversity** to stimulate poly-cultures and use niches in space and time

[beneficial relationship, robustness]

- use **stacking** in space and time to increase yields

[relative location, yield]

- **maximise edge** to increase opportunities for diversity and connections

[diversity, beneficial relationship, yield]

- show that you understand natural **succession** and evolution, and accelerate that where possible

[pattern, resilience]

- use **guilds** as patterns for increasing stability and mutual support

[pattern, beneficial relationship, resilience, yield]

- **cycle** nutrients and information as locally as possible within the system
  - use (nearly) all products and meet (nearly) all needs within the system itself
  - ensure that any outputs of the system become the inputs of another system

[relative location, energy cycling, "living within limits"]

Other Principles

The “design directives” are principles that you apply to give you direction with your design work. You can also observe and apply other, more general, principles.

Creativity principles

e.g. permaculture “attitude”

- The problem is the solution
- Minimum effort for maximum effect
- Yield is unlimited
- Work with nature
- Everything gardens

“Story-teller” principles

See Holmgren and others

Ethics

Be guided by our ethics.
Earth care, leading to the “three legged stool” with people care and “living within limits”.
The “universal compass”, the “guiding star”
(Always be aware of the bigger picture).

Design Guide Appendix

Appendix – Concept Design

Concept Design Stage:

Having identified the major elements of the design, sketch 'bubble areas' onto a blank base-map or plan (make a copy or an overlay) to show how the major elements could be placed and how they relate to each other. This should show the beginnings of a pattern for the site, without going into any detail.

If you have any elements that don't show on a map or plan (e.g. strategic or off-site elements such as legal structures or transportation) produce your own 'bubble' diagrams to illustrate your thinking on these. Use these diagrams to represent concepts, ideas and 'invisible structures' (e.g. organisations, finance, social structures)

Appendix – site location information

This helps to share designs across regions and climate zones.

Global position:

Latitude and longitude

Climate factors:

Elevation above sea level
Distance from the sea
Climate zone classification

Local factors:

Aspect
Slope