

ECOLOGICAL DESIGN: Planning Your Home Site



Stewardship Education Day, North Pender Island, BC

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What is design?



Design

To intend, as for a specific purpose; plan.

To form or conceive in the mind; invent.

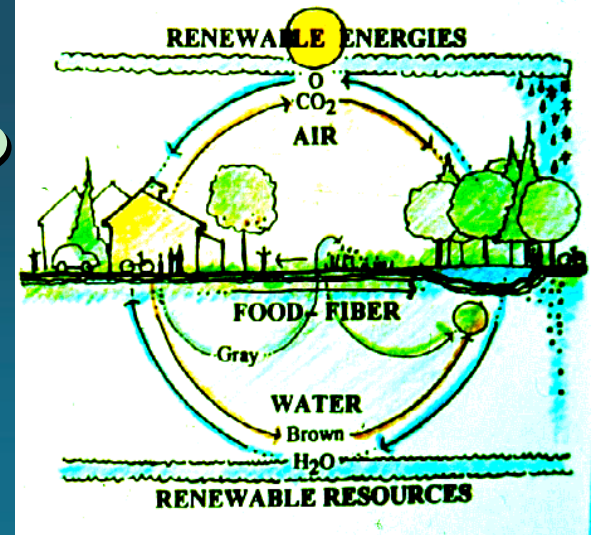
To plan & make artistically or skillfully.

What is sustainability?

Sustainability

Seeks to provide the best outcomes for the human & natural environments both now & into the indefinite future.

Sustainability is ultimately a measure of health



Sustainable design

Two approaches...

1. Technological

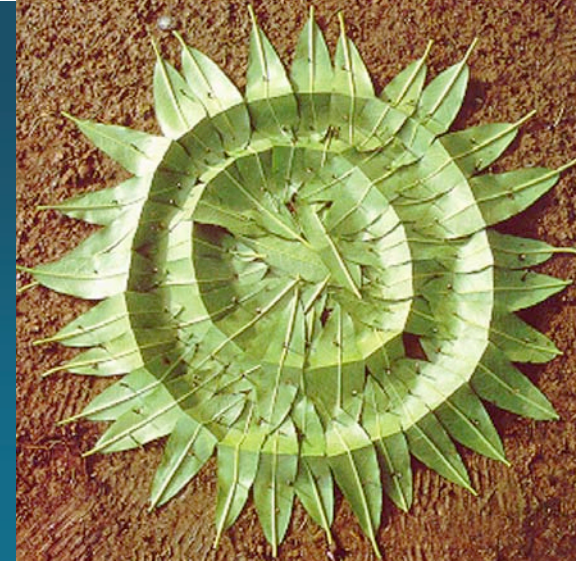
Every problem has either a technological answer or a market solution.

Central Thesis	<i>SUBSTITUTION</i>
Inspired by...	<i>HUMAN INGENUITY</i>

2. Ecological

Limiting growth & finding alternatives to the practices that got us into trouble in the first place.

Central Thesis	<i>CONSTRAINTS</i>
Inspired by...	<i>NATURE</i>



What is ecological design?



Ecological design

Is any form of design that maximizes environmental health through the effective adaptation to & integration with nature's processes.

Ultimately...

Ecological design

- Considers your needs in relation to the attributes of the property, local environment, neighbours & neighbourhood.
- Asks not, “What can be done here?” rather, “What is appropriate?”
- Emphasizes the use of local knowledge, practices & materials.
- Takes the required time.



Three scenarios

1. Looking for land.

What should we look for? - SELECTION MODE

2. Bought land but haven't yet built.

How should we proceed? - CONSIDERATION MODE

3. Bought & built.

What do we do now?

- MITIGATION/ADAPTATION MODE

An ecological design approach can help in all of these situations



Simplified design process

1. Select
2. Program
3. Collect
4. Analyze
5. Design
6. Build
7. *Evaluate*
8. *Modify*



1. Select



- Establish site location
- If possible establish the context, size & basic features

This step can be made more difficult if you have more than one site to choose from

2. Program

- Establish what is going to happen on the site
- Ask probing questions
 - What can be done here?
 - What do you want to do?
 - Why? Over what time period?
 - What kind of resources are available?
- Identify any major challenges
- Determine design approach

Take time

Look for examples or precedents



3. Collect

- Develop a good understanding of the site through passive & active observation

Collect biophysical & cultural information (water, soil, vegetation, wildlife, historical)

Survey site & develop a comprehensive site map

Develop a site inventory

Observe site & site processes over an extend period of time

Observe patterns & direction of activity, sunlight, wind direction, water flows, smells, noises & views

Observe & record

This is an iterative & incremental process

The more time taken, the better



4. Analyze

- Analyze collected site information

Simple - Sector & zone analyses, concept mapping

Complex - GIS, computer modeling

- Combine qualitative & quantitative information
- A good site analysis generates design ideas that can enrich the overall design response
- Analysis can influence / determine the program

The challenge during this phase is to assess both quantitative & qualitative site information



5. Design



- Articulate possible design solutions
- Design detail dependent on ability / comfort, time available & size of site
- Should address & expand on the program

Don't skimp - if necessary hire a professional

It's cheaper & easier to figure it out on paper first

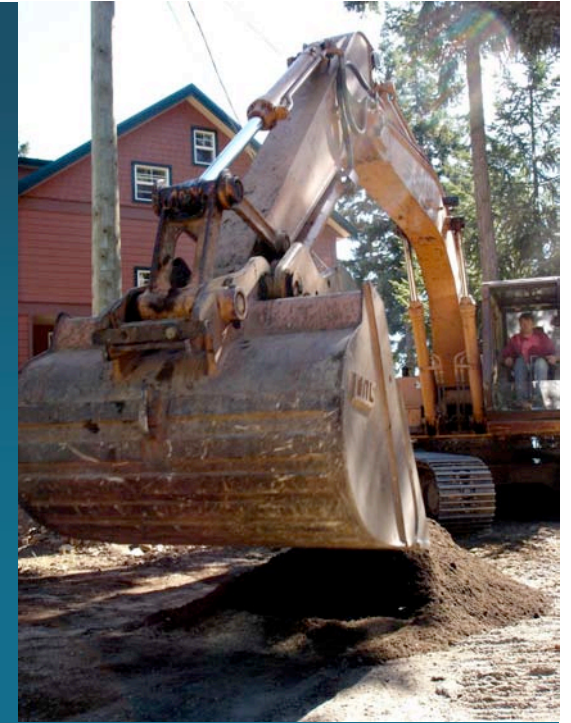
Allows you to explore more than one option

6. Build

- Use local expertise & materials - requires research
- Establish site protocols
- Clearly identify “development areas”
- Be present

Don't skimp - hire reputable professionals

Take your time



Key aspects of an ecological design process

- Considerate
- Ethical
- Takes time
- Embraces constraints
- Makes connections
- Mind over might

Most critical of all...

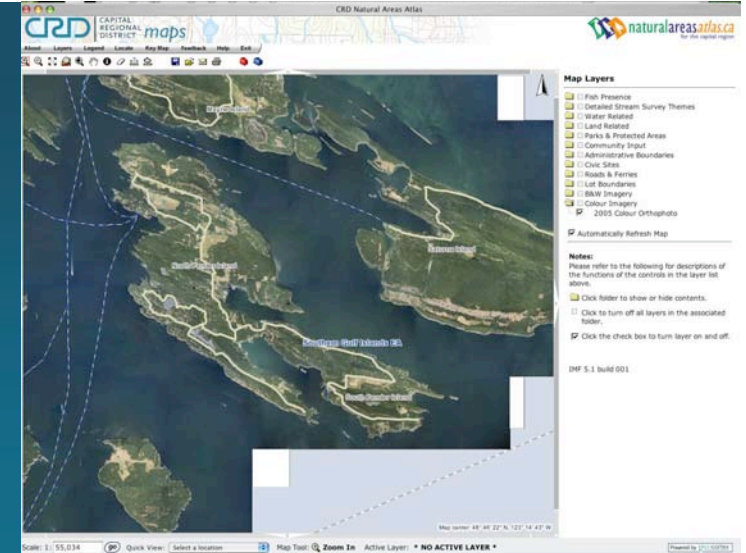
its ecological foundation

Benefits

- Results in better designs
- Saves money
- Adds value
- Adds interest
- Increases your understanding & therefore enjoyment of your property
- Educational
- It's the right thing to do



Sources of info



- Environmental Best Management Practices for Urban and Rural Land Development in BC
wlapwww.gov.bc.ca/wld/documents/bmp/urban_ebmp/urban_ebmp.html
- CRD Natural Areas Atlas
www.crd.bc.ca/es/natatlas/atlas.htm
- Naturescape BC www.hctf.ca/nature.htm
- Permaculture (ethics and design principles)
www.holmgren.com.au/htmlPublications/Principles.html