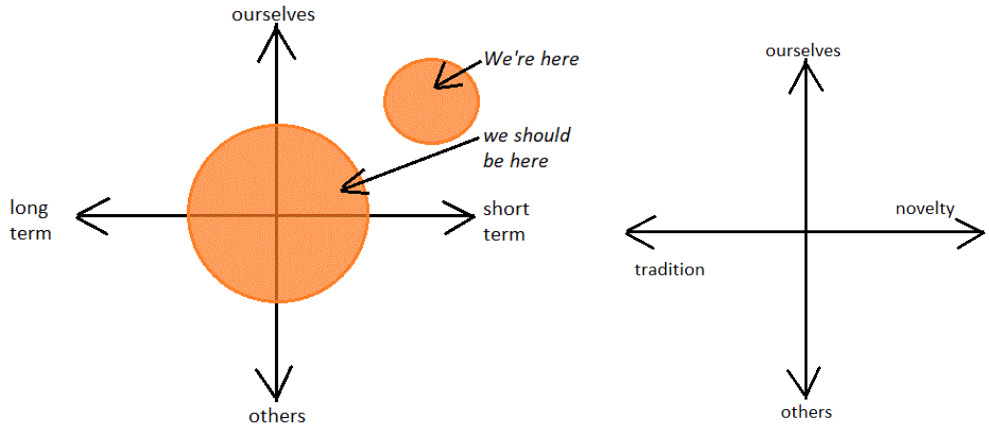
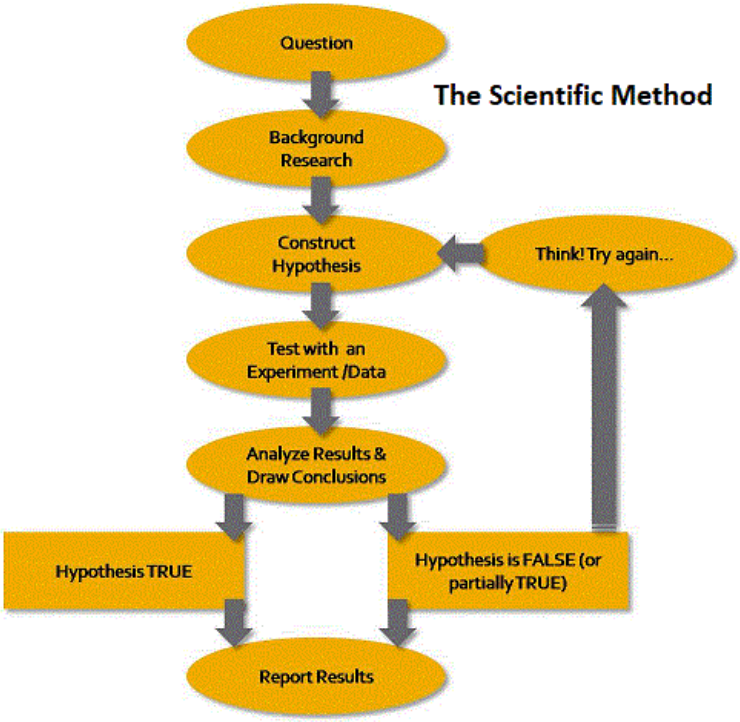
Permaculture in Chester, Week 9: with Steve

Use small and slow solutions
20,000 top scientists are urging action on climate change.
Small action: tell 2 people, and enable them to act.
Over 5 years ago, Chris Hedges, a US man, former foreign correspondent for the New York Times and ex church minister spoke supporting his book, “Empire of Illusion” (5 mins)
His website is www.nationinstitute.org, supporting the free press.
We need an economic system based on reality.
His magazine is Truth Dig.
He visits prisons, where he sees lots of human resource wasted.
We’re not prepared, emotionally or intellectually, for the changes needed.
It doesn’t matter how big our action is, as long as it can grow and replicate.

A TED talk by Tim Jackson introduces a four-part matrix (20 mins):

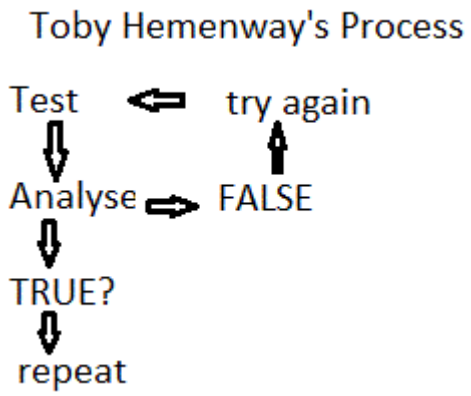


Design Processes:
Scientific process
Toby Hemenway’s process
Koberg’s and Bagnall’s process
New Age process.

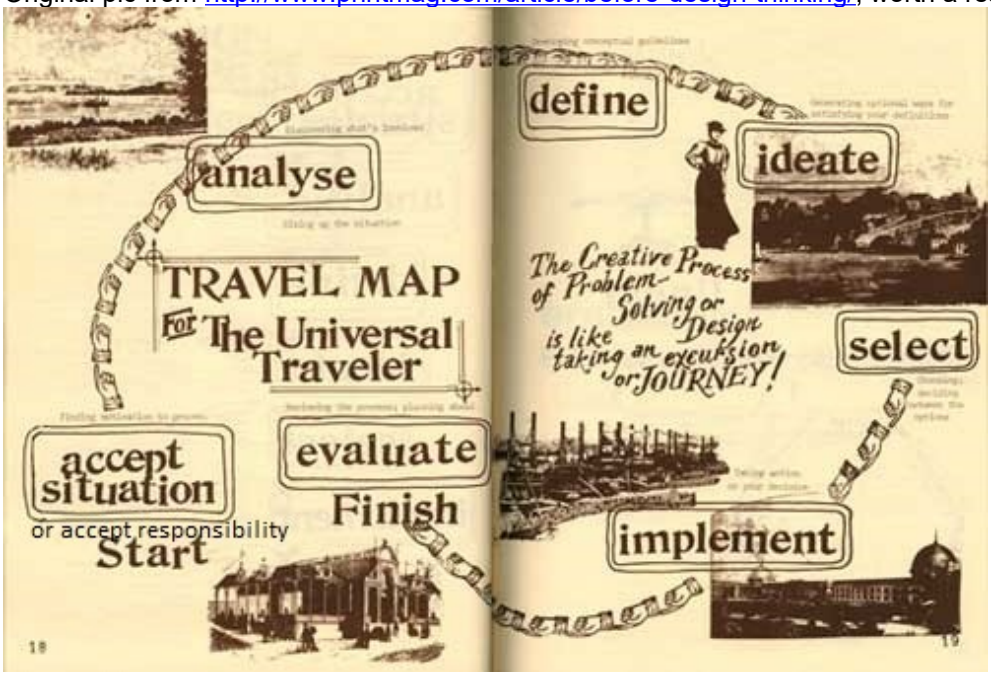


Do we want to warp the theory to fit the hypothesis? No.

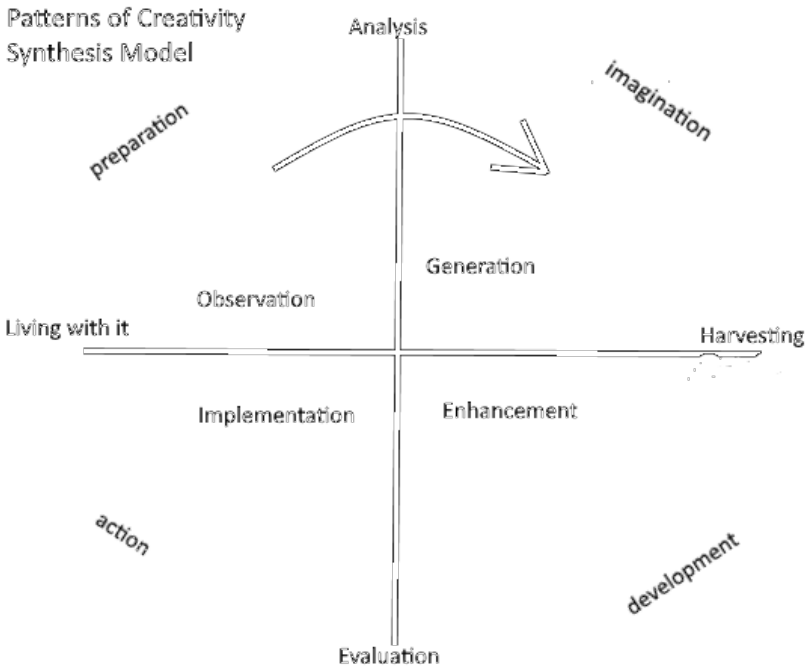
Toby Hemenway's process, from Gaia's Garden, 2nd edition,
Or how permaculture can save the world but not civilisation



Koberg and Bagnall:
Original pic from http://www.printmag.com/article/before-design-thinking/, worth a read.



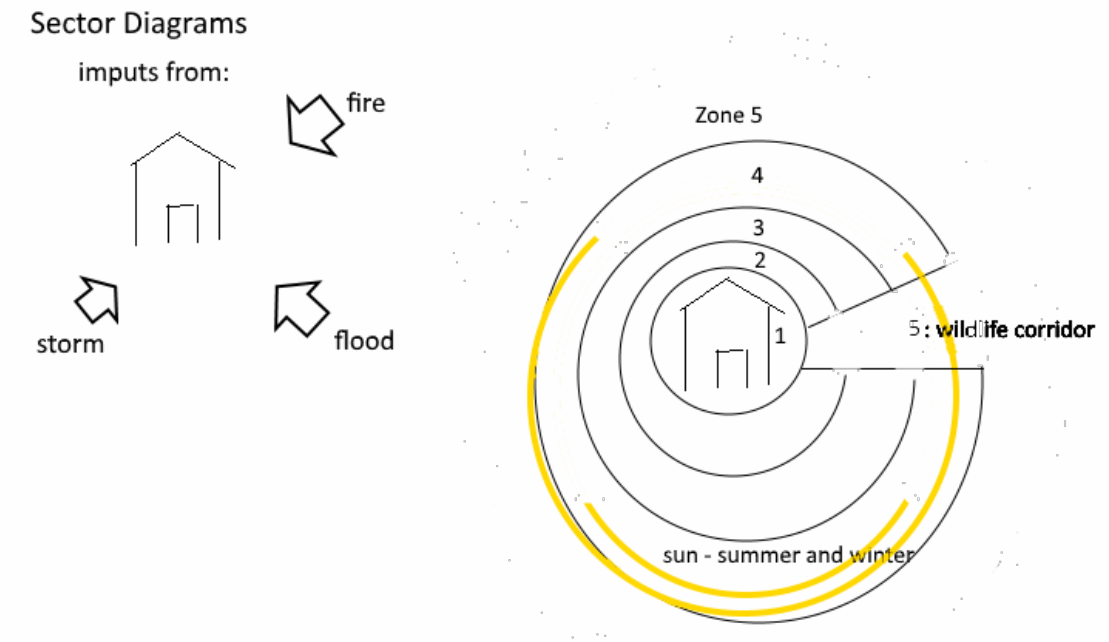
New Age Process???



Design from patterns to details
Site analysis factors – wild energies – can include:

Sun or shade	Wind	Great view
Slope	Noise	Grot view
Water	Light	Wildlife
Sea	Neighbourhood (kids)	Fire

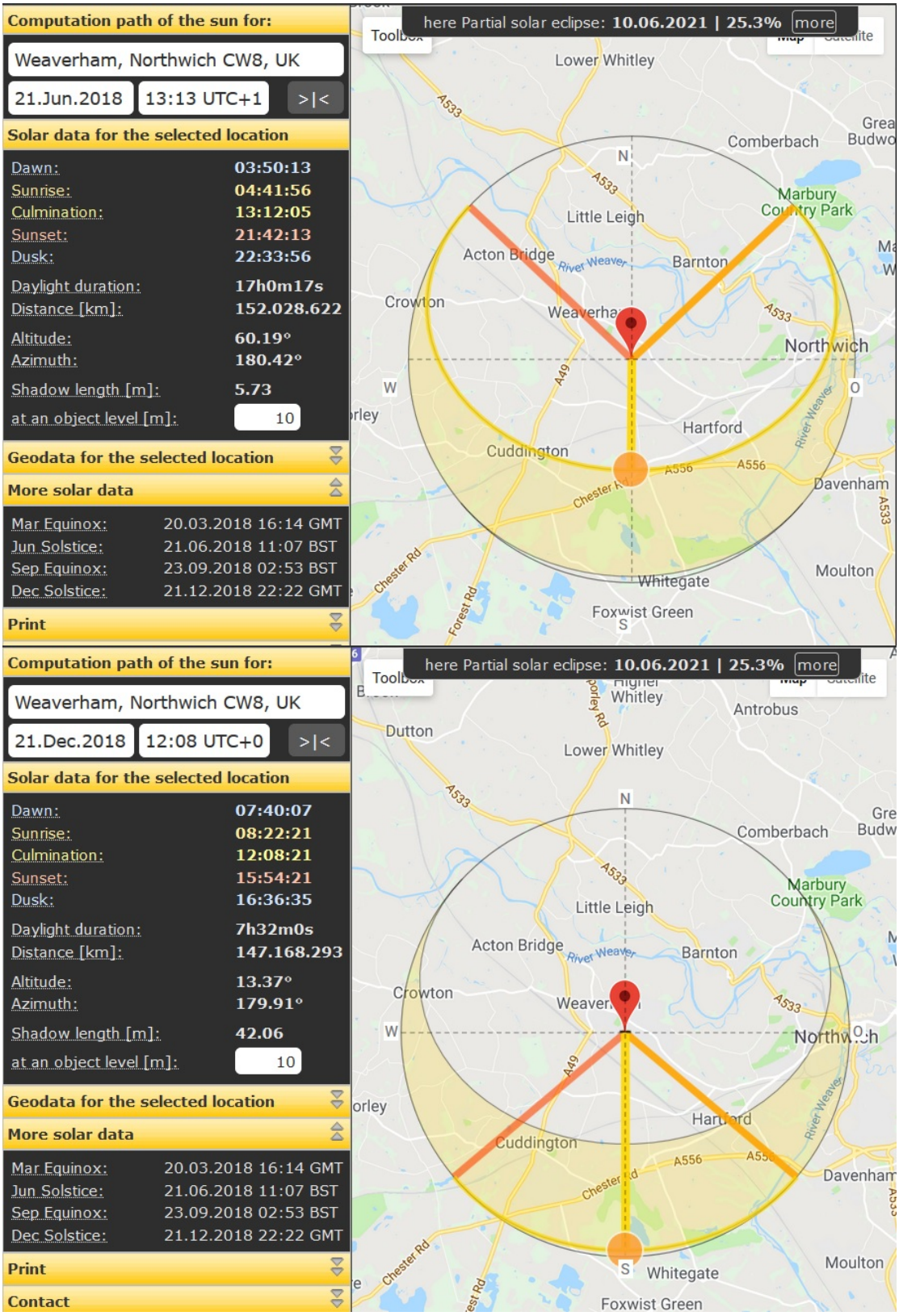
https://www.youtube.com/watch?v=1UiW3-IMfME



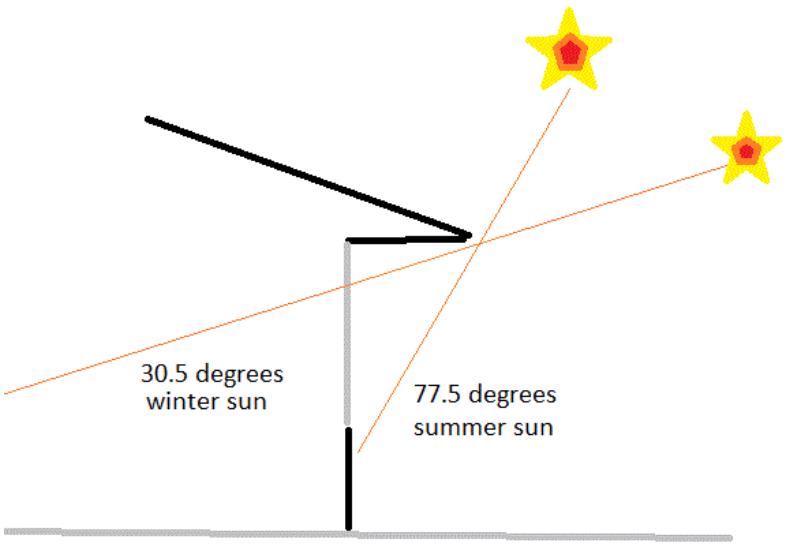
In one example, the tenant found that deer were taking their usual path (and the one he used) and meeting his veg patch, then eating. A bit of re-routing of the pathways such that they avoided his crops and he was happy. They avoid dark places.

Design Priorities
Water. Slope. Paths. Strategic placement of key elements, eg buildings.
Water – get enough, store, shed surplus.

To find sun data for your location, see www.suncalc.org:

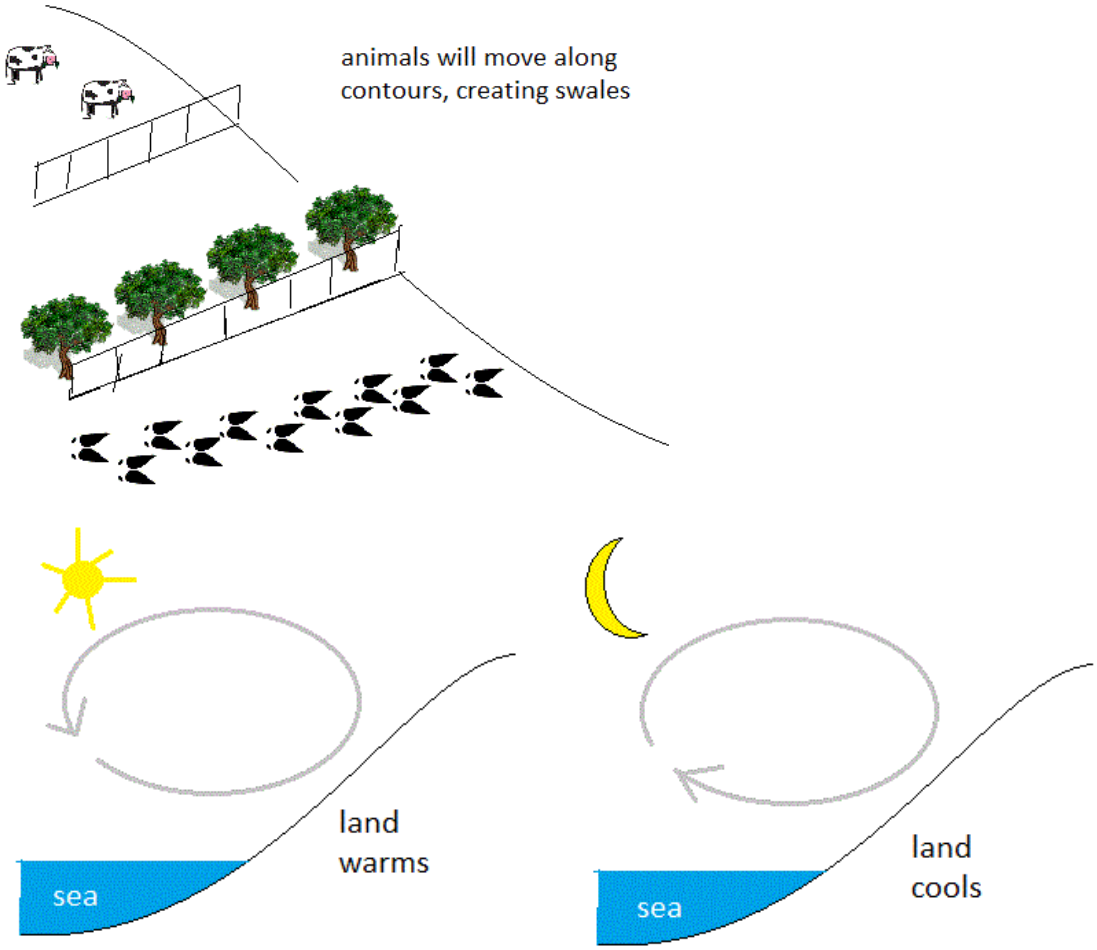


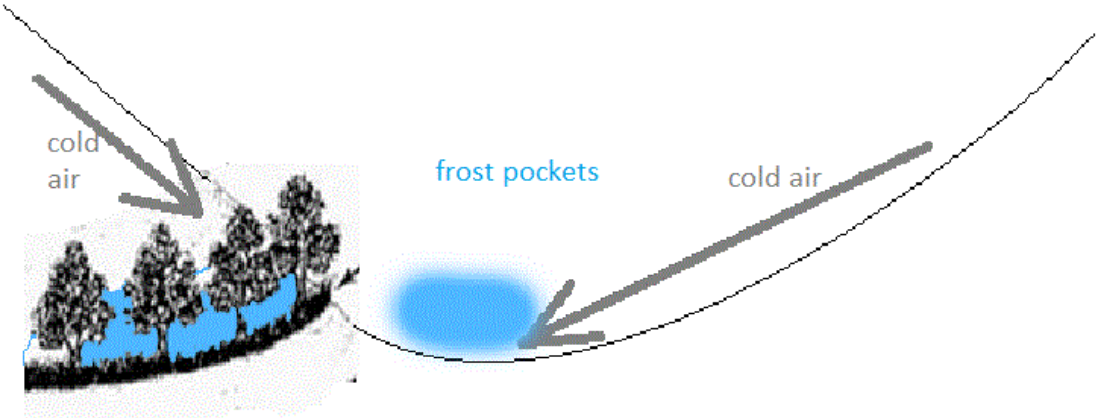
Use suncalc to design buildings and plantings; estimate the range of a shadow from buildings, trees or mountains:



Why do UK builders build so daft? Large south facing windows, lots of thermal mass and insulation, can cut energy bills by 30%
Most of the cost of solar thermal is installation, so install as being built.

Barrister Polly Higgins advocates for a law against Ecocide.
See https://en.wikipedia.org/wiki/Ecocide (ecocide's got quite a history)
And http://pollyhiggins.com/, which leads to http://eradicatingecocide.com/ and other sites.





Just a bit of fence or hedge can redirect the flow of cold air, sheep netting will do.

Ian talking

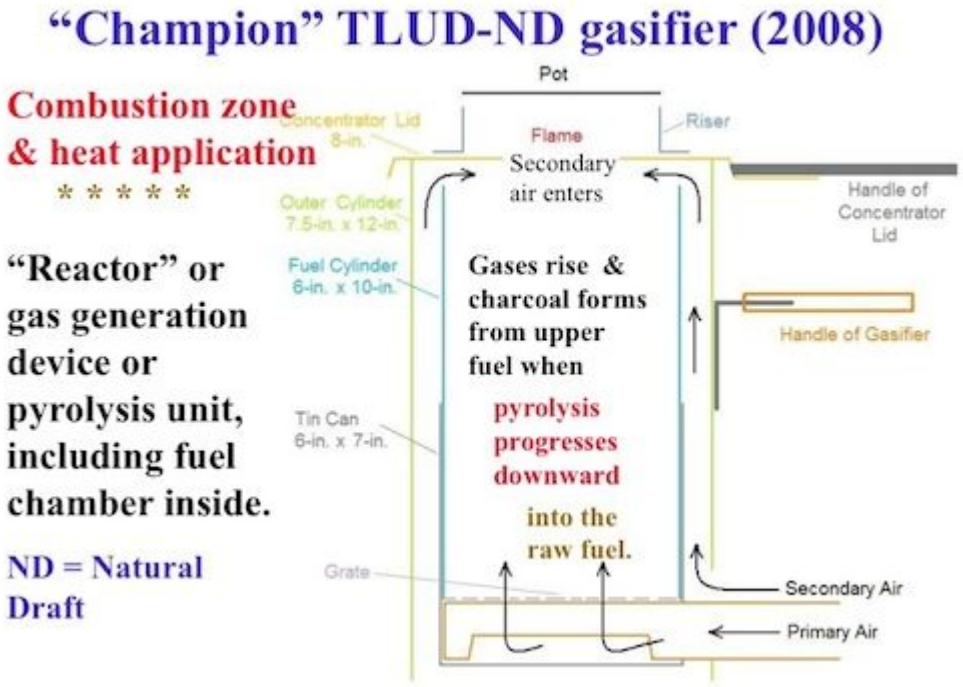
The Cathedral owns about a quarter of the city centre. The previous PC course did projects on two plots – the Retreat House (for peaceful contemplation, some produce) and the Falconry, an L-shaped piece for wildlife adjoining public land – so inviting questions.
On the L, a roundhouse was proposed, as a demonstration and shelter for falconers' spectators. It wasn't approved. The compost bins were enacted, as were the hugelkultur beds. There are restrictions on construction and digging, for archaeological reasons.
At the Retreat House, building work is proposed.
There's lots of inertia in the Cathedral.
James Cox's Light Project involves a lot of recycled items.
http://www.lightproject.org.uk/2016/09/garden-update-2/
https://www.facebook.com/TheLightProjectRevealingJesus/
Ian found and photographed lots of untended and unloved crevices in the close vicinity, many with potential.
Willows are a primary coloniser, an early source of pollen, and you can coppice them for baskets. Coppicing can be part of your Urban Tidying. Depending on variety, it can grow up to 6m in a year.

Colin Tudge, of Oxford Real Farming Conference, states of food:
35% is grown by intensive farming
50% is grown by traditional and small farmers
15% comes from fishing and wild sources.
The intensive farmers have all the flat land, water, etc. We can't expand on that 35%. But there are lots of options for the 50%.

Terra Preta, bio char.
In our temperate climes, humus breaks down slowly, so soil retains its carbon and fertility. In rainforests things break down rapidly and are soon in growing matter again.
But there was agriculture in the Amazon. The original conquistadors, travelling down the Rio Negro, found verdant green and millions of natives growing food, who were soon stricken with Eurasian diseases. They were using biochar, seemingly produced in ceramic pots, and blackening the soil to many metres deep. Biochar degrades slowly, that found in the Amazon was 500-1500 years old.
Traditional African cooking involves 3 stones, twigs and a pot. The fire heated to 400C with lots of smoke, very inefficient. Pyrolising means you get gas off, which you can burn much hotter.

https://www.slideshare.net/leetoulouse1/walter-emrich-auth-handbook-of-charcoal-making-the-traditional-and-industrial-methods-1985

A retort kiln is preferred, as some of the heat is recycled into the process.
DIY version at http://www.instructables.com/id/Durable-Biochar-Producing-TLUD-Camp-Stove/



Picture from https://www.slideshare.net/bitmaxim/tlud-and-tcharbon-stoves-for-sustainable-haitian-development
A wood pyrolysis stove can burn for 40 minutes on one fuelling.
Char provides no nutrients, but enhances microbe numbers with its vast surface area.
It's also effective for digestive issues. Fed to ruminants, it can reduce methane emissions, ending up deposited in the droppings, handy for incorporation into the soil.
The above is not a rocket stove, which burns both gas and char.
You can make char in a pit.

Steve follows Albert Bates. In building, clay, lime and hemp are permeable. If you include char, it will remove toxins. https://www.facebook.com/peaksurfer
Who manages https://www.facebook.com/BiocharIntl/ International Biochar Initiative.
A charity, http://www.biochar-international.org/
The source of picture: