

Week 2

Intros:

Steve's done a presentation on coops in Bristol last Thursday

Hil: PC could change her approach to landscape design

Chris watched Bill Mollison

Simon suggested we bring our own tea mugs rather than use disposable – Ian replied they're actually sturdy ones that are washed and returned

Liz is more PC minded

Debra has been given a PC purpose

Alison watched the course videos, is now depressed. She's avoided watching/listening to the news for the past 30 years, now coming to real life.

Helen: PC is more than gardening. Read One Straw Revolution.

Kate: not sure what PC is. Read Monty Don, great that better gardeners coming on. Saw an interesting BBC mag, proposes the planet isn't in such a bad way?

Jackie: in with Transition Nutrition. Born out of the anti-fracking movement, some went to energy etc, lots went to food. They're trying to link to PC in Africa, to make it more real.

Christine: RHS Flower Show is a big event with a massive environmental impact. Neither PC nor organics covered in RHS courses.

Hannah: more forests, less food.

Joanna: listening to Radio 4, alternative lifestyles coming up more

Kate: trying to apply PC to other aspects of my life, and to marginal land for conservation management. Small garden, maybe only a yard.

Cynthia: interested in landscape scale projects

The fiancée: Merseyforest is using PC, they're looking at agroforestry in Cheshire and Lancashire

Ben..

Observe –

What's the heart of the problem? Watch "The Overview Effect"

Catch and Store Energy, make hay while the sun shines

Mutually beneficial relationships are symbiosis

Succession: nature is unstoppable, it doesn't allow bare soil.

Everything gardens – it modifies its environment to suit itself

Charles Darwin said evolution means survival of those most able to adapt. Specialism, not competition

Meet your own needs – create a surplus, however small

They reckon the avocado co-evolved with the giant sloth.

Plants are communities – there's always interactions. Life creates the environment for more life. See Mike Guerra's stacking garden in Surbiton

The only limit to the number of uses for a resource is your own imagination

Key Principle: Relative Location. Everything relates to everything else.

Cader Idris was forested: peat cores reveal tree pollen. Sheep eat seedlings under trees, so there's no understorey, and no succession, ultimately no trees. One sheep can stop succession on 2 ha. They eat herbs then grass. That leaves bracken and gorse – both classed as weeds and burnt.

Catch and Store – **Water!**

EU incentives: if your land is more than 10% trees, you lose your single farm payment.

Nature builds diversity, humans fight it

Natural systems are made from local and natural resources.

Edge Effect – interesting things happen here. A mangrove has so many edges, different surfaces, different salinities, air+water...

Catch and Store – **Detritus!**

Is too many people a problem? In the right direction, they're an asset

A no dig bed at a school: strawbale topped with compost/FYM – worms do the work.

[River of Life – how has your river flowed? Where's it going?]

You can build up soil forever, you can soon deplete it.

Soil: minerals – sand, silt, clay

Soil biota

Dead organic matter

Water, air, dissolved salts

All those minerals and organic matter creates lots of EDGE.

Aerobic organisms above the water table, anaerobic below. Air goes in and out with air pressure (and allegedly the Moon), similarly the water table.

Some carbon creeps down the soil profile, causing a net gain in natural systems like woodlands.

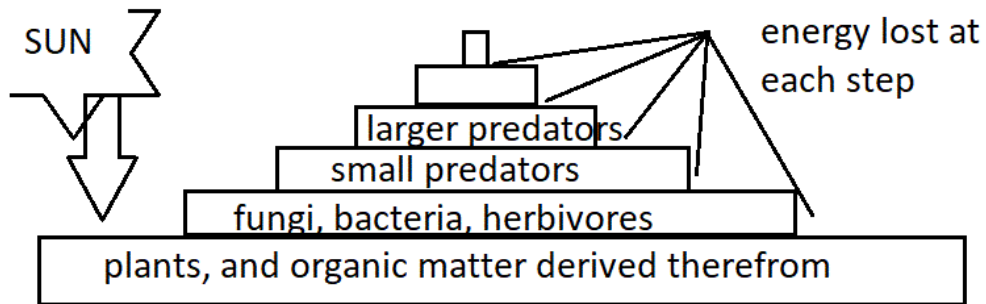
Fertility is measured in microbes! The lower layers of soil should be cool and dark.

Clay soil is heavy, slow draining, but holds nutrients. Sandy soil needs humus to hold nutrients.

Inspirational book: "The Living Soil", by Lady Eve Balfour, 1940. Caused the founding of the Soil Association.

Mycorrhiza increase the effective root surface area by 1000-ish.

Fungi link plants, mycelium conducts between plants.



There's 40 tonnes of life below the soil. I don't know where that figure comes from, soils differ in their carbon content. See 'Soil, the hidden part of the climate cycle'

https://ec.europa.eu/clima/sites/clima/files/docs/soil_and_climate_en.pdf

If you take out the top predator, the other trophic levels collapse. Wolves are needed to keep moose in check, whales are needed to bring up nutrients from the depths that keep small fish alive. The Japs are wrong to kill whales to protect their fish, doesn't work!

Soils have a large amount of air, 40% or more.