Food Forest Gardening

Olmec Sinclair

multi layered approach to creating edible landscapes that work in harmony with nature while producing a diverse range of outputs

What's wrong with 'normal' farming?

Biologically simple

Technologically complex

Achieves:

- ✓ Deep compaction
- ✓ Destroys soil life

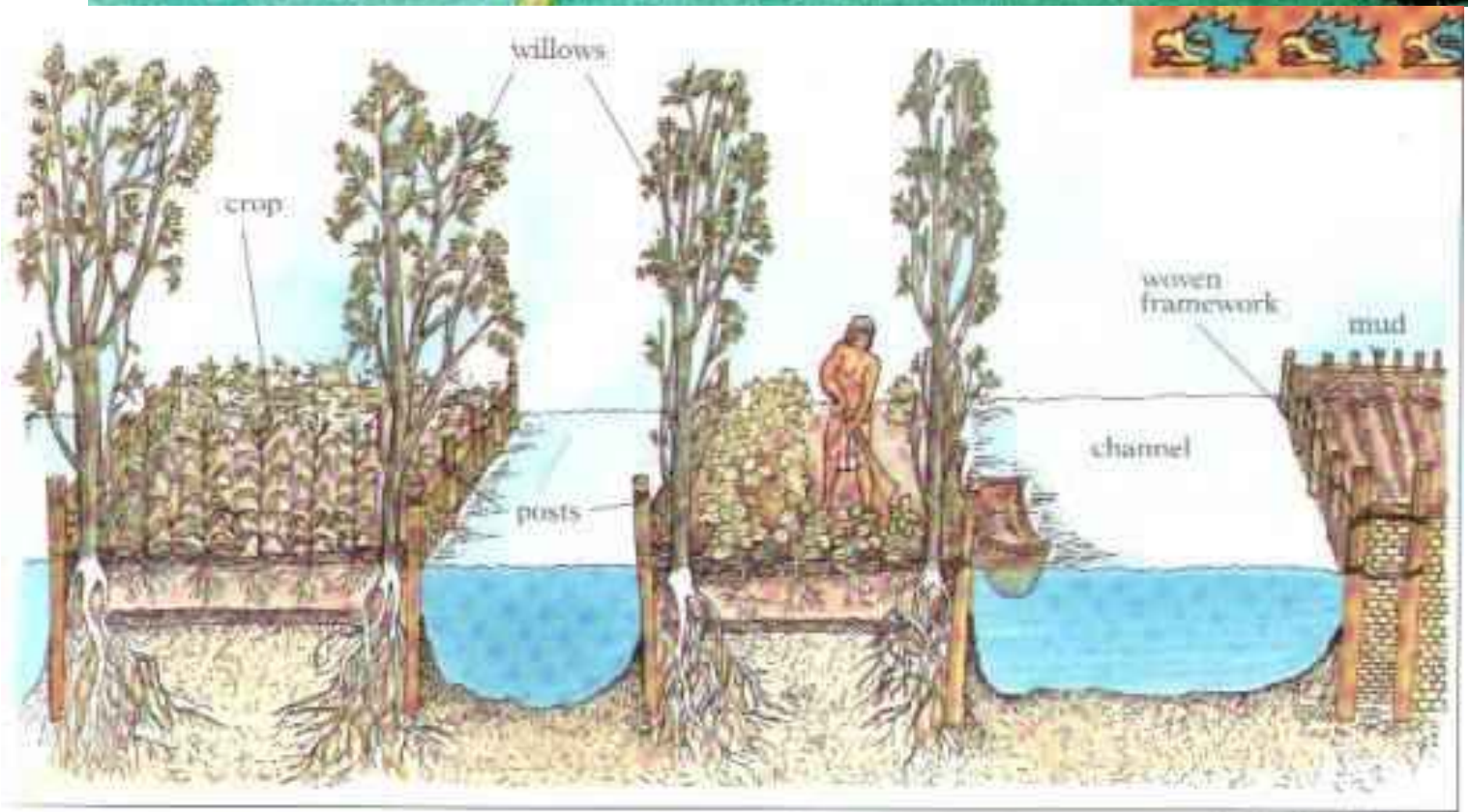

monotonous & ugly!

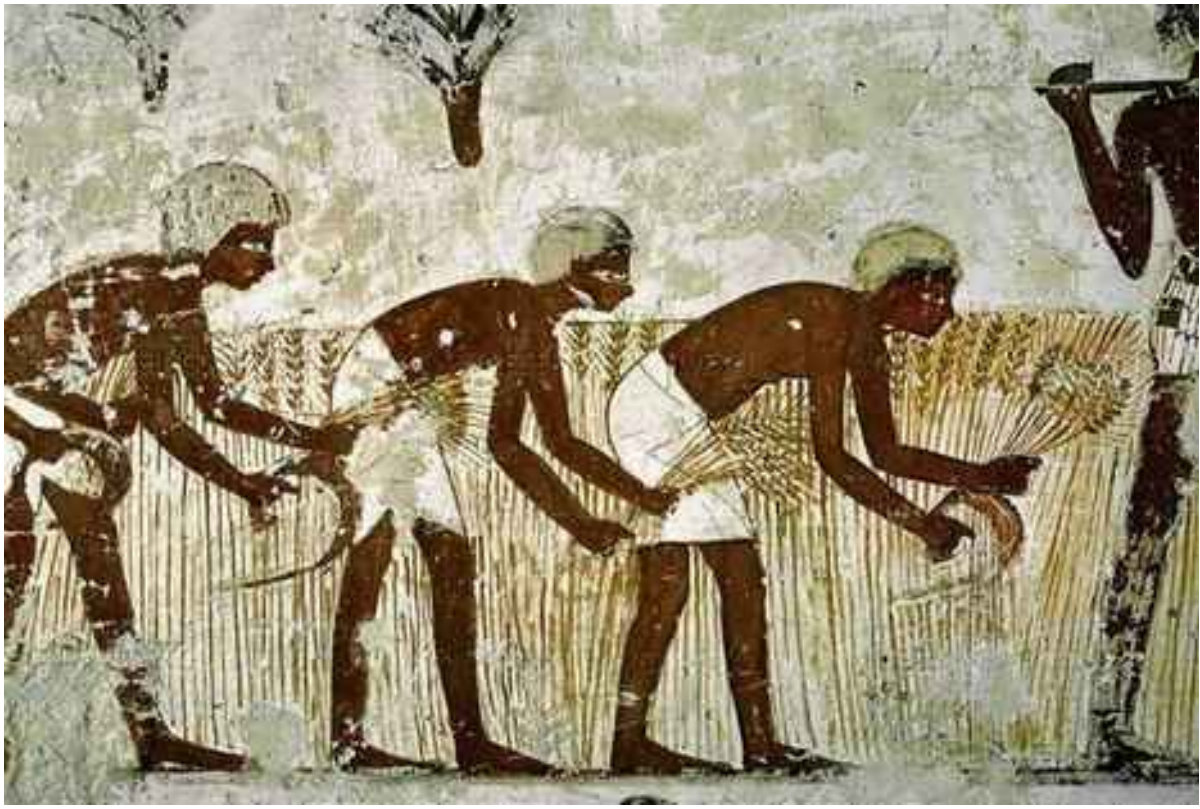
Feed the people?

Feed the cows!

Aztec 'city' on lake
Texcoco
Now Mexico City

Floatings gardens
(Chinampas)





Horticultural societies
Yanomami – Amazon rainforest
Aztec – Mexio city

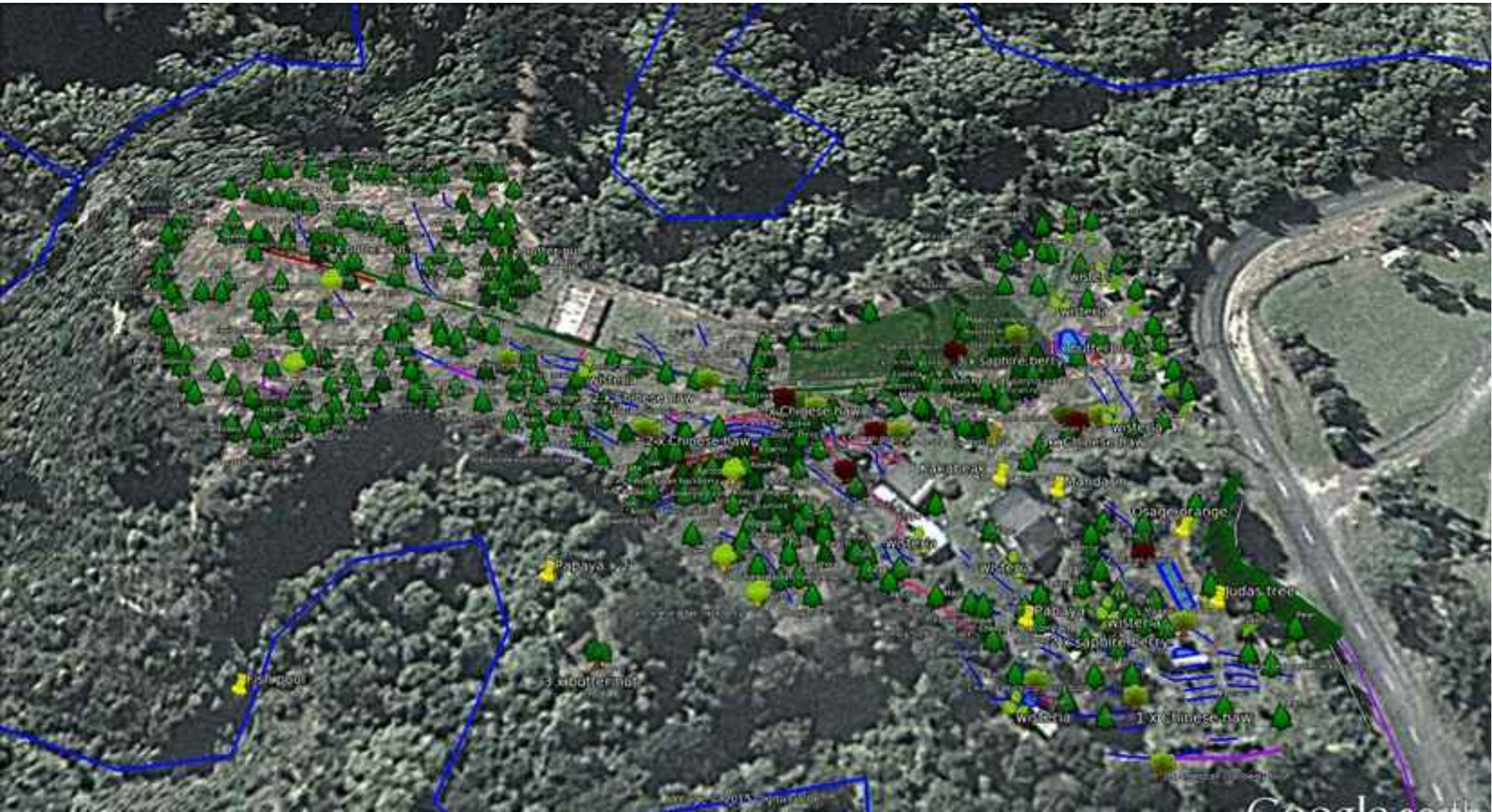
Hunt, gather, forest garden

Early agriculture
Originates in fertile crescent and spreads (both ideas and genes)

What is a food forest?

Blockhill food forest and gardens

- 1.5 hectares
- Planting started 2011



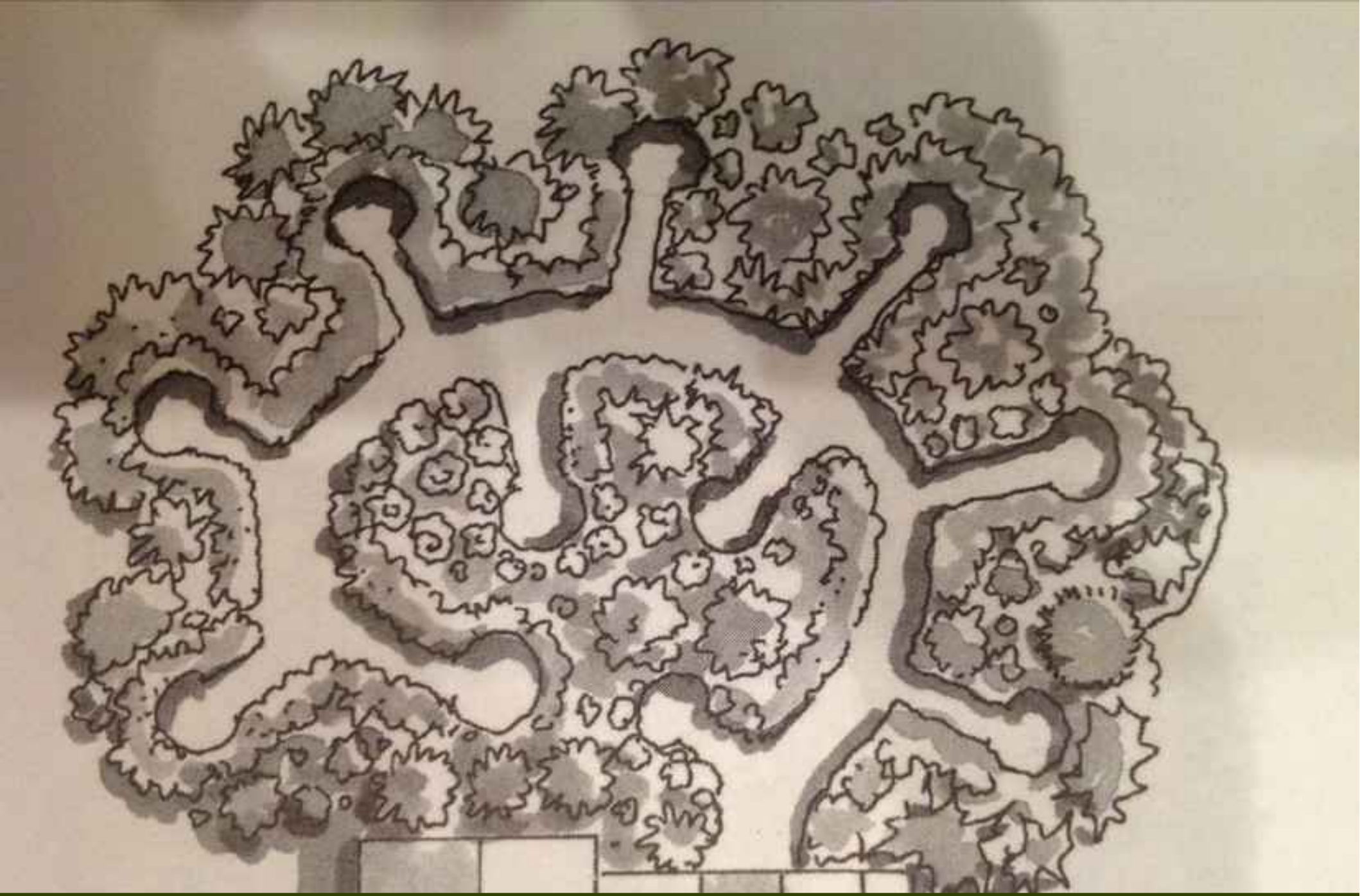
Forest Gardening

- A natural garden consisting primarily of annuals located on the sunny edges and clearings in the food forest
- Can include water harvesting features such as swales and wood mounds.
- Biological pest control and nutrient sources

Creating a food forest


Empty field
• More design freedom
• Fewer existing niches
November 2011


3 years later

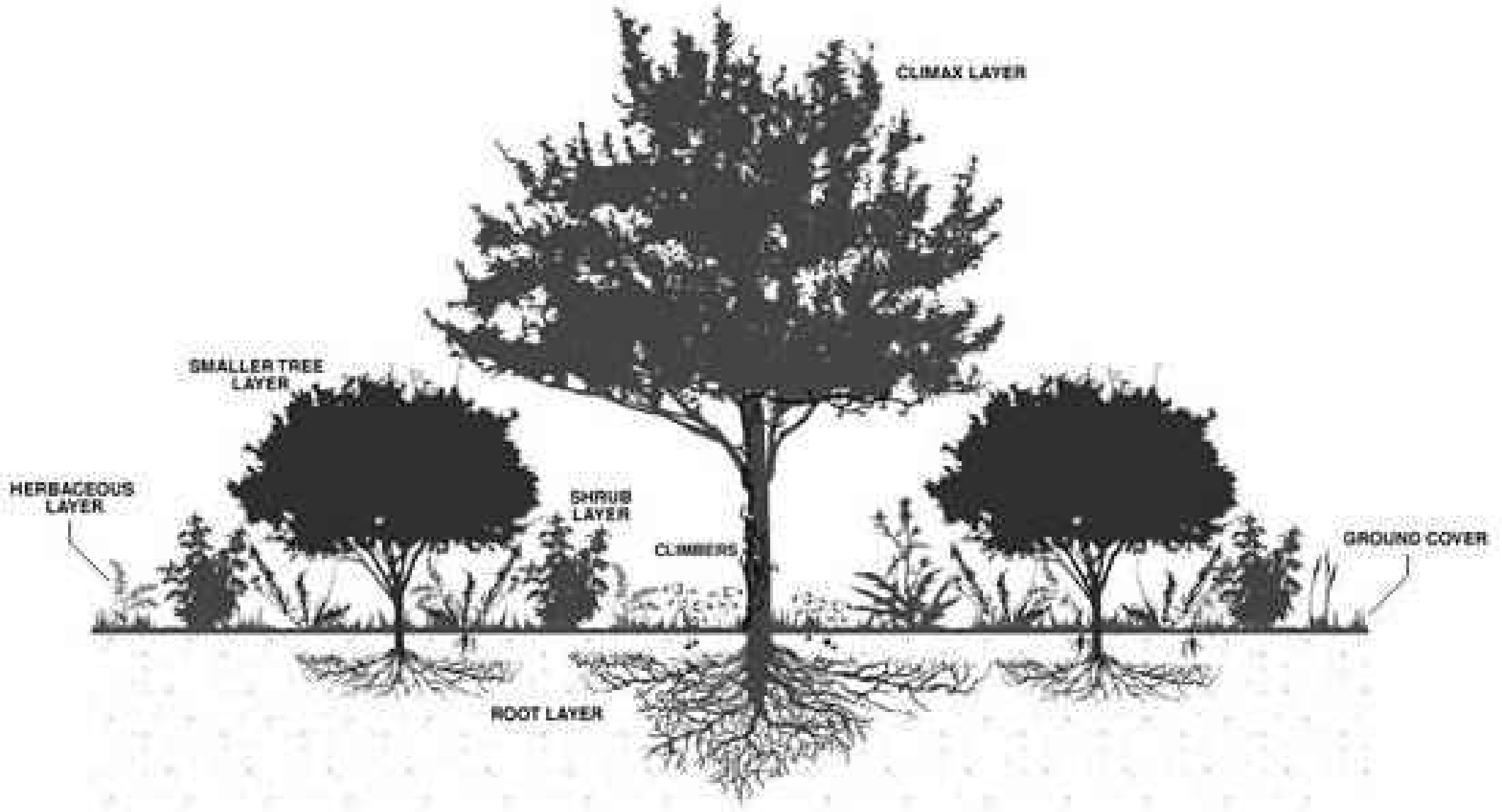


Maximise edge


Spiral contains
maximum edge


Exploit positive plant interactions

Layers / components



1. Birds - Pest control, nutrient delivery
2. Canopy / climax - large fruit and nut trees, shelter
3. Climbers
4. Low tree – some nuts, dwarf fruit, scaffold
5. Shrub – Berries, currants
6. Herbaceous – Herbs, salad, nutrient accumulators, nectar, insect habitat
7. Animals – Pest control, nutrient delivery and yield
8. Surface – Ground cover
9. Aquatic / wetland
10. Fungi
11. Underground – root vegetables, tubers, rhizomes, helpers (worms etc.)

Set realistic expectations


Tomato?

Perennials!

Plant it once

Fruit & nut trees
Berries, brambles, currants etc.
Asparagus
Rhubarb
Artichoke
Potato
Runner beans
Some brassica
Some garlic/onions/leeks

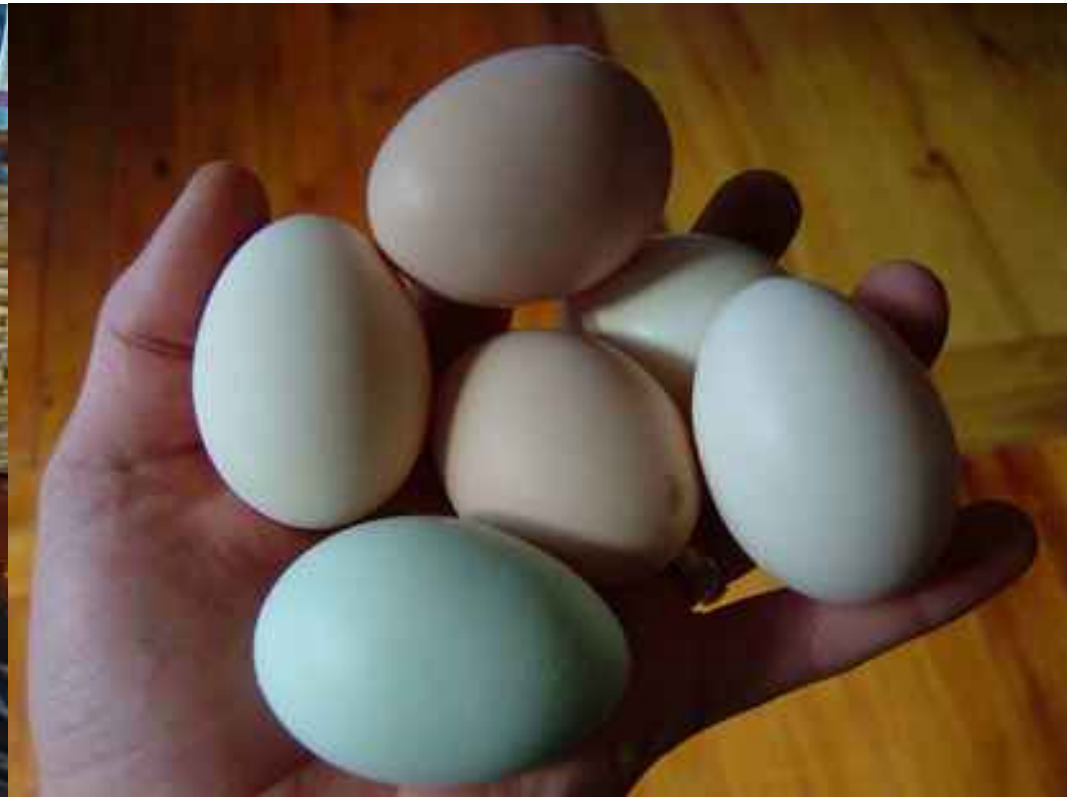
Self seeding annuals

Silver beet
Kale
Many salad greens
Carrot
Radish
Tomato
Beans and peas

Getting a return

Timing of various yields

1. Annual vegetables
2. Chickens for eggs and meat
3. Herbs
4. Berries and currants
5. Plant material (seeds, new plants, grafting wood)
6. Stone fruit (peach, apricot, plum)
7. Pip fruit (apple, pear, fig)
8. Firewood
9. Nuts
10. Timber




Food, Fibre, Medicine

Hugelkultur – Log filled swales

Exploit the third dimension
Hardy kiwi climbs Italian Alder

Grape in Tagasaste over citrus

Locate or create the niche

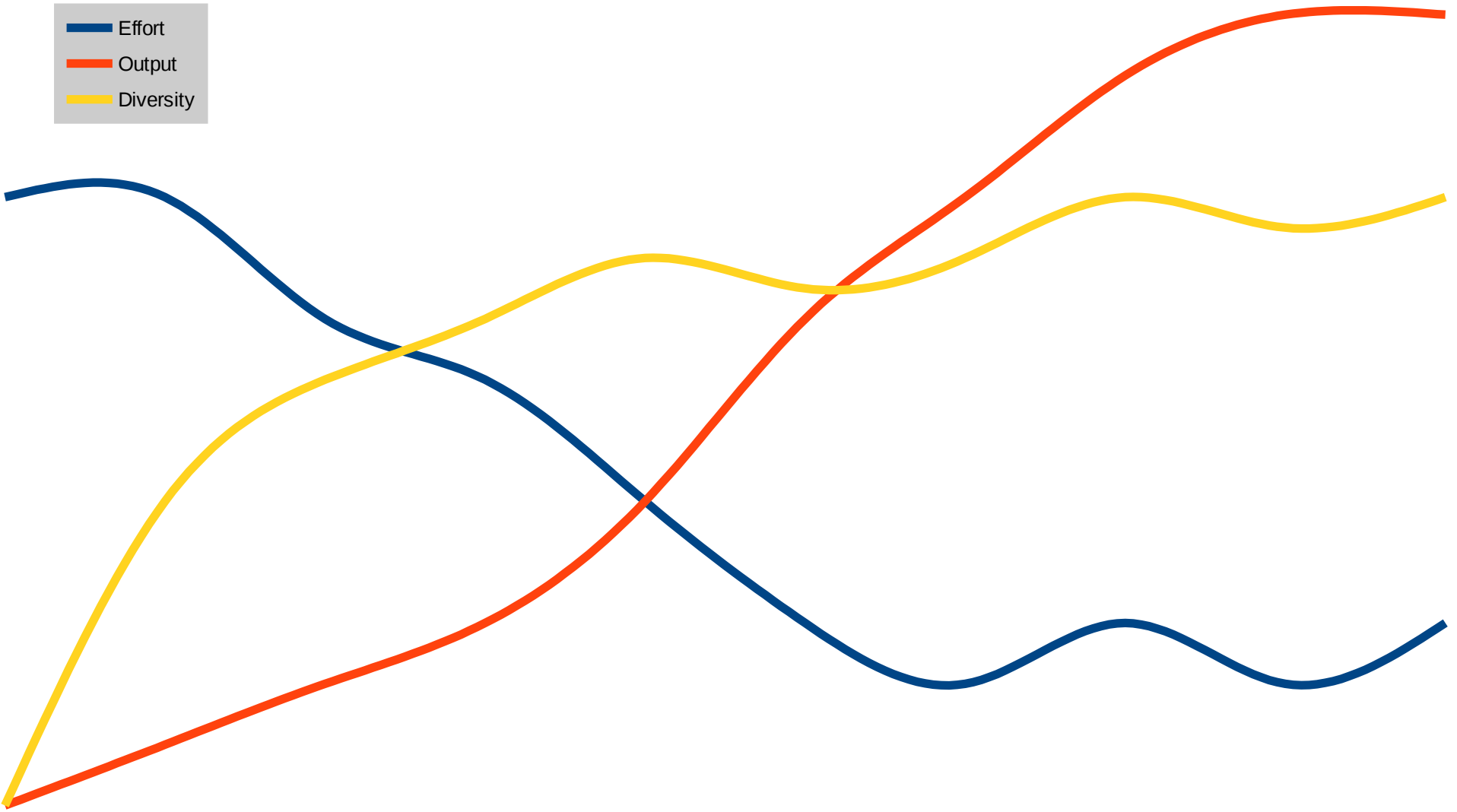
Avocado under evergreen canopy

Inside plastic house

Tagasaste canopy over young citrus

Kiwifruit on water tank

Changes over time



Passive irrigation swales

Passive irrigation swales


Fertility
(compost tea)

Chop & drop

Produce your own mulch with frequent trimming of fast growing leafy green trees and shrubs

Common nitrogen fixing plants

Small plants & shrubs

- Clover, vetch, lucerne
- Peas and beans
- Lupine
- Broom
- Licorice

Small trees

- Siberian pea tree
- Tagasaste (tree lucerne)
- Elaeagnus
- Sea buckthorn
- Judas tree

Larger trees

- Albizia (silk tree)
- Kowhai
- Alnus species (alders)
- Black locust
- Acacia species (wattles)

Climbers

- Sweet pea
- Wisteria

Animals

Ducks: food, fertility & pest control


Pigs add fertility

Chickens eat bugs, break pest cycles

Working with 'weeds'

Managing natural succession

- Disruption
  - Fire
  - Erosion / landslip
  - Overgrazing
  - Cultivation
- Pioneers and 'weeds'
  - Fast growing
  - Deep rooted
  - Soil builders, nutrient accumulators

Soil health and improvement

Grow mulch and biomass on site, keep soil covered

Use deep rooted plants to break open clay, improve water infiltration and inject organic mater

- Fennel
- Parsnip
- Radish
- Dandelion
- Dock
- Mullion

Compost everything, burn nothing

King of the mulch!

Greenfinch eat brassica seed

Not just food for people!

- Stack functions. Planting can provide:
  - Wind break
  - Fodder
  - Habitat
  - Fencing
  - Firewood
  - Soil improvement
- Support, scaffold, companion, beneficial plants
- Fibre
- Medicine
- Fodder, sacrifice / offering for ecosystem inhabitants

Umbelliferous flowering plants for attracting beneficial insects

- Parsnip
- Carrot
- Celery
- Parsley
- Yarrow
- Fennel & dill

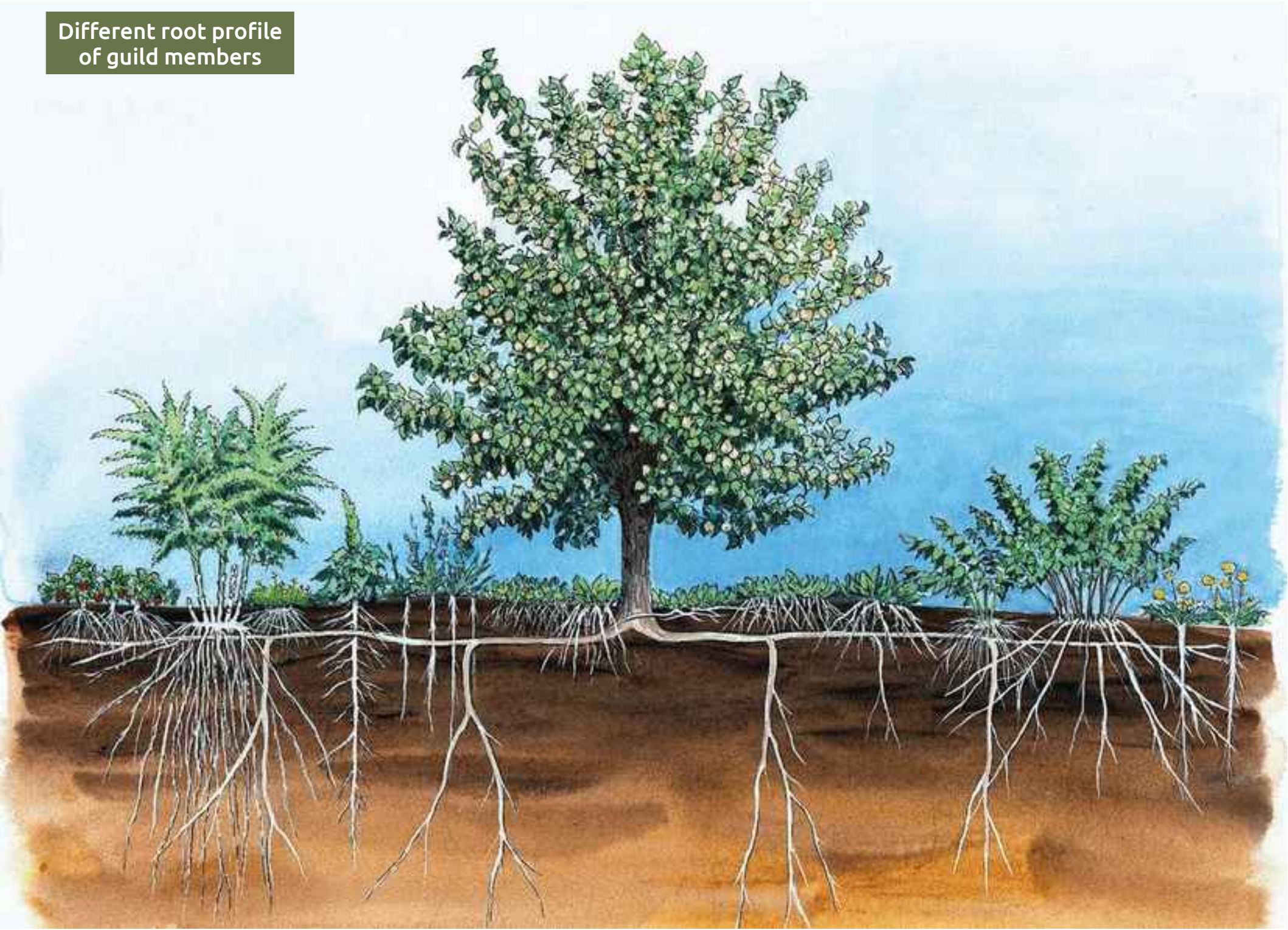
Planting patterns


Contour


Bubble and cluster


Guilds

Different root profile of guild members




Sheet and contour

Transforming an existing backyard orchard


July 2014


November 2014

Japanese raisin tree

Plant propagation

- Food forestry requires a lot of plants
- Learn to propagate your own
  - Seed saving
  - Stem and root cuttings
  - Grafting and budding

Tools

Scythe, sickle

Loppers and secateurs

Pruning saw


Find out more at
www.blockhill.co.nz