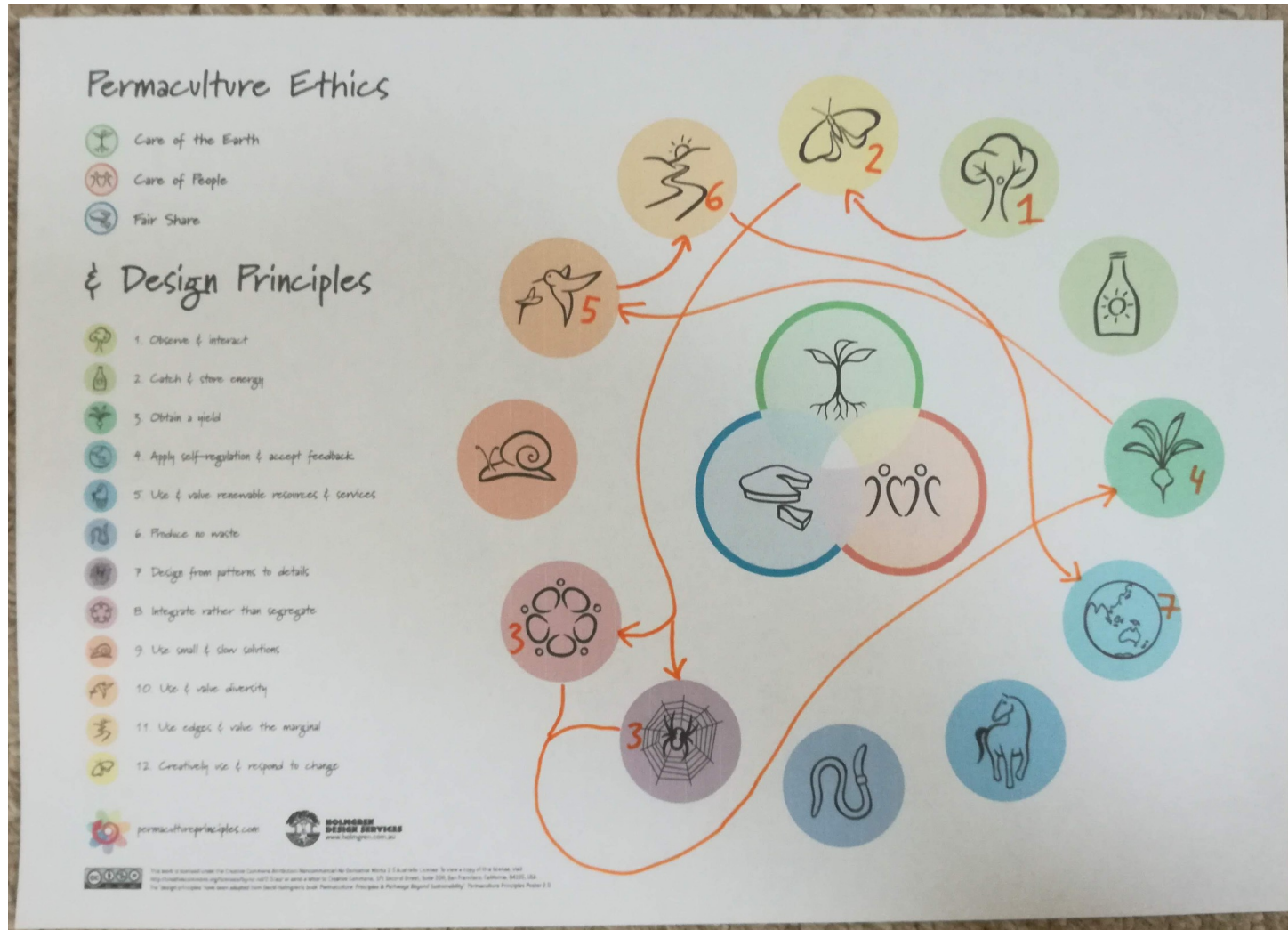


Designing a Herb & Flower Bed

introducing the Web of Principles



Designing a Herb & Flower Bed

Summary

Designer: Tomas Remiarz

For: Myself/ Our household

Location: Earthworm Housing Co-operative, front yard

Started: Spring 2017

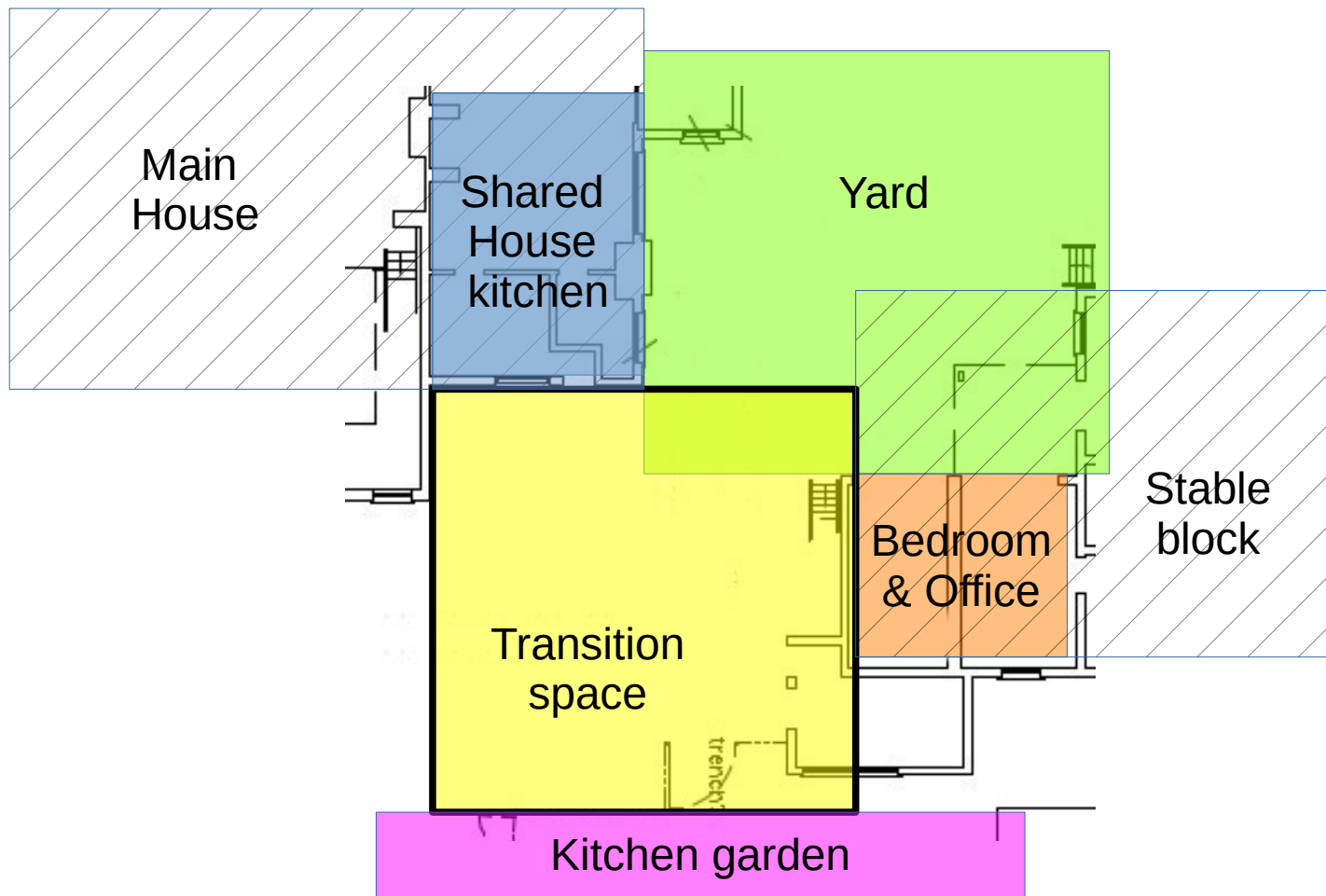
Implemented: Throughout 2017; ongoing

Themes: Household; Zone 1; Design Theory

The **herb and flower bed** was an opportunistic and iterative design addressing a specific opportunity within our household. The **Web of Principles** emerged in parallel with the design itself as an iterative design process that can be applied to many situations.

Context and Background

Earthworm Housing Co-op currently consists of four households in two buildings with 7 acres of land. I live in the shared house, in a room that is actually in a separate building. The location of this design is the space between the kitchen door, my bedroom and the kitchen garden.



Observe and Interact



Observe and Interact

This was the space before its transformation. We made some use of it, but it always felt like a neglected and underused part of the site being at the heart of the community.

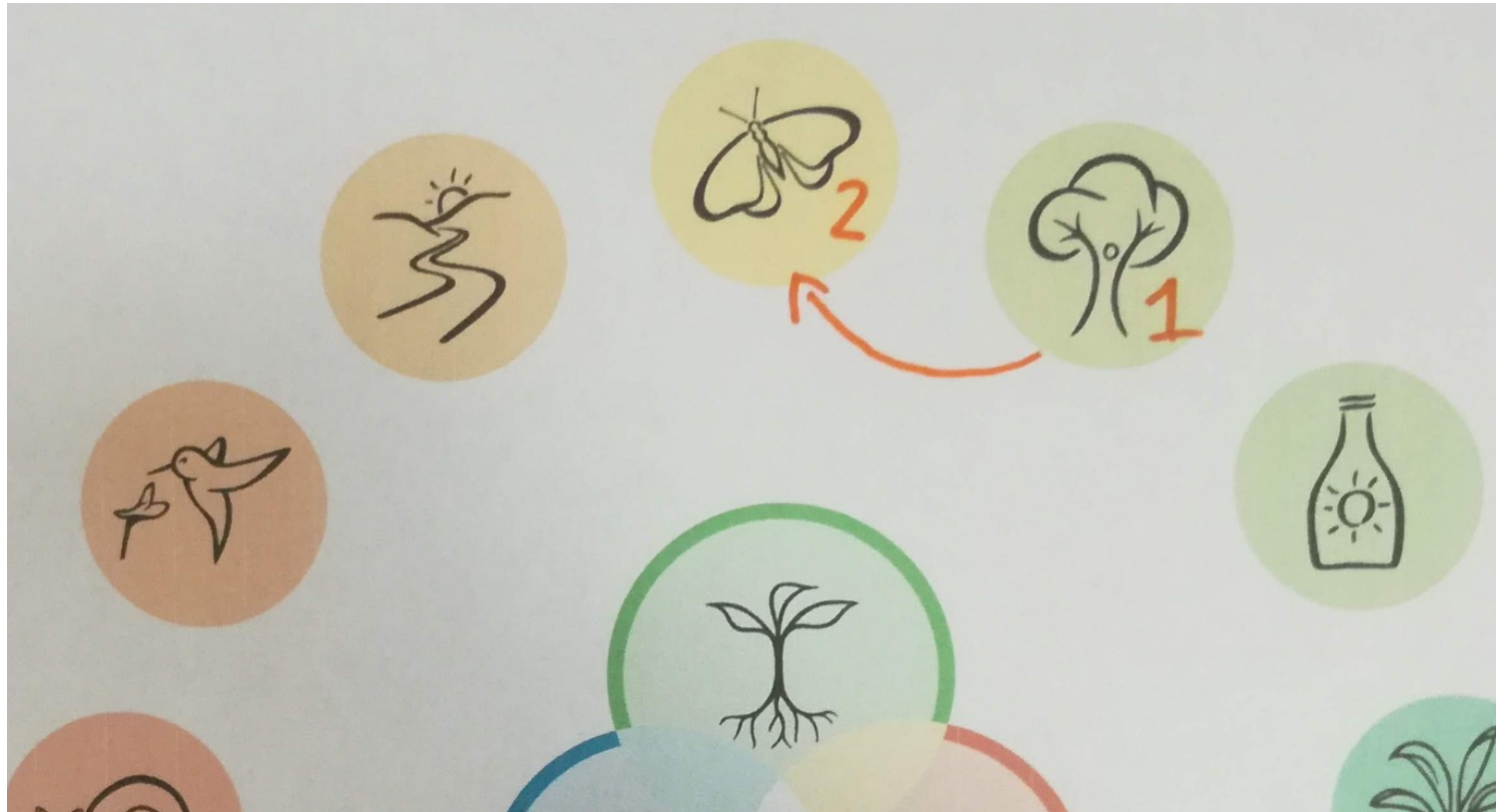


Crucially, we wanted to create something more beautiful.

In spring 2017 we decided to create a paved path through this area, connecting the yard with the kitchen door. This left a triangular space between the kitchen and the stable block.

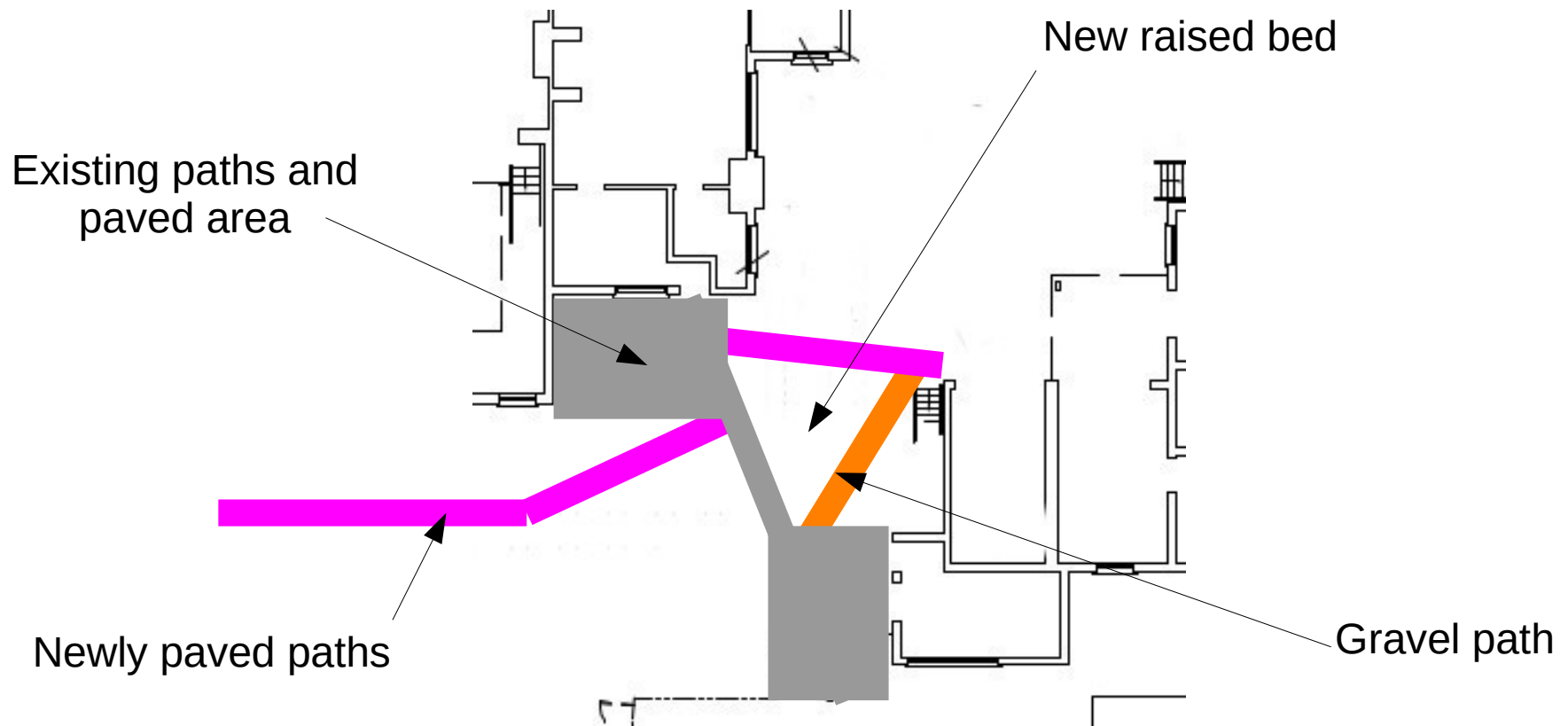


Creatively use and respond to change



Creatively use and respond to change

The new paths joined up with existing one from the kitchen door to the garden gate. This left a roughly triangular area between the paths and the wall of the stable block, which was filled with weeds and rubble. At this point Pete decided to create a triangular raised bed that filled most of the “left over” space and left space for an additional gravel path between the yard and kitchen garden.



Design from pattern to detail

Integrate rather than segregate



Integration

As I lived just next to the bed it fell to me to develop the space.

I wanted the new space to integrate within the physical and social fabric of the co-op.

The new space is Zone 1 for the Shared House, and the new bed was an opportunity to develop a Zone 1 growing system.

I am not a keen grower of annuals, so discarded the idea of salad crops. There are other people and more suitable spaces in our co-op to fill that niche.

Herbs and perennials are much more my thing, so a herb and flower bed seemed the obvious choice.

I was also excited about using this as an opportunity to create a rich polyculture.

Goals help define high level patterns

Design goals/ functions & expected outputs

Production: Herbs, leaf crops, flowers, strawberries, some veg in rotation?

Aesthetics: Flowers throughout the year; winter cover

Low maintenance: Perennials, self seeders

Learning – For me this was a good opportunity to test methods of laying out and establishing a perennial planting scheme.

More pattern level thoughts

Limitations

The area is still part of a building site, and will be for the foreseeable future.

The location of kitchen will change in a few years time.



Design decision

Plant nothing too permanent or precious

Pattern level - Polyculture Design

Habitat horizon (Dave Jacke)

dwarf shrub & herb community

2 years to complete ground cover

3-5 years to maturity

Stacking

3-layer polyculture in raised bed

small shrubs, tall herbs and ground covers

Root diversity

tap roots, clumps, runners overground/underground, bulbs, self seeders

Moving from pattern to detail

With the overall pattern of the design established, plant selection was a pragmatic affair

This being a resource-led project, I had plant types in mind rather than species. Species choice followed available sources.

I also wanted to make sure there were several yields to each plant. The main intended yields were:

- Contributing to the functional stability of the polyculture (root and growth patterns)
- Providing culinary and medicinal crops
- Flowers through the year for beauty and wildlife value

Pattern to Detail

Microclimates/Habitats

Working in containers and bringing in soil provided an opportunity to create soil diversity

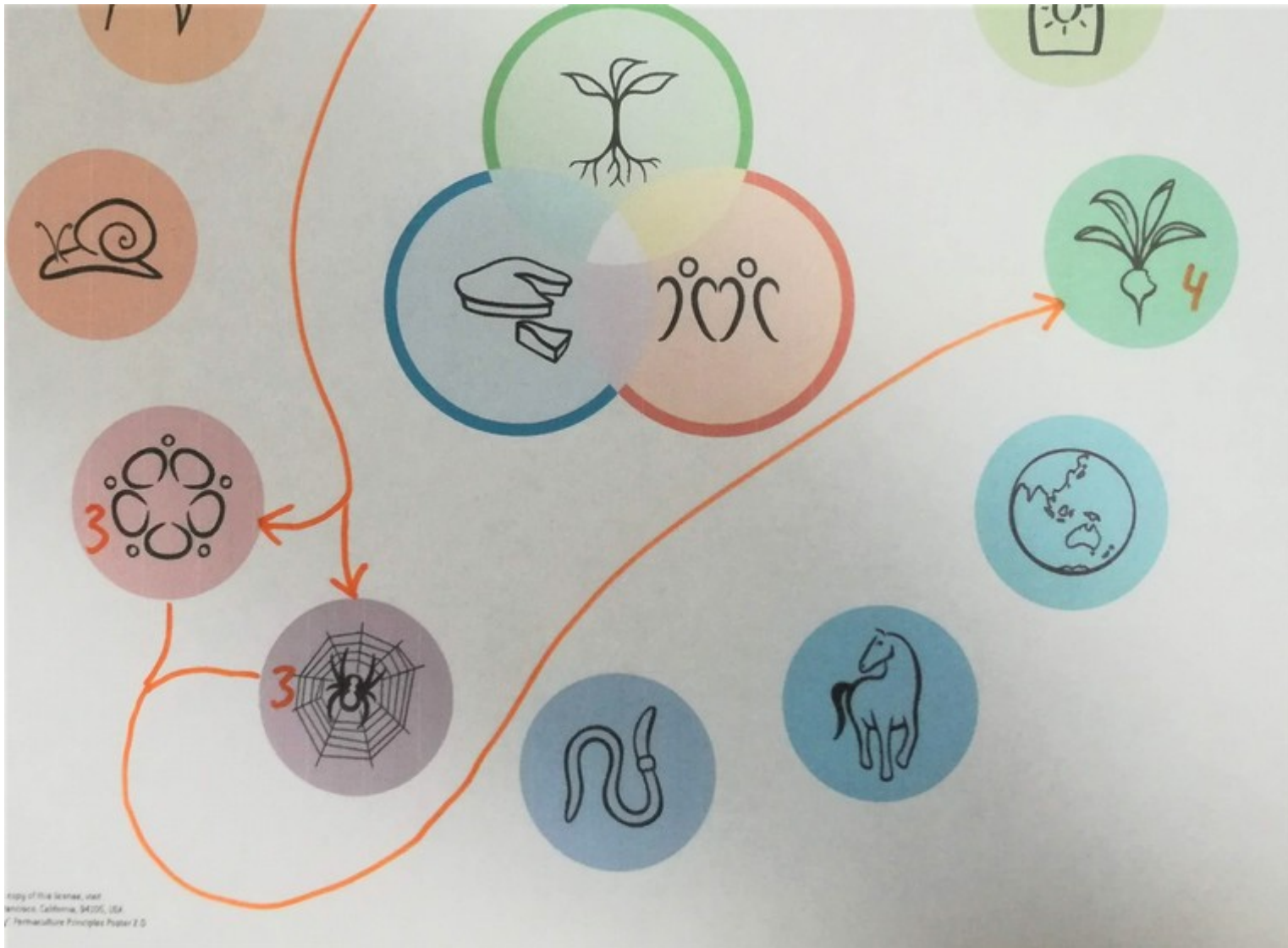
It meant I could create niches from high to low fertility

High fertility	Low fertility
Sinks – for vegetables and strawberries Back of raised bed – sorrel, wild strawberry, bistort	Front of raised bed – thyme, rosemary, lavender, ice plant

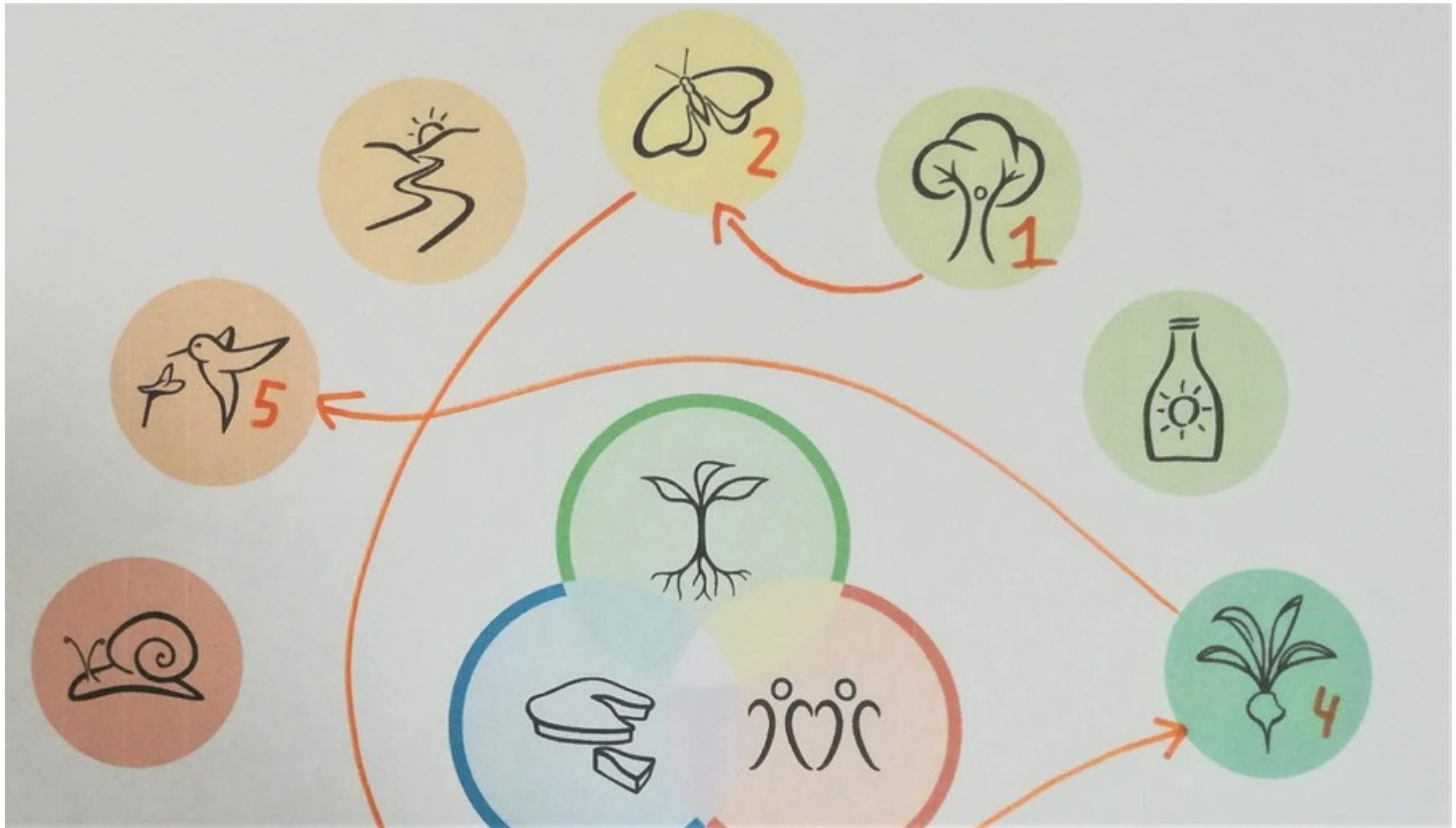
Plant selection – growth patterns

Common name	Growth habit	Root type	Spreading habit	Width	Height
Bistort	perennial	clump	clump expansion	50cm	50-100cm
Blood veined sorrel	perennial	tap root	self seeder	20cm	30-50cm
Bugle	perennial	runners	runners	u	15cm
Chives	perennial	bulb	clump expansion	u	50cm
Common thyme	dwarf shrub	branching	runners	25cm	40cm
Creeping thyme	dwarf shrub	runners	runners	u	30cm
Curry plant	dwarf shrub	branching		30cm	80cm
Dandelion	perennial	tap root	self seeder	50cm	20-60cm
Fennel	perennial	branching	clump expansion	40cm	130cm

Obtain a yield



Use and value diversity



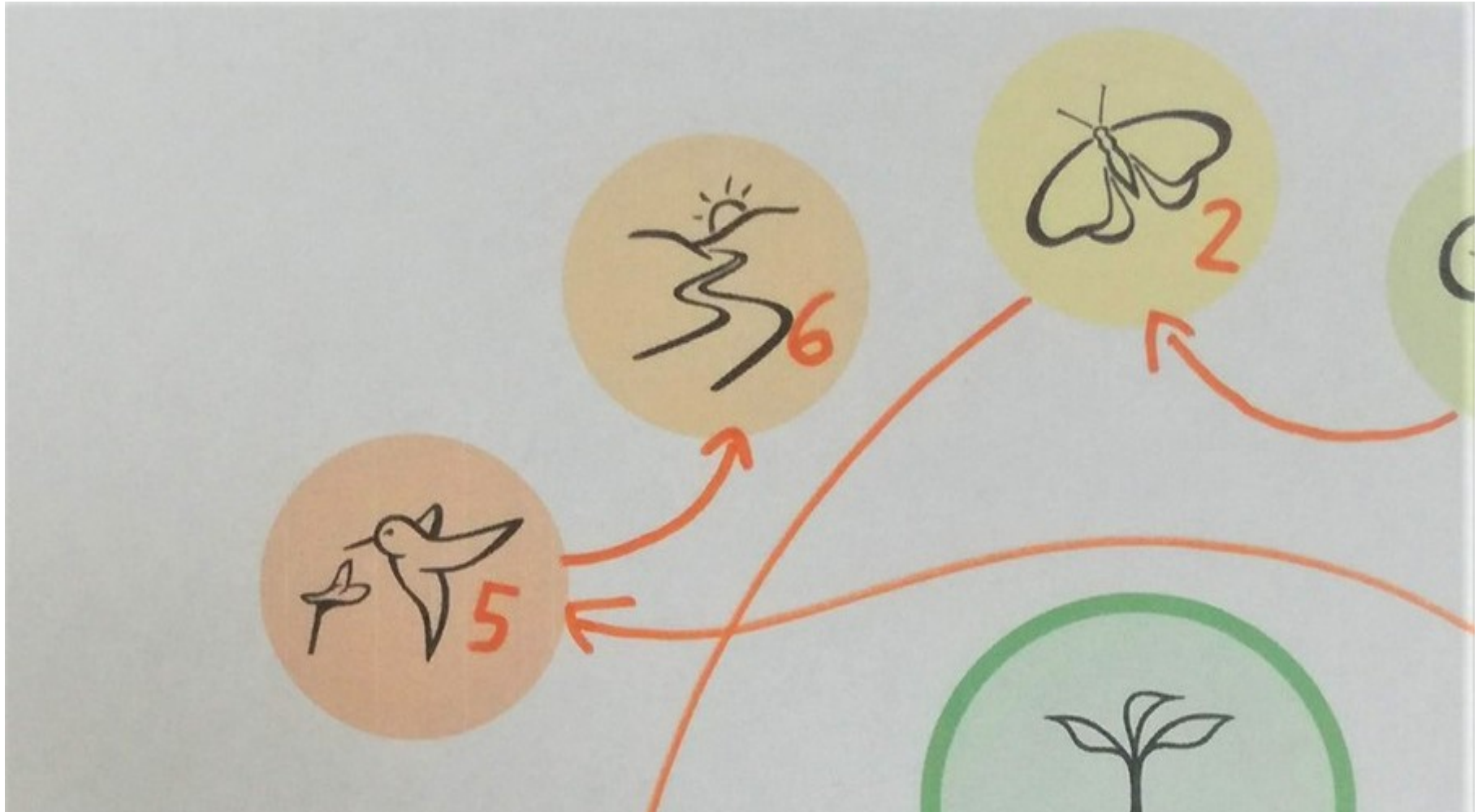
Plant selection – flowering time

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lemon thyme					v	v	v					
Lungwort		v	v	v								
Lupin						v	v	v				
Mallow					v	v						
Marigold					v	v	v					
Parsley						v	v					
Perennial onion						v	v					

Plant selection – cropping period

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mallow				v	v	v						
Marigold					v	v	v					
Parsley						v	v					
Perennial onion					v	v	v					
Poppy								v				
Rosemary	v	v	v	v	v	v	v	v	v	v	v	v
Swine cress				v	v	v						
Yarrow				v	v	v	v	v	v	v		
Wild strawberry					v	v						

Use edges & value the marginal



Container plants

- The other side of the path was so far undefined, and had no particular function beyond leading to a shady overgrown area at the back of the house.
- We decided to give the edge more definition by placing a number of surplus Belfast sinks along it as planters
- With the new boundary, the area behind the planters now became a mud pie kitchen and general play area for the children.

Containers as a niche

As flexible short-term growing spaces, the containers have become home to annual and perennial flowers, herbs and cuttings for propagation.

July 2017

June 2020

Herbs, flowers and cuttings include

Borage
Calendula
Chamomile
Chrysanthemum
Dahlia
Daubenton kale
Day lily
Echinacea
Fennel
Salvia turkestanica
Spearmint
Tulips



Stacking functions

We also realised that there was still space above the herb bed and planters to add a washing line!

Evolution of the Edge

- The containers are mainly populated with decorative and medicinal plants, as a mix of perennials and self seeders
- Each year I introduce a few more plants to replace what has died off, and allow some of the self seeders to regrow where they want to
- Over the years some of the plants have started growing in the spaces between the planters, which we are happy to tolerate.
- This way, a productive polyculture with a wild feel has organically emerged in the centre of our land in the course of a few years.

Design Review

- Guiding principle for the whole design “Allow systems to demonstrate their own evolution” (Mollison)
- As a result we have created a space in the heart of the site that is more functional, better defined and prettier than it was before
- The bed creates a central focus that naturally directs flow between different parts of the land
- The plants are frequently picked for the kitchen, and add colour, texture and smell to the place
- Children and adults are absorbing knowledge of specific plants, generally learn how plants grow and enjoy picking what is in season
- Chickens are able to wander through the space and pick at plants without destroying them
- The aesthetics of the area are a work in progress – next up is the space next to the bed underneath the stairs to the stable block.

Process review -Web of Principles

using Plus-Minus-Interesting

- + Captures the intuitive flow of observations, ideas and decisions well
 - + It was great fun to experiment with a new non-linear way of presenting a design
 - + A quick and satisfying process for simple, evolving designs
 - + I look forward to experimenting with it further, and refining the methodology
-
- Holmgren's principles are very prescriptive, rather than descriptive. This makes their use narrower (e.g. Succession is captured by Small and Slow Solutions)
 - Probably less relevant to a more linear and deliberate design process
 - Probably less useful where precision is important

Process review -Web of Principles

I: I could have used other sequences to create an equally coherent web

I: Good to reflect on where ecological patterns, Holmgren and Mollison Principles overlap and where they differ

I: Some of the design tools and methods seem to relate to particular principles

I: What could a template for using this process look like?