

The garden speaks

Finding the *why* of Bogata Šuma's permaculture garden.

Barbara Scheltus – van den Berg, February – December 2023



Introduction

Our garden is not very effective as a workspace. If it would be only me working there it would be fine, but we host 15-20 volunteers each year and most of them also work in the garden. I do give them a week long introduction course but not all information is immediately put into action.

To make the garden more effective as a workspace, the garden can speak to its visitors. Signs, symbols and educational materials strategically placed near specific plants or areas to give information on proper care. This direct communication might give a deeper understanding of the garden as an ecosystem and it can encourage visitors to align their actions with permaculture values.

Design brief: helping the garden to communicate and effectively teach guests the deeper background information.

Framework: Design Web

Tools used:

- Quick designing
- Mind mapping
- Rosemary Morrow's V.I.S.A.
- Edward de Bono's Six thinking hats
- Various principles, from David Holmgren, Bill Molisson, Looby Macnamara and Rosemary Morrow

Permaculture ethics

The principle of **earth care** encourages responsible and sustainable interactions with the environment. In a garden workspace, this means using permaculture principles like *observation and interaction*, *use of renewable resources*, and *valuing diversity*. By incorporating these principles, the garden can become a self-regulating system that requires less input and is more resilient to potential mistakes.

We take good care of our earth literally, by growing a big diversity of plants, cultivating and spreading various types of compost, chop and drop "weeds" or prunings, adding home made fertilizers and effective micro organisms.

Indirectly we take good care of the earth by talking about the importance of her health for life on this planet. Whenever someone calls soil "dirt" I set my people care ethic aside and make sure they will name soil more respectfully from that moment on.

With **people care** in mind, we want to care for the well-being of individuals involved in the system. Mistakes by volunteers working in the garden require a thoughtful approach because volunteering needs to be fun. I want to create an environment that helps learning and developing skills. We already facilitate a week long on-site training to empower volunteers to better understand the setup of our garden, but more background info in different forms is needed.

We also like to take good care of the people coming to Bogata Šuma by feeding their bodies and their minds with good food (also for thought). We feed people mainly from our garden, stables and forest and we nurture them with home made natural products for personal care. Tinctures are available whenever we notice imbalance.

We establish a mutually regenerative group culture with people (like volunteers) who stay here longer. We educate people about easy and practical steps towards a more sustainable life and about how permaculture is a great method for that.

Whenever I can, I share my embodied permaculture tools and knowledge with people so they know ways how to ground themselves and listen to the heart and gut as well as to the mind.

Applying the **fair share** ethic to a garden workspace involves a sense of collective responsibility and shared ownership, encouraging open communication, collaboration, and sharing knowledge. This sense of shared purpose can maybe reduce mistakes when volunteers work together and exchange their learnings.

We as a family share our lives, our terrain and facilities with volunteers, camping guests and visitors. With all of them we share our knowledge, insights and wisdom about a natural life because we believe that that is the way to go to a more sustainable **future**. We think global and act local.

Vision

All people that work in the garden, understand this vision fully and know all principles and strategies to work on this vision from care for the earth and the future.



The garden is beautiful, abundant, nourishing and effective

WHAT MAKES THE GARDEN BEAUTIFUL?

- Lots of colours (purple kohlrabi, flowers)
- Patterns and rhythms in planting & mulch
- Nice structures for 3D growth
- Edible flowers & a big diversity

WHAT MAKES THE GARDEN ABUNDANT?

There is always something to eat
It gives plenty so we can ferment, pickle, dry
and store for other seasons
There are always flowers flowering
There is a diversity of insects

WHAT MAKES THE GARDEN NOURISHING?

- The beauty feeds our soul
- It is a healthy habitat for insects
- There is a place to sit, relax and enjoy
- The soil is rich
- The nutritional value of our veggies is high
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WHAT MAKES THE GARDEN EFFECTIVE?

- It feeds us year round
- The soil is healthy
- Plants get enough water & nutrients
- Pests are handled in a natural way
- Even the paths and edges are functional

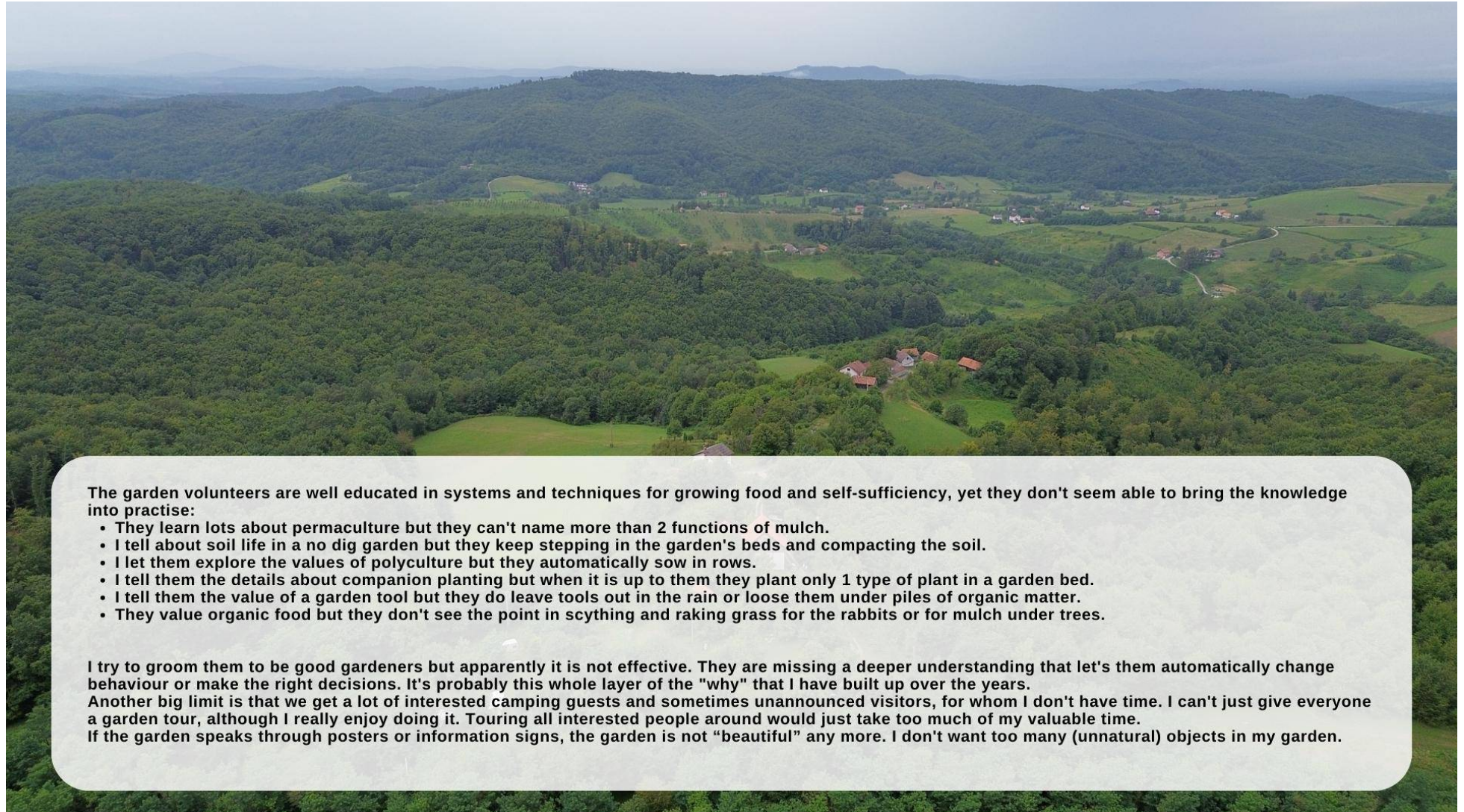
Helps

Volunteers start here with a week long course in sustainability (renewable resources, health and non-toxic products), permaculture (cycles and systems, ethics), growing food and self-sufficiency.

All visitors in our garden are curious and want to learn more. Respond to needs principle.



Limits



The garden volunteers are well educated in systems and techniques for growing food and self-sufficiency, yet they don't seem able to bring the knowledge into practise:

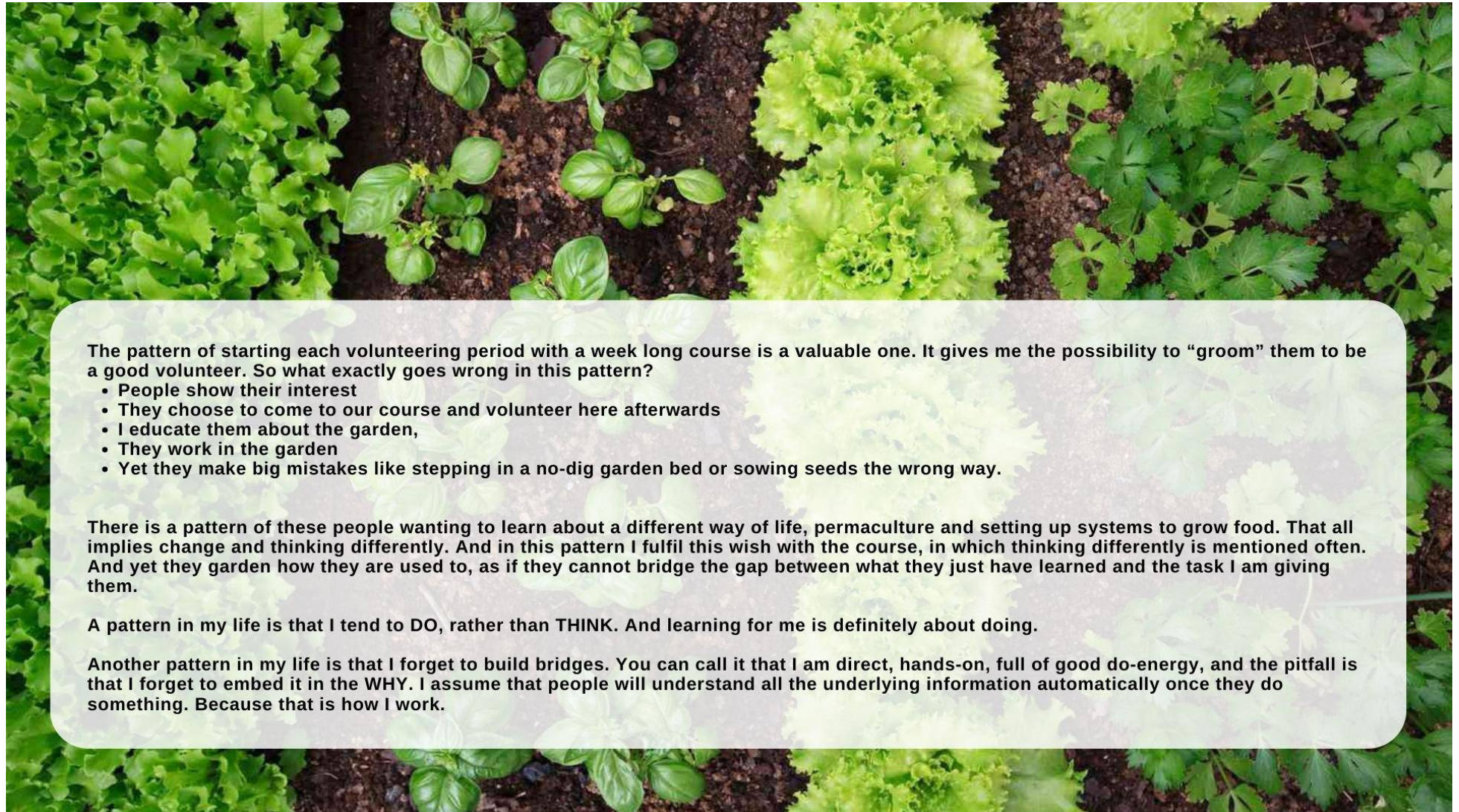
- They learn lots about permaculture but they can't name more than 2 functions of mulch.
- I tell about soil life in a no dig garden but they keep stepping in the garden's beds and compacting the soil.
- I let them explore the values of polyculture but they automatically sow in rows.
- I tell them the details about companion planting but when it is up to them they plant only 1 type of plant in a garden bed.
- I tell them the value of a garden tool but they do leave tools out in the rain or loose them under piles of organic matter.
- They value organic food but they don't see the point in scything and raking grass for the rabbits or for mulch under trees.

I try to groom them to be good gardeners but apparently it is not effective. They are missing a deeper understanding that let's them automatically change behaviour or make the right decisions. It's probably this whole layer of the "why" that I have built up over the years.

Another big limit is that we get a lot of interested camping guests and sometimes unannounced visitors, for whom I don't have time. I can't just give everyone a garden tour, although I really enjoy doing it. Touring all interested people around would just take too much of my valuable time.

If the garden speaks through posters or information signs, the garden is not "beautiful" any more. I don't want too many (unnatural) objects in my garden.

Patterns



The pattern of starting each volunteering period with a week long course is a valuable one. It gives me the possibility to “groom” them to be a good volunteer. So what exactly goes wrong in this pattern?

- People show their interest
- They choose to come to our course and volunteer here afterwards
- I educate them about the garden,
- They work in the garden
- Yet they make big mistakes like stepping in a no-dig garden bed or sowing seeds the wrong way.

There is a pattern of these people wanting to learn about a different way of life, permaculture and setting up systems to grow food. That all implies change and thinking differently. And in this pattern I fulfil this wish with the course, in which thinking differently is mentioned often. And yet they garden how they are used to, as if they cannot bridge the gap between what they just have learned and the task I am giving them.

A pattern in my life is that I tend to DO, rather than THINK. And learning for me is definitely about doing.

Another pattern in my life is that I forget to build bridges. You can call it that I am direct, hands-on, full of good do-energy, and the pitfall is that I forget to embed it in the WHY. I assume that people will understand all the underlying information automatically once they do something. Because that is how I work.

Ideas



The garden needs to communicate her own vision to show her way of “thinking”, her boundaries, what works well. “The garden speaks”.

If the garden explains permaculture and my gardening strategies, people will look at it from a different angle and maybe hear more.

When it is the garden speaking, it is not personal and people('s egos) might also not take it as such.

Let the garden communicate it's own principles in audio or video or an infographic. Some things can be explained by questioning or storytelling or a treasure hunt. There are more ways than just words.

Number the QR codes so it becomes a garden tour or even a treasure hunt.

Principles

Principles for decision making in this design

Work where it counts. If a course doesn't work, the garden needs to speak for itself, on the spot.

Use and value diversity. Not everyone learns the same; I can make it fun and use my creativity to get messages across.

Principles for implementing this design

Work wisely/work where it counts. Investing some time in a digital educational garden tour will save heaps of time later. Redundancy (of me): this digital garden tour makes it possible for guests and visitors to go into the garden by themselves.

Low tech is not sustainable in this case (discolouring posters in the sun, microplastics from the information sheets...) so it will be *appropriate tech*. Just a small black and white QR code can easily be printed and laminated on site and put in place. *The least change to the garden for the greatest effect.* The info "behind" the QR code can also be changed immediately when not working, where a sign, a poster or info sheet would be wasted.

Principles for more effectiveness in the garden

These principles can be used as tools for volunteers to work more effectively in the garden. Here a list and the details in frames on the next pages.

- Nature is a teacher
- Shift focus from objects to relationships
- Harmonize with nature
- Be attentive to timing
- Cycle & recycle energy & nutrients from biological resources
- Relative location
- Leave space for emergence
- Apply self-regulation and accept feedback
- Accelerate succession and evolution

NATURE IS A TEACHER

We (humans) need to learn to read the landscape

Nature creates eco systems and balance

Nature creates rhythms: seasons, sun cycles, moon cycles, tides, mast years...

Nature creates patterns (branching, spirals, scatters, circles, waves, cloud shape, scales...)

Nature creates what it needs. There are no "bad weeds".

Plants know how to make food and medicine from light and water, and then they give it away!

SHIFT FOCUS FROM OBJECTS TO RELATIONSHIPS

Instead of growing your favourite vegetables, create a micro climate with companion plants in which your favourite vegetables will thrive.

What type of mulch in which spot?

Don't just build herb spirals; build systems in which your plants will thrive!

Don't just dig swales; learn how you can influence the landscape to prevent the loss of water, organic matter and nutrients.

Instead of planting an orchard with fruit trees, ask yourself how you can plant your fruit trees so that they are happy. A net and pan system? An insect hotel or bird/bat boxes? A guild with pollinator attractors, nutrient accumulators, grass suppressors, disease repellors or health enhancers, pest repellors, aromatic confusers...

HARMONIZE WITH NATURE

The moon impacts our life with tides & light, migration & navigation of birds, sleepless nights, bar fights, disrupted hormone levels and all medicinal power of a herb up in the plant with full moon.

BE ATTENTIVE TO TIMING

Sow when the seed is ready to grow,
water when the sun doesn't evaporate the work,
feed when the plant needs it,
harvest when the fruit is ripe,
find the eggs before they hatch into a pest.

CYCLE & RECYCLE ENERGY, NUTRIENTS AND BIOLOGICAL RESOURCES

Artificial fertilizer "NKP" is like living on water and bread. It keeps you alive but not thriving.

Nitrogen (pee, coffee) to grow big and leafy

Kalium/Potassium (banana peels, wood ash, pee) for a healthy plant capable of fighting off pests and diseases, absorbing nutrients and resistance to extreme temperature changes.

Phosphorus (pee again) supports flowers and fruits during the productive cycles.

Calcium (egg shells, wood ash) strengthens cell wall development and neutralizes plant and soil acidity.

Magnesium (Epsom salt) is essential for plants to produce chlorophyll.

Your pee builds strong root systems and gives vigorous flowering.

Home made compost and Effective Micro-organisms (EM1) improve soil health

RELATIVE LOCATION

Plants and trees thrive with companions.
Flowers in the vegetable garden make us and the bees smile and attract pollinators.
Put tools back in the toolshed.

If tools are always in the toolshed (when not in use), we never waste time on looking for them, or needed tool maintenance because they were out in the rain.

LEAVE SPACE FOR EMERGENCE

What if someone gives you 48 asparagus plants?
Or your teenage daughter wants her own garden bed.
Or *all* your tomato seeds come up (in stead of only 30% of them).
Or you decide to grow all garlic for a year and need to plant 365 cloves.
Leave the beautiful weeds.
Leave space for the creativity of volunteers.

APPLY SELF-REGULATION AND ACCEPT FEEDBACK

POLYCULTURE!
Set aside your ego and let nature decide.
Throw around seeds and let them come up where they want, where their conditions are right.

ACCELERATE SUCCESSION AND EVOLUTION

Grow your own seeds so they are adapted to your soil and your climate.
Take an extra step to do things well.

ALL POLYBION PIONEERS

BEAUTIFUL
ABUNDANT
NOURISHING

EVERYTHING IN THE
RIGHT PLACE
READY FOR FOOD - SELF
SUFFICIENCY

EVERYTHING
& AGENTS BY
MODIFYING IT
HAVE ENVIRONMENTAL
CHANGE FOR THE
GREATEST POSSIBLE EFFECT

THE YIELD OF A SYSTEM IS ONLY LIMITED BY THE IMAGINATION
& INFORMATION OF THE DESIGNER

WHEN the garden
speaks, it is NOT
PERSONAL AND PEOPLE
MIGHT ALSO NOT TAKE
IT AS SUCH

Reflection

Helps Limits

PATTERNS -
MY GARDEN NEEDS
PRINCIPLES!

DIFFERENT PEOPLE WITH DIFFERENT SKILLS &
BACKGROUND, DON'T KNOW GARDEN'S VISION
- KEEP EXPLAINING GARDEN
TO NEW VOLUNTEERS, MAINLY
"WHAT" & "HOW" NOT "WHY"

TOOLS IN TOOLSHED
- COMPANION PLANTS
- FLOWERS FOR US & BEES

RELATIVE
LOCATION

CYCLE ENERGY, NUTRIENTS, RESOURCES
HOME MADE COMPOST, FERTILIZED
MULCH, SAWDUST, STRAW

USE BIOLOGICAL RESOURCES

ACCELERATE SUCCESSION & EVOLUTION
TAKE THE EXTRA STEP TO DO IT WELL
APPLY FERTILIZER, WORK WITH PLANT PHASES

ATTENTIVE TO TIMING - HARMONIZE WITH NATURE
NUTRIENTS, HARVEST
SEEDS => RESILIENCE

FRAMEWORK SO PEOPLE UNDERSTAND THE BACKGROUND / CHARACTER
VISION OF THE GARDEN -> "WHY"

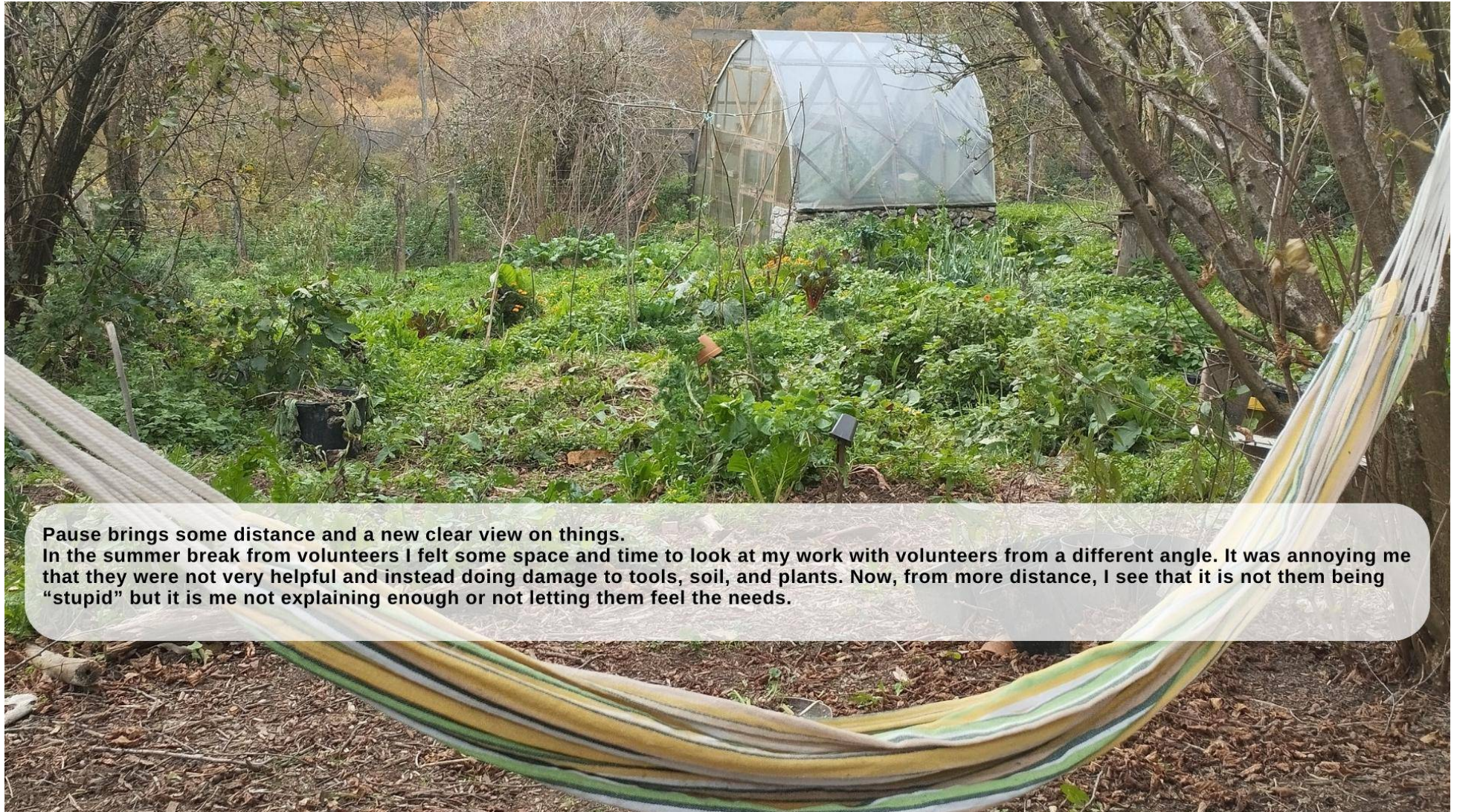
NEED TO
COMMUNICATE! WHEN
WRITE DOWN &
LAMINATE THE
VISION FOR GARDEN
& PRINCIPLES
HANG IT OUTSIDE

LEAVE SPACE FOR VOLUNTEERS
BE SO CREATIVE? LEADS TO RELATIONSHIPS
NATURE IS A TEACHER
SHIFT FOCUS FROM AESTHETIC TO RELATIONSHIPS
BE OPEN TO CONSEQUENCES, APPRECIATE

CHOOSE 3-4 PRINCIPLES
EXPLAIN THEM IN WORDS & IMG
MAKE SHORT EXPL & EXTENDED,
PAPER FRONT: PRINCIPLE + SHORT
BACK: EXTENDED EXPLANATION
SAME FOR VISION

LOT OF PEOPLE WITH DIFFERENT BACKGROUNDS, SKILLS, CULTURES, WORKING IN MY GARDEN. I DO TRAIN THEM AS GOOD
AS I CAN BUT WHAT HOW THINGS GO WRONG, CLUTTER... DESIGN TO IMPROVE EFFECTIVENESS OF GARDEN ON IDEA-LEVEL

Pause



Pause brings some distance and a new clear view on things.

In the summer break from volunteers I felt some space and time to look at my work with volunteers from a different angle. It was annoying me that they were not very helpful and instead doing damage to tools, soil, and plants. Now, from more distance, I see that it is not them being "stupid" but it is me not explaining enough or not letting them feel the needs.

Integration

My course for volunteers is all mainly about the HOW: organic, permaculture, no dig, polyculture, companion plants. *Observe and interact*: what is missing is the WHY of using techniques for permaculture ethics like earth care. I teach them tools and tricks but it doesn't stick because I forgot the whole underlying layer of the need for this all. Why *Catch and store energy*, *Use renewable resources*. *Relative location* also plays a role. Learning about something in a class is different than learning on the spot.

Make an audio file with my son speaking the garden's vision in a low, earthy voice: "I am beautiful, abundant, nourishing and effective". Give examples of beauty, abundance, nourishment and effectiveness in the garden, on the spot. *Relative location*.

How to get it on people's own phones? Through QR codes that they can scan right then and there when they need the info. People care: they can get info independent from others and it makes me free.

With printing and laminating QR codes to put in the garden, and creating webpages with info behind the QR codes, we *Work within our means*.

I need to *Creatively use and respond to change* and find new creative ways to teach volunteers about the underlying ideas. Since 65% of people learn well visually, I thought to use Rosemary Morrow's V.I.S.A.

V.I.S.A.

Visual – create infographics and film for more complex garden concepts: show rich soil life to prevent people stepping on the lush soil in garden beds. Find or make films about the effect of companion planting and polyculture. Create an infographic about cycling nutrients and energy.

Impactful – let people explore this information on their own phone. It also means that their curiosity rises and they "ask" for it, on a device that is designed and equipped to getting and keeping full attention.

Simple - in the moment, on the spot, stored digitally online so there is no use or abuse of materials and I can adjust it any time when necessary.

Appropriate - scanning for info with a phone seems to be a normal thing these days.

Action



Momentum



Maintaining momentum in this project is easier with defining clear goals and keeping in mind that it will save me lots of time in the future.

I can collect materials this winter, make 1 example QR code in the garden and invite the first cohort of volunteers (March 2024) to implement the project further with me. Of course this also yields live feedback.

Appreciation

I am grateful for Looby and Jon's Cultural Emergence Effective Design course that inspired me to find what my garden needs.

I am grateful for all volunteers over the last 12 years that taught me so much about instructing and teaching!

I appreciate Mali for her idea to add QR codes in stead of posters in the garden. This opens up possibilities and makes it more sustainable to edit the (digital, online) content.

I am grateful for Skye Jin's feedback on a first draft of this design. Her comments brought back flow in a stagnant design.

I thank the garden for speaking to me. I appreciate my garden as a colourful haven where the seeds of a sustainable future are sown, one visitor at a time.

I already am very grateful for the future volunteer(s) that will help me implement this design! I'm going to put it as a special project on our volunteer-hosting profile and ask for people with skills in photography, film and audio editing.

Reflections on the design process

Six thinking hats design story

white hat – facts and information

Before I was able to think creatively, I had to collect the information: what's going on in the garden, what's missing, what are the principles of the garden and how this all works in practise.

red hat – feelings and emotions

I felt that I needed to do this design differently. Not another article-like write up with lots of pictures to explain. I had some vague clouds of ideas about it that I couldn't turn into action yet.

yellow hat – "positive"

In summer '23 I put on my positive and confident hat because I wanted to finish the design, *Catch and store energy*. I was in the "Just do it" phase and started thinking about the principles for the garden-design again. There are solutions for problems; it's just a matter of finding them.

green hat – new ideas

One image can tell a story, and a video can tell lots of stories. This inspired me for generating short film clips as the info behind the QR codes.

blue hat – the big picture, managing

With my blue hat on I spoke with the volunteers about how to do this. With the principle *Many minds are better than one* and *Emergence happens in relationship* we all put on our green creative hat again and brainstormed.

black hat – "negative"

Ignored during the entire design process. Judgements or negativity take the flow and my energy out of a project. I am realistic enough to go without a black hat.

You could also say that the few negative experiences with volunteers started the need for this design so in that sense it might be the most important hat.

With the principle *Move the tools* in mind, I thought of all my previous designs being text-based, article-style, and everything is extensively explained. I see others with beautiful and short designs, much more visual and hardly any sentence but lots of bullet points. I sort of tried to do this as well, in my own way.

I think that it is hard work for a reader to interpret bullet points right and turn it into a story, so mine are a bit more elaborate for clarity.

I read somewhere that carrying too much weight around, could be a sign of suppressed creativity, being afraid of vulnerability and showing myself. So in integrating this with my quest to become an excellent designer, I thought to stretch my edges (only mentally, not physically please) and use my

creativity to bring this design to life.

Unfortunately I haven't (yet) lost any weight in the process... Maybe with using more of my creativity while implementing the design. *Trust the Process.*

A garden with principles

The a-ha moment came with the Principles anchor point. I suddenly realized that that was exactly what the garden was missing! With all volunteers and visitors of the garden I explain how we started, how it is now a year round abundant no-dig polyculture garden with heavily mulched paths and beds. The “**what**”. And I show people how we started beds with cardboard, how we make natural fertilizers, how the watering systems work, how we create compost and apply mulch: the “**how**”. The “**why**” is assumed and I never speak about it.

When I came to Principles in the design process and defined a few for the garden, I came to the realization that all that goes wrong in the garden, is because of lack of understanding of the *why*. And permaculture principles are an excellent tool to explain this.

Implementation of the design

The implementation of this design has started with 1 example that is not finished yet. All other examples (subjects to explain, a QR code for them that leads to a specific page on our website) will probably take a year to complete.

I found out how easy it is to generate QR codes and link them to specific pages on our website. An example of that in appendix 1. The QR code is not placed nicely on a pole yet.

My QR code expired because I used a free version! I need a subscription to keep the codes...

I started a list of the subjects that would contribute to communicating the “why” of the garden and could effectively change people's behaviour. See appendix 2.

In all daily work with volunteers this project didn't get full attention yet. I now plan to ask specific volunteers to make this project happen in 2025.

A simple first step can be to collect all information in writing and images, and publish it on an info sheet to hand out to garden visitors. *Make progress visible* principle.

The next step can be to put it on a web page behind a QR code and spice it up with audio, video or games, quizzes... *Work to completion.*

Proper planning prevents poor performance: I will work on the plan (Appendix 2) this winter '24/'25 to have a flying start in spring.

The *Beauty in completion* principle gives a good drive to make this design happen in 2025.

Appendix 1 – example



Appendix 2

A list of the subjects that would contribute to communicating the “why” of the garden and could effectively change people’s behaviour.

QR	Subject	Behaviour to change	Audio	Visual	Kinesthetic	Logical
	Food forest	Systems thinking, layers, everything is connected	Formidable Vegetable song “We’re all friends”	Video from food savanna to forest garden	Imagine a forest that morphs into an edible landscape	List of layers
	No-dig	No stepping on growing-soil	Storytelling	Soil life, tunnels for air and water	Soil as a living organism	List pro’s of a no dig garden
	Polyculture	No more row-sowing, apply self-regulation and accept feedback	Explain why Nature knows better	Infographic about patterns to sow	Video how I throw around seed mixes	10 reasons why Nature always knows better
	Companion planting	No monoculture, shift focus from objects to relationships	Storytelling	Infographic with guilds and veggie companions	Video about how plants grow better	Research results better yield through companion plants
	Mulch	No bare soil	Video with examples and explanation of types & functions of mulch		Imagine that you are soil...	List of functions
	Everything is a resource	Tired of raking leaves or scything grass, cycle & recycle energy & nutrients	Formidable Vegetable song “Look around you”	Video: what happens in a pile of leaves?	Ask: what benefits can you think of?	List of benefits
	Tools	Loosing tools, understanding relative location	Video with stories of where and how we found back tools, effort to repair them		Our tools are preferably blue	Image of garden toolshed with labels
	Nature is a teacher	Bad decisions, harmonize with nature	Ask: What would nature do?			