

A GARDEN FOR THE CHICKENS

Permaculture design by Barbara Scheltus – van den Berg, 2015 – 2022



INTRO

When (in 2009) we moved from city life in The Netherlands to rural life in Croatia, one of the first things we did was building a chicken coop. Chickens seemed easy and fun farm animals for us city dwellers and we love fresh eggs.

We quickly found out that it wasn't a good idea to let them scurrying around in the garden because they pick at seedlings, lettuce and cabbage plants. They also mix up the straw mulch on the beds and wood chips mulch on the paths.

They also can't roam free on the parking spot because they might run under a car or get caught by a hawk or a playing dog.

So we needed a save space for them and made a dedicated chicken garden, attached to their stable.

About this design

In 2015 this design was written up while it was already implemented. I had seen how the chicken garden became barren land in no time and I thought that I found ways to improve the chicken garden.

In 2022 I revisited this design for my Permaculture Diploma, evaluated the system and tweaked it.

Clients: I made this design for ourselves, for the chickens and for interested volunteers and course participants as a reference and teaching tool.

As a **design framework** I used SADIMET. Under Survey I used mapping and sector analysis, zoning and an an input-output-analysis under Analysis. With the Evaluation I used PMI (Plus, Minus, Interesting) as a tool.

This design fits in the 3 permaculture ethics:

Earth care: while chickens do much damage to the soil, we try to repair their damage by growing more trees and ground covering plants (like clover). We do our best to keep the soil covered by mulch/the used straw from the rabbits.

Also a bit loaded topic: all un-usable leftovers from butchering the chickens, I bury under the compost pile. In this way the chicken's return to the soil is a contribution to compost quality.

People care: chickens are entertaining, give eggs and soup-ingredients. They also do some work

for us by taking care of bugs and insects, and turning the compost heap.

In this design you could also regard the chickens as beings that we like to take good care of.

Fair share: their staple food (corn) we partly buy on the local farmers market because we don't grow enough ourselves. We (humans) share our surplus of food with the chickens. We also share our surplus of land with them.

The **permaculture principles** I used (or thought to use) are

- Holmgren's *Observe and Interact*: how to improve the chicken area for their and our needs,
- Mollison's *Relative location* and *Stacking functions*: having the compost pile in the chicken area and let the chickens eat food scraps and turn the compost pile
- Mollison's *Turn problems into solutions* by using their scratching behaviour to turn the compost pile
- Holmgren's *Obtain a yield* by (the wish to) grow their own food in their own chicken garden.

An **ethical principle** I used is *Right livelihood* for the chickens. They deserve a good, save and healthy life with hobbies (scratching) and entertainment (bugs, jumping to hanging bunched herbs).

Strategic principles I used are

Make it beautiful to give a good feeling every day

Work within your means by using and re-using elements that were already on site

Create closed loops: growing their food and catching rain water on location

Work with nature by planting trees for food, fun and barrier against predators

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VISION

We want healthy, happy chickens that provide us with high quality eggs and (at the end of their life) with meat and bones for chicken soup.

SURVEY OF THE CHICKEN SITUATION



The chicken area in relation to the other structures

The chickens live in the stable and in their chicken garden. The garden is fenced and there is a fence around the stable area.

The chicken garden is a 6x9 almost oval, fenced area. The fence (1m60 high) is closed; the chickens cannot get out and walking predators like foxes cannot easily get in (but flying predators can).

Also little birds like sparrows, titmice and blackbirds like to attend the garden.

The area is sloping to the south-east. Over a length of 10 metres the slope is 1,5 metre.

On the upper (west) side there is a walnut tree and a plum tree. There is also a plum down, in the middle of the south.

The stable is situated on the north-east side.

On the east side we have a walnut tree and an apple tree and behind that the vegetable garden.

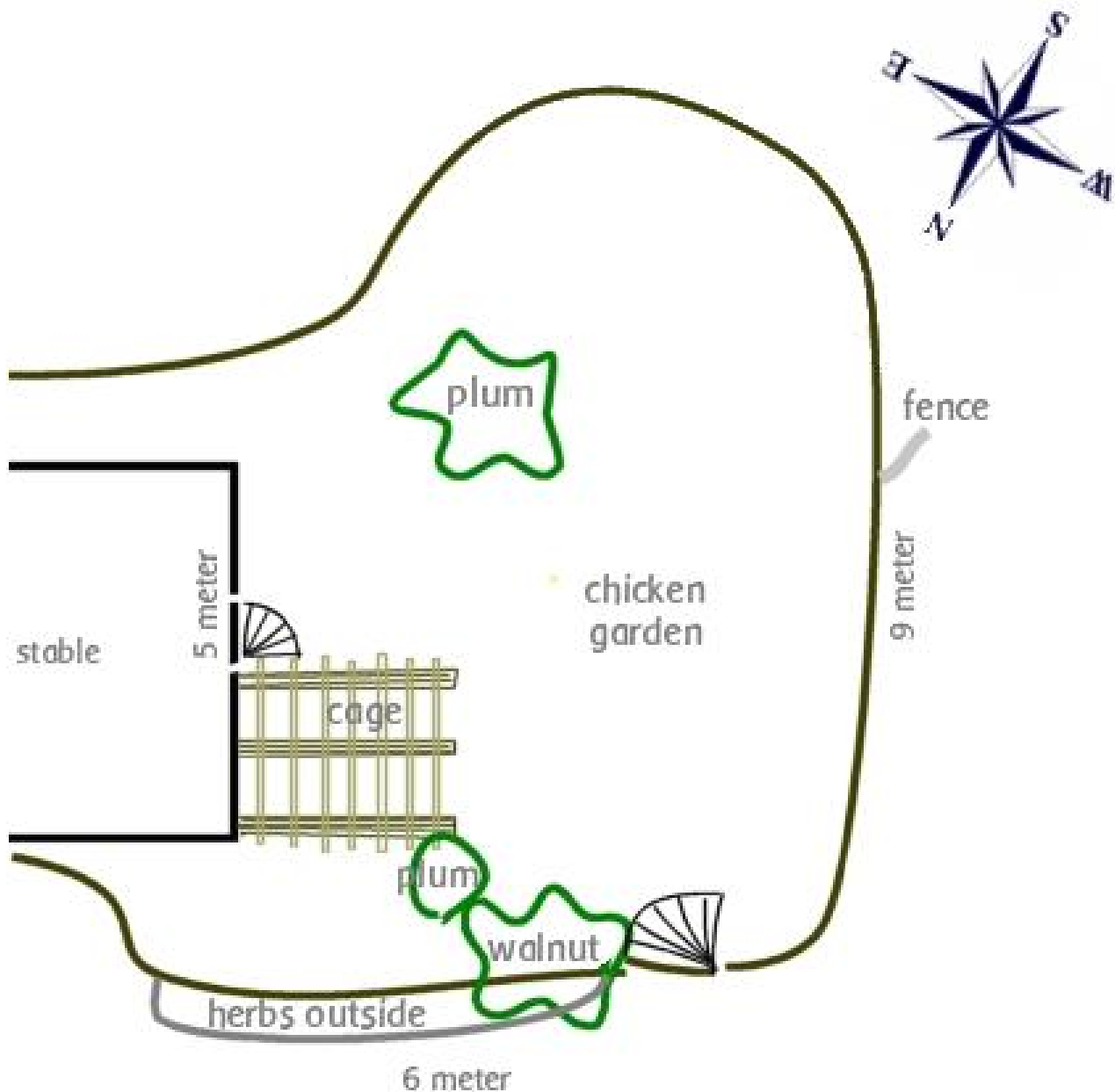
On the south side we have grass with peach trees, a giant mulberry tree, a young but fast growing cherry tree and a few hazelnut shrubs at the edge of the terrain.

On the west side we have some plum trees, grass, gravel path and the parking area for cars.



The chicken garden in spring

MAP OF THE CHICKEN GARDEN



CLIMATE

The garden is situated on the top of a hill in inland Croatia. Land climate. In summer it can get up to 36° Celsius and in cold winter nights it can be -15° Celsius

The garden gets a lot of sun all year round. Only under the walnut tree (up, west) and at the foot of the fence there is some shade.

The garden is quite secluded; there is not much wind. Only in summer, the southern winds can blow into the garden. The chickens never seemed to be affected by wind.

There are no frost pockets and cold air can't be trapped because the fence is an open structure.

STRUCTURES



Stable

On the north-east side there is the wooden stable. It is a 5 metre long, 4 metres high open wood structure with a 45° angle tiled roof. There is no rain gutter; rain from the roof falls directly into the garden. The roof overhang and drip line is 50 cm around the stable.
2 Wooden walls of the stable stand in the chicken garden.



The stable with the cage attached, seen from the chicken garden (south)

Fence

The fence is made of 25 segments connected with bigger poles, made of split pseudo-acacia and metal wire. The sticks are easy to replace when you loosen the wire.



The fence around the chicken garden in winter

Cage

Attached to the stable (and the chicken coop) there is a fenced cage where the chickens can forage safely outdoors in winter. This cage is 2 metres wide and 3 long. It takes only a little of the chickens garden space because the chickens can walk up the roof. It starts at 30cm height and ends under the stables roof (2 metres high).



Entrance doors

The stable has an entrance door to the chicken garden and on the west corner the fence has another entrance from the parking area.

ELEMENTS

There is an old wooden **box** (30x60cm, 20cm high) that used to be a feeder for goats or sheep.

There are 4 or 5 **logs** (30-40 cm diameter) of rotting wood lying around. The chickens love to catch the ants and bugs in it.

Now there is a **plastic box** on the drip line, to catch some water that runs off the roof. The water is used as drinking water for the chickens and rabbits, or as cleaning water if it's unsuitable to drink. When the chickens forage in their garden, they use this box for drinking.

The rabbits in the stable live on **straw**. The straw can immediately be applied as (rich) mulch in the (chicken) garden when I clean the rabbit housing.

SOIL

The soil Ph is between 5.8 – 6.5: slightly acidic.

On some spots at the top the soil is quite compacted and there aren't many worms or other visible creatures living in it. In the cutting I see a 3 cm brown top soil layer and under it is orange-yellow sandy clay, with parts of kaolin clay in it.

2 Metres further (down) the soil is black, 20 cm deep black and much more loose. But still not many worms.

PLANTS

The plant diversity is poor. There is blackberry growing all over the garden, there is a lot of *artemisia vulgaris* (mugwort) and there is only one clump of grass left, and a rosemary shrub that I planted.

The garden has 1 fast growing walnut tree, 4 metres tall and about 3 metres wide. I guess now, in 2015, it is 5 years old.

Near to this walnut tree, next to the cage, there is a young plum tree growing. It is not planted; it's growing from the roots of a big mother plum tree that we had to cut down. It looks healthy.

In the middle of the south part of the garden grows a small, almost dead plum tree that doesn't have much leaves. The branches are growing almost perfectly vertical, close to the tree, because of strangling bramble and other climbers. There is also a fungus growing on the trunk.

There used to grow grass in the chicken garden but the chickens ate it all.



The chicken garden is an ugly part of the terrain and the slope is too slippery in wet weather. The soil is bare and looks poor where there are no brambles growing. The trees are not in their best shape. There is a teepee made of sticks that is partly collapsed; some strangling vines are keeping it upright.

The chickens don't have much to do in this garden and there is no food growing for them.

FUNCTIONS FOR THE CHICKENS

At the moment our chickens are used to

- turn the compost,
- add manure & feathers to the compost,
- give us eggs and meat,
- eat bugs and weeds that we bring them from the garden.

WISHES

Bogata Šuma's vision is to create beauty through love, dedication and celebration. At the moment there is hardly any beauty in the chickens garden and that shows that there was no dedication.



The almost dead plum tree with strangling vines and fungi

At Bogata Šuma we also aim for self sufficiency. We live more and more food self sufficient, but the majority of the food for the chickens we still buy (2015).

If we can grow (a part of) the chickens food (corn, grains) in their own garden, that would be great.

The chicken garden should be a nice and natural area where the chickens can happily forage. The garden should also improving their health. Herbs against mites and lice and vegetables for extra vitamins.

The chickens garden should be a safe place, where they have shelter from flying predators.

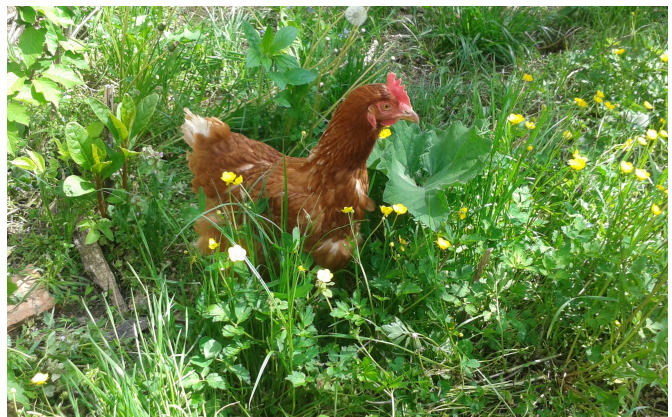
We wish for an easy way to get rid of the rabbits straw & droppings, and for the chicken poo that needs to ferment for at least a year before we can use it. Also kitchen waste could go here because we walk between the kitchen and the stable 3 times a day anyway. Two compost boxes, easy to reach, also when it rains, would be great.

Compost is also nice for chickens to find some extra food and scratch around. So they should be able to access the kitchen compost.

If there is a water storage in the chicken garden, it should be accessible for humans without getting (too) wet when it rains, and the path shouldn't be slippery.

So the main needs now are:

- Beautiful chicken garden
- horizontal & safe paths for humans, not slippery
- garden adds to the chicken's health (food & herbs)
- place to grow their food (corn & grains)
- safe from predators
- 2 compost boxes with access for chickens



We don't want to spend money on the chickens garden and we think we have enough materials lying around on the terrain. We have forests with wood, leaf compost and soil, we have pallets, screws and nails for compost boxes and we have many seeds and herbs in our nursery. We can also take root cuttings from plants to multiply them.



The entrance of the stable (north-east side)

ANALYSIS

If the chicken garden is well mulched and looked after, carefully built up with herbs like lavender, rosemary, lemon balm, marjoram and easy flowers like marigold and sunflowers, it will easily look good.

INPUT – OUTPUT ANALYSIS CHICKENS

Input

Shelter
Safety
Water
Food: corn and grains
Food: kitchen scraps, weeds, seeds and bugs
Grit
Dust bath
Health care
Hay for nests
Protective fences
Other chickens as companions

Output

Fun moments
Crowing rooster
Eggs
Meat
Manure
Feathers
Turned compost
Tillage
Pest control
Harvesting rotten fruits
Methane & CO2

The input we all give. For the last 3 outputs we haven't found a good way to make it happen (tillage, pest control and harvesting fallen fruits for us).

We are experimenting with a smaller, portable cage so 1 or 2 chickens can scratch a garden bed in a controlled way. They are exposed to the sun and the cage is small so they are done with their work quickly.

At the moment we can only use 1 or 2 tame and smart chickens for pest control. The other chickens don't like to be picked up or don't understand the hunting adventure. Those 2 smart chickens we pick up and bring to invested plants (while holding them). See picture below.



Hunting bugs with a chicken

EROSION IN THE CHICKEN GARDEN

With drought the upper (west) part of the garden is the most dry.

When it rains, the water runs off from west to east and causes erosion. Under the drip line of the stable roof you can see a water run off erosion gully.

We could pave under the drip line, catch this water somehow or install gutters.

The soil is black & beautiful. In winter all weeds die and in spring the soil is bare, fully exposed. We should find mulch.

The trees aren't helping much. On the upper (west) side there is a walnut tree with a suffering plum next to it, and down in the middle we have a plum tree that is ill and probably dying because of a fungus.

ZONING

This zoning map is made out of human's point of view. The chickens use all zones almost evenly if they get the chance.

Zone 0: stable.

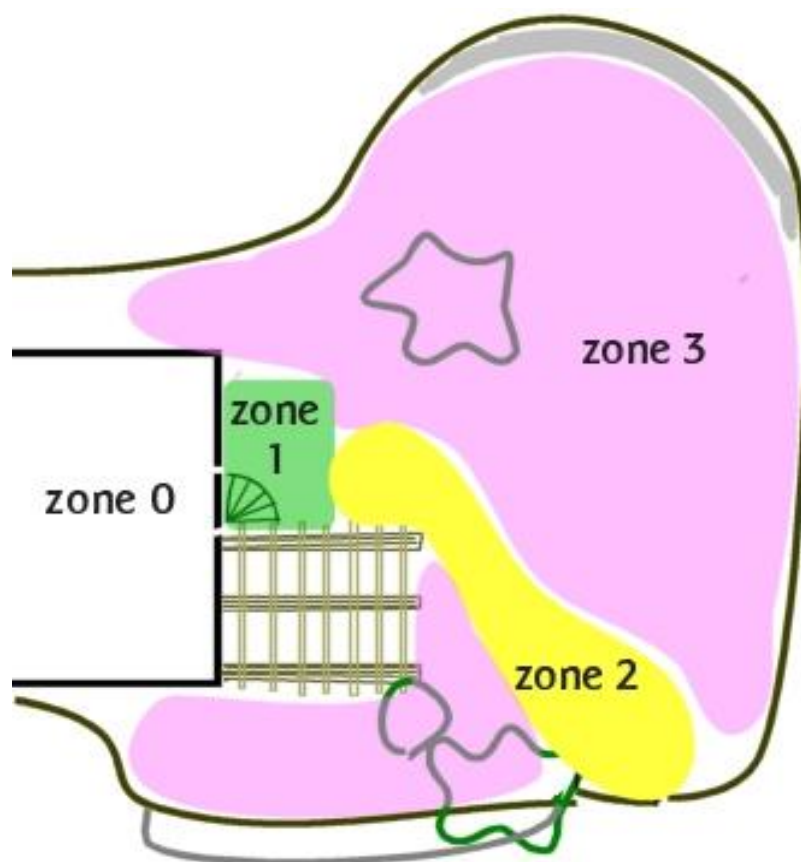
Zone 1: closest to the entrance from the stable. Used especially when it rains.

Zone 2: the path between the stable and the garden door. Also the path "up", to dump the mulch.

Zone 3: this is where I plan to grow food & herbs for the chickens.

Zone 4: not relevant

Zone 5: fence with brambles. This wilderness functions as an extra barrier against foxes.



EARTH'S NEED: GOOD SOIL

When the soil would be enriched with compost and the slope is stabilized by making terraces, the nutrients can stay in place.

We can add nutrients and microbes by applying the rabbit straw & manure as mulch.

Since it is most likely that the straw will be scratched down hill, there should be a good wheelbarrow path to the upper side to start the mulching (again) there.

CHICKEN'S NEED: HEALTH

Our chickens haven't had parasitic worms, but we did notice body lice and mites occasionally. All problems can be solved with garlic in their water, herbs, sun and a dust bath.

Severe problems (like blood lice) ask for oiling the roost, taking all straw out and replacing the sawdust under the roost and feeding the chickens herbal tea.

The following list of helping herbs we have already growing on the terrain:

Garlic is the best organic treatment for worms.

Marigold (*Calendula officinalis*): anti inflammation, detoxifying, blood cleaning, stimulates liver and stomach, helps digestion

Comfrey (*Symphytum officinalis*): perennial, rich in protein, potassium, and calcium. Beneficial to chickens for their general health and egg laying.

Dandelion: detoxifies, cleans blood, cleans lymphatic system

Fennel (*Foeniculum vulgare*): their foliage and seeds are good for chickens to eat for general health.

Hyssop: anti septic, stimulates the gastro intestinal system

Lavender: evergreen shrub, a good insecticidal herb. Plant a row of lavender around your chicken coop. Put dried lavender in your chicken coop for an enhancing fragrance and to calm chickens.

Lemon balm (*Melissa officinalis*): calming for chickens

Wild marjoram: boosts the immune system and cleanses the body of bacteria, viruses, fungi, yeasts

Nasturtium (*Tropaeolum majus*) : a general herb for chicken health; it has antiseptic and antibiotic properties. Its seeds can be used as a natural chicken de-wormer. It also has insect repellent qualities. It reseeds itself.

Nettle is a good preventative for worms and it gives vitamins and minerals. The nettles should be boiled and the liquid added to mash when cold.

Rosemary (*Rosmarinus officinalis*): evergreen shrub, its aromatic scent repels insects.

Sage (*Salvia* spp.): a good herb for chickens' general health.

Wormwood (*Artemisia absinthium*) and

Mugwort (*Artemisia vulgaris*): beneficial as an insect repellent for chickens, prepared as a steeped tea mixture. Grow next to your chicken coop to help control external parasites.



CHICKEN'S NEED: SAFETY FROM PREDATORS

A bird of prey has just enough space (in the open south side) to land and take off with a chicken. So if we plant trees, there will be natural barriers for predator birds.

One or 2 extra trees in the chicken garden will prevent birds of prey to take off with a chicken.

Good trees that also feed the chickens would be mulberry, hawthorn, persimmon, mountain ash (orange berries), maple tree.

And also: chickens love sun but also need shade. In summer it can get too hot for them. A tree will provide the chickens with shade, create leaf mulch to scratch around, the tree can be a host for insects and it gives fruits as extra food for the chickens.

DESIGN

The focus of the design is to make the chicken garden a safe, beautiful, low maintenance source of health for the chickens.

For the work we can get the help of WWOOF volunteers and we can organize a weekend workshop where people can learn about designing and implementing a permaculture design. If we can organize a workshop where people pay, we use that money for the project.

GOOD PATHS FOR HUMANS

With making horizontal terraces on the contour lines, we also create more save paths for humans. Also wood chips as mulch on the paths will prevent them from becoming slippery.

Zone 1, right outside the stable, is where we expect to walk the most (to fill up the water for the chickens for instance). That needs stone steps, also to prevent further erosion from the drip line.

COMPOST

Because we're visiting the chickens at least 2 times a day and because it is free chicken food and entertainment, the chicken garden would be a perfect spot for our compost box. We can construct it with the old pallets we have.

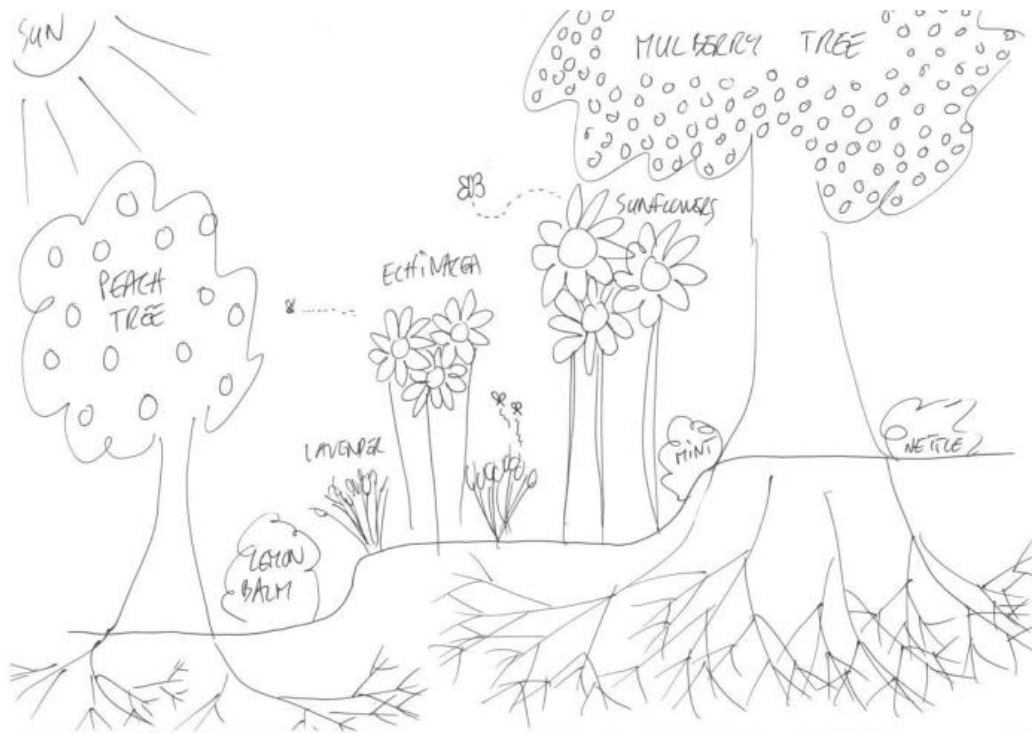
The compost should stay in the boxes and the chickens should have access to it. The best spot would be at the top of the chicken garden, in the shade of the trees, where we can also access it from the parking spot.

WATER

We will install gutters and a rainwater catchment barrel in the chicken garden to prevent erosion and have close by water access.

SAFE FROM PREDATORS

The plum tree down in the chicken garden is hardly alive: we'll replace it with a peach tree. We have peach trees growing from the compost in the garden, that we can dig out. A bit higher up (north-west) in the garden we'll plant a mulberry tree because we have lots of them growing from seeds



More trees in the chicken garden for shade and safety against birds of prey

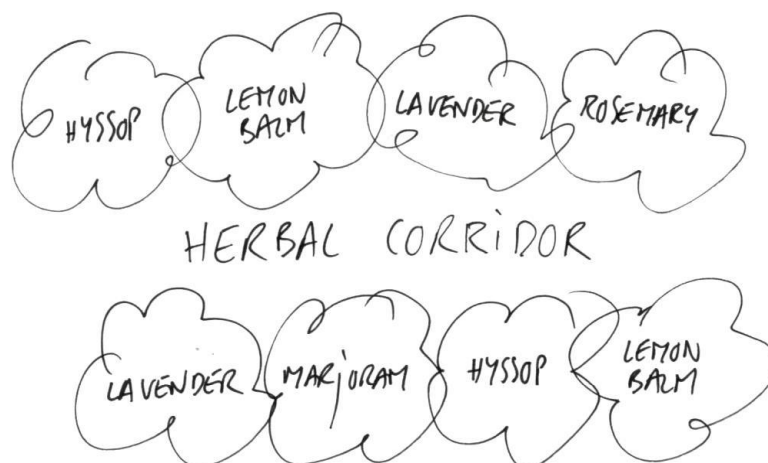
HEALTHY CHICKENS

The old wooden box can be repurposed as a **dust bath** for the chickens. We have a surplus of wood ash from our stoves; this will be the dust.

We can grow more staple chicken food in the chicken garden (when we protect it) and in our vegetable garden. Like corn, flax, wheat, oats and buckwheat.

We can grow more berries at the fence of the chicken garden. Nice extra vitamins for the chickens and the thorns of the bushes will keep the chickens in and unwanted visitors out.

With **herbal corridors** in the chicken garden, their feathers will brush the shrubs and keep mites away. I propagated hyssop, lavender, rosemary, wild marjoram and lemon balm for this purpose. The chickens can also peck it of course.



Mint and nettle will go in the shade, echinacea (for beauty and to attract more insects) in the sun. Nasturtium along the fence and as a ground cover under trees.

There is space for annuals like sunflowers, fennel and vegetables for chickens. Kale and Swiss chard for instance, or spinach, lettuce, nasturtium...

BEAUTIFUL GARDEN WITH HERBS AND FOOD



IMPLEMENTATION

We unsuccessfully planned a chicken garden design workshop in summer 2015. No one came.

So we worked out the plans with our volunteers.

We started with making terraces. We used old wine bottles, upside down in the ground, to stabilize the soil works.



With hoeing horizontal **terraces** on the contour lines, we created **paths** with steps. Next to it a narrow wheelbarrow path without steps.

We replaced the ill plum **tree** with a peach, and planted two mulberry trees higher up.

Next we planted **herbal corridors** in the chicken garden. We planted hyssop, lavender, wild marjoram and lemon balm. Mint in the shade, at the end of the drip line so it gets enough water.

We spread **compost** as mulch on the terraces, around the planted herbs.

After all this work, we kept the chicken garden closed for the chickens for a month or two, to give it a rest.

In the years after 2015 we installed gutters and a barrel to collect the rainwater and we experimented with various herbs and vegetables in the chicken garden.

MAINTENANCE OF THE CHICKEN GARDEN

There is not much maintenance to be done in the chicken garden.

The chickens and gravity will move the compost and mulch to the lower (east) part of the chicken garden. When we see that everything is down there, we will scoop it in a wheelbarrow and bring it back up. Spread it around the trees and shrubs, or whenever we clean out the rabbit hutches and throw their straw in the chicken garden as mulch as well.

Walnut trees don't need pruning/maintenance.

When pruning the fruit trees in the chicken garden, we will just drop the prunings on the floor at the foot of the tree. Bigger branches we could weave into the fence. No cleaning up needed.

We do need a safe spot to dump the prickly blackberry prunings though, or chop them small before we drop them. For now I put them at the edge (slope) of the parking, where they might function as a fence and erosion-prevention.

During the year I collect old, spilled and leftover seeds in a jar. Every spring I throw the seeds in the chicken garden, to grow some surprise food for the chickens. This is a great tradition that I will keep on doing.

EVALUATION 2022

PLUS: WHAT WORKED WELL

We planted 2 mulberries and a peach tree in the chicken garden. The **trees** are doing well, and this (2022) is the first year that they produce fruits. The trees do give the chickens free food, shade, leaf mulch, extra insects and safety from birds of prey.

After years of hoeing the roots out, we finally got rid of the majority of the brambles in the chicken garden. Only the ones with roots under the structures are still there. I cut them back once or twice a year and spread the vines at the edge of the parking. They double-function as fence and as erosion prevention.

We installed the **gutters and rainwater catchment** only in 2019. That prevents a lot of erosion and it gives a close by source of water for the chickens and rabbits.

We use a **deep litter system on the floor of the coop**. We put a good layer (5cm) of sawdust once or twice a year. The chicken's loved scratching around in the deep layer, and the high-nitrogen chicken shit acted as the 'green' to the 'brown' of the sawdust, creating a living compost heap, aerated by the hens scratching behaviour.

The old wooden box we regularly fill with wood ash. A very effective **dust bath** against mites.

To keep them healthy, we give them a wide variety of food next to their grinded corn, like grains and seeds, food left overs and kitchen scraps, larvae and bugs that we find in the garden, grubs from plant pots, mealworms that we cultivate and fresh cabbage leaves. This food is grown in our (human) garden; not in the chicken garden.

MINUS: WHAT COULD HAVE BEEN BETTER

In 2015 we planned a chicken garden design **workshop** here at Bogata Šuma and no one came. On behind sight this is probably due to the fact that Bogata Šuma wasn't known as a permaculture farm back then, and I didn't even do my PDC yet. We didn't have credibility, our network wasn't so big and permaculture was still "new" in Croatia.

Chickens are destroyers

Chickens do much more damage than I thought; their garden is already bare after a few days of scratching. Only lavender (with a cage around) survived for 6 years and rosemary is still there after 12 years.

The chickens disagreed with the **terraces**; they scratched everything over again. Back to sloping in a week.

Wood chips stayed on the paths for about 3 seconds.

Dividing the garden beds from the paths with old bottles is not functional because the chickens will scratch the ground cover around anyway. There is no divider high enough. And besides that: the bottles broke in winter and became a dangerous edge.

The **herbal "corridors"** never worked because they were scratched out and eaten already long before the shrubs would be big enough to brush the chickens' feathers.

INTERESTING AND UNEXPECTED

Only when we keep the chicken garden closed for a few weeks in spring to give the random seeds time to grow, it looks good.

Despite 2 fences and clipping their left wings, the **chickens escape** to the garden on a daily basis. Somehow they still fly (with only 1 wing!) or the dog wiggles open a fence door, or they storm the door when we enter...

What worked well, was not making a **compost** box but using the corner of the stable to throw kitchen scraps and compost. The chickens had access to it all day long, it kept them busy and gave them free food.

Hanging bunches of seeding chards, kale, fennel or coriander or hanging a cabbage in the stable seems to make them happy & excited. They have to jump (exercise) for their vitamins.



The chicken garden in January 2022



The chicken garden in May 2022, with Phacelia

TWEAKS

HERBAL HEALTH FOR THE CHICKENS

So herbs in the chicken garden don't work, especially not with also sheep around. But herbs on the other side of the fence will still do something for them. I am doing my best to grow the entire list of healthy herbs for chickens.

Growing herbs on the other side of the fence still gives them more insects to hunt, a few leaves to peck at and the healthy aspects of the herbs.

Besides: growing herbs at the fence prevents grass from growing in the fence.

Later, when the sheep live somewhere else, I will try to plant herbs back in the chicken garden with mesh around their roots and a 10-20 cm high cage around the basis of the plant.

GARDEN EXTENSION

The best idea would be to fence the garden and let the chickens roam free over the terrain, guarded by a well trained dog. I am training Nelson, our cross-breed border collie/Croatian Shepard but he is not halfway there.

The second best idea is to make their garden much bigger. So that is what we did in summer 2022.



Picture taken from the stable, looking into the old chicken garden and you can see new (light coloured) posts of the extension behind it.

They do have to share their garden with the sheep though...



When the sheep are not out on the fields, they share the chicken garden extension with the chickens.

SOIL

The soil in the old chicken garden looks worse than it is. The entire area is covered with small sticks, leaves, straw and a bit of sheep manure. I sowed clover to restore the soil.

The new extension still has grasses, herbs and wild flowers.

MORE TREES

Now that the chicken garden is much bigger, we need new trees in there as well. Coming spring I will plant a few more mulberry trees and build a strong cage around them to protect them from chicken and sheep damage in the first years.

REFLECTIONS

While finishing this design (from 2015) in 2022, I noticed that I learned some more about designing in the meantime. There were a few times that I considered leaving the 2015-design behind and starting all over. But I decided not to, because this design is a good teaching tool now. What I can teach people with it:

For a first land design you don't have to try to fit in all the tools that you have learned. In this design I added all the climate info that I had no use for later in the design. Also the zoning was not necessary. With some effort I could make use of the zoning I did in 2015: I could translate it to where we needed save paths for humans.

Find an appropriate design framework. In 2015 I used Aranya's book "Permaculture Design" as a guideline; I didn't know of the existence of other design processes (other than Looby Macnamara's Design Web which I learned about through the book People and Permaculture). Later I found Chris Evans' clear and useful overview of [Design Frameworks](#) (a.k.a. Processes) on the website of the Permaculture Association. These frameworks vary and some fit certain type of projects better than others.

So I started with Aranya's steps and later transformed it into a SADIMET process because SADIMET fitted best with what I already had.

Now, if I should do this design from scratch, I would keep it much simpler and use CEAP (**C**ollect info, **E**valuate, **A**pply principles and make a **P**lan) for instance. This could have been a quick 10 page design probably.

The next "old design" that I am going to alternate for my Permaculture Diploma is the Nut Orchard design. I decided to keep the old document as it is, and start the new design from scratch. Setup the framework first and transfer old text to it.

I have better understanding of 3 of Holmgren's design principles now:

Observe well before you interact. Would I have better observed the destructive powers of chickens, I could have made the chicken garden bigger and better from the beginning Or even find another solution, like a chicken tractor or a well trained dog and good fencing to keep them out of the garden.

Catch and store energy: the chickens do some work for us but I would like to make better use of them in the nut orchard. They can help find the larvae of the moth that drills holes in our hazelnuts and destroys part of the crop.

If the chickens can't go to the nut orchard, maybe bring the nuts to the chickens and try to grow (some) hazelnut shrubs in or around the chicken garden?

We are not fully **Obtaining a yield** because we haven't managed to grow a good part of the chicken food ourselves. The chickens aren't a system yet.