A CONVERGING PLACE

The change is a constant driver that shapes our lives in many different situations. The real surprises are often hidden in the simplest of things. That is the reason why we wanted to approach this project with the multifunctional reuse of usual objects. Whose function is not considered only in one specific way.

Goba je le vidni del glive, medtem ko je njeno vegetativno telo (podgobje ali micelij) skrito v viru hrane, kot na primer v zemlji ali v lesu. Prav micelij je ključen akter v pridelovanju najrazličnejših ekoloških izdelkov.
O gojenju gob ne vem veliko ali bi mi lahko opisal, kako se lahko gojijo gobe v mestu?
Osnoven način gojenja gob je sledeč. Na substrat (deblo, sekance, slama,..) nanesemo izbran micelij. Ta se čez čas razraste in začne preraščati v gobo.

- Za komercialne namene obstajajo laboratoriji/posebni prostori; čas gojenja je najmanj 1 mesec
Bistvo laboratorijev je, da so zmožni uravnavati pogoje potrebne za rast gliv. Zato lahko bistveno hitreje in v večjih količinah pridelamo željene glive.
- Zunaj:
- Na hlodih; čas gojenja je najmanj pol do eno leto
- V gredicah (v njih se lahko goji več vrst gob); 25cm plast sekancev ali slame na katerega nanesemo micelij; čas gojenja 3 do 4 mesece; pomembni so okolijski dejavniki – veliko VLAGE, NE previsoke TEMPERATURE
Za rast gob je ključen tip materiala na katerem rastejo.

Rada bi te vprašala, kako si do tega projekta pristopil na začetku?

AKot predstavnik društva za permakultuo Slovenije sem s Trajno sodelovala že pri nekaterih drugih skupnih projektih. Ker se Trajna kolektiv veliko ukvarja z različnimi invazivnimi rastlinskimi vrstami, smo skupaj prišli do zanimive idej. Kako predelati/uporabiti biomaso invazivnih rastlin za vzgajanje gliv. Mislim, da bodo rezultati precej zanimivi.

Zakaj ravno gobe/glive?

Za gobe in njihove izdelke se zanimam že veliko časa. Zdijo se mi zelo zanimiv naravni material, ki bi lahko nadomestil veliko umetnih mas.
Npr. na Nizozemskem Ikea uporablja za embalažo namesto navadnega stiropora, ki pomaga pri zaščiti večjih elementov, material iz micelija. Glavna prednost je to, da je material biorazgradljiv. Ko tak izdelek kupimo, lahko miceiljski material uporabimo tudi na domačem kompostu. S tem tudi pozitivno vplivamo na okolje, saj lahko pridelamo kvaliteten humus oz. to predstavlja hrano nekaterim žuželkam.

Zakaj se sploh potrebuje laboratorij za gobe/gljive?

Laboratorij, ki se ukvarjajo s pridelavo gob za prehranske namene, so tudi na slovenskem tržišču prisotni. Malo pa je laboratorijev, ki se ukvarjajo z izdelavo raznih materialov iz gob. Po svetu so že razvita podjetja, ki se ukvarjajo specifično s tako proizvodnjo. Področje v Sloveniji pa je precej slabo razvito

Zanima me, kakšen bi bil tvoj "sanjski" laboratorij za gobe?
- katere so nujno potrebne lastnosti, ki jih tak laboratorij preprosto mora imeti?

Laboratorij nujno potrebuje vsaj dva prostora. To sta laboratorij z vso laboratorijsko aparaturo, kjer so shranjeni miceliji in glivne kulture. Tak prostor mora biti čist in sterilen. Drugi del je gojilnica, kjer je priporočljivo uravnavanje vlage in difuzne svetlobe. V idealnih pogojih je v takem prostoru povsem kontrolirana vlaga, svetloba, prezračevanje in temperatura. Kot dodaten tretji prostor je zaželen prostor za mešanje substratov. Vendar se to lahko v danih pogojih pripravlja tudi zunaj ali v gojilnici.

- na kakšen način se bodo gobe gojile v tvojem laboratorij?

Zunaj bo to potekalo v gredicah . Znotraj pa v vedrih/vrečkah.
https://lh5.googleusercontent.com/-tob2V9ZZ3Ko/VQpg8Tp1_EI/AAAAAAAAAo4/SrP1n6e3iCM/s640/blogger-image--1079690206.jpg

AN INTERVIEW WITH A STAKEHOLDER

Primož Turnšek, Biologist

Biologija, ekologija in rastline me zanimajo že od otroštva. Uživam, ko se učim o naravi, tako skozi teorijo kot izkušnje. Skozi študij mikrobiologije sem svoje znanje in razumevanje narave poglobil in dobil vpogled v procese, ki delujejo v ekosistemih.

Permakultura mi je odprla svet v sistemsko razumevanje in celostno načrtovanje okolja, ki upošteva tako naravo, kot ljudi. V kontekstu permakulture me zanima predvsem pridelava hrane in kmetijstvo, ter načrtovanje trajnostnih in regenerativnih načinov kmetijstva. Poleg vodenja društva v DPS delujem kot permakulturni načrtovalec in učitelj.

- katere vrste gob si imel v mislih?

Vrste:
- Bukov ostrigar (lat. Pleurotus ostreatus) - da se jih gojiti tudi notri
- Kraljevi ostrigar (lat. Pleurotus Eryngii) - da se jih gojiti tudi notri
- Šitake (lat. Lentinula edodes)
- Kukmakova strniščnica
(lat. Stropharia rugosoannulata) - izključno v gredicah
- Svetlikava pološčenka
(lat. Ganoderma Lucidum/ jap. Reishi)

Kakšni so izdelki?

- Opeke iz micelija in snovi na kateri raste
- Izolatorji (kot neke vrste stiropor)
- Usnje (Petra Šink- interier, oblačila)
- Gojenje gob za hrano

Kako dobro je razširjeno poznavanje in uporaba permakulturnih vrtov?

Izraz »permakulturni vrt« ne obstaja, saj je bistvo permakulture etično načrtovanje. Bistvo samega pojma je razvoj, ki vključuje potrebe ljudi in potrebe okolja. Zelo pomembno je, da pri snovanju celostno oblikujemo načrt s pozitivnim učinkom na okolje. Končni sestav mora biti v ravnovesju. Tak način pristopa k ravnanju z okoljem je precej razširjen in popularen.
Eden od razlogov je tudi vsesplošna razširjenost vrtičkarstva v Sloveniji. Veliko je tudi sonaravnih in ekoloških vrtov.
Pri oblikovanju permakulturne zasnove so ključnega pomena povezave med osnovnimi elementi. Vsak element mora biti zato multifunkcionalen. Več funkcij opravlja, boljše je.

- ali se morda namenoma uporabljajo tudi kakšne živalske vrste v tem sklopu?

S pravilnim načinom umestitve so zelo priljubljene kokoši in race. Vendar so te veliko bolj smiselno umeščene pri načrtovanju kmetij. Pomagajo pri odstranjevanju škodljivce (polžev). Npr. kokoši se lahko uporabljajo v sadovnjaku češenj. Če spustimo kokoši v sadovnjak, ko so na tla padle gnile in črvive češnje, bodo kokoši razbile bioritem črvov in preprečile njihov nadaljnji razvoj. Pri umestitvi živali pa je zelo odvisna tudi želja naročnika ali sploh želi in zmore skrbeti za njih. Tudi živali imajo veliko potreb, za katere moraš kot lastnik biti pripravljen poskrbeti.

Ali bi mi lahko priporočili kakšno bolj specifično literaturo o teh temah?

https://www.youtube.com/watch?v=IHhVpXCpTA0&t=17s

- ZAKLJUČEK

Eden glavnih ciljev celotnega eksperimentalnega laboratorija je vzpostaviti nizko energetski način gojenja gob in glivnih materialov. Zato je najbolj primerna vzgoja gob zunaj. Zaradi minimalnega energetskega vložka in končnega izdelka, ki se ga lahko tudi prodaja, je razlika med vložkom in donosom večja. Produkti se sicer ne morejo količinsko primerjati z gojenjem gob v laboratoriju. Vendar je bolj ekonomično, ekološko in trajnostno usmerjeno gojenje gob zunaj. Negativna lastnost gojenja gob zunaj pa je odvisnost od naravnih pogojev.
Znanje gojenje gob bi bila lahko zanimiva dodatna dejavnost na kmetijah. Saj za gojenje ne potrebujemo veliko vložene energije, lahko pa naredimo zanimive izdelke.

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We already know from lecture you had, what you do and how you do it. So i would like to make some basic questions about space and participants. estion?

1. what are the main facilities you will need for: regular use /quest workshop/other events?

Three main facilities (regular users)
- mushroom growing lab, some kind of garden, that must ''be open and shaded''
- wood workshop, for making simple wood products and paper workshop
(space for cutting and making mixtures, place for hollander beater, place for drying and store, she is also considering a showcase place)
- community place, for bigger events, furniture (chairs and tables), concerts,watching movies roof is also necessary

2. what are other facilities should be on the site?

As necessities: water-rain collectors, solar panels, toilets and waste managment, composte, fence inside the site, experimental garden
their ideas: some kind of a viewing platform (a view point over the whole space)
or a platform above the fence for visitors
they think that a part of the production of the paper and wood should be somehow seen form the street

3. how big events can we expect? regarding the number of the participants. And how many times per week will be site open? locking the site?

The site will be open once per week and for events, they said that they are expecting about 10 people per workshop and for lectures, bigger events such as concerts about 50 peoples
The site will be locked and will had two entrances (PUBLIC from Peričeva street and MAINTANCE from Topniška street)

In my part of the interview i'm going to explore which is trajna's picture about the diversity of the ecosystem that the crater is expected to host.

1. As Far As I Know Trajna's ''Notweed Project'' Basic Source Is In Its 50% Japanese Knotweed.
Xavi: How Do You Expect To Manage The Coexistence Between This Invasive Specie And The Others?

First of all, and to clarify, we are not going to plant any invasive spece in the area to use as biomass for our projects.
We actually know places around ljubljana were we can gather and colect the necessary amount of invasive plants to use it as primary source for some of our projects.
We will work with the already existing ones which mainly are black locust and some bushes of japanese notweed. As you know we took over the management of the place so once
Or twice a year the area will be cleared up and for sure the leftovers will be used to produce biomass for the mushroom laboratory, also to prepare some food with the first
Spring bushes, etc.
Our principal is to work with integration so we are not pretending to get rid of those plants, we want to integrate them within the ecosystem.

Do the invasive species have to be segregated?

We are not intending to segregated it, if we use this existing invasive species for our purposes we are at the same time managing and controling the spreading.
We aim to create a close relation between invasive plants management and care for the land; if you take care of the land then there are less possibilities for the invasive specie
To spread. At the same time we see crater as a urban lab to get information about the coexistence between species, and maybe later extrapolate our knowledge to manage bigger areas.

As i've seen in your website documentation, ''beehives'' project needs its own controled space, do you thing this will be necessary in our current location?

Beehives'' project location was a public parc so tehre where childs and dogs around and it was necessary to take some kind of mesuare.
Otherwise the net that was placed was symbolic rather than a strict
Fence and its transparency allowed the users to have visual contact
With the inner ecosystem activity.
At the moment ahidden place it's considered a comunity place for the
People collectives that are running projects in it rather than an open
Public space, so in this case, the net that was used in the ''beehives''
Project won't be necessary.
There is also an interesting analogy between the grownth of the
Vegetation in the crater and the ''beehives'' project; when both of them
Where sorrounded by a fences and no one was taking
Care of the management, they both became microjungles and its nice
To see how the vegetation acts and spreads without human
Intervention.

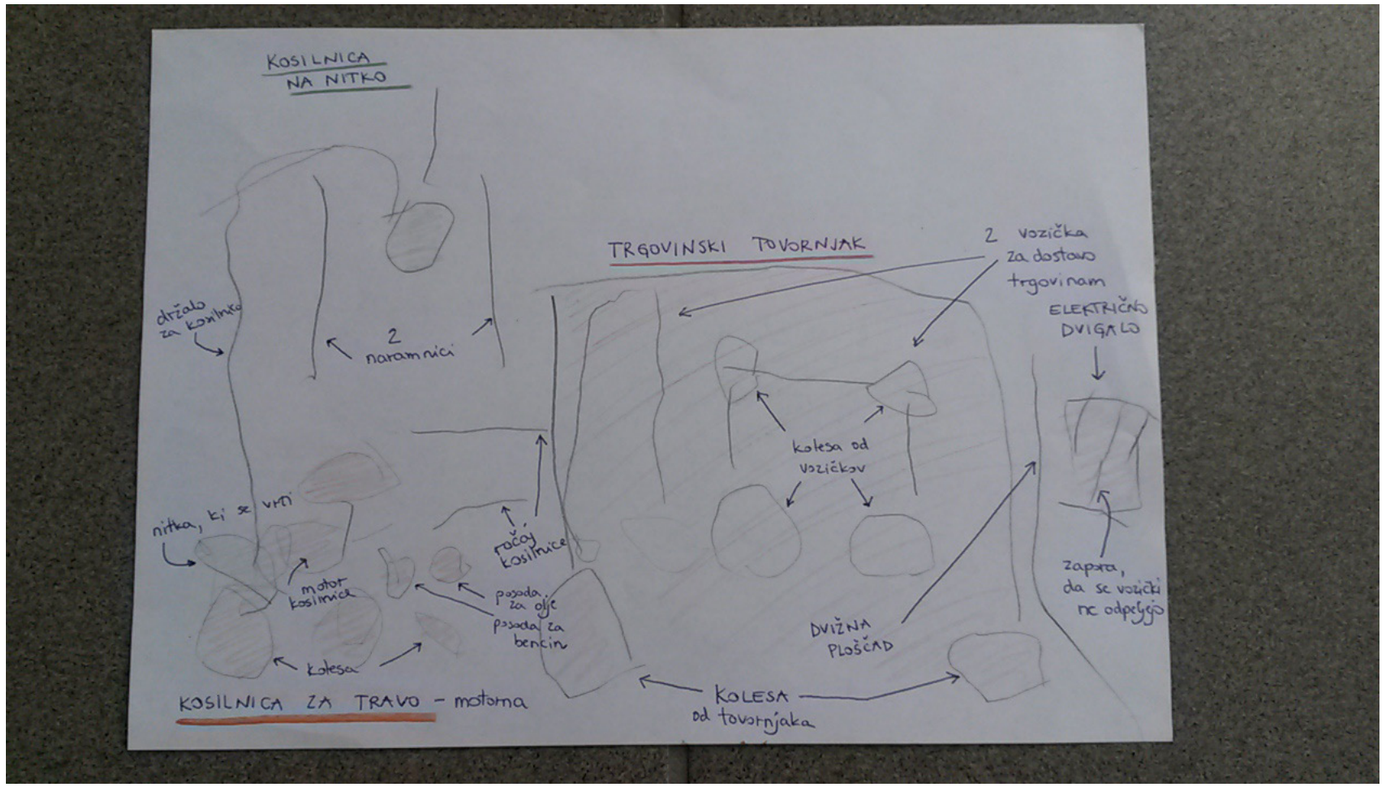
AN INTERVIEW WITH A STAKEHOLDER

TRAJNA COLLECTIVE

Symbiocene is a nomadic platform, set up to question our design abilities and sensibilities, to experiment and produce work that works outside and beyond the anthropocentric and capitalist production of our everyday realities. Continuously evolving, it aims to explore the potentials of interspecies collaboration and look for ways to encourage symbiotic relationships within the contexts in which it operates.

The platform was set up by design duo Gaja Mežnarič Osole and Andrej Koruza who work within the Trajna collective. Trajna is a non-governmental organisation which works towards supporting solidarity and cross-species co-sustainment by initiating commprojecty economies, creative research, organising workshops and designing eco-infrastructure. At the moment Trajna is focusing on developing creative and sustainable solutions for invasive species management.

The first answer was from 6 years old Korina, who likes to jump on the trampoline, roller-skate and play with a ball of frisbee. She really likes to draw, and make sculptures out of plasticine. The other answer we got was from a 4-year old boy Ožbej and his 1,5-year old sister. The parents explained that they were staying during the carantene in a small village in dolenjska region and children absolutely loved the nature and animals there. Ožbej especially liked the machinery he saw on the farm like trucks and mowers so he decided to draw us this viecles. The parents also stated that they would very much like to bring a little peace of nature they experienced to the city like Ljubljana and that's why they wrote us back. I think both answers really sum up the idea Klemen and I had on how the answers from children should look like.



LOCAL USERS SURVEY (CONCEPT)

Kindergarten and preschool children

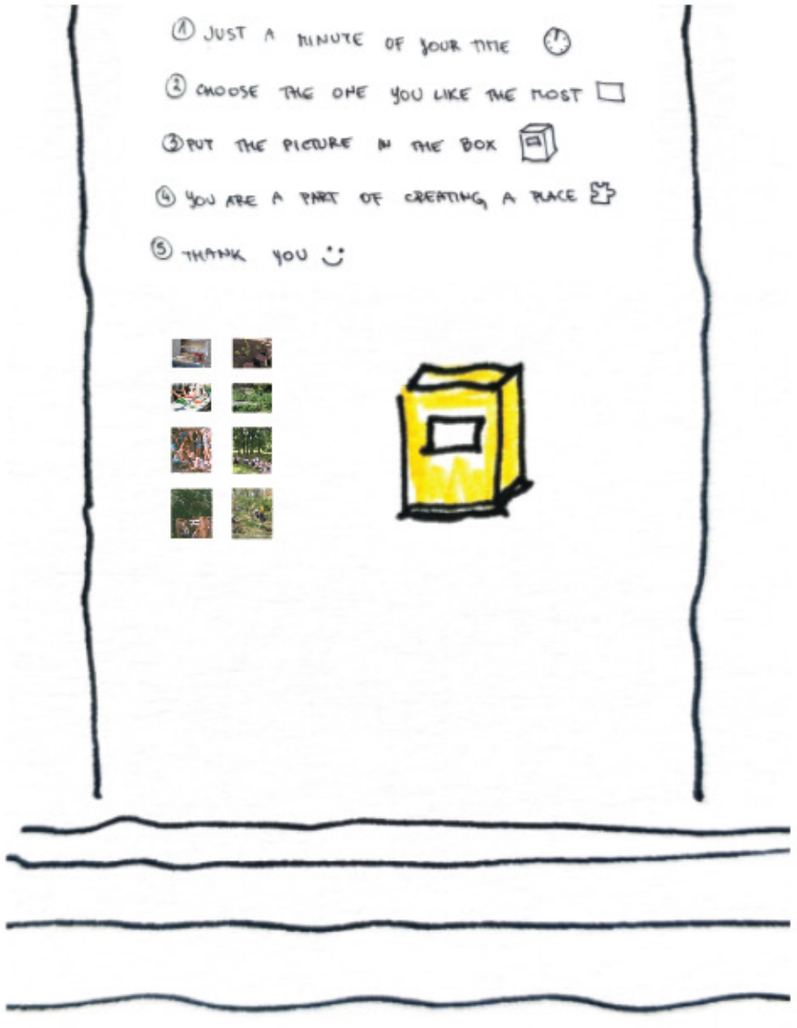
We taught that in this situation it was the smartest way to approach children of such young age threw their parents. So we decided to write an email with a few simple questions that address both parents and their children. In the introduction of the email, we simply explained what the project is about, who is the main organizer and why we would really appreciate the their help. Than we requested the parents to ask their children what they like to do outside. We taught it was smart to let children express themselves in different ways such as using legos, drawing, painting or forming something out of clay. We also kindly asked the parents to write us the comments of what the children created. After a while we got two answers from the parents.
(Klemen's & Lea's survey)








Idea is to put colorful boxes and photos of different usage in few places near our location. With kind note and easy task, the local residence may respond with putting their preferable picture in the box. With checking the results in boxes and refreshing stock of pictures in for few times a day, we might get the sense on what they need or want.



LOCAL USERS SURVEY (CONCEPT)

Local residents

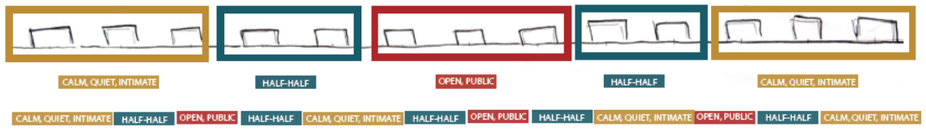
LOCAL USERS SURVEY (CONCEPT)

Local residents

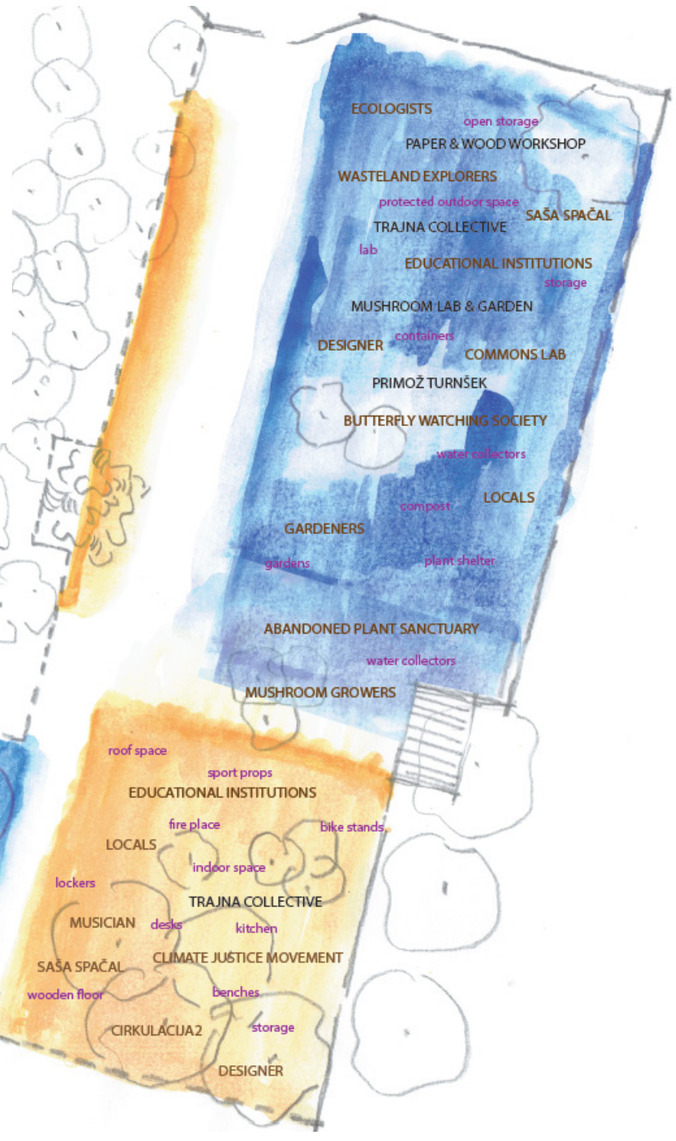
Local residents (people dwelling nearby, community representatives if existent)

Questions to ask the local residents and passers-by:
What do you know about this place? Were you ever curious and looked over the fence to see what is there? Did you ever go inside? Would you ever try to sneak inside with your friends or something? Would you want to have a hidden spot like that to hang out?
Are you happy in this neighbourhood? Do you like living here/working here? Why? What would you say you miss the most here, what is most inconvenient about living here?
How to approach them:
Show them different concept sketches of the place to get them to imagine and form an idea in their head of what could be in the place. Let them pick a favourite. Let them give suggestions
LANGUAGE BARRIER
Either do the interviews in slovene (someone translates)
Or try to do it with visual materials (photo's of the site inside, sketches or images of suggestions for the place
How to get a hold of them in the current situation:
Trying to find communities on facebook (I didn't find any facebook groups)
Try to ask around to see if some friends know someone who lives there or works there
ONLINE SURVEY

3 TYPES OF SPACE



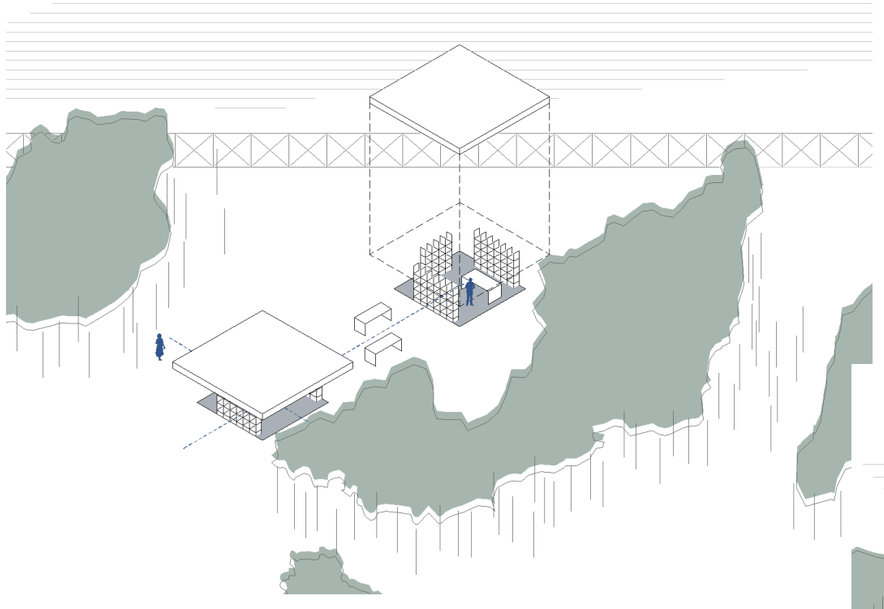
MOVING THROUGH SPACE AND BLURRED BORDERS

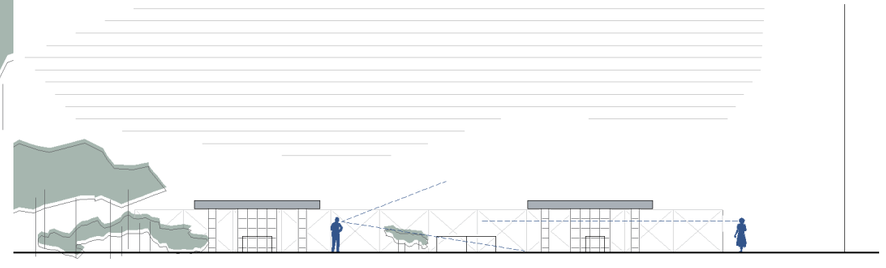


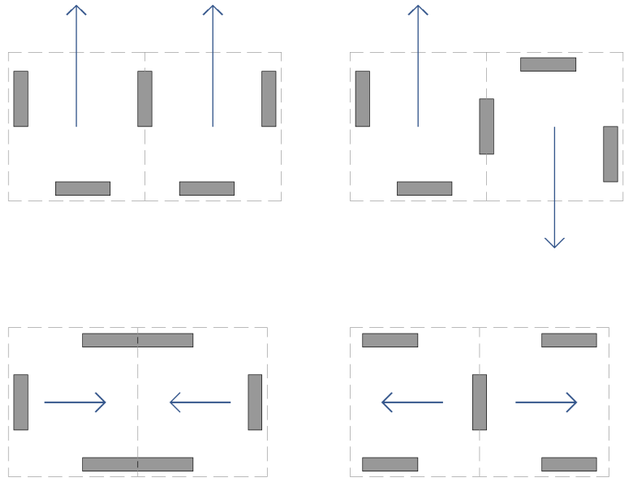
THE OUTCOME

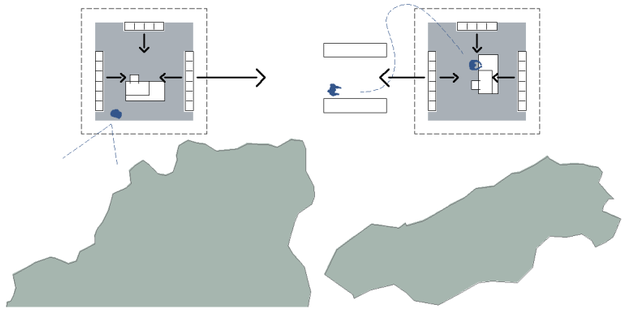
Our main idea was to create multifunctional spaces that could service different groups of users. The main borderline was to create a space which is intended for regular users such as Trajna and Primož Turnšek and to create an open public space for local users.

Space is divided in two main categories - open/social and more intimate/working space. Users are located into these areas based on their needs and wishes, which later lead into more specific floor plan. For animals, animal observers and supporters is the most appropriate calm and remote part. Regular users can be in some parts merged with locals, educational institutions, artists and ecologists. And the most open part, beside the main entrance for people, is the most flexible, accessible and can be used by everyone.







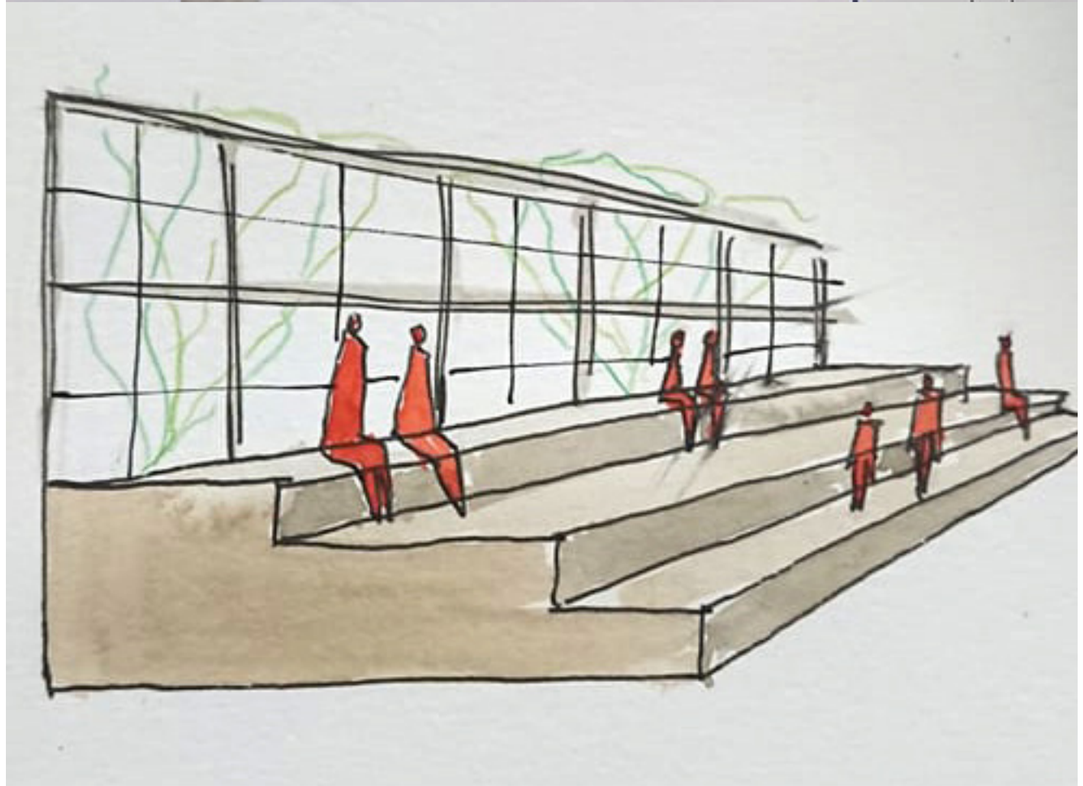


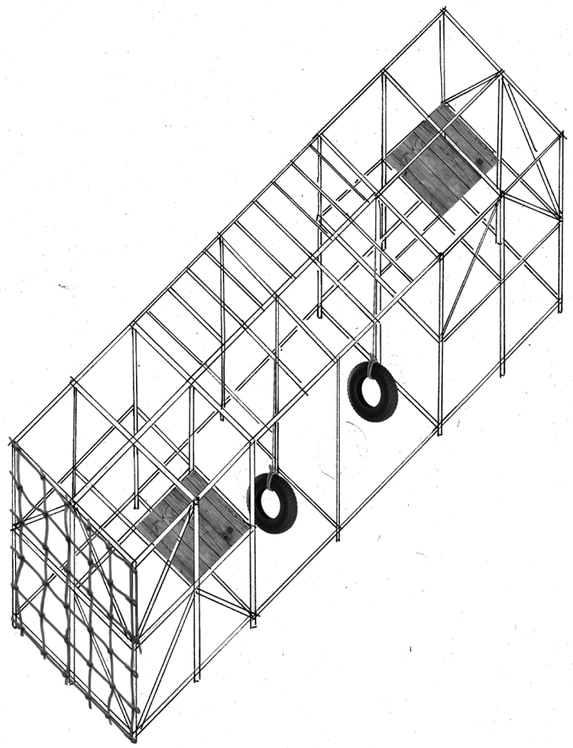
THE PROCESS

Cubicle

We wanted to designed a flexible cubicle. Which contains covered roof and storage unites. Each cubicle can be combined or can stand alone.

We also want it to have always a visual connection from the street and from the place.

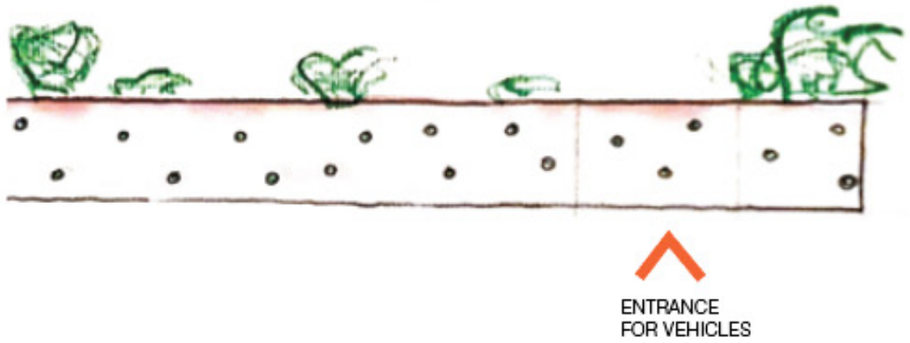


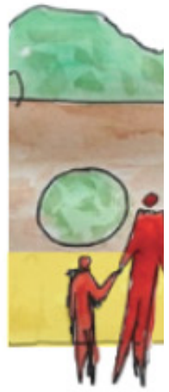


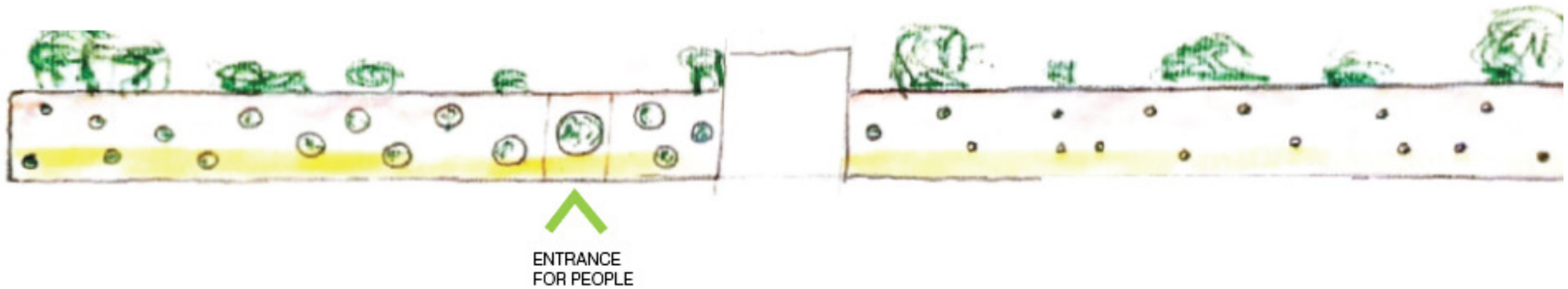
THE PROCESS

OPEN SPACE / PLAYGROUND

The open space in our project is a way to get the local residents involved in the project. When the plot is open to the public, people will enter here and discover the whole project. There will be picnic benches, a fire place, hammocks and other furniture like that. Important in this space will be the playground for children. It will also be made of a small scaffolding structure, where there will be platforms, climbing ropes, tire swings,... There's a lot of space for the children to personalise this space and get creative using the structure.



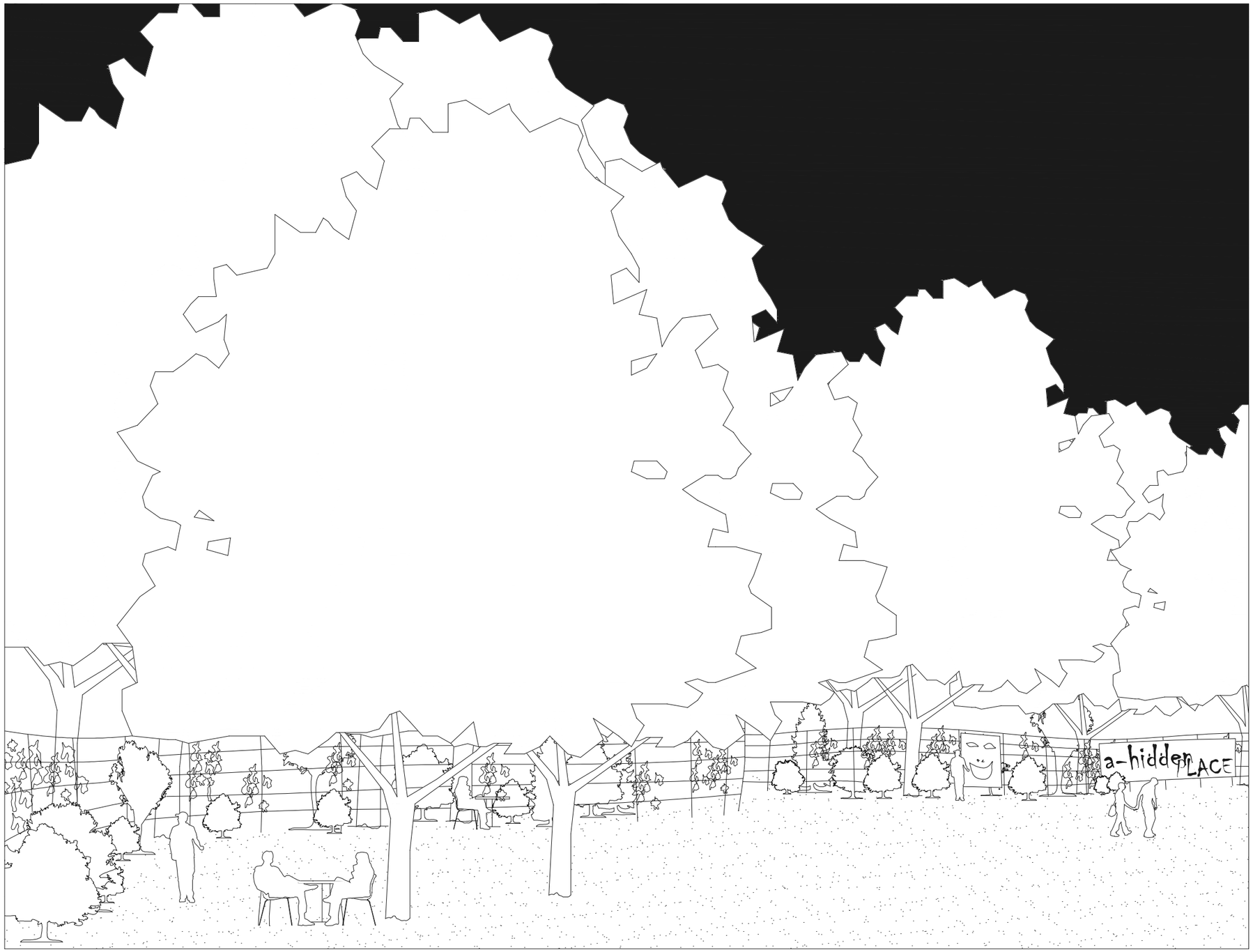




THE PROCESS

OUTSIDE FENCE

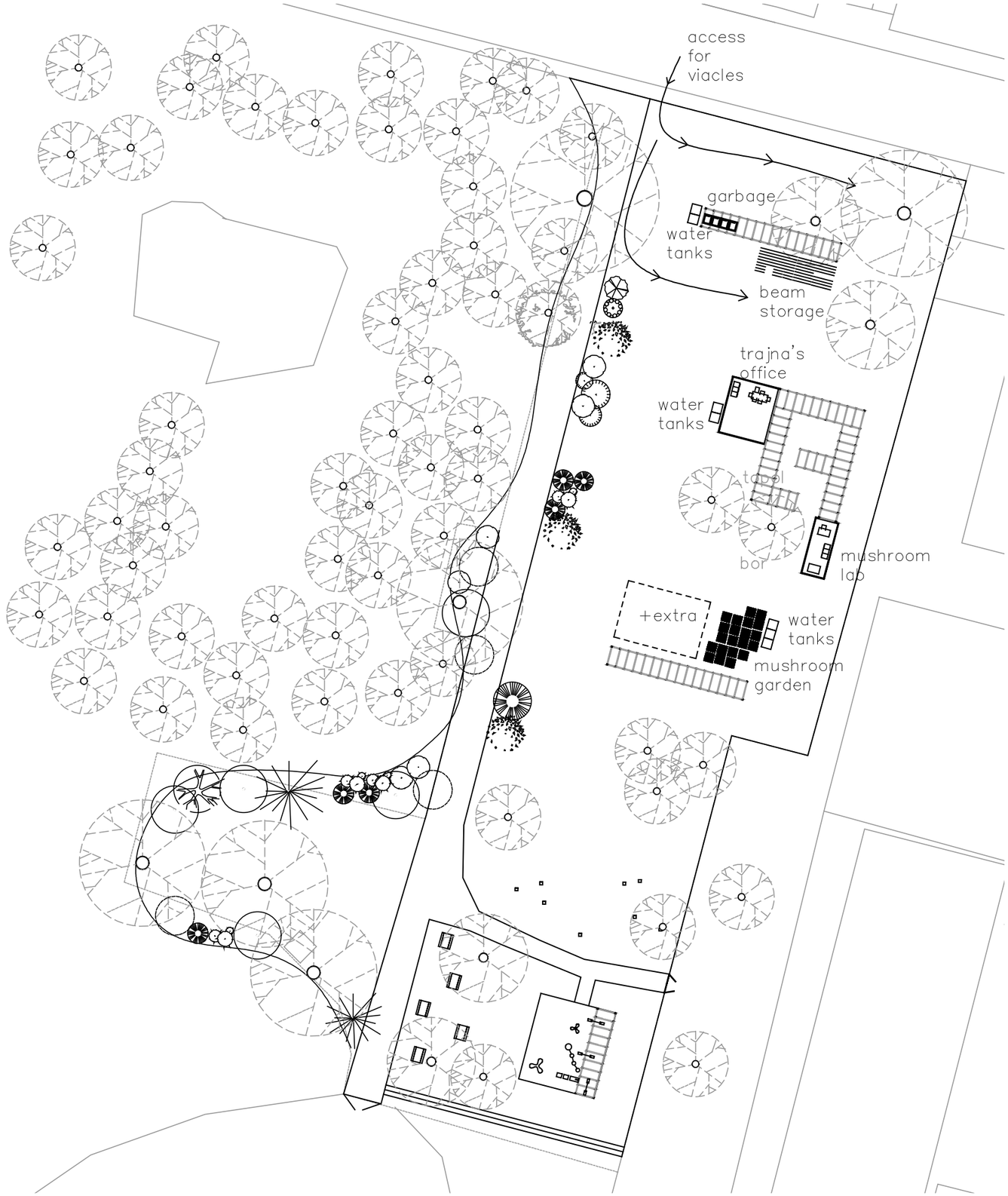
Outer fence has added holes that are in already existing one enabling view to the inside for people walking by. Holes are composed of multiple smaller ones made with hammer drilling machine and their sizes are adjusting to the program inside of the fence. View is more open in parts where social program occurs, which is represented in the biggest holes near the entrance for people. Other parts of the fence have smaller holes that give more limited view on program inside.



THE PROCESS

INSIDE FENCE

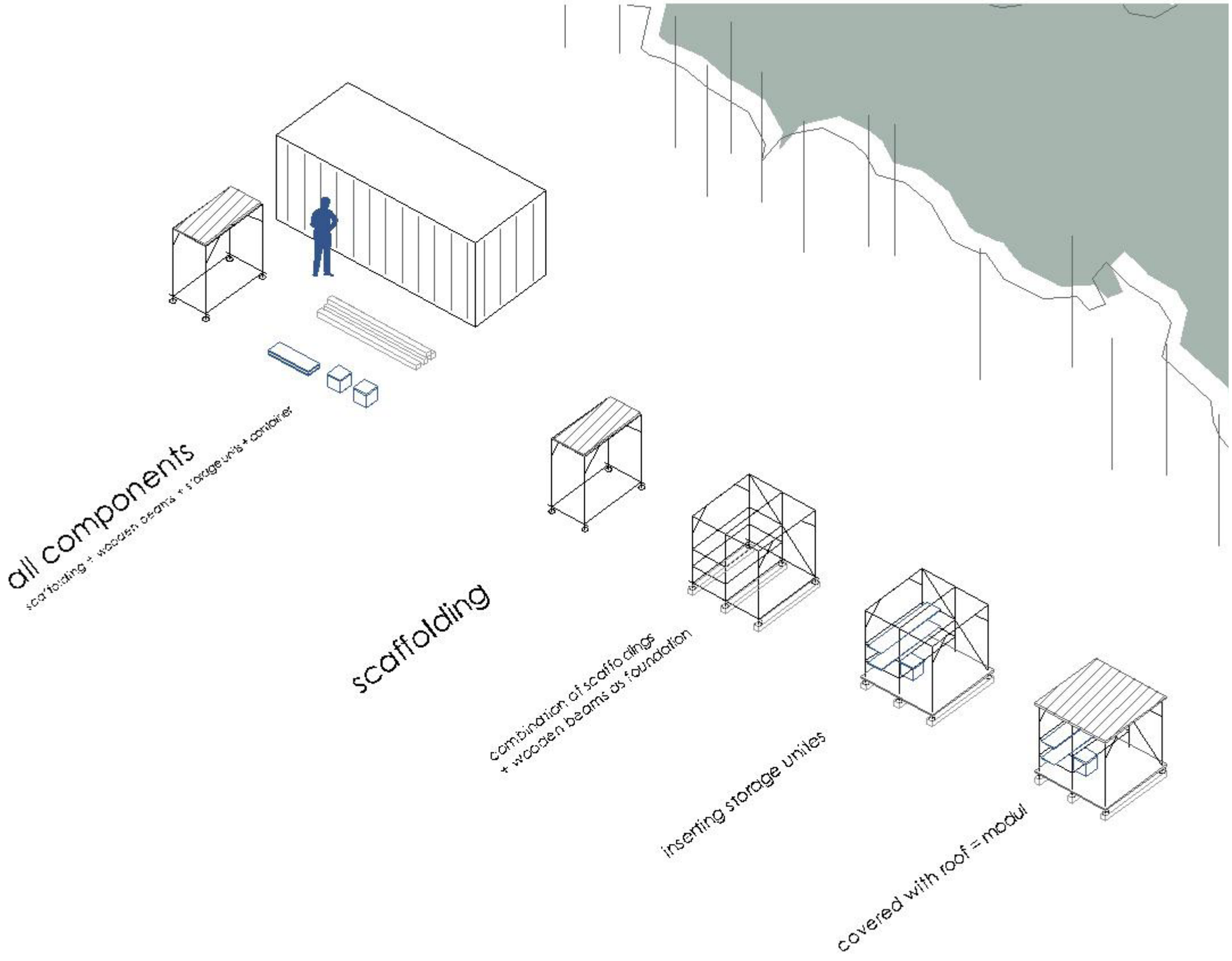
Even though the inner fence is necessary in order to establish the area where "A converging place" is going to be located, we thought about a symbolic and non invasive fence. The following principles helped during the development of this fence:
visual relationship between the area of intervention and the rest of the location, use of the existing vegetation as a structural support, fence as an integrated element within the ecosystem (allowing fauna and flora to interact with it).



THE PROCESS

DETAILED CONSTRUCTION

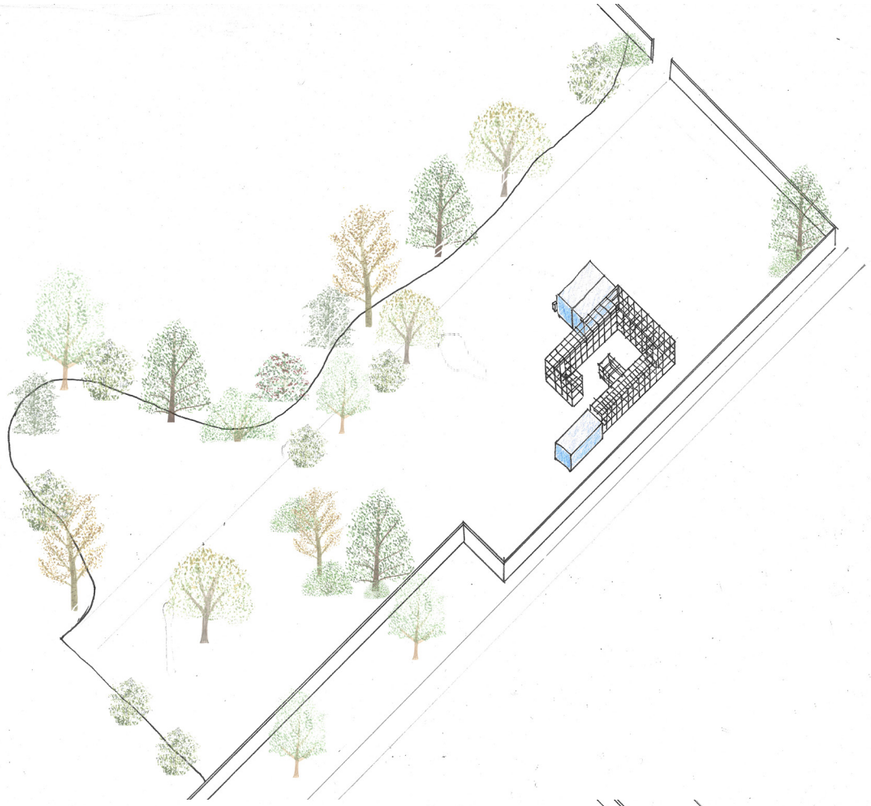
We structured the basic arrangement based on the qualities of different areas of the location. Therefore, we placed the "garbage & storage" area close to the vehicle entrance. Then we placed the Trajna's & mushroom lab beneath the storage area so it's close to their supplements but is also connected with garden area. We thought it is really important to place the gardens where the humidity it the highest. In the most southern part we formed an open public space which can work well for different stakeholders because of its multifunctionality.

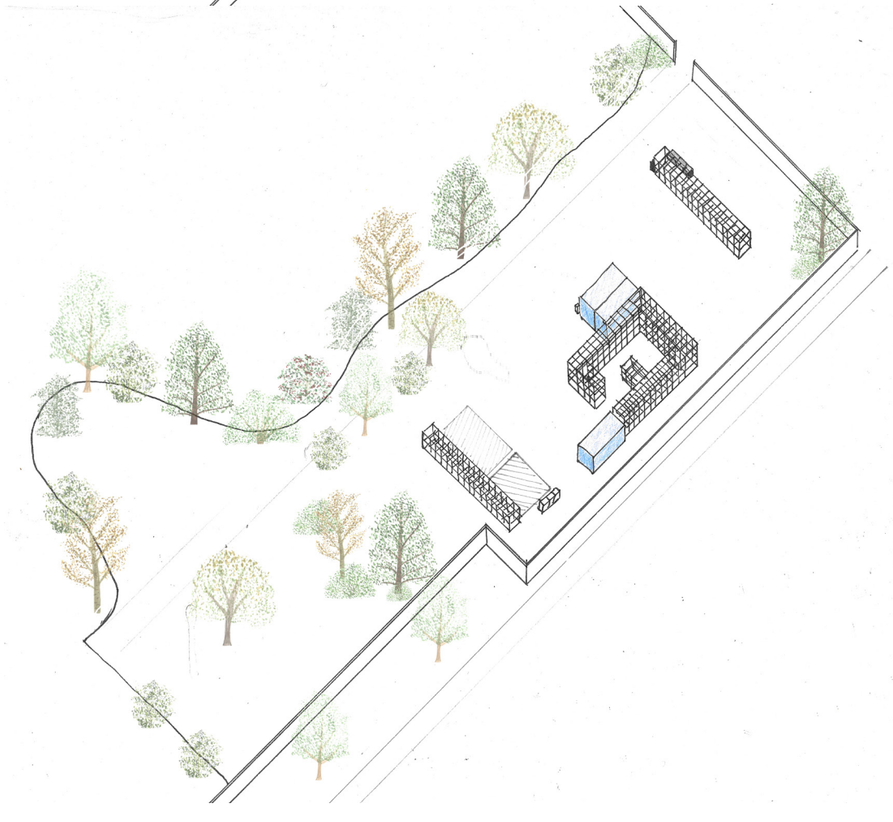


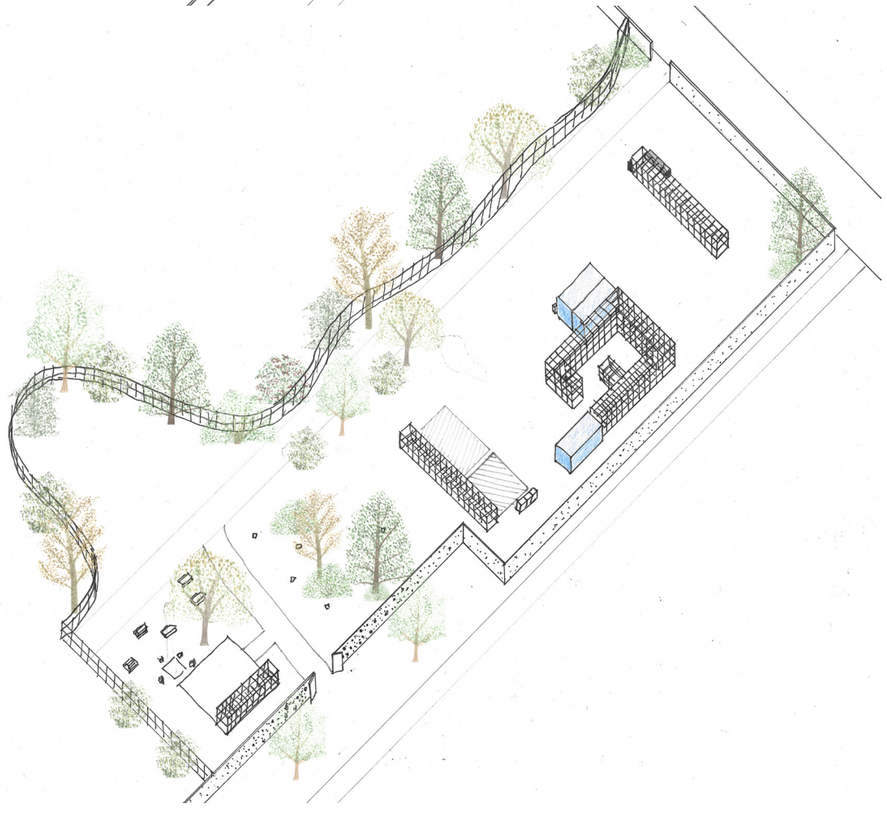
THE PROCESS

ASSEMBLING THE CUBICLES

For our main structure we decided to use scaffolding. They are easy to assemble, flexible and they do not need concrete foundation. They represent our idea of temporalit.

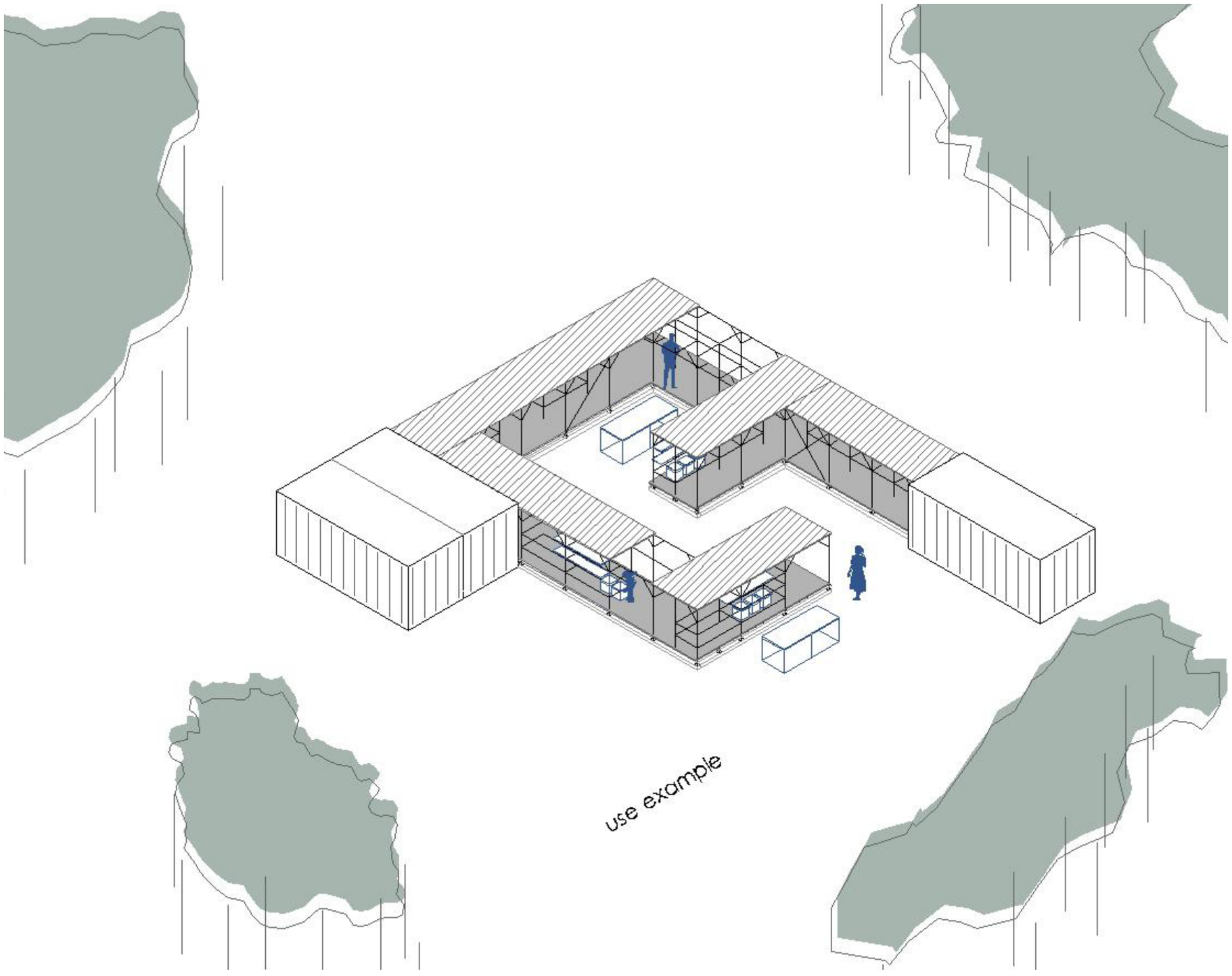






THE PROCESS

TIMELINE OF CONSTRUCTION



THE PROCESS

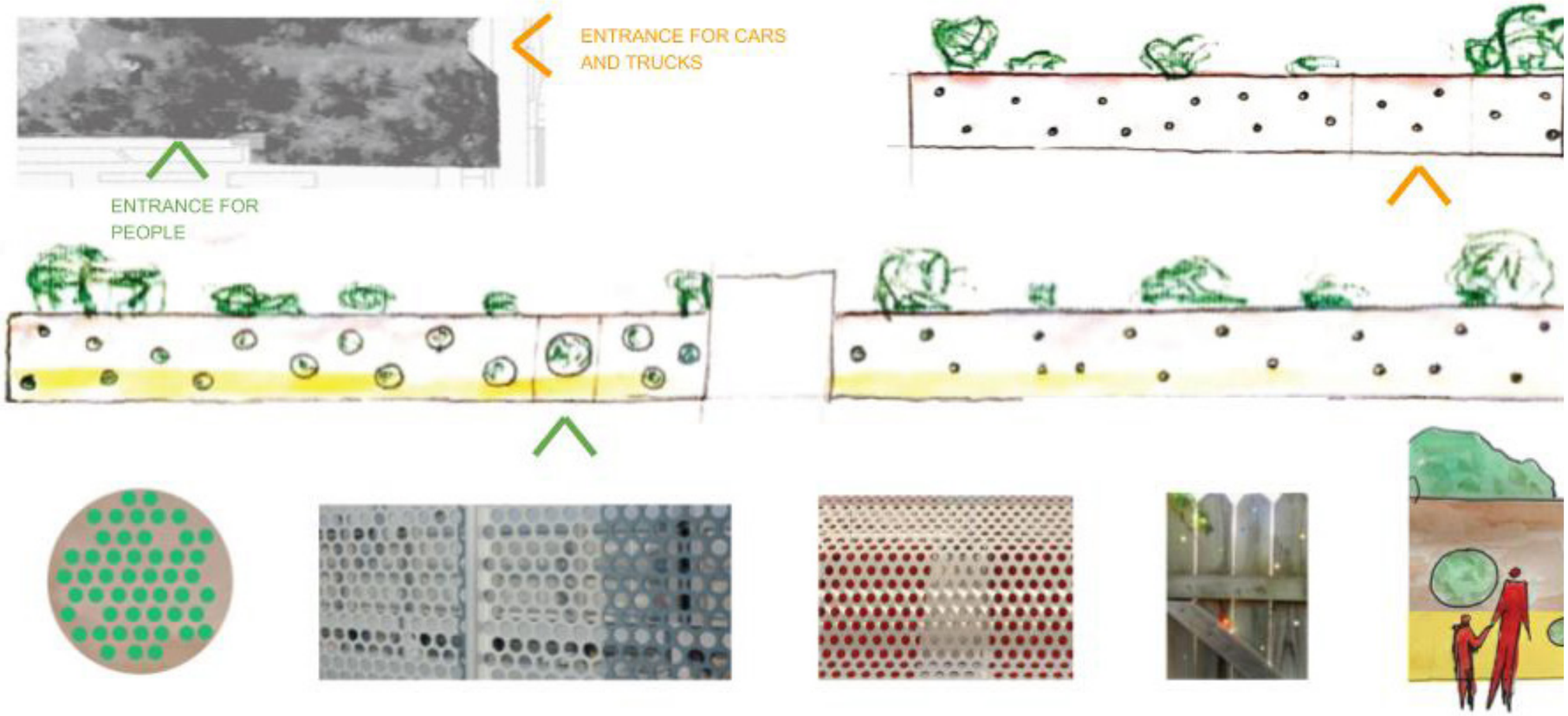
COINTAINERS - 1

Use example - the main square with cointainers for Trajna and mushroom lab. Which would present the first phase of construction.

THE PROCESS

GARDEN/GARBAGE STORAGE - 2

In second phase would be build storage place from scaffoldings on two positions. Between gardens and open social space is garden tool storage, which has closed part for safety and part that enable view from one side to another and connects social space with work on gardens. Second one is placed near the entrance for vehicles where scaffoldings are designed for storing garbage containers. It has close sides and serves as barrier dividing garbage from working area.



THE PROCESS

FENCES - 3

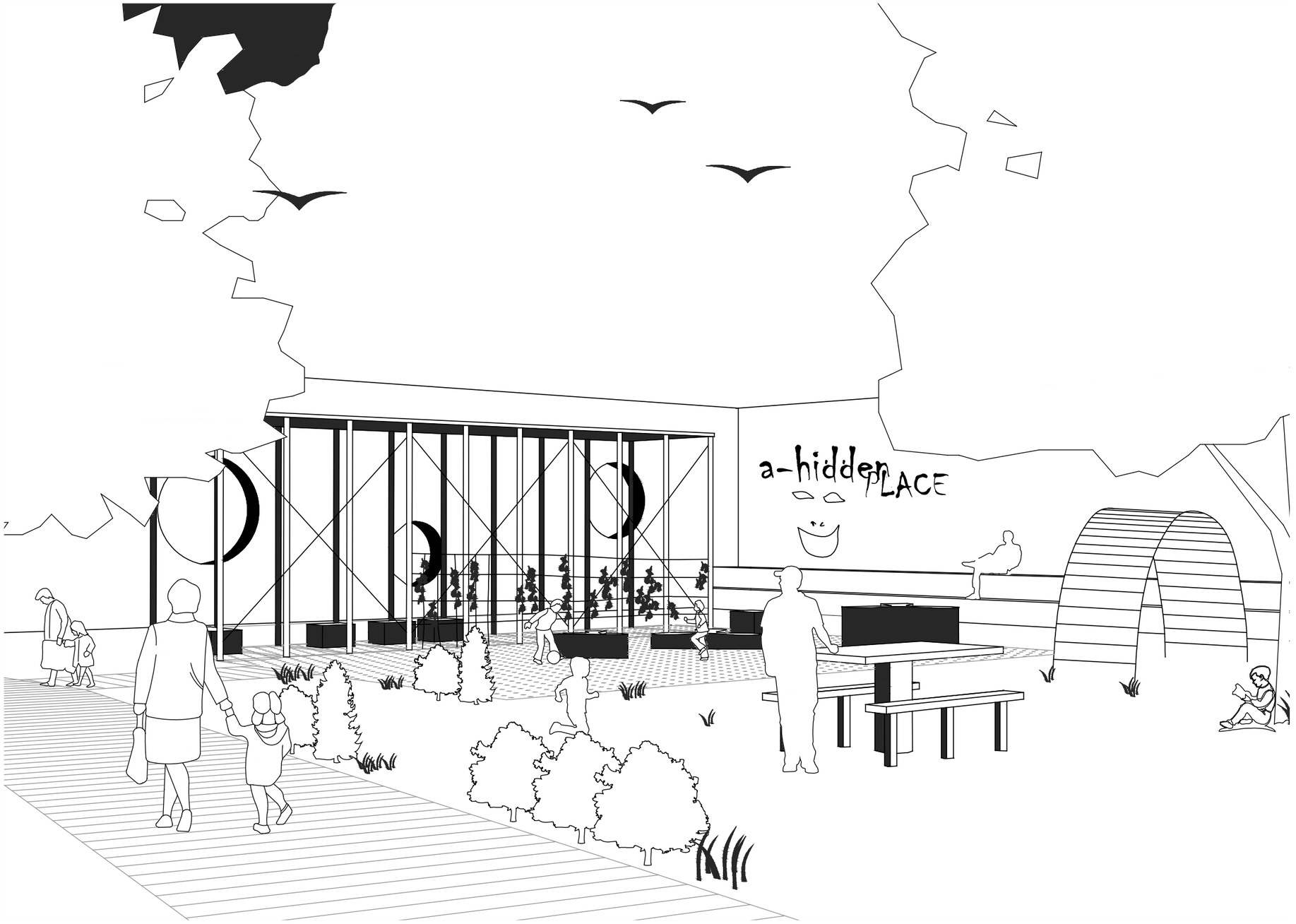
In third phase would be arranged outside fence, where the holes in already existing one are enabling view to the inside for people walking by. Holes are composed of multiple smaller ones made with hammer drilling machine and their sizes are adjusting to the program inside of the fence. View is more open in parts where social program occurs, which is represented in the biggest holes near the entrance for people. Other parts of the fence have smaller holes that give more limited view on program inside.

Inner fence: we are planning to use the existing vegetation as support points to fix pita threads that will generate the fence perimeter.

THE TIMELINE

PLAYGROUND - 4

When the inside fence is placed, and the outside fence is upgraded with the holes, the place is ready for the public. With this public place, there's benches and other furniture, and a playground for children. When this place is developed, the project is complete and locals can be invited and get involved.



VISUALIZATION