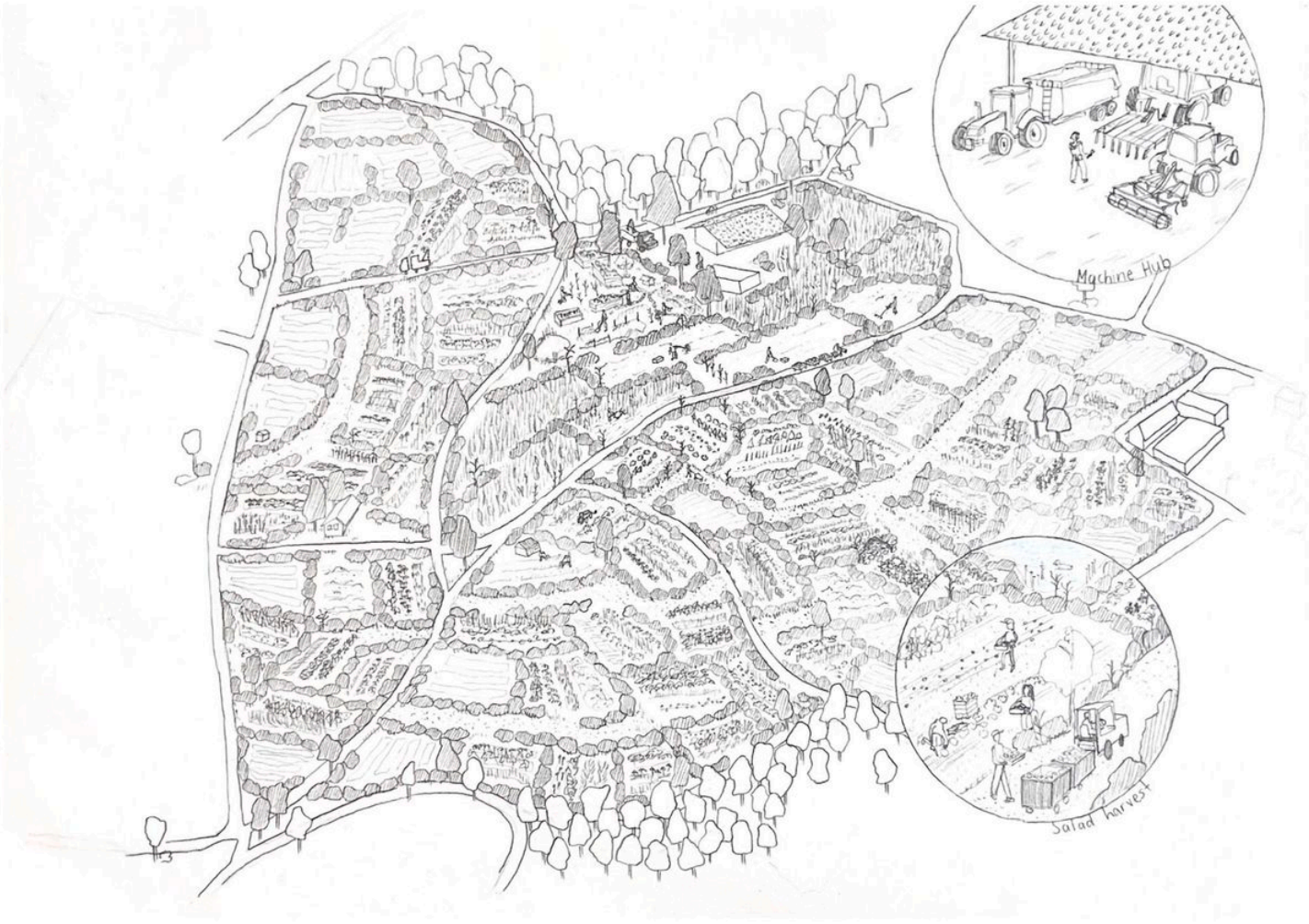
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ARCHITECTURE OF TERRITORY
Chair of Architecture
and Territorial Planning
Professor Milica Topalović

Agritopia
Fall 2023

Future Farmers

Becoming an Agricitizen

Fabian Perner, Michelle Ciorciari, Cara Steiner, and Maria Wenzl



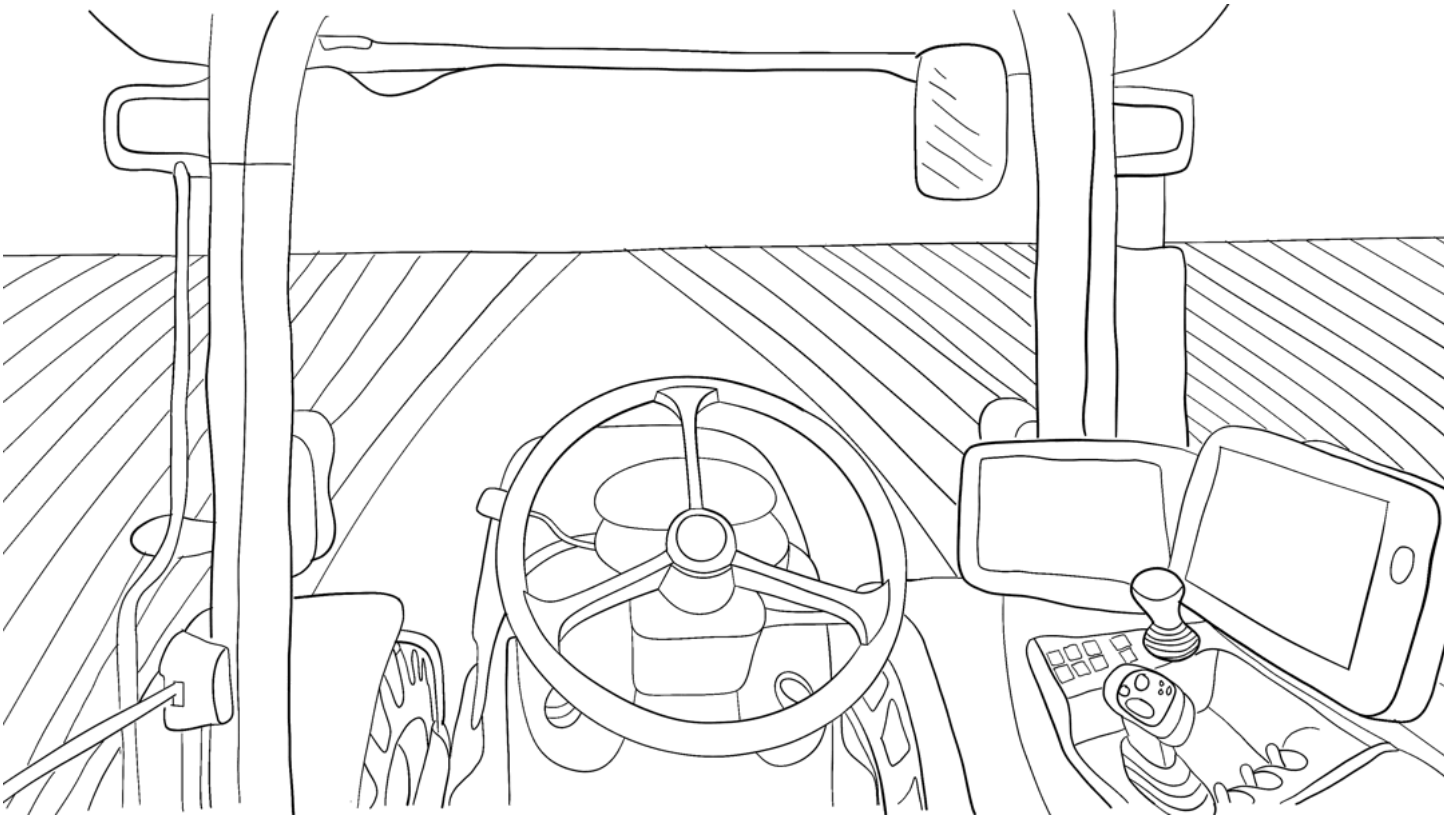
On the site of Zürich Nord the agricultural land that belongs to a farm is scattered across the territory. This is due to inheritance division of agricultural properties, sale and lease of land, favoured by mechanisation throughout the past 70 years. Today, the use tractors and other farm machinery is indispensable to farming. Nevertheless, the use of heavy machinery has its downsides: It causes soil compaction which potentially reduces harvests and favours erosion and floods.

What kind of farms farm the land in Zürich Nord? To get a better understanding of the farm structures, we interviewed several farmers who work on the site. What we discovered were three main operating models: family farms, KMU's (small and medium sized businesses) and community-based farms (Solidarische Landwirtschaft).

Most businesses on the site are family-run. But as reports and statistics have shown, this kind of practice is often economically unsustainable, because family work is sometimes unpaid. Younger generations tend to take other career paths. At the same time, farming costs are rising, and direct payments by the state are often not sufficient to sustain the farm. How are these tendencies going to influence the future of the site?

To reduce the pressure farmers are subject to, our proposal will make farming on the site more attractive and accessible to everyone. It will be possible to support farmers to adapt to the increased workload of a more productive landscape. Managing the new agricultural society requires a new form of organisation where land is common and cared for.

Harmful Working Conditions



In Switzerland, farm businesses are under great pressure. Large distributers dictate the production volume and prices, while the margins for farmers are very low. Direct payments by the state are supposed to fill the economic gap on the side of the farm businesses. In many cases, this is not enough, and work that is not covered financially is ultimately borne by the farmers and agricultural workers. Correspondingly long working hours and unhealthy working conditions lead to physical and mental suffering.

The Zürich Nord site includes the municipalities of Zurich, Rümlang and Regensdorf. The site lies directly at the border of Zurich, and allocates a high density of farms. Analysing the distribution of farmed land per farm, we noticed that it is scattered across the territory. The scatteredness is due due to the multiple division of property through inheritance and has been facilitated by mechanisation over the last 70 years. The City of Zurich pursues an active land policy, owning and buying land of closing farms and leasing it to new farmers. This way, the City can have an influence on the type of production, pushing biological and regenerative practices.



Leased and owned land per farm, showing how the land of each farm is scattered across the site.

- Schumacherhof
- Waidhof
- Riedenholzhof
- Kuhn LKA GmbH
- Ogg the Farmer
- Zollinger AG
- Marglerhof
- Seeholzhof
- Obstahaus Gujer
- Meh als Gmües
- Hofladen Frei
- Katzenrütihof

Compared to the past, when the farming tradition was handed down from generation to generation, now younger generations are often moving in other directions, leaving the future of farms in uncertain hands. More than 1,000 farms in Switzerland close every year, one farmer gives up each day. While the profession of farmers becomes increasingly unattractive to their offspring, another reason for the decline of farms is the Swiss property law. To take over a farm, one must be rich enough to buy land and farm or marry into the farming family. There are high requirements for leasing a farm in and around Zurich.

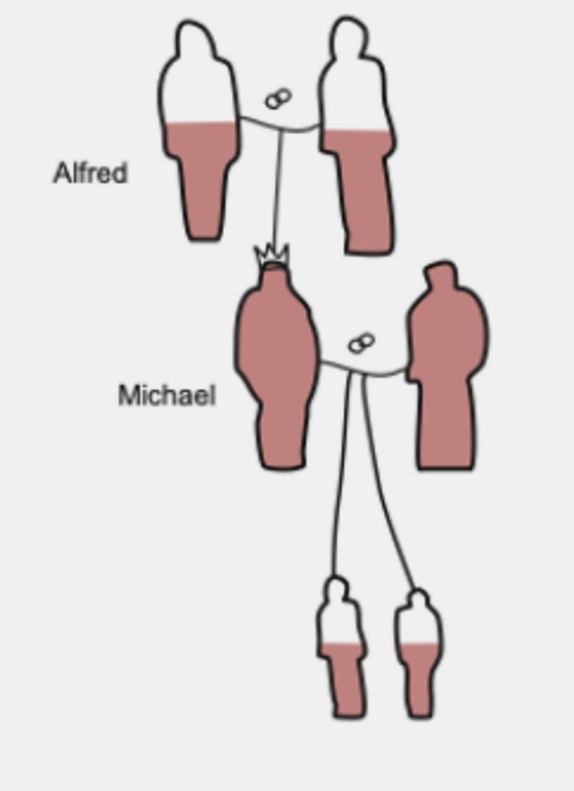
Newspaper article [https://www.tagesanzeiger.ch/trotz-hofsterben-finden-sie-keinen-betrieb-267268685102]

I can hardly ever take time off.

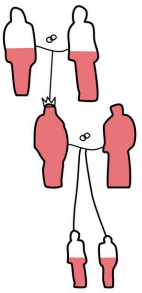
I dont know who will take over the farm.

The farmers are under a lot of pressure. Their economic resources are insufficient for many reasons, one of the most important being the advantage that foreign products have obtained over time in comparison to local products. The low prices for imported goods result out of cheap labour on huge monocultural farms abroad. Big retailers have control over prices and the margin of the farmers for their products. Swiss producers earn only 32 cents per franc spent at the retailer. This has not changed since 2001. Even with direct payments from the state, the farmers do not have enough money to cover wages and production costs. Unpaid work from family members fills the gap that cannot be filled by employing more people.

For many farms family labour is still very important. Unfortunately, for farmers over 65 years old, the farms do not receive any direct payments. While living with several generations used to be the normal in the past, children and parents of farmers tend to distance themselves from the big responsibility connected with agriculture.



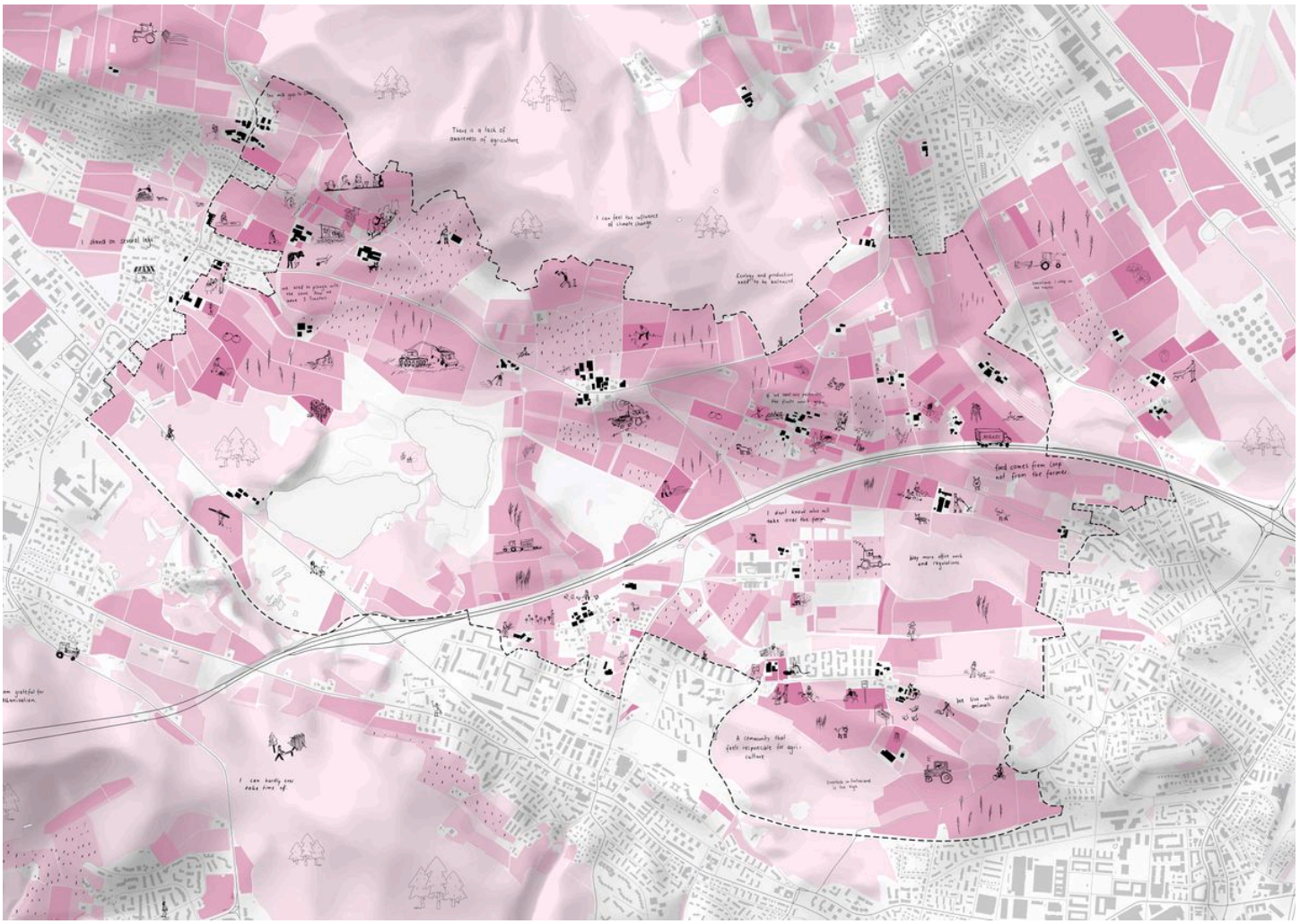
Family tree showing the involvement of unpaid family members in the family business.



Family tree showing the involvement of unpaid family members in the family business.

The work intensity on our site is varied, hard physical work stands in contrast to highly mechanised and often very lonely work. Common complaints in the farming business are back problems, arthrosis, dust lung and other illnesses caused by the exposure to particles or chemicals. Loneliness often overshadows the joy of working as a farmer. A very high pressure lies on the farmers, since they do not feel that society and the state are aware of their important work.

Health risks, mental and physical exhaustion plus financial worries are the reasons for the alarming suicide rate among Swiss farmers today. Compared to other professions, the suicide rate among farmers in Switzerland is 37 % higher.



Mapping labour: intensity of pink equals intensity of work. A narrative layer shows the work on the site.

Farmers of the Future



Zürich Nord counts 34 farms on its territory. Most of these are family-run. Younger generations tend not to not take over the business in order to pursue a different career path. To stop this rural depopulation in the future, farming should get more attractive again. For that, we want to be inspired by participative approaches and create a vision to integrate the surrounding citizens into agriculture.

We interviewed some of the farmers in our area to find out about their work and personal life: Conny from Marglerhof, Michael from Obsthaus Gujer, Willi from Zollinger AG and David from Meh als Gmües.



Meh als Gmües

For most of the employees of Meh als Gmües, political motivation plays a major role, this is why they chose the profession. The majority of them have no agricultural background and change career. David and Frank see the Solawi as an experimental laboratory for the future. According to them, conventional agriculture is not sustainable anymore.



Obsthaus Gujer

The Obsthaus Gujer grows 15 varieties, even if plurality is not competitively relevant in the wholesale market. Nevertheless, his farm shop, which has the advantage of being close to the city, sells a lot of products. Michael Gujer sometimes prefers to skip a task rather than overworking himself. This way in winter he can afford to take breaks. Can other farmers afford to do that?



Zollinger AG

After implementing a GPS system in his work, the workload has considerably reduced. Willi Zollinger is convinced that diversification helps the business. When only selling one product, you depend on and are exposed to increased risks, including crop failures. For this reason it is better for him to "stand on several legs."



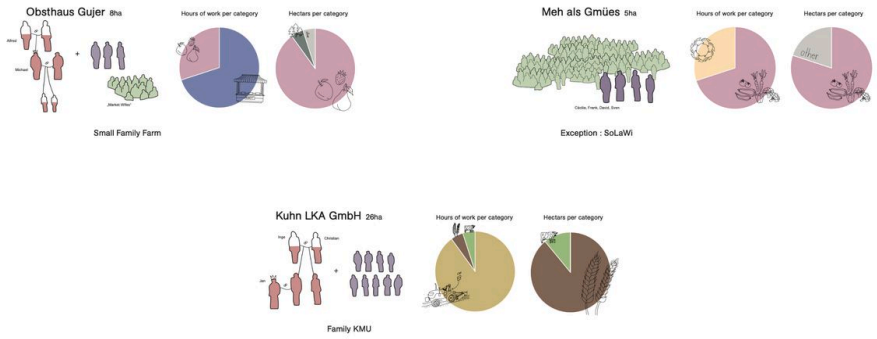
Marglerhof

Like other sectors, Swiss agriculture is becoming increasingly regularised. As a result, the administrative burden, especially on female farmers, is increasing. Conny explained that they since tend to spend more and more time at their computer screens. Organic farming is becoming more accessible and economically attractive, for this reason the market is oversaturated and prices are decreasing.

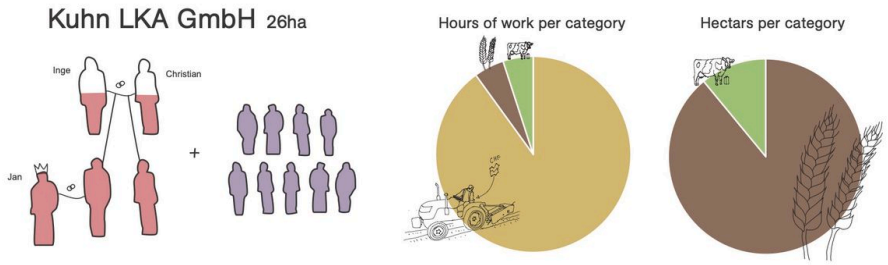
When researching the farms in Zürich Nord [https://topalovic.arch.ethz.ch/Courses/Student-Projects/HS23-Future-Farmers] we have identified three typologies of farms:

Family farms, KMU’s (small and medium-sized enterprises) and SoLaWi’s (solidarische Landwirtschaft).

The majority of the farms we examined, 9 out of 12, were typical family farms, which often rely on unpaid family members. Some farms have a group of volunteers that go to the site occasionally to help. Two of the farms have started KMU's for wage labour (Lohnarbeit) alongside their normal farm. They have employees with regulated working days. The SoLaWi of Meh als Gmües is an exception where people from the city are involved. The 300 members each work 20 hours a year and get a weekly vegetable basket in return. But; they pay for their membership.

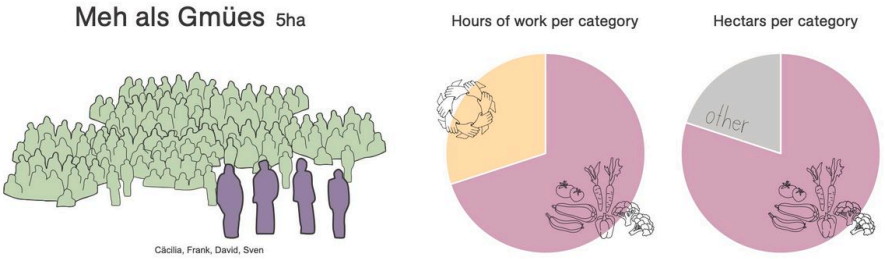


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Kuhn LKA GmbH

Next to traditional farming, the family Kuhn has built up a second business, a service farm. They have a large machine park and do all kinds of services for their customers. They have many employees who enjoy their regulated work with fixed salaries and hours.



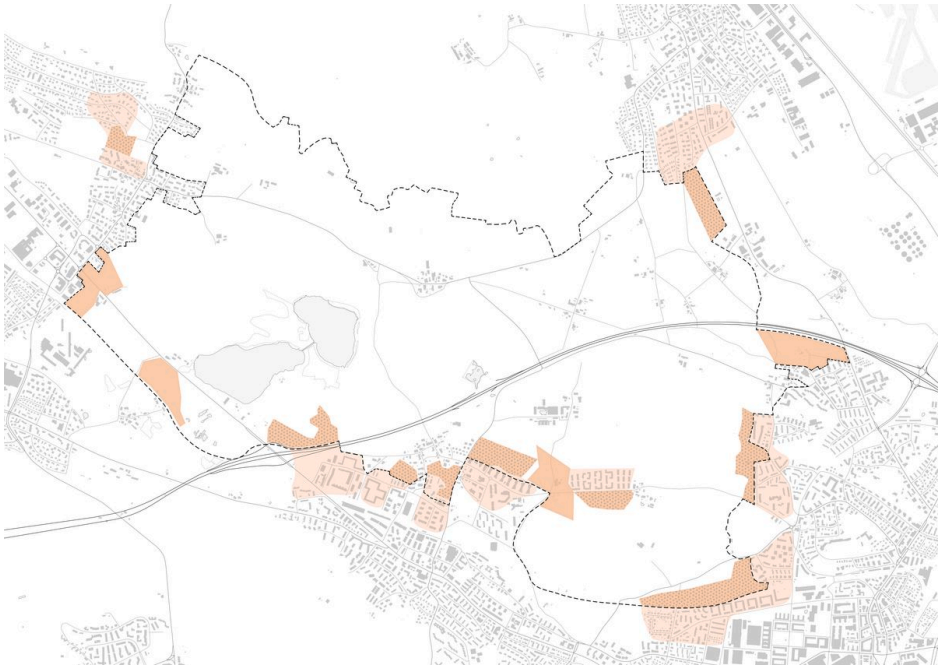
Meh als Gmües

The cooperative farm Meh als Gmües is a project for community-supported agriculture (SoLaWi). It is based on direct cooperation between farmers and consumers and the desire for more self-determination in food production. The 300 cooperative members each work 20 hours a year and receieve a weekly vegetable basket.

Could the SoLaWi of Meh Als Gmües Be an Example for Agritopia?

The site is different from other rural areas because of its proximity to the city. Farms have an advantage and can sell their products without big retailers, hence earning more. Since farmers are under a lot of pressure and feel a lack of awareness in regard to their work, the participation of the people around the site helps with this.

The model of community-supported agriculture, as seen in the example of Meh als Gmües, shows that local volunteers can be integrated in agriculture and can share the work and responsibility. Lighthouse projects such as Meh als Gmües or Biohof Fondli in Dietikon [https://www.fondlihof.ch/index.html] prove that vegetables, as well as crops, wine, fruit and even meat can be produced in a solidary environment.



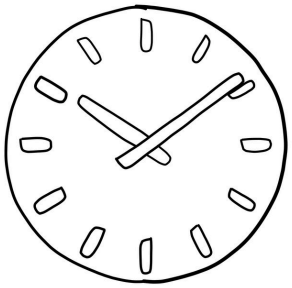
Map showing the productive permaculture gardens (which increase the involvement of people into agriculture (PPGs)

There is a lack of awareness of agriculture

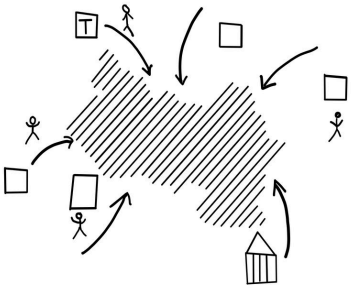
I can feel the influence of climate change

“If agriculture is to be practised according to ecological and social principles and thereby to meet societal expectations, more people will have to work in agriculture again. This requires targeted agricultural policy support for work and for organically farmed land. In keeping with the vision of an eco-social agro-culture, a wide range of work opportunities must be created – full-time and part-time work, (partial) subsistence and voluntary work, all year round and seasonal.” (Irmi Seidl, *Ökologie und Innovationen: Die Rolle der Unternehmenskultur in der Agrarchemie*, 1993)

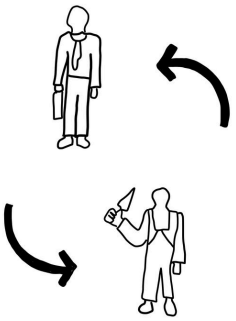
Our Wishlist for the Future



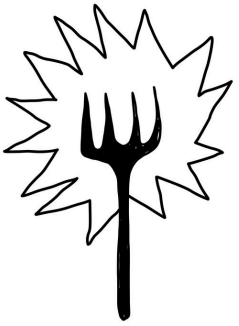
Healthy work hours for all farmers



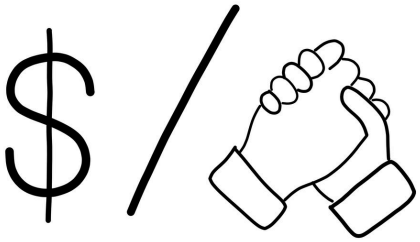
More close-by participation



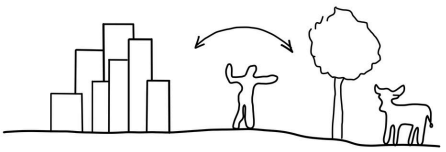
More part-time farming



Farming should be more attractive



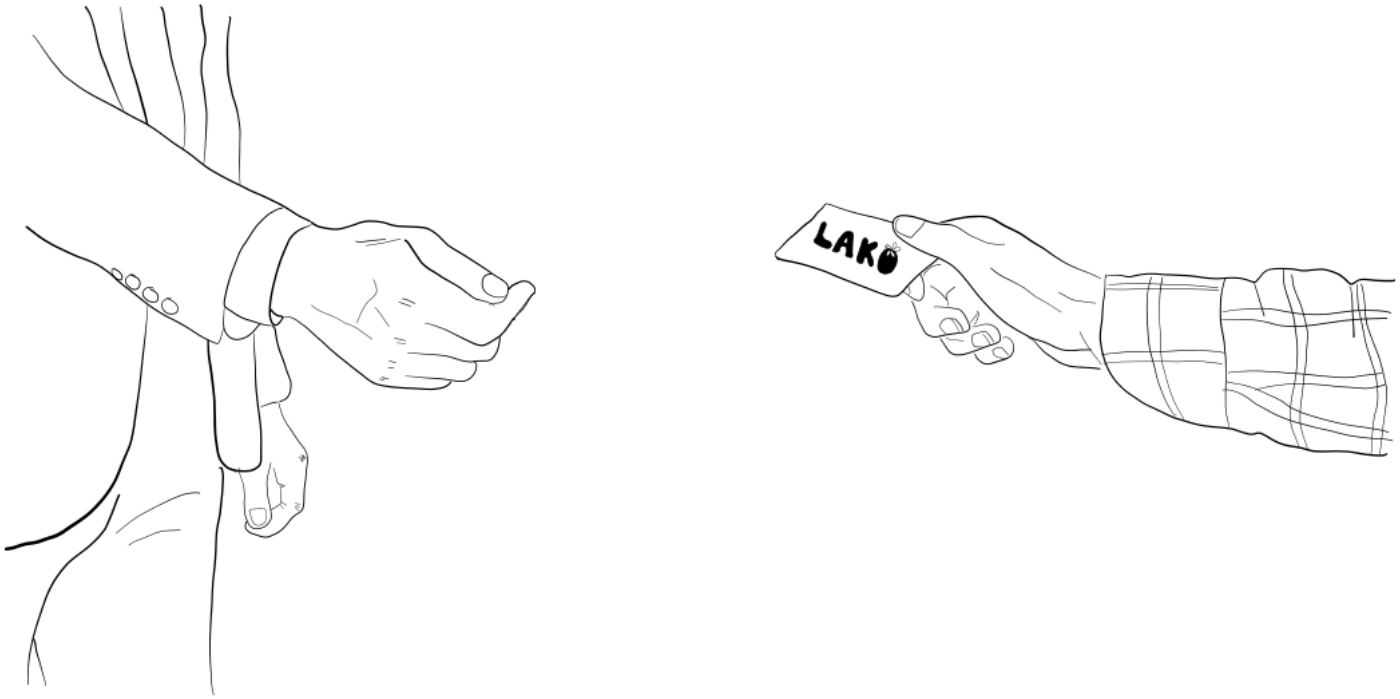
Fair wages or equivalent compensation



Access to farming and agriculture should be easier

We think that our goals can be realised if we follow these steps: In order to eat and produce regional food, we need more workers that share the responsibility for agriculture. It must become a task for everyone, not just for a few farmers. Agriculture must become part of people’s lives. The management of a new agricultural society requires a new form of organisation in which the land is common and cared for.

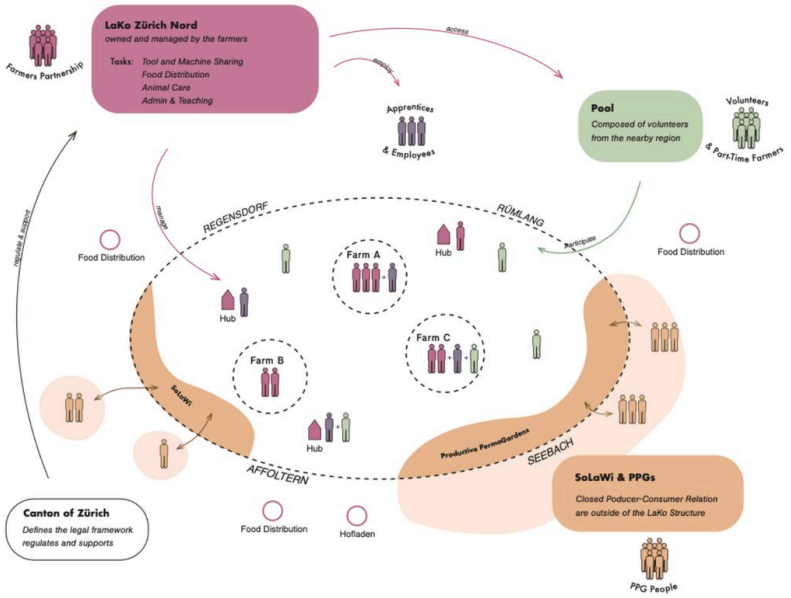
Recommoning the Agricultural Land of Zürich Nord



The Agritopian productive landscape can be recommoned by the surrounding inhabitants: the Agricitizens. The participation of the neighbouring population will help raise awareness for what it means to grow food and decrease the pressure on farmers. A new organisation, named LaKo, will facilitate their integration.

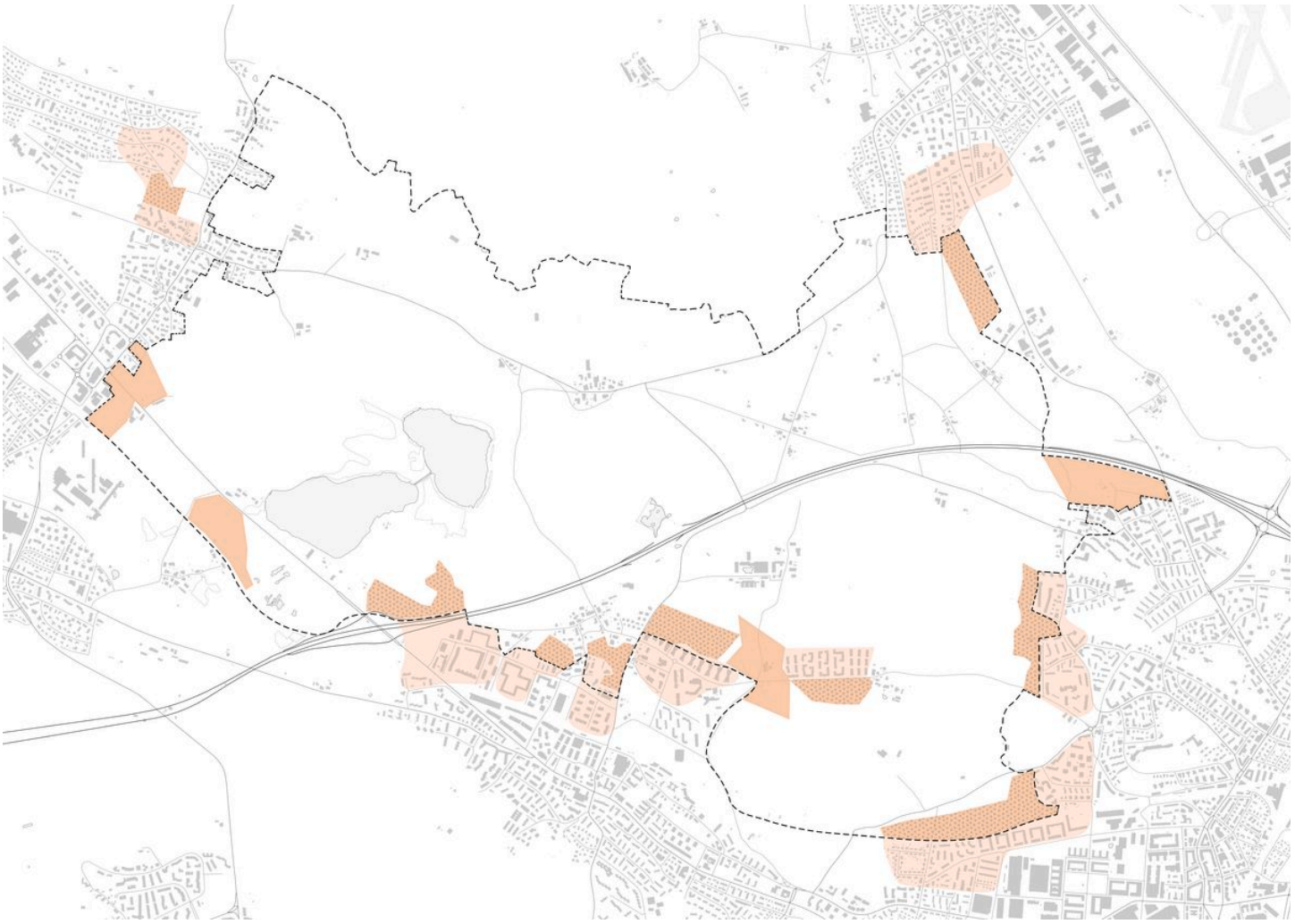
Agritopia aims to make the land a common that nourishes the environment. Farmers manage their land together. The members of existing family farms will be supported by new actors, who will organise in different constellations, such as farmer-shared-flats. Agritopia feeds and is fed by its environment. Citizens will be able to participate in agricultural work and join the site in different ways: they could volunteer, be amateur farmers or work part-time in agriculture. This way, farm work becomes a group practice, where responsibility is shared and problems such as loneliness and elderly overworking will belong to the past.

LaKo stands for LandwirtInnen Kooperative and embodies our vision for Agritopia. The cooperative is responsible for organising work, distributing food, sharing tools and machinery, teaching, events and animals. It also manages employees and apprentices working on the various farms. As regional agriculture and ecology will become a national interest, the LaKo will be supported by the Canton.



Organigram showing the functioning of the LaKo

In addition to the people who come from the surrounding area to contribute to the LaKo, there is also an independent part of people who are passionate about agriculture and who can grow their own food through productive permaculture gardens (PPGs) and SoLaWis. As far as PPGs are concerned, for these gardens to be maximally productive it would be necessary for 4,000 people to participate. As a reference, Affoltern alone has 26,000 inhabitants.



Productive Permaculture Gardens (PPG's) and SoLaWi's are located on the boundary of the site. PPG gardeners come from the light orange areas.

Productive Permaculture Gardens

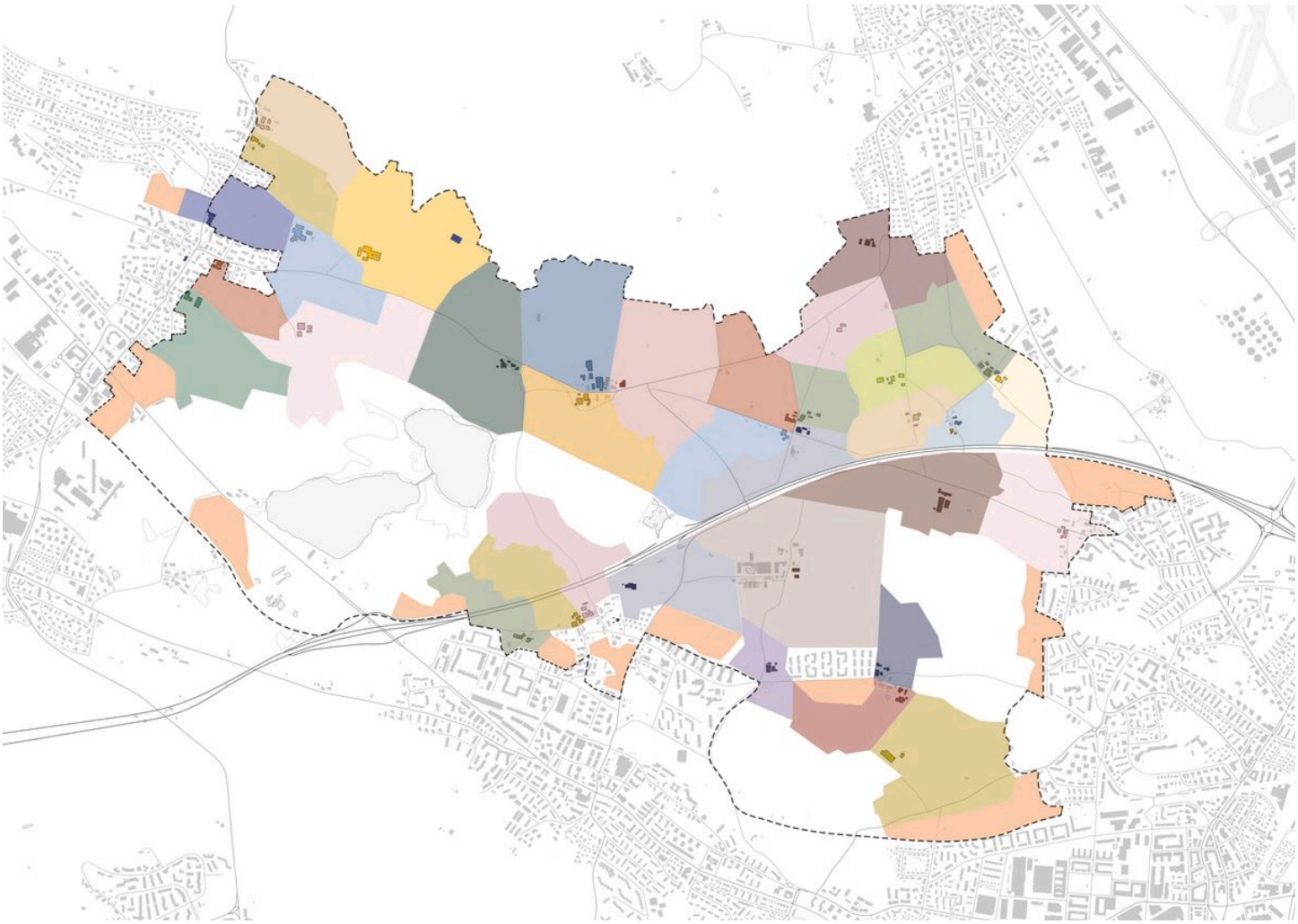
In Agritopia the land becomes a common and land is distributed among the new farms in a non-dispersed way. Redistributing land in this way was tested in a ten year project in Lötschental in Wallis [https://storymaps.arcgis.com/stories/2d2749ab147d45738cfdbd51b69febd6], where the reactions and findings were very positive.

A new plan of cultivation will take place. According to the latter, the cultivation of the land is more work intensive. 220 full-time jobs would be needed to fulfil the work requirements, among these there would be 136 professional farmers, working 80-100%.

2,500 volunteers are involved. One can work for specific farms, volunteer during the harvest season, do an internship or a course. Volunteers get a discount on locally grown products. Apart from this, citizens are also motivated by social experiences and to gain a closer connection to agriculture and to the food they consume.

About 500 part-time farmers will be the new residents living in renovated old farm buildings. Their rent is reduced and they help one afternoon a week. Everyday tools and general infrastructure such as kitchens are accessible on the farms. Large machinery is shared and stored in two machine hubs. A place for on-site instruction and an administration building are located centrally in Katzenrüti.

By sharing responsibility for the future of agriculture in Zürich Nord, we can achieve a more agriculturally aware society, while benefiting from regionally sourced products and contributing to better working conditions. Decreasing the use of machinery in agriculture can create a healthier and more popular farming landscape.

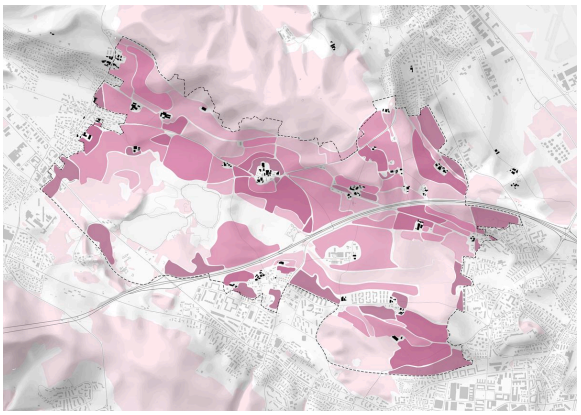


New distribution of land to the farms: In order to make this system work, the 34 farms will each be responsible for the area around them

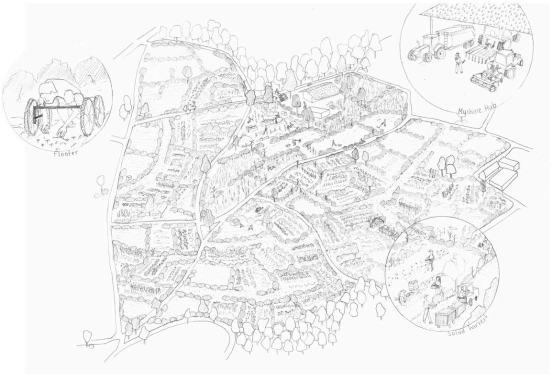
- Productive Permaculture Garden and SoLaWi
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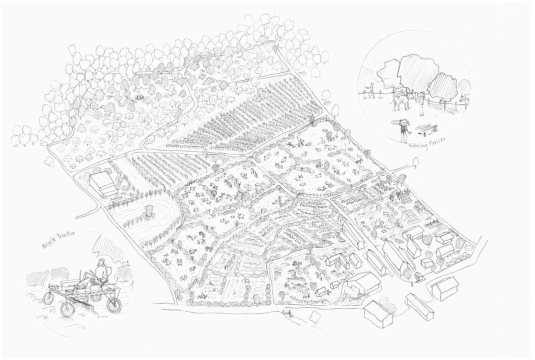
Map showing the present work intensity on the site.



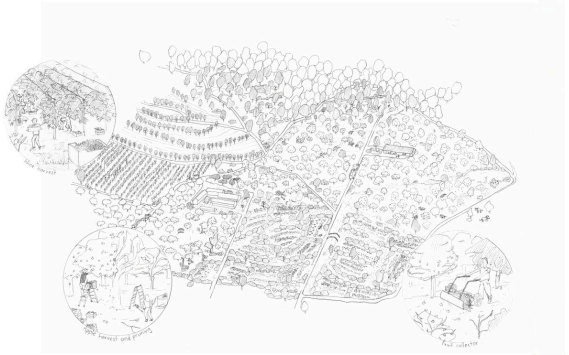
Map showing the redistribution of work intensity with the influence of the new plan of cultivation. Created in cooperation with the Croptopia group [https://topalovic.arch.ethz.ch/Courses/Student-Projects/HS23-Croptopia]



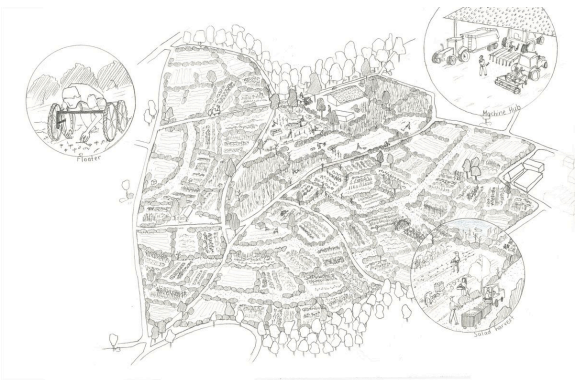
Kuhn farm; The land is worked upon with new tools and big machines are shared with all farms on the site.



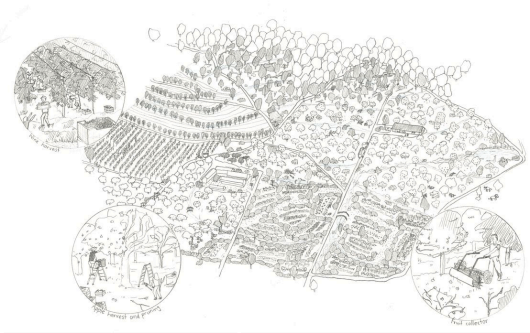
Katzenrüti farm; Animals help cultivating the land and new types of ecologies such as the forest edge and keylines are introduced.



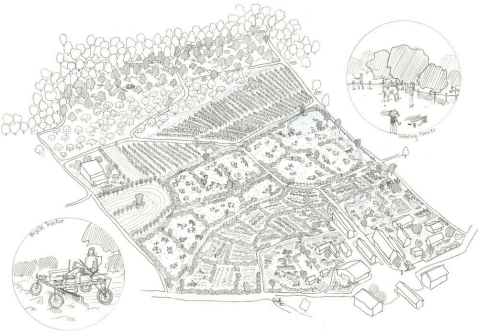
Lindenhof farm; The type of work and its intensity will differ according to the seasons.



Kuhn farm; The land is worked upon with new tools and big machines are shared with all farms on the site.



Lindenhof farm; The type of work and its intensity will differ according to the seasons.



Katzenrüti farm; Animals help cultivating the land and new types of ecologies such as the forest edge and keylines are introduced.

ACKNOWLEDGEMENTS

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