LOCAL FOOD FUTURES

Revealing traces of global agricultural practices in the Münsterland Landscape

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Revealing traces of global agricultural practices
in the Münsterland

P1 Research Plan

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Apple harvest 2024, photo taken by author

Memorizing

During my childhood, I spent a lot of time on an old farm in the German countryside. Located in the Münsterland region, in the most rural area of the otherwise densely populated state of North Rhine-Westphalia.
My grandparents leased the field to the neighboring farmer and only made a small part of the old farm building habitable. Nevertheless we could spent most of our time outdoors, in the woods or the orchard that they planted. My earliest memories of being immersed in nature -whether in the fields, the forest, or the orchard- are rooted in this place.
It was here that I learned about the concept of seasons, and to help with the harvest of wild apple, pear and plums.
Growing up and returning year after year, my perception of this place changed. Studying architecture and landscape architecture made me thinking about the relationship humans have with nature, I started to see the development and the agricultural practices in the region more critically. Realizing how romanticized my view of this landscape and farming is, I asked myself the question:

What do we see when we see these landscapes?
And more important, what do we not see?

The image of the Countryside

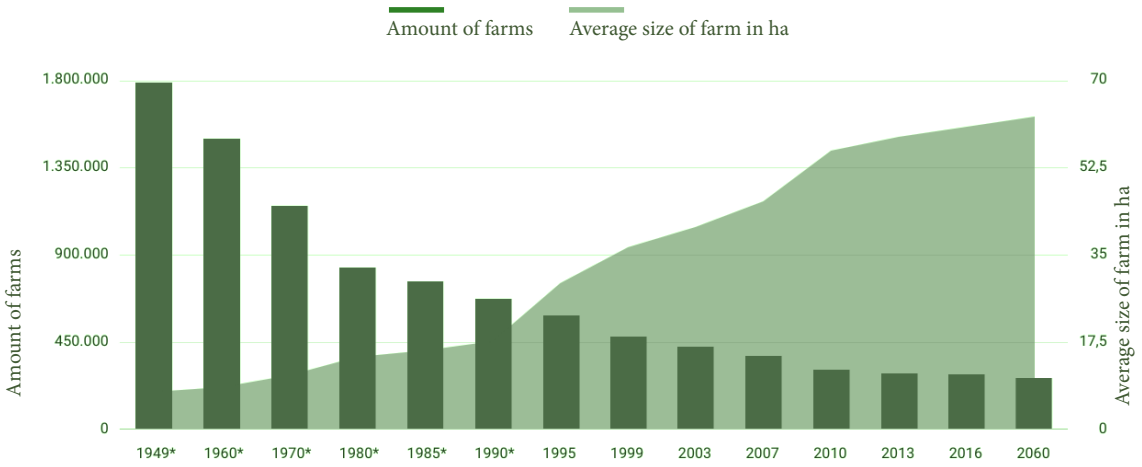
Regarding farming and the countryside, I feel like many people have this romanticized view on farming. This book illustrates this very well. Japanese Illustrator Mitsuma Anno summed up his impressions of the European countryside after travelling through It in the 20th century in this book called "ce jour la".
His illustrations visualize historical practices of farming, where many people are working in the fields together, and industrialization has not reached the farms yet. This idyllic vision is in significant contrast with the reality of modern agriculture (Anno, 1978).

Illustratiion of european rural landscapes in “Ce jour la” (Anno, 1978)

Industrial farming typologies

Farming has transformed significantly over recent decades, moving from traditional, small-scale divers' operations to highly industrialized, large-scale monocultures. In Germany, small farms have disappeared, being replaced by fewer, much larger farms that took over agricultural production. While the number of farms has decreased, the average size of the remaining farms and the number of animals each farm holds has increased. Focusing mainly on livestock farming, it led to an increase in monocultures, allowing farmers to grow primarily crops like maize for animal feed (Schwenner, 2019).

The replacement of local vegetable cultivation and products for direct human consumption by the industrialized cultivation of crops for the global animal feed market leads to alienation from the products that people consume in their daily lives. Locally grown products for consumption disappear from the landscape and the origins of the food that is mainly consumed gets lost.



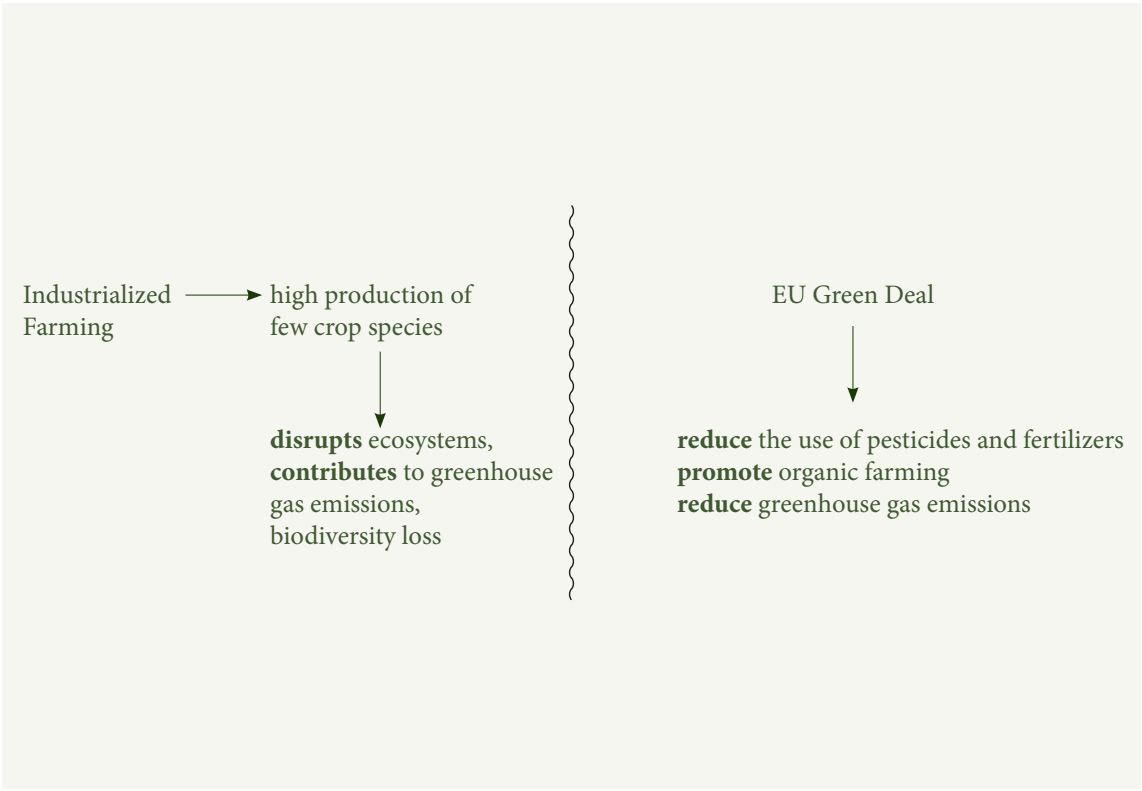
Structural change in German agriculture 1949-2019 (2019, bpb)

Farming typologies in the Münsterland region, photos taken by author

Climate Crisis, the EU and the Green Deal

To secure food safety in the years after the second world war, Germany started subsidizing farmers in the 1950s. Through the green revolution, meccanization, modified crops and chemical pesticides and fetilizers reached the farming sector and transformed it. In 1962, the European states of Germany, France, Italy, the Netherlands, Belgium, and Luxembourg decided to collectively organize production and distribution in agriculture through their common agricultural policy (CAP). The common agricultural policy aimed to avoid overproduction and ensure fair competition between the regions, centered on family farms. This marks the start of European agricultural politics (CAP at a Glance - European Commission, 2024).
Upscaling farming practices that focus on high production of fewer crop species is harmful to the environment. It disrupts ecosystems, contributes to greenhouse gas emissions, and accelerates biodiversity loss.

Cropduster spraying pesticides (Charles O'Rear, n.d.)



The EU has recognized the impact of the agricultural sector on the environment and has extended its focus from securing food safety to aiming for more sustainable farming models. As part of the Green Deal, a policy framework that targets various sectors to reduce greenhouse gas emissions, promote biodiversity and switch to sustainable practice, the EU plans to transform the agricultural sector. Through this initiative, Europe aims to become the first climate-neutral continent by 2050. The Green Deal aims to reduce the use of pesticides and fertilizers, promote organic farming, and reduce emissions while ensuring food security and a fair income for farmers. It also introduces the Farm to Fork strategy, which sets a special focus on regional and seasonal food production and strengthens connections between producers and consumers (Agriculture and the Green Deal - European Commission, n.d.).

Farmer's Protest

In March 2023, European farmers protested against the EU's Green Deal Policy, mainly because they felt that these regulations threatened their economic viability within the current farming practices. The environmental objectives of the Green Deal are seen by many farmers as costly and difficult to realize without significant financial support. Many farmers also express frustration at what they see as a lack of influence in policymaking and feel that urban decision-makers overlook the practical challenges of farming in rural areas. The protests reflect a general concern that Green Deal policies could prioritize environmental goals at the expense of farmers' livelihoods and the rural economy (Henley & correspondent, 2024).

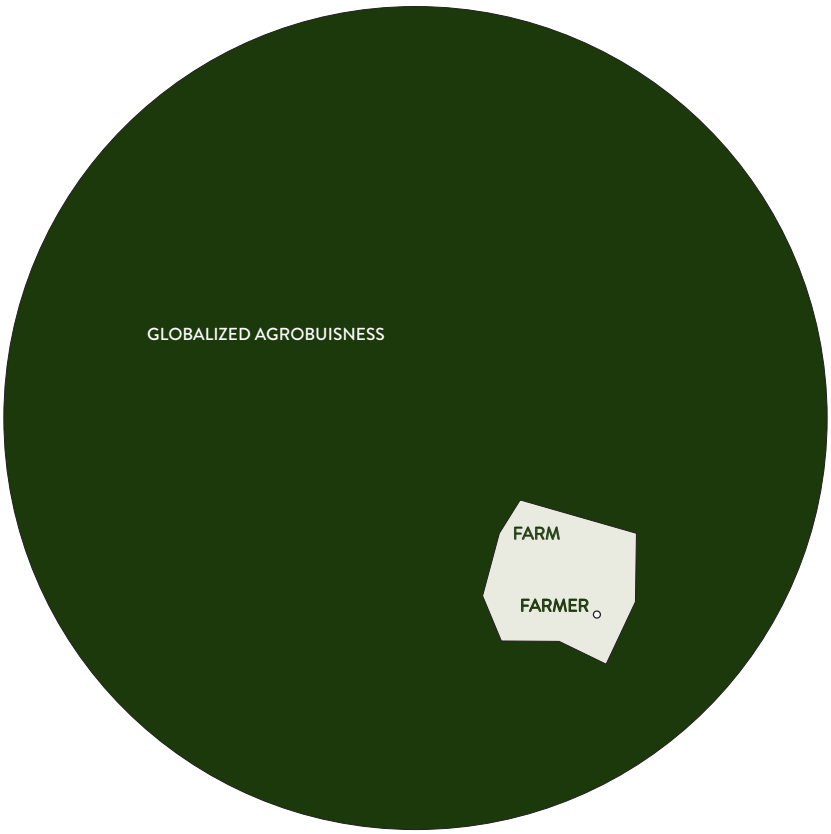
The farm mentioned earlier is a good example of the industrialization of agriculture. Most farms in the region focus on the production of meat and the cultivation of animal feed and biomass for biogas plants. The farmer protests brought me back to my question about the future of this place.

Farmers protest with tractors on the streets of Brussels, (Xinhua, Rex, Shutterstock 2024)

It is precisely these practices that the EU wants to change. In my view, the Green Deal is the least Europe can do and very necessary to take action in times of climate crisis. So how can it be that the environmental goals are so far apart from the goals of farmers? Shouldn't it also be in their interest to secure their livelihoods for the future?

Global and Local

To grasp the complexity of today's food system, it is crucial to understand the interplay between global and local dynamics. The global food system, the system of a farm, and the farmer who operates a farm, are three systems that interlock. They are interconnected and influence each other.

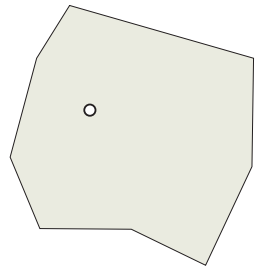


Interlocking systems

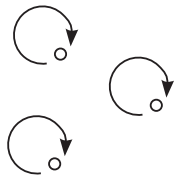
The global market operates through linear processes that create dependencies on global supply chains. The globalized food industry results in big farms that are disconnected from their regional context but serve in a global supply network. At the same time, the food that is being consumed in the place is also a globalized product that is mostly not connected to the local ecosystem. While in the past, farms were mostly operating as local autonomous systems, they have become isolated and dependant instead.

Influence of global and local economies on the region

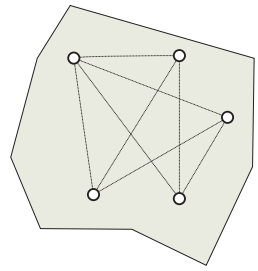
global supply chain



isolated farm



local supply chain

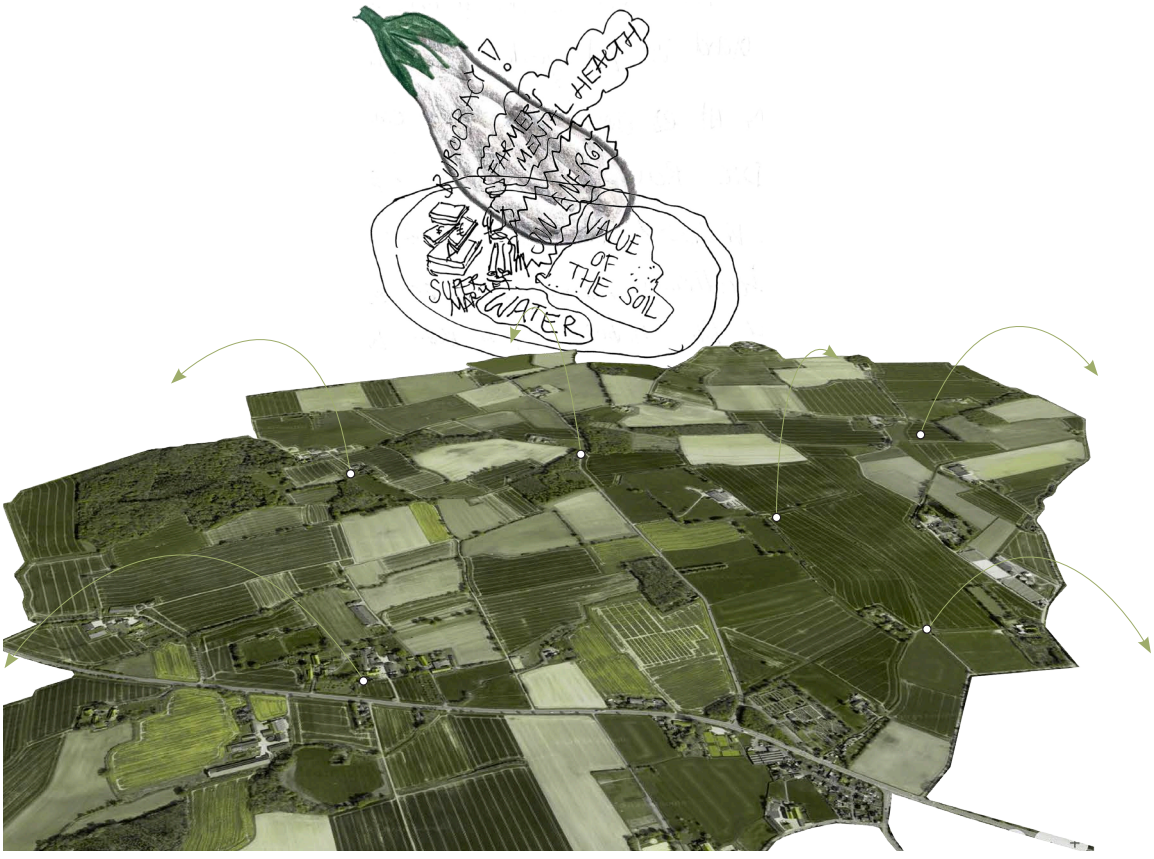


connected farms

Disrupted Cycles

Although regions like the Münsterland produce significant agricultural products, most goods consumed are sourced from distant locations. Market pressures drive consumers to favor cheap global food over food produced in the region. The product of food itself is an essential link between humans and our ecosystem. Alienating farming practices such as industrial livestock farming disrupt value creation. The lack of local and transparent food production leads to anonymized consumer behaviour instead of regional cultural identity based on local specialties.
The research examines how the rhythms of cultivation have changed with the industrialization of agriculture. Industrialized farms, which operate according to profit rather than natural cycles, disrupt ecosystems and alienate the value that humans give to food.

What is the Value of a product?



Industrialized farms in Laer (Google maps, 2024)

RESEARCH QUESTION

What **ecological**, **territorial** and **social** impact does the change of rhythms implied by industrial agriculture have on the rural **Identity** of the Münsterland region?

Sub-Questions:

How have the cycles of agriculture changed spatially and temporarily as a result of industrialization?

Can regenerative farming play a role in re-connecting humans with disrupted local ecosystems?

How can the act of farming allow a new generation of small scale farmers
to use food resources to shape a more ecological and locally rooted rural identity?

What impact can locally grown food have on the creation of a local, ecological identity?

THEORETICAL BACKGROUND

This theoretical background shows the theories and concepts that have helped me to understand how the different systems, scales and actors interact, as well as future perspectives on my project.

Questioning the economic model
Industrialized farming plays a significant role in the climate crisis, reflecting a broader capitalist system that exploits natural resources unsustainably. Facing the climate crisis requires a major shift in how we think about society and the economy. In *On the Emergence of an Ecological Class,* Bruno Latour and Nikolaj Schultz argue that climate change demands a new collective Identity that overcomes traditional class divisions, uniting people across economic and social boundaries around ecological concerns. They call for the formation of an ecological class that recognizes the interconnectedness of social justice, environmental health, and sustainable resource use. This perspective challenges economic practices, like industrialized farming, that focus on profit and efficiency at the expense of ecological balance, risking the collapse of natural systems. Instead, Latour and Schultz advocate for a system based not on exploitation but on maintaining the health of our ecosystems to sustain our future (Latour & Schultz, 2023).

Decolonizing global economy
The current economic practices are rooted in colonialization. Vandana Shiva contends the need for a decolonization of the global economy. Arguing that international trade is ancient, it was there before the industrialization and climate crisis. Economic democracies are based on the diversity of prosperous local economies instead of globalized economies in the hands of a few corporations. She asks for rejuvenating our economic models, our paradigms, and our values to make everyone profit from it (Global Landscapes Forum - GLF, 2022). This also applies to the food industry. Diverse local farming methods not only benefit the local economy, but also preserve the local ecosystem and the livelihoods of the people who will inhabit this place in the future.

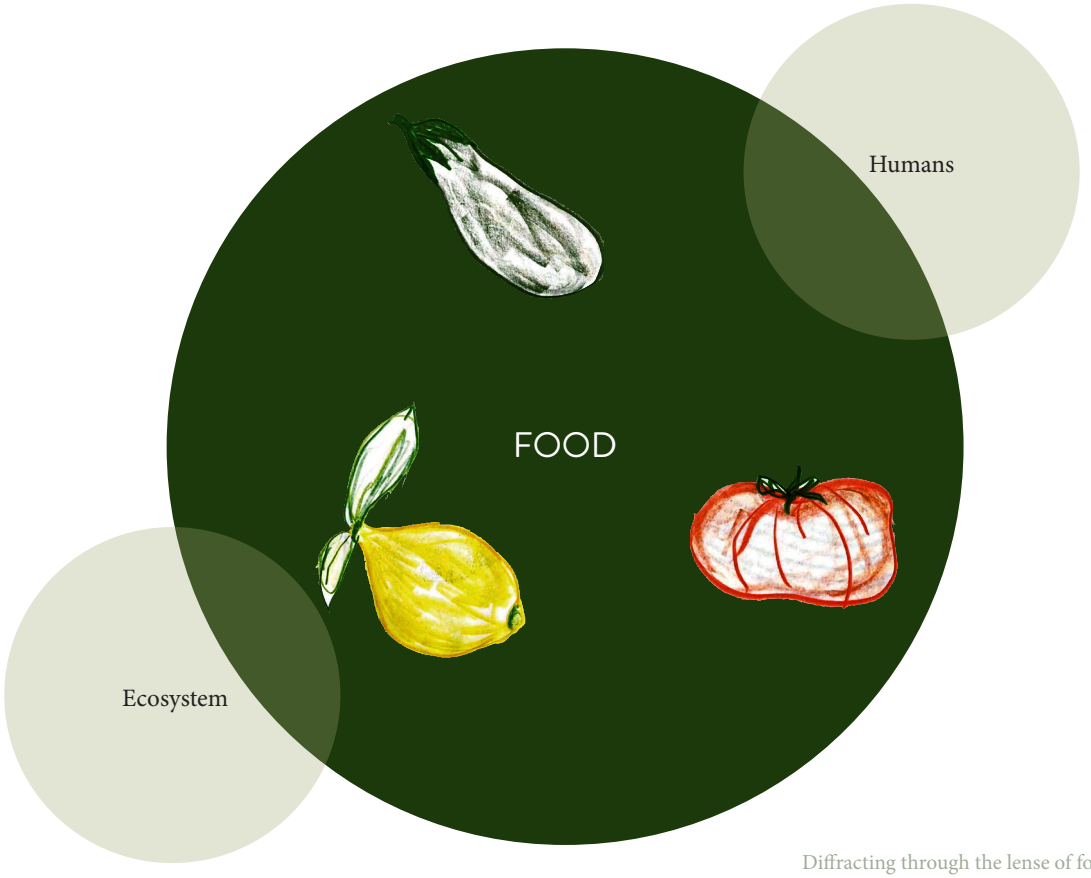
Importance of the local
In *Landkrank*, Nikolaj Schultz draws on Pierre Charbonnier's concept of the 'world we live in' and the 'world we live from' to highlight the gap between the industrialized urban life of many people in the western world and the world that sustains it. Charbonnier's concept emphasizes the importance to explicitly connect these two worlds through a local economy (Schultz, 2024).

The act of farming
The act of planting, growing, and harvesting connects humans to the cycles of the ecosystem. In her book *The Democracy of Species*, Robin Wall Kimmerer presents the indigenous concept of Honorable Harvest. This includes respectful cultivation methods that promote an ethic of care and

gratitude and only harvest as much as the ecosystem can sustain (Kimmerer, 2021). Farming is a way of aligning with nature's rhythm. It is a complex act that requires to respect and understand the ecosystem you are operating in.

The agency of food

In his book *One-Straw Revolution*, Masanobu Fukuoka views food not only as a commodity but also as a direct link between people and the land, embodying the health and balance of the ecosystem from which it comes. This view sees food as a carrier of cultural and ecological identity, connecting people to their environment and emphasizing a philosophy that values quality, minimal intervention and respect for natural processes (Fukuoka, 2021).



Diffracting through the lense of food

THEORETICAL FRAMEWORK

Questioning the economic model

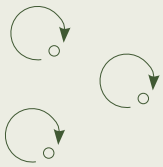
New political narratives
Overcoming of traditional class divisions, uniting people around ecological concerns
Social justice, environmental health and sustainable resource use.
This challenges all economic practices, that focus on profit and efficiency at the expense of ecological balance.

Redefining the political horizon based not on exploitation but on maintaining the health of our ecosystems to sustain out future (Latour& Schultz, 2023).

Decolonizing the global economy

International trade has always existed, but global economy in the hand of few corporations needs to be decolonized.
Rooted in imperialist view on humans being separated from nature.
Problem: We don't see ourselves as materially connected to the earth.
stop fighting our own ecosystem

Economic democracies need to be based on the diversity of prosperous local economies (Shiva, 2022).



Local ec

The world we live **in** a
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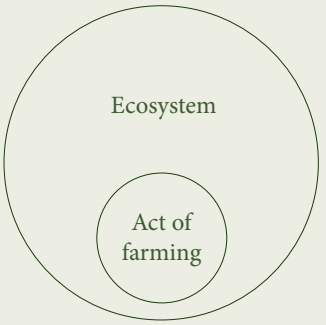
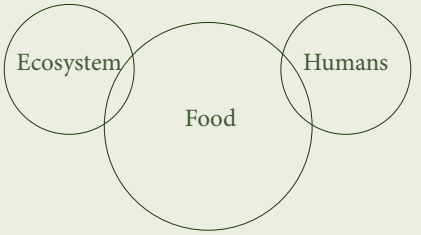
The act of farming

Through the cultivation of land, we actively connect with the ecosystem. The act of farming is the essential process that connects humans to their ecosystem. Operations within the system of the seasons and the natural cycles



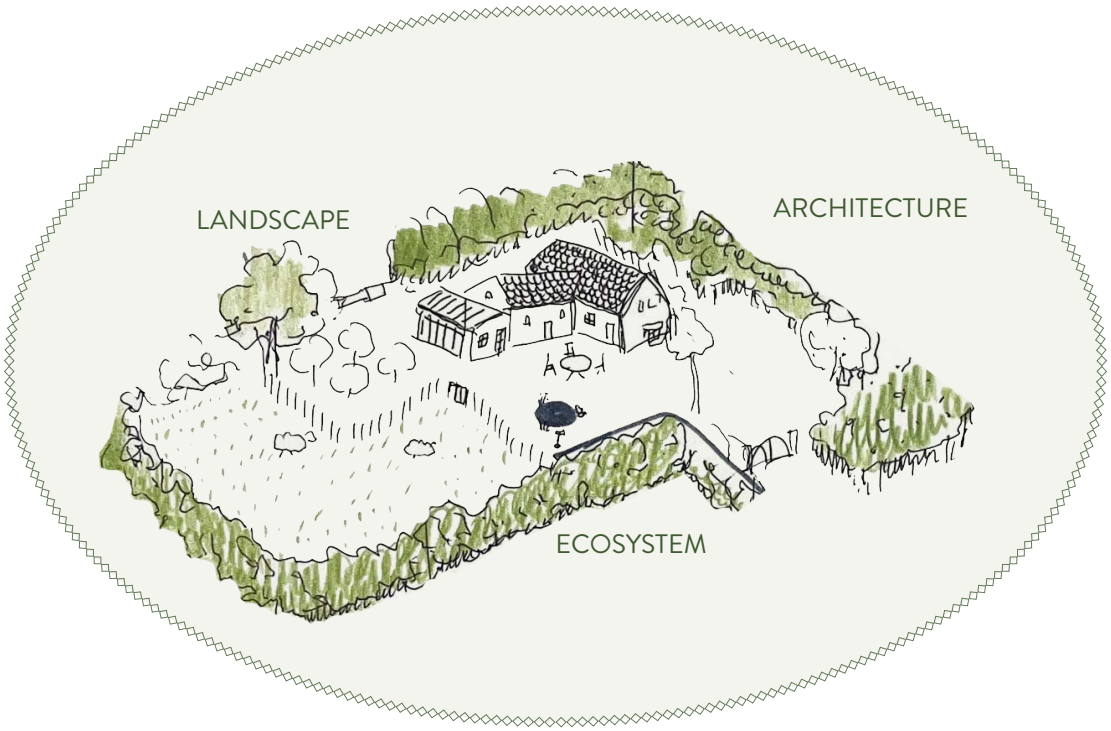
The agency of food

Food is not just nourishment, but also a form of relationship



RELEVANCE

In this sense, the farm becomes an anchor point - a place where people can understand their role within the natural cycles and recognize the interconnectedness of the earth. While farms currently spatially represent the industrialized practices they apply to landscapes, a new agricultural typology needs to emerge that accommodates the value creation though a middle class of ecological small farms. The landscape and farm design at this site does not see the land as a resource that can simply be used to its limits, but is designed for the new way humans interact in their ecosystem. To reflect the fact that everything in an ecosystem is interconnected, the design aims to challenge the boundaries between landscape architecture and architecture and instead think in terms of spaces that can be created by plants, walls or any other spatial element. Designing these spaces means recognizing that how we cultivate the land will ultimately shape it and, with it, our relationship to the ecosystem.



The farm as a connector

Laer 2024, photo taken by author

Design Quesion:

How does a **farm** need to be designed to allow a new generation of small-scale farmers to form an **ecological identity,** using **food resources** to **reconnect communities** to their **ecosystem**?

METHODOLOGY

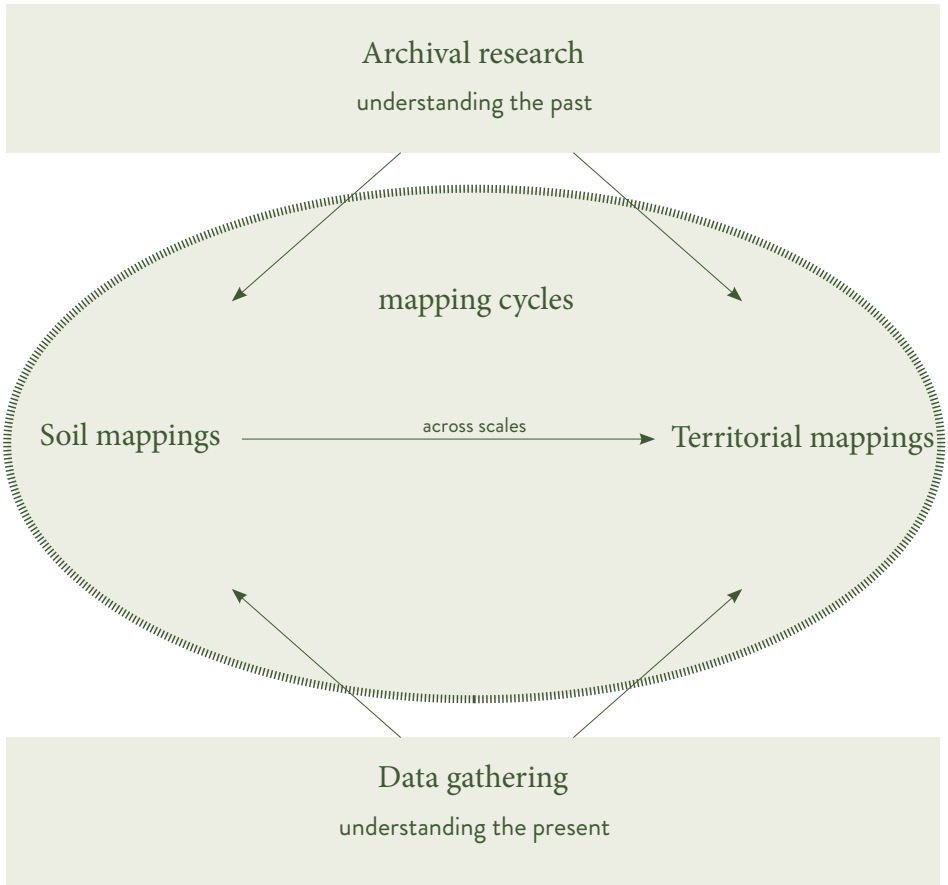
Forensic investigation

Since I pointed out the importance the local context and site specificity, this research is going to investigate how the industrialzization of farming has changed the cycles of a farm. This is going to be explored both on a tempolality and on a spatial level, considering all types of cycles connected to farming. Natural cycles like the seasons will form the starting point, cycles embedded to the ecosystem will allow merging the aspect of time and space.

The aim is to show the traces of globalized agricultural practices on the German farm mentioned at the beginning. To understand that the way we cultivated the land in the past shaped the landscape we see now, the research will start with archival research. Historical photographs, micro-stories about cultural practices, and historical maps will be used to draw out a landscape biography. The different land cultivations over time have resulted in land transformations that the landscape now resembles as a palimpsest. The latest transformation is industrialization and globalization.

In the second method, Mapping the Global in the Local, I aim to visualize the impacts of the global economy on the landscape. Some of these effects are tangible, such as the size of fields and machine marks visible on satellite images, while others are less apparent—like the use of chemical pesticides, field drainage, genetically modified crops, plant growth cycles, and nitrogen levels in the soil. By mapping across scales, from broader views down to a detailed focus on the 1.5 hectares connected to the farm, I intend to reveal these "invisible" components and understand the effects of these practices on the ecosystem.

As a third method, this will be complemented with a sensory mapping of soil quality examining soil samples from three locations with different cultivation backgrounds. The analysis begins with close-up photography to observe soil life, root structures, color, and texture. Each sample will then be ground, dissolved, and filtered through light-sensitive paper to create a chromatographic profile, visually capturing the soil's unique characteristics and linking soil quality directly to past farming practices. Since soil is the foundation for understanding farming, it is crucial to illustrate how different cultivation practices impact soil quality.



Research methodology mapping cycles

TIME PLANNING

	Week 2.1 11/11-17/11	Week 2.2 18/11-24/11	Week 2.3 25/11-01/12	Week 2.4 02/12-08/12	Week 2.5 09/12-15/12
SOIL	Drawing soil	Soil chromatographs Research: types of cycles data gathering			
FARM			mapping cycles	mapping cycles	overlapping&comparing cycles
REGION			territorial mappings	territorial mappings	

Week 2.6 16/12-22/12	Christmas break 23/12-29/12 30/12-05/01	Week 2.7 06/01-12/01	Week 2.8 13/01-19/01	Week 2.9 20/01-24/01
overlapping&comparing cycles		concluding research	concluding research	P2

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