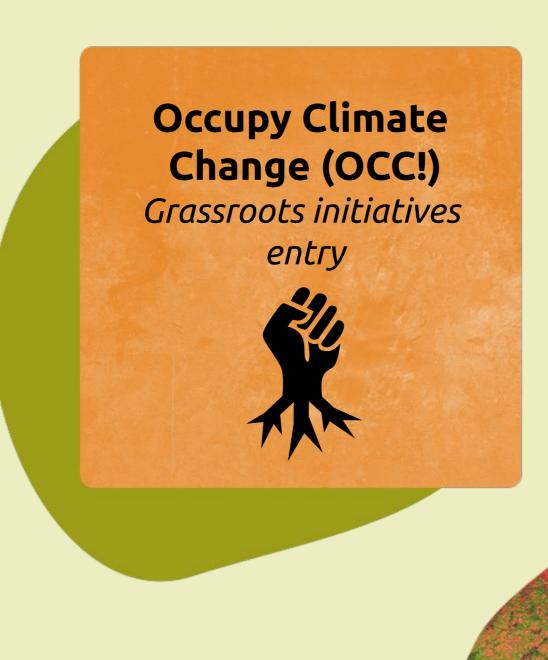
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ENVIRONMENTAL HUMANITIES LABORATORY







The *Kartoffelkombinat*: A community-supported-agriculture (CSA) initiative in the city of Munich, Germany.

A grassroot initiative going beyond mere food production.

Maximilian Rischer



Photo 1: Volunteers on the fields gardening near the city of Munich. (Photo: Kartoffelkombinat eG)

*München ist ein Dorf = "Munich is a village"

Where is the grassroot initiative implemented?

The grassroot initiative *Kartoffelkombinat* is located in Munich, a city of about 1.5 million inhabitants in Germany. The initiative is organized as a cooperative, owned by all members equally, and is not limited to a certain neighbourhood but spreads throughout the entire city.

Who are the promoters? Who are the beneficiaries?

Kartoffelkombinat was founded by two citizens of Munich, Daniel Überall and Simon Scholl, who wanted to make a difference in how they consume vegetables and agricultural products.

The origin of the organization's name: "Kartoffel" = Potato; "Kombinat" = Collective combine (typical way of production

in many socialist countries, (Farlex, n.d.)

The two founders were disappointed that despite the option that food can be produced regionally, ecologically friendly, without too much packaging and transport, in many cases supermarkets offer only low-quality cheap food, packed in tons of plastics, and shipped from abroad. The first beneficiaries were family and friends at the beginning of 2012 during a test phase of the project. Then, *Kartoffelkombinat* officially was founded on 30th April 2012. Since then, many citizens of Munich and surrounding areas have been part of the organization (Kartoffelkombinat eG, 2022).

In 2023, about forty people are currently working for the organization. However, the initiative continues to flourish also as volunteering becomes the norm. Many helping hands guarantee the organization's success as I will illustrate in this entry.

Furthermore, smallholder farmers may profit from this project because they work as partners on equal terms for the organization. Given the strong pricing competition of conventional agriculture, they profit, because *Karfoffelkombinat*, despite owning farmland, leases land from smallholders and gives them some additional income. At the same time, farmers are encouraged to use more ecologically friendly agricultural practices, as *Kartoffelkombinat* so successfully does.

In 2023, agricultural products generated by the *Kartoffelkombinat* provide food products on a weekly basis for more than 2,000 households (Kartoffelkombinat eG, n.d.-b)!

But, as we will see in the following, it is not only food which is the "outcome" of this grassroot initiative.

How does this initiative engage with climate change? Does it tackle mitigation, adaptation, both, or other dimensions of climate change?

The initiative is tackling climate change mitigation by providing more regional and seasonal food, educating people, and raising awareness about conventional and more environmentally friendly agricultural practices. Food losses and overproduction is minimized. It may happen that certain summer vegetables, like tomatoes or cucumbers, are being produced to a surplus extent. In these cases, excess vegetables are processed and canned, with the help of volunteers from the cooperative. Vegetables that even organic wholesalers and retailers do not accept, e.g., rooked cucumbers, small heads of lettuce, or small cucumbers are still put into boxes (Kartoffelkombinat eG, 2015). Also, the cooperative produces mainly vegan goods, and very few products are associated with animals (like honey). Besides, non-dairy products typically have a smaller greenhouse gas footprint (Carlsson Kanyama et al., 2021).

The initiative further contributes to climate change mitigation by reducing the production of crop packaging and by ensuring an efficient and safe food transportation system. Furthermore, since the initiative aims to follow principles of organic farming exclusively, due to the absence of artificial fertilizer whose production is energy-intensive, greenhouse gas emissions are avoided. According to a meta-analysis by Tuomista et al. (2012), organic farming uses 21% less energy on average compared to conventional farming. The same study also associates a higher carbon sequestration potential, which generally results in increased soil organic matter (7% difference), compared to conventional farming practices.

As another effect, more soil organic matter increases the water-withholding capacity of the soil (Lotter et al., 2003; Tuomisto et al., 2012). Additionally, rotating crops and a more diverse vegetation as typical for organically farmed soil, prevent soil erosion and strengthen the capacity and resilience of soils to cope with extreme weather circumstances like extreme drought and floods (Dumaresq & Greene, 2001; Nair & Delate, 2016; Pimentel et al., 2005). The resilience of the soils gets further enhanced through fertilization using "natural" input, through manure, compost, or straw (Nair & Delate, 2016).

All of this qualifies the grassroot initiative to significantly contribute to climate change adaptation.

What are the main objectives and main values of the initiative?

The broader objective of the cooperative *Kartoffelkombinat* is to develop an independent, highly democratic, and self-organizing institution to provide good quality food, which is organized, grown, harvested, and eaten by people, for people of the organization. The organization is structured as a cooperative. People can buy shares, to get weekly food rations in exchange throughout the year. As of 2023, the cooperative owns agricultural land of about 7 ha and employs more than 40 people for activities like cultivation, harvesting, and organization, fourteen of whom work in gardening activities.

In addition, many people help on a voluntary basis to enable the functioning of the project. An example of this voluntary work is that the food is transported to various private spaces (e.g., garages) all around Munich, to work as distribution spots, where members of the *Kartoffelkombinat* can collect the goods from. This voluntary work is thus crucial for the success of the initiative. Aside from employed gardeners, everybody may contribute to harvesting and cultivation activities.

Subsequent to an one-time payment of $150 \notin$ ("buy-in" to the cooperative), every member can choose to pay each month about $75 \notin$ or about $47 \notin$ (for a smaller box) to receive one box with agricultural products per week. To facilitate the planning and to reduce food losses, each member is expected to pay this amount as long as the member is part of the cooperative. In case members are not available or do not wish to receive food, they get the opportunity to suspend the delivery of food four times a year, which aims to further reduces food waste. Examples of what people receive in each box are illustrated in the following, see also photo 2:

Week 19: 3 apples, 500 g rhubarb, Batavia lettuce, 1 bunch rocket, 400 g spinach, 1 bunch carrots, 2 pieces kohlrabi.

Week 28: 1 stick fresh garlic, 1.5kg potatoes, 2 courgettes,0.5kg tomatoes, 400g chard, 1 lettuce, 1 cucumber, 1 bunch basil.Week 43: 1 head of lettuce, 600g carrots, 600g red cabbage, 500g onions, 600g tomatoes, 2 pieces of fennel, 500g spinach, 1 bunch of chives.

Besides this, high-quality bread made by a partnering baker and beer produced by the members of the cooperative may be purchased for some additional payment.



Photo SEQ Photo * ARABIC 2: Example of the weekly content of a food box (Photo by Kartoffelkombinat eG)

Kartoffelkombinat does not only want to provide regional and ecological food but re-think the consumerist lifestyle as it is typical for Western societies. Furthermore, *Kartoffelkombinat* aims to redefine "welfare", by strongly advocating for public welfare instead of profit maximization. Through the community approach, economic sovereignty and decisions remain in the hands of citizens. Furthermore, the aim is also to preserve knowledge about agricultural techniques for future generations.

There are a set of advantages of the community-based agriculture approach. This entails, that their goods are mostly vegan (no dairy products and meat), that ecological production is taken up, that goods are more eco-friendly regarding packaging and transport, and that all food is regional and seasonal. Also, local smallholder farms are being supported to survive in the midst of a costly power struggle involving powerful corporations (Kartoffelkombinat eG, n.d.-a).

From an organizational and economic point of view, *Kartoffelkombinat* follows the principles of the *Economy of the Common Good (Gemeinwohlökonomie), which* was officially certified in 2016 (Kartoffelkombinat eG, 2016). As the name indicates, companies that follow these economic principles aim to maximize the benefit for society, instead of the corporation's financial profit. An organization that wants to be certified is evaluated within the organization, but also towards suppliers and clients, against the following principles (Gemeinwohlökonomie Deutschland, n.d.-b):

- Dignity of every human being;
- Ecological sustainability;
- Solidarity with vulnerable groups;
- Social justice;
- Empowerment and transparency;

What is the timeline? Are there already visible effects?

The initiative started in 2012, and it is still operational since it has strong supporters and many participants. The positive effects of the initiative are all too obvious. Almost 3,000 households are being provided with food on a weekly basis, and the organization has developed from a small CSA cooperative to an organization which provides so much more to the community and the city (see examples and more info later in this entry, Kartoffelkombinat eG, n.d.-c).

Who are the actors involved? What are their backgrounds?

Regarding their prior work experience, the actors involved in the organization's management have different backgrounds. For instance, people are coming from advertising agencies, the IT sector, photography, and simply higher education. Despite employing professionals from the agricultural sector, *Kartoffelkombinat* also offers apprenticeships to become a professional vegetable farmer. Like this, the organization attracts young people. Usually, shareholders, consumers, and collaborators have some financial stability and moderate purchasing power.

Which limits (institutional, physical, social, etc.) does it encounter?

The organization has evolved to an organization where hundreds of people collaborate and thousands more benefit from it. However, these huge dimensions would at some point lead to organizational limits or at least huge challenges to cope with. Some more organizational growth to reach even more people seems difficult.

As outlined above, the *Kartoffelkombinat* follows the principles of the *Economy of the Common Good* which comprises reporting about the organization's values and activities along economic principles. However, surprisingly enough, the organization has only published one report back in 2016. The lack of information on the organization casts a shadow on its future potential and seems to be motivated by a lack of resources, rather than a result of a lack of intention to follow the prescribed principles and values.

Are any shortcomings or critical points visible? What other problematic issues can arise from its implementation?

The buy-in policy and the relatively high monetary amount of the monthly share indicate that not everybody might be able to afford the involvement in the organization. Thus, certain layers of society might be excluded. On a different level, *Kartoffelkombinat* could be competing against farmers who follow organic farming principles. Because these farmers likely could not rely on people working for them as volunteers (for "free"), they would need to offer their products at higher prices. Like this, clients of these farmers potentially could tend to buy fewer products from them, but rather use the services offered by *Kartoffelkombinat*. It is however unclear if this problem deserves attention because the coverage of *Kartoffelkombinat* (reaching almost 3,000 households) still seems very insignificant compared to the number of inhabitants residing in the city of Munich.

How would it be potentially replicable in other settings?

It is an initiative which can be replicated in many other areas or cities as well. People willing to start a similar initiative only would need to find agricultural associates to start farming. Noteworthy, *Kartoffelkombinat* had similarly humble beginnings. Additionally, many networking events and information about the activities of regional groups coming from many countries, are provided by the European CSA Research Group (2016).

Is this initiative conducive to broader changes (law, institutional arrangements, long-term sustainability or community preparedness, etc.)? If yes, which?

Kartoffelkombinat is promoting and influencing societal change in a broader sense in many ways. Apart from the current organization (*Kartoffelkombinat eG*), a non-profit association which offers much more than agricultural goods, called *Kartoffelkombinat – Der Verein e.V.*, was founded by the members. The association (*in German "Verein"*) aims to enable a cultural change in many different parts of society, related to *exchange within the community, societal transformation, education, ecology,* and *research*. Examples of *each* field of activity will be illustrated at the end of this entry. At this point though, two examples will be described in more detail:

Example 1: ErdLink - A cottage garden transforming the street city (*Original in German: Der ErdLink – ein Bauerngarten wandelt die Straßenstadt*)

As one might discover from the name, ErdLink aims to create a connection (link) between Earth's inhabitants (German: *Erdlinge*) and nature in urban environments which would have remained inaccessible if the project had not been initiated.

The ErdLink had been a temporary pop-up agriculture area in a concrete-dominating square of Munich (Europaplatz) in September 2021. Specifically, the "nature" of a traffic island was used to create an area for urban gardening.

ErdLink aimed for and succeeded in the following objectives:

- To make formerly inaccessible nature accessible for citizens;
- To demonstrate that supply with agricultural goods is possible, in dense urban environments;
- To increase the city's quality of life to make it unnecessary for citizens to travel outside the city to enjoy nature

For the project, huge boxes were transported to the area, which contained grown regional and seasonal vegetables, herbs, and other flowering plants, e.g., bell peppers, basil, leek, or sunflower. The content of the boxes was crafted in such a way that anyone could easily grow them in their private properties, both in gardens and balconies. Visitors of ErdLink could also take plants or seeds home. Pictures 3 and 4 illustrate how ErdLink looks like.



Photo 3: ErdLink at Europaplatz in Munich (Photo: Nick Bergner)



Photo 4: Plant boxes from ErdLink (Photo: Nick Bergner)

Most of the nearby living citizens and visitors liked this setting pretty much and associated it with an increase in life quality in the urban environment. Apart from realising a significant change in the appearance of the urban environment, ErdLink also brought along various activities to learn about agriculture, through seminars, workshops, and information campaigns. Examples were guided tours through the ErdLink area, a guided city tour focusing on green and "nature" space in other parts of the city, public readings of children's books related to nature, or online seminars to inform about urban gardening and urban nature in general.

The entire project was considered by the organizers as very informative and successful as learning was willingly shared between organizers, visitors, and nearby living citizens, who shall take it as input for similar projects in the future. But until today, though, no similar project has been announced so far for the near future (LORA MÜNCHEN, 2021; Meincke, 2021).

Example 2: Discovering Big City Wilderness... (German: Großstadtwildnis entdecken...)

Discovering Big City wilderness was a project executed in August 2021 by offering six four-hour long guided tours for children and young adults through a biotope in the neighbourhood of Obersendling in Munich. Obersendling is a district which is currently undergoing a transition and is characterised by a high degree of density. This makes the natural surroundings in and around Siemenspark even more important to remain recognizable for the citizens of the neighbourhood. The main parts of the discovery tours for the all-in-all 60 participants were: discovering dead wood, trees, meadows, waste or trails used by humans. Among the activities were nature observation, multicolour meadow items collection, man-nature relationship building, building "waste monsters", marble runs, deadwood artwork, and many more…

The following pictures shall illustrate some of the activities:



Photos 5, 6 and 7: Different photos from the discovery tours of urban nature (Photos: V. Westermeier & G. Baumert)

In an exciting and playful way, the young "scientists" were able to experience the nature of the big city with all their senses which awakened topical enthusiasm in them. It also sensitised the participants about the importance of city nature protection (Kartoffelkombinat e.V., n.d.-a).

As already mentioned earlier, there are several activities and workshops organized by the *Kartoffelkombinat e.V.* Some of these are (Kartoffelkombinat e.V., n.d.-b):

 Cultural exchange within the community: Kartoffelkombinat offers cooking lessons in outdoor kitchens, organizes cinemas about sustainability ("potato cinema"), education programmes for children to make them learn about sustainable & regional agriculture, organization of community meetups in urban neighbourhoods; also, *Kartoffelkombinat* financially supports initiatives in other countries like a project for regenerative agricultural nursery in Portugal;

- 2. Transformation of the society: Organization of networking events which are not related to agriculture at all: for example, *Kartoffelkombinat* wants to develop open-source software that CSA initiatives can use to facilitate their organization ("CORPORATION-free IT"). Many partnerships had been established, which seem to be key for its success; for example, *Kartoffelkombinat* has cooperations with the Munich Council of Nutrition, with initiatives to promote cycling in the city, with "Save the bees", and many more...;
- 3. *Education*: Organization of "Potato academies" for schools and kindergartens, but also for the broader public through workshops and seminars ("potato dialogues"). Even the famous Oktoberfest is targeted to offer more sustainable food there (#faireWiesn);
- 4. *Ecology: Kartoffelkombinat* regularly organizes projects about how to increase biodiversity in urban environments, and invites citizens to participate in these projects;
- 5. *Social aspects: Kartoffelkombinat also* has got a working group to promote refugee integration or new immigrants to Germany;
- Research: Kartoffelkombinat is also doing research, for example, by participating in a research project about opportunities for a sustainable agricultural food economy (NASCENT) by the Carl-von-Ossietzky University of Osnabrück.

The examples presented above show that *Kartoffelkombinat eG* and *Kartoffelkombinat - der Verein e.V.* want to achieve a behavioural change in society, not only towards climate change but on a much broader scale to help form a peaceful and dignified life on Earth, where respect between humankind and nature is reciprocal, away from any profit maximisation and nature exploitation motives. *Kartoffelkombinat* and its members are contributing significantly to reduce potential dependencies and exploitation of people and land in and from the global south, and as such work together to help make the world environmentally friendly and a better place for all.

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