

Title: Urban Agroecology for health and wellbeing

- **Background:**

Over human history, people have been in direct contact and interaction with their natural environments to discover them, shaping their identities and memories (Sutton, 2001). Humans started concentrating and moving into urban areas and live in ways that minimize their interaction with nature. This process gradually led to disconnection and separation from nature, as people start seeing nature as an external entity to their beings and perceive that they are living into two separate worlds, natural and cultural (Harvey et al., 2020; Nisbet et al., 2009; Puig De la Bellacasa, 2017). This state of disconnection from the natural world can be explained by looking back at history. For instance, urbanization growth rates alongside industrialization lead to a rupture in nutrient cycling between town-country and human nature. This rupture is discussed in the literature as “metabolic rift”, a concept that was originated in Karl Marx’s work (McMichael & Schneider, 2010). This concept includes three aspects: ecological, social and historical. The ecological aspect focuses on the imbalances in natural cycles, which can be explained via the social part of the metabolic rift that concentrates on the causes and consequences in human-nature relations. Moreover, the historical aspect illustrates the historical occasions that changed and framed these social-natural relations (McMichael & Schneider, 2010).

Schneider and McMichael (2010) criticize the concept. They argue that focusing only on the material pathway will neglect other significant aspects of separating humans and nature. Accordingly, the concept can also be broadened to include knowledge and epistemic rift. The knowledge rift affects the production and reproduction of local ecosystem knowledge. The epistemic rift results from the separation between experience and knowledge, which contributes to the state of alienation and detachment of humans from nature. This disconnection has several manifestations (Dehaene, Tornaghi, & Sage, 2016). For instance, few citizens, especially in urban areas, have direct experience with growing food, whilst the number of people lacking the knowledge to prepare their food from basic ingredients is increasing. Based on that, citizens are subjected to dependency on processed, non-seasonal, high-energy food, known as the urban diet (Tornaghi, 2017). Consequently, people’s food-related knowledge became impersonal and disconnected from cultural, social and geographical factors (Dixon, 2009; Al-Sayed, 2019).

One of the possible ways to reconnect with food at the emotional and practical level is by going back and finding and engaging with the source of food. Several studies found that gardening has the potential to change dietary behaviours and awareness regarding food habits and environmental issues (Lautenschlager, & Smith, 2007; Galhena, Freed, & Maredia, 2013; Pederson, Robertson, & Zeeuw, 2000). However, most of the studies focused on the impact of gardening on physical and mental health and the frequency of fruit and vegetable consumption, and a little emphasis on how engagement in gardening activities lead to change in perception and behaviours. This research aims to contribute to that gap by going beyond and exploring to which extent engagement in resourceful practices and with non-human matter (soil, plant) impacts producing and reproducing food-related knowledge and change in perceiving healthy food. To explore these connections, we need a praxis that is demonstrated in this research by urban agroecology.

Urban agroecology is emerging as a specific type of urban agriculture that includes the ethical, social, cultural, political productive approaches of typical peasant that rejects productivity, techno-driven approaches to urban food production. Urban agroecology goes beyond food production, and the embedded practices aim to change the usual and often un-resourceful, day-to-day functioning of urban life. Moreover, it considers how food, water, and energy are produced and how resources are shared and distributed in a just way (Van Dyck, Maughan, Vankeerberghen, & Visser, 2017). Accordingly, we will look at urban agroecology as an example of a politically oriented initiative in which people actively engage and exchange knowledge of developing and building up a holistic relationship with food. This research explores the transformative potential of urban agroecology on women's knowledge, perception, and practices regarding food during the transition to motherhood. The selection of this life period was due to its centrality as a transformative stage in women's lives. Accordingly, it offers the potential for building awareness and facilitating the impact of transformative learning opportunities on their lives.

- **Objectives**

The aim of this research is:

- To develop a deeper understanding of the relationship between urban agroecology and healthy, nutritious food.
- To enhance our understanding of how food and plant-related knowledge is produced and reproduced in an agroecological setting.
- To experiment with different ways to engage mothers in agroecology to scale it out.
- To develop a deeper understanding of transformative life moments as a way to create a change.

In order to achieve that the following **research questions** are going to be answered:

1. **How can we engage and facilitate the understating of mothers about urban agroecology and its relation to human health?**
2. **How does urban agroecology contribute to reshaping people's relations with food? And how transformative life moments (motherhood) play a role in that?**
 - 2.1 How does food and plant knowledge is shaped, shared and retained among engaged mothers in urban agroecology?
 - 2.2 How does engagement of mothers in urban agroecology contribute to an integrated understating of healthfulness of food?

- **Methodology:**

This research employs a qualitative research design. This research design attempts to deepen our understanding of a social phenomenon from the inside. Several qualitative methods will be used, such as action learning workshops, participatory observation and semi-structured interviews.

Assuming that there is a knowledge rift, I will organise a series of action learning workshops. The theme of each session will be proposed by the researcher and discussed in a preliminary

meeting with the participants. If it is needed, the activities will be adjusted according to the participant's needs. Also, the participants will be asked to provide their reflections after each session. This process is inspired by the principles of Participatory Action Research (PAR). Aiming to empower people and let them has increased control over their lives and health.

The target group will be mothers with young children recruited from various women's groups in Stuttgart and Munich. Participatory action learning workshops will be conducted and following COVID19 governmental rules for social distancing. A Sensory ethnography approach will adopt and implemented through a series of multisensory participatory action learning workshops guided by agroecology principles. The aim is to explore mother's relation (perception and interaction) with herbal medicinal plants and how their engagement in such workshops facilitates their understanding of agroecology and its link to human health. Each workshop will consist of various activities, ranging from learning how to grow plants at home in an agroecological way to learning about their health and medicinal benefits and producing some food/health products. A follow-up interview will be conducted with each participant separately to understand their experience and engagement with such practices in-depth.

In the second stage of the research, semi-structured interviews will be conducted with mothers already engaged in agroecological practices. The aim is to understand their experience and how transition into motherhood shaped and affected their agroecological practices. Purposive and snowball sampling will be used and mothers will be recruited from, various community garden projects in Munich and Stuttgart will be visited to recruit mothers. Also, different social media platforms will be used as well.

- **Work plan:**

In the first four months of my doctoral project, I plan to look for different organizations and initiatives in Stuttgart and Munich that work with agroecology and explore possibilities for collaboration. This mapping of sites will support me in organizing the action learning workshops, followed by interviews with the participants (February-July 2022) to explore different ways to engage the mothers in urban agroecology and facilitate understanding its link to human health. This part of the work will be the basis for the first paper, answering the first research question.

After that, the second stage of the doctoral research will be conducted. The collected data during this stage (December 2022-March, 2023) will form the basis of the second and third papers answering research questions 2.1 and 2.2, respectively.

To reach the aforementioned steps, I need to carry out several actions outlined in the following table with a detailed timeline to pursue them.

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