

From the edge to the core: Participatory food environment research in European cities

Alexandra Czeglédi¹, Ewa Kopczynska², Taru Peltola³, Tuija Seppälä³, Vanda Pózner¹, Diana Szakál¹, David Steinwender⁴, Sandra Karner⁴, Minna Kaljonen³, Iikka Oinonen³, Maya Hey⁵

¹ Environmental Social Science Research Group (ESSRG), Budapest, Hungary

² Jagiellonian University in Krakow, Poland

³ Finnish Environment Institute (SYKE), Helsinki, Finland

⁴ Interdisciplinary Research Center for Technology, Work and Culture (IFZ) Graz, Austria

⁵ University of Helsinki, Finland

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Abstract. On the concept of participatory food environment research in European cities, this paper provides a critical overview of current four research processes presented at the STS Graz conference. By adopting an interpretative perspective on the food environment definition and research methodologies in the food research field, this article is looking beyond the purely material and market-based framing of food environment. Rather, we argue, local food environment should be examined from a combined, material, normative and emotional perspectives. Alternative and informal practices such as subsistence farming and gardening, food exchange, food sharing and other forms of food circulation outside the market should be included in a critical research agenda. We have found it essential to include critical and participatory research projects that put the experiences of marginalised groups and communities at the centre of the debate: how to conduct socially just and meaningful research on food environments? How to make the research process inclusive? And how to apply the photo-voice methodology in marginalised settings? Four presentations of the session explored specific food environments and community experiences in different European cities from Austria, Finland, Hungary and Poland. The first part of this paper briefly introduces the theoretical and methodological approach to food environment and the four cases unfolding in localised settings. The second part reflects discussions from the interactive session of the conference session on how (1) to design inclusive research processes and (2) what ways photo-voice methodologies can be adopted in the context of food environment research.

1 Introduction

The thematic call for research on sustainable food systems at the 21st STS Conference in Graz provided an opportunity to focus on specific aspects of the food system, in particular approaches to improve the situation of marginalised communities and individuals. The session 'From the edge to the core: Participatory food environment research in European cities' was organised with the aim of bringing knowledge co-production in the centre of the academic discussion. Previously, the Plan'Eat EU Horizon 2020 project⁸⁰ had provided platform for shaping a common critical view on the food environment across EU countries. This endeavour was continued at the conference with the aim of bringing the session participants closer to a common understanding of food environments, inclusive research processes and methodological challenges across Europe. We have found it essential to include critical and participatory research projects that put the experiences of marginalised groups and communities at the centre of the debate: how to conduct socially just and meaningful research on food environments? How to make the research process inclusive? And how to apply the photo-voice methodology in marginalised settings?

Four cases of the session explored specific food environments and community experiences from different European cities: low-income households in Graz (Austria), rural and urban regions of Finland, single parents in the district VIII of Budapest (Hungary) and the case of low-income adults in Krakow (Poland). The presentations were followed by interactive discussions on participatory research, focusing on the experiences of marginalised, less visible consumer groups in food environment research. The first part of this paper briefly introduces the theoretical and methodological approach to food environment and the four cases unfolding in localised settings. The second part reflects discussions from the interactive session of the conference session on how (1) to design inclusive research processes and (2) what ways photo-voice methodologies can be adopted in the context of food environment research.

2 What does food environment(s) mean?

The concept of the food environment is relatively new and is still being conceptualised, therefore there are several different definitions. Turner et al. (2018) attempted to reconcile competing definitions of the food environment, building on the FAO (2016) report, which is rooted in socio-ecological theory. Initial concepts focused on the external

⁸⁰ Plan'Eat EU Horizon 2020 project: <https://planeat-project.eu/> (accessed at 01.06. 2023.)

dimensions of the environment, such as shops and surroundings. Later descriptions have tried to include the internal dimensions of consumers, social relationships and the shared aspects of the food environment within and between households. This involves zooming in on emotional and bodily experiences, as well as social norms, collective identities, traditions and political ideologies that play a significant role in how people represent and perceive their food environment.

Turner et al. (2018) observed that what these definitions have in common is a conceptualization of the food environment as the physical locations within which food is provided, the set of market-based opportunities and constraints that influence people's food provisioning and consumption decisions. However, food provisioning cannot be reduced to formal market-based transactions, such as self-sustaining farming and gardening, informal food exchange, food sharing and other forms of food circulation outside the market, which should be recognised as part of the food environment.

The concept of the food environment has recently come to the fore at the EU policy level. It was first coined by the High Level Panel of Experts on Food Security and Nutrition (2017). Then the broadly defined concept was adopted in the Farm to Fork strategy (2020, p. 5) as *'the physical, economic, political and socio-cultural environment in which consumers interact with the food system to make choices about the purchase, preparation and consumption of food and food products'*.

This definition implies an interdisciplinary approach to food environment studies, but it does little to capture the complexity and diversity of social practices and food cultures. It reflects a market-based view of food environment research and limits the scope of the concept to commercial transactions. To contribute to food environment research from a critical vantage point, traditional and policy research needs to be broadened by encompassing informal practices within communities and household.

General definitions and research guidelines show that the food environment is complex, diverse and rapidly changing, especially in urbanised regions. This variability necessitates more locally embedded research to understand the characteristics of the food environment and the views and experiences of different consumer groups regarding their own food environment. In each case, different practices and dimensions are gaining importance and shaping the local food environment.

The food environment is primarily material, however, as session organisers and participants, we proposed to look at the local food environment from a combination of material, normative and emotional perspectives. Consumers' everyday experiences of the food environment unfold in multiple places and situations: at home, through media exposure, while eating and shopping, in the organisation and management of the daily logistics of food supply, and at family and cultural gatherings and social events.

Critical thinking further needs to be mobilised to integrate marginalised experiences and often overlooked knowledge from the socio-economic peripheries of European cities. In other words, to map food environments with those whose experiences are often left out of the generic category of 'people', as put in the Farm to Fork strategy, policy papers and marketing strategies.

In order to better identify what interventions are most needed to promote socio-nutritional change, support sustainable practices and better disseminate healthy food in local and specific food environments, we believed that it is essential in critical interdisciplinary research to place the experiences of marginalised groups and communities at the centre of our discussions. By better understanding, the everyday experiences of consumers through participatory research processes, food scientists, nutritionists, environmentalists, health professionals, sustainability actors and policy-makers can be better informed about the diversity of challenges and needs in different food environments.

3 Co-researching the food environment

Turner et al. (2018, p. 95) have suggested more specifically how to start researching the food system. Researching the interactions between both external domains (availability, prices, vendors, products, marketing, regulation) and internal, personal domains (accessibility, affordability, convenience, desirability) is one way to explore the features of the local food environment.

Researchers have a range of creative approaches to engage consumers and collectively analyse their lived experiences. Individual interviews, group discussions, visual and spatial methods and diaries in food environment research (Neve et al. 2021) are just some of the directions that researchers can follow. Participatory methods such as photo-voice or smartphone-based citizen science offer visual, creative co-learning to engage consumers beyond and instead of traditional surveys and often intimidating interview settings.

All presentations of the session adopted a participatory approach to food environment research, combined with food sharing, communal cooking and taking photos of eating habits or environments. Out of the four presentation, three presentations applied photo-voice. Therefore, in the discussion part, the specificities of the photo-voice methodology is discussed in more detail.

4 Food environment research cross Europe

We received proposals that address challenges and solutions in the broader food environments co-researching with marginalised and disenfranchised groups such as low-income households in Graz (Austria), urban and rural youth in Finland, single parents in Budapest (Hungary), and adults with low-economic status receiving food donations in Krakow (Poland). Across these different cases, we initiated a horizontal overview of small-scale participatory research projects on food environments. All four research projects mobilised photo-voice and co-creative methodologies to better grasp views, norms, emotions, expectations, and material capabilities that are shaping participants' choices and habits within the food environment.

Case 1: Austria, Graz

Culture.Kitchen: Implementing healthy and sustainable food bottom-up in an intercultural setting

Authors: David Steinwender, Michaela Schneebacher, Sandra Karner

Culture.Kitchen is an innovative experiment run by Transition Graz⁸¹ - together with two neighbourhood centres in Graz⁸², having different social environments. One of these centres operates in the multicultural low-income neighbourhood “Triester Viertel” (formerly it was a worker’s settlement), which is rather “isolated” (physically) and has a bad reputation as representing a societal hot spot within the city. The other centre is situated in a socio-economically more diverse neighbourhood, which does not have clearly defined boundaries due to its building structure.

In both neighbourhoods, several activities regarding food have been conducted before the introduction of the *Culture.Kitchen*, e. g. dealing with food sharing, food processing and the improvement of the food supply in the area. The project idea of *Culture.Kitchen* is based on an examination of the food supply system in the Triester neighbourhood done by IFZ, which included recommendations that Transition Graz and the local neighbourhood centre have taken up in order to make sustainable food more accessible. The concept of *Culture.Kitchen* is also inspired by the “Kitchen for all”, where food is cooked and served for a donation.⁸³

In practice, on each date, someone cooks his or her favourite dish. Due to the multicultural orientation, these are usually different national dishes. Not only recipes but also the

⁸¹ WhichTransition Graz (<https://transitiongraz.org/>) is inspired by the community action approach of the Transition Town Movement

⁸² Neighbourhood work in Graz is a special form of neighbourhood-based social work.

⁸³ The focus is not charity, but social purpose.

personal stories of the cooks are discussed. This addresses the social inclusion aspect of the neighbourhood work.

Subsequently, it is planned to integrate questions of sustainable food procurement and health aspects into the Culture.Kitchen. These two aspects are to be addressed bottom-up, taking into account the living environments of the participants and starting from there. At the moment, after 4 cooking sessions, the aspect of social inclusion is still the main focus. In the process, different approaches to how health and sustainability aspects are planned to be incorporated as well are tested. In this respect, the project is a practical experiment that is to be further developed. Above all, the project still needs to gain experience regarding appropriate settings.

The coupling with concrete initiatives of the neighbourhood centres, such as a Food Coop and the development of a Food Hub are scenarios for the future.

Case 2: Finland, rural and urban regions

Everyday food environment of the Youth: Applying a photo-voice method in Finland

Authors: Tuija Seppälä, Minna Kaljonen, Taru Peltola, Iikka Oinonen

Youths' involvement in the transition to sustainable food systems is important for several reasons. First, youth is a special phase of life where one's personal food-related values are typically reflected on. Second, young people are often forerunners of changes in lifestyles, and they can have new ideas for sustainability. Third, young people are the best experts in their own food environment, but youth often experience that their perspectives are not adequately considered in decision-making.

We conducted a small-scale participatory research project utilizing a photo-voice method on the everyday food environment with young people in Finland. The study aimed at producing an understanding of the young people's experiences related to their everyday food environments as well as the suitability of the method in supporting young people's agency in the sustainability transition. The photo-voice method is intended to empower vulnerable groups to enhance their needs and perspectives in societal decision-making by utilizing documentary photography, critical group discussions and dissemination of the outcomes of these critical reflections.

We recruited four different groups of voluntary young people from urban and rural environments. The participants in the groups studied and photographed issues in their food environment that hindered or enabled them to act according to their values. The groups also collectively reflected upon their understandings and deliberated potential solutions to more sustainable food environments together with the researchers, the food system actors and the professional photographer involved in the research process.

Furthermore, a small group of participating youths are planning an exhibition to disseminate the findings.

Participation of youths with diverse backgrounds and motivations produced various perspectives on the youth's everyday food environments. Four themes depicting experiences were identified collaboratively with the participants and the researchers: 1) lack of resources to make sustainable decisions, 2) appealing and unhealthy snacks, 3) availability and accessibility of appealing and nutritious plant-based food in schools, and 4) the low appreciation of food.

Sharing pictures with other participants and the active role of the researchers facilitated participants' learning about the food environment and its influence on their choices. The majority of the taken pictures depicted a portion suggesting that some aspects of the food environment were hard to photograph and that the participants repeated the prevalent social practice of photographing food on a plate. Some participants also reported anxiety related to taking photos with a camera in a public space. Iterative photography would have been in place but the youths had challenges committing to a long project.

Case 3: Hungary, district VIII of Budapest

Photo-voice-based food environment mapping with single parents in the 8th district of Budapest

Authors: Vanda Pózner, Diana Szakál, Alexandra Czeglédi

In Hungary, there is an increasing number and proportion of new family patterns (i.e., cohabitation, mosaic families, families without children, and single-parent families) that differ from the traditional marriage-based family type (Máté, 2018). In recent decades, the share of single-parent families increased from 7% to 14% (Harcza–Monostori, 2014). Therefore, in the PlanEat EU Horizon 2020 project, we started working with single parents, predominantly single mothers, in one of the most vulnerable districts of downtown Budapest. The aim of the research is to understand their perspectives, struggles and needs in relation to the local food environment in the 8th and 9th districts of Budapest.

To better understand their perspectives, a three-step mixed methodology allows us to collect (1) quantitative data on the food environment and (2) qualitative data on participants' subjective experiences and perceptions through photo-voice-based visual storytelling. The qualitative participatory methodology builds on the dimensions of the quantitative survey to gain a deeper, more reflective understanding of food environments.

The combined methodological approach allows researchers to include the availability, accessibility, price and socio-cultural aspects of participants' environmental food supply and environmental practices and promotion. The qualitative-participatory methods

complement the quantitative method and reflect the three food environments integrated into the survey (home food environment, food purchasing/purchasing/home growing environment and dining environment). Preliminary results showed that emotional and psychological factors are crucial for participants to make decisions within their food environment.

Case 4: Poland, Krakow

'Food itself is not a problem here'. Lessons from researching and designing transformations towards more inclusive food systems

Author: Ewa Kopczynska

Food security is a widely shared social value and a rationale for transformations towards more sustainable food systems. Groups with limited access to nutritious and culturally acceptable food are often the target of public interventions, NGOs, bottom-up activities and informal, everyday coping strategies. However, these interventions and initiatives are usually standardized and focused either on managing the consuming bodies (education, biopedagogy) or on food itself (food aid). Drawing on the results of existing research I argue for engaging wider, heterogenous social-material compositions which shape the eating experience. Applying participatory techniques and taking a closer look at food aid practices in real-life settings unveils the role of food arrangements and non-food material objects. These arrangements are not merely a company for food, but they co-define the eating situation. When designing more sustainable and inclusive food systems, we need to widen the focus from education and food to more complex arrangements. Diversity of these local arrangements needs to be recognized and reorganised for and with the groups being part of them.

Social practice theory provides the theoretical frame for the heterogeneity of eating experience: as a bundle of bodily activities, mental activities, material objects, meanings, knowledge, sayings etc. (Reckwitz 2002). The actor-network approach helps to grasp the active status of non-human and non-food actants, like tables and plates, packaging, TVs and refrigerators, but also pandemic, hygiene regulations, weather etc.

5 Discussion across cases

An interactive discussion followed the four case presentations. Our aim was to get to know more about (1) the question of inclusivity in research processes, and (2) the photo-voice methodology and its application in different food environment research contexts. We were interested to learn more about what challenges and opportunities researchers, co-researcher and participants meet in a participatory research process.

5.1 Inclusivity in research processes

Research on food environments needs to recognise — and, in some instances, expand what is meant by — marginalised groups in order to develop a more complete and inclusive perspective on food environments. Some of these groups can be easily identified with socioeconomic indicators: low-SES families, people receiving food aid, single parents, elderly retired persons and rural communities. However, some groups are hardly in the scope of food researchers' perspective and their marginal positions come from structural circumstances, e.g. working poor or people in care facilities, such as elderly homes, childcare institutions or hospitals, where particularly children are vulnerable due to their specific needs. These groups do not fulfil inclusion criteria per se, although their inclusion is essential we are to aim for more nuanced and robust food environment research.

In most cases, the factors negatively impacting food security are related to limited financial resources, but factors can also be related to infrastructural, geographical and knowledge/information dimensions, such as food literacy (Begley et al. 2019), and agency, which recently has been coined as another important dimension of food security (Clapp et al. 2022). The concept of foodscape together with the social approach can widen the perspective from individuals to groups, communities and social networks, like in the case of caregivers who are usually neglected when studying the food environments of people with health conditions. The foodscape concept helps to take a more personal perspective on food, compared to the food environment. It focuses on individuals' and collectives' subjective views of accessible options, opportunities, challenges and constraints, therefore it fosters the inclusion of these actors, who are vulnerable, in marginal positions, and deprived of their voice in public discourse. This scalar zooming in (minorities, individual perspectives) and out (local to regional and to global) can show the multiple contexts within which people navigate their food environments.

Another aspect of inclusivity in food studies relates to public institutions and public interventions aimed at food security goals. Even regional and local food strategies are implemented by complex, yet centralised institutions, operating within bureaucratic administration systems, which often represent hurdles for sectorial integration. For instance, food aid initiatives, policies aimed at decreasing social inequalities, and the means of providing social and financial support for those in need, tend to overlook the multilayer nature of food insecurity. Therefore, they tend to be effective when focusing on a specific dimension (eg. health, social, financial, educational etc.) but they very poorly deal with the compound nature of food practices, more systemic wicked problems, and atypical contexts. Institutional settings can also rely on decontextualised and reductionist understandings of food and health (e.g., calories, grams of protein) in order to

standardise their operations. This myopic vision of nutrition, versus a more holistic sense of well-being and social belonging, can be crucial towards (re)thinking inclusivity.

As an example, the situation of people affected by homelessness who — as food assistance beneficiaries — receive products that need to be cooked (e.g. dry rice, pasta, bottle of oil) which they cannot meaningfully use or consume. So while standardisation of food security policies is necessary for the programmes to operate on a large scale, reliance on outdated nutrition/public health paradigms risks overlooking the needs of some groups. It also enables an ‘it’s-not-my-department’ logic (e.g., ministries and departments of health versus environment versus social services), developing blind spots that may result in further ignoring or stigmatising some marginalised actors.

5.2 Photo-voice methodology

Photo-voice is a qualitative and participatory methodology commonly used with marginalised groups or a site-based community through digital or analogue photography. Researchers and social workers alike use photographs to generate discussion and storytelling and to deconstruct specific, often social and economic, issues. Photography stimulates discussion and allows participants to see, document and discuss issues and valued practices through their subjective experiences. It is often used as a methodological tool in community development to capture individual and community aspirations, desires, expectations and overlooked knowledge. Participants' subjectivities are performed through photography, as they can communicate their values and choices in a less frontal and non-interrogative situation (Buding et al. 2018). Participants are actively performing through their subjectivity in the unfolding of their close, known environment, without predetermined value choices. Thus, in the application of photo-voice to food environment research, an elementary part of the visual methodology is that participants take photographs in their own food environment without the researchers pre-defining what the food environment might be, what it means in academic terms.

Single parents in Budapest and urban and rural young people in Finland who participated in the research took pictures as a kind of exploration; mobilising their own interpretations of their food provisioning and eating. The general research experience emerged from the abovementioned cases is that research participants learn about the food environment through their own personal activities and exploratory walks. Later on, they do through reflections on their photographs. They move from rudimentary definitions to a much broader and more complex understanding of the food environment that fits into their local, everyday experience. Although these complexities are highly site-dependent, even within one neighbourhood or street of a city, there are demanding dimensions of the food environment that participants experience and describe as actors. The personal dimension, according to the researchers, helps the participants to conceptualise and

understand larger economic, social and cultural processes through their own life situations. Through shared reflection in groups, researchers also gain deeper insights into the characteristic, hidden aspects of local food environments.

There are several ways to analyse the material, as photo-voice allows room for experimentation. In the Budapest case, single parents shared their experiences through photos during a focus group. They selected the images according to their own perceptions and shared them with the other participants while recalling their own experiences, feelings and memories through the images. They shared their relationship with food and their intimate and often taboo life situations. The researchers analysed the recordings of the focus group sharing together with their own notes. The analysis of the photos was thus done by the participants, and the analysis of the conversation was then carried out by the researchers.

The strict adherence to GDPR principles was noted as a drawback of the methodology by the presenters. If someone takes a photo of their own life situation, they cannot publicly share photos that include recognizable individuals without the permission of the individuals in the photo. In the vast majority of cases, the participants do not have the possibility to ask for the consent of the people in the photo, so the photos are altered or not shown publicly.

The experience of the Finnish case is that taking a photo in a public space provoked a feeling of unease among the young participants. The young participants were encouraged to use a camera to make the process more focused but they could also use their smartphones. The camera increased the visibility of the activity causing feelings of anxiety. In such situations, young participants were unsure of the appropriateness of the methodological choices.

Photo-voice can be challenging in some contexts, but in other settings it can be very engaging. Before adopting the methodology, participants should have a say in how they would like the data to be collected and what images they are willing to bring to the group discussion. Researchers may want to be vigilant when designing the methodology, e.g. monitor social media trends related to food so that participants do not confuse social media posts with images taken for research purposes.

5 Concluding remarks

In this session, we looked at different participatory food environment studies in Austria, Finland, Hungary and Poland, where marginalised experiences are at the centre of the debate. Food environment research, when it takes a top-down policy perspective, tends to ignore informal and grey-zone practices within the food environment.

Another challenge for food research relates to the concept of marginality. While some groups are easily identified as vulnerable in the local food system, some groups are hardly visible to food researchers because of their contextual and structural marginality. In order to overcome the blind spots in food environment research, a bottom-up approach is needed, which encompasses the marginality within a given socio-economic context. In order to identify vulnerable groups in the local food system, researchers have found it useful to complement the concept of food environment with the notions of food security and foodscape.

Critically designed participatory research can challenge the reductionist and standardised understandings of food and health that often characterise public and political institutions. Photo-voice, as a participatory and visual methodology, can playfully reveal the perspectives of those whose voices and needs are not taken into account in food-related decision-making processes. It does not merely create groups and forge communities, but creates opportunities to learn together and imagine alternatives based on their needs in the food system

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