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WG1. Sustainable Food Systems: approaches, policies and practices

Mikkelsen, Bent Egberg; Nguyen, Michael; Haugaard, Morten Høst; Kruhøffer, Jens Brandt

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The role of a venueised approach to encouraging citizen support for an urban food strategy – case insights from the Aalborg Gastronomarium

O papel de uma abordagem localizada para fomentar o apoio de cidadãos para uma estratégia alimentar urbana – insihgts do caso *Aalborg Gastronomarium*.

**Theme: WG1. Sustainable Food Systems:
approaches, policies and practices**

Mikkelsen, Bent Egberg ¹; Nguyen, Michael ²; Haugård, Morten Høst ² & Kruhøffer, Jens³

¹*Professor, Aalborg University, Copenhagen. bemi@learning.aau.dk*

²*Student assistant, Aalborg University, mnguye14@student.aau.dk*

²*Student assistant, Aalborg University, mhauga14@student.aau.dk*

³*Architect, JK Innovation, Aalborg, jenskruehoffer@gmail.com*

Abstract:

There is a growing interest among policy makers in developing food strategies for “places” and increasingly cities and regions are adopting policies that aims at creating unique identities for these places. But can urban food strategies be developed and governed only at the policy level? And if not what role does citizens play in that process? The Gastronomarium study examines how more powers of society can become involved in food policy making. It builds on case insights from the development of the Aalborg Gastronomarium – part of the Boxtown initiative. The initiative includes a street food component, a food market component – and the Gastronomarium component. The last part aims at creating research-based learning and experience in the food and gastro science area. Furthermore, the goal of Gastronomarium is to get a better understanding on, how the modern consumer experiences the nature, food and environment in regarding to the everyday life. This was done by mapping the views and expectations of representatives the local consumers to a food and gastro science related experience- and learning center. Based on these data, we constructed a number of personas of potential future users. The aim of the study was to examine to what extent the case of the Gastronomarium program at Boxtown – an upcoming food hotspot in the city of Aalborg - can facilitate citizen support for an urban food strategy and at the same time stimulate food literacy. The study finds that there is a considerable interest among important institutions and stakeholder in the municipality of Aalborg to support and potentially use the proposed learning environment for gastro science and that such an undertaking might contribute positively to the food strategy development in the city.

Keywords: Citizens, urban food strategies, social learning, citizen science



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Introduction

Alienation towards the food system and lack of food literacy among citizens and young people is a major problem. Increased uptake of ultra-processed food (Monteiro et al., 2013) and growth in nutrition related disorders (Tapsell, 2017) are some of the serious threats to the food security of populations. Furthermore, climate change has made a rethinking of production and consumption of food imperative.

As a result, policymakers have increasingly turned their attention to the power and potential of food policies to address this challenge. So far, most of the policy actions taken have been dominated by political reforms and legislations following a top-down policy implementation approach. However, publicly led policy changes have major limitations and as a result, there is an increasing interest in broader approaches to the governance of Urban Food Strategies - UFS. Such approaches include participatory strategies in which more powers of society are involved in policy making.

In this paper, we aim to study to what extent the case of the Gastronomarium program at Boxtown – an upcoming food hotspot in the city of Aalborg - can facilitate citizen support for an urban food strategy and at the same time stimulate food literacy. The program takes as a point of departure that to drive policy change, there is a need for engagement from local citizens and that a specific “place” – like the Boxtown – can be used to take the idea of UFS from the more abstract policy level to the practical level. The program is built on the idea of the Boxtown – a food center and experience market for citizens at the harbor front in the city of Aalborg. The site presents, itself as a place – a meeting spot, where food related activities are in focus and where citizens can walk in from the street. As such it offers a well-suited participatory element to add to the more policy driven actions taken by the municipality to promote a more sustainable food system.

The Boxtown premises contain a street food component, a food market component – and the Gastronomarium component. The last part aims at creating research-based learning and experience in the food and gastro science area. Furthermore, the goal of Gastronomarium is to get a better understanding on, how the modern consumer experiences the nature, food and environment in regarding to the everyday life. This was done by mapping the views and expectations of representatives the local consumers to a food and gastro science related experience- and learning center. Based on these data, we constructed a number of personas of potential future Gastronomarium users.

The aim of this study was furthermore to examine to what extent a citizen science approach to facilitate food literacy in city could work by investigating potential cooperators of Gastronomarium and constructing a row of theoretically founded learning tracks for citizens, researchers and students.



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Conceptual foundation:

To develop the ideas for learning components of the Gastronomium, we used the **Problem-Based Learning approach (PBL)** – a learning model which emphasizes using real life topics such as that of food for creating learning supported by the insights of academic theories. PBL has developed within many parts of the educational system as a result of the growing interest in reforming educational practices (Kolmos et al., 2004). The PBL approach is closely linked to the concept of social learning and community-based learning. By combining both theory and empirical data from real life- problems, PBL-projects have a more practical and less abstract starting point. Therefore, this type of learning takes its point of departure in ‘real life problems’ and with the potential of making it easier for the target group of the teaching to relate to the subject matter.

Furthermore, **Citizen science** (Gura, 2013) function as a conceptual foundation in the sense that learning stations can both be used to facilitate learning about science in relation to sustainability and food and can be used to collect valuable data on citizen views of that topic. By approaching a row of learning stations through the idea of citizen science, it is possible to secure a larger pool of data for future research, while engaging local citizens and offering local food sellers an experience station that brings attention to their products. In this way, it is possible for both researchers, citizens and food producers/sellers to get mutual short-term benefit from research projects, as it offers experiences for local society, and long-term benefit from the research output since researchers get access to valuable informants.

Lastly, in trying to understand local citizen preferences and behaviorism, this study also draws on ideas of **green consumerism** (Vermier & Verbeke, 2006) and sociological theories on alienations towards place and nature (Beatley, 2004; Curtis, 2010). Both theories give a conceptual foundation that helps understand the need for nature and food related teaching in the urban environment. These theoretical accompaniments regarding the importance of nature was partly inspired by empirical patterns in the study, where it was found that people often associate foodscapes with natural elements. Building on the theoretical idea that people are alienated towards nature in modern urban settings (Beatley, 2004) gave the study the possibility to understand the demand for natural elements in what we refer to as foodscapes (Mikkelsen, 2011) - that it is meaningful to speak about an abstract landscape of food, people and environments in a given location like a city. In this context we argue that the BoxTown and Gastronomium are potentially important components of such a foodscape. The effects of natural elements were understood through Curtis’ ideas (2010) that nature have a positive mental impact on individuals and therefore also have a positive impact on learning environments. The benefits of food related teaching is furthermore understood through the idea of foodscapes as an important part of local society (McKendrick, 2014). The general idea is that BoxTown, where a lot of the study’s empirical data was gathered, and Gastronomium offers a change in the possibilities for food consumption and food related learning, thereby altering the foodscape present for local society. This study thereby saw BoxTown as not only an enclosed environment in which food consumption takes place, but also as a part of a broader food system including, but not limited to, food



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related learning such as the ideas of Aalborg Gastronomarium. In addition, the green consumerism perspective can contribute towards understanding how the consumer can be influenced by values and opinions relating to nature, sustainability and climate change.

Methods

The Aalborg Gastronomarium is a joint venture science and experience center focused on the idea of promoting local, sustainable and healthy food and diets. It is developed in partnership between Aalborg University, University College North Jutland and the BoxTown association. It aims at creating research-based learning and experience in the food and gastroscience area and is located on the premises of Boxtown in central and harbor side Aalborg. The premises are that of the old distillery – and important part of the city's cultural heritage in the food & drink sector. The Gastronomarium program aims at creating citizen support for a holistic urban food strategy for the local area and it aims to meet the need for combined food and sustainability literacy training of both the more formal needs and expectations from the different layers of the educational system as well as the more informal ones from citizens, tourists and other visitors. It builds on the insights from the development of the FoodScape Lab (Mikkelsen & Oftei, 2017) that has been developed for the teaching at the graduate Aalborg University program Integrated Food Studies (Mikkelsen & Justesen, 2015).

The Foodscape lab includes a range of digitally based devices such as the Intelligent Buffet, Virtual Supermarkets and Augmented Food Reality. Experiences from problem-based learning, based teaching of food topics in a digital assisted way has been taken outside campus to Citizen & Street Science type of events such as Culture Nights, Researchers Festival, Researchers Nights etc. as well as to facilitate Science events at schools (Toth & Mikkelsen, 2018). The insights, so far suggest that a facility could benefit from a close link with science and academia in the sense the learning and experience environment would provide opportunities for protocols and experiments where data can be collected in citizen science type of environments. The close link to academia in addition would at the same time mean that learning stations could be built on a high degree of evidence basedness.

The study was conducted in three steps. The first phase focused on constructing a number of personas representing potential visitors and users of the Gastronomarium, while the second phase focused on how experts and potential interested parties could benefit from an Aalborg Gastronomarium. The third step constructed sketches and outlines for learning targeted towards different types of visitors. The informants were citizens, representatives from different educational levels, policy makers, as well as representatives of the experience and of home eating industry.

The empirical findings are based on a mixed-method-strategy, with four main methodological approaches: Firstly, opinions of Boxtown as a food-environment was collected by conducting a workshop for a local business and trade network with the intention on gathering information on the potential use of Boxtown's area as a



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foodscape. Here discussions were encouraged by dividing people into groups of four to five people and showing them around the premise of BoxTown. Topics like the experience branch of BoxTown and the dome-installations were discussed in the groups and the key points were noted on paper by a guide assigned to the specific group. The second methodological approach used was a number of foodscape-walkabouts was conducted with visitors of BoxTown.

Both the workshop and the walkabouts drew inspiration from the semi-structured walking interview, which is a methodological approach that allowed the study to secure not only a more precise understanding of people's perception of the space of BoxTown. By allowing respondents to more easily make connections to the place, they are trying to describe, but also securing validity by diminishing the possibility of the respondents wanting to 'give the right answer' (Evan & Jones, 2011). The visitors of BoxTown were also presented with a survey, where information on their user experience would be collected. The survey was conducted as computer assisted personal interviewing (CAPI). Lastly a number of expert interviews was conducted with potential cooperators and stakeholders in order to gather knowledge on, how Gastronomium could be established with a row of partnerships. Semi-structured interview methodology was used, where questions loosely was standardized through an interview guide, however, due to the semi-structured approach, each interview was unique, and the direction of the interview was in part also based on the flow of the individual conversations.

Table 1: Study informants. The table provides an overview of the informants

Informant	Work title and function
1. Food scientist at Aalborg University Hospital	Main work assignment is to study, how to improve the food experience for the hospital patients.
2. Housing co-creation-consultant at Himmerland Housing Assoc. (AB Boligforening)	A co-creation consultant at Himmerland Boligforening, Center for samskabelses- afdeling. Main work assignment is to create local project to improve the local area
3. Two employees at Kindergarten (Børnehaven) Fuglsang – a nutritionist and a pedagogic leader.	To create food learning strategy and take care of the children.
4. Environment counselor at the municipality of Aalborg's EPA (Env Protection Agency) responsible for the food sector.	She works with environment recommendations, presentation and is a project leader.
5. Consultant of municipal schools from the local authority at School administration.	Works with co-production between the public schools in Aalborg and with local business in North Jutland. The goal is to create practical learning experiences for the pupils.
6. Home economics-educator	University College North Jutland (teaches future public-school teachers on food didactical).



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Results

The results show that there is a considerable interest among important institutions and stakeholder in the municipality of Aalborg to support and potentially use the proposed learning environment for gastro science. The study points out that a diversified strategy for with a robust business and governance plan will be crucial for taking the idea further. The study identified two important target groups: for the school-based audience mobile based learning stations is to be preferred while and for an older audience and for families a visiting center type of approach is suggested. Findings also suggest that a facility could benefit from a close link with academia in the sense the learning and experience environment would provide opportunities for protocol and experiments where data can be collected in citizen science type of environments. The close link to academia, in addition would at the same time mean that learning stations could built on a high degree of evidence basedness. The study concludes by suggesting scenarios for how to create experience- and learning tracks for five different types of personas and by listing knowledge demands, co-creation focus and other concerns of the potential interested parties. A brief overview of the personas and related learning and research approaches is shown hereunder in table 2.

Table 2: A brief overview of the personas constructed from initial interviews

Persona	Suggested learning environment
School classes and kindergarten	Sense focused activities such as taste, smell, sight.
University segment	PBL focused learning and research Creating research stations for citizen-science
The Green Idealist	Workshop related activities (show and tell)
The individualist	Workshop related activities and consumerism
Families	Workshops + drop-in-drop-out user-based activities with possibility for auto-collection of data

A key part of the study findings suggests that there is a large demand for a gastro-science focused learning environment, in wich both schools and researchers can utilize each other's resource. Furthermore, it is found that there is a large interest in food related learning and experience on citizen level. Though created learning environments must be weary of the potential alienation that technology can bring, since there still seem to exist a link between food experience and the idea of 'back to nature' in the eyes of the citizens of Aalborg.

All in all, it seems that there is a considerable interest in gastro-science and the idea of a science centre type of undertaking among local learning and research institutions, but



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further research must be conducted with especially public-school classes to get a precise understanding on how the teachers can use a potential centralized learning facility such as learning stations around BoxTown.

Discussion

The Gastronarium aims to meet the need for combined food and sustainability literacy training of both the both the more formal needs and expectations from the different layers of the educational system as well as the more informal ones from citizens, tourists and other visitors. It builds on the insights from the development of the FoodScape Lab (Mikkelsen & Ofei, 2017) that has been developed for the teaching at the graduate Aalborg University program Integrated Food Studies. The Foodscape Lab includes a range of digitally based devices such as the Intelligent Buffet, Virtual Supermarkets and Augmented Food Reality. Experiences from problem-based learning-based teaching of food topics in a digital assisted way has been taken outside campus to Citizen & Street Science types of events such a Researchers Festival, Copenhagen Culture Nights, Researchers Nights etc. as well as to Science events at schools (Toth & Mikkelsen, 2018).

The insights so far suggest that a facility could benefit from a close link with science and academia in the sense the learning and experience environment would provide opportunities for protocols and experiments where data can be collected in citizen science type of environments. The close link to academia in addition would at the same time mean that learning stations could built on a high degree of evidence basedness. Experiences from the FoodScape Lab in Copenhagen also shows, that Gastronarium has the potential to create empirical knowledge of how consumers of Aalborg and North Jutland experience food and nature and how to facilitate learning in conjunction with that way of experiencing.

Findings so far suggest that creating a concrete and tangible “place” has a potential important symbolic meaning for the idea of an urban food strategy and function as a hub for the kind of citizen involvement that we see as crucial for the governance of urban led food strategy work.

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