Sustainable consumption and social innovation

Prof. Marlyne Sahakian, Fall 2019

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HOMEWORK ASSIGNMENT 1: due Thursday Oct 17, 5pm; please upload your assignments via moodle.

Three tasks are required as homework, see Parts 1-2-3 below:

Part 1: INDIVIDUAL REFLEXIVE EXERCISE

OBJECTIVE: Describe food provisioning through a social practice framework.

Describe your own practices in relation to provisioning food for preparing a meal, in Geneva, as this practice played out in the last few weeks. Focus on habits and routines, rather than any special occasions. Using the table below, reflect on the meaning, skills, material infrastructure, products, time, etc. tied up with the practice of food provisioning. Feel free to include pictures as well. Approx. 2 pages.

Material arrangements	*Describe how food provisioning relates to infrastructure, technologies, availability and access to products; the transport system and mobility options; the design of your kitchen, storage and eating areas, what areas are shared or private. What is different from your prior practices (growing up, living elsewhere, etc.). What forms of product packaging and processed food you acquired, etc.*
Competencies, skills and time	*Describe what skills and competencies you have or needed to acquire for provisioning products and storing them; how and in what way you acquired those competencies; what was required in relation to time and financial resources necessary; describe feelings in relation to different meal occasions, what you're in the mood for and when. Signal any health concerns or dietary requirements, for you or when preparing meals for others, etc.*
Social norms, rules and policies	*When deciding what food to provision/purchase, describe what norms around health and environmental standards inform your routines, and how are these reflected in food labels. What differences are there between preparing a meal out of convenience, and preparing a meal for a social affair, or on weekends versus weekdays. What is the influence of social media, friends and family, and other "prescriptions" on what you should or ought to eat. What regulations and policies exist in relation to preparing a meal more generally (store opening hours, importing food from abroad, etc.), etc.*

Reflect on what are some dominant trends in your own "food provisioning" practice, and how you either experienced routines in how that practice played out, or ruptures – when more than one element of the practices was affected[i].

Part 2: GROUP WORK

OBJECTIVE: Recognize the social embeddedness of food provisioning and identify opportunities for change towards 'sustainable' practices.

Working in pre-assigned groups, share each of your tables above with each other, and discuss what is common and different in your approach to food provisioning. Provide a summary in the table below.

Discuss what would need to change for certain practices to become more 'sustainable', in relation to: the type of food you buy (e.g., less to no meat, more vegetables, locally sourced, organic, fair trade, etc.), the way you go about provisioning food (e.g., forms of mobility, frequency) and storing food (e.g., (non)refrigeration, (non) freezing, etc).

Group members: (list names here)

Group work objective 1: recognizing how food provisioning is not only about individual choice, but also socially-embedded ways of doing

500 words (can be copied and pasted between all group members):

Commonalities between the group	**Differences between the group**

Group work objective 2: identifying ways of changing 'elements of practice'[ii] **towards more sustainable forms of food provisioning, in environmental and social terms.**

500 words (can be copied and pasted between all group members):

Opportunities for change towards more 'sustainable' food provisioning

Part 3: Read the Geneva case studies below: you will be assigned to work on one of cases in the classroom on the day of the workshop and we would like you to be familiar with the cases in advance.

CASE STUDY 1: Healthy food available at points of transit in Geneva, in automatic distributors

The problem: Eating a healthy meal can be a challenge for busy people; in Western Switzerland, almost all parents of small children find that cooking is a chore (as opposed to a form of creative expression)[iii]. Food waste is an issue in Switzerland as it is elsewhere: Swiss households are responsible for almost half of the total avoidable food losses, in caloric terms[iv].

The context: Based on qualitative research in Switzerland, people tend to prepare their meals by accessing produce that can be purchased during their transit – to and from class, work, etc. The proximity of the Coop to a bus station, for example, is a key factor in why people might stop at that Coop to get their groceries, *en route*[v]. Wasted food in Geneva can be composted at the municipal level or at the household level (green bins), or is converted into electricity through incineration (black bins, along with other non-recyclable waste).

That being said, households generally do not like or want to waste food: as demonstrated in the UK context, waste is not an issue of "consumer choice" so much as a consequence of how domestic food practices are socially organized[vi]. Other studies have found that being able to access food on a more frequent basis can reduce food waste in households: rather than purchasing in bulk once every two weeks and mismanaging food stocks (in the refrigerators or pantry), households that are able to buy fresh produce more regularly can better manage food stocks and thus reduce household waste. This was observed among households in Bangalore[vii] and Metro Manila[viii], where fresh produce is available at all times of the day. Given labour considerations in Switzerland (higher cost, regulations on work hours, work safety, norms around work-life balance, etc.), access to fresh food 24h a day, 7 days a week, in a store environment, may not be a viable option. There have been debates on extending store opening hours, but this has been met with much social resistance, revealing a tension between a quest for convenience (stores open on Sundays), and representations of what should be a quality of life (stores closed on Sundays, as a day for leisure). In certain towns and villages in Switzerland, self-service distributors are available for the purchase of milk and other dairy products, including the traditional fondue (Figure 1, below). Automated distributors are also available at points of transit, but generally distribute high salt and high sugar foods and drinks (e.g., Coca-Cola vending machines).

The proposed social change: As it is being experimented in Shanghai and Paris (Figure 2), make healthy food available through automatic distributors. Carrots, salad, apples or other fruits and vegetables could be available, either as single produce items or "processed" in the form of pre-packaged salads for example. Grains, rice and other staple goods could also be available through automated distribution, with ideally these distributors available at points of transit. An idea for the future: allow for the *virtual* purchase of food items during points of transit, using mobile phone scanning devices and automated delivery services. This is the case in Seoul (but not necessarily for healthy and sustainable foods, see Figure 3).

Figure 1: fondue distributors in Fribourg
Source: https://imgur.com/gallery/2ojLW

Figure 2: Vegetable vending machines in Shanghai and Paris
Source Figure 1: http://www.chinadaily.com.cn/business/2014-11/25/content_18972187_4.htm
Source Figure 2: https://munchies.vice.com/en_us/article/3dj48v/this-vegetable-vending-machine-could-save-frances-bankrupt-farmers

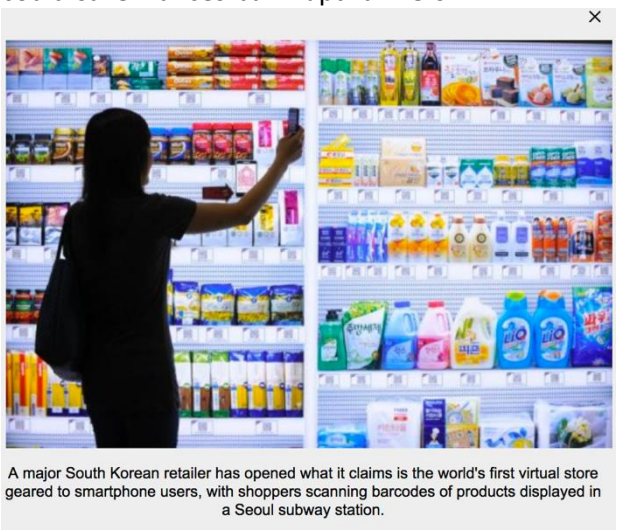
A major South Korean retailer has opened what it claims is the world's first virtual store geared to smartphone users, with shoppers scanning barcodes of products displayed in a Seoul subway station.

Figure 3: South Korean retailer opens virtual store in subway station
Source: https://phys.org/news/2011-08-korea-chain-virtual-subway-station.html

CASE STUDY 2: Community storage areas readily available in Geneva neighbourhoods

The problem: Eating seasonal food requires new skills and material arrangements, such as the possibility of storing foods in cool areas. At the same time, household appliances are energy intensive and there is a trend towards the multiplying of large appliances in Switzerland. People acquire multiple refrigerators and freezers for personal usage and for many different reasons, to store food in bulk for example.

The context: In a study of "food prescriptions"[ix] in Switzerland, or existing guidelines around what people should or ought to eat (often communicated through the media[x]), there is a dominant prescription around eating "balanced meals" as being healthy, but tensions arise when it comes to defining what is a healthy and environmental sustainability meal. Two prescriptions are in tension: eating less meat and better quality (Swiss) meat, *versus* eating no meat, or no meat and dairy products (vegetarian and vegan diets respectively). One trend emerged in our research: the nose-to-tail movement, or the notion that animal waste should be avoided by eating the whole animal, not just the more "noble" meat parts. This implies the possibility of buying and storing large quantities of meat over time, and new cooking skills in preparing recipes such a slow-cooked tripe. This tradition has existed for some time in parts of Switzerland (e.g., the St Martin festival in the Swiss Jura), but is now catching on as a "niche" in urban settings, with specialized butchers offering sustainable meats (see Figure 4). Once again in relation to "food prescriptions", there is a strong idea around "local and seasonal" food as being the proposed solution towards sustainability, in both environmental and social terms. Local and seasonal produce may require new skills, such as pickling and other forms of storage for vegetables, as well as cool areas for produce storage. Certain apartments in Geneva used to have cool storage areas, under window openings for example; these material arrangements have been removed, due to the need to insulate buildings for maximum thermal efficiency. Cool storage areas in the basement (*caves*) still exist, but in some cases may not be appropriate for storing food (e.g., difficult to access, improperly ventilated, mouldy, etc). In buildings that have a high energy rating, such as the Minergie-P in Switzerland, cool storage areas would need to be separated from the building structure: this may be one reason why, in the Meyrin eco-neighbourhood Les Vergers, storage facilities were not integrated into building plans. For Les Vergers, there are now plans to make a storage facility available "off site", to allow the storage of food produce.

In the past, when freezers were less readily available in people's homes, community freezers existed: you could rent a private unit within room (Figure 5). These freezers are experiencing somewhat of a revival, although some suggest they are not an ideal solution – given concerns around cleanliness, hygiene, and other maintenance issues. In relation to food waste, there have been experiments elsewhere in Europe to test the sharing of excess food through community refrigerators, which has also been subject to both positive and negative press (Figure 6).

The proposed social change: Make energy-efficient storage areas available in Geneva neighbourhoods, ranging from naturally-cooled underground storage areas, to community/shared freezers, and community/shared refrigerators.

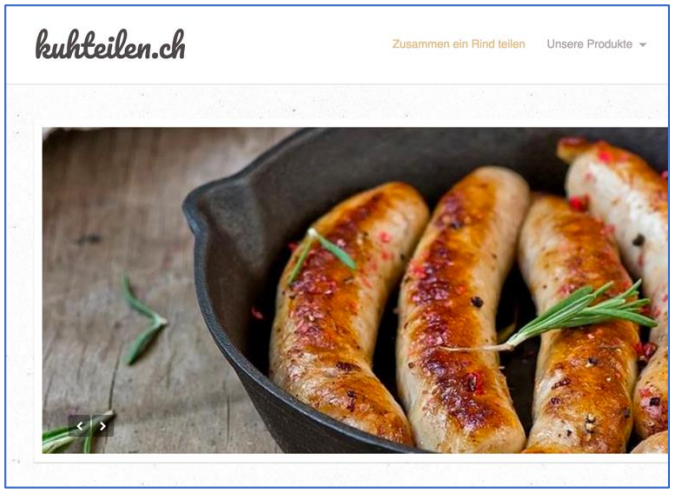

Figure 4: specialized butcher in Zurich; Source: https://kuhteilen.ch/

Figure 5: a shared or community freezer in Chaux-de-Fond, CH; Source: author's own

L'association allemande Lebensmittelretten, spécialisée dans la récupération et le partage de nourriture, a eu l'idée étonnante de mettre en place plusieurs dizaines de réfrigérateurs à travers la capitale allemande, Berlin, afin de lutter contre le gaspillage et contre la faim.

Figure 6: shared or community refrigerators; Source: https://mrmondialisation.org/decouvrez-le-frigo-en-libre-service-nouveau-moyen-de-lutte-contre-le-gaspillage/

CASE STUDY 3: Food sharing at neighbourhood "tables d'hôtes", supplied by local food cooperatives

The problem: As the students reading this case study have probably noted, eating food in a restaurant can be quite cost prohibitive in Geneva! In addition, eating a healthy meal can be a challenge for busy people, as stated above for case study 1. In Western Switzerland, almost all parents of small children find that cooking is a chore (as opposed to a form of creative expression)[xi]. Yet there is a strong "prescription" around preparing healthy food, "the more homemade the better" in Switzerland as is the case elsewhere[xii]. What's more, "the local" is often the main solution towards sustainable food consumption. Yet some people do not always have the time, financial resources, nor the skills necessary for the daily task of preparing a healthy and sustainable meal. Another prescription we identified in our research project is that of "enjoying a shared meal together", or food consumption as a social affair.

The context: The Swiss food retail industry has been dominated by two giants, historically cooperatives, but may have lost the spirit of smaller cooperatives. That being said, Migros and Coop have played an important role in supporting integrated agriculture and organic food produce in Switzerland[xiii]. New forms of community-supported agriculture (CSA) are emerging in Geneva[xiv], starting with the *Jardins de Cocagne* in the late 1970s – as part of a growing trend towards "alternative food networks"[xv] (Figure 7). CSAs involve a contractual arrangement between farmers and consumers: people receive a weekly or bi-monthly vegetable basket, based on local and seasonal produce. This leads to shared and voluntary modifications in market mechanisms, through collective and sustainable arrangements; private forms of consumption are transformed into a political act, towards a common goal of supporting certain agricultural practices and protecting the natural environment[xvi]. Another way to support a "farm to fork" approach is through cooperative stores, which originally emerged in the early periods of the industrial revolution in Europe. Here, members (including producers and consumers) gather to agree on what products are to be made available, privileging local food sources as much as possible.

The proposed social change: In the eco-neighbourhood of Les Vergers in Meyrin, a city in the Canton of Geneva, there are plans to offer a neighbourhood restaurant based on sharing practices, or *Auberge des Voisins*. The basic idea is that ten people sign up to prepare a meal for a given day or meal period (lunch and dinner), with the cost of meal preparation reimbursed (Figure 8-9). At the Auberge, there are ten tables for 10-12 guests. These guests sign up for the menu that has been announced per table, and contribute between approximately 10 CHF for the meal. Many of the vegetables used in the Auberge are derived from La Fève, the cooperative supermarket that is being formed in the Vergers eco-neighbourhood. The ambition is to reduce produce waste, as surplus goods can go directly into the menu of the Auberge. There are also urban gardens in Les Vergers, where residents can grow their own produce, which can also contribute to the Auberge.

Figure 7: Jardins de Cocagne, the oldest form of community-supported agriculture in Switzerland (and one of the first in the world); Source: https://www.cocagne.ch/c58/

Figures 8-9: People sharing a meal at the Auberge des Voisins in Les Vergers, and the sign-up sheet for each table; Source: author's own.

CASE STUDY 4: Urban farming in the city, using rooftops to grow fruits and vegetables

The problem There is a strong "prescription" around preparing healthy food in Switzerland, as stated in the above case studies, with "local and seasonal" food often proposed as the main solution towards sustainable and healthy food consumption. In urbanized areas and around apartment buildings, there are few opportunities for growing your own food – although examples of small vegetable boxes on window sills abound. How can cities create opportunities for urban vegetable growing?

The context: Since 1996, Lausanne has been developing community "urban" gardens, with 12 lots of land available to some 350 residents. A same trend is underway in Geneva, with several initiatives aimed at bringing non-commercial farming practices back into the city (Figure 10). In one such example, hydroponic agriculture is used, with the claim that 80% less water input is needed than in traditional agricultural processes. The main idea is that the world's population is increasingly urban, and that more food should be grown in cities in order to sustain urban population growth. Urban agriculture can contribute to forms of food security, particularly in times of crises, but is not seen by the FAO, for example, as an alternative to more traditional production, but rather complementary. At the same time, urban agriculture is intended to create alternative forms of livelihood in city centers.

There is also the idea that urban gardens should also meet a variety of needs, such as bringing people together in a sense of community and belonging. There is at least the ambition to make these gardens accessible to people from different socio-economic groups, yet how to go about putting that into practice? In other contexts, such as Singapore, garden rooftops tend to be more exclusive and not publicly accessible[xvii].

At the same time, Geneva is experiencing a housing crises and regulations have been passed to allow for the building of rooftop areas (adding a floor or two to an existing building). Vegetable gardens compete for space in this city with residential and commercial interests. There are also clear standards around different land usage: agricultural land, versus commercial development areas, versus residential areas. How to navigate property regulations while promoting urban farming?

The proposed social change: Support urban gardening in Geneva by making it an integral part of urban planning, school and workplace developments, as well as neighbourhood initiatives.

PAR CATHERINE NIVEZ En Suisse, 74% de la population vit en milieu urbain. Pour améliorer la qualité de vie et lutter contre le stress au travail, les entreprises comme les villes parient sur la nature.

«Exodes urbains»: une microferme urbaine à Genève, lancée par... (Crédits: Cathy Nivez)

Figure 10: Urban garden "microfarm" example in Geneva
Source: http://www.bilan.ch/entreprises-plus-de-redaction/potagers-sinstallent-ville

A Paris, un restaurateur propose dans son menu une production locale qu'ils fait pousser en toiture.
Image: Reuters

Figure 11: Urban gardening in Paris supplies a local restaurant
Source: https://www.tdg.ch/geneve/actu-genevoise/potager-toit-idee-germe/story/15899496

Footnotes

Social practice perspectives are in bold, for further reading.

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[i] **Sahakian, M. and H. Wilhite (2014). "Making practice theory practicable: towards more sustainable forms of consumption." Journal of Consumer Culture 14(1): 25–44.**

[ii] **Spurling, N., et al. (2013). Interventions in practice: re-framing policy approaches to consumer behaviour, Sustainable Practices Research Group Report: 56.**

[iii] SNSF PNR survey on household energy consumption among 708 households in Western Switzerland; as well as observations and in-depth interviews among 46 households; coordinated by M. Sahakian (UNIGE) and S. Erkman (UNIL). http://www.nfp71.ch/fr/projets/module-1menages/consommation-energetique-des-menages

[iv] Beretta, C., et al. (2013). "Quantifying food losses and the potential for reduction in Switzerland." Waste Management 33: 764-773.

[v] SNSF PNR qualitative research on household food consumption among 15 household and with 6 focus groups, coordinated by M. Sahakian (UNIGE), S. Erkman (UNIL) and Claudia Binder (EPFL). http://www.pnr69.ch/fr/projets/projets-transversaux/projet-transition-alimentaire

[vi] **Evans, D. (2011). "Blaming the consumer – once again: the social and material contexts of everyday food waste practices in some English households." Critical Public Health 21(4): 429-440.**

[vii] **Leray, L., et al. (2016). "Understanding household food metabolism: relating micro-level material flow analysis to consumption practices." Journal of Cleaner Production 125: 44-55.**

[viii] **Burger Chakraborty, L., et al. (2016). "Urban food consumption in Metro Manila: Inter-disciplinary approaches towards apprehending practices, patterns and impacts." Journal of Industrial Ecology 20(3): 559–570.**

[ix] **Plessz, M., et al. (2016). "How consumption prescriptions affect food practices: Assessing the roles of household resources and life-course events." Journal of Consumer Culture 16(1): 101-123.**

[x] **Halkier, B. (2010). Consumption Challenged: Food in Medialised Everyday Lives, Ashgate.**

[xi] SNSF PNR survey on household energy consumption among 708 households in Western Switzerland; as well as observations and in-depth interviews among 46 households; coordinated by M. Sahakian (UNIGE) and S. Erkman (UNIL).

[xii] **Halkier, B. (2009). "Suitable cooking? Performances and positionings in cooking practices among Danish women." Food, Culture and Society 12(3): 357-377.**

[xiii] Belz, F.-M. (2004). A transition towards sustainability in the Swiss agri-food chain (1970-2000): using and improving the multi-level perspective. System Innovation and the Transition to Sustainability. Theory, Evidence and Policy. B. G. Elzen, Frank W.; Green, Ken. Cheltenham, UK, Northhampton, MA, USA: 97-113.

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[xv] Goodman, D., et al. (2012). Alternative food networks: knowledge, practice, and politics. Oxon, Canada; New York, USA, Routledge.

[xvi] **Dubuisson-Quellier, S. and C. Lamine (2004). "Faire le marché autrement. L'abonnement à un panier de fruits et de légumes comme forme d'engagement politique des consommateurs." Sciences de la société 62: 144-167.**

[xvii] Mougeot, L. J. A., Ed. (2005). Agropolis: The Social, Political and Environmental Dimensions of Urban Agriculture Earthscan IDRC.