City-region food strategies: an introduction to Open systems theory and practice to Montreal, Quebec.

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Abstract

City-regions are increasingly responding to community and citizen-led innovations in the food systems through consultative and multi-stakeholder processes. As emerging arenas for policy making towards territorialized food systems, they provide opportunities for reflexive and deliberative engagement between State and civil society. This paper argues that systems thinking, and Open systems theory (OST) in particular, can provides tools to both analyze urban food policy making and develop learning and planning methods to actively adapt to change. The case study of Montreal will provide an analysis through an OST lens and suggest a planning method to what could be considered an institutional entrepreneur in Quebec, the *Système alimentaire montréalais* (SAM). OST, as a conceptual and practical framework, sheds light on urban food governance by bringing to attention to contextual particularities, hybrid features of the pillar organization, the process it has undergone, the logic of resource allocation, and the unfolding of negotiations.

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i. Introduction

At the end of Olivier de Schutter's mandate, the UN Special Rapporteur for the Right to Food called for the imperative of democratizing and diversifying global food systems. Addressing food insecurity is complex and requires tools and methodologies that activate systems-level innovation. This paper is an inquiry into how city-regions may actively adapt to the pressing challenges ahead, including food insecurity, loss of agricultural land, and resilient supply chains.

Current organizations in the field of agriculture and food may not be up to the task to democratize and diversify food systems. Change will require new organizing principles. The dynamic of multi-actorial, consultative processes provides a potential promising method to leverage collective action. They are increasingly visible through the work of municipalities and city-regions across the world[1]. Cities now house more than half of the global population; they have important responsibility to be leaders in organizational change.

In this paper, we will look at how Open systems theory (OST) as both a systems thinking and an organizational tool for understanding can inform change through city-region roundtables and strategies. The first section articulates some of the principles and purposes of OST. Following this, we will apply OST concepts to understand the case of Montreal, Canada. In turn, this will offer the tools to articulate a method for learning and planning. This city is suggested by the author's personal and geographic location and his role as an evaluator-researcher with Montreal's food systems initiative. The third part suggests that, by raising issues of hybridity, feedback processes and resource allocation, OST can offer a useful approach for urban food policy work.

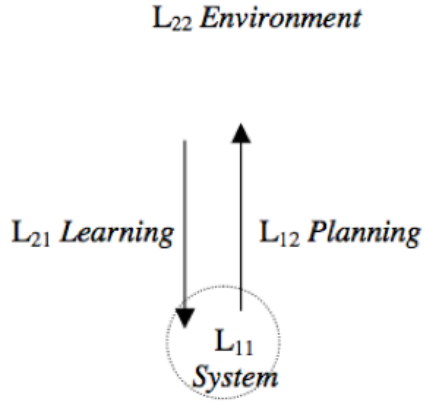
ii. Open systems theory and Design Principle 2

Open systems theory is a practical and theoretical conceptual framework based on Stephen Pepper's "world hypothesis" of contextualism, in which a system (L_{11}) is open and has permeable boundaries with its environment (L_{22}). A system is defined as having a system principle, which identifies the unique, lawful (L) relation with its environment (Barton *et al* 2004, 13), conceptualized in Figure 1[2]. A system can learn from its environment and plan to reduce the maladaptive gap that exists between the two. OST informs this learning and planning process by providing blueprints through participatory, human-centered designs, such as Search Conferences, Multi-Searches or Unique Designs methods, which we will explain in more details below.

[1] Urban Food Policy Pact and the EXPO 2015

[2] Figure 1 is an open system modeled at one point in time. To see an open system model dynamic in time, read more about directive correlation and "co-determination of cultural change over time" in Emery 2012, 19.

Figure 1: The OST model of an open system



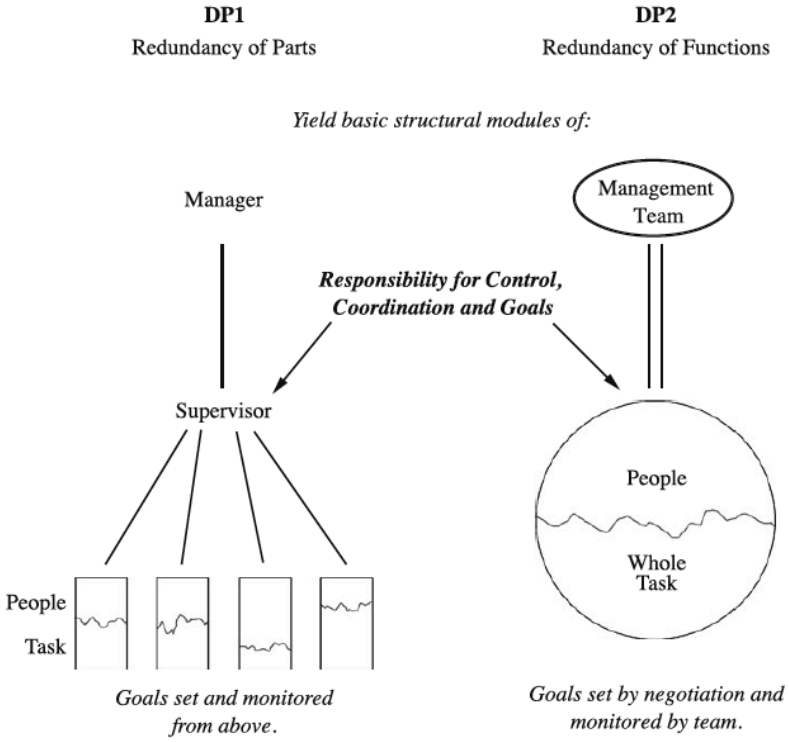
This framework builds on an "accumulating body of integrated theory and practice" to analyze social change, and "how to ensure that people, not isolated individuals but *people-in-environment*, know why and how to create an adaptive future (…)" (emphasis added) (Emery 2013, 2). In order to understand how OST informs adaptation in an organization, we first need to introduce human beings as "open, purposeful systems". An individual has a set of "psychological requirements for productive work" (47). Can we "optimize human purposefulness" based on these six criteria (Figure 2)? If so, does this productive capacity correlate with a specific organizational design? OST responds positively (de Guerre and Hornstein 2004, 3).

In her latest study on social change in the 'post-9/11' period, Emery (2013) analyzes the data from 72 Search Conferences, which took place between 2001 and 2009 (18). She concludes that one of the three necessary conditions, or "know hows", to successfully adapt to the challenges ahead lies in organizational change: a shift of organizational design principle (or genotypes) from the redundancy of parts (Design Principle 1) to the redundancy of functions (Design Principle 2) (46). As demonstrated in Figure 3, whereas in DP1, "there are more parts, i.e. people, than the organization can use at any given time, DP2 switches the logic: every person has more skills (functions) than can be put into use (Barton *et. al*. 2004, 14).

Figure 2: the 6 psychological requirements for productive work (Emery 2013, 47)

1. ELBOW ROOM: optimal autonomy in decision making
2. CONTINUAL LEARNING: for which there must be
    a. some room to set goals and
    b. receipt of accurate and timely feedback
3. VARIETY in work
4. MUTUAL SUPPORT AND RESPECT: helping, and helping out when being requested
5. MEANINGFULNESS consisting of
    a. doing something with social value
    b. seeing the whole product or service to which the individual contributes
6. A DESIRABLE FUTURE, as in opportunities for advancement.

Figure 3: Genotypical Organizational Design Principles (Emery 2000, 627).



The fundamental difference between these organizational designs is where the responsibilities for control, coordination and goals are situated. DP1 organizations subordinate individuals by locating "coordination and control [...] at least one level above where the work, learning and planning is done" (Emery 2013, 46). Bureaucratic or authoritarian organizations have this feature where individuals are responsible for only one set of tasks. It is the dominant organizational design of contemporary societies and actively deskills and demotivates (2013, 47).

DP2 organizations, on the other hand, are "self-managing groups" which locate coordination and control "with the people performing the task" (2013, 47). While in the first system principle, individuals are viewed as a replaceable parts, the second system principle makes the organization the tool of collective 'ideal seeking'. Like DP1, the DP2 principle can be designed for organizations of all size (2012, 18).

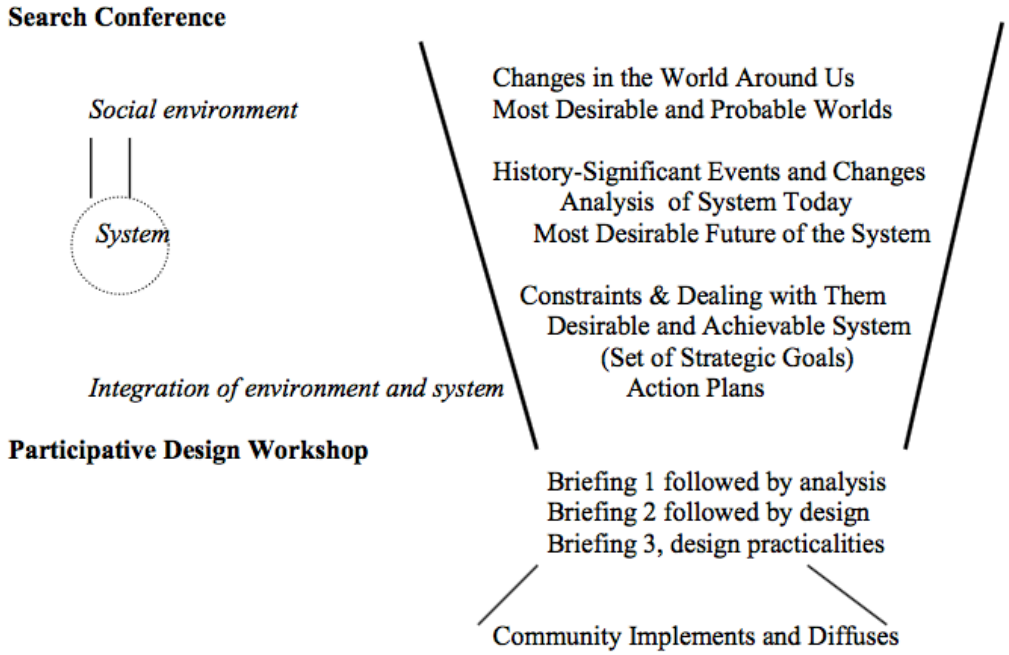
Since the formulation of these two design principles, Emery claims, with proof at hand, that the superiority "in every dimension of human experience measured" of the DP2 model. The advantages are numerous, whether they are calculated in terms of "productivity or costs" or in terms of "creativity, innovation and mental health" (2013, 48). DP2 organizations enjoy more openness, cooperation and flexibility than DP1 organizations. In the latter, many experience information asymmetry, competition and a decrease of motivation over time (2013, 47). We find it useful to differentiate DP2 from

DP1 on a spectrum, rather than a binary division, to include both formal and informal version of each system principle.

This conceptual framework applies a number of open space technologies that systematize social agency through a temporary DP2 organization. The search conference (SC) model, exemplified in Figure 4, host 25 to 35 people over two nights and three days to follow a task-oriented process; 'scanning' the environment and the system and integrating one another in order to reduce the maladaptive gap existing in-between the two. Searches are highly flexible. An SC is designed to develop an action plan, and can be followed by a Participatory Design Workshop to create the organizational model that will implement it. Whereas the first stage is designed in a temporary DP2 structure, the second stage is meant to formally and legally entrust responsibility within people performing the task.

According to Emery, these methods "ensure a genuinely sustainable transformative change" (2013, 49). This model fundamentally changes the way people work together, and arguably, the way organizations work with one another. As we mentioned, OST can be interpreted from a systems thinking perspective, but also from an organizational approach: we can only appreciate the full extent of cultural change when participating in these designs.[3]

Figure 4: Minimum schematic Design of 2 Stage Model (Emery 2013, 15)



[3] For instance, the Strategy of the Indirect Approach (Sun Tzu) is referred to in OST to introduce devices that remain implicit, but quite present, during the Search process. They can help, among other things, to neutralize power or negative attitudes among participants when they emerge.

iii. Learning and Planning in Montreal.

The aim of this section is to find out how OST might inform learning and planning for healthier, regional food systems in Montreal, Canada. How do we define the system? What is its design principle (structure), and history (process)? What about its environment? Finally, what is the most pertinent method to guide planning? These interrogations have emerged from working closely with the evaluation committee of the *Système alimentaire montréalais* (SAM) and the author's experience and research with food networks in the city-region of Montreal. Our aim is thus to propose a series of steps of learning and planning in a 'productive work mode' that could be relevant to Montreal and other city-regions.

1. History and Environment

Over the past two decades, multiple spaces for dialogue have emerged locally, regionally and provincially to improve territorialized food systems[4]. What follows is a timeline to illustrate these multi-scalar dynamics (Annex 1). Although our main focus will be at the city-region level and the predecessors to the SAM, we will highlight some of the linkages that exist with other scales. Moreover, we will appreciate the SAM as an 'institutional entrepreneur' in comprehensive food systems planning in Quebec and as the latest development in this interchange between community and institutional players.

From 1990 to 1994, the City of Montreal funded the working group *Vivre Montréal en santé* (Healthy living Montreal), which incubated the *Nourrir Montréal* committee (Feeding Montreal). Looking back at these efforts, the *Direction de Santé Publique*[5] (DSP, Direction of Public Health) underlined that poverty was so acute following the economic downturn of the 1980s that it monopolized stakeholder attention (Thérien and Bertrand 2004). Indeed, the local anti-poverty agenda compelled community organizations to expect and solicit more support (human resources, equipment, funding), but subsequently deterred stakeholders from engaging with broader food systems work. At that time, community initiatives had actually become familiar with the roundtable format, as they had already created their respective consultative space[6]. However, participation from other stakeholders decreased over time, and after the change of municipal government, the City stopped funding *Feeding Montreal.*

Between 1994 and 2005, urban food systems work was mostly coordinated through the partner committee of Public Health Montreal. An article written by public health professionals mentions the work lead by the Toronto Food Policy Council, and inquires at to what role the city could play (Thérien and Bertrand 2004). Its only in 2005 that the *Nourrir Montréal* committee is re-instigated, this time by the *Conférence régionale des élus* (CRÉ), a regional consultation institution representing elected officials and created by the Ministry of Territory in 2001. We find that some of the core issues documented in

[4] The territory provides a useful, dynamic unit of analysis, as conceptualized by Rastoin for food systems (SupAgro Montpellier), and Klein *et. al*. for innovation (Université du Québec à Montréal).

[5] In contrast with many cities in North America, Public Health in Quebec is not directly attached to the city, but the province's ministerial administration.

[6] We can take note that many consultative processes are created *in response* to community innovation, and by extension, to citizens.

the SAM 2025 framework[7] can actually be tracked to a memorandum the committee issued to the Agricultural Ministry's consultation in 2007 (CRÉ, April 16th 2007)[8]. Based on some internal reports, the committee was facing constraints that became palpable through its social economy initiative. It piloted the emergence of seasonal markets in neighborhoods with low access to the four permanent public markets (Jean Talon, Atwater, etc.). It accompanied dozens of neighborhood/ farmers market, but many were not economically viable.[9]

The timeline, available in the annex, proposes a multi-scalar perspective of the consultative processes that took place over the 1990 to 2015 period in Québec and Montreal. This is of interest if we think of capturing some of the inter-dependencies in which the SAM is situated. The current most decisive factor is the budgetary cutbacks in public funding for the sectors of education, health, social services and territorial development. This has an impact on many actors working in the field of food systems in Montreal, such as front-line and intermediary community economic development organizations, school boards and the public health agency (DSP). The CRÉ, the pillar organization of the SAM and its precursor *Nourrir Montréal*, has actually been abolished provincially as an institution. The *Fonds de Développement Régional,* on which it depended on, was cut by fifty percent.

The timeline of institutional linkages and resource allocation strike two features of interest. Based on the level of municipal involvement, MacRae and Donahue classify Montreal as a…

> "food policy initiative not formally connected to government, but linked through secondary agencies. They may have important ties to government (such as a municipally endorsed food charter) or receive some government grants." (2013, 11)

This has not always been the case, as with the first *Nourrir Montréal* version (1990-1995). There are currently three City Departments participating in the SAM (Social Diversity, Sustainable Development, Urban Planning). Moreover, the mayoral office has expressed its support publicly to the CRÉ in Montreal since it was cut, with potential avenues for partnership (CRÉ 2015). The City also presides over the metropolitan area, agglomerating over 82 municipalities, hosting just under half of Quebec's population and withholding fifty eight percent of agricultural zoning in 2010 (CMM 2013). This announcement was appreciated as a signal of leadership, which was considered absent during the citizen-initiated public consultations urban agriculture.[10]

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[7] Plan de développement d'un système alimentaire équitable et durable de la collectivité montréalaise (SAM 2025), "innover pour mieux se nourrir et se développer" (2014)

[8] Supporting urban agriculture and public procurement, developing 'buy local' awareness-raising strategies, integrate social diversity and the Law against poverty (Law 112) in the ministry's strategies. Moreover, advising to act as a mediator between state and large food retail industry.

[9] "À la suite du bilan déposé au comité de gestion du projet, les partenaires ont recommandé d'y mettre un terme, considérant que les conditions propices à la mutualisation n'étaient pas réunies." CRÉ, Bilan des Activités 2012-2013 (6 juin 2013)

[10] 29 068 signature were collected through the work of the *Groupe de Travail en Agriculture Urbaine* (GTAU) to initiate a public consultation on urban agriculture <http://agriculturemontreal.com>

The second point looks at the institutional linkages and allocation of resource in which the SAM is embedded in, and brings into play three different ministries[11]. While these institutions have an impact on agri-food systems, there is no common province-wide framework for food systems planning, and this despite the 2007 consultations.

2. Systems, Process and Design Principle.

In March 2014, the *Système alimentaire montréalais* announced a comprehensive food systems framework and vision for 2025. A few months later, it initiated its first three-year plan to improve school and community food procurement, support urban and peri-urban agriculture and, most importantly, facilitate regional collaboration. The SAM has a committee coordinating and accompanying a base of thirty-five organizations from public, semipublic, private and civic spheres organized in committees and working groups. It also comprises a larger informal network of individual affiliates supporting its work (academics, social entrepreneurs, etc.). Although being piloted by the CRÉ since its initiation in 2011, the SAM is the result of close work between the Direction of Public Health, the Department on Social Diversity and Sports and the French school board.

The first system we identified [S1, or L_{11}] is the SAM. It presents interesting features by having both an organizational and network dimension to its work. Through this, it allocates resources to projects, working groups and events. It is jointly funded with another initiative in the field of physical activity and active transportation, *Montréal physiquement actif* (MPA). Since October 2014, they are both allocated resources via the *Table intersectorielle régionale sur les saines habitudes de vie* (TIR SHV), a regional roundtable created through the provincial health and social program aiming to tackle youth obesity (2007-2017).

The SAM, MPA and TIR SHV, as seen in Figure 5, might be considered as the second system [S2]. The scope of the system expands when we consider that the MPA has a pool of sixty organizations. Moreover, the ministerial program on which they depend on has created sixteen other regional roundtables on healthy lifestyles in the province. The third system would be identified as the provincial-wide network of roundtables [S3].

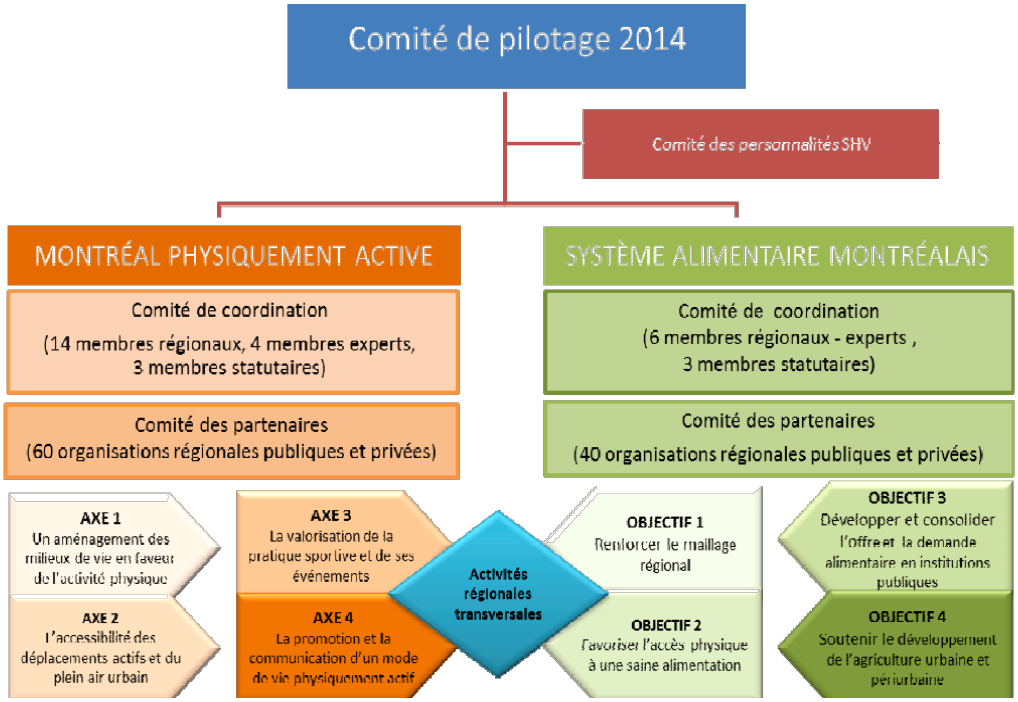
Interestingly, in the case of Montreal, the TIR SHV readjusted its mandate. Several reasons constitute this: there was marginal oversight and accompaniment[12] of projects prior to this, and key people with influence within their respective institutions were absent. Time-wise, the two initiatives (MPA and SAM) were already underway and working regionally towards healthy urban environments and diets. By supporting these two initiatives, the TIR SHV became the additional organizational layer, seen in Figure 5 in blue.

Now that we have identified the different potential systems, we will focus our discussion on the system's principle of the SAM as the most pertinent system for urban food policy work.

[11] The Ministries of Territory and Municipality, Agriculture and Fisheries, and Health and Social Services. Budget-wise, the first two are relatively small compared to Health and Social Service.

[12] We use the term 'accompaniment' in terms of facilitating linkages between projects and capacity building for evaluation.

Figure 5: Organizational diagram of the SAM, the MPA and the TIR SHV [System 2]



Emery explicitly situates responsibilities for control, coordination and goals so to differentiate DP2 from DP1. In her opinion, DP1 include traditional public administrative bodies and stakeholder roundtables, which create an unnecessary gap between responsibility and task. Although, roundtables might perhaps be considered an informal version of the first design principle, people continue acting as representatives of an organization, instead of themselves. While this organizing principle may characterize the provincial ministry and private foundation behind the program, it may not be entirely the case for the SAM.

Within the DP1/DP2 continuum, we see the SAM as already (and unknowingly) integrating elements of Open systems theory. This is suggested by several observations. First, the formulation of this initiative is the result of twenty-five years of learning, planning and trust building between organizations in the field. It has also included in its learning, curve an evaluation of the urban agri-food system, a vision for 2025 and three year planning steps, which are integral to the planning process in Search conferences[13]. Second, by remaining an umbrella-network and not incorporating as an organization, it has a rather large degree of autonomy, flexibility and leverage. In terms of responsibility, it can be found both at the level of the coordination committee and the individual working groups, which take on responsibility over projects. Although not all groups have a DP2

[13] Plan de développement d'un système alimentaire équitable et durable de la collectivité montréalaise (SAM 2025), "innover pour mieux se nourrir et se développer" (2014)

feature, which raises the question, when undergoing this analysis, where this trait originates.

As it might be expected from a society where 'DP1 rules', the DP1 principle also permeates the system in which we are learning. Introducing concepts of power is helpful if we want to understand the negotiations emerging at different points in time and space. For instance, this approach might ask who is 'doing the inviting', or when and for who is a space closed? Are issues negotiated in, or outside, meeting spaces? Where does responsibility lie in specific working groups? These vantage points may correlate with hierarchical relationships outside of the organized strategy (in this case, the SAM), such as the relative power and resources that exist between community-based organizations and larger government programs. There is a certain degree of uncertainty as governments outsource key public services to the community sector while cutting support.

This is analogous with what Mount might call the "negotiation of accommodations" in local food systems and the interaction between both top down programming and bottom up innovation. Two key moment seem to exemplify this dynamic: first when the main funder called for a change away from the TIR SHV's initial format, and second when the MPA and SAM initiatives allocated resources to their respective partners. While collective urban food strategies might equate innovation for some, they can also be considered as 'business as usual' for others. This might help to differentiate collaborative inter-organizational work from the logic of neoliberal budgeting.

3. Suggesting Methods: Issue Search and Multi-Search

Understanding the history and process of the SAM and situating the system known as L_{11}, in its environment, or L_{22}, gives rise to its hybrid character. As an umbrella network it is also nested in other systems[14]. The analysis, through an OST lens, has provided us with clues to design a sequence of steps, which we now turn to. We will guide the reader through the sequence without going in detail from a managerial perspective, which is outside of the scope of this paper[15]. In order to provide the SAM with an example of a way to move forward and accomplish its planning goals, we will look at a previous case of a search conference, which took place in the Murrumbidgee Irrigation Area (MIA), as a useful starting point.

The Murrumbidgee River irrigates a significant portion of the agricultural landscape in southwestern New South Wales, Australia. A search conference was organized to work with farm managers, workers and locals in the Canning Peach Industry. A core team proposed the following sequential design. This particular search conference, as seen in Figure 6, is of relevance for its evident agri-food feature, but also because it is not dedicated to an organization as much as it is to the health and vitality of local industry and agri-sector. We notice that an additional step is added from the previous example: it includes the Task environment (TE).

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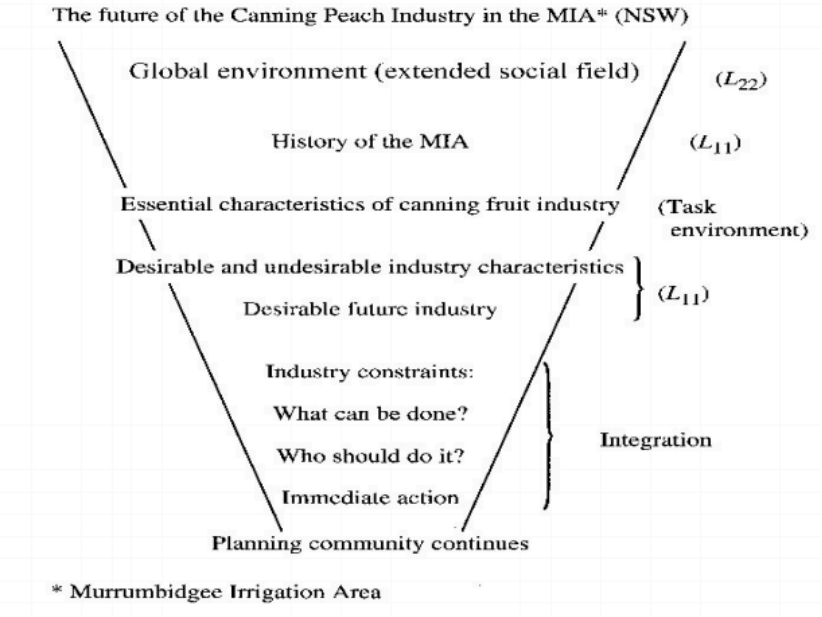
[14] See more on nesting and polycentric systems of economic governance: Ostrom, E. Beyond Markets and States: Polycentric Governance of Complex Economic Systems. Noble Prize Laureates at Stockholm, Sweden. 2009. Web.

[15] For more details, we recommend Part II, "The Practice of Making Cultural Change" by Merrelyn Emery (1999)

Figure 6: Strategic planning at the industrial level for MIA (Emery 1997, 6)[16]

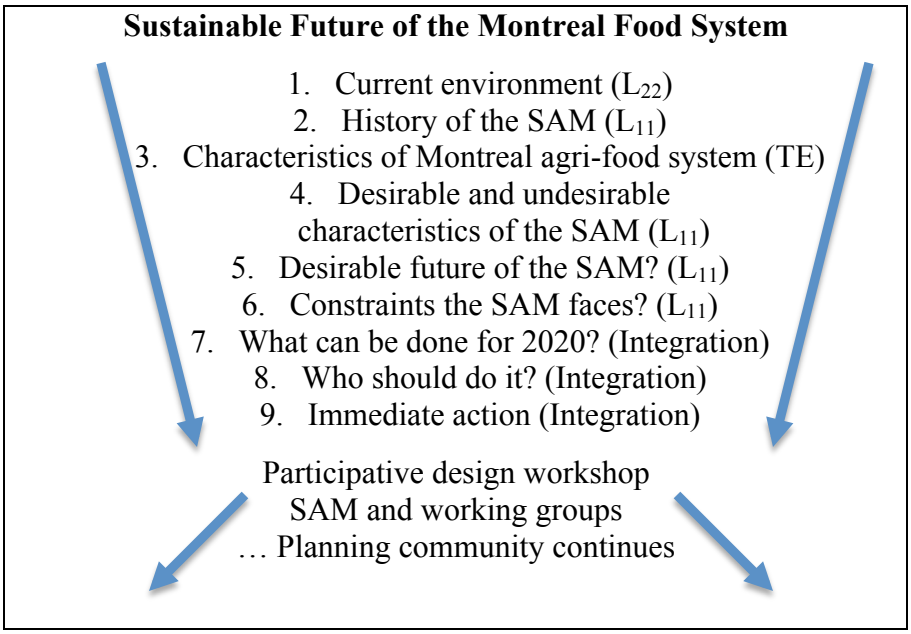


The Task environment is the immediate field of action where the community actualizes its plans and has a measurable impact. This may include both the 'alternative' and 'mainstream' supply chains, which are often hybrid (Lerman 2012), and the larger community (events, trainings, etc). It differs from the system's 'extended social field', in the sense of global environment, in which the provincial and federal budgetary climate would fit in. The inclusion of the TE means that we are speaking of an *issue* Search, instead of an organizational one, and this enables us to conceptually clarify where the action and plans may be implemented.

We have already provided some details about Step 1 and 2, the global environment and the history of the SAM. We mentioned earlier that the first SAM publication included in its process a scan of its Task environment and a vision of a desirable future for 2025 (SAM 2014). These are both two distinct steps in the Searching process (Step 3 and 5). Noticing the geographic scope of the MIA case could suggest that the SAM's Task environment could extend beyond the administrative boundaries of the city-island.[17] The goals and the analysis could be revisited in small groups if the community finds the need to re-actualize them given that there are noticeable contextual changes since the initiative started (i.e. budgetary cuts).

[16] Figure available in Trist, E. & Murray, H. 1997. *The Social Engagement of Social Sciences: A Tavistock Anthology.* Vol 3: The Socio-Ecological Perspective. Philadelphia: University of Pennsylvania Press.
[17] Another instance where 'territory' as unit of analysis is useful to differentiate administrative boundaries from network-created territories.

Figure 7: Suggested issue Search for learning and planning with the *Système alimentaire montréalais.*



As seen in Figure 7, Step 4 and 6 of the sequence are an elaborate form of 'keep-chuck away-create'. This exercise could assist the SAM in identifying the traits that should be left behind, kept as they are and what is desirable to create. This enables participants to share a common realization that they face similar constraints (i.e. budget). In the later stage, the integration phase, the community formulates a list of what can be done, sets priorities and self-identifies who it would take to successfully implement them, most likely being several organizations at once. The design ends with a task-minded set of 'adjacent possibilities', meaning immediate actions that can be taken. Finally, a PDW would assist working groups and coordination committees to extend the sense of collective responsibility.

While this sequence follows an issue search conference model, it helps to think of both System 2 (SAM/MPA/TIR) and System 3 (17 TIR). Larger systems generally require a larger number of search conferences followed by integration events. Although it might appear as quite an undertaking, it remains relatively small to the 287 search conferences Merrelyn Emery envisioned to plan the Sustainable Australia project (2013, 52).

We mentioned the link through Montreal's regional inter-sectorial roundtable, a system that also has to adapt to new changes given the end of the provincial funding program. In this case, we could consider one issue Search, with each initiative (MPA and SAM) implementing their action plans in their respective Task environments. Alternatively, both initiatives organize their own Searches, followed by an integration Search at the end. The 'bottom-up' version has the benefit of getting stakeholder buy-in and a fuller responsibility of working groups (or pods).

iv. Discussion

Our aim was to apply systems thinking, and Open systems theory as articulated by Fred and Merrelyn Emery, as a tool to understand the system principle of the SAM, and thereby its relationship with its environment. We suggest that OST can play a generative role by suggesting approaches to organizational design and action. In so far as OST provides articulation of the hybrid features of the SAM, it can help to frame already undertaken processes, the relationships built into the system and broader environment impacting food policy work. We find the case of Quebec useful, in terms of political culture and history, to engage in a dialogue with food policy work on both sides of the Atlantic. What might be some of the take-away from this approach?

Systematic methods exist to guide learning and planning for food policy work, methods that have theoretical foundations and which benefit from four decades of practice and reflexivity. Their application depends on the quality of the management team and its ability to adapt Searching designs to the specificities of their systems, which was the initial logic of mapping and identifying its design principle. Several levels of citizen representations impact urban food systems, meaning that applying and sequencing these methods at different levels might consolidate feedback mechanism, facilitate planning coordination and embed comprehensive inter-institutional food systems planning at higher levels of government.

Furthermore, the tensions between the system's DP1 and DP2 characteristics may give an assessment on the logic of resource allocation, the degree of shared sense of responsibility, the attitudes to neutralize and conflicts to be rationalized[18]. Critical systems theorist Robert Louis Flood reminds scholars to "problematize the forces at work against achieving [that] open and meaningful dialogue" (Barton *et. al.* 2004, 22).

In contrast to the first coordinated urban food policy in Canada (Toronto Food Policy Council), Montreal's pillar organization is not administratively tied to city hall, yet. In our view, this might suggest a different logic of capacity building through network coordination. In a context like Montreal where there are wide ranges of local initiatives, the success of network coordination at the regional level depends in large part on the consolidation of locally rooted networks; a challenge with funding cuts.

Moreover, the SAM's 'nested-ness' in provincial programs and ministries provides another outlook in terms of vertical coordination. This implies not only coordination between city-region/province, but also between provincial level institutions. The dynamic of vertical and horizontal coordination referred to as the Joined-Up Food Policy isn't new (Lang 2001, MacRae 2011). However, in the case of agri-food consultative processes in Quebec, different visions of the state are at play depending on what is driving the process: a national-corporatist, neoliberal and partner model (Lévesque, Klein and Fontan 2014). The deliberative process in the latter version best fits contemporary notions of 'food democracy.'

Methodologically speaking, our approach did its best to fit an 'interpretive inquiry'. The proximity with the SAM initiative and its organizational partners, and the access to

[18] To read more on the logic of conflict rationalization, see Emery (1999), p. 198

certain spaces as an evaluator have been essential to gain an overview of the dynamics at play. We have provided a high degree of detail to help the reader contextualize the SAM as a system. Systems perspectives can help to conceptually and theoretically leverage urban food governance. It would be of interest to use other frameworks than OST, such as Systems Dynamics and Complexity Theory, to see what elements are highlighted, and which ones are left out. Other case analysis would also contribute to constructively engage with food policy and institutional 'path building', an opportune time given the Urban Food Policy Pact.

OST in itself provides an organizational perspective that can offer insights on food policy transitions. If there is, as Merrelyn Emery suggests, really a generalized shift from DP1 to DP2 organizational laws taking place as we write, then urban food governance - in certain contexts - is certainly an area fostering deliberative public policy making and the "commonification"[19] of the different features of our foods. In which case: what are the implications in terms of the diffusion of DP2 designs and broader organizational patterns to leverage and implement food policy? This would hypothetically entail more flexible and responsive institutions able to adapt to climate change and food insecurity.

[19]In contrast to the unprecedented level of commodification in XXI century. See Vivero Pol from the University of Louvain (Belgium) on deconstructing the dominant 'no money-no food' rationality and re-constructing the mixed-features of food as 'impure commons' based on excludability-rivalry factors.

Annex

Figure 1: The OST model of an open system (p. 3)

Figure 2: The 6 psychological requirements for productive work (p. 3)

Figure 3: Genotypical Organizational Design Principles (p. 4)

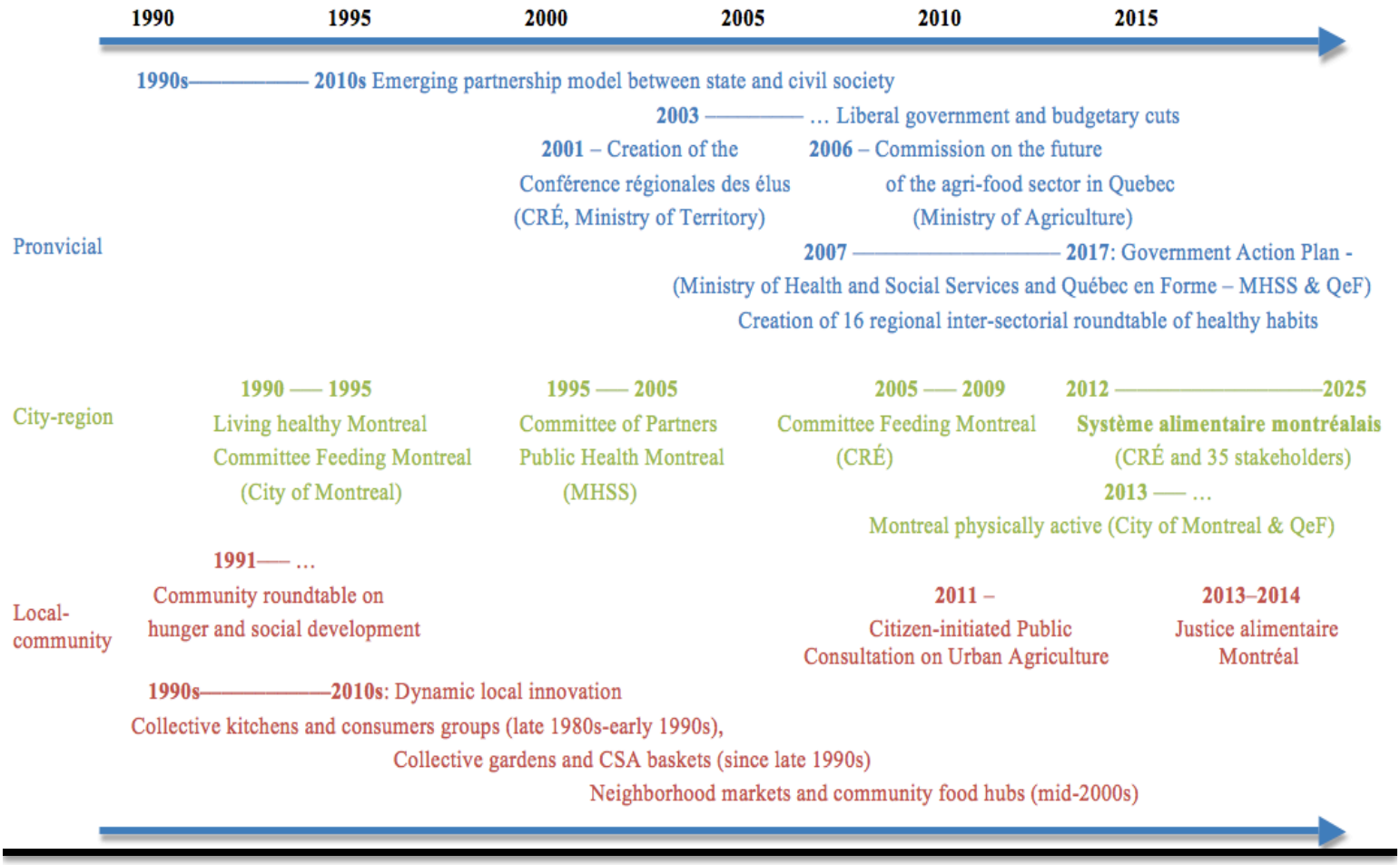
Figure 4: Minimum schematic Design of 2 Stage Model (p. 5)

Figure 5: Organizational diagram of the SAM, the MPA and the TIR SHV (p. 9)

Figure 6: Strategic planning at the industrial level for MIA (p. 11)

Figure 7: Suggested issue Search for learning and planning with the *Système alimentaire montréalais* (p. 12)

Timeline of food systems stakeholder consultation in Monteal and Quebec.



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