



Contents lists available at ScienceDirect

## Environmental Innovation and Societal Transitions

journal homepage: [www.elsevier.com/locate/eist](http://www.elsevier.com/locate/eist)

Original research paper

## Curating complexity: An artful approach for real-world system transitions

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## ARTICLE INFO

## Keywords:

Complexity  
Curating  
Sustainability  
Systems  
Participation  
Transitions  
Trans-disciplinary approaches

## ABSTRACT

This paper puts forward a ‘curatorial approach’ to systems transitions, which is a novel, practical and transparent way to deal with participation in complex and conflictual contexts. We argue that the complexity of transitions cannot be adequately addressed through traditional analytical tools. Alternatively, we propose an approach that can engage with multiple ways of knowing and expression, sustaining and developing a sense of ‘meaning’ in the planning process. We situate this within a systems perspective that combines individual and structural actions for vision creation. This is explored in the case study of a large peri-urban asset in Rome.

*“esperti locali ed internazionali**sono stati i nostri canali**imprese e cittadini**nel lavoro sono stati vicini**terra, acqua e sole**più fatti e meno parole”*

Fragment of a poem composed by participants during the workshop in Rome.

## 1. Introduction

This paper is concerned with a particular aspect of cities’ efforts to become more sustainable. Indeed, these efforts are invariably confronted with a high degree of complexity that “transformative change towards sustainability” (Fischer-Kowalski and Rotmans, 2009) typically entails. This complexity poses enormous challenges to both practitioners and scholars of sustainability transitions and requires innovative approaches and methods such as the one developed in this paper.

The complexity of cities’ transitions towards sustainability can be linked to two drivers of complexity. The first driver is the fact that these transitions typically involve complex interactions between social, economic and environmental phenomena that each follow distinct mechanisms. The literature on Transition Management (Loorbach, 2007) increasingly recognizes that the social, economic and environmental aspects of urban transitions are interdependent; in other words, the biophysical aspects of sustainability

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Received 16 February 2017; Received in revised form 18 August 2017; Accepted 14 October 2017

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transitions cannot be analysed and addressed independently from anthropogenic factors. This has led to interdisciplinary concepts such as ‘social-ecological trajectories’ of cities (Dietz et al., 2003; Barles, 2015). In this perspective, sustainability transitions are framed as deliberate efforts to change the configuration of ‘social-ecological systems’.

A second, arguably less documented driver of complexity stems from the fact that social-ecological systems differ fundamentally from the type of systems analysed by the natural sciences. The crucial difference between, say, the ecosystem of a natural forest and the social-ecological system of an urban neighbourhood is that the latter cannot be analysed independently from the *meaning* that the communities of the neighbourhood attach to their environment; indeed, these communities are at the same time the object and the subject of system thinking. As a consequence, any approach to social-ecological trajectories that does not allow to tap effectively into the interpretations and significations of the involved actors is likely to fail (Segers et al., 2013).

The combination of these two drivers of complexity poses an interesting problem to planning professionals and transition researchers. On the one hand, they have to find ways to engage with actors in order to mobilise their personal interpretations of the current situation and to co-create potential trajectories towards sustainability. But, on the other hand, this engagement is unlikely to produce constructive results if the planning professional or transition researcher does not bring his or her own personal interpretation and analytical lenses into play, for instance by framing the interactions with actors in terms of system thinking and social-ecological transitions.

This paper proposes to overcome the ambivalence of this position by transposing the role of the curator from the art world to planning situations. A curator-planner is not neutral but cares for the subject matter and proposes her own interpretation of the social-ecological system and its potential trajectories, notably by framing the planning problem in an oriented, meaningful way. At the same time, a curator-planner cannot impose this interpretation onto the audience but rather aims to solicit personal reactions and engagement.

We have developed this idea into a ‘curatorial approach to system transitions’, which we think is a novel, practical and transparent way to deal with stakeholder participation when planning for sustainability transitions. This paper describes the theoretical basis of this approach and presents empirical evidence from its application to a real-world sustainability transition related to the governance of a large urban asset in the city of Rome.

The paper is structured as follows. In Section 2 we present three problematic qualities evident in urban planning situations that give rise to complexity and link them to three guiding principles of our curatorial approach. We further present the process method of this approach. Section 3 describes a case study in which we applied this process to a participatory planning problem related to the Parco Agricolo Casal del Marmo in the Lazio region in Italy. We notably describe the context of this case, the implementation of the curatorial cycle and the main results of a participatory workshop. Section 4 discusses results and Section 5 reflects on the approach and concludes.

## 2. Capturing complexity of wicked problems

According to Frantzeskaki et al. (2017), numerous cities around the world have started to experiment with “structural systemic realignments” in order to become more sustainable. Frantzeskaki et al. refer to these experiments as “urban sustainability transitions”. A key insight from the literature on Transition Management is that such urban sustainability transitions resemble ‘wicked problems’ (Fischer-Kowalski and Rotmans, 2009). According to Rittel and Webber (1973), wicked problems are found in societal contexts involving issues such as environmental, economic, or public policy within a pluralistic society where there is no objective definition of a public good. Churchman (1967) has described such problems as “ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values”.

The presence of multiple types of knowledge and actors in urban sustainability transitions requires adopting multiple overlapping perspectives as any specific discipline or body of knowledge will always be partial and provisional (Checkland and Scholes, 1990; Brown et al., 2010; Midgley, 1991; Moulaert and Van Dyck, 2013). Key elements of the transition process – its actors and their knowledge – are not exogenous to the analysis. They can for instance decide on the goals and the rules of the process and, on a more fundamental level, assign *meaning* to the transition. The curatorial approach we present in the next section offers an innovative and conscious effort to place the researcher within the interpersonal dynamics that are part of the planning situation.

### 2.1. The curatorial approach to systems transitions

While much has been written about potential tools for tackling complex or ‘wicked problems’, considerably less is written about influential roles that can facilitate these, as individual approaches or assemblages, within a participatory setting (Head and Alford, 2015; Weber and Khademian, 2008). Roles like organiser, facilitator, or moderator tend to reflect the logic of tame problems that can be ‘fixed’ through analytical decomposition guided by the actions of a *neutral* actor. These roles are borne out of, and carry with them, tools, logics and institutional baggage (Van den Broeck, 2011) from fields such as business, politics and game theory. With this in mind, we argue instead for a curatorial role, a position that deals with complexity and conflict using multiple approaches, methods, logics—one that identifies itself as part of the actor cohort and is deeply concerned and connected with the content. While roles like mediator and facilitator value the qualities of ‘neutrality’ between parties or ‘disinterest’ in specific outcomes, the curator takes the contrary position. We think that it is mainly in this respect that our curatorial approach provides additional mileage to the literature on Transition Management. The latter has stressed the importance of actors in achieving deliberate changes in complex systems and, among other issues, investigated which type of governance set-up allows social-ecological systems to be more adaptive (Fischer-Kowalski and Rotmans, 2009; Loorbach et al., 2016). One of the key foci in terms of how different types of actors influence

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