

## **Culture in sustainable urban development: practices and policies for spaces of possibility and institutional innovations**

Sacha Kagan\*, Antoniya Hauerwaas<sup>2</sup>, Verena Holz<sup>3</sup>, Patricia Wedler\*

*\*Institute of Sociology and Cultural Organization, Leuphana University Lüneburg, Lüneburg, Germany ; <sup>2</sup>Institute of Corporate Development, Leuphana University Lüneburg, Lüneburg, Germany ; <sup>3</sup>Sustainability Faculty, Leuphana University Lüneburg, Lüneburg, Germany*

Scharnhorststr. 1, 21335 Lüneburg, Germany ; corresponding author: Sacha Kagan  
[kagan@uni.leuphana.de](mailto:kagan@uni.leuphana.de)

Word Count: 11144

**PRE-PRINT VERSION.** Please find the “Version of Record” at the Elsevier Journal *City, Culture and Society*: <https://doi.org/10.1016/j.ccs.2017.09.005>

Details of the Version of Record:

Sacha Kagan, Antoniya Hauerwaas, Verena Holz, Patricia Wedler (2018). Culture in sustainable urban development: Practices and policies for spaces of possibility and institutional innovations, *City, Culture and Society*, Volume 13, Pages 32-45.

# Culture in sustainable urban development: practices and policies for spaces of possibility and institutional innovations

This article contributes to an exploration of the relations between culture and policies for sustainable development in cities. It discusses the potentials to advance a cultural approach to sustainable urban development by enabling urban “spaces of possibility”, relating them to institutional (social, cultural, and political) innovations. Based on empirical research in the two cities of Hamburg and Hanover, the article examines the relations between four selected cases of cultural actors/initiatives and the differing policies of the two cities, pointing at the seized or missed opportunities for innovative forms of transversal partnerships through a culturally sensitive urban policy.

**Keywords:** cultural dimension of sustainable urban development; spaces of possibility; institutional innovation;

## Introduction

Debates on the future of urban development increasingly stress the role of the cultural sector, since they seem to be leverage points for social transformation on multiple levels. We take up these discussions<sup>1</sup>, investigating the importance of a cultural dimension to Sustainable Urban Development (SUD)<sup>2</sup>, and its implications for urban

---

<sup>1</sup> The authors of this article explicitly use the first person plural "we", in coherence with the epistemology of transdisciplinary sustainability research: self-reflexive, embedded and embodied, rejecting the usual academic language that maintains an illusion of neutrality. "The subject who disappears from his discourse in fact takes over the Control Tower. By pretending to give way to the Copernician Sun, he reconstitutes a Ptolemaic system whose center is his spirit" (Morin 1992: 19). See also Haraway (1988).

<sup>2</sup> In this article we apply the notion “sustainable development” instead of “sustainability”, because the first rather emphasises the idea of open search and design *processes*, including

policies, exploring conditions, conceptions and inceptions of a culturally sensitive urban policy oriented toward SUD from a theoretical and an empirical point of view. Thereby we outline how cultural policies should be conceived of, in order to contribute to SUD.

Two crucial concepts as means for such a policy play a decisive role in this context: “spaces of possibility” (SoPs) and intertwined Institutional Innovations (II).

Considering those concepts, we explore through a selection of recent cases of urban cultural practices, how cultural actors and urban policies may introduce new approaches foregrounding the cultural dimension of sustainability.

Outlining central aspects of SUD and related cultural questions as well as its missing integration with cultural policy, we suggest a normative direction for a cultural strategy of SUD, placing SoPs at the center of a new policy for SUD. Based on the three concepts of SUD, SoPs and II, we develop criteria to explore the potential of emerging processes for a transformation of policy in the two cities of Hanover and Hamburg. We selected those two North-German cities because they clearly follow different policies, making the cases more contrasted, and because we (the authors) are involved for several years in research and cultural projects in the two cities.

We investigate how SoPs may build on creative practices to open up shared activities of public authorities and civil actors. We thereby ask how (social, political and cultural) II could be both enabled by and enablers of SoPs. Our investigation is also drawing as its wider horizon, a possibility for city-wide II.

---

concepts like uncertainty, relativism, serendipity (Miller, 2013). “Development” in this article context is explicitly not synonymous with the idea of (economic) growth, nor is it understood in an ethnocentric way, which compares western with non-western countries in order to stabilize the dichotomy between the alleged “developed” donor nations and the “under-developed” others (Wiarda, 1987; Holz, 2010; Springett, 2013).

## **Urban sustainable development**

As awareness increased that cities are crucial nodes for sustainable development on a global scale, urban governance reoriented policies and politics towards sustainability (cf. Agenda 21, ch.28: United Nations 1992; Aalborg Charter: European Conference on Sustainable Cities & Town, 1994, 2004; Lisbon action plan: Ibid., 1996; UN Habitat Report, 2009, 2011, 2013; ICLEI, 2015). The critical role of cities is related to the fact that they will be severely affected by consequences of unsustainable development, e.g. they have to face inundations, urban heat islands, the loss of urban ecosystems and species extinctions, supply bottlenecks, increased poverty, epidemics, social conflicts, etc. In late capitalism, cities also grew in importance as spaces for capital accumulation - whereby this development needs to be analytically connected to global dynamics of capital accumulation "across places, territories, and scales [of] the planetary sociospatial landscape" (Brenner 2013: 108-109). The phenomenon described as "neoliberal urbanism" corresponds to urban policies oriented to real-estate market logics and aiming to provide business opportunities, capital investment and amenities in a competition against other cities (Castree et al. 2013). Neoliberal urbanism reinforces urban manifestations of social and ecological unsustainability related to real estate-led urban development and gentrification. The creative/cultural sectors are mobilized as purveyors of images of urban culture, history and community that are instrumental to city marketing under a neoliberal policy logic (Harvey 1989a, 1989b). Under this logic, "creative city" policies may compete with "sustainable city" policies (Ratiu 2013). Nevertheless, some creative city discourses based on culture-led urban regeneration do integrate elements of sustainability-orientation, opening-up a window of opportunity for SUD-oriented II; this was especially the case for some early proponents such as and Charles Landry (2000, 2006), relating to a markets-critical "cultural planning" after

Franco Bianchini (1993, 2004). However, many creative city policies shape an ambivalent discursive framework of cultural empowerment that misuses Bianchini and Landry's ideas, smeared by more neoliberal discourses (e.g. Florida 2002, 2005, 2007). Critics have described how these policies disguise or/and legitimize neoliberal political agendas (Chatterton 2000, Peck 2005, 2007, Scott 2006, 2007, Ponzini and Rossi 2010), while some critics have also pursued countersteering by proposing to strategically reframe and re-orient creative city policies toward a SUD-oriented logic (Scott 2006, 2007, Kagan and Hahn 2011, Kagan and Verstraete 2011).

Cities are conceived as pivotal places for transformation, since

- the urban population increases particularly rapidly, and until 2050 the urban population will double to 6.4 billion (Rink et al., 2015);
- they lead the way as international and global actors and represent spaces of (system) innovations (Schneidewind and Scheck, 2013);
- they can take over pioneering tasks in terms of a paradigm shift from a fossil to post-fossil ways of life (cf. WBGU, 2011b: 286);
- they can become examples in creating socially just urban districts and equitable forms of living together, gathering a large number of diverse people in limited space;
- they play a key role as polluters (e.g. in questions of energy consumption – 75% of the global final energy is used in urban spaces (WBGU, 2011a: 3), and as a consequence of the long lifespan of urban infrastructure, the latter will affect GHG emissions for more than 100 years).

Against the background of population growth, the necessity to plan new urban infrastructures and the role of cities as laboratories for transformation, different

definitions and sets of criteria for SUD are in use. However there is currently no strategy that can unrestrictedly be applied (Hens, 2010). Figure 1 shows a model including some significant dimensions that are being discussed in terms of a sustainable city.

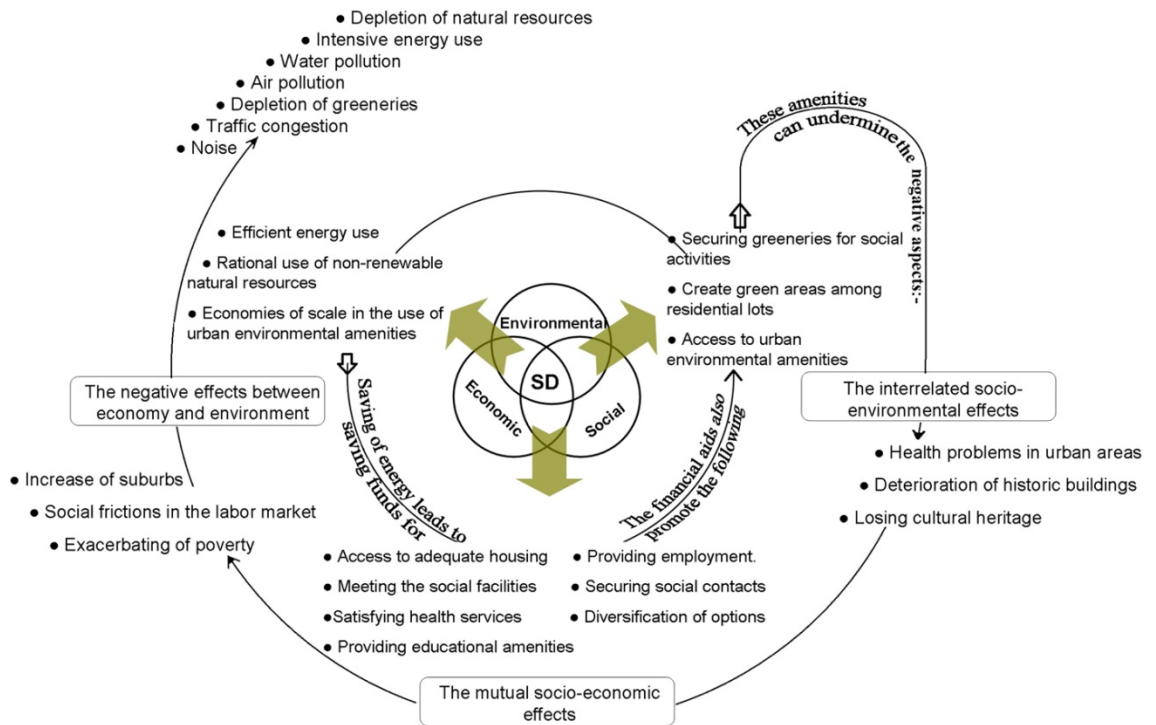


Figure 1. Source: Hassan and Lee, 2014

Since there are neither clear evaluative tools nor exact criteria for sustainable cities, multilevel, holistic and fault-tolerant approaches become relevant, encompassing broad dimensions of social, ecological, economic, cultural and political questions rather than discrete criteria (Jörissen et al., 1999). A whole set of those SUD processes includes regulated, but also non-regulated and, from a governmental perspective, uncontrolled approaches. The SUD activities could even be contradictory to a certain degree (with uncertainty concerning appropriate methods for instance). Nevertheless SUD can't be conceived as a no-holds-barred strategy, since there are boundaries, consisting in administrative, political, ecological, economic structures, but also in the ethical conception of sustainable development. Several ideologies and convictions show

up in this context: e.g. anthropocentric, patho-centric, bio-centric or even eco-centric value-systems generating different forms of actions and lifestyles (Bonnett, 2002; Ott, 2014). Other approaches rather focus on socio-political norms, like the degrowth movement, eco-socialism or eco-feminism (Pepper, 1996; Mebratu, 1998). Almost all initiatives and institutions follow explicitly or implicitly ethical or normative guidelines related to sustainable development.

### **Culture in the context of SUD**

In order to clarify the conditions for culture as a question and field within the context of SUD, we illuminate if and how culture is being discussed in two major (and often interconnected) areas of SUD discourse: academic writings of the scientific community of sustainability science (cf. Clark, 2007); and the public mainstream discourse of urban politics led by city governments, administrative institutions and their representatives, and international organisations. The extent of culture's role in SUD concepts and policy measures depends also on idiosyncratic (local) discourses and on particular actors. At first sight, in sustainability science as well as in mainstream political discourse, culture in the urban context still plays a subordinate role: Neither does a large number of publications exist in the academic context, nor is "culture" specified as a crucial field of action on the policy level. Most approaches focus on a set of topics and challenges that are based on typical "green" themes. Nevertheless "culture" or cultural questions are addressed in some contexts. In both discourses culture is perceived as

- (1) a prerequisite for social change, since it is conceived as central value-system, guaranteeing social cohesion, but also because culture, as a mode of place-making and identity-building, is understood as connected with transition (this

- position acuminates in the indentation between cultural heritage and future-orientation) (Barthel-Bouchier, 2012; UNESCO, 2013a; Lehmann 2010;
- (2) a motor for transformation, producing “creativity”, “engagement”, “projection” (James, 2015); in some cases, in both the academic and the public discourse of urban politics, a “Floridian” link between creativity and cultural diversity (Florida, 2005) can be observed (UN Habitat, 2013; Vojnovic, 2014 UNESCO, 2013a, 2013b);
  - (3) a form of social challenge, when it comes to the question of cultural diversity and multi-ethnicity (DifU, 2011; Meuleman, 2013);
  - (4) intertwined with concepts like “well-being” or “happiness”, sustainable way of life, away from consumer culture (UNESCO, 2013a; Davies, 2015).

Governance concepts for SUD already follow integrative, cross-departmental, interdisciplinary strategies in theory (Ostrom, 2005; Loorbach, 2010; Meulemann, 2013; Rink et al., 2015) but still seldom in practice, and they rarely include the “cultural” administrations (Göhler, 2012). Concretely, from an administrative perspective, this could entail, for instance, to involve the cultural department in decision-making processes concerning all SUD processes, since culture is conceptualized as prerequisite for transformation and transition. Until now, SUD seems to show up as a rather technical process in terms of practice.

### **A culturally sensitive policy for SUD**

Within discourses led by actors of the (urban) cultural sector and also in parts of the urban cultural policy discourse (by researchers and practitioners), questions of SUD have been increasingly discussed. International networks, like the “Agenda 21 for Culture” carried by United Cities and Local Governments, the COST (European



Cooperation in Science and Technology) Action “Investigating Cultural Sustainability” (2011-2015), or the “Cultura21” network have been promoting the idea to integrate concepts of culture and the cultural field into SUD policy. Alongside these networks, local initiatives of artists and cultural operators (also from the area of cultural education) contribute to SUD debates. Compared to the mainstream SUD actors in practice and academia, they often reflect more on the role of culture in terms of SUD and develop concrete concepts and projects. On a content level these discourses led by the cultural sector highlight the “city [...] as a complex symbolic object with a distinct “meanings complex” [...] a “physical location” [where] we develop distinctive response patterns” (Rana and Piracha, 2007:39-40). As Nadarajah (2007) stressed in his eight principles for “an urban culture of sustainability”, a major cultural mission in contemporary cities is to turn (back) “physical space” into “place”. “Sustainable cities from a cultural point of view” have been further discussed through three notions: “culture-based sustainably developing places, livable places, and ecologically sensitive culturized places” (Hristova et al., 2015:3). All three notions stress the importance of place-making, with different accentuations:

- (1) Relating “creatively inclusive neighbourhoods” to other spatial dimensions “by expanding [cities’] regional, national, and international networks” (Ibid).
- (2) Reorienting the normative goal of “high quality of life” away from material wealth as revealed through high consumption and towards “a healthy, pleasant and safe life” (Ibid: 4, quoting the European Environmental Agency).
- (3) Mobilizing aesthetics and cultural practices towards “renewed relationships with the local natural environment and new commitments to places of cohabitation”, thereby “revitaliz[ing] social fabrics” (Ibid: 4).

Cultural policy actors who developed the “Agenda 21 for Culture” (UCLG, 2004), as well as culture-focused researchers (Dessein et al., 2015), define “cultural sustainability” or “culture in sustainable development” as the value (for human organizations, communities and societies) of preserving and advancing cultural life (including cultural heritage, cultural vitality, creative human practices, and cultural diversity) as an ‘end-in-itself’.

The relationship between culture and sustainability also involves culture in a more fundamental way in the sense of world-views, value-systems and symbolic universes forming civilizational orientation, labelled as “cultures of sustainability” (Rowson, 1997; Worts, 2006; Nadarajah, 2007; Brocchi, 2008; Kagan, 2010), “ecocultures” (Slack and Whitt, 1992; Ivakhiv, 1997; Böhm et al., 2014), or “the cultural dimension of sustainable development” (Holz and Muraca, 2010; Holz and Stoltenberg, 2011; Holz, 2016). Such a culture is infused with understanding and respect for life in all its complexity, as well as empowering people to re-invent another, more sustainable “good life”. This stresses certain ethical values (Burford et al., 2013) allowing human groups to orient towards the four dimensions of sustainability (Stoltenberg and Michelsen, 1999; Holz and Stoltenberg, 2011), whereby culture is not understood as a 4th pillar, standing separately from other dimensions of SD. This conceptualization was also characterized as “culture as sustainable development” (Dessein et al., 2015).

A cultural approach to SUD is thus not limited to traditionally conceived "cultural policy" (as defended by e.g. the International Journal of Cultural Policy) nor to specific areas such as heritage protection, public art, building in local character and the organisation of temporary events (e.g. art festivals), but instead rekindles a broader approach echoing the definition of culture in the Mexico Declaration of UNESCO

(1982) and Bianchini's (1993, 2004) cultural planning. But it does so with an orientation that is more critical of unsustainable development (as in e.g. neoliberal urbanism) and informed by sustainability research.

Concerning its approach to sustainability research, a culturally meaningful approach to SUD promotes a “procedural” and “ambiguous” definition of sustainability (Miller, 2011; Ernstman and Wals, 2013) where “sustainability is the emergent property of a discussion about desired futures” (Robinson in Miller, 2011: 31), rather than its Brundtlandian “universalist” definition. Recognizing emergence, unpredictability, uncertainty and “situated knowledges” (Haraway, 1988), such an approach departs from a control-oriented SUD-approach and instead embraces qualitative complexity (Kagan, 2011). It aims to make SUD more creative and imaginative, calling forward a SUD-oriented policy that enables and collaborates with emergent cultural experiments rather than planned designs.

### **Urban Spaces of Possibility**

More voices now promote urban experimentation spaces and visioning (Schneidewind and Scheck, 2013; de Flander et al., 2014; John et al., 2015), including the encouragement for the application of new urban trends for sustainability (e.g. strategic spatial planning, new land regularization and management approaches, participatory processes and new forms of master-planning). For example in Germany appeared a political programme that supports the establishment of “Laboratories of Reality” as spaces for experimentation of SUD (MWK Baden-Württemberg, 2016). Within social scientific discussions about sustainability transformation processes, the demand for such experimental spaces is increasing (Overdevest et al., 2010; WBGU, 2011b). Several authors (Groß et al., 2005; Pallot et al., 2010; König, 2013; Schneidewind and Schneck, 2013) promote concepts of “real world experiments”, “real

world laboratories” or “living-labs”, providing physical and social space for the generation and application of knowledge, under only partly-controlled conditions (Groß et al., 2005). Goals are the integration of scientific and practical knowledge, observation or initiation of system innovations and visualisation of tacit knowledge in terms of sustainability - connected to local conditions (Schneidewind and Scheck, 2013). This idea is also promoted within rather techno-centred parts of the sustainability discourse, which then allows it to gain acceptability among sustainability-policy circles.

Having noticed the importance of imagination and creativity for SUD grounded in emergence rather than in the implementation of ‘prefabricated’ SUD blueprints, our research therefore focuses on how urban policies can unfold possibilities for creative action and innovation as part of the search process of sustainability. In this context, spaces of possibility (SoPs) are spaces in which possible future developments are, already today, emerging; both physically located spaces with sustainability-related creative cultural developments, and shared social-psychological spaces where “mental infrastructures” (Welzer, 2011) are challenged and potentially destabilized. SoPs experiment, mediate and communicate alternative lifestyles and values (Welzer and Rammler, 2012), developing visions “towards global (environ)mental change” (Kagan, 2012).

SoPs share some characteristics with Foucault’s (1993) heterotopia. They are:

- real existing places where alternatives are experimented with;
- relatively open spaces because operating exchanges, negotiations or other interactions with the rest of society;
- relatively closed because offering protected spaces for experimental and experiential processes;

- not unreal and perfect achievements;
- involving heterochronies (alternative experiences of time) and pointers to bifurcations towards different development pathways.

Unlike heterotopia, SoPs are actively networked with each other and with wider movements/networks working towards emancipatory/ecological goals. SoPs offer civil society the opportunity to activate change-agency and empowerment by operationalizing “prefigurative politics” (Sitrin, 2007): the immediate practical experimentation with desired future forms of social life, without waiting for (necessary) transformed structures to allow wider dissemination.

SoPs are “spaces of imagination and experimentation” (Dieleman, 2012): spaces where imagination, experimentation and – not just any experiences, but more critically, challenging experiences, open up futures-oriented questions and perspectives.

As spaces for prefigurative politics, SoPs go beyond mere protest movements, awareness-raising, or single project-based initiatives, and instead inspire experiments of transformations in everyday lives. Established social conventions are reflected, unfrozen and challenged, allowing imaginative and experimental practices to unfold thanks to lessened conventional constraints (Kagan, 2008). As theorized by the sociology of conventions (Batifoulier, 2001; Biggart and Beamish 2003) as well as by Giddens’ (1984) structuration theory, micro-social agency and meso-social change in social conventions may constitute interesting leverage points toward wider institutional change at the macro-social level. SoPs are thus spaces for emergence, which a policy for SUD should enable.

### ***Cultural organizations shaping spaces of possibility***

Focusing on the functions of cultural organizations, we propose three hypotheses about

how the cultural sector can initiate SoPs; it can do so through:

- (1) grounding SoPs in artistic inquiry;
- (2) involving (new) audiences to become participants in creative processes;
- (3) requiring transversal networking beyond cultural networks.

1: Thanks to the specific education and work-processes of artists, often allowing more openness to the new and to continuous learning than some other professions, cultural organizations have a potential to become not only learning organizations, but also open learning spaces. This potential can be tapped into, if urban policies aim to contribute to the search process of sustainability. Sustainable development requires transversal ideas and approaches to new problems facing society. A growing number of artists (under an expanded definition of art) are dealing with social, economic, political, intercultural and/or ecological issues, shedding new lights on questions of (un-)sustainability (Kester, 2011; Kagan, 2011, 2014; Weintraub, 2012; Miles, 2014). Policy is challenged to facilitate and foster this inquiry, providing conditions allowing flourishing spaces of free play which artists need in order to be able to share inquiries with others. Such artists can indeed bring perspectives that help participants critically reflect on, experiment with, and link everyday lives and societal development paths: raising awareness of social conventions, enhancing perception of complexity, reshaping symbolic values, and engaging experimentally and metaphorically in new situations (Kagan, 2011).

Sharing reflexive perspectives, arts-based experiences may provoke detachment from entrenched thinking, enchantment to envision alternative realities, and empowerment to experiment with change (Dieleman, 2008: 128). In SoPs, these qualities of artistic inquiry are embedded in urban initiatives rather than performed as

single art projects, and they are strategically deployed for the realization of spaces with heterotopian qualities as described above.

To unfold these potentials for change, cultural actors need open frames allowing for unplanned experiments and stimulating critical learning. Cultural policy, whose remit lies with the arts and creative cultural practices, can and should help provide such frames, realizing its opportunity to foster SoPs specifically grounded in artistic practice.<sup>3</sup>

2: To realize SoPs' potential to function as open learning spaces, cultural organizations need to allow visitors to become participants in creative processes, opening up spaces of challenging (rather than comfortable) experience (as sustainability is a radical search process), and of imagination and experimentation (which unfold together in thinking by doing). The experience should remain accessible to diverse participants (whereby the different qualities of experience matter), who require safe places to feel enough trust to engage into new and uncertain learning situations.

Cultural actors here offer space for hands-on activities, inviting participants to experiment with doing concrete things differently. It can be a workshop/fablab, market, or playroom set up in the middle of the street. The aim is to invite people to bring together heads, hearts and hands (Hopkins, 2008).

Imagination allows exploring multiple alternative futures, not closing down people's imaginations so that they "get it" and assimilate the one correct image or interpretation leading to sustainability. Cultural SoPs are no church choirs for fast-track solutions-engineering, and ready-made prescriptive approaches by smart-alecky

---

<sup>3</sup> We hereafter consider all policies supporting or enabling such culture/arts-based SoPs as 'cultural policy' - not only if they originate from a "cultural" department.

‘experts’ have no place here. The goal is to invite people to engage with situations and imaginations, without settling down too soon.

SoPs foster social creativity – flowing between participants like a good conversation between friends, or like a jam session among jazz musicians (Sawyer, 2003).

Furthermore, to reach out to people who are not part of cultural elites or of activist networks, these spaces have to “be located in institutionally still undetermined spaces, where creative experiments and the everyday life of local inhabitants may come together, functioning as emergent open commons” (Kagan, 2015a). This calls forward artistic and cultural interventions across the urban fabric (e.g. with interim use of spaces [Ziehl et al., 2012]), beyond the spatial-temporal and conventional frameworks habitually associated to existing cultural organizations.

3: An enabling policy would also facilitate connections of different challenging perspectives offered by diverse cultural actors across the city, and bring together key stakeholders. Transversal networking implies weaving webs between urban actors, and the change-potential of shaping SoPs won't come from working in isolation. Networks like “Right to the City” in Hamburg or “Transition” network in Hanover, involve all four dimensions of (un-)sustainability in local everyday life (and as well use media spaces for networking, participation and communication). They recognize that sustainability requires moving away from thinking and acting only within specific professional fields (Ahern et al., 2014; Steiner, 2014) or entrenched political positions. Cultural organizations then network not only within the cultural sector, but also with multiple ‘civil society’, private and public-sectors organizations, and should be encouraged to further join existing networks and help build new ones.



Fostering the emergence, development and scaling-up of SoPs requires a policy framework that facilitates collaboration between diverse stakeholders (including city government) to find a balance between different and dissonant visions of SUD, within an agonistic dialogue rather than binary alternatives between antagonistic confrontations and post-democratic consensus (cf. Mouffe, 2013; Kagan, 2015b).

Given the complexity of issues pertaining to social transformation for SUD, the transformation of policy towards more enabling institutional frameworks requires the combination of different political, cultural and social changes. In other words, policies for SUD need II to enable creativity and sustainability-driven SoPs.

A systemic view on the transition towards sustainability as a continuous process of societal change considers the characteristics of large-scale and long-term developments and interactions between different scales of niche, regime and landscape. Different niche innovations could affect the recent regime of culture, policy, science, industry etc. and open “windows of opportunities” for transitions in this regime (Geels et al., 2004, Rotmans et al., 2001), whereas landscapes point at external shocks from the wider environment. We see urban SoPs as niches of creativity and cultural practices, which interrelate and can together transform the recent policy and cultural regimes towards SUD-oriented policies and politics.<sup>4</sup>

---

<sup>4</sup> Parts of the discourse of sustainable development and sustainability strongly correlate with concepts of systems thinking, while others do not necessarily. Proximity to systems theory or complexity theory exists mainly in the academic areas of the sustainable development discourse: It is explicitly promoted by human ecology research or resilience studies (Bruckmeier, 2015; Xu et al., 2015), but also in terms of artistic approaches (Kagan, 2011). Advances in cultural policy studies have been made that relate urban cultural policy to

## **Institutional Innovations for Sustainable Urban Development**

The interaction between formal and informal institutions as rules of the game on the one hand, and organizations as relations of the players in the game on the other hand, affects performance and changes in social systems (North, 1990). Therefore institutions can restrict or enable people's connections and structure their relationships and thus, much of their communication. Changing “the rules of the game”, i.e. established mechanisms of urban governance” (Moulaert et al., 2007) with cultural policies for SUD means to implement II dealing with culture as an integrative part of the sustainable city: “if we want to advance sustainable urban development, we need greater II at the city level. We need local II for purposes of both overcoming local implementation problems and creating trans-local, “networked” learning processes” (Mieg and Toepfer, 2013: 1).

Both approaches of social and of II describe the nature of innovations required for complex changes in governance, culture and society, and are linked here in order to explain how changes in cultural policy can improve SUD (Moulaert et al., 2007, 2013; Mieg and Toepfer, 2013; Raffaelli and Glynn, 2015; Johannessen, 2013).

Moulaert's (2009) approach of social innovation as well as Johannessen's (2013) systemic approach on II define the need for interactive, multilevel and -scalar changes for an integrated institutional transformation: there is a clear cultural challenge to meet unsatisfied or unrecognized needs of plural social milieus while both their needs and the societal environment are frequently changing. It requires new cultural, societal

---

systems thinking (Jeannotte, 2003) and to complexity theory (Comunian, 2011). These approaches all raise awareness to relations between changes and innovations at different levels and scales, searching for leverage points towards transformation.

and power relations, implying “the emergence of new governance models based on new ethics, solidarity, cooperation, reciprocity and tolerance” (André et al., 2009: 150).

We need an extended view on the required institutional change: How new political, social and cultural institutions can evolve and be interrelated for more SUD. Though innovations for sustainability and social innovations partly overlap, aiming at similar normative socio-cultural transformation for “the satisfaction of alienated human needs”, their effects sometimes differ: ambivalent (social innovations) vs. framed within multidimensional evaluative criteria (innovations for sustainability) (cf. Schwarz et al., 2010: 175). Innovations for sustainability require deeper institutional changes, often going beyond human needs (i.e. improving the whole socio-ecological system).

Social and II for SUD are neither two different innovation types nor competitive approaches, but complement each other, concentrating on different results (social need – institutional change) and different perspectives (relations of actors – collective actions and transformation of agencies). Overall, the interrelations and influences between a specific sustainability-oriented innovation and other, related novelties in the political, social and cultural fields, are best described as II. We understand institutional novelties as “novel, useful and legitimate change that disrupts, to varying degrees the cognitive, normative, or regulative mainstays of an organizational field” (Raffaelli and Glynn, 2015: 2). This definition depicts how policies evolve not only by politics and where these policies could “pull levers” for implementation of SUD-enabling actions and practices. We categorize II into

- political “(...) related to power, ideology and laws”;
- cultural “(...) related to values and norms”;
- social innovations “(...) related to relationships, networks and alliances”

(Johannessen, 2013: 1196).

These types are often interrelated and reinforcing each other (sometimes in a reciprocal way).

II for sustainability support policies that may systemically contribute to sustainability transformation (Mieg and Toepfer, 2013). They are more complex than single improvements of organizations or technologies. They need time and spaces for pioneering, within existing urban institutions. Though they can introduce radically new institutional forms, they more often can induce changes in existing institutions and thus, open up spaces of possibilities for new agencies. The latter case involves “(...) changes in the constitutive elements of institutions – normative, regulative, and cognitive factors – that induce change in existing institutions [...] change that neither destroys the old institutional order nor brokers a new one, but instead, creates interstitial institutional spaces that can serve as a locus for innovation” (Raffaelli and Glynn, 2015: 6-7). Thus, changes can evolve though and through mechanisms earlier used to explain resistance to change, like *path dependencies* (whereby history matters [David, 1985] - initial events can restrain present and future choices; and particular geoeconomic spaces [Brenner and Theodore 2002] matter too) and *embedded agencies* (implying that people’s interests, perceptions and actions are institutionally shaped and thus, they are often not motivated/unable to initiate change).

Thereby, institutional change may well contribute to the change process of "neoliberalization" (with its "restructuring strategies [...] destabilizing inherited landscapes of urban governance", Brenner and Theodor 2002: 375), involving a dialectic of "creative destruction" (ibid: 362-367) to which SoPs and IIs may contribute. Neoliberalization indeed cohabitates and tactically allies with, but ultimately stands in competition with SUD.

To identify institutional novelties and be able to better analyse those in particular cases, we have to pay attention to some of their core characteristics (Raffaelli and Glynn, 2015: 18-26): II are

- (1) characterized by the three elements of **novelty**, **usefulness** and **legitimacy**, where legitimacy is the most important necessary condition for faster and easier diffusion. A novel and useful innovation, be it technological or social, is not necessarily institutional, if not emerging in alignment with existing norms and values;
- (2) perceived as often normative or value-laden, not as value-free (or purely technical);
- (3) explicitly implying the role of time and temporal dynamics: Their innovation process is often nonlinear, in “bursts of change”, in historical phases over time;
- (4) socially built and embedded within cultural understandings, while simultaneously appropriating cultural elements as resources;
- (5) considered within the particular institutional logics which they embody and put in practice. The institutional logics describe “the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality” (Thornton and Ocasio, 1999: 804); “[...] logics are characterized by cultural differentiation, fragmentation, and contradiction” (p. 114). Different logics, such as the market, family, or community logic may apply simultaneously in a field (Powell and Giannella, 2010), producing contradictions and thus, spaces for change.

## **Cases Selection**

We selected, from our ongoing research, two cases in each of the two cities, for their relevance to the three concepts of SUD, SoPs and II, and to stress insightful differences across cases. Specific criteria for case selection, as well as our questions to the cases, are presented in table 1. (The numbers in parentheses in case-discussions refer to the criteria/questions-numbers in the table.) Our empirical data for the cases (gathered between 2014 and 2016) is presented in table 2.

Category	Subcategory	Criterion (C) / Question(s) (Q)
1 SUD	1.1 Addressing SUD	C: Addressing some areas of SUD (e.g. climate change adaption, energy supply,...) Q: (1.1.1) Which themes of SUD are addressed/approached? (1.1.2) What is the interplay of these themes?
	1.2 Approaches	Q: How are SUD themes addressed? (e.g. participative, trans-sectoral, multipliers, as challenges, visionary, stereotypical vs. complex, creative/innovative, etc.)
	1.3 Ethics of sustainability	C: Some form of ethics of sustainability/set of values Q: Which sustainability-related sets of values, concepts of justice, ideologies can be found?
	1.4 Problems and Challenges	Q: Which problems, challenges (e.g. structural, ecological, cultural, social, economic, political conflicts) related to the SUD themes are addressed?
	1.5 Sustainability discourse	C: Explicit reference to the concept/discourse of sustainability Q: If yes, referring to which actors and streams/ideas, which value-frames (e.g. SDGs), how? If not, is there another master narrative? Which one?
2 SoPs	2.1 Space of Experimentation & Gestaltung	C: Space of (artful) experimentation and/or of possibilities for 'Gestaltung' (shaping-forming-designing-organizing) Q: What forms of (potential or actual) experimentation/Gestaltung? Qualities of "prefigurative politics"?
	2.2 Space for Imagination	C: Space for imagination Q: What forms of imagination? Potential/emergent or actually developed imagination?
	2.3 Heterotopic qualities	C: (2.3.1) A real-existing space(s) somewhere Q: Where? C: (2.3.2) An open space (exchanges, negotiations, other interactions with rest of society) Q: How far is it open, how? C: (2.3.3) A closed, protected space Q: How far is it closed - what protections/safety does it offer? C: (2.3.4) a different experience of time (heterochrony) Q: What kind of alternative experiences of time are wished/available?
	2.4 (Transversal) Networking	C: Involvement in (transversal) networks Q: How is the SoP networked with which actors/networks, in the own sector & beyond?
	2.5 Entrepreneurship in conventions	C: Entrepreneurship in conventions (established social conventions are reflected, unfrozen, challenged) Q: Which specific conventions are addressed? How are they made visible, reflected, dealt with, challenged? Are specific alternative conventions suggested? How? How far are these made appealing/convincing?
	2.6 Grounding in artistic inquiry	C: SoP grounded in artistic inquiry Q: How is an artist, artistic process or/and creativity involved? What aesthetic experiences are present (e.g. aesthetics of complexity)? How far are the art/creative practices and the urban initiative embedded in each other?
	2.7 Participation in creative processes	C: SoP involving (new) audiences to become participants in creative processes Q: How is creativity shared with which participants (and which not), in which spaces? With what space for free play, what safe/trustful qualities, which challenging experience, what hands-on activities? Are imaginations opening up or streamlined and channeled into single-solutions?
3 Policy – Roles of urban Policy	3.1 Relations of policy actors to the case	C: Some relation of policy actors in the city to the case, and of the case to policy-actors Q: Which policy-actors relate to it and how (support: direct or indirect; other relation, incl. conflict)?
	3.2 Support for transversality	Q: How do the policy actors support/promote the transversal networking of stakeholders across SoPs and between sectors/areas (e.g. cultural, environmental, social, economic, technical, etc.)?
4 Effects : SUD contrib.	4.1 direct contr.	How does the project/group contribute to SUD, directly and specifically?
	4.2 Institutional innovations	Q: Are intended or observed social, cultural or policy innovations identifiable in the case?  C: (4.2.1) Presence of three elements of institutional innovation: novelty, usefulness, legitimacy Q: Which relation of novelty/usefulness to legitimacy is found? C: (4.2.2) Normative or value-laden, not value-free (or purely technical) innovation Q: Which normative or value-laden issues of the innovation are observable? C: (4.2.3) Nonlinear; dynamic process (e.g. bursts of change) Q: How does time or historical context play a role? C: (4.2.4) Implicit social embeddedness in cultural understandings, and/or explicit appropriation of cultural elements as resources that enable interpretations, strategies or easy adoption Q: What cultural elements (symbols, cognitive systems, beliefs) enable the interpretation and justification of the institutional novelty? How does culture function as a (set of) resource(s) enabling innovation? C: (4.2.5) One dominant institutional logic, implied and put in practice Q: What is the dominant institutional logic?

Table 1. Criteria and questions for the cases

Case	Methods mix
Kultur des Wandels (KdW), Hanover	participant observation, videography, in-depth interviews
Wissenschaftsladen (WLH), Hanover	participant observation, in-depth interviews, analysis of online data
Planbude, Hamburg	participant observation (as project organizer), problem-oriented interviews, data analysis (online, print, film, radio/media, documents)
Hilldegarden, Hamburg	participant observation, in-depth interviews, data analysis (online, print media, documents)

Table 2. Methods-mixes for the cases

### **Hanover cases**

In Hanover we observe a culturally sensitive urban policy supporting sustainability-oriented events and actions. There seems to be a shift to a shared SUD-orientation: On the level of transversal networks and innovative collaborations a new institutional logic may be developed as ‘collective intention’ that advances the transition towards sustainable socio-technical regimes in Hanover. In the context of debt and budgetary cuts, city administrators seek third-party funding and support activities via intangible “aid” such as partnerships, joined funding assignments, provision of office/working spaces or event locations, etc. However, the cultural policy in the city of Hanover still doesn’t provide enough financial support for activities in the area of culture for SUD.

The two cases used to demonstrate this development differ in terms of their commitment to SUD, in the way SoPs emerge and are implemented, and the way policy is involved.



## ***KdW***

*Kultur des Wandels* ('Culture of Change', hereafter KdW), a loose network of artists, cultural actors and grassroots organizations/initiatives, was founded in 2012 at a "visionary congress" of Transition Town Hannover. Its first action was a street performance, joining the world's biggest marksmen's march as a "blossoming landscape" – introducing a seductively carnivalesque-ecological aesthetics into a traditionalist conservative festival [2.5].

KdW is coordinated by a small group around Joy Lohmann, an artist whose practice mixes together street art, upcycling, DIY/maker-culture and social practice. KdW networks Hanoverian initiatives that are culturally-sensitive and sustainability-related. It sets itself against unsustainable consumerist culture and for DIY-Maker values (with a flexible and open (vague) but explicit focus on "sustainability", "participatory culture", "commons", "innovation", "creativity" and "future-orientation" [1.5]), in line with German 'post-growth' and Transition Towns values [1.3].

Its main annual event (since 2013), the "KdW-Fest", is an open-air festival/fair where the groups and initiatives present themselves and discuss with each other (and visitors). It promotes sustainable lifestyles and consumption choices (vegan bio food, food sharing), sustainable mobility (bicycling systems), DIY-maker-culture (upcycling, urban gardening), regionalized economy (solidary urban agriculture, local currencies, 'Gemeinwohlökonomie'), open-source self-determined technologies ('freifunk'-networks, crowdsourcing), and interaction with refugees [1.1.1], gathering these approaches into a shared space where they may relate to each other [1.1.2]. An open-air festival/fair in public space, the KdW-Fest showcases the initiatives and networks them through visual and performative activities (street art, poetry, theatrical and other workshops, graphic recording, physical prototypes) mixed with traditional fair-like

stands [1.2, 2.6]. All arts-based activities have a participatory character and are offered very simply and informally, with hands-on activities and a low threshold, but we could not identify especially challenging experiences [2.7].

The main props are constituted of re-used home furniture and graphic signs by Joy Lohmann [2.6], organizing outdoor public space (central public squares [2.3.2]) as if it were a private house (with decors of kitchen, living room, playroom, etc.), in a concentric spatial organization suggesting a communal space [2.3.3]. KdW thereby offers an experience that might blur and challenge some established conventions about the separation of the private, community and public spheres, for some visitors [2.5]. Functioning as a 2-days festival, KdW-Fest offers at best a festival-typical temporal experience: an “intense temporal happening [...] a moment of real-time [...] an emphatic now (Harbord, 2016) [2.3.5] – although its spatial openness dissipates the heterochrony somehow.

KdW stimulates the imagination of a differently organized, alternative urban lifestyle as related to SUD themes [2.2], especially among its members. Lohmann encourages all KdW members to experiment with creative formats, sometimes arts-based (visual or performative) forms of communication and presentation, investing the outdoor public space [2.1]. Many ideas are generated, often suggested by artists, but actual creative experimentation by most KdW members remains modest. In its public events as well as in its very informal organization, based on volunteerism and with absolute-minimal funding, KdW aims to prefigure a society not based on monetary exchanges but evoking an alternative possible economy.

As a social space, the KdW network aims to be very open, connecting constantly with new initiatives and individuals, and offering an online “crowdmap” of initiatives [2.3.2] – which at first attracted only few registrants (but is being redeveloped in 2016).

We also witnessed only a relatively small network of core participants and visitors at KdW-Fest in 2014 and 2015 [2.3.3]. KdW is networked loosely and informally with several of the active Hannoverian actors around SUD themes in the whole city (most especially in Linden), i.e. both other SOPs (e.g. Wissenschaftsladen) and city-wide movements/networks (e.g. Transition Town Hannover, Urban Futures) [2.4].

KdW receives no structural, but ad-hoc funding - not through the city's cultural department but through its Agenda 21 office [3.1]. Lohmann conceives of KdW as able to work with very little money thanks to strong social capital. The KdW-Fest is then perceived by the city administration as a principally "money-free" event. Most of the human resources are unpaid and some material costs were partly covered directly by the city's Agenda 21 office (but kept to a very limited extent), and partly by fees contributed by participating exhibitors (with small-scale co-funding by the Lower-Saxonian branch of the Heinrich Böll Foundation (SLU) in 2014). In 2016, Hannover's Agenda 21 office integrated the KdW-Fest into its own main event, the car-free Sunday [3.2], bringing more-&-new visitors [2.3.2] but technically forbidding concentric spatial organization [2.3.3].

### ***Wissenschaftsladen***

The *Wissenschaftsladen Hannover* ('science shop Hanover', hereafter WLH) is an association hosted by Faust, a large self-administered cultural center located at a former-factory site in the district of Linden. WLH was created to provide education and advice in the fields of health and SUD, transferring research insights to everyday knowledge and developing educational and participatory programs and formats (1.2). Until today WLH sees itself as a community-serving organization that mainly focuses on environmental issues and education but also explicitly targets sustainability in some of its projects (1.5), promoting and spreading sustainable lifestyles and participation.

These imply e.g. fostering climate protection, sustainable food habits and consumption choices (healthy nutrition, fair trade, vegan and bio, food sharing, urban gardening); sustainable economy and mobility; ecological agriculture; district transformations and public participation as well as supplying environmental consultancy (waste, recycling, energy saving) (1.1.1). WLH conceptualizes itself as a mediating actor in urban society, transferring knowledge and empowering people, acknowledging that tensions between different dimensions of SUD require a consciousness for hegemonial structures (1.4). WLH is adhering to the idea of sustainable development as a concept that integrates ecological, economic and social issues in a Brundtlandian way, concentrating on society as central actor (anthropocentric focus) (1.3, 1.5). Particular projects consider and put into practice specific concepts/ideologies found in sustainability discourses, e.g. degrowth, economy of the commons, spiritual approaches (1.3). WLH works mostly action and project-oriented, defining its target groups each time. Its activities are made in cooperation with other public actors and/or private/social groups (2.4) like the city's Agenda 21 office (within the Environment and Economy Department); the Education and Qualification Department (EQD); the local district administration, Transition Town Hannover; music center Hanover; diverse initiatives from the neighbourhoods. Often, the projects are initiated within a network, which the WLH is part of: Urban Futures, a Hanoverian network dedicated to urban sustainability (2.4). Many WLH projects were funded by public authorities (3.1): different departments of the city administration over the years, including the agenda 21 office, climate protection unit (CPU), EQD, sub-department of district cultural activities, national ministries (e.g. German Federal Ministry for Environment (BMU)), specific local city districts (e.g. the city district council North) and SLU.

WLH introduced participative projects referring to shared development of district utopias (2.2). One of them was “Wunschproduktion” (production of desire; 2012-2014), a joint-project of WLH and Ökostadt Hannover where an overseas shipping container was placed in several open public spaces (2.3.1) in different neighborhoods. Wunschproduktions’ insights were integrated into the city's “100 % for climate protection” Masterplan coordinated by the CPU (2.4, 3.1). In 2015, over the whole month of June, WLH implemented “Stadtlabor” (city laboratory) under the slogan “the city is what you make of it” -aiming to stimulate a creative participation (2.7): a DIY-pallets-stage was installed in a public park of the district of Nordstadt (2.3.1). Both projects aimed to serve as a platform for experimenting (2.1) with diverse participatory SUD-oriented activities such as participatory cooking and eating, temporary urban gardening and seed-bombs workshop, bike repair, diverse sport activities, writing workshops, meditation, objects-making workshops, workshops on ‘economy for the common good’, ‘non-violent communication’ and the future development of the neighbourhood (1.2, 2.1, 2.6, 2.7). Moreover, Stadtlabor intended to serve as a network “platform” for sustainability-driven actors of Nordstadt and give them both a stage to perform and an opportunity to be actively involved in a development process (1.2, 2.4, 2.7): Stadtlabor was integrated in “Mein Hannover 2030” - the city’s participatory-dialogue program on urban development (3.1).

Another creative collaborative project of WLH (with Music center Hanover and EQD) is “Quattro Stationi. Interventions in the public space” (3.1, 2.7, 2.4). Under the motto “the most important is moving”, the artistic-educational project brings together 100 teenagers from different schools, creative performers and artists, offering workshops in different areas (e.g. theatre, sculpture, urban gardening, photography, rap, climbing) (2.6) aiming for an explicit engagement with public spaces via artistic

interventions (1.1). The teens conquer free spaces by staging, designing and reshaping these through artistic approaches (2.6): ‘the public space becomes a stage and a workroom’ (2.1, 2.3.1, 2.3.2).

WLH has developed further creative formats investing open public spaces and inviting to unusual participatory processes (1.2, 2.6, 2.7), e.g. small performative street interventions such as the “rolling garden party”, a mix of music, street art and guerrilla gardening on wheels, occupying e.g. car-spaces (2.3.1, 2.3.2). Some of these smaller actions are performed as part of global events such as the annual “PARK(ing) Day”.

WLH organizes the “Utopianale”, Hanover’s film festival on an annual SUD theme (e.g. food, work, mobility), since 2013 (1.1, 1.2), also including creative workshops (parkour, playshops, critical mass bike rides, singing, etc.) (2.6, 2.7).

Another perennial space for experimentation (with vegetarian food styles and healthy cooking) is Mitmachküche (join-in kitchen), a weekly mobile food-sharing “sustainable cooking event for all”, where participants can share food rests (primarily vegetables), cook collectively and join the meals in a group (1.1, 1.2, 2.3.1 and 2.3.2, 2.4).

### ***Institutional innovations***

KdW and especially WLH projects are indicators for the initiation of an institutional novelty for policy within Hanoverian public authorities (4.2). The creative projects and actions were implemented as an organisational cooperation between KdW/WLH and (different) public authorities, beyond the “classical” funding relationship between public and private organisations (4.2.1). There is (especially in WLH projects) a specific transversal “co-operation-mix” of different public authorities that is perceived as “novel” within the city administration. This transversal departments-partnership is a specific II within the City of Hanover. That new co-working culture emerges from a

new “sustainability” logic for Hanover’s SUD for both initiatives and the collaborating authorities (4.2.5). This involves some shared SUD aims (4.2.2.), shared valuation of networking and of creative performance for SUD, as well as some innovative ideas of how the city can provide more intangible enabling conditions for SoPs given own financial restrictions and limited budgets (e.g. co-working, -conceptualisation and costs-covering, joint funding-applications as co-operators (4.2.4)). Such financial limitations might be both one reason for and the initial point of those II trying to overcome formal institutional realities by changing informal cultural and social habits, norms and beliefs.

However, the historical path and the dynamic of institutional renewal in Hanover city (4.2.3) dates back to 1990s with the creation of the transversal unit Agenda 21 office (in 1996) and CPU (in 1994). Both new organizations foster the development of SUD-oriented logic. The agenda 21 office sees as its task to work transversally with all sectors of the municipal government and of Hanoverian society, with the goal to “structurally anchor sustainability [...] integratively, not vertically in the administrative hierarchy”. The CPU boasts to be, with its climate Masterplan, the first municipal climate office in Germany to integrate culture and the arts in such a project. A further political innovation was, in 2005, a new organisational form with the “Economy and Environment” Department, merging two important areas of the administration often considered as opposed. This department has specialized subdivisions, but also the agenda 21 office and the CPU. In relation to these changes in organisational structure, informal II are observed, with rising shared values and transversal activities with other departments. This shared sustainability-oriented cultural innovation seems to overcome some (financial and formal) barriers for supporting the

initiatives in Hanover: *“we called it “enabling” in our working department (...). We are the yeast in the bread dough. We did so lots of good experience”*<sup>5</sup>.

In the case of Hanover, such II within the city were enabled by existing path dependencies in government structures (through embedded agency), where institutional change emerged and was forced by policy-makers. For nearly three decades, Hanover is ruled by a SPD (Social-Democrats)-Green coalition with a strong sustainability-focus that determined long-term policy orientations. An influential Hanoverian politician characterized this as a “clear desire of the political majority to [...] realize sustainable city policies and to set the appropriate priorities [...] for 24 years [of] the same coalition [...] This continuity of policies allows for long-term strategies, which is a basis for sustainable development” (Mönninghoff, 2012: 4).

The collaborative support ostensibly given to projects by some public authorities might invite some further (cultural and social) institutional novelties within the local districts regarding SUD. The integration of Wunschproduktion and Stadtlabor within city-government programs – (Climate Masterplan and Mein Hannover 2030) (4.2.1) legitimised WLH’s concerns and orientation (4.2.2), and gave it a time-space to be potentially perceived by citizens (4.2.3). KdW-Fest, Wunschproduction/Stadtlabor occurred with a relative regularity (3-4 years / 30 days) while they structured a dynamic process (different formats, performance forms, timings), offering inhabitants time and possibilities to understand and adopt the cultural artistic expression of SUD-aims by the projects, within the existing values and habits of the neighbourhoods (4.2.3. and 4.2.4). Utopianale and Mitmachküche have, thanks to their regularity (4.2.3), and self-reported slowly-rising attendance (4.2.2), a growing potential to become institutionalised within

---

<sup>5</sup> An administrator at the Department of Education and Qualification, personal correspondence, 2015.



the existing Hanoverian ‘sustainability scene’ (4.2.5) and thus consolidate creative and/or culturally-driven forms of collaborative events (4.2.1) for SUD-oriented change-advocacy (4.2.4).

### **Hamburg cases**

The logic of the predominant neo-liberal government’s policy of Hamburg prevents the implementation of SUD-oriented aims in the city administration. In the ‘Hamburg sustainability report 2015’ the Zukunftsrat Hamburg (a network founded in 1996 with the aim to develop a local agenda 21, with currently over 100 member-organizations) assessed the city as having an unsustainable urban development policy, with strong social inequality (Zukunftsrat Hamburg, 2014). Also in the field of cultural policy, the orientation is mostly towards the economization of culture and is focused mainly on project funding for the local culture scene: In this context, all cultural spending is expected to bring direct returns on investments.

Furthermore, the institutional logic of Hamburg’s government restricts the participation of the population or local citizens’ initiatives to the levels of information or consultation<sup>6</sup> - mostly unable to incorporate bottom-up movements or to find a common base of communication and cooperation for an urban participation according to SUD. Consequently, we observe the emergence of cultural SoPs - carried forth by a coalition of social-cultural actors and bottom-up initiatives - in an ambivalent relationship to cultural policy, as the following cases demonstrate.

### ***Planbude***

PlanBude is an inter - and transdisciplinary team of artists, architects, urban planners

---

<sup>6</sup> For example during the planning phase of real-estate projects – as is also the case in Hanover.

and social workers, founded in 2014 with the purpose to initiate the participation process for the reconstruction of the “Esso houses” in the neighbourhood of St.Pauli, a functional building from the 1960s consisting of two residential blocks, a commercial building and the name-giving filling station, aiming to implement civil society approaches to SUD in Hamburg like social justice, democracy and neighbourhood empowerment (1.1). The driving force behind the team are two artists, Christoph Schäfer and Margit Czenki, who work since the 1990s at the interface of artistic participation, community empowerment and bottom-up urban development (1.1, 2.6) and took part with their neighbourhood project Park Fiction in the Documenta11 in 2002. Although the aims of Planbude are arts-based and sustainability-related, the initiative is more focused on “participatory culture“, “community organization“, “creativity” and “psychogeography” (1.5), and based on the theories of Lefebvre (1968), Alinsky (1971), or the French situationist (Debord 1955), than on a specific sustainability-discourse.

Thanks to broad activism from various ‘right to the city’ initiatives, local middle class and cultural celebrities – and given the practical knowledge of past successful political confrontation in the neighbourhood, bottom-up stakeholders (instead of an established agency) were able to submit a developed concept of early-participation process to the district Hamburg-Mitte. This was a novum in Hamburg’s urban development and a challenge because of the risk of an open-ended process (2.5).

To initiate this participation project an agreement was reached with the key players (public authorities, administration, private investor, neighbourhood representatives). The project, initially set up for six months with a 100,000 euros budget, was financed by the Department for Urban Development and the Environment, by request of the District Hamburg-Mitte (3.1).

In an independent, artistic, and open-ended process Planbude devised various creative methods (theme maps, self-assembly model or imaginary journeys) to create an emancipatory and democracy-based approach and 'low-threshold' access for the local residents, and to initiate a “production of desire” in the neighbourhood on multiple levels (1.2, 2.6, 2.7).

In two container-elements located in public space besides the demolished houses in St.Pauli (2.3.1), inhabitants could daily experiment and generate - in an abstract as well as hands-on manner - their ideas of desired future forms of social cohabitation and common-shaped spaces for living, working, meeting, social interaction and communication (e.g. a neighbourhood square with different social, technical and cultural uses) in an undetermined, protected, inspiring environment (2.1, 2.2, 2.3.3). In this manner the knowledge of the participants as experts of everyday life should enter the process, aiming at promotion of self-empowerment of an entire city district (1.1, 2.7). In other formats (such as neighbourhood conferences, workshops, and interactive events) every interested visitor could develop, negotiate or sharpen the future visions and conceptions of the process in dialog with the investor, politicians, Planbude, invited experts or other participants (2.3.2). Planbude is still involved in transversal networking beyond cultural networks and close collaborations (e.g. with other ‘right to the city’- organizations (e.g. Gängeviertel, Fablab) (2.4), with local school, seniors facility, refugee groups, merchants, cultural locations and universities to achieve a wider public.

The results of the artistic participation process became - in discussions involving multi-stakeholder and multi-expert collaboration (e.g. at political, administrative, neighbourhood and private sector levels) (3.1), the basis for the architectural competition for the site of the Esso-houses. The project also tried to reflect approaches to restore social justice and diversity (e.g. high levels of local authority housing,

specific social facilities or open workshops) as well as the appropriation of urban spaces by inhabitants (planning of the green zones and accessible roof areas, constructed niches) (1.1, 1.2). The neighbourhood suffers from the effects of gentrification, with the associated changes of social structure in this previously impoverished quarter. One specific focus lies on the idea of neighbourhood's 'anchor utilizations' which will offer open-source technologies and DIY-maker-culture (FabLab, multi-media workroom and open workshops), sustainable mobility ideas (cycling culture), interaction and educational opportunities for refugees, medical consulting and training-offerings for socially disadvantaged persons (e.g. drug users, sex workers) joined together in one building-complex (1.2). Although ecological ideas are part of the planned complex (eco-construction), Planbude consciously decided for social and cultural aspects of SUD as main topic, because of resource constraints (1.2, 1.4, 1.5).

### ***Hildegarden (or rather Keimzelle)***

'Hildegarden' is a planned building project on the roof of a former anti-aircraft-bunker in St.Pauli. In contrast to Planbude, it illustrates Hamburg's strong cultural policy-orientation toward a typically Floridian creative city discourse (Kagan and Hahn, 2011) (1.5) and the municipal approach to increase attractiveness through culture-based, public-private-partnership financed flagship projects (3.1).

The heritage-listed WW2-bunker would be extended by a five-storeyed construction costing €25M. (A third of the space is projected as public space, in particular green areas for community use, while the other part is to be used commercially: e.g. event halls, office spaces, hotel.) In the participation project 'Hildegarden', the local residents could take an active part in the realization of the public green areas and a small part of the indoor cultural and social rooms (1.2). The urban greening project intended - according to own statements - to develop a commons-

oriented neighbourhood approach (1.3) for an open experimental garden and community rooms (2.1, 2.3.1) for social-ecological projects, cultural exchange, sustainable energy and food production, or a plaque for WW2-victims (1.1.1). These refer to concepts of 'cradle to cradle', recycling, climate change adaption and progressive commemorative culture. Apparently the project fulfils several SoP-criteria...

However, the level of participation is in a lower range, including information and consultation, not a real cooperation (1.2). It simulates an open-ended democratic project while excluding the local residents from the planning. Participation only started after fully worked-out plans had already been presented to the public. The actual planning is under the direction of a Hamburg advertising agency that collaborates with the investor and current leaseholder. The qualities of SoPs like implementation of experimental spaces, creation of a space of imagination, involvement in transversal networking or substantial and creative participation of inhabitants are effectively not fulfilled (2.1, 2.2, 2.4, 2.7). The 'right to the city' movement in Hamburg fears that the purported participation and sustainable approaches are merely meant to create acceptance for the large-scale project in public, greenwashing being used to make a commercial use look socially acceptable. Already existing urban gardening projects such as Gartendeck, Keimzelle and KEBAP, as well as other 'right to the city' protagonists have criticised the project. These initiatives have for many years been working at the interface of community gardening, art and culture, science, sustainable consumption and social practices with SUD objectives (1.1).

For example Keimzelle, located in the direct vicinity of the bunker, has been trying since 2011 to encourage the establishment of a 'GRÜNAreal' - an artful (2.6), participative (1.2, 2.7), and politically reflexive (1.3) urban gardening project on the site of the old cattle-market hall next to the bunker, but the city rejected these plans due to

financial reasons. Over the years, Keimzelle received a few hundred euros from the cultural department; the city then utilized images of Keimzelle's urban interventions to market Hamburg as a 'creative city' (3.1).

For the planned investor project 'Hildegarden' however, the cultural department, in charge of the administration of the bunker as a historic monument, wants to extend the leasehold contract (ahead of schedule) until the end of 2092, waiving €2.5M of revenues on the grounds that space for cultural and leisure activities will be created (3.1). The roof garden appears to be another flagship project of unsustainable development, speeding-up the influx of tourists and the dynamics of gentrification.

Unlike Hildegarden, Keimzelle and Planbude (and more general Hamburg's 'Right to the City' network) explicitly aim to work against gentrification, and therefore strive to resist being utilized as purveyors of place-identity in order to boost real estate values.

### ***Institutional Innovations***

Hamburg's turn towards a neoliberal development policy started in 1983, when the SPD mayor proclaimed the concept 'Enterprise Hamburg' as new guiding principle. In 2008 this policy changed only marginally under the CDU-Green coalition, when Hamburg's urban development policy was slightly modified according to the slogan 'growth with foresight' and extended with a sustainable, socio-political and creative-cultural perspective, but remained strongly economy-oriented. The current SPD-Green coalition also follows this logic (4.2.5). These developments point to historical path-dependency in Hamburg, leading to lock-in-situations where transformation could be very difficult or even fail (4.2.3). Although Hamburg has committed itself to SUD, signing the charter of Aalborg in 1996, so far no programme exists (4.2.1) which obliges the implementation of an interdepartmental sustainability strategy.

Although the emergence of Planbude seems to be an indicator for the initiation of an institutional novelty for Hamburg's urban development policy and the future establishment of a new democratic culture of urban planning (4.2), the institutional logic of Hamburg's neoliberal policy is not fundamentally disturbed. Although the commission given by the district office for Planbude's open-ended artistic approach is an example of cultural policy for SUD, we don't perceive any normative or value-laden institutional changes (4.2.2). Hamburg's policy and city administration are unable to integrate these participative and democratic elements. According to the statements of the district office, the Planbude experiment should remain an exception: Too time-consuming, resource- and cost-intensive is the bottom-up activation of the neighbourhood, from the official perspective (4.2.2). The collected data of the Planbude process are intended to serve as a basis for future planning processes in the district without a renewed public participation.

Planbude emerged from a conflictual situation (evacuation of the ESSO-inhabitants, imposition of danger zones) and strong public pressure on authorities (4.2.3). At the social and cultural levels, Planbude itself has initiated II: The emancipatory and self-organized process has caused self-efficacy and neighbourhood empowerment, an encouraging sign for other Hamburg districts (4.2.4). District support legitimised Planbude to change the existing institutional setting (4.2.1). In political confrontations with the city administration, 'right to the city' initiatives refer to this novelty in the planning-culture and adopt the creative methods for their own projects. Even Hilldegarden appropriates artistic corporate identity and cultural elements from Planbude to imitate bottom-up approaches (4.2.4, 4.2.5).

The dominant political institutional logic also prevents transversal departments-partnerships and a new co-working culture within the city of Hamburg. In the case of

Planbude, there was no possibility to transversally-collaboratively coordinate the financing by different public authorities. Funding by the cultural department's 'art in public spaces' (3.1) covers only costs that are discretely identifiable as artistic activity.

The continued 'exchange-value'-oriented logic of Hamburg's culture department is evident with Hilldegarden (4.2.5). The relevance of existing urban gardening projects as SoPs was ignored, focusing instead on private-economic large-scale projects.

## **Conclusion**

In this article we conceptualized the interplay of institutional innovations, policy and Spaces of Possibility, supported by our empirical findings, attesting the impact of culturally-sensitive policy on the emergence of Spaces of Possibility for Sustainable Urban Development. Culturally sensitive SUD-oriented policies engage with culture in its wide definition (UNESCO 1982) and enable transversal partnerships horizontally - i.e. combining so-called "bottom-up", "top-down" and "sideways" processes, whereby artists and other cultural actors (in a narrower sense) are given the opportunity to play a central role beyond their own 'sector', together with a variety of urban actors from other 'sectors', in the inter- and trans-disciplinary process of transforming urban ways of life towards SUD - re-inventing possible worlds in SoPs by working on symbolic universes, imagination and experimentation. Policies for SUD, enabling the ongoing efforts of urban actors such as those we discussed, require institutional innovations allowing transversal collaboration between cultural policy and other policy areas. As the two cities of Hanover and Hamburg illustrate, different institutional logics and path dependencies affect the ways in which policy responds to new orientations of cultural actors. Thereby we take into account the limitations of this article, analyzing four cases in two cities and only considering sustainability-oriented cultural policy. While in one



city (Hanover) the latter allows the emergence of new partnerships, in the other city (Hamburg) it reinforces conflictive relationships.

From our wider empirical involvement in the two cities (beyond the four cases), we perceive two relatively diverging ways in which cultural actors who engage themselves for SUD are interacting with the city government and vice versa. In Hanover, various forms of partnerships between initiatives and the city administration exist, but remain generally small-scale in terms of funding. In contrast, the Hamburg administration finances wider-scale, flagship projects rather than small initiatives, which is not supportive of a participative shaping of the city as a cultural place. Also, probably due to historic path dependencies (as a Hanseatic city), Hamburg follows the logic of an economization of culture, embedded in a growth-oriented urban development. That allows only limited influence of the cultural department on the city's political orientations, as the Senator of cultural affairs, Barbara Kisseler stated (Kaiser, 2013). From that point of view it isn't surprising that in Hamburg we don't observe political innovations, but rather social innovations creating cultural SoPs towards SUD and vice versa. In opposite to this development, in Hanover we observe the slow and small-scale but steady development of cultural SoPs, carried forth by partnerships between the city and cultural actors, within an explicit long-term policy for sustainability, but with its cultural dimension remaining underfunded. Nevertheless this can be described as a political innovation.

Both cases exemplify the paradox ability of existing institutional path dependency to support II and SoPs: although path dependencies endeavour stability and resistance to change, they often allow (sometimes unintended) incremental transformations and II. In the case of Hanover those are intended, planned II towards more sustainability, while in the Hamburg case, the II are more "a means to an end" of

resolving conflict situation and of reaching the goals of effective investment. In result, the two cities serve divergent institutional logics leading to different levels of support for developing SoPs and II: While Hanover introduces some II and advances a relatively more sustainability-oriented, transversal, and collaborative cultural policy beyond established practices and predefined department boundaries and enables some limited SoPs (next to the persistence of a more traditionally sectorial cultural policy), the case of Hamburg describes a more business-logic oriented, “traditional” cultural policy which struggles with bottom-up movements and hardly performs any long-term support of SoPs. However, the latter case also describes how institutional paths of “neoliberal” policy could still support the development of SoPs when these contribute to the own “classic” stakeholder interests and to some desired “image” of having a participative, sustainability-open policy. Thus, in the case of Hamburg, the urban policy enables or merely tolerates SoPs and II as long as they don’t oppose with/or hinder the dominant institutional logic, respectively as long as the dominant logic “profits” from the SoPs, especially in terms of city marketing. Consequently, SoPs might paradoxically serve neoliberal developments instead of carving new transitions paths of experimentation for SUD. Besides, even in the case of Hanover, market logic regarding real estate prices still usually takes precedence over SUD, in cases when the lucrative redevelopment of large areas is expected<sup>7</sup>. Hence, even in the case of Hanover, SUD institutional logic

---

<sup>7</sup> One current example is "Wasserstadt Limmer", an urban redevelopment project on a former industrial site, whereby an early SUD-oriented collaboration with Transition Town Hannover was terminated after a couple of years of utopian experimentation and the grassroots activists were displaced, to be replaced by a major real estate investor. Through several participative consultation phases (see <https://wasserstadt-dialog.info/>), the municipality maintains some dialogue between the involved actors.

cohabitates with the dominant neoliberal logic. In a worst-case scenario, the emerging practices of transversal governance introduced through IIs in Hanover could effectively serve a neoliberal agenda as soon as the SUD-oriented policy would weaken.

In the case of a more neoliberal orientation in cities (such as in Hamburg), where alternative sustainability-oriented cultural actors require stable and supportive frameworks in order to create SoPs and support SUD, but conflict with the dominant policy logic, resolving these conflicts will not be an easy process. One strategic approach would be to generate a partial bifurcation in the urban policy, taking for example the cultural policy as a starting point, both as an heterodox autonomous policy sector and with a transversal hegemonic claim to invite a re-orientation of other policy sectors (i.e. operating a mix of competitive-antagonistic and cooperative dynamics with the other policy departments, still dominated by a neoliberal logic). This would first require a SUD-oriented leadership, critical of neoliberal developments, in e.g. at least the city's cultural policy department as a starting-point. It would involve the development of some (political, social and especially cultural) IIs beyond the already-known ways of cooperation and collaborations with the cultural actors. The process would need to build an acceptance of “alternative” cultural policies within the city, networked around diverse cultural organisations, grassroots and sustainability-oriented urban agents. It would ideally also develop platforms where various policy departments would be motivated to experiment more with a SUD-oriented and trans-departmental policy-logic, in a collaborative setting (departing from the dominant logic of competition between policy sectors). It does not necessary mean to immediately give up the existing dominant logic of growth and leadership, but to rather purposefully create or provide opportunities for II and SoPs for SUD and thus allow the development of a

sustainability logic and the pragmatic coexistence of multiple logics, whereby cultural policy may play a pioneering role in opening up an institutional transition.

The two selected cases are geographically limited to the German policy context whereby federalism, with municipal/states-level funding, a specific historical development of cultural policies (with e.g. "socioculture") and SUD-oriented policies, and the country's export-oriented economy (especially pregnant in Hamburg) constitute a specific mix of opportunities and challenges. This could be seen as a limitation of the study's global relevance. However, urban institutional contexts must always be understood within specific "inherited regulatory landscapes" and path-dependencies (Brenner and Theodore 2002). Furthermore, the main insights we draw and especially our framing of questions and criteria regarding the characteristics of SoPs, their relations to IIs and the paradoxical relations of SoPs and IIs to institutional path dependencies and neoliberal urban developments, are relevant to other cities worldwide. The dynamic relationship between the embedded neoliberal logic and emerging SUD-oriented logic, is a dilemma shared across cities worldwide, albeit in different contexts. Exploratory research that already identified SUD-oriented urban SoPs in Bangalore, Cluj-Napoca, Cologne, New York City, Oslo, Seoul and Singapore (Kagan 2016), or explored the relations of SoPs (under other names) to urban policies in Geneva (Froidevaux 2013), Mexico-City (Dieleman 2013), and George Town - Penang (Nadarajah 2007) would benefit from a similar analytical procedure as carried out here in order to more fully research the significance of SoPs for SUD. Future comparative research on this basis would allow identifying common patterns and potential leverage points for SUD-oriented interventions.

Our theoretical and empirical results show that municipal policy needs to assess its specific corridor of action to contribute to institutional innovations, thus increasing

the chances to enable the emergence of cultural spaces of possibility for Sustainable Urban Development.

Funding: [Will be added later, to avoid identifying authors during peer review...]

#### References:

- Ahern, J., Cilliers, S., & Niemelä, J. (2014). The concept of ecosystem services in adaptive urban planning and design: A framework for supporting innovation. *Landscape and Urban Planning*, 125, 254-259.
- Alinsky, S. (1971). *Rules for Radicals. A Pragmatic Primer for Realistic Radicals*. New York: Random House.
- André, I., Brito-Henriques, E., & Malheiros, J. (2009). Inclusive Places, Arts and Socially Creative Milieux. In D. MacCullum, F. Moulaert, J. Hillier, & S. Vicari Haddock (Eds.), *Social Innovation and Territorial Development* (pp. 149-166). Farnham: Ashgate.
- Batifoulier, P. (2001). *Théorie des Conventions*. Paris: Economica.
- Barthel-Bouchier, D. (2012). *Cultural heritage and the challenge of sustainability*. Walnut Creek, CA: Left Coast Press.
- Bianchini, F. (1993). Remaking European Cities: The Role of Cultural Policies. In F. Bianchini & M. Parkinson (Eds.), *Cultural Policy and Urban Regeneration: The West European Experience* (pp. 199-213). Manchester: Manchester University Press.
- Bianchini, F. (2004). Cultural Planning in Post-Industrial Societies. In K. Østergaard (Ed.), *Cultural Planning. Report from Conference at Centre for Urbanism* (pp. 13–24). Copenhagen: The Royal Academy of Fine Arts, The Royal Danish School of Architecture.
- Biggart, N. W., & Beamish, T. D. (2003). The economic sociology of conventions: Habit, custom, practice and routine in market order. *Annual Review of Sociology*, 29.
- Böhm, S., Pervez Bharucha, Z., & Pretty, J. (2014). *Ecocultures: blueprints for sustainable communities*. London: Routledge.

- Bonnett, M. (2002). Education for Sustainability as a Frame of Mind. *Environmental Education Research*, 8 (1) (February 1), 9–20.
- Brenner, N. (2013). Theses on Urbanization. *Public Culture*, 25 (1): 86-115.
- Brenner, N., & Theodore, N. (2002). Cities and the Geographies of “Actually Existing Neoliberalism”. *Antipode*, 34: 349–379.
- Brocchi, D. (2008). The Cultural Dimension of Sustainability. In S. Kagan & V. Kirchberg (Eds.), *Sustainability: a new frontier for the arts and cultures* (pp. 26-58). Frankfurt am Main: VAS – Verlag für akademische Schriften.
- Bruckmeier, K. (2015). Das systemtheoretische Denken in Human- und Sozialökologie in wissenschaftsgeschichtlicher Perspektive. In K.-H. Simon & F. Tretter (Eds.), *Systemtheorien und Humanökologie. Positionsbestimmungen in Theorie und Praxis*. München: oekom.
- Burford, G., Hoover, E., Velasco, I., Janoušková, S., Jimenez, A., Piggot, G., Podger, D., & Harder, M. K. (2013). Bringing the “missing pillar” into sustainable development goals: Towards intersubjective values-based indicators. *Sustainability*, 5(7), 3035-3059.
- Castree N., Kitchin R., & Rogers, A. (2013). Neoliberalism. In N. Castree, R. Kitchin & A. Rogers. *Dictionary of Human Geography* (pp. 339-340 ). Oxford: Oxford University Press.
- Chatterton, P. (2000). Will the real Creative City please stand up? *City*, 4: 390-397.
- Clark, W. C. (2007). Sustainability Science: A Room of Its Own. *Proceedings of the National Academy of Sciences of the United States of America*, 104 (6) (February 6), 1737–8.
- Comunian, R. (2011). Rethinking the Creative City: The Role of Complexity, Networks and Interactions in the Urban Creative Economy. *Urban Studies*, 48 (6), 1157-79.
- David, P. A. (1985). Clio and the Economics of QWERTY. *The American Economic Review*, 75 (2), 332-337.
- Davies, W. K. D. (2015). Background to Sustainable Cities. In W.K.D. Davies (Ed.), *Theme Cities: Solutions for Urban Problems* (pp. 151–205). Dordrecht: Springer Netherlands.
- Debord, G.(1955). Introduction à une critique de la géographie urbaine. *Les Lèvres Nues*, 6.

- De Flander, K., Hahne, U., Kegler, H., Lang, D., Lucas, R., Schneidewind, U., Simon, K., Singer-Brodowski, M., Wanner, M., & Wiek, A. (2014). Resilienz und Reallabore als Schlüsselkonzepte urbaner Transformationsforschung. *Zwölf These. GAIA – Ecological Perspectives for Science and Society*, 23 (3), 284-286.
- Dessein, J., Soini, K., Fairclough, G., & Horlings, L. (2015). *Culture in, for and as Sustainable Development. Conclusions from the COST Action IS1007 Investigating Cultural Sustainability*. Jyväskylä: University of Jyväskylä.
- Dieleman, H. (2008). Sustainability, Art and Reflexivity: why artists and designers may become key change agents in sustainability. In S. Kagan & V. Kirchberg (Eds.), *Sustainability: a new frontier for the arts and cultures* (pp. 108-146). Frankfurt am Main: VAS – Verlag für akademische Schriften.
- Dieleman, H. (2012). Transdisciplinary Artful Doing in Spaces of Experimentation and Imagination. *Transdisciplinary Journal of Engineering and Science*, 3, 44-57.
- Dieleman, H. (2013). Mexico City, sustainability and culture: A plea for hybrid sustainabilities for a baroque and labyrinthine city. *City, Culture and Society*, 4 (3), 163-172.
- DifU (2011). *Städte für ein nachhaltiges Deutschland. Gemeinsam mit Bund und Ländern für eine zukunftsfähige Entwicklung*. Berlin
- Eernstman, N., & Wals, A. E. (2013). Locative Meaning-making: An Arts-based Approach to Learning for Sustainable Development. *Sustainability*, 5 (4), 1645-1660.
- European Conference on Sustainable Cities & Towns (1994). *Aalborg Charter*. <http://www.sustainablecities.eu/aalborg-process/charter> Accessed 20.10.2015.
- European Conference on Sustainable Cities & Towns (1996). *The Lisbon Action Plan: From Charter to Action*.
- European Conference on Sustainable Cities & Towns (2004) *The Aalborg Commitments*. <http://www.sustainablecities.eu/aalborg-process/charter> Accessed 20.10.2015.
- Florida, R. (2002). *The rise of the creative class: and how it's transforming work, leisure, community and everyday life*. New York: Basic Books.
- Florida, R. (2005). *Cities and the creative class*. London: Routledge.
- Florida, R. (2007). *The flight of the creative class: the new global competition for talent*. New York: Harper Collins.

- Foucault, M. (1993). Andere Räume. In K. Barck (Eds.), *Aisthesis. Wahrnehmung heute oder Perspektiven einer anderen Ästhetik* (pp. 34–46). Leipzig: Reclam.
- Froidevaux, S. (2013). "60 x 60": From architectural design to artistic intervention in the context of urban environmental change. *City, Culture and Society*, 4 (3), 187-193.
- Geels, F. W., Elzen, B., & Green, K. (2004). General Introduction. System Innovation and Transition to Sustainability. In F. W. Geels, B. Elzen, & K. Green (Eds.), *System Innovation and Transitions to Sustainability: Theory, Evidence and Policy* (pp. 1-17). Cheltenham: Edward Elgar.
- Giddens, A. (1984). *The Constitution of Society*. University of California Press.
- Göhler, A. (2012). *Konzeptgedanken zur Errichtung eines Fonds Ästhetik und Nachhaltigkeit*. Berlin: Böll-Stiftung.
- Groß, M., Hoffmann-Riem, H., & Krohn, H. (2005). *Realexperimente. Ökologische Gestaltungsprozesse in der Wissensgesellschaft*. Bielefeld: Transcript.
- Harbord, J. (2016). Contingency, time and event. An archeological approach to the film festival. In M. de Valck, B. Kredell & S. Loist (Eds.), *Film Festivals: History, Theory, Method, Practice* (pp. 69-82). Abingdon: Routledge.
- Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, 14 (3), 575–99.
- Harvey, D. (1989a). *The condition of postmodernity*. Oxford: Blackwell.
- Harvey, D. (1989b). From Managerialism to Entrepreneurialism: The Transformation in Urban Governance in Late Capitalism. *Geografiska Annaler. Series B, Human Geography*, 71: 3-17.
- Hassan, A. M., & Lee, H. (2014). The Paradox of the Sustainable City: Definitions and Examples. *Environment, Development and Sustainability*, 17 (6), 1–19.
- Hens, L. (2010). The Challenge of the Sustainable City. *Environment, Development and Sustainability*, 12 (6), 875-76.
- Holz, V. (2010). Transkulturalität, Hybridität und neue Ethnizitäten im Spiegel der Diskussion um „Kulturelle Vielfalt“ im Rahmen einer Bildung für nachhaltige Entwicklung. In O. Parodi, G. Banse, & A. Schaffer (Eds.), *Wechselspiele: Kultur Und Nachhaltigkeit. Annäherungen an Ein Spannungsfeld* (pp. 275–292). Berlin: Edition Sigma.
- Holz, V., & Muraca, B. (2010). „Kultur“ als Herausforderung für die Nachhaltigkeitsforschung. Bericht vom 7. Workshop des Forums on Sustainable Technological



- Development in a Globalising World „Sustainability 2010: The Cultural Dimension. In Institut für Technikfolgenabschätzung und Systemanalyse (Eds.), *Technikfolgenabschätzung, Theorie und Praxis*, 19 (3) (pp. 120-124). Karlsruhe: ITAS.
- Holz, V., & Stoltenberg, U., (2011). Mit Dem Kulturellen Blick Auf Den Weg Zu Einer Nachhaltigen Entwicklung. In G. Sorgo (Eds.), *Die Unsichtbare Dimension. Bildung Für Nachhaltige Entwicklung Im Kulturellen Prozess* (pp. 15–34). Wien: Forum Umweltbildung im Umweltdachverband.
- Holz, V. (2016). *Bildung für eine nachhaltige Entwicklung: Kulturwissenschaftliche Forschungsperspektiven*. Opladen, Berlin, Toronto : Verlag Barbara Budrich.
- Hopkins, R. (2008). *The Transition Handbook: From Oil Dependency to Local Resilience*. White River Junction, VT: Chelsea Green Publishing.
- Hristova, S., Dragičević Šešić, M., & Duxbury, N. (2015). *Culture and Sustainability in European Cities. Imagining Europolis*. Abingdon: Routledge.
- ICLEI – Local Governments for Sustainability (2015). [http:// www.iclei.org](http://www.iclei.org) Accessed 20.10.2015.
- Ivakhiv, A. (1997). Ecocultural Critical Theory and Ecocultural Studies: Contexts and Research Directions. Paper presented at Cultures and Environments: On Cultural Environmental Studies, an On-Line Conference hosted by the American Studies Program, Washington State University, June 20-22. (1997). [http://www.uvm.edu/~aivakhiv/eco\\_cult.htm](http://www.uvm.edu/~aivakhiv/eco_cult.htm) Accessed 20.10.2015.
- James, P. (2015). *Urban sustainability in theory and practice: Circles of sustainability*. Abingdon: Routledge.
- Jeannotte, M. S. (2003). Singing alone? The contribution of cultural capital to social cohesion and sustainable communities. *International Journal of Cultural Policy*, 9(1), 35–49.
- John, B., Withycombe Keeler, L., Wiek, A., & Lang, D. J. (2015). How Much Sustainability Substance Is in Urban Visions? – An Analysis of Visioning Projects in Urban Planning. *Cities*, 48 (November), 86–98.
- Johannessen, J. (2013). Innovation: a systemic perspective – developing a systemic innovation theory. *Kybernetes*, 42 (8), 1195-1217.
- Jörissen, J., Kopfmüller, J., & Brandl, V. (1999). *Ein Integratives Konzept Nachhaltiger Entwicklung*. Karlsruhe: Forschungszentrum Karlsruhe Technik Und Umwelt – Wissenschaftliche Berichte, Vol. FZKA 6393.

- Kagan, S. (2008). Art effectuating social change: double entrepreneurship in conventions. In S. Kagan, & V. Kirchberg (Eds.), *Sustainability: a new frontier for the arts and cultures* (pp. 147–193). Frankfurt am Main: VAS – Verlag für akademische Schriften.
- Kagan, S. (2010). Cultures of sustainability and the aesthetics of the pattern that connects. *Futures*, 42 (10), 1094-1101.
- Kagan, S. (2011). *Art and Sustainability. Connecting patterns for a culture of complexity*. Bielefeld: transcript Verlag.
- Kagan, S. (2012). *Toward global (environ)mental change: Transformative art and cultures of sustainability*. Berlin: Heinrich Böll Stiftung.
- Kagan, S. (2014). The practice of ecological art. *Plastik*, 4.
- Kagan, S. (2015a). Artistic research and climate science: transdisciplinary learning and spaces of possibilities. *Journal of Science Communication*, 14 (1), C07.1-C07.8.
- Kagan, S. (2015b). Konvivialismus als Kunst und Komplexität als Erfahrung. In F. Adloff, & V. M. Heins (Eds.), *Konvivialismus – eine Debatte* (pp. 167–177). Bielefeld: Transcript Verlag.
- Kagan, S. (2016). The Emergence of Creative Sustainable Cities. In M. Ziehl, C. Rabe & T. Haupt (Eds.), *City Linkage: Art and Culture Fostering Urban Futures* (pp. 21-29). Berlin: Jovis Verlag.
- Kagan, S., & Hahn, J. (2011). Creative cities and (un)sustainability: From creative class to sustainable creative cities. *Culture and Local Governance*, 3 (1–2), 11–27.
- Kagan, S., & Verstraete, K. (Eds.). (2011). *Sustainable creative cities: The role of the arts in globalised urban contexts*. Singapore: Asia Europe Foundation.
- Kaiser, L. (2013). Kultursenatorin Kisseler über die freie Kulturszene „Das ist noch optimierbar“. *Taz.de*, 13. 3. 2013. <http://www.taz.de/!5071370/> Accessed 27.10.2016.
- Kester, G. (2011). *The One and the Many: Contemporary Collaborative Art in a Global Context*. Durham: Duke University Press.
- König, A. (2013). *Regenerative Sustainable Development of Universities and Cities. The Role of Living Laboratories*. Cheltenham: Elgar.
- Landry, C. (2000). *The Creative City: A Toolkit for Urban Innovators*. London: Earthscan.
- Landry, C. (2006). *The art of city making*. London: Routledge.
- Lefebvre, H. (1968). *Le droit à la ville*. Paris: Éditions Anthropos.

- Lehmann, S. (2010). Green Urbanism: Formulating a Series of Holistic Principles. *Sapiens*, 3 (2), .
- Loorbach, D. (2010). Transition management for sustainable development: A prescriptive, complexity-based governance framework. *Governance*, 23, 161–183.
- Mebratu, D. (1998). Sustainability and Sustainable Development: Historical and Conceptual Review. *Environmental Impact Assessment Review*, 18 (6) (November), 493–520.
- Meuleman, L. (2013). Cultural Diversity and Sustainability Metagovernance. In L. Meuleman (Eds.), *Transgovernance* (pp. 37–81). Berlin, Heidelberg: Springer.
- Mieg, H. A., & Töpfer K. (2013). *Institutional and Social Innovation for Sustainable Urban Development*. Oxon, OX: Routledge.
- Miller, T. R. (2011). *Constructing Sustainability. A Study of Emerging Scientific Research Trajectories*. Phoenix: Arizona State University. [PhD Thesis]. [https://repository.asu.edu/attachments/56608/content/Miller\\_asu\\_0010E\\_10655.pdf](https://repository.asu.edu/attachments/56608/content/Miller_asu_0010E_10655.pdf) Accessed 14.10.2016.
- Miles, M. (2014). *Eco-Aesthetics: Art, Literature and Architecture in a Period of Climate Change*. London: Bloomsbury Academic.
- Mönninghoff, H. (2012). Synergies between environment and economy within a city administration - experiences made by the City of Hannover/ Germany. *The Economy of Green Cities*, 3, 375-379.
- Morin, E. (1992). *Method. Towards a Study of Humankind, vol. 1*. Bern: Peter Lang.
- Mouffe, C. (2013). *Agonistics. Thinking the world politically*. London: Verso.
- Moulaert, F. (2009). Social Innovation: Institutionally Embedded, Territorially (Re)Produced. In D. MacCallum, F. Moulaert, J. Hillier, & S. Vicari Haddock (Eds.), *Social Innovation and Territorial Development* (pp. 11-24). Farnham: Ashgate.
- Moulaert, F., MacCallum, D., Mehmood, A., & Hamdouch, A. (2013). *The International Handbook on Social Innovation. Collective Action, Social Learning and Transdisciplinary Research*. Cheltenham: Edward Elgar.
- Moulaert, F., Martinelli, F., Swyngedouw, E., & González, S. (2007). Introduction: Social innovation and Governance in European Cities: Urban Development Between Path Dependency and Radical Innovation. *European Urban and Regional Studies*, 14 (3), 195-209.

- MWK Baden-Württemberg (2016). Baden-Württemberg fördert Reallabore.  
<https://mwk.baden-wuerttemberg.de/de/forschung/forschungspolitik/wissenschaft-fuer-nachhaltigkeit/reallabore/> Accessed 28.10.2016.
- Nadarajah, M. (2007). Culture of sustainability: Multicultural reality and sustainable localism - A case study of Penang (George Town), Malaysia. In M. Nadarajah, & A. T. Yamamoto (Eds.), *Urban crisis: Culture and the sustainability of cities* (pp. 107–133). Tokyo: United Nations University Press.
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- Ostrom, E. (2005). *Understanding institutional diversity*. Princeton: Princeton University Press.
- Ott, K. (2014). *Umweltethik Zur Einführung*. (2nd ed.). Hamburg: Junius Verlag.
- Overdeest, C., Bleicher, A., & Gross, M. (2010). The Experimental Turn in Environmental Sociology: Pragmatism and New Forms of Governance. In M. Gross, & H. Heinrichs (Eds.), *Environmental Sociology SE - 16* (pp. 279–294). Netherlands: Springer.
- Pallot, M., Trousse, B., Senach, B., & Scapin, D. (2010). Living Lab Research Landscape : From User Centred Design and User Experience towards User Cocreation. First European Summer School "Living Labs", Aug 2010, Paris, France. <https://halshs.archives-ouvertes.fr/inria-00612632/document> Accessed 14.10.2016.
- Peck, J. (2005). Struggling with the Creative Class. *International Journal of Urban and Regional Research*, 29(4), 740–770.
- Peck, J. (2007). The creativity fix. *Fronesis*, 24, 174–192.
- Pepper, D. (1996). *Modern Environmentalism. An Introduction*. London: Routledge.
- Ponzini, D., & Rossi, U. (2010). Becoming a Creative City: The Entrepreneurial Mayor, Network Politics and the Promise of an Urban Renaissance. *Urban Studies*, 47: 1037-1057.
- Powell, W. W., & Giannella, E. (2010). Collective Invention and Inventor Networks. In B. H. Hall, & N. Rosenberg (Eds.), *Handbook of the Economics of Innovation* (pp. 575-605). Amsterdam: Elsevier.
- Raffaelli, R., & Glynn, M. A. (2015). Institutional Innovation: Novel, Useful, and Legitimate. In C. E. Shalley, M. A. Hitt, & J. Zhou (Eds.), *Oxford Handbook of*

- Creativity, Innovation, and Entrepreneurship: Multilevel Linkages* (pp. 407-420). Oxford: Oxford University Press.
- Rana, R. S. J. B., & Piracha, A. L. (2007). Cultural frameworks. In M. Nadarajah & A. T. Yamamoto (Eds.), *Urban crisis: Culture and the sustainability of cities* (pp. 13–50). Tokyo: United Nations University Press.
- Ratiu, D. E. (2013). Creative Cities and/or Sustainable Cities: Discourses and Practices. *City, Culture and Society*, 4 (3): 125–135
- Rink, D., Banzhaf, E., Kabisch, S., & Krellenberg, K. (2015). Von der „Großen Transformation“ zu urbanen Transformationen. Zum WBGU-Hauptgutachten Welt im Wandel. *GAIA - Ecological Perspectives for Science and Society*, 24 (1), 21–25.
- Rotmans, J., Kemp, R., van Asselt, M. B. A., Geels, F., Verbong, G., & Molendijk, K. (2001). *Transitions & Transition management: The Case for a Low Emission Energy Supply*. Maastricht: ICIS.
- Rowson, J. M. (1997). *Community-based Sustainability and the construction of Difference on Galiano Island, British Columbia*. Vancouver: University of British Columbia.
- Sawyer, K. R. (2003). *Group creativity. Music, theater, collaboration*. Mahwah, N.J.: L. Erlbaum Associates.
- Schneidewind, U., & Scheck, H. (2013). Die Stadt Als „Reallabor“ Für Systeminnovationen. In J. Rückert-John (Eds.), *Soziale Innovation Und Nachhaltigkeit: Perspektiven sozialen Wandels* (pp. 229–248). Wiesbaden: Springer Fachmedien.
- Schwarz, M., Birke, M., & Beerheide, E. (2010). Die Bedeutung sozialer Innovationen für eine nachhaltige Entwicklung. In J. Howaldt, & H. Jacobsen (Eds.), *Soziale Innovation - Auf dem Weg zu einem postindustriellen Innovationsparadigma* (pp. 165-180). Wiesbaden: VS-Verlag.
- Scott, A. J. (2006). Creative cities: conceptual issues and policy problems. *Journal of Urban Affairs*, 28(1), 1–17.
- Scott, A. J. (2007). Capitalism and urbanization in a new key? The cognitive-cultural dimension. *Social Forces*, 85(4), 1465–1482.
- Sitrin, M. (2007). Ruptures in imagination: Horizontalism, autogestion and affective politics in Argentina. *Policy & Practice: A Development Education Review*, Vol. 5, Autumn, 43-53.

- Springett, D. (2013). Editorial: Critical Perspectives on Sustainable Development. *Sustainable Development*, 21 (2) (March 1), 73–82.
- Slack, J. D., & Whitt, L. A. (1992). Ethics and cultural studies. In L. Grossberg (Eds.), *Cultural Studies* (pp. 571-590). New York: Routledge.
- Steiner, G. (2014). Complex human & environment systems: new conceptual paradigms and transdisciplinary approaches. *Journal of Cleaner Production*, Vol. 68, 279-280.
- Stoltenberg, U., & Michelsen, G. (1999). Lernen nach der Agenda 21: Überlegungen Zu Einem Bildungskonzept Für Eine Nachhaltige Entwicklung. In U. Stoltenberg, G. Michelsen, & J. Schreiner (Eds.), *Umweltbildung - Den Möglichkeitssinn wecken* (pp. 45–54). Schneverdingen: Alfred-Toepfer-Akad. für Naturschutz.
- Thornton, P. H., & Ocasio, W. (1999). Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958-1990. *American Journal of Sociology*, 105 (3), 801-843.
- United Nations (1992). *Agenda 21: The United Nations Programme of Action from Rio*. New York: UN Department of Public Information.  
[http://www.un.org/esa/dsd/agenda21/res\\_agenda21\\_00.shtml](http://www.un.org/esa/dsd/agenda21/res_agenda21_00.shtml) Accessed 20.10.2015.
- UCLG (United Cities and Local Governments) (2004). *Agenda 21 for culture*. Barcelona: UCLG. <http://www.agenda21culture.net/> Accessed 20.10.2015.
- UN Habitat (2009). *Planning Sustainable Cities: Global Report on Human Settlements 2009 (Full Report)*. Nairobi: UN Habitat. <http://unhabitat.org/books/global-report-on-human-settlements-2009-planning-sustainable-cities/> Accessed 20.10.2015.
- UN Habitat (2011). *Cities and Climate Change: Global Report on Human Settlements 2011 (Full Report)*. Nairobi: UN Habitat. <http://unhabitat.org/books/cities-and-climate-change-global-report-on-human-settlements-2011/> Accessed 20.10.2015.
- UN Habitat (2013). *Planning and Design for Sustainable Urban Mobility: Global Report on Human Settlements 2013 (Full Report)*. Nairobi: UN Habitat. <http://unhabitat.org/books/planning-and-design-for-sustainable-urban-mobility-global-report-on-human-settlements-2013/> Accessed 20.10.2015.

- UNESCO (1982): *Mexico City Declaration on Cultural Policies. World Conference on Cultural Policies*. Paris: UNESCO.  
[http://webarchive.unesco.org/20151216000346/http://portal.unesco.org/culture/en/files/12762/11295421661mexico\\_en.pdf/mexico\\_en.pdf](http://webarchive.unesco.org/20151216000346/http://portal.unesco.org/culture/en/files/12762/11295421661mexico_en.pdf/mexico_en.pdf) Accessed 01.06.2017.
- UNESCO (2013a): *Creative Economy Report (2013)*. Paris: UNESCO.  
<http://unesco.de/kultur/2013/creative-economy-report-2013.html> Accessed 27.09.2016.
- UNESCO (2013b): *Create Cities Network. Mission Statement*. Paris: UNESCO.  
[https://en.unesco.org/creative-cities/sites/creative-cities/files/Mission\\_Statement\\_UNESCO\\_Creative\\_Cities\\_Network.pdf](https://en.unesco.org/creative-cities/sites/creative-cities/files/Mission_Statement_UNESCO_Creative_Cities_Network.pdf)  
Accessed 27. 09. 2016
- Vojnovic, I. (2014). Urban Sustainability: Research, Politics, Policy and Practice. *Cities* 41, Supple (July), 30 - 44.
- WBGU (Wissenschaftlicher Beirat für Globale Umweltveränderungen) (2011a). *Globale Megatrends, Factsheet Nr. 3 / 2011*. Berlin: WBGU.
- WBGU (Wissenschaftlicher Beirat für Globale Umweltveränderungen) (2011b). *World in transition – a social contract for sustainability*. Berlin: WBGU.
- Weintraub, L. (2012). *To life!: eco art in pursuit of a sustainable planet*. Berkeley: University of California Press.
- Welzer, H. (2011). *Mentale Infrastrukturen: Wie Das Wachstum in die Welt und in die Seelen Kam*. Berlin: Heinrich Böll-Stiftung.
- Welzer, H., & Rammler, S. (2012). *Der Futurzwei Zukunftsalmanach 2013. Geschichten vom guten Umgang mit der Welt*. Frankfurt am Main: Fischer-Taschenbuch-Verlag.
- Wiarda, H. (1987). Ethnocentrism and third world development. *Society*, 24(6), 55–64.
- Worts, D. (2006). Fostering a culture of sustainability. *Museums & social issues*, 1.2, 151-172.
- Xu, L., Marinova, D., & Guo, X. (2015). Resilience thinking: a renewed system approach for sustainability science. *Sustainability Science*, 10(1), 123-138.
- Ziehl, M., Oßwald, S., Hasemann, O., & Schnier, D. (2012). *Second Hand Spaces – Recycling Sites undergoing Urban Transformation*. Berlin: Jovis Verlag.
- Zukunftsrat Hamburg (2014). *Hamburger Nachhaltigkeitsbericht 2015*. Hamburg: Zukunftsrat Hamburg.

[http://www.zukunftsrat.de/fileadmin/pdf/allgemeine\\_Veranstaltungen/2015\\_Nachhaltigkeitsbericht.pdf](http://www.zukunftsrat.de/fileadmin/pdf/allgemeine_Veranstaltungen/2015_Nachhaltigkeitsbericht.pdf) Accessed 28.10.2016