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# Temporary Use & Collective Action: How Urban Planning Practices Contribute to Adaptive Capacity Building for Economic Resilience

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Amongst the proliferation of practice- and theory-based concepts that are changing urban planning, the renaissance of *resilience* is proving its potential for impressive implications instead of remaining a brief trend. This paper considers the affordances of an evolutionary and adaptive resilience framing for planning policy and practice in relation to economic development. Specifically, the research presented here explores the explanatory and analytical values of resilience through transformative collective action that incites experimentation, social learning and adaptive capacity building through entrepreneurial temporary uses. In the spotlight is Bremen's temporary use policy of *ZwischenZeitZentrale*, through which temporary use is managed in the wake of economic and structural change. This softer form of policy demonstrates how planning mechanisms can complement strategies to address hurdles following gradual forms of crises. Through the case study of *Plantage 9*, an illustration of collective action is anchored by entrepreneurial temporary use that enable temporary users, temporary use managers and public administrations to build adaptive capacity for economic resilience.

**Keywords:** Evolutionary resilience, experimentation, social learning, adaptive capacity, temporary use, Bremen

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### Introduction

In the context of urban planning, the resilience debate is ongoing and its momentum remains strong. Global policy and support through organizations such as the UN (UN-Habitat, 2017), the International Institute for Sustainable Development and ICLEI – *Local Governments for Sustainability* or institutions such as the Rockefeller Foundation (Silva, 2015) fuel its conceptual and political resurrection, while compelling its proponents for greater constructiveness. In contrast to clear and immediate policy outcomes, such as funding for Chief Resilience Officers (Rodin, 2014; Silva, 2015) and reference compendiums (European Commission, 2015), the conceptual translation of resilience for communities and the built environment continues to demand granular nuance and socially coherent framing. This contribution responds to this need by examining planning practices in the context of economic development that combine what Ernstson and other colleagues identify as an understanding of evolutionary resilience ‘in’ cities which is reliant on intrinsic city capacities and networks, as opposed to those that are external and thus ‘of’ cities (2010). Backgrounded by research from the fields of regional studies and economic geography which have broached the resilience concept since the mid-2000s (Swanstrom, 2008; Pike *et al.*, 2010; Simmie & Martin, 2010; Courvisanos *et al.*, 2014, p. 630; Boschma, 2015), this humble exploration examines how temporary uses facilitate adaptive capacity building through collective action and enables communities to, as articulated by Holden *et al.*, ‘correlate possibility’ (2016, p. 298) for economic development and bounce forward toward futures different from historical paths. The additional and analytical opportunities sought through this contribution, are for new encounters with resilience within planning (Stumpp, 2013, pp. 164–166) by examining how temporary use facilitates 1) processes of experimentation and social learning; which can be aggregated to 2) support collective action and agency; to 3) encourage adaptive capacity for economic development. The specific example of the *ZwischenZeitZentral* (ZZZ) and the temporary use case study of *Plantage 9* in the German city of Bremen illustrate the instrumentation of temporary use and discusses its contribution to collective action and adaptive capacity building.

### Initial Understanding of Economic Development through Evolutionary Resilience and Adaptation

Numerous attempts to shed light on the complexities of urban and economic transitions range from path dependence to path divergence, and increasing regional economic adaptability to support the latter. For instance, Pike *et al.* discuss and distinguish agents, mechanisms, and sites and interrelationships within uneven and new economic development paths of different geographical regions (2010) whereas Martin proposes a more systematic approach to understanding differences in patterns that help regional economic react (2011). Both of their work acknowledge Swanstrom’s argument for stronger political and social perspectives within a resilience framing of regional economics and forces of influence (2008). A common condition in these conceptualizations of resilience is that *transition* is depicted upon a canvas of economic and structural crises, where change is gradual as opposed to the more popular focus on sudden and unexpected natural catastrophes (Pendall *et al.*, 2010; Simmie & Martin, 2010; Boschma, 2015). According to Boschma, the by-product of neglecting gradual change is a need to counterbalance the general understanding of resilience within economic development contexts and specifically in relation to lethargic patterns of renewal (Boschma, 2015, p. 735). To achieve this, Boschma recommends investigating regional development of adaptability or abilities to cope with change through path creation and relevant linkages to local-level mechanisms (2015). Correspondingly, this contribution aims to help hone the conceptual utility of resilience by considering how planning mechanisms like temporary use offers opportunities to link local practice and policy with regional strategies for economic resilience through capacity building and learning involving entrepreneurial temporary users.

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The following sections will first introduce temporary use in the context of economic and industrial change specific to the German context and then highlight how collective action relates to such planning approaches. Following this, a detailed introduction of the case study in the city of Bremen will follow, and provide the storyboard for analytical considerations on how temporary use and collective action are manifest and contribute to economic resilience. In closing, reflections on the opportunities and challenges will be summarized to more critically conceive temporary use as an adaptive planning mechanism with the potential amplify a readiness, instead of a resistance to change.

In the context of economic and political restructuring, experiments with temporary use has a rich history. Experimental land use and programming has established itself as a means to facilitate or complement urban regeneration within shorter time-frames and also as a part of longer-term transformations (Andres, 2012, pp. 759–760). Temporary use's history with regeneration also has strong roots in the German context. Since the decades following WWII, economic and political change has compelled German cities to find solutions for increasing inner city vacancy, growing number of brownfields, shrinking populations, while also compensating for decreasing public and private investment for longer term uses (Blumner, 2006; Zehner & Hoffmann, 2007). *Zwischennutzung* or more literally 'interim use' emerged as the German response for temporary activation of vacant lands or buildings which also contributes to sustainable and dynamic urban development (Blumner, 2006; BMVBS & BBR, 2008). According to scholars such as Colomb, this notion of temporary use physically manifested through slow, uneven growth and rebranding strategies that shadowed socio-political and socio-economic restructuring most impressively in eastern Germany (2012a) which suffered from political and economic crises (Overmeyer, 2003; Hollander *et al.*, 2009; Bishop & Williams, 2012; Colomb, 2012a; Oswalt *et al.*, 2013). Its subsequent manifestations have since gained attention as a means to 'more substantial investments' and greater 'larger scale efforts' (Arieff, 2011; Colomb, 2012a; Lydon *et al.*, 2012; Ferreri, 2015) to intervene for urban renewal while also building social agency and socio-economic capacity (Webb, 2018). Many examples of temporary urban interventions in the German context were found to be effective means to 'hold' or stabilize and property values' (Hollander *et al.*, 2009), and were even promoted and shared through design, finance, and policy templates (Blumner, 2006; Hollander *et al.*, 2009; Colomb, 2012a).

The measure's effectiveness and relevance in other parts of Germany, however, is often neglected (Altrock & Huning, 2015, pp. 151–152). A well-recognized example is supported through the post-industrial legacy established in the Ruhr region (Dettmar, 2005, pp. 264–266). Differences in geographical framing aside, temporary use advances an interesting angle to managing physical and social adaptation. While the nature of the practice is embedded in planning practice, it reflects characteristics of adaptive management such as 'learn-by-doing' and 'experimental probes' that may contribute to adaptation (Ahern, 2011, p. 341). This also mirrors philosophies that emphasize new learning in the face of failure which engaged early resilience scholarship from ecosystem and resource management (Bruckmeier, 2016, p. 235) in the 1970s (Bodin *et al.*, 2011, p. 10).

Indeed, this form of management is highly relevant in planning studies when one considers the demands from crises and uncertainty which require innovative policy and governance design (Voß & Bornemann, 2011, p. 2) and a readiness through resilience-oriented planning and design strategies characterized by multifunctionality, (bio)diversity, multiscale networks, redundancy and modularization, and adaptive capacity (Ahern, 2010, p. 145). Looking to temporary use practices, it is not experimentation alone that may contribute to resilience and adaptation. Indeed, experimentation coupled with indicators of social learning (Cretney, 2014, pp. 630–631) and collective action (Taşan-kok *et al.*, 2012, p. 43) have been highlighted as

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qualities to build or strengthen in order for communities to build the capacity to adapt. Interestingly, the focus on such qualities is sparse and has only recently been picked up in a comparative context of post-disaster recovery (Wesener, 2015). This contribution will address strengthen this gap in research and its linkage to existing scholarship examining social processes (Hou, 2010; Altrock & Huning, 2015; Tornaghi & Knierbein, 2015) that afford the recognition of paradigmatic shifts in planning which no longer strictly dichotomizes the formal and informal (Matthiesen *et al.*, 2014, p. 88).

Through a resilience perspective, the dimensions of experimentation and social learning for adaptivity capacity building are not only present in temporary uses, but they are also socially-sensible indicators for resilience (Carpenter *et al.*, 2002; Bodin & Prell, 2011). The exploration of their presence as impacts and qualities is also a way to address epistemological challenges that have been identified in translating resilience, as an ecological construct, into the social realm. This is because of the affordances they provide in considering of dimensions such as agency, power, and equity (Biermann *et al.*, 2015, pp. 1–2). To constructively hone the utility of resilience within the social realm, this contribution engages such socially analytical qualities. Lastly, this contribution acknowledges that such social considerations should consider politics since an apolitical treatment of resilience concepts threatens to undermine its utility (Swanstrom, 2008; Cretney, 2014; Biermann *et al.*, 2015, p. 3; Pizzo, 2015). However, thorough discussion on this last matter, will not be included as it is out of the scope of this contribution.

### **Incremental Instead of Industrial: Temporary Use and Collective Action**

As elucidated earlier, the constraints following structural and economic crises give rise to urban voids in which opportunities for local and incremental action can root. In many examples of temporary incrementalism supported by multi-level governmental programs and schemes<sup>1</sup>, the practices also become participatory processes that synthesize social and economic strategies for renewal which often include or support small and medium enterprises or alternative and cultural initiatives. Empty spaces and buildings through temporary use evolve into spatial canvases for urban development. Brush stroke experiments and inspiration are primed and brought to life to infuse collaborative relationships between many diverse actors. In these circumstances, the actors or temporary users may push beyond experimental engagement and also become active curators or agents with the creative capacity to orchestrate adaptive reuse of abandoned buildings. This is most often only possible with public administrative guidance and support to help implement their ideas and produce new modes and complex systems of governance (Blumner, 2006; Colomb, 2012b; Willinger, 2014, pp. 148–149; Altrock & Huning, 2015) which are also relational means of community empowerment and activation (Wohl, 2017, p. 3). The temporary practices from individual entrepreneurs are then pointillist in nature compared to grand strategies for economic development. What the practices and users also represent is opportunism through individual and collective action (Ernstson, 2011, pp. 276–277) for new ideas within alternative spaces and in effect, seek operational feasibility, creative development, in addition to sustainability for income generating (Malki, 2009, p. 72). The aim for economic advantage, however, does not lie with the user alone, but can also extend to properties and sites after the uses have improved their value and rendered them attractive again for future investment of development (Blumner, 2006, p. 9). Contrasting the rewards, however, are vulnerabilities to mind. From a public administration's position, risks are entangled in the process of participation and engagement

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<sup>1</sup> Public funding is channelled through programs such as *Stadtumbau Ost* (Rebuilding the East), *Stadtumbau West* (Rebuilding the West), *Soziale Stadt* (Social City) or the IBA - *International Bauausstellung* (International Building Exhibition) [Click here to enter text.](#)

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which often relies on external funding from regional and federal governments as opposed to the inherent and existing budgets (Blumner, 2006, pp. 4–5). Risk can also be perceived from the users' standpoint as they have no guarantee of continued access to spaces despite the value of time and effort and other resources they contribute to the improved valorization of both properties and places (Blumner, 2006, pp. 4–5). Future conflicts are often contingent on many uncertainties including the ambiguous state of access and exclusive understanding of ownership in most temporary use contexts. In short, while temporary use offers some measures towards a collective and contextualized means of economic resilience, it can also lead to its own path-dependence when new learning and experiments are not successful or exploitable and may further seed unnecessary future tensions.

On its own, temporary use as a planning instrument is ambivalent and a means to achieving urban regeneration goals. Along with planning processes as well as legislation, its successful implementation can pave steps towards economic rewards in the form of increased value or investment potential. But the less tangible and perhaps more valuable contribution it offers is a social capacity for economic development through additional entrepreneurial dimensions. When temporary uses bring together collective actions that share social interest, then the intentions of 'planned actions aimed at widening and opening specific decision-making processes towards experimental models of democracy' surface as forms of both effective and autonomous governance (Liddo & Concilio, 2017, pp. 848–849). Collective agency, in this light, has the potential to aggregate and contribute to a greater capacity for institutional change in which networks of individuals participate in exchange and collaborations. This is relevant to temporary use initiatives which facilitate and coordinate such collective agency, through experimentation to negotiate common visions while also building change agency overtime (Ernstson, 2011, pp. 255-256).

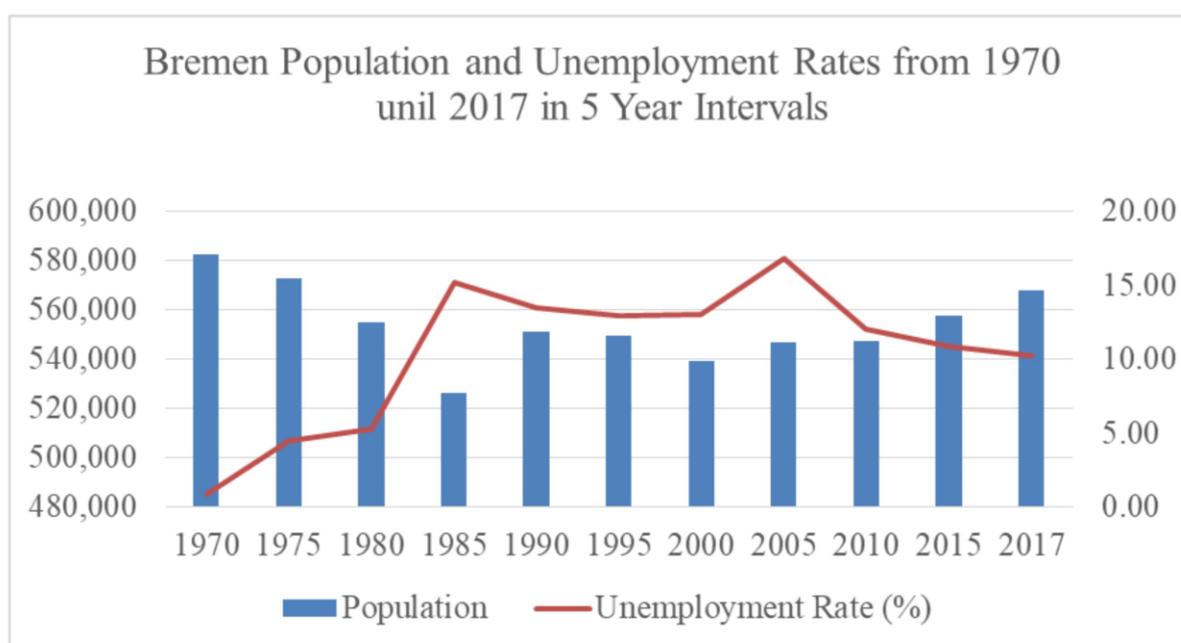
While Ernstson's description of collective action refers to resilience in the context of resource management, his approach to this type of group theory is also suitable for the analytical framing of temporary use. Despite the fact that this interpretation of collective action draws meaning from co-management in explicit natural resource contexts (Berkes, 2009, p. 1692), its social implications for contexts that are too complex to be adaptively managed by singular agencies are still appropriate for land use management in Bremen. The indirect management of land use through temporary use in Bremen is implemented with sustainable aims to create 'second hand spaces' through collective action to not only manage urban space and functions, but also to adapt attitudes about the practice through experimentation and learning (Kil, 2014, p. 125). The ensuing sections introduce the industrial and economic context of Bremen and describe the development of temporary use through the *ZwischenZeitZentral* Bremen (In-Between Time Central Bremen, ZZZ). The specific case study of *Plantage 9* will illustrate the process of collective experimentation and learning which continues to fuel entrepreneurial agency in Bremen and draws from materials including document analysis, interviews from field work between 2015 and 2016, in addition to recent interviews for graduate field work in 2018 and 2019.

### Introducing Economic Transitions in the Bremen Context

As a mid-sized, harbour town, Bremen's urban and economic development exemplifies aims to break away from path-dependency and towards innovation through higher and local-level strategies (Plöger & Kohlaas-Weber, 2013). The city's development historically depended on trade and port activities which date as far back as the 13<sup>th</sup> century, when it was an intermittent member of the Hanseatic League (Plöger, 2008a, p. 5). This remained true even as Bremen developed into a key industrial city in the early 20<sup>th</sup> century (Plöger, 2008a, p. 4; Hasemann et al., 2017). From the late 1880s until the early 20<sup>th</sup> century, the city profited from shipping

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and emigration activity which passed through harbours located in Bremen and the neighbouring area of Bremerhaven until industrial activities shifted to shipbuilding and arms manufacturing. This lasted until the Second World War, after which American occupation helped Bremen secure its administrative city-state status. Economic development through harbour and industrial activities at this time continued while new sectors targeting machine and engineering industries, and food processing emerged. This changed, however, with the onset of the Oil Crisis in 1973. Despite maintaining a strong economy at first, Bremen's economic prosperity was eventually undermined by the transition from Fordist to Post-Fordist manufacturing which manifested in the 1980s (Plöger, 2008b; Hasemann & Schnier, 2014; URBACT, 2015). Key traditional sources of employment such as shipbuilding companies closed, and were only slightly compensated for by a few new companies in alternative industries such as auto manufacturing (Plöger, 2008a, pp. 14–20); the region suffered subsequently as unemployment climbed and the population declined (see figure 1).



**Figure 1.** Population and unemployment statistics from the Federal Office of Labour.  
Source: Das Statistik-Portal (2019).

Clearly, the traditional economic bases were no longer reliable and a struggle to economically adapt ensued. The challenges for the city and region were further exacerbated by suburbanization and federal tax reform in 1969 which reduced municipal budgets since taxes were no longer collected based on people's municipality of work, and instead based on their residential locations (Plöger, 2008a). Not only did municipal budgetary pressures increase, but so did the number of brownfields and vacancies. In response to the economic decline and urban dereliction, regional and metropolitan economic and innovation programs as well as municipal and neighbourhood level regeneration projects were initiated (Plöger, 2008a; ZZZ - ZwischenZeitZentrale Bremen, 2012; Hasemann *et al.*, 2017) to support and improve regional economic resilience (Plöger, 2008a, 2008b; Power *et al.*, 2010). At the same time, local and site-specific instruments such as temporary use were formally integrated in 2007 when the municipality launched its first temporary use agency and experiment through LANDLOTSSEN (Hasemann *et al.*, 2017). Upon this pilot project's success in the *Überseestadt* (Overseas City District), the Bremen public administration applied for funding through the Federal Ministry of

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Transport, Building and Urban Development and the Federal Institute for Research on Building, Urban Affairs, and Spatial Development and relaunched the temporary use platform through the ZZZ with funding from the *Nationale Stadtentwicklungspolitik* (National City Development Policy) and the Social City programs (Elisei, 2014; URBACT, 2015; Hasemann *et al.*, 2017; Lecke-Lopatta, 2018).

With supplementary support from the city-state government departments such as the Senate for Building, Environment, and Traffic, the Senate for Financial Affairs, the Senate for Economic Affairs, Labour and Ports, and federal- and municipal- level governments, the pilot agency was handed over to Oliver Hasemann and Daniel Schnier from the *Autonome Architektur Atelier* (Autonomous Architectural Atelier, AAA) who previously provided consulting for urban projects and were active temporary users of vacant spaces in 2009 (URBACT, 2015; Hasemann *et al.*, 2017). Due to AAA's direct experience with temporary use and their local involvement with supporting start-ups, the duo secured the tender to manage and expand Bremen's temporary use policy to municipal, instead of district boundaries. Following the preceding planning office of *BPW Baumgart+partner*, who managed LANDLOTSSEN, AAA evolved into on-site temporary users for their future projects with responsibilities to manage the ZZZ. In parallel, they liaised officially through ZZZ with the private and public property owners including the publicly owned company *Immobilien Bremen* (Real Estate Bremen, IB), as well as the local economic development agency *Wirtschaftsförderung Bremen* (Economic Development Bremen, WfB) to support negotiation and implementation processes for temporary use (Take & Tendahl, 2019).

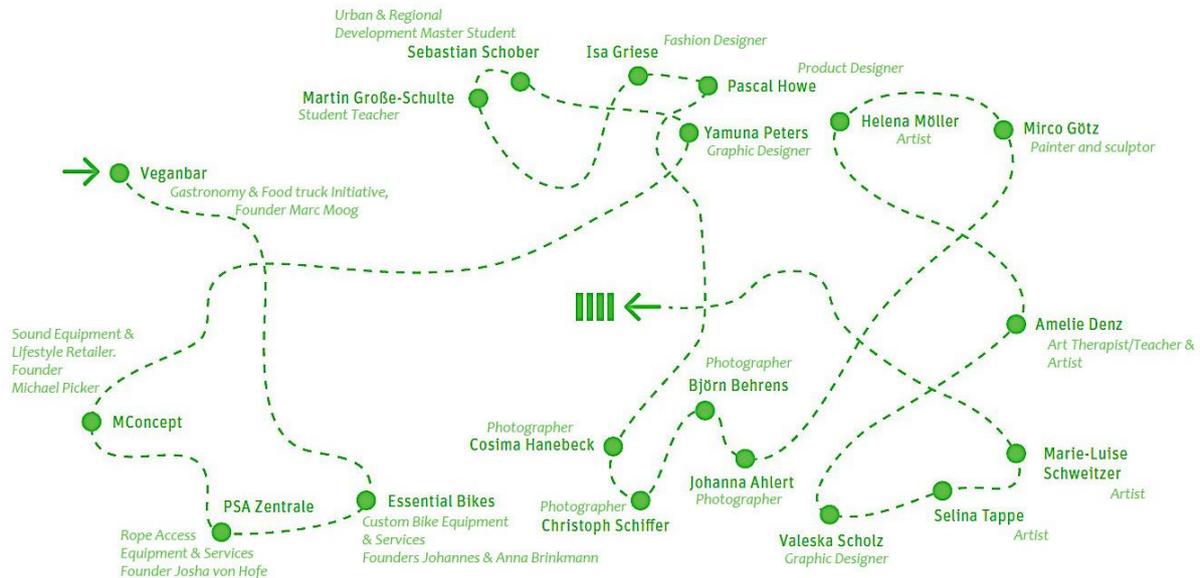
In addition to this constellation of public stakeholders, temporary users in the form of small-medium businesses would also be engaged as a new means of invigorating the economy through the cross-sectoral and 'soft urban policy' which the ZZZ represented to build project-based synergies and encourage meaningful urban transformation in the form of bottom-up collaborations through alternative socio-economic and cultural behaviours (Elisei, 2014; Hasemann & Schnier, 2015b; Lecke-Lopatta, 2018). This would also support local trajectories which helped transition from 'old economy' industries dependent on shipyards and maritime industries, to 'new economy' activities dependent on tourism funding and entrepreneurial experiments including the collective at *Plantage 9* (Hasemann & Schnier, 2014; Pala, 2019).

### **A Case Study of Experimentation and Social Learning: Collection Action through Temporary Use at *Plantage 9***

*Plantage 9* began as *Bricolage Plantage* early in 2009 and was an initial and still sustaining outcome of AAA's central orchestration and steering of temporary use activities through the ZZZ. Beyond simply filling vacant spaces, ZZZ experimented with temporary users and uses by recruiting, curating and matching diverse mixes of users to available and appropriate sites. Earlier plans for *Plantage 9* reflected in zoning and land use plans indicated that the building would be demolished so that a connecting road could be built. Eventually, this was prevented when the technical challenges in realizing the road construction emerged; the municipality was at a loss as to how it could find another use for the site (Hasemann & Schnier, 2015b; Scholz & Mollenhauer, 2018). After the ZZZ approached and convinced the municipality to allow temporary users to access the site, a personable process and programme was accepted by all public administration stakeholders to help revitalize the site and also contribute to the urban district of Bremen West which had been hit hard by unemployment and social integration challenges (Hasemann & Schnier, 2015b; Pala, 2019). According to ZZZ and confirmed by temporary users, *Plantage 9* became the working home for 30 multifaceted users including artists, photographers, culinary entrepreneurs, university graduates and teachers. This diverse group made use of the building's combination of rooms and spaces as offices,

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warehouses, workshops, social space and canteen facilities that responded to the needs of the diverse group of users (Hasemann *et al.*, 2017; 2018, p. 8).



**Figure 2.** Adapted map of *Plantage 9* actors (1<sup>st</sup> floor only) during the early stages of the collective action. Source: *Plantage 9* (2011, p. 3).

ZZZ coached the temporary use initiative by first supporting the users through a process of individual learning during which the entrepreneurs experimented with their businesses while learning about the procedural obligations of remodelling and adaptively reusing the abandoned store house. The remodelling was necessary for the building of roughly 1,600 m<sup>2</sup> which was built in the 1950s for textile production before housing a fire protection company and eventually becoming the municipality's property (ZZZ - ZwischenZeitZentrale Bremen, 2012; Scholz, & Mollenhauer, 2018). The costs incurred through this process totalled roughly 10,000€, and was accompanied by an even more extensive process of mutual learning and communicating while the temporary use agency was responsible for the management of *Plantage 9*. This initial phase to set up the temporary use collective constituted a trial period of one year, during which the public administration agreed to a symbolic rent of 1€ per m<sup>2</sup> for the sub-renters and temporary users so that they had affordable access to working space (Hasemann & Schnier, 2015b; Scholz & Mollenhauer, 2018).

As this trial period concluded, the ZZZ informed the users they would release themselves of management obligations and assisted the *Plantage 9* collective to determine their own model for managing of the site by providing support resources and training for the temporary users' informal board. In parallel, ZZZ themselves learned to guide the users through monthly meetings which helped the collective develop and regulate their own communication but also develop their own 'community' (Hasemann & Schnier, 2015b; Scholz & Mollenhauer, 2018). For Valesca Scholz, the spatiality, community and affordable rent solidified the users' commitment to the collective:

...in actuality, it was primarily because of the cheap rents and secondarily because of the community or also the diversity [that attracted us here] – that we are not only artists or graphic designers, but a colourful mix of offices, ateliers and workshops that I

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founded so great. So it is also the different spaces which facilitates the different uses (Scholz & Mollenhauer, 2018, p. 7).

At the collective level, the temporary users learned together and from one another how to make decisions and to manage group interests. For instance, all individual users are allowed veto rights and collaborative and creative solutions to resolving conflicts with uncontrollable utility costs (Scholz & Mollenhauer, 2018). A specific example, according to Olaf Mollenhauer was the collective decision to install counters on all the heaters so that it was possible to determine a fairer distribution of costs:

So the problem that we had here I think were that of utility costs since the building is not very energy efficient and that we did not have a clear means of addressing cost allocation. So a couple of years ago, we installed counters on all the heaters. That meant that we could at least split the costs finally according to individual usage. This was, in hindsight, challenging because the bigger studios with higher ceilings and poor insulation were set up in such a way that their users suffered from exploding utility costs. However, with this new system in place, it meant that we could not only see the actual proportion of usages and costs, but that we could calculate retroactively the costs for up to two or three years back. We are currently considering if it might be worth it, to introduce a means of splitting costs in such a way to support some of the other users (Scholz & Mollenhauer, 2018, pp. 11–12).



**Figure 3.** Frontal view of *Plantage 9* façade located in a semi-industrial district of Bremen West.  
Source: Robin Chang (2015).

AAA's own experience as temporary users and the nature of their more relational, instead of bureaucratic management approach created a strong foundation from which the new collective of temporary users could assemble and develop their heterogeneous spatiality of *Plantage 9*. It also facilitated a much more personable experience of learning about the legislative procedures and planning processes necessary to co-managing the leasing, negotiating of

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incremental increases in rent and also improving the structural compliance of the building in comparison to conventional processes (Hasemann & Schnier, 2015a; Hasemann & Schnier, 2015b; Scholz & Mollenhauer, 2018). Not only did the temporary use agents and the platform accompany a core group of temporary users who emerged as the formal board of *Plantage 9*, they sourced funding for the initiative through the municipal programs such as *Wohnen in Nachbarschaft* (Living in Neighbourhoods) which channelled federal and regional funding from the Social City and Rebuild the West programmes to complement the urban regeneration and social integration events and programming. This was a benefit for the collective and the greater area of Bremen West (Plöger, 2008a, pp. 20–23; Pala, 2019).



**Figure 4.** Inner city vacancy during the winter of 2015 and 2016 in area of Bremen West surrounding *Plantage 9*. Source: Robin Chang (2015).

The transition of the lease and management of *Plantage 9* to the collective in 2010 happened after the collective established their own tenants' association. The final model they selected for their collective institution eased and legitimized the group's co-management of the space, and also provided a legal entity through which they could address financial and liability concerns (Scholz & Mollenhauer, 2018). In addition to the formalization of the collective, the rental title was also transferred from the ZZZ to the tenants' association and the lease agreement was adapted so that they had the right to access and use the site for an unlimited period of time provided that they agreed to the condition to move out should the property owner give them four months' notice. Most notable, however, was the official agreement by all relevant parties to stretching the tiered rent increases of 30% from over three years to over ten years to adjust to the entrepreneurial development and growth of the now permanent users (Scholz & Mollenhauer, 2018).

The success of *Plantage 9* is not only a contentful pairing of vacant building and temporary users, but the result of ZZZ as an effective planning mechanism during a pivotal phase of experimentation and learning involving all manner of stakeholders possible (Hasemann & Schnier, 2015b). This is confirmed by the users who underline experimentation and social learning as integral steps in shaping their individual and collective abilities for facilities and

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association management, negotiation, and engagement while pursuing their own entrepreneurial aspirations. Valesca Scholz illustrates this through the development of her own engagement with the board of temporary users:

‘So we did learn a lot. For instance, when the board of the users was already established, I transitioned into the collective management because of my involvement through the organization of the open-day event...As I fell into the role as a board member, I had no experience how to lead a group or group discussions or assemblies. This led to the reality that the earlier assemblies lasted three or four hours during which everyone shared and discussed everything. And this was also a development for us and other board members, I think – that we had to learn to lead collective discussions and better get to the point...’ (Scholz & Mollenhauer, 2018, pp. 15–16)

A further demonstration of this committed success, was the ability of *Plantage 9* to survive independently after the ZZZ moved out of the space. This signified the independence and strength of *Plantage 9*, since by losing ZZZ, they lost one temporary user as well as their early temporary use manager who in 2013 moved onto another site – The WURST CASE, which is still the agency’s current project (The REFILL Network, 2018). At the closing conference in March 2018 for the REFILL network which showcased ZZZ as a best practice to other European cities and initiatives, both public administrative representatives along with temporary use managers admitted that the continuation of the model was not without tension, as the justification for continued funding was still politically sensitive (Hasemann & Schnier, 2018). But they did agree that the active and political support they received from local and regional public administration was remarkable for Bremen and contributed to the stabilization of temporary use in the city (The REFILL Network, 2018). An ultimate confirmation of effectiveness, however, comes from the users themselves who expressed no fear of eviction from the site, respect and legitimacy in relation to the public and public administration and also confidence with their ability to continue with their businesses and means of sustaining their livelihoods at *Plantage 9* (Scholz & Mollenhauer, 2018).

This commitment to alternative planning mechanisms such as ZZZ and temporary use is a compelling example of experimentation through which temporary users learn from, and amongst each other to adapt not only uses but their own social functioning as a group. The willingness from the public administration to experiment allowed for the symbolic and affordable rents which supported the entrepreneurial initiatives. It is important to note that this experimentation did not come without political tensions and was not originally a political priority. Truly, examples of temporary uses are often embedded in greater waves of urban development wherein both disadvantages and even advantages are valid for a limited window of time and dependent on the political ebbs and flows of the moment (Madanipour, 2018).

Nevertheless, the opportunities afforded through the final commitment to experimentation facilitated a high degree of learning that benefitted the temporary users, improved the service delivery of the temporary use agency and also proved to the public administration that temporary use could contribute not only to urban renewal, but also micro-level economic development. This learning was socialized through group discussions, regular assemblies and collective decision making. It is also a collective commitment and a site-specific process through which a collection of individual users pooled and transformed their priorities from entrepreneurial individuality to community organized action. That this collective initiative still sustains itself institutionally and financially for its individual users, is a reflection of its actual and transformative strength. The latter is structured through the mobilization of actors who interactively organize and eventually self-identity within the boundaries of the temporary use site and entity of *Plantage 9*. While there is definitely a need to more precisely and empirically

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assess the collective action enacted through this case study, it is possible already to descriptively note a coalescence of agency. The politically enabled implementation of temporary use set terms of access which shaped the process of experimentation and social learning in the area of Bremen West. Aside from the beneficial instrumentation of temporary use, a critical point to note is that its reality was contingent on unexpected technical challenges that hindered the demolition of the vacant building. Thus, while the case study is a positive example of collective action through which the capacity to adapt is learned and built up by all engaged stakeholders, it is undoubtedly an exception to more common political trajectories that consider planning practices and economic development. Further, while a great extent of adaptive resilience was demonstrated by the stakeholders involved with the temporary use initiative, this quality of resilience was not constant through all dimensions, such as the building structure and environment.

The struggles that the users encountered through their experiments introduce more modularity and precision into how utilities were accounted for and managed presented a resilience paradox. While the function of the space and the building envelope might have contained and afforded experimentation and adaptation, the contrary was experienced with material and hardware details that reflected static designs. The members of *Plantage 9* exemplary demonstrations of social learning and adaptive management, were undermined by more durable legacies of outdated paradigms that often still stand and hinder the uptake of more adaptive and experimental uses of land and space. Indeed, unless adaptive capacity is also embodied in design of sites and structures which eventually may host comparatively flexible social processes and initiatives such as temporary uses, then a completely and purely resilient example of policy and practice is not possible. In reality, these blind spots will impose demands on stakeholders to compromise or resort to improvised design solutions which may serve stakeholders for a certain period of time, but are ironically neither truly sustainable nor fully resilient. It is advisable to consider examples such as *Plantage 9*, but alongside the wisdom from scholars such as Ahern (2011) and Lokmann (2017) who forward criteria such as multifunctionality, modularity, flexibility and scale that can strengthen adaptive planning and design and ultimately facilitate more comprehensively resilient solutions.

### **Transformative and Collective Connections between Resilience in Urban Planning and Economic Development**

According to resilience scholars such as Ahern (2010, 2011, p. 342) and Davoudi (2012, p. 302), the paradigmatic inspirations from resilience for urban planning, governance and design supports a readiness for the unknown as an opportunity to explore low-impact and 'safe-to-fail' transformation. In relating this to *Plantage 9*, it is easy to identify characteristics that confront uncertainty and transformation through experimentation. Indeed, the readiness of the Bremen public administration to experiment through temporary use expressed both an explorative and 'safe-to-fail' approach to planning. A counterpoint to ponder, however, is that this path was not a choice, but the political option as there were no other alternatives but to adapt. Technical barriers hindered original land use plan developments; economic and budget constraints limited municipal investment available for the local development. But the decision to commit and pursue the temporary use experiment was enough initial investment into the collective structure of ZZZ and *Plantage* to manifest in abilities that evolved into directed and continuous action (Ernstson, 2011, pp. 276–277). Moreover, the connecting and embedding of individual agencies through the temporary use format involving social learning and experimentation was an even more efficient investment (Ernstson, 2011, p. 277) from a planning and economic development standpoint as it provided temporary users with the experience, knowledge and capacity to continue manifesting their individual and collective agency even after the policy experiment of temporary use ended. While temporary use as

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planning policy and practice clearly expresses itself as a mechanism for this social and relational change, there are challenges with a transformative collective action framework as it lacks a precise measure for effectiveness. Notwithstanding, this research does address gaps in research on collective action by highlighting policy rules to improve how public administrations can contribute to action in relation to incremental urban and economic development (van Karnenbeek & Janssen-Jansen, 2018, p. 403).

*Plantage 9* offers an uncommon but encouraging narrative that emphasizes intrinsic capacities at the city-scale as opposed to relational capacities that depend on other networks beyond Bremen itself. This exemplifies what Ernstson and other colleagues differentiate as a resilience 'in' versus a resilience 'of' cities (Ernstson et al., 2010, p. 533). It is uncommonly optimistic and an option in an extremely progressive 'legacy of temporary uses and the footprint of differential spaces' (Andres, 2012, p. 771) through which temporary users often are not protected from risks and liabilities. The compelling takeaway, however is the economically opportunistic and socially profitable use of existing policies such as the National City Development and Social City programs in combination with local and entrepreneurial agency to manifest an inherent resilience of the city, in which risk and learning is shared. However, even such encouraging examples of resilience will be constrained unless resilience qualities are integrated into material as well as socio-economic planning and design. In such a fashion, future initiatives can contribute to resilience which is re-invested into the local economic development through the embedded and unfettered collective agency and action which has had the time to incubate and evolve its own adaptive and durable capacity.

### **Re-examining Post-Industrialization through Resilience**

This micro-level explanation is important to consider in relation to resilience and transformation because it exemplifies the building of new and interconnected knowledge, the creation of networks linking different groups across societal levels, as well as effective opportunity-taking through planning policy and practice. This finer grained approach to analysing resilience in the context of economic development is not without need for improvement, because it is qualitatively exhausting and at best an approximate way to indicate resilience. Steps forward to measuring and monitoring the experimentation and social learning which help to confront resistant 'institutions, modes of thought, and ways of doing things' through social network analysis methods as applied by Ernstson in his ecosystem-based management context (2011, 255–256) could help improve the methodology. Nevertheless, this contribution complements existing efforts to demonstrate Bremen's evolutionary example as a 'Phoenix City' or a post-industrial city that has constructively confronted instability inherent to the industrial structures that once supported its Fordist growth (Plöger, 2008a, 2008b; Plöger & Kohlaas-Weber, 2013; Hall, 2014, pp. 415–416) through a social and adaptive resilience framing (Davoudi, 2012) which recognizes unpredictable, non-equilibrist dynamism and complexity (Martin, 2011, pp. 4–5). Its focus on economic transitions has aimed to show that it is possible for public administrations to recognize that despite cities' and regions' economic vulnerabilities, urban planning policy and practices can support the shift in economic and urban development strategies from an 'old economy' to a 'new economy'. Such a decision is complementary to generic economic programs but re-invest in site- and practice-specific experiments which not only help retain local entrepreneurs, but instil socialized learning and adaptive capacities to diversify local economies and to provide entrepreneurial independence for individuals and collectives.

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### Closing Reflections

This contribution has attempted to improve and forward an analytical understanding of how collective action involved in entrepreneurially-driven temporary use contributes to resilience in an economic context. By framing the context and case study through an evolutionary approach to resilience, the qualities afforded through experimental and social insights indicate how adaptive capacity is learned and aggregated through urban planning practices and processes such as temporary use. This is valuable when considering economic uncertainty and crises and trajectories towards economic path-divergence that is dependent on adaptive capacity inherent to smaller unit organizations within regional and urban systems (Boschma 2015). By starting at the local level, it is possible to relate transformative collective action (Ernstson, 2011, pp. 255-256) to how economic vulnerabilities can be addressed through policy and planning investments in social-relational processes. The work to be done in this area, is however, far from complete since the line of reasoning presented here requires further steps to improve its utility in evaluating and connecting transformation and capacity between community and regional scales. The pursuit of this reasoning is valuable and should continue if we are to achieve local, regional and even global economic priorities for 'sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all' (UN-Habitat, 2017, p. 20) and confront organizational vulnerabilities that detract for economic resilience (UN-Habitat, 2017, p. 31).

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