Seasonal Cities: Patterns of Urban Change in Alexandria, Egypt

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ABSTRACT
Cities have been studied as places which follow a one-directional development, either growing or shrinking. However, are there no conditions in-between? This paper will explore seasonal urban changes resulting from the interplay between ecological and socio-economic dynamics, and their reflection in cities' material flows. The driving forces for the temporal urban alteration and the way cities go back to their previous state will be studied. Quantitative and qualitative aspects will be analysed through mixed research methods in order to develop a more accurate panorama of social dynamics as driving forces of urban rhythms. The case study corresponds to the seasonal dramatic population increase faced every summer by Alexandria, Egypt, which results in a seasonal demand overload of utilities associated with several forms of occupancy. Results show, first, the lack of acknowledgment of this situation from an urban planning perspective, which takes place in the same time and under the same conditions; and second, the lack of means of action from the state to manage and regulate this seasonal change.

KEYWORDS
Alexandria-Egypt, Utilities Overload, Seasonal Change, Summer

Villes saisonnières : schémas de changement urbain à Alexandrie (Égypte)

RÉSUMÉ
Les villes ont été étudiées comme des lieux suivant un développement unidirectionnel : croissance ou déclin. N'y a-t-il pas cependant de situation intermédiaire ? Cet article explore les changements urbains saisonniers résultant des interactions entre les dynamiques écologiques et socio-économiques, et leur impact sur les flux matériels des villes. Les forces motrices de l'altération urbaine temporaire ainsi que la façon dont les villes retournent à leur état initial seront étudiées. Les aspects quantitatifs et qualitatifs seront analysés à travers des méthodes de recherche mixtes afin d'établir un panorama détaillé des dynamiques sociales comme forces motrices des rythmes urbains. Le cas d'étude correspond à l'augmentation drastique saisonnière de la population à laquelle est confrontée Alexandrie (Égypte) chaque été, qui résulte en une surcharge saisonnière de demande de services publics associée à diverses formes d'occupation. Les résultats montrent premièrement l'absence de reconnaissance de la situation d'un point de vue de planification urbaine, qui a lieu en même temps et dans les mêmes conditions, et deuxièmement le manque de moyens d'action de l'État pour gérer et réguler ces changements saisonniers.

MOTS CLÉS
Alexandrie, surcharge de demande de services publics, changement saisonnier, été

INTRODUCTION

Urban studies tend to show cities mainly from a one-directional perspective, either growth or shrinkage; however, are there no conditions in-between? This paper explores seasonal urban changes that take place repeatedly as a result of similar driving forces. The way Alexandria, Egypt, seasonally changes in terms of population number, utilities provision, and urban settings will be explored in order to determine the variety of outcomes experienced from its patterns of urban change. This sequence of how demographic changes lead to urban and environmental alterations clearly shows the extent to which city-making is supported by natural resources through socially mediated natural processes (Swyngedouw & Heynen, 2003).

Although urban seasonality has been previously studied, there are some topics that have not been still approached. On the one hand, these studies tend to focus more on the seasonal dynamics than on its urban and social implications. The reports elaborated by Silm and Ahas (2010) and by Jauhiainen and Mönkkönen

(2005), for instance, studied respectively the seasonal migration of people in Estonian and Finnish municipalities resulting from geogenic conditions such as climatic variations in terms of the winter and summer seasons, and anthropogenic conditions related to socio-economic dynamics. The objectives of these studies did not cover the impact of seasonality in urban infrastructures, material flows, and management and consumption of resources. On the other hand, studies on urban metabolism and material flows tend to focus on the quantification of urban resources and do not generally approach the extent to which seasonal urban dynamics affect the provision of ecosystem services, nor recognise the complexes of infrastructure in the everyday life and its role in urban production, negotiation, and contestation (Graham & McFarlane, 2014), nor how political these socio-ecological processes can be (Kaika & Swyngedouw, 2011). The main aim of this paper is to show, by exploring seasonal urban changes, the extent to which social dynamics and the everyday life, infrastructure, and biopolitics are linked.

1. SEASONALITY AND THE EVERYDAY LIFE

Cities are continuously changing socio-ecological landscapes (Swyngedouw, 2006); yet, they are managed and understood as one-dimensional steady places. For Kraft (2016), the socially-created image of the city is an ideal one with a linear story mainly based on ideal concepts handed down from the past, in which classical examples of city planning have been overtaken by worldwide urbanisation processes (Schmid, 2016), which explains why the dynamics of growth and shrinkage have been largely overlooked. In urban planning, the matter of space tends to be the main discussion, whereas aspects of time tend to be understood through permanent patterns, either growth or shrinkage. However, cities, and other characterisations of space, cannot be properly understood without considering both aspects of space and time (Swyngedouw & Heynen, 2003; Harvey, 2014). Lefebvre (2004) recognised in cities, space, as linear patterns from social practices and human activities, and time, as cyclical patterns originated in cosmic and geographical arrangements of places such as days, months, seasons, etc. Essentially, he spoke about how anthropogenic and geogenic characteristics are related to space and time and how they interfere respectively with one another to shape urban outcomes and city landscape. However, seasonal dynamics are hardly addressed in urban planning in their complexity and rather they are normalised, taken for granted, and seen as tangential facts to urban dynamics (Jauhiainen & Mönkkönen, 2005).

2. URBAN PATTERNS IN URBAN METABOLISM (UM)

The study made by Wolman (1965) introduced the idea of urban metabolic demands as the needed materials to sustain the residents' activities, and settled a base for current studies of urban material flows (see for instance Kennedy *et al.*, 2007; 2010). His paper, however, focused only on quantifying water supply, wastewater, and air pollution for an imaginary city in the USA, based on national statistics. Relying merely on figures could be one reason why studies on metabolic urbanisation tend to underestimate the role of urbanisation patterns in material flows. On the contrary, Kaika and Swyngedouw (2011) highlight urbanisation as geographically arranged processes of socio-environmental metabolism, which are constituted through dense material, human, cultural, and organic networks (Swyngedouw, 2006). This perspective might imply more integrative approach to urban metabolism. Graham and McFarlane (2014), for instance, claim for a need to go beyond the supply side of infrastructure in order to understand how people produce, live with, contest, and are subjugated to or facilitated by infrastructure. Additionally, John *et al.* (2019) point out several diverse alignments between urban metabolism and sustainability research; yet, they also recognise the lack of connection between the contributions from both sides. So, instead of perceiving cities as unsustainable places *per se,* the study of urban seasonality might enable a deeper exploration of specific urban dynamics and their choreographies of urban material flows linked to patterns of control, access, entitlement, and exclusion (Kaika & Swyngedouw, 2011).

3. URBAN SEASONALITY AND CITY BIOPOLITICS

What might be the difficulties to allocate seasonal cities within an urban planning perspective? Spaces are lived based on how they are understood and represented (Harvey, 2014; Kraft, 2016). If cities are conceived merely from one-directional perspectives of growth and shrinkage patterns, then they will be planned for it, without considering in-between dynamics already taking part in some urban areas. Risks associated with reducing cities to such a dichotomy of either growth or shrinkage are related to dangers of relying on indicators easy to measure, from which complex situations and dynamics get insufficient attention as gathered data might not be enough (Sattherthwaite, 1997). This creates an appearance of precision and shows a merely city snapshot instead of complex and constantly changing features of urban areas (Schmid, 2014). If urban plan-

ning is a technique of biopolitical power (Rutland, 2015), what are the implications of seasonal urban changes for the city's development and what are their implications for urban biopolitics? To which extent can these changes be predicted and what are the actions taken by local authorities to ensure control within the city? If people and the everyday life are recognised as driver forces of seasonal change, how are they understood in terms of citizenship rights and environmental justice? How is such a justice extended to and articulated with the neoliberalisation of infrastructure (Swyngedouw, 2006)?

4. SEASONAL CHANGE IN ALEXANDRIA, EGYPT

The seasonal dramatic population increase faced by Alexandria, Egypt, every summer and the way several forms of occupancy result in a temporal demand overload of utilities will be discussed in the paper. In order to incorporate socio-economic dynamics into this analysis, quantitative and qualitative data from reports, semi-structured interviews, questionnaires, mapping, and observations, will be crucial as it allows to contrast several sources in order to prove their accuracy. Limitations are faced in two aspects:

a. Case study: Some institutions did not provide official information due to official regulations. Therefore, raw data and previous studies on different topics of Alexandria will be crucial. Insights from Alexandrians and local authorities on the summer situation were gathered. The research was not about the summer visitors but about the outcomes they produce in the current urban settings of Alexandria.

b. Language: The research was done in English, which was required for interviewees and respondents to provide information. Access to sources in Arabic language was limited.

This study covers the impacts of the temporal rise of population and the dynamics of the housing market, the consequences for water (and wastewater), electricity, and solid waste management, and how they rely on surrounding ecosystems and wider scales either as source or as sink places. Additionally, the way these changes are managed through available statistics will be discussed in order to show the awareness and attention that local authorities pay to this seasonal change. The impact on the sustainability of the city as well as the perceptions from different sources will be described. Results show a permanent low capacity of the city's infrastructure for utilities supply, which summer and the dramatic population increase make more visible. Additionally, published figures are related to the services the companies in charge could provide which does not mean they are able to attend the fluctuations experienced. Could this be a result of the lack of official awareness about this event by city authorities? If so, it might show to which extent UM should not be only understood as an abstract concept of material quantification, but as a reaction process which depends on social patterns of demand and consumption to lead cities to different outcomes.

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