Urban streets: Epitomes of planning challenges and opportunities at the interface of public space and mobility

Kim Carlotta von Schönfeld[a,*], Luca Bertolini[b]

[a] Wageningen University and Research, Droevendaalsesteeg 3, 6708 PB Wageningen, Netherlands
[b] University of Amsterdam, Nieuwe Achtergracht 166, 1018 WV Amsterdam, Netherlands

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ABSTRACT

Today's urban streets are usually planned for purposes of mobility: pedestrians, as well as a variety of vehicles such as cars, trucks, and sometimes bicycles, are usually factored into an urban street plan. However, urban streets are also increasingly recognized as public spaces, accommodating street vending, food trucks, markets, artistic interventions, political expressions, comfortable benches, green spaces. Although these are mostly not *new* activities to appear on streets, they are now given particular attention in public discourses, urban planning, media and academia, as public space in cities has become a more contested resource among different uses and ownership-constellations. Growing and diversifying urban populations are generating a particular strain on urban streets worldwide. In short, urban streets epitomize the challenges and opportunities that accompany the negotiations of space and uses attributed to mobility and public space in cities. They necessarily unite stationary and mobile functions – though this is not usually given room for in planning. Moreover, these functions are rarely studied from more than one perspective at once, which limits the analytical and creative thinking that inspiration is drawn from. In order to address these limitations, in this article we rely on insights from three theoretical fields - namely planning regulation, transitions and governance - and illustrations from concrete examples, to explore what urban planning might have to focus on to address the tensions in linking stationary and mobile functions in urban streets.

1. Introduction

Mobility and public space are key elements determining the vitality of cities (Agyeman & Zavetovski, 2015; Hickman & Banister, 2013; Moriarty & Honnery, 2008). As the area and population size of cities increase, pressure on transportation systems and public spaces also grows. Transportation systems need to cover increasingly large distances and sustain more people, making it more difficult but also more crucial to facilitate access while at the same time restricting mobility due to pollution and congestion problems (Hickman & Banister, 2013; Moriarty & Honnery, 2008; Sheller, 2008; Tranter, 2010). Simultaneously, growing cities struggle with the various, competing roles public space needs to fulfil: as meeting space, as public domain, as political and liveable space, and as space for commerce (Agyeman & Zavetovski, 2015; Brenner, Marcuse, & Mayer, 2012; Hajer & Reijndorp, 2001). Changes in mobility patterns and the use of public space are intimately related, as increased mobility and more intensive use of public space both feed each other and directly compete for ever scarcer urban space (idem; Tranter, 2010). So, can functions of mobility and public space, stationary and mobile uses of urban streets, co-exist and simultaneously increase the

liveability of cities? This question points to challenges and opportunities, which researchers, planning and policy practitioners and even businesses and civil society groups urgently need to address in today's cities around the globe (idem; UNHABITAT, 2013a; Dalkmann, 2014; Zottis, 2015; HABITAT III, 2015).

Urban streets embody the relation between mobility and public space and the resulting tensions particularly well. They epitomize the struggle to accommodate functions of 'efficient' and 'fast' but also 'sustainable' mobility, as well as public space functions that include lingering and social interaction (Agyeman & Zavetovski, 2015; Mehta, 2013). Already in 1961, Jane Jacobs pointed at the ensuing challenge: "How to accommodate city transportation without destroying the related intricate and concentrated land use? – this is the question. Or, going the other way, how to accommodate intricate and concentrated city land use without destroying the related transportation?" (Jacobs, 1961: 341). Mehta (2013) brings together a wealth of literature to argue that streets are the quintessential social public spaces of cities. But while the multiplicity of functions of streets, including a variety of social functions, have been researched thoroughly (see also Gehl, 2010), urban planning still struggles with incorporating such elements.

* Corresponding author.
E-mail addresses: kim.vonschonfeld@wur.nl (K.C. von Schönfeld), L.Bertolini@uva.nl (L. Bertolini).

At the same time, pressure from bottom-up initiatives, small-scale entrepreneurs and citizen movements is increasing around the world and begins to force a different approach to planning streets (Lydon & Garcia, 2015). For these reasons, urban streets and the (need for) changes in their planning, are the central object of study in this article.

This article first builds up the argument that planning needs to (re) unite functions of public space and mobility in urban streets, by showing why and how mobile and stationary functions compete with each other and yet can also complement each other in these spaces (Agyeman & Zavetovski, 2015; Hajer & Reijndorp, 2001; Mehta, 2013). Subsequently, three fields of study are introduced, which are part of, or tightly intertwined with, the planning discipline, and try to address this subject. Each of these fields is centred on one concept: first on planning regulation, second on transitions, and third on governance. Studies on planning regulation focus on both the tensions and the need to find a balance between the opposing needs of certainty and flexibility of regulations. Applied to our object of study, studies on regulation help highlight how the multi-faceted and variable 'purpose' of streets as both public spaces and spaces for mobility (Agyeman & Zavetovski, 2015; Gilliam, 1967), require planning regulations to embrace, rather than try to reduce complexity and uncertainty. Transition studies are concerned with how transformative, systemic change away from a dominant socio-technical regime can occur, usually taking a normative stance for achieving sustainability by creating room for niches and experimentation to trigger change. In this study, change means moving away from a modernistic planning regime of identifying, separating and fixing functions in streets, and towards a more plural and fluid mixture of uses as identified in the discussion of regulation. Finally, the study of different forms of governance highlights the specifics of who needs to be involved for such a transition to occur and what power relations should be considered in the short and longer term to achieve change in urban streets. Governance studies suggest that more participatory, open processes are necessary to begin to address the questions and challenges mentioned above (Avelino & Wittmayer, 2015; Miazzo & Kee, 2014).

This article is structured as follows. The ensuing section is divided into two main parts; the first goes into more detail on the reasons why uniting functions of mobility and public space, of static and mobile functions in urban streets is essential for healthy, equitable and dynamic urbanities. The second part introduces each of the fields of study in which the planning challenges and opportunities this brings forth are discussed in more depth, and identifies core questions that emerge from those fields. Throughout the text, this section also presents concrete cases as illustrations of what these reasons, challenges and opportunities can look like in practice. Finally, the closing section goes into how the questions and discussion provide inspiration for a policy agenda aimed at integrating functions of mobility and public space in urban streets and for further research into how planners might address the challenges and opportunities this aim raises.

2. The stationary and mobile urban street

Urban public spaces are important, as they fulfil a variety of crucial functions in cities: they play a role in social inclusion, cultural diversity, environmental care, urban governance and economic strength (Madanipour, Knierbein, & Degros, 2014). They can function as public domain (Hajer & Reijndorp, 2001) and as civic space (Douglass, 2003). They play a crucial role in identity-formation and ownership of cities (for the 'right to the city' see Borja, 2011; Brenner et al., 2012). Public spaces can be defined as "crossroads, where different paths and trajectories meet, sometimes overlapping and at other times colliding; they are the meeting place of politics and culture, social and individual territories, and instrumental and expressive concerns" (Madanipour et al., 2014: 1). Crucially, they are places for exchange and interaction with the 'other' that is not in the same way possible in any other type of place (Bertolini, 2006; Bertolini & Dijst, 2003; Hajer & Reijndorp, 2001). They can also be spaces where conflicts and demonstrations

can play out (idem, Brenner et al., 2012; Borja, 2011), which may make them less attractive or inclusive at some points in time, and yet nonetheless vital in their function of reflecting city life and enabling discussion about its future. In this sense, urban public space is a crucial arena for social change.

Urban public space exists in a large variety of forms, such as parks, squares, markets, transport interchanges – and streets (Hajer & Reijndorp, 2001; Mehta, 2013). It is hard to imagine any of these spaces functioning without the possibility of people moving to and through them – by walking or perhaps skating, running, or cycling. But they also have the crucial function of allowing people to linger, interact with each other or ignore each other, read, sit, stand or even lie down (Gehl, 2010; Mehta, 2009). Urban public space is also a space of economic activity, for example through cafés, vending or food trucks (Kim, 2015; Mehta, 2009).

Urban streets are a very particular kind of public space. Next to a public space, they are also the main channels through which flows of people and goods that are essential for cities are facilitated, to the point that they are often *only* perceived in relation to this mobility function, despite also fulfilling multiple other functions as public spaces. The latter is just as essential. The street can in fact be called "a quintessential social public space" (Mehta, 2013). Agyeman and Zavetovski (2015: 7) argue streets are "not just […] physical and material amenities that function to move people and goods, but […] significant social and symbolic spaces where users are linked to intersecting economic, transportation, food, cultural, and governance systems, as well as personal, group, and community histories and experiences" (Agyeman & Zavetovski, 2015: 7).

Although they are now often seen as such, streets were not always planned for automobiles or traffic (Mehta, 2013, 2015; Norton, 2015; Reid, 2015). It was not long ago that streets – in their entirety, without segregation of space for specific transport modes or commercial services – served as public space (idem). In some places this never changed (e.g. in much of the developing world; Mehta, 2015). The relatively short history since the inclusion of the private automobile in streets has had an enormous impact on the previous dynamics of streets (Norton, 2015; Reid, 2015). In the United States for instance, walking at ease and at random through streets was strategically denominated *jaywalking*, a word that rapidly functioned as an insult, if it was not actually punishable by law (idem). In the name of 'progress', streets were widened and more extensively paved (before, paving had served for making riding easier for cyclists and carriages but was equally accessible for and used by pedestrians) (Reid, 2015). By now, the number of paved streets is used as a measurement of the level of development of a country (e.g. World Bank, 2010). Several streets around the world have minimized or even completely disregarded any need for pedestrian space, or when this is not the case, have used safety reasoning to segregate modes as much as possible so accidents between modes would not rely on care of users but purely on street design (Agyeman & Zavetovski, 2015; Dinh, 2011; UNHABITAT, 2013b). Some of this is being reversed or more widely discussed, for instance in debates on 'shared space', 'complete streets' and '*in*complete streets' (e.g. Agyeman & Zavetovski, 2015; Hamilton-Baillie, 2008). It has for instance been made clear that fast traffic and speeding cause dangerous spaces of mobility for automobiles as well as other, smaller or less shielded modes, such as walking or cycling (Appleyard, 1983; Moriarty & Honnery, 2008; Tranter, 2010). Generally, traffic is seen as a problematic element in public space (Appleyard, 1981, 1983; Williams & Green, 2001). Nevertheless, private cars have claimed much of urban street space today, although this is increasingly contested. Claims to make streets more liveable and accessible as public space are increasing, often including a reduction or ban of motorized traffic.

The Minhocão in São Paulo, Brazil, serves as an extreme case to illustrate these dynamics (see Box 1). It was built for the sole purpose of channelling traffic, but has since gradually opened to other uses. Although as a highway it might not immediately seem to fit the description of a 'street', the illustration makes clear why it does: the