Elsevier Editorial System(tm) for Landscape and Urban Planning

Manuscript Draft

Manuscript Number: LAND-D-16-00411R3

Title: Urban Agriculture: Models in Circulation from a Critical Transnational Perspective

Article Type: SI: Food Growing in the City

Keywords: Urban Agriculture; Community Gardens; Models-in-circulation; Transnational; Right-to-the-city; Subsistence.

Corresponding Author: Dr. Eva Schwab,

Corresponding Author's Institution: University of Life Sciences and Natural Resources, Vienna

First Author: Eva Schwab

Order of Authors: Eva Schwab; Silvio Caputo, Dr.; Jaime Hernández-García, Dr.

Abstract: Urban Agriculture (UA) is practiced around the globe (Biel, 2016), supported and advocated by a diversity of actors ranging from local neighbourhood groups to supra-national bodies (e.g. FAO, 2014; Mougeot, 2006; UN Habitat, 2014). As such, UA must be understood as one of planning's current "models-in-circulation" (Roy and Ong, 2011), characterised by the traveling of ideas and policies in a globalised world (Healey, 2013). UA operates at a diversity of scales and engages a variety of actors. Yet, as a model in circulation, only some of the ways in which UA is practiced are presented globally and influence the way UA is perceived, thus disregarding UA's highly specific manifestations in different social/economic/political contexts around the world. We use a critical transnational perspective for a qualitative analysis of collective (rather than individual) UA practices happening in small-scale, left-over public spaces in three very different locations in Latin America and Europe (Bogotá and Medellin in Colombia, and Vienna in Austria) to get insights into how policies and initiatives inspired by typical models-in-circulation affect the situation on ground. The analysis shows that the reliance on such models can act like a filter impeding the acknowledgment that actors, objectives and barriers for UA practices are more complex, nuanced and multifaceted than those which a simple model can contain. As a result the benefits UA can yield are only partially attained. The conceptual device of translocal is subsequently formulated as one conveying the traveling of ideas locally, which can enrich and root models in circulation.

Urban Agriculture: Models in Circulation from a Critical Transnational Perspective

Abstract

Urban Agriculture (UA) is practiced around the globe (Biel, 2016), supported and advocated by a diversity of actors ranging from local neighbourhood groups to supra-national bodies (e.g. FAO, 2014; Mougeot, 2006; UN Habitat, 2014). As such, UA must be understood as one of planning's current "models-in-circulation" (Roy and Ong, 2011), characterised by the traveling of ideas and policies in a globalised world (Healey, 2013). UA operates at a diversity of scales and engages a variety of actors. Yet, as a model-in-circulation, only some of the ways in which UA is practiced are promoted globally and influence the way UA is perceived, thus disregarding UA's highly specific manifestations in different social/economic/political contexts around the world. We use a critical transnational perspective for a qualitative analysis of collective (rather than individual) UA practices happening in small-scale, left-over public spaces in three very different locations in Latin America and Europe (Bogotá and Medellin in Colombia, and Vienna in Austria) to gain insights into how policies and initiatives inspired by typical models-in-circulation affect the situation on ground. The analysis shows that the reliance on such models can act like a filter impeding the acknowledgment that actors, objectives and barriers for UA practices are more complex, nuanced and multifaceted than those that a simple model can contain. As a result the benefits UA can yield are only partially attained. The conceptual device of *translocal* is subsequently formulated as one conveying the traveling of ideas locally, which can enrich and root models-in-circulation.

1 Introduction

Urban Agriculture (UA) is practiced around the globe (Biel, 2016; Drescher *et al*., 2006), supported and advocated by a diversity of actors ranging from local neighbourhood groups to supra-national bodies. Even though UA is described as a global phenomenon, its manifestations in different social/economic/political contexts of the world are highly specific, driven by diverging values, locations, scales and historic trajectories. These differences partly manifest in a highly specified nomenclature, describing urban gardening, urban allotments, guerrilla gardening and many more as types of UA, a term that comprises all forms of food growing in cities (McClintock, 2013). The benefits attributed to UA practices, such as sustainable livelihoods, food security, re-claiming and self-management of the city, development of local identity and community empowerment (Barriga Valencia and Leal Celis, 2011; Biel, 2016; Cantor, 2010; Certomà, 2011; Drescher *et al*., 2006; Ernwein, 2014; Gómez Rodríguez, 2014; Purcell and Tyman, 2015;Turner *et al*., 2011;), have led to widespread endorsement within a multitude of policy recommendations and urban planning frameworks promoting them (FAO, 2014; Mougeot, 2006; UN Habitat, 2014). As such, the several manifestations of UA must be understood as some of urban planning's current "models-in-circulation" (Roy and Ong 2011). These models are vehicles for ideas and policies that travel globally, in which differences of spaces and practices as well as their cultural/social/economic/political contexts seem to be disregarded, despite the recognition that even in a globalised world ideas need specific adaptation to the local context (Thrift, 2000). Much has been written on urban planning models and the way these have become globalised tools to understand and develop cities (e.g. Edensor and Jayne, 2012; Parnreiter, 2011). Within this perspective, Roy (2011) critically analyses issues such as power imbalances and ethics, which should be one of the points of departure for establishing urban policies but are

hardly satisfactorily addressed in these models-in-circulations. In her studies, she promotes a critical transnational perspective, which pays attention to the values and power differentials along which ideas are travelling, as "some ideas are more likely to travel than others, some translations are more often made than others, and some agents are more prone to be senders than others" (Parnreiter, 2011:419).

The very different circumstances within which UA is practiced around the world raise serious questions, which are not sufficiently addressed in the current research and policy environment, regarding the local applicability of such models-in-circulation. In particular, a wealth of literature promotes UA as a global solution to many problems (i.e. for food provision and poverty alleviation as well as for empowerment and community cohesion), but a lack of critical analysis (Badami and Ramankutty, 2015; Ernwein, 2014) prevents a more in-depth investigation based on questions such as: to what extent are current models-in-circulation relevant locally? Which power relations are embedded in their adoption? Do these power relations influence the fruition of UA's full benefits? Capitalising on three studies based on extensive field investigation in Bogotá and Medellín, Colombia, and Vienna, Austria, the article analyses collective UA practices in very different contexts, focusing in particular on governance connected to urban planning and how the situation on ground is addressed by policies and initiatives that typical models-in-circulation encourage. We do so by drawing on the notion of critical transnationalism, an analytical approach that uses one place to interrogate the other (Roy, 2004). In order to frame the analysis, following the methodology section, two models of UA promoted globally, particularly within the aspects that relate to planning and governance, are outlined. This outline is based on literature review. Medellín, Bogotá and Vienna are then presented as case studies where these models were applied. Finally, an analysis based on transnational critique is developed in the discussion

section. The analysis suggests that an approach termed herein *translocal* should be adopted to mitigate problems that may arise when models-in-circulation are used uncritically.

2 Materials and Methods

The article brings together data from three pre-existent qualitative research projects; one analysing emerging collective forms of UA (as opposed to existing, strongly regulated allotments in which UA is practiced individually or at an household level) in Vienna (Schwab and Rode, 2015), the others investigating open spaces in informal settlements in the Colombian cities of Medellín (Schwab, 2015) and Bogotá (Hernandez-Garcia, 2016). This material is summarised in Table 1 and underpins the discussion section, providing the evidence base upon which we demonstrate that a transnational approach to UA is a "double-sided sword" (Eizenberg et al., 2016: 101) with side-effects for the disadvantaged. Table 1 gives an overview of the three research projects, their aims, main findings and methodology. It also shows their different urban scales: In Vienna, the whole city was investigated, whereas in Medellín and Bogotá only one low income settlement, i.e. Comuna 13 and Potosi respectively, formed the spatial backdrop for the research projects. Each case study was undertaken independently and with distinct objectives, hence the differences in number of interviews, sampling, questions asked and approaches generally. Their individual outcomes show common themes, which are the basis for the analysis presented here. In spite of their differences, case studies can be analysed through the critical transnational lens (Roy, 2004 and 2011), which differs from comparative analysis in as much as it does not require congruence in parameters but focuses on dynamics of social relations and governance systems that can be studied at different scales.

A critical transnational perspective (Roy, 2004 and 2011) enables the investigation and analysis of one place through experiences gathered in another setting, thus allowing for further analysis on the power imbalances integrated in the processes of adopting the idea of collective UA; power imbalances such as those that surface whenever models are presented as solutions from the top down, to actors who have limited power for negotiation. In this way, although comparability of the study parameters is low, we understand our cases to offer "transferability" (Groat and Wang, 2002:38) instead of generalisability, and posit that findings can be transferable and cases explanatory for other cities with similar contexts. Each of the three cities in our studies is integrated in the circuit of policy tourism and is in itself a model. Outcomes of the different studies allow for the identification of common themes manifesting across the study areas. We are therefore using the cases from the three different cities as "instrumental" cases (Silverman, 2010: 139), i.e. with the expectation that insights from our cases provide transferability and help the building of theory. We understand this as a way to acknowledge UA sites as "real places within society and space, [which] are not exempt from power relations and issues within and beyond their own boundaries" (Ernwein, 2014: 79).

We focus on civil society actors involved in UA practices and highlight values and meanings attached to these practices to address the questions of power imbalances in a transnational context. We see transnational dynamics not limited to the institutional domain (i.e. policy tourism), but also present in the way people engaging in UA are inspired by examples and discourses in other places. Semi-structured interviews (with 12 people in Potosi and 46 in Comuna 13, 10 of these touched upon the topic of UA), lasting between 30 and 60 minutes were conducted. In Potosi, observations and semi-structured interviews were conducted with community leaders of the *Junta de Accion Comunal* (JAC) (Community Action Group), staff

115 members of the community school called "*Instituto Cerros del Sur*" and residents. Members of
116 the JAC (two) as well as school staff (two) were adult males between 30 and 50 years of age,
117 most of whom were also long-time residents of the neighbourhood. Additionally, eight residents
118 were interviewed, all of whom were women aged between 30 and 50 years all with children.
119 Questions tackled UA practices in the *barrio* and their impact in social and spatial terms, social
120 and community life as well as the residents' opinion of and role in it. In Comuna 13,
121 walkthroughs and semi-structured interviews were conducted with community leaders, residents
122 and planning experts. Interviewees were adults and senior citizens, the overall sample consisted
123 of 29 men and 17 women, the gender ratio being influenced by the dominance of males in two of
124 the groups of respondents (i.e. community leaders, planning experts). Groups of interviewees
125 were selected purposefully, but sampling of individual followed snowballing. Questions revolved
126 around socio-spatial practices and the effect of an ongoing governmental upgrading initiative
127 (PUI). Five of the ten people touching upon the topic of UA were female, five male. In the case
128 of Vienna, interviews with gardeners appearing in newspapers or social media as well as the
129 associations' bylaws and mission statements were used as primary data. In all cases, qualitative
130 content analysis (Mayring, 2000), both with an inductive and deductive approach, has been
131 employed to the resulting transcripts or field notes to identify common topics and concerns.

132 *Table 1 – Summary of aims, methods and findings for the pre-existent three case studies*

Details of case study and summary of results	
Location	Vienna, citywide
Research timeline	Fieldwork conducted between August 2013 and May 2014. Data has been updated in spring 2016 for the present article.
Aims	Analysis of: locations of community gardens;

	profile and motivations of gardeners;
	institutional response.
Methods used	Site analysis and document analysis (e.g. bylaws and mission statements of community gardening associations, newspaper reports, planning documents).
Results	Community gardens are located in densely built up areas in the city. Gardens are small in size, mostly publicly owned and fenced.
	Gardeners have an educated, creative class background. Associations are started by existing groups of friends/acquaintances. Motivations are the enhancement of local communities, productive leisure time and active improvement of the urban environment.
	Urban gardening is highly institutionalised and explicitly welcome in urban development/planning strategies.
Location	Comuna 13 (informal settlement), Medellín, Colombia
Research timeline	Fieldwork conducted between June 2011 and January 2012.
Aims	Analysis of: different types of open space and their daily use;
	role of open spaces, established in an on-going upgrading programme for the improvement of spatial justice;
	actors and roles in the production of space.
Methods used	Walkthroughs with community actors, mental maps workshops with residents, semi-structured interviews with residents, municipality officials and experts.
Results	UA is mostly practiced at the individual level surrounding people's homes or in left over landscapes and micro-spaces; UA is an important contribution to livelihood and a link to rural cultural traditions for the most vulnerable members of the community. Recently, UA has been introduced by the municipality as an activity in which groups of elderly people can engage with the support of social workers.
	Growing food is perceived as a practice for very low-income households with a rural background, as opposed to those with an urban lifestyle and is therefore associated with a stigma.
	Use of public open spaces to practice UA is negotiated with the community

	leaders.
Location	Potosi (informal settlement), Bogotá, Colombia
Research timeline	Fieldwork conducted between May 2015 and May 2017
Aims	Analysis of: transformation of public space;
	new uses and appropriations;
	transformation of actors and their role.
Methods used	Observation, mapping and semi-structured interviews with residents
Results	UA practices in Potosi are about 20 years old, starting from a private and in-house cultivation of edible crops and fruit, which was gradually extended to open spaces.
	Motivations for such practices are mainly related to the contribution that edible crops can give to the household financial condition. However, these include a higher connection with nature and the preservation of a link with rural cultural traditions.
	NGOs built on these motivations to establish three community gardens, one of which is active in promoting and sustaining the practice with students and the community generally.
	The other two gardens are struggling to maintain because of a lack of resources since the NGO left.

3 Urban Agriculture models-in-circulation

Planning is increasingly characterised by a global attitude and the traveling of ideas (Healey, 2013), often in a "one-size-fits-all" manner. UA practices and spaces of production are particularly suitable to test Roy's claim (2011) that transnational planning models lack sensitivity to local contexts. UA practices have been portrayed – and understood globally - as multi-functional, addressing issues such as political activism (Certomà and Tornaghi, 2015), community making (Holland, 2004), environmental awareness (Travaline and Hunold, 2010), the

preservation of lost ecological memories (Barthel et al., 2013) as well as biodiversity, resilience and food security.

Many urban planning frameworks, policies and programmes globally integrate UA, referring to such models in terms of stated objectives (e.g. healthy food, subsistence and community building) and modalities for implementation. According to the context, there is, both in literature and in practice, a tendency to emphasise specific aims. UA for subsistence, and related policies, is a model predominately sought for Latin America, whereas the 'right to the city' is another model which is much debated in Europe. Depending on each model-in-circulation, policies, institutional attitudes and responses vary. It is, however, worth noting how the two models-in-circulation discussed herein are inevitably the result of a process of simplification. In fact, there are elements of both in each case study presented in this article and in each of the two globalised areas of the world. Discourses surround the interpretation of both notions, which makes it important to recognise the difficulty in applying them universally.

What follows is a brief recount of these two models together with a brief description of the European and Latin American contexts, substantiated by case studies.

3.1. The transnational model-in-circulation for subsistence

Debate on UA in Latin America focuses predominantly on subsistence. A vast body of research from international organisations promote urban food growing (and the development of specific policies) as a fundamental form of livelihood and food security for many households. There are critics to this view (see Badami and Ramankutty, 2015; Webb, 2011), lamenting the inaccuracy and the inconsistency of data on which many studies in support of these assumptions are based. In spite of the need for further investigation on its real effectiveness, the subsistence scope and need for UA in Latin America is still universally regarded as key to socio-economic

development. For this purpose, official reports by FAO (2014), RUAF (RUAF, n.d.) and IDRC (Mougeot, 2006), showcase community projects as a successful format to engage local communities and provide sustainable livelihood options.

3.1.1. The cases of Comuna 13, Medellín and Potosi, Bogotá (Colombia)

The stated aims for UA in Colombia conform to those for Latin America (Barriga Valencia and Leal Celis, 2011; Cantor, 2010; Gómez Rodríguez, 2014), targeting low income groups such as those migrating from rural areas, sometimes as a consequence of forced displacement – i.e. guerrilla and paramilitary groups (Hermi, 2011). In this sense, UA as a household activity can be traced since the 1950s and 1960s, when a major migration process from rural to urban areas started. From 2004 onward, a series of UA top down initiatives (e.g. *Bogotá sin Hambre*, *Agricultura Urbana: Sostenibilidad ambiental sin indiferencia para Bogotá* and *MANA - Programa de Mejoramiento Alimentario y Nutricional* and *Ecohuertas Urbanas* in Medellín – see Gomez Rodriguez, 2014) promoted these practices, mainly by facilitating the implementation of community gardens. At present, UA still remains a practice of low income people, even though UA activities undertaken by other socio-economic groups are starting to appear.

As a consequence of top down initiatives mentioned above, observation sessions and walkthroughs by the authors, and interviews with residents show that Comuna 13 and Potosi present a mixture of spaces where food is cultivated by individual households and in community gardens. This is more evident in Potosi, where community gardens are three, as opposed to Comuna 13 with only one (see Table 2), and it is connected to the degree of commitment of local authorities and organisations to UA as form of subsistance. But the landscape of both settlements and interviews with residents suggest that, with the presence of many individual spaces used for

cultivation, UA is embedded in the cultural background of dwellers, thus going beyond the mere subsistance as a motivation. Generally, observation and interviews suggest that the use of areas surrounding people's homes serves three main purposes: a) establishing a claim over land, b) satisfying basic needs for food and medicine, and c) expressing and creating aesthetic and cultural values, all of which are important for identity-building. Maps of Bogotá and Medellín (Fig 1) show the location of the neighbourhoods under investigation and the distribution of UA spaces in them, with the ones shown in Figure 2 below highlighted in red. Table 2 summarise their spatial characteristics.

Figure 1 – Map of Bogotá (left) and Medellín (right) at the same scale. From both, the maps of the case study sites (Potosi and Comuna 13) are enlarged, also at the same scale.

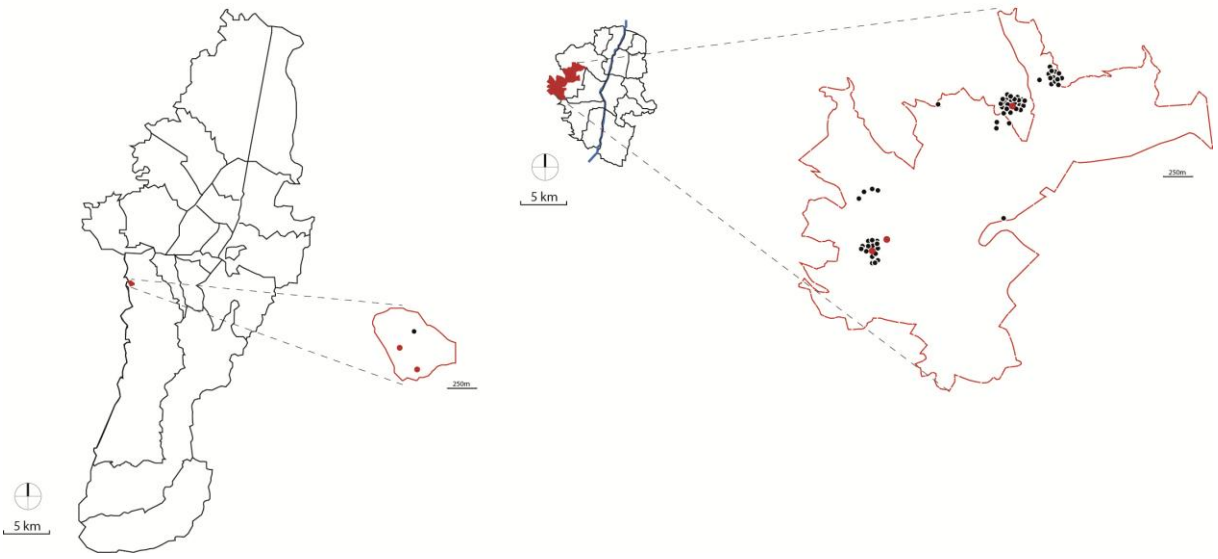


Table 2 - Summary of spatial characteristics of UA in Comuna 13 and Potosi

Comuna 13 (Medellín)	Potosi (Bogotá)

Total area	700 ha	30 ha
Number of inhabitants	135,000	7,550
Density inhabitants	20,000 / km^2	25,200 / km2
Proportion of green areas	approx. 10% of green public space plus 23% not built up space in risk zones or riverbeds. [Medellín: 3.8%]	8.13% [Bogota: 12.97%]
UA spaces	1 community garden, 3 public open spaces claimed for food growing, individual spaces for UA in 73 out of 160 spaces investigated.	3 community gardens in a total of 14 publicly usable green spaces in the area; many individual spaces for UA observed although not counted

Figure 2 displays examples from informal settlements in Medellín and Bogotá, which show how people use UA to establish claims over land, either on an individual level (see example 5 and 6 from Comuna 13) or a more communal level (see example 2 "*Cerros del Sur*"and 3 "*Cocinol*" from Potosi), all while satisfying a basic need for food and medicine. A View of *Juan XXIII* neighbourhood in Comuna 13, Medellin, illustrates the impact of individual practices on the urban pattern (example 4). The examples also express the aesthetic and cultural values of the people engaged in UA. In example 1, the *Casa del Adulto Mayor*, a day-care centre for the elderly in Comuna 13, the municipality was the actor defining the aesthetic values at the same time as promoting communal activity over individual.

Figure 2 – Images from Comuna 13 and Potosi to highlight UA's manifold purposes

3.2. The transnational model-in-circulation for the right to the city

The resurgence of UA practices in Europe is associated with a renewed interest of individuals and groups to the environmental, social and political aspects of urban life (Ioannou *et al*., 2016). In this perspective, UA can be a vehicle to contest the flaws of current socio-economic arrangements, which have ultimately produced environmental damage and unjust distribution of resources. While traditional allotment gardens embody a more regimented form of urban gardening (Milbourne, 2012), in which the provision of dedicated space for this function is officially recognised and embedded in statutory urban plans, guerrilla gardening and community projects are practices in which space and vital resources are self-managed through alternative forms of regulation.

These forms of reclaiming urban land are recognised by some authors as an embodiment of the Lefebvrian 'right to the city' (Purcell and Tyman, 2015). In fact, social dynamics characterising community garden projects are concrete attempts to take back from central and local authorities,

the power of determination (of life, action, social arrangements, use of space, etc.)(McClintock, 2014). This, in turn, transforms the urban landscape in ways that are not centrally determined through planning codes, with transformations needing negotiation between a diversity of actors. Some see this new mode of interaction between civil society and local government as "creative solutions" against decreasing public space and its blankness (Certomà, 2016), whereas others point out that for local authorities, the attractiveness of these community projects resides in the top-down attempt to move towards the devolution of public services and social assistance (see McClintock, 2014).

3.2.1. The case of Vienna (Austria)

In countries where the allocation of land to grow food in allotments is legally established but provision is declining, more informal UA practices have manifested with the use of small-scale, left-over open spaces for community gardens (Caputo *et al*., 2016). The situation in Vienna shows similarities to this, in that community gardens receive growing interest also due to the limited availability of traditional allotments (Klein- or Schrebergärten). Community gardeners, however, are also driven by political and social motives.

The development of the first community garden in 2008 (Heigerleingarten) resulted in the establishment of the City's urban gardening policy, which grants funding to UA projects if the site owner and the district council agree to its implementation and the gardeners are organised in an association. Current urban planning and development policies encourage the involvement of civil society into planning at the local level, with self-harvesting and community gardens explicitly welcome as a contribution to the high quality of life in Vienna and as testing ground for alternative city models (Häupl and Vassilakou, 2010: 58f) or recognizing its social, ecological

247 and economic relevance throughout the city (Urban Development Plan - STEP 2015). It is against
248 this backdrop that the biggest share of contemporary community gardens rely on the procedures
249 established and the funding possibilities outlined in the 2011 urban gardening policy of the
250 municipality, leading to a proliferation of community gardens in the city's public spaces.
251 Observations and document analysis show the strong institutionalisation of a movement that
252 claims to explore political areas of action, albeit at the very local level of the neighbourhood. The
253 Viennese situation exemplifies a way to embrace the right to the city model from the top, not
254 necessarily as an attempt to pre-empt the most radical and subversive motivations driving
255 community groups (McClintock 2014), but rather as a strategy to develop internal and external
256 meaning for the city's quality of life.

257 Figure 3 shows examples from Vienna, which highlight some of their main characteristics, i.e.
258 uniformity of organisation and aesthetic values, their use of public land and their location in left-
259 over urban spaces (examples 1 *Gemeinschaftsgarten Juchgasse* , 2 *Gemeinschaftsgarten*
260 *Arenbergpark* and 3 *Kistelgarten). Donaukanalgarten* (example 4) shares most of these
261 characteristics, but is one of the few examples with no accessibility restrictions. A map shows all
262 urban gardens, highlighting the four mentioned above in red. Tables 3 summarise spatial
263 characteristics.

264 *Figure 3 – Images from Vienna (left) and position of community gardens in the city (right)*

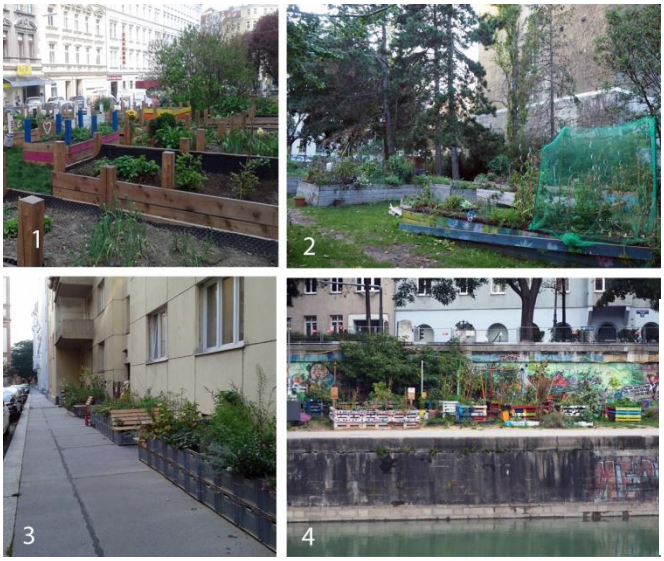


Table 3 - Summary of spatial characteristics of food gardens in Vienna

	Vienna
Total area	40,600 ha
Number of inhabitants	1,797,337
Density inhabitants	4258.6 / km^2
Proportion of green areas	45.5%
UA sites	68 community gardens

4 Discussion:

Data and interviews on urban food gardens in Bogotá, Medellín and Vienna, point to a diversity of actors and a great variety of values and goals attached to UA practices. We also see a variety of institutional responses to such practices. From a critical transnational perspective, however, these practices are not "discrete and self-enclosed" (Ward, 2010: 479), but are part of a larger network of spatial or political references which are employed by the different actors involved in UA to frame their action. This way of framing UA is present both at the level of individuals, who

seek inspiration in practices from abroad and at the level of local governments, that seek policy advice.

The following sections discuss the main findings generated from the analysis of the results of each case study (see Table 1) in terms of networks of actors and side-effects of the reference models that underpinned top down initiatives.

A central idea to both UA models-in-circulation is that it encourages collective practice and community building. In the case of the subsistence model this is a means to an end (i.e. cultivation for subsistence and the development of organisational structures) (Cantor, 2010; Barriga Valencia and Leal Celis 2011; Gómez Rodríguez, 2014). In the case of the right to the city model it should facilitate inclusiveness and the development of a powerful bottom-up movement (Iaonnou *et al*., 2016; Purcell and Tyman, 2015;). In both cases, the inclusion of marginalised groups in community projects is documented in many case studies (e.g. Gómez Rodríguez, 2014; Passidomo, 2016; Purcell and Tyman, 2015). These accounts expose the idea of a coherent community to be a problematic concept, in which cultural and social norms underlying such a concept are disregarded (Campbell, 2016) as much as the manifold actors that constitute a community, their different aims and their different power capitals. Investigating these may highlight how "appropriate" ways of use of public space are framed (Ernwein, 2014) and how specific ideas travel. These processes are a result of negotiations between different actors and therefore reflect the way society is organised (Madanipour, 2010), or in Lefebvre's words: "(social) space is a (social) product" (1991: 26). This consequently highlights the need to look at how power operates in the urban sphere in different forms, for instance by exercise of decision making power or by the introduction of certain norms and values through hegemony or naturalisation.

4.1 Bogotá and Medellín: The community and benefits for subsistence

As mentioned in section 3, UA in Bogotá and Medellín is mainly practiced by low income population with a rural background. While these practices were and still are to a large extent undertaken at an individual level, policy programmes such as *Bogotá Te Nutre* and *Ecohuertas Urbanas* in Medellín, together with NGOs and parts of the local community, have played a key role in instigating collective practices. A case in point are UA spaces in Potosi. In 2004, the NGO *Planeta Paz* (Peace Planet) started an ambitious UA project with the aim to access local knowledge, promote the idea of collectivism above individuality and empower the community. The project, however, did not last long after the NGO left (Cantor, 2010) and plots were either used for housing or became inaccessible to the public. In 2016, two powerful community actors, the *JAC* and the School, started another food garden in *Cocinol*, a central square that is as important for the identity of the neighbourhood as for its actual usability, together with a local NGO experienced in UA practices. There are, however, different concepts about what *Cocinol* should be. Residents state that: "… we prefer to see *Cocinol* closed with a fence and with gardens inside, than misused with illegal activities and insecure" (Interview Potosi Resident (PR) 1). At the same time, community leaders see UA in *Cocinol* serving environmental sustainability, cultural and artistic expression and political struggles, stating that they are "promoting the idea of *Cocinol* as being the cultural, environmental and social centre of the barrio" (Interview Potosi Community Leader (PCL) 1). We see in this example not only a diversity of actors with different power capitals, but also a mixture of motives: whereas the leaders tap into global discourses associated with UA practices, a dynamic frequently highlighted in context of UA and other social movement practices (e.g. Ernwein, 2014; Mayer and Boudreau, 2012; Smith and Kurtz, 2003), the local residents' motivation operates at a different level of concrete use-value.

A similar mixture of global and local discourses around UA is present in Medellín's Comuna 13. A western idea of modernity (Mignolo, 2011) has influenced how the cultivation of land is linked to poverty and disorder in contrast to urban cleanliness and an urban lifestyle. "There is always this idea that the city needs to be attractive, urban conduct… that in the city all are the same, so nobody can put their plants outside and if they do it has to be in a certain manner… so this idea of urbanity restrains freedom and identity" (Interview Expert (EX) 5).

So while generally UA is not a well-regarded use of open space in Comuna 13 for its association with poverty and rural lifestyles, it is accepted by residents as a means of self-help to meet basic needs (Interview CCL 9, 10, 14, 15, 16, 17, 18). However, as only the most vulnerable residents of this community are engaged in UA practice, there is the need to seek support and permission when using communal space for it. An interview with a community leader in Comuna 13 reveals the important role of community leaders in helping people establish their plot in public space, "when they ask us, of course we agree immediately because planting beds [in public parks] can also be used for food, cabbage, onion." (Interview CCL 10). Thus, in an environment which is partly unregulated by government, people find alternative ways of regulation through unwritten rules and informal local governance. In it, hierarchy and personal relations play a central role, as much as values and (unwritten) norms. Such a complex set of relations, however, is difficult to capture in a generic idea of community.

There are some critical voices concerning the feasibility of UA for food security and poverty reduction in informal settlements (e.g. Badami and Ramankutty, 2015; Martellozzo *et al*., 2014). The main argument concerns the space restraints in low income settlements to make UA productive at a scale that would impact substantially on food security. Data on the restricted size of sites for UA in Potosi and Comuna 13 confirm these doubts. These accounts show quantitative

difficulties when applying the UA for subsistence model in the low-income countries. Data from Potosi and Comuna 13, in addition, reveal qualitative challenges for establishing UA. We found that there is considerable stigma attached to UA practices which in turn reflects on how public spaces are used – or not – for growing practices. In some cases members of the community see UA as a practice that is of interest to some and not all ("… community gardens are a good idea, but not in places that belong to all of us…") (Interview PR 6), hence they are not prepared to use public space for food growing purposes. Also, collective forms of UA have little tradition in these areas, despite people's experience with self-management. Public authorities are concerned with poverty alleviation and frame UA practices following the predominant narratives of food production and community building, forgetting that shared values must be found, and subsequently used to promote UA practices that are relevant and feasible in the local context.

4.2 Vienna: Collective practices and inclusiveness

The idea of a universal applicability of models-in-circulation opens the door for misconceptions and undue generalisations, which can be also found in the Viennese case study. Despite Vienna's long history with urban food growing, e.g. in allotments, current community gardeners have taken inspiration from projects around the world, most notably from New York, Berlin and Paris (Sonnleitner, 2016), with arts initiatives taking on a pioneering role. Viennese community gardeners still tend to be found in educated and creative class milieus, where existing groups of friends are the point of origin for many initiatives (a situation highlighted also in other cities by e.g. Adams and Hardmann, 2014). Inspired by international examples, they explore political, social and ecological areas of action which serve the interests of their specific community. It is thus appropriate to state that the UA idea has travelled to Vienna through "forms of authoritative knowledge" (Roy, 2011: 411) such as arts and that only people with certain social and cultural

capital have been able to tap into the inspiration offered by this transnational idea of UA. As document analysis shows, the right to the city is a point of reference for gardeners to frame the political dimension of their UA practices; it is interpreted as "taking the neighbourhood in our hands and turn it into something that meets our own requirements and ideas" (Interview Gardener (G) 1). In contrast to other UA practices linked to the right to the city, e.g. as documented by Purcell and Tyman (2015), Viennese gardeners do not belong to vulnerable populations and thus hardly address vital struggles for food security and access to fresh produce, and only few tackle processes of marginalisation, e.g. through intercultural gardens. Even though Viennese initiatives use alternative formulations, they tap into and are backed by the city's development strategies and coalition programme and are in this respect congruent with established forms of civil society engagement that require certain rules and regulations. Contemporary interpreters of Lefebvre's ideas in the context of urban gardening highlight that the right to the city should not be "enshrined into state law", but must be kept alive through continuous struggle (Purcell and Tyman, 2015: 1133). Also other authors have reported on the weakening of emancipatory struggles through integration into bureaucratic structures (Mayer and Boudreau, 2012). It is thus legitimate to question the motivation of both the municipality and the gardeners for entering into such a peaceful co-operation. For the gardeners, this arrangement leads to high security and thus long term engagement, enabling the fulfilment of individual requirements. The government has recognised the contribution of UA to the high quality of life in the city and actively encourages it by offering "guidance, assistance, professional and financial support" (Stoik *et al*., 2010: 4, authors' translation). The narrative of the city's high quality of life, thus, has a dual function, one targeted at the residents of the city and their contentment, the other feeding into the transnational circuit to demonstrate the city's competitive quality of location. While the right to the city is commonly seen as emphasising the use value of urban space in contrast to furthering its exchange

391 value (Purcell and Tyman, 2015), the Viennese case shows the combination of the two through
392 the linking of UA to the city's quality of life.

393 There are some critical voices highlighting that community gardening in Europe is used as a
394 receptacle for rhetorical ideas of community and alternative lifestyles (e.g. Adams and Hardman,
395 2014; Ernwein, 2014; Pudup, 2008), with gardeners pursuing individual goals through collective
396 action. Also in Vienna, the reference to the right to the city is mainly rhetorical and must be
397 understood in the context of a "culturalisation" (Reckwitz, 2012) of cities, in which people's
398 creativity forms part of an overall urban 'aestheticisation' and commercialisation - a phenomenon
399 also found in other cities (e.g. Eizenberg *et al.*, 2016; Rosol, 2010). The Vienna case shows the
400 pursuit of individual goals through collective action to be not only an inherent challenge of
401 sociality, but one of systemic dimension, in which the government is a central actor in forming
402 the movement due to its local and transnational value. Whether the UA "trend" forms part of
403 sustainable urban development or will be changed for another trend in the near future remains to
404 be seen; in any case it will depend on whether a greater diversity of actors can be attracted.

405 **4.3 From transnational to translocal**

406 The above examples do not contradict mainstream literature about the benefits of UA per se.
407 They do, however, highlight that models-in-circulation in no way fit all contexts, but must be
408 applied with attention to local power asymmetries. The above also justifies a rethinking of the
409 term "critical transnationalism". Parnreiter (2011: 417) argues that the "strength of the
410 transnationalism paradigm is its conceptual sharpness in grasping the relationships between
411 multiple cross-border interactions and the "national"". In a similar vein, Roy (2011: 407)
412 highlights that the global forces shaping this transnational travelling of ideas "are simultaneously

413 embedded in and transcend national systems of governance. They are constituted through borders
414 and yet trespass across borders".

415 The UA practices that are the focus of this article add yet another scale to this reflection. UA
416 must be understood as a practice that is intrinsically defined by and transcends more local
417 boundaries, namely these associated to the use of "rural" practices of cultivation in an urban
418 context. As such, UA adds a more local analysis to capture the essence of such traveling ideas
419 and what happens through them as they manifest in particular places. We understand *translocal*
420 as a concept highlighting the need to critically analyse any cultural factor in the traveling of
421 ideas. Especially in concepts dealing with agricultural practices and educations systems,
422 management of commons, ecology and food growing, there is the need to recognise the link
423 between specific local ideas and manifestations and generic globalised models, which are not
424 sufficiently captured in the idea of the nation/national borders, but are related to cultural or value
425 systems. These can be grafted when relevant within an urban context if careful consideration is
426 given to the way such elements are incorporated in urban policies and translated into a course of
427 action.
428 Consequently, in the context of UA, we find the term 'critical *translocalism*' better adapted to
429 address the different scales of the crossing of boundaries that are not limited to national borders.
430

431 **5 Conclusions**

432 Spitthöfer (2010) has argued that the pluralisation and individualisation of contemporary society
433 needs to be taken into account within urban planning, by providing diverse and new types of
434 spaces, e.g. spaces for collective UA. Investigations into the use value of spaces should act as a

point of departure, helping to optimise planning and sensitise planners. Our critical transnational reading of UA practices in diverse locations in Europe and Latin America has shown how in the traveling of ideas, the idea of a pluralised society *across the globe* is disregarded. While traveling ideas can provide inspiration, turning a blind eye on power imbalances in the adoption of such ideas prevents closer scrutiny of spaces' use value for a diverse *local* population. To prove it, the article has analysed three case studies, firstly considering the models-in-circulation taken as a reference to draw up local urban policies and initiatives (i.e. the subsistence model and the right to the city model). Secondly, with the support of primary and secondary sources, it ascertained that the models as implemented were corresponding to a conceptualisation of the socio-economic conditions these are supposed to address, which is too narrow and general to be effective.

Instead, the traveling of ideas can be made more effective through a context-specific examination of spaces' use value for a diversity of actors in order to find traces of those same ideas promoted in globalised models, often already existing in a form or another. The analysis of primary sources discussed above shows that ways in which UA practices were imported from the rural to the urban context, in the cases of Bogotá and Medellín, give an indication that such practices are not exclusively related to poverty but to cultural heritage and, therefore could be promoted more effectively as such. By the same token, a more nuanced conceptualisation of community, as argued in this article, could help to develop narratives to attract a greater diversity of actors and turn UA's strength as transnationally inspired bottom-up movement into a vehicle for the self-realisation of more diverse social groups. This is not only true for the two Colombian case studies but also for the Viennese case. There, an ambiguous policy linking local and transnational requirements creates an environment in which marginalised groups and the disadvantaged generally as actors that could benefit from UA practices, seem to attract less interest. In Vienna

too, internal (*translocal*) dynamics seem to be not as influential as the prevailing models-in-circulation which tend to simplify a complex reality.

Tailoring globalised ideas through a *translocal* analysis of dynamics on ground becomes therefore imperative. As mentioned above, the term *translocal* captures an approach to understanding how ideas travel between the local and the global and in doing so adapt to different circumstances. These dynamics give important clues as to how socio-cultural constructs (e.g. agriculture, social hierarchies and democracy) are locally understood.

In order for urban planning to fully take advantage of the benefits of UA for a diverse population, the ways ideas travel and influence practice needs to be carefully considered. We have used a critical transnational lens to gain insights into how the travelling of ideas needs a *translocal,* as opposed to globalised, approach, which can generate a critical and fruitful scrutiny of the actors, their motivations and power capitals.

References

Adams, D. and Hardman, M. (2014). Observing guerrillas in the wild: reinterpreting practices of urban guerrillas. *Urban Studies* 51(6): 1103–1119.

Badami, M. and Ramankutty, N. (2015). Urban agriculture and food security: A critique based on an assessment of urban land constraints. *Global Food Security* 4: 8–15.

Barriga Valencia, L. M. and Leal Celis, D. C. (2011). Agricultura Urbana en Bogotá. Una evaluación externa-participativa. *X Congreso Nacional de Sociología*, 2-4 Nov 2011, Cali, Colombia. Available from: https://www.icesi.edu.co/congreso_sociologia/mesas_de_trabajo_y_ponencias/mesa_9_estado_y_politicas_publicas.php

Barthel, S. and Isendahl, C. (2013). Urban gardens, agriculture, and water management: Sources of resilience for long-term food security in cities. *Ecological Economics* 86: 224–234.

Biel, R. (2016). *Sustainable Food Systems*. London: UCL Press.

Campbell, L. (2016). Getting farming on the agenda: Planning, policymaking, and governance practices of urban agriculture in New York City. *Urban Forestry & Urban Greening* 19: 295–305.

Cantor, K. M. (2010) Agricultura urbana: elementos valorativos sobre su sostenibilidad. *Cuadernos de Desarrollo Rural* 7(65): 59-84.

Caputo, S., Schwab, E., and Tsiambaos, K. (2016). Emergent approaches to urban gardening. In Bell, S., Fox-Kämper, R., Keshavarz, N., Benson, M., Caputo, S., Noori, S. and Voigt, A. *Urban Allotment Gardens in Europe*. Abingdon: Routledge.

Certomà, C. (2011). Critical urban gardening as a post-environmentalist practice. *Local Environment* 16 (10): 977–987.

Certomà, C. and Tornaghi, C. (2015). Political gardening. Transforming cities and political agency, *Local Environment* 20(10): 1123-1131.

Certomà, C. (2016). A new season for planning: urban gardening as informal planning in Rome. *Geografiska Annaler: Series B, Human Geography* 98 (2): 109–126.

Drescher, A.W., Holmer, R.J. and Laquinta, D.L.(2006). Urban homegardens and allotment gardens for sustainable livelihoods: Management strategies and institutional environments. In Kumar, B.M. and Nair, P.K.R. (eds) *Tropical Homegardens. A Time-Tested Example of Sustainable Agroforestry.* Springer: New York

Edensor, T. and Jayne, M. (2012). *Urban Theory Beyond the West. A World of Cities*. Abingdon: Routledge

Eizenberg, E., Tappert, S., Thomas, N., and Zilans, A. (2016). Political-economic urban restructuring: urban allotment gardens in the entrepreneurial city. In Bell, S., Fox-Kämper, R., Keshavarz, N., Benson, M., Caputo, S., Noori, S. and Voigt, A. *Urban Allotment Gardens in Europe*. Abingdon: Routledge

Ernwein, M. (2014). Framing Urban Gardening and Agriculture: On Space, Scale and the Public. *Geoforum* 56: 77 – 86.

FAO (2014). *Growing Greener Cities in Latin America and the Caribbean.* Rome: FAO.

Gómez Rodríguez, J. N. (2014). *Agricultura Urbana en América Latina y Colombia: Perspectivas y Elementos Agronómicos Diferenciadores*, Degree Work at the Universidad Nacional de Colombia Abierta y a Distancia de Medellín: UN.

Groat, L. and Wang, D. (2002). *Architectural Research Methods.* New York: John Wiley & Sons

Häupl M, Vassilakou M. (2010). *Gemeinsame Wege für Wien – Das rot grüne Regierungsübereinkommen*. http://www.wien.gv.at/politik/strategien-konzepte/regierungsuebereinkommen-2010/pdf/regierungsuebereinkommen-2010.pdf, accessed 17.1.2014

Healey, P. (2013). Circuits of Knowledge and Techniques: The Transnational Flow of Planning Ideas and Practices. *International Journal of Urban and Regional Research* 37(5): 1510–1526.

Hermi, M. (2011). Agricultura urbana: algunas reflexiones sobre su origen e importancia. *Revista Bibliográfica de Geografía y Ciencias Sociales*, Vol 16.

Holland, L. (2004). Diversity and connections in community gardens: a contribution to local sustainability. *Local Environment* 9 (3): 285–305.

Hernandez-Garcia, J. (2016). Urban Agriculture in Public Spaces in Informal Settlements. *Internal Research Report*. Bogotá: Pontificia Universidad Javeriana.

Ioannou, B., Moran, N., Sondermann, M., Certoma', C. and Hardman, M. (2016) Grassroots gardening movements: towards cooperative forms of urban development? In Bell, S., Fox-Kämper, R., Keshavarz, N., Benson, M., Caputo, S., Noori, S. and Voigt, A. *Urban Allotment Gradens in Europe*. Abingdon: Routledge

Lefebvre, H. (1991) *Critique of Everyday Life*. London: Verso

Madanipour, A. (ed) (2010) *Whose Public Space?: International Case Studies in Urban Design and Development.* Abingdon: Routledge

Martellozzo, F., J. S. Landry, D. Plouffe, V. Seufert, P. Rowhani, and N. Ramankutty (2014). Urban agriculture: a global analysis of the space constraint to meet urban vegetable demand, *Environmental Research Letters*, 9(6): 064025.

Mayer. M. and Boudreau, J-A. (2012). Social Movements in Urban Politics: Trends in Research and Practice. *Oxford Handbook on Urban Politics*. Oxford: Oxford University Press.

Mayring, P. (2000). Qualitative Content Analysis. *Forum: Qualitative Sozialforschung* 1(2). http://www.qualitative-research.net/index.php/fqs/article/viewArticle/1089/2385

McClintock, N. (2014). Radical, reformist, and garden-variety neoliberal: Coming to terms with urban agriculture's contradictions. *Local Environment* 19(2): 147-171.

Mignolo, W. D. (2011). *The Darker Side of Western Modernity: Global Futures, Decolonial Options.* Durham: Duke University Press

Milbourne, P. (2012). Everyday (in)justices and ordinary environmentalisms: community gardening in disadvantaged urban neighbourhoods, *Local Environment* 17(9): 943-957.

Mougeot, L. (2006). *Growing Better Cities: Urban Agriculture for Sustainable Development.* Ottawa: IDRC

Nikolaidou, S., Klöti, T., Tappert, S., and Drilling, M. (2016). Urban Gardening and Green Space Governance: Towards New Collaborative Planning Practices, *Urban Planning* 1(1): 5-19.

Passidomo, C. (2016). Community gardening and governance over urban nature in New Orleans's Lower Ninth Ward, *Urban Forestry & Urban Greening* 19: 271–277.

Parnreiter, C. (2011). Commentary: Toward the Making of a Transnational Urban Policy? *Journal of Planning Education and Research* 31(4): 416 –422.

Pudup, M. B. (2008). It takes a garden: Cultivating citizen-subjects in organized garden projects. *Geoforum* 39(3): 1228-1240.

Purcell, M. and Tyman, S. (2015). Cultivating food as a right to the city, *Local Environment*, 20(10): 1132-1147.

Reckwitz, A. (2012). *Die Erfindung der Kreativität. Zum Prozess gesellschaftlicher Ästhetisierung*, Suhrkamp: Berlin.

Rosol, M. (2010). Public Participation in post Fordist urban green space governance: the case of community gardens in Berlin, *International Journal of Urban and Regional Research*, 34(3): 548 – 563.

Roy, A. (2011). Commentary: Placing Planning in the World—Transnationalism as Practice and Critique. *Journal of Planning Education and Research* 31(4): 406 –415.

Roy, A. and Ong, A. (eds) (2011). *Worlding cities: Asian experiments and the art of being global*. Malden, MA: Wiley-Blackwell.

Roy, A. (2004): Transnational Trespassings: The Geopolitics of Urban Informality. In: Roy, A. and AlSayyad, N. (Eds.). *Urban Informality: Transnational Perspectives from the Middle East, Latin America and South Asia.* Lanham: Lexington Books, pp. 289-318.

RUAF (n.d.). http://www.ruaf.org/publications/magazines. Retrieved February 15, 2017.

Schwab, E. and Rode, P. (2015). Urban Gardening in Wien als Impuls für die Wiener Grünraumplanung? *Stadt + Grün* 12: 44-48.

Schwab, E. (2015). Urban Promises? Spatial Justice in Public Space Based Upgrading Programmes of Popular Settlements in Latin America. *PhD Thesis at the University of Life Science and Natural Resources*, Vienna

Silverman, D. (2010). *Doing Qualitative Research*. Thousand Oaks: Sage Publications.

Smith, C.M., Kurtz, H.E. (2003). Community gardens and politics of scale in New York City, *Geographical Review* 93 (2): 193–212.

Sonnleitner, A.K. (2016). Urban Gardening im Diskurs: In Analyse der Repräsentation, Entwicklung und Begriffsverwendung von Urban Gardening anhand der Berichterstattung in österreichischen Zeitungen. *Master Thesis at the University of Natural Resources and Life Sciences, Vienna*

Spitthöfer, M. (2010). Zur Relevanz des Gebrauchswerts von Freiräumen in Hart, A. and Scheller, G. (eds). *Soziologie der Stadt-und Freiraumplanung. Analysen, Bedeutung und Perspektiven*. Wiesbaden: VS

Stoik, C., Emprechtinger,J., Förster,K., Gruber,S., Mayrhofer, R., Staller, S., and Studer, H. (2010). *Wissenschaftliche Begleitforschung zur Einführung von Nachbarschaftsgärten im Wiener Gemeindebau*. Wien: MA 50

Travaline, K. and Hunold, C. (2010). Urban agriculture and ecological citizenship in Philadelphia. *Local Environment* 15 (6): 581 – 590.

Thrift, N. (2000) “Not a straight line but a curve”, or, cities are not mirrors of modernity. In Bell, D. and Haddour, A. (ed) *City Visions,* London: Prentice Hall

Turner, B., Henryks, J. and Pearson, D. (2011). Community gardens: sustainability, health and inclusion in the city, *Local Environment* 16(6): 489-492

UN Habitat (2014). Integrating urban and peri-urban agriculture into city-level climate change strategies. *UN-Habitat Cities and Climate Change Initiative Newsletter*, June.

Ward, K. (2010). Towards a relational comparative approach to the study of cities. *Progress in Human Geography* 34(4): 471–487.

Webb, N. L. (2011) When is enough, enough? Advocacy, evidence and criticism in the field of urban agriculture in South Africa. *Development Southern Africa* 28(2): 197-208.

List of Tables

Details of case study and summary of results	
Location	Vienna, citywide
Research timeline	Fieldwork conducted between August 2013 and May 2014. Data has been updated in spring 2016 for the present article.
Aims	Analysis of: locations of community gardens;
	profile and motivations of gardeners;
	institutional response.
Methods used	Site analysis and document analysis (e.g. bylaws and mission statements of community gardening associations, newspaper reports, planning documents).
Results	Community gardens are located in densely built up areas in the city. Gardens are small in size, mostly publicly owned and fenced.
	Gardeners have an educated, creative class background. Associations are started by existing groups of friends/acquaintances. Motivations are the enhancement of local communities, productive leisure time and active improvement of the urban environment.
	Urban gardening is highly institutionalised and explicitly welcome in urban development/planning strategies.
Location	Comuna 13 (informal settlement), Medellín, Colombia
Research timeline	Fieldwork conducted between June 2011 and January 2012.
Aims	Analysis of: different types of open space and their daily use;

	role of open spaces, established in an on-going upgrading programme for the improvement of spatial justice;
	actors and roles in the production of space.
Methods used	Walkthroughs with community actors, mental maps workshops with residents, semi-structured interviews with residents, municipality officials and experts.
Results	UA is mostly practiced at the individual level surrounding people's homes or in left over landscapes and micro-spaces; UA is an important contribution to livelihood and a link to rural cultural traditions for the most vulnerable members of the community. Recently, UA has been introduced by the municipality as an activity in which groups of elderly people can engage with the support of social workers.
	Growing food is perceived as a practice for very low-income households with a rural background, as opposed to those with an urban lifestyle and is therefore associated with a stigma.
	Use of public open spaces to practice UA is negotiated with the community leaders.
Location	Potosi (informal settlement), Bogotá, Colombia
Research timeline	Fieldwork conducted between May 2015 and May 2017
Aims	Analysis of: transformation of public space;
	new uses and appropriations;
	transformation of actors and their role.
Methods used	Observation, mapping and semi-structured interviews with residents
Results	UA practices in Potosi are about 20 years old, starting from a private and in-house cultivation of edible crops and fruit, which was gradually extended to open spaces.
	Motivations for such practices are mainly related to the contribution that edible crops can give to the household financial condition. However, these include a higher connection with nature and the preservation of a link with rural cultural traditions.
	NGOs built on these motivations to establish three community gardens, one of which is active in promoting and sustaining the practice with students and the community generally.
	The other two gardens are struggling to maintain because of a lack of resources

since the NGO left.

471

	Comuna 13 (Medellín)	Potosi (Bogotá)
Total area	700 ha	30 ha
Number of inhabitants	135,000	7,550
Density inhabitants	20,000 / km^2	25,200 / km2
Proportion of green areas	approx. 10% of green public space plus 23% not built up space in risk zones or riverbeds. [Medellín: 3.8%]	8.13% [Bogota: 12.97%]
UA spaces	1 community garden, 3 public open spaces claimed for food growing, individual spaces for UA in 73 out of 160 spaces investigated.	3 community gardens in a total of 14 publicly usable green spaces in the area; many individual spaces for UA observed although not counted

472

473

	Vienna
Total area	40,600 ha
Number of inhabitants	1,797,337
Density inhabitants	4258.6 / km^2
Proportion of green areas	45.5%
UA sites	68 community gardens

Figure 1

Click here to download high resolution image

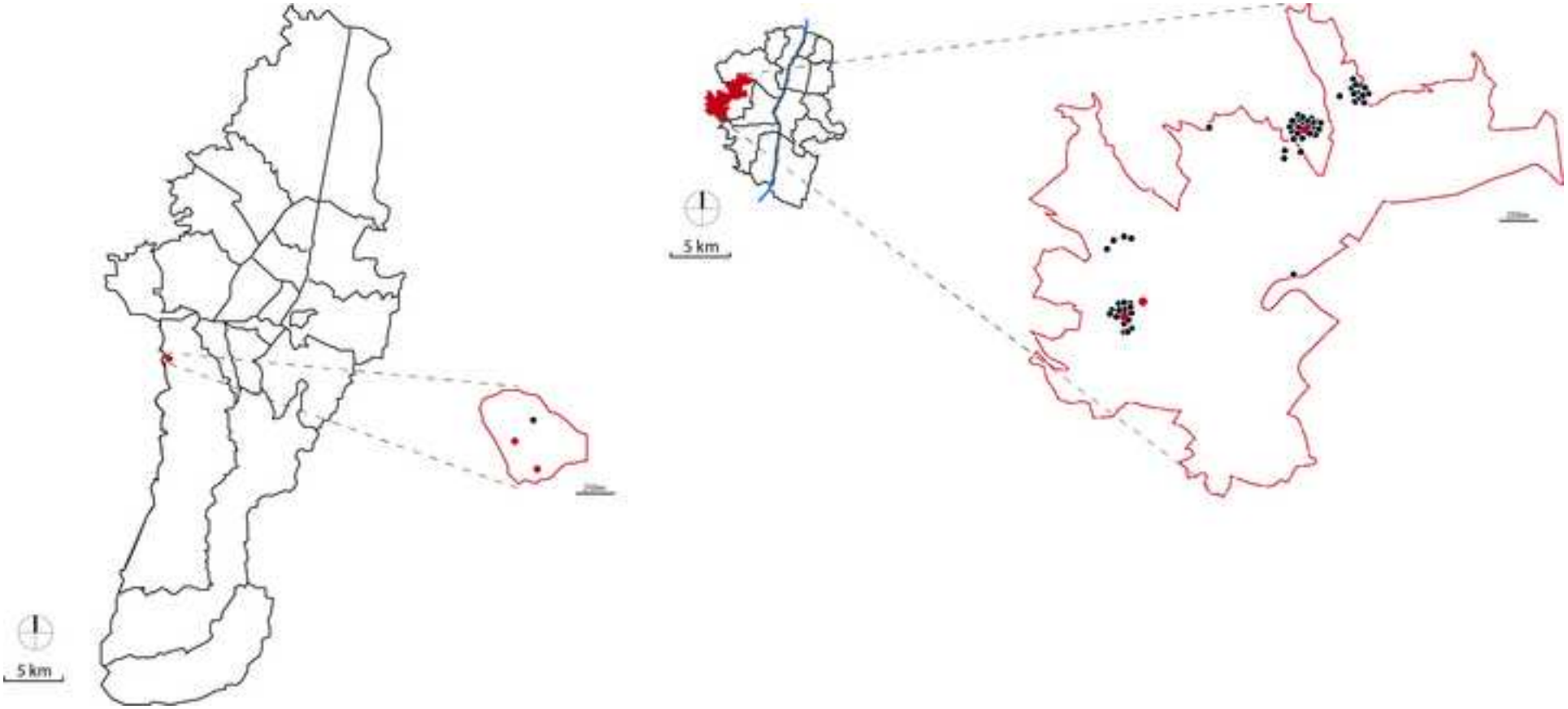


Figure 2

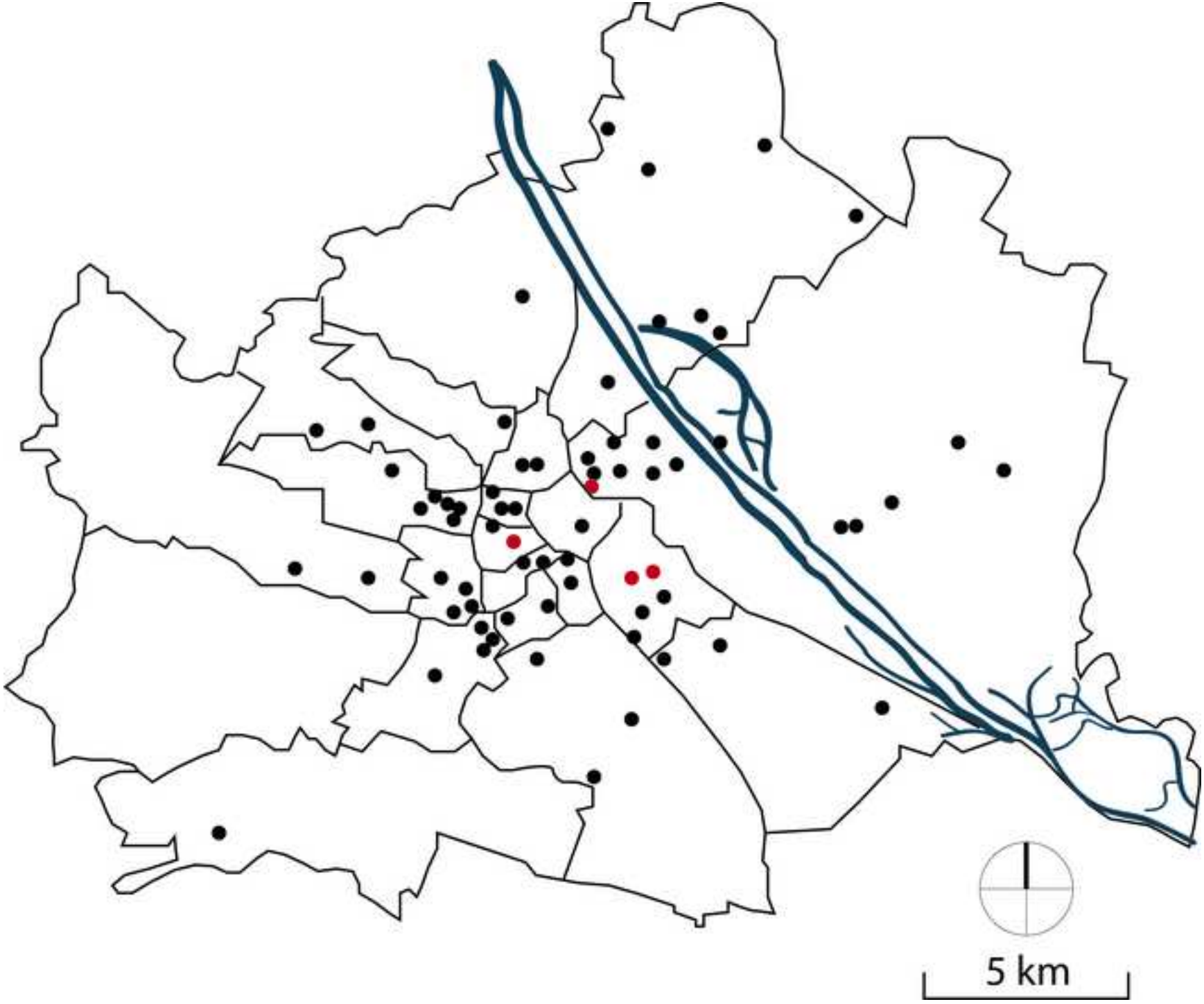
Click here to download high resolution image

Figure 3 images

Click here to download high resolution image

Figure 3 map

Click here to download high resolution image



Acknowledgements

The authors wish to thank Heather Rumble and Philipp Rode and the three anonymous reviewers for their helpful comments on draft versions of this paper.

Fieldwork in Medellín has been supported by a six months sabbatical and a KUWI-travel grant from the University of Natural Resources and Life Sciences Vienna covering the airfare.

Jaime Hernandez-Garcia´s contribution was possible thanks to the financial support of the Pontificia Universidad Javeriana and connected to the research project: “Visiones alternas de ciudad: complejidad, sostenibilidad y cotidianidad”