The geography of urban agriculture: New trends and challenge

In the article, which is a theoretical and conceptual introduction for the Special Issue of Moravian Geographical Reports on ‘New trends and challenges of urban agriculture in the context of Europe’, the authors resume and review diverging issues of urban agriculture, exploring and discussing them from a geographical perspective and in a wider context of the transformation of urban and rural spaces, urban regeneration and renewal, agricultural restructuring, multifunctionality, ecosystem services, land-use conflicts and social responsibility. After the introduction that depicts a changing role of agriculture in the context of urban and rural transformations, the current research on urban agriculture in Europe is summarized and reviewed. Then the main trends and concepts of growing and expanding urban agriculture are presented and discussed with a special emphasis on the challenges these pose to geographers.

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Mapping urban agriculture in Portugal: Lessons from practice and their relevance for European post-crisis contexts

A significant sample of twenty-nine Portuguese urban agriculture (UA) initiatives is analysed in this article. It argues that emerging initiatives are relevant for shifting from a post-crisis approach to one that is more developmental. This multi-level analysis finds that UA in Portugal: embraces allotment gardens, urban farms and short food chains; deals primarily with vegetables and fruit; takes place predominantly on public and institutional land; and is championed by municipalities and to a lesser extent by civil society initiatives. UA is predominantly a metropolitan phenomenon. Furthermore, activities are organised around three pillars: production of food; simple processing and distribution; and a significant set of capacity building and training activities. UA is recent phenomena in Portugal, and it has expanded quickly since the 2008 economic crisis. The paper explores in-depth four innovative short food chains from the sample of initiatives. They are led by young entrepreneurs, make positive use of social networks, are committed to social and economic values, and expanded successfully in generating jobs at the time of the crisis. These examples strongly suggest that UA social economy enterprises are a driving force behind integrated sustainable development approaches in European cities, if and when supported by public policies.

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Urban agriculture and place-making: Narratives about place and space in Ghent, Brno and Bristol

Despite rising enthusiasm for food growing among city dwellers, local authorities struggle to find space for urban agriculture (UA), both literally and figuratively. Consequently, UA often arises, sometimes temporarily, in marginal areas that are vulnerable to changes in planning designation. In the literature, spatial issues in relation to UA have either addressed structural questions of land use, governance and planning, or have highlighted social and personal benefits of UA. This paper aims to revisit and combine both streams of inquiry, viewing them as two co-constitutive forces that shape places through UA. The paper analyses three case studies in Brno, Ghent and Bristol, using a spatial lens that exposes important tensions as inherent characteristics of UA and conceptualises them as tensions within two space-narratives, namely abstract space and concrete place. It is suggested that UA, as a collective socio-cultural process, can transform functionally replicable spaces into unique places and thus contributes to place-making. This function should be recognised within urban planning circles, which should not only secure physical spaces to develop urban agriculture, but also create possibilities for local autonomous governance.

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**Title:** Business models in urban farming: A comparative analysis of case studies from Spain, Italy and Germany  
**Abstract:** The “Urban Agriculture Europe” EU COST-Action (2012-2016) has shown that the complexity of urban agriculture (UA) is hardly compressible into classic business management models and has proposed new management models, such as the Business Model Canvas (BMC). Business models of UA have to be different from rural ones. In particular, factors such as differentiation and diversification, but also low cost-oriented specialisation, are characteristic and necessary business models for UA to stay profitable in the long term under challenging city conditions. This paper aims to highlight how farm enterprises have to adjust to urban conditions by stepping into appropriate business models aiming to stay competitive and profitable, and how the BMC is useful to analyse their organisation and performance, both economically and socially. The paper offers an inter-regional analysis of UA enterprises located in Spain, Italy, and Germany, which are further subdivided into: local food, leisure, educational, social, therapeutic, agri-environmental, cultural heritage and experimental farms. The analysis demonstrates that UA is differentially adjusted to specific urban conditions and that the BMC is useful for analysing urban farming. Heterogeneous local food farms and the integration of local and organic food production in social farming business models are most frequent in our case studies.  
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**Title:** Effects of consumer-producer interactions in alternative food networks on consumers’ learning about food and agriculture  
**Abstract:** In the recent literature, Alternative Food Networks (AFN) are discussed as a promising approach, at the urban-rural interface, to meeting the challenges of the current agri-food system. Consumer-producer collaboration is seen as a characteristic feature in this context. What is lacking, however, are general concepts for describing the topics of consumer-producer interactions (CPI). The present study aims (1) to develop an analytical framework relying on six CPI domains and (2) to apply it to investigate CPI effects on consumers’ learning about and appreciation of agriculture. We conducted 26 guided interviews with consumers and producers of the three most frequent AFN types in Germany: community-supported agriculture (CSA), food coops, and self-harvest gardens. The results show that AFN participation enhances consumers’ learning about food (seasonality, cooking/nutrition, housekeeping aspects) and agricultural production (farmers’ perspectives, cultivation). Our results show that consumer’s learning is influenced by certain CPI domains, and each AFN type can be described by distinctive CPI domains. This led to the conclusion that specific AFN types open up specific learning channels and contents, with consumers learning from producers. AFNs at the urban-rural interface exploit knowledge of rurality.  
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**Title:** Challenges for the revitalisation of peri-urban agriculture in Spain: Territorial analysis of the Madrid and Oviedo metropolitan areas  
**Abstract:** Contemporary urban sprawl and urban functional centrality at the regional scale have made the classical urban-rural dichotomy no longer valid. Instead, urban development generates a range of peri-urban transitional areas in which urban and rural uses are mixed in a fragmented land mosaic. The main objective of this paper is to detect opportunities for the revitalisation of peri-urban agriculture based on an analysis and comparison of its evolution in two different regional contexts in Spain. The peri-urban space is delimited according to density, topography and perceptual criteria. Aerial images and cartographic bases are used to identify land quality and land use changes in the areas, concluding that peri-urban agriculture has suffered both urban occupation and internal changes in crops and agricultural uses, experiencing a process of decline. Innovative initiatives performed in these spaces are also explored as elements of opportunities for revitalisation from a multifunctional approach, linking urban population to peri-urban agriculture, organic farming or landscape management. This analysis serves as a prerequisite to develop new policies for the planning of peri-urban agriculture at local and regional scales, based on a deep understanding of the territory and its evolution.  
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Authors: Attila TÓTH, Axel TIMPE
Title: Exploring urban agriculture as a component of multifunctional green infrastructure: Application of figure-ground plans as a spatial analysis tool
Abstract: Using ‘Urban Atlas’ as a data source, the authors present and critically discuss in this paper the application of figure-ground plans in combination with complex land-use maps as a tool for spatial analysis of urban agriculture in European cities and their multifunctional green infrastructure. The selected cities and metropolitan areas (including Dublin, Ruhr Metropolis, Geneva and Sofia) represent different regions in Europe from the Northwest to the Southeast. Urban fabric, agriculture and non-agricultural open spaces have been analysed and compared as the main land-use components. Agricultural open spaces include arable land with annual crops and permanent crops, such as vineyards, fruit trees and olive groves; pastures; as well as complex and mixed cultivation patterns. The results reveal the scale and land-use diversity of metropolitan regions and different spatial patterns of urban agriculture at the regional level and in central urban areas.
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