AGRICULTURAL PARKS: HISTORIC AGRARIAN STRUCTURES IN URBAN ENVIRONMENTS (BARCELONA METROPOLITAN AREA, SPAIN)

Attila Tóth & Ján Supuka

Abstract: Agricultural Parks: Historic Agrarian Structures in Urban Environments (Barcelona Metropolitan Area, Spain)

Agricultural parks represent a specific management form of land cultivation at the largest scale of Urban Agriculture (UA) in the Barcelona Metropolitan Area. To study this form of UA, we have applied spatial and perceptual analyses to diverse types of agricultural parks represented by two case studies differing mainly in their structures, area, origin, aims, uses and management. This approach aims at showing the complexity of agricultural parks which due to historic landscape and urban structures related to the tradition of land cultivation represent a specific type of urban-agricultural landscape preserved as cultural heritage with a significant historical legacy.

Key words: agricultural park, public open space, urban agriculture, urban environment

INTRODUCTION

Agricultural parks are designed for multiple uses that accommodate small farms, public areas and natural habitats. They allow small farmers access to secure land and local markets; they provide fresh food, and are an educational, environmental, and aesthetic amenity for nearby communities. Agricultural parks facilitate the continuity of agriculture as the practice of cultivating the land in urbanised landscapes. The naming of the concept as a 'park' is intended to convey its role for open space preservation. While the term suggests the permanent land conservation and recreational use exemplified by the public park, it also evokes the traditional model of a business park, where multiple tenants operate under a common management structure. Agricultural parks are suitable for metropolitan areas and regions that want activated and permanently protected edges to contain cities and provide the 'sense of place'; viable agriculture as an integral part of community and regional health; access to fresh food, parks and green spaces (SUSTAINABLE AGRICULTURE EDUCATION 2005).
Agricultural parks represent a specific component of Urban Agriculture (UA) that plays a key role in two global challenges: urbanisation and food security. UA can provide an important contribution to sustainable, resilient urban development and the creation and maintenance of multifunctional urban landscapes (COST-ACTION UAE 2012).

The Barcelona Declaration on UA and the Common Agricultural Policy (COST-ACTION UAE 2013) defines UA as: "...spanning all actors, communities, activities, places and economies that focus on bio-based production, in a spatial context that, according to local opinions and standards, is perceived as urban. UA takes place in intra-urban and peri-urban areas."

UA has existed as long as there have been cities. Its activities have however not been always defined as 'urban agriculture'. Many producers in the city proper have always grown food for their own needs or for barter as was the case in many rural areas. Such farmers had recognised the importance of the urban market early on without calling themselves urban farmers. UA is becoming increasingly recognised for its multiple functions that benefit urban society. These include educational functions, social integration, food production for urban consumers, conservation of cultural heritage landscapes, protection of agricultural land and water resources, leisure and tourist activities that can use farming landscapes as resources (BRYANT 2012).

METHODOLOGY

This paper bases on the methodology and results of the 1st Short Term Scientific Mission (STSM) of the COST-Action TD1106 Urban Agriculture Europe (UAE) in the Barcelona Metropolitan Region presented at the 2nd WG meeting of the action in Castelldefels on the 12th of March 2013 and reported in the STSM report (GIACCHÈ & TÓTH 2013).

Case studies

We have applied the method of field trips combined with interviews to analyse and compare 2 different types of agricultural parks in the Barcelona Metropolitan Area: a) Parc Agrari del Baix Llobregat, b) L’espai Rural Gallecs. They differ mainly in management and use.

Spatial and perceptual analysis

Our analysis focuses on 1) spatial situations (how is UA occurring in landscape and urban structures and how is it impacted by 3-dimensional elements like buildings, vegetation etc.); 2) uses/users and observers (actual and if applicable, potential uses in the space) and 3) atmosphere (explored by observation and perception of the space, captured by sketches, drawings, photos etc.). We analyse the relation between different land use types in a wider territorial context (open land/urban area). The emphasis is laid on definition of spatial qualities related to real and perceived ownership relations (private / semi-public / public). We define visual and functional linkages between UA sites and their surroundings represented either by urban, suburban or open land structures. The perception of selected UA sites bases on observation, experiencing their essence, multifunctionality and multilevel values. Within our interviews several questions have been formed in order to find out the role of
UA for the actors (users of the space, stakeholders and observers) and their perception of the space with its surroundings.

RESULTS
This paragraph introduces the results of the spatial and perceptual analysis of agricultural parks at the largest scale of UA in the Barcelona Metropolitan Area. The two analysed case studies differ in aims, activities, management and area in order to show the complexity of agricultural parks and the diversity of UA as such. Concerning their complexity, agricultural parks represent several types of UA. Due to historic landscape structures and the tradition of land cultivation, they represent agriculture preserved as cultural heritage. They also include family gardening and proximity agriculture. Concerning market orientation, agricultural parks trade on the local market in the spirit of short supply chain but also indirectly on global markets.

In case of Parc Agrari del Baix Llobregat, the emphasis is put on farming and agricultural production rather than social issues. It aims at protection and preservation of agricultural land by supporting agriculture as an economic activity. Social issues like environmental education play a supporting role. The park is recognised as a model of agricultural land management.

In terms of spatial perception, it is clearly recognisable that production plays the main role. There are extensive farmlands including greenhouse production. The artichoke fields represent a certain kind of local identity as they are very popular on local markets, see fig. 1.

Fig. 1: The landscape image of the Baix Llobregat agricultural park situated at the urban boundary of Barcelona, sketched by Attila Tóth (2013)
Concerning spatial characteristics it is not easy to perceive an overall image of landscape structures in situ due to their large scale. An overall land structure can be perceived only from elevated spaces by aerial views. At this scale, the Parc Agrari contributes to local identity of Barcelona with an image of a city with integrated farmland, see fig. 2.

![Fig. 2: Barcelona as a city with integrated farmland in the form of an agricultural park, photographed by Attila Tóth (2013)](image)

The in situ perception is very much influenced by the proximity to the city and surrounding geomorphologic structures. Mountains and urban structures in the background together with valuable farmhouse architecture represent local landmarks. Users represented mainly by farmers and involved agronomists perceive the space in terms of its proximity to the city and its inhabitants as potential consumers. Historical legacy and local identity formed by long-term land cultivation play an important role for them. Farmers have a very strong personal linkage to their land and they perceive it as a private space dedicated to food production, not to leisure and recreation.

The case of agricultural park Gallecs is compared to Baix Llobregat quite different. The social dimension is much more emphasised. This has a lot to do with the origin of the site as in 2005, it was decided to preserve and protect non-urbanised areas as public open spaces. Therefore, Gallecs is perceived more as a public open space rather than a farmland, although 75 percents of the overall area are represented by cultivated open land. The aim of this agricultural park is to preserve a valuable agricultural land in urban context. Besides recreational services, it is involved in global networks dedicated to environmental and ecological issues.

Due to different geographical location and geomorphologic conditions, the landscape of Gallecs is clearly structured and more dynamic than in the previously described case. The open landscape is not that much influenced by industrialisation and urbanisation. There is a real interaction between
agriculture, nature and society as the space is more frequently used for recreation and leisure activities. The agricultural landscape serves besides production also as public open space. In terms of perception, the landscape character is more rural than in the case of Baix Llobregat. The scale of landscape structures is smaller – there is a mixture of bigger corn fields with smaller vegetable plots. This smaller structure makes Gallecs into a more human-scale rather than a machinery-scale landscape, see fig. 3.

![Image of Gallecs agricultural park](image)

**Fig. 3:** The landscape image of the Gallecs agricultural park formed by a patchwork of intensive vegetable plots and extensive cereal fields, sketched by Attila Tóth (2013)

The society using park Gallecs perceives the space in terms of its unique historical landscape structure. It is understood as an 'agricultural jewel' within the residential area. It forms the local identity and cultural heritage of the space. According to users' opinion the main values of Gallecs consist in preserved productivity of the land integrating recreational services as well. In this context UA is understood as a way to make urban society more sustainable. Local stakeholders perceive a clear change in mentality concerning UA as it is an approach where agriculture meets the city, gets integrated and is no more located behind or at the city border. It represents a challenge to integrate agriculture into urban structure and to transform peri-urban into urban.

**DISCUSSION**

Research into UA seems to be a very relevant approach as it is according to Lorløberg (2012) making a critically important contribution to sustainable development and covers all components of sustainability: economy, society and environment. Similarly is UA considered by Forte (2009), who states that well
planned and designed urban agriculture and horticulture as integral elements of an urban green structure can play a synergic role in the search for sustainability. We deal with issues concerning space, use and perception of agricultural parks as there are according to Veen (2012) two main things which need to be changed: processes and perceptions concerning multifunctionality and values of UA. Paradis (2012) states that according to European Landscape Convention the role of local society concerning definition of interest and values of their landscapes should be considered and the governance should take in consideration perceptions and values of different stakeholders. Taking into account this statement we compared our perception of UA sites with perceptions by users of the spaces. We emphasise the multifunctional use of different UA case studies as according to Chowney (2012) multifunctionality of a space represented by a range of functions (productivity, leisure, accessibility, environment, education etc.) makes a landscape successful and working. Our results and the COST-Action UAE respond to deficiencies pointed out by Viljoen et al. (2011) who state that although UA is receiving a great deal of attention, the theory underpinning its design and the rationale for developing policy to support its practice will require sophisticated cross-disciplinary research to articulate the concept's full potential as an element of essential infrastructure within future sustainable cities.

CONCLUSION
This paper introduces two different types of agricultural parks that represent the largest scale of UA in the Barcelona Metropolitan Area by their spatial and perceptual analyses. Our results provide an overview of a specific UA typology represented by agricultural parks with different aims, activities, management and area in order to show the diversity of agricultural parks. The analyses of agricultural parks contribute to the COST-Action TD1106 Urban Agriculture Europe by the verification of the methodology of spatial and perceptual analyses applied to agricultural parks. The two analysed case studies provide an overview of the main aspects and issues which have to be considered within analyses of UA sites. Our results represent a framework which can be applied to different cases situated in diverse cultural contexts.

SÚHRN
Poľnohospodárske parky: Historické agrárne štruktúry v urbanizovanom prostredí (metropolitné územie Barcelony, Španielsko)
Poľnohospodárske parky predstavujú špecifickú formu manažmentu obrábania pôdy v najväčšej mierke mestského poľnohospodárstva na metropolitnom území Barcelony. Na výskum tejto formy mestského poľnohospodárstva sme aplikovali priestorové a percepčné analýzy rôznych typov poľnohospodárskych parkov zastúpených dvomi prípadovými štúdiami líšiacimi sa najmä vo svojich štruktúrach, rozlohe, pôvode, cieľoch, využití a manažmente. Tento prístup si kladie za cieľ ukázať komplexnosť poľnohospodárskych parkov, ktoré na základe historických krajinných a urbanizovaných štruktúr spojených s tradičiou obrábania pôdy predstavujú špecifický typ mestsko-poľnohospodárskej krajiny
zachovanej ako kultúro-historické dedičstvo s významným historickým odkazom.

**Kľúčové slová:** polnohospodársky park, verejný otvorený priestor, mestske polnohospodárstvo, urbanizované (mestske) prostredie

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**REFERENCES**


PARADIS S. 2012. How should / can landscape be planned? In COST Action Urban Agriculture Europe: Documentation of 1st Working Group Meeting. Aachen: COST, ESF, RWTH Aachen University, p. 45.


VEEN E. 2012. What has to/can be changed? In COST Action Urban Agriculture Europe: Documentation of 1st Working Group Meeting. Aachen: COST, ESF, RWTH Aachen University, p. 44–45.