

AGRICULTURAL PARKS AS MULTIFUNCTIONAL RECREATIONAL LANDSCAPES IN METROPOLITAN REGIONS

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Abstract

Agricultural landscapes located within metropolitan regions are increasingly recognised as important components of multifunctional green infrastructure. While traditionally perceived primarily as spaces for food production, contemporary planning approaches emphasize their broader ecological, social and cultural functions. The concept of agricultural parks represents an innovative strategy for integrating agricultural production, recreation and landscape protection within urbanised territories. This paper explores agricultural parks as a specific form of multifunctional recreational landscape where productive agricultural land simultaneously provides ecosystem services, recreational opportunities and landscape identity. The study focuses on selected European case studies, including Landschaftspark Belvedere in Cologne, Parco delle Risaie in Milan and Espai Rural de Gallecs in the Barcelona metropolitan area. These examples demonstrate different approaches to the spatial organisation, governance and management of agricultural landscapes functioning as public open spaces. The analysis highlights the role of landscape architecture, green-blue infrastructure and nature-based solutions in transforming conventional agricultural landscapes into accessible and attractive recreational environments without compromising their productive function. Attention is paid to spatial design strategies such as recreational path networks, landscape interpretation and biodiversity-supporting elements integrated into the agricultural matrix. The findings illustrate how agricultural parks can contribute to sustainable metropolitan development by preserving farmland, enhancing biodiversity and offering new forms of everyday recreation in productive landscapes.

Key words: multifunctional landscapes; urban agriculture; green infrastructure; nature-based solutions; landscape architecture

Introduction

Agricultural landscapes located within metropolitan regions are increasingly recognised as important components of multifunctional green infrastructure, providing a wide range of ecological, social and cultural ecosystem services (Lohrberg et al., 2016). Contemporary landscape architecture emphasises the integration of productive, recreational and environmental functions within urbanised territories, reflecting broader shifts towards sustainable and resilient spatial development (Tóth et al., 2014; Shkaruba et al., 2026). Urban and peri-urban agriculture has historically played a significant role in shaping the spatial structure and identity of cities. In recent decades, this relationship has been redefined through new planning approaches that integrate food production with recreation, education and landscape protection (Lohrberg et al., 2016; Lohrberg et al., 2023). These approaches highlight the potential of agricultural landscapes to function not only as productive systems but also as accessible public spaces contributing to the quality of life in metropolitan regions. At the same time, landscape architecture increasingly adopts landscape-based approaches that connect ecological processes with social use and cultural values. Previous research demonstrates how recreational landscapes and public spaces can be designed to support biodiversity, environmental education and community engagement (Tóth et al., 2018; Miklášová et al., 2022; Bihuňová & Pomahačová, 2022). Such interventions often build on the transformation of existing landscape structures, including agricultural land and rural elements, into multifunctional environments (Čibík et al., 2022; Kuczman et al., 2022). In this context, the concept of agricultural parks represents an innovative strategy for integrating agricultural production with recreational use and landscape protection. These landscapes combine top-down planning approaches with bottom-up initiatives, reflecting diverse governance models and participatory processes (Štěpánková & Kristiánová, 2015; Bellérová & Hus, 2025). They also contribute to the regeneration of underutilised agricultural land and the strengthening of landscape identity in peri-urban areas (Paganová & Kuczman, 2024). Agricultural landscapes further play a key role in addressing contemporary environmental challenges, including climate change adaptation, biodiversity loss and sustainable resource management. Their integration into green-blue infrastructure systems enhances ecosystem services and supports more resilient metropolitan regions (Rózová et al., 2023; Branduini, 2024; Komšo et al., 2023). This paper explores agricultural parks as

multifunctional recreational landscapes in metropolitan regions, focusing on selected European case studies. The aim is to analyse spatial, functional and management approaches that enable the coexistence of agricultural production and public use, and to identify key principles for the design and planning of productive landscapes as part of contemporary green infrastructure systems.

Material and methods

The study is based on a qualitative case study approach focusing on three agricultural parks: Landschaftspark Belvedere (Cologne, Germany), Parco delle Risaie (Milan, Italy) and Espai Rural de Gallecs (Barcelona metropolitan area, Spain). These sites represent different approaches to integrating agricultural production, recreation and ecological functions in metropolitan landscapes. The methodology combines landscape walking, observation of users, and spatial mapping. Landscape walking was used to assess spatial structure, accessibility and user experience directly in the field. Mapping and spatial analysis focused on path networks, land use patterns and the relationship between productive and recreational functions. This combined approach enabled a comparative evaluation of the selected sites and the identification of key design and organisational principles of agricultural parks.

Results

The analysis of the selected case studies demonstrates that agricultural parks successfully integrate productive agricultural functions with recreational use, creating multifunctional landscapes within metropolitan regions.

In Landschaftspark Belvedere (Cologne), agricultural production is embedded within a planned green infrastructure system, where arable land is directly accessible through a network of recreational paths. The spatial design allows visitors to experience agricultural processes visually and physically, without disrupting production. This creates a clear coexistence of farming and recreation, supported by strong landscape-architectural structuring (Fig. 1).



Fig. 1: The Landschaftspark Belvedere in Cologne designed by Lohrberg Stadtlandschaftsarchitektur enhances urban biodiversity and provides attractive spaces for recreation (Photos: Attila Tóth).

In Parco delle Risaie (Milan), the relationship between agriculture and recreation is based on the preservation of traditional rice fields and active farms. Recreational use is integrated through informal paths and direct contact with the agricultural landscape, enabling users to experience seasonal changes and farming practices. Here, agricultural production itself forms the main recreational attraction, with minimal transformation of the landscape structure (Fig. 2).

In Espai Rural de Gallecs (Barcelona metropolitan area), agricultural production is combined with ecological management and an extensive recreational network. Organic farming, biodiversity-supporting elements and educational activities are integrated with cycling and walking routes. The area functions as both a productive landscape and a recreational destination, supported by a structured governance system (Fig. 3).

Across all case studies, a key common feature is the direct spatial and functional linkage between agricultural production and recreation. This linkage is achieved through accessible path networks, visual openness of the landscape and the integration of ecological and cultural elements within the agricultural matrix. Rather than separating functions, agricultural parks enable their coexistence, transforming productive landscapes into everyday recreational environments.



Fig. 2: The Parco delle Risaie in Milan is a hotspot of both tangible and intangible urban agricultural heritage with preserved and operating farms and rice fields, providing urban agricultural landscapes for recreation (Photos: Attila Tóth).



Fig. 3: The Espai Rural de Gallecs is an agricultural island in the highly urbanised metropolitan area of Barcelona. It provides spaces for active recreation and natural experience (Source: Barcelona Agrària, Diputació de Barcelona – left; Photo: Jorge Franganillo – right)

Discussion

The results confirm that agricultural parks can function as effective multifunctional landscapes, where productive agricultural use and recreation are not separated but spatially and functionally integrated. This supports broader landscape-architectural approaches emphasising the combination of ecological, social and productive functions within green infrastructure systems (Tóth et al., 2014; Shkaruba et al., 2026). These findings correspond with the concept of urban and peri-urban agriculture as a flexible and context-dependent system (Lohrberg et al., 2015) that can simultaneously provide food production, recreation and cultural value (Lohrberg et al., 2023). Furthermore, the direct accessibility of agricultural landscapes and the visibility of production processes enhance user experience and strengthen the relationship between people and landscape. This reflects current approaches in landscape architecture that emphasise experiential, educational and community-oriented dimensions of public space (Tóth et al., 2018; Miklášová et al., 2022). Overall, the study highlights that the successful integration of agriculture and recreation depends on context-sensitive design, appropriate management and the preservation of the productive character of the landscape.

Conclusion

The study demonstrates that agricultural parks represent an effective approach to integrating agricultural production with recreational use in metropolitan regions. The analysed case studies show that productive landscapes can remain functional while becoming accessible and attractive public spaces. This integration supports sustainable urban development by enhancing landscape quality, biodiversity and everyday recreational opportunities.

References

- Bellérová, S., Hus, M. (2025). Renaturalization practices applied to the creation of public spaces in peripheral urban areas. In: *Public recreation and landscape protection*. Brno: MU, pp. 237–243.
- Bihuňová, M., Pomahačová, K. (2022). Landscape-architectural design of the Bukovinka Forest Park in Zvolen. In: *Public recreation and landscape protection*. Brno: MU, pp. 195–198.

- Branduini, P. (2024). Cultivating value: teaching a job and mitigating climate change effects while restoring a landscape heritage. *Acta Horticulturae et Regiotecturae*, 27(1), pp. 55–62.
- Čibik, M., Kuczman, G., Bechera, D. (2022). Possibilities of unused rural agricultural land renewal using strategies of contemporary eco-socialism. In: *Public recreation and landscape protection*. Brno: MU, pp. 229–232.
- Komšo, K., Butula, S., Reljić, D. T. (2023). Landscape planning as a tool for preserving the landscape values of the Dinara Nature Park. *Acta Horticulturae et Regiotecturae*, 26(2), pp. 99–108.
- Kuczman, G., Bechera, D., Tóth, A. (2022). Evaluation of non-forest woody vegetation along roads in the rural landscape. In: *Public recreation and landscape protection*. Brno: MU, pp. 110–113.
- Lohrberg, F., et al. (2016). *Urban Agriculture Europe*. Berlin: Jovis Verlag.
- Lohrberg, F., et al. (2023). *Urban Agricultural Heritage*. Basel: Birkhäuser.
- Miklášová, K., Mitrová, A. M., Bakay, L. (2022). How can bottom up activism create a public park: case study of evolution garden in Čebovce (Slovakia). In: *Public recreation and landscape protection*. Brno: MU, pp. 163–167.
- Paganová, V., Kuczman, G. (2024). Landscape-architectural design of the old orchard in location Preseľany for recreation and well being. In: *Public recreation and landscape protection*. Brno: MU, pp. 199–205.
- Rózová, Z., Pástorová, A., Kuczman, G. (2023). Development of flower meadows in an urbanized environment. *Ekológia (Bratislava)*, 42(3), pp. 218–229.
- Shkaruba, A., Skryhan, H., Spyra, M., et al. (2026). Transferring and scaling innovation in urban green-blue infrastructure: beyond one-size-fits-all solutions and preconceptions. *Sustainable Futures*, 11, art. no. 101619.
- Štěpánková, R., Kristiánová, K. (2015). Top down strategies and bottom up initiatives in geoparks development in Slovakia. In: *SGEM 2015*. Sofia: STEP92, pp. 977–983.
- Tóth, A., Bihuňová, M., Halajová, D., Štěpánková, R. (2014). Towards an inclusive approach to recreation and landscape protection. In: *Public recreation and landscape protection*. Brno: MU, pp. 335–339.
- Tóth, A., Bihuňová, M., Kuczman, G., Halajová, D. (2018). Designing environmental education landscapes: Case study DROPIE, Slovakia. In: *Public recreation and landscape protection*. Brno: MU, pp. 97–102.

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Souhrn

Článek se zabývá zemědělskými parky jako multifunkčními krajinnými celky, které v metropolitních regionech propojují zemědělskou výrobu s rekreací. Na základě vybraných evropských případových studií ukazuje, jak mohou produktivní zemědělské oblasti fungovat jako veřejně přístupné prostory díky propojení sítí stezek, ekologických prvků a strategií krajinářského designu. Zjištění poukazují na potenciál zemědělských parků podporovat udržitelný rozvoj, posilovat biologickou rozmanitost a poskytovat nové formy každodenní rekreace v rámci produktivních krajinných celků.

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