POSSIBILITIES OF UNUSED RURAL AGRICULTURAL LAND RENEWAL USING STRATEGIES OF CONTEMPORARY ECO-SOCIALISM

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Abstract
In response to the ever-growing need for community life caused by the current anti-social environment, we are increasingly confronted with different concepts and scenarios for open spaces conversions into more sustainable multifunctional areas for all. The presented paper explores the possibilities of restoring arable land located in the eastern part of the municipality Preseľany (Slovakia). The article focuses on the potential use of the space while supporting agriculture and community leisure activities, based on a compromise between contemporary human needs, in the form of high-quality public space, the values of original landscape and the local landscape character. The paper further discusses the challenges of the current food system and green socialism (also known as Eco-socialism), examines various forms of urban edible landscapes, and then comes up with alternative solutions for the site while using the analysed aspects. Considering the size, diversity and different functional content of the researched areas, the proposed interventions focus on a wide variability of possibilities. Research in its final stages outlines how to unify them visually and functionally regarding the fact that the level of comfort in public spaces is assessed based on a physical and social aspects combination. The result is the area zoning into functional units that are interconnected and open to the immediate surroundings within a pleasant walking distance.

Key words: landscape architecture, rural environment, eco-socialism, edible landscapes, social interaction

Introduction

In recent years, there has been an increasing need of people to change their lifestyles (Prochnow, 2020) and consumer habits (Adamková, 2018). Over time, due to the massive suburbanization, the countryside is getting intensively urbanised and, hand in hand with an extremely demanding work effort, people are looking for opportunities to have nature-based recreational activities in their surroundings (Castello & Back Prochnow, 2021). Because of constant pressure on space, it is important to incorporate functions and qualities associated with greenery in the development of rural agriculture (Marques et al., 2020). Responsibility towards the environment, combined with community responsibility (Lukas-Sithole, 2020) and the pursuit of meaningful leisure time, is the result of an increasing interest in horticultural and agricultural activities (Tóth & Timpe, 2017). In our conditions, agriculture is understood as a sector of the economy whose main task is to provide food (Tóth et al., 2015). Hence, food production is generally not part of the daily life of people who live in cities and there are only few examples in Slovakia, where rural arable lands and their premisses are an important recreational hub for citizens provides the social, educational, recreational, and cultural dimensions (Calaza-Martínez et al., 2019). Therefore, it is necessary to address the ideas of eco-socialism (Baša & Mura, 2021) as a possible alternative. Eco-socialist demands constitute a real utopia-a radical but possible transformation (Aidnik, 2022). The aim of this article is to present diverse design ideas, approaches and solutions of various leisure and recreational activities (Tóth et al., 2018) focused on functional diversity of rural arable land within one comprehensive study developed by author at the request of a private company. As part of its activities, the investor operates in agricultural production and intends to expand the business in the production of fruit to his own needs, by selling off surpluses at the local level, but also to gradually build a fruit processing plant.

Materials and methods

The object of design was the area of approximately 90 ha located in the eastern part of the municipality Preseľany (Western Slovakia) (Fig. 1). The current land use of the case-study area is arable land that borders on the residential area of individual housing construction. In the immediate vicinity is the Preseľany Municipal Office, the Parish Church of St. Elizabeth, and a reconstructed historic watermill (on the map marked with a red dot), which is delimited by the river Nitra on the northwest and west side and part of Dlhé Lúky on the east side. On the southern side, the area

borders on a field road. In terms of ecological stability, the case-study area is relatively unstable and does not use its significant potential.

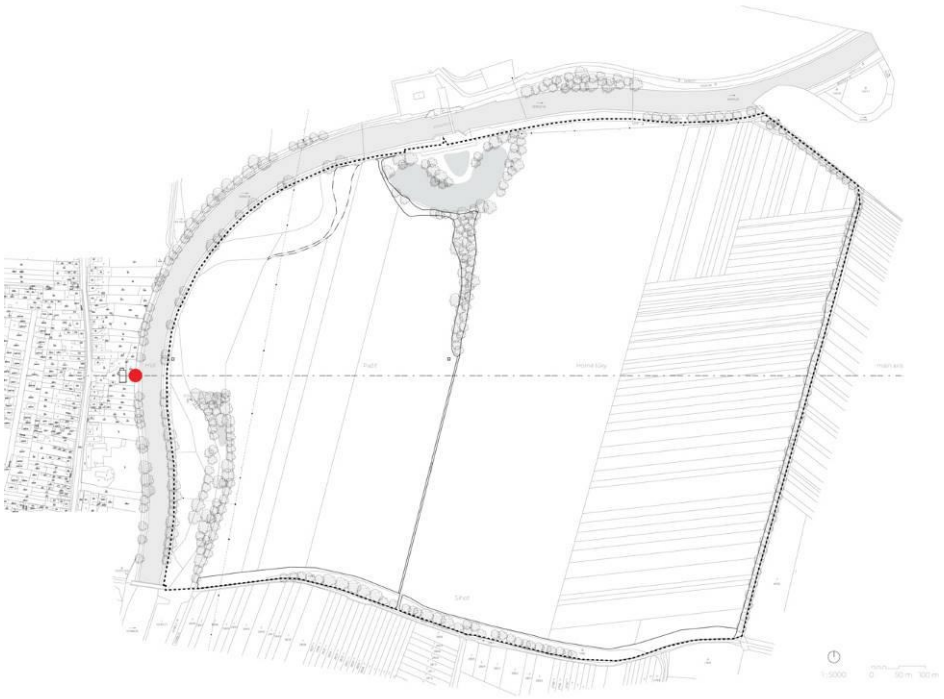

Fig. 1: Wider relations and location of the area.

The predominant land use is production greenery in combination with a commercial-recreational function. The space consists of areas of permanent grasslands, orchards, non-forest tree and shrub vegetation (linear, areal), commercial buildings, and sports/recreation facilities. There are many woody plants in the solved area, but fields and large areas of monoculture plantings still prevail. Woody plants in the area have an environmental, eco-stabilizing and aesthetic importance. These are mainly deciduous tree species typical for floodplain forests (poplars, elders, alders, willows, and lindens). The overall value of woody plants is mostly average to below average. Most of them are in the adult stage of age. The terrain is mostly flat with shallow depressions. Larger landscaping is planned in the northern part of the territory, where two lakes are under construction, and in the southwestern part, where there is one smaller lake. No paved road passes through the area, only a service gravel road running along the Nitra River connecting the entrance to the area with farm buildings and lakes in the north.

The quantitative and qualitative research used in this work is characterised by a certain sequence of steps and stages, which follow each other chronologically and overlap in time. The design process in its initial stages was mainly about field research and analyses of the current state, where the basic shortcomings of the space were identified. After identifying the research problem, the aim of the preparation of the research was to search for and collect primary and secondary available resources dealing with the researched issue and other related publications, to acquire the necessary theoretical knowledge and orientation in the researched field (Čibik & Štěpánková, 2021). Various spatial planning documents and map materials were used to analyse the current situation: territorial plan of the village of Preseľany, Landscape atlas of the Slovak Republic (2002), historical map of the first military mapping, historical map of the second military mapping, historical map of the military mapping of Hungary and aerial photo of the village of Preseľany. An important part of the process was the so-called in-depth interviews with the local stakeholders. In-depth interviews, also called informal or semi-structured interviews, are one of the methods of qualitative research and thus complement data collection through structured formal questionnaires. This method is one of the simplest and most efficient methods of collecting primary data. The interviews are based on intensive personal contact between the interviewer and the respondent. The interview is non-standardised but takes place according to a uniform scenario. The article also implements scientific research methods such as Research by Design as defined by Deming and Swaffield (2011), Hauberg (2011) and van den Brink et al. (2017) and Case Study Research as a tool to analyse design principles.

Results

The results of the design process consist of comprehensive study applied for the whole area (Fig. 2) as well as several detailed landscape-architectural and architectural proposals applied only to selected parts of the space. The design presented in this paper will bring multi-layered activities to the locality. Due to large groundwater reserves and high soil quality, efforts are being made to enhance diversity, mitigate the negative impacts of climate change, retain water in the landscape through bio-corridors and lakes, while raising awareness and creating suitable conditions for recreation and education.

Fig. 2: Site plan of the final design. The whole area was divided into functional zones.

Through demonstrations of agri-environmental-climate measures, visitors will learn about the possibilities of increasing the adaptive capacity of ecosystems affected and used by humans to the expected negative consequences of climate change. The area also demonstrates examples of the use of renewable energy sources such as small hydropower or photovoltaics. Residents and visitors will be able to use hippotherapy and horseback riding, a petting zoo for children, seasonal fruit pick-up and they will have the opportunity to spend their free time meaningfully in an area that is sustainable, naturally scarce and supports biodiversity (Čibik et al., 2019).

Conclusion

This contribution focuses on contemporary trends in landscape design and agrosystems, as well as on finding connections between rural, peri-urban and urban structures through research by design. The presented study is based on a compromise between contemporary human needs, in the form of high-quality public space, the values of original landscape and the local landscape character. The project of adapting an area of approximately 90 ha to climate change in the eastern part of the municipality Preseľany (Slovakia) shows that a quality transformation of the landscape through agroforestry practices using contemporary eco-socialism strategies is possible and promising.

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Souhrn
O potřebě zásadně změnit přístup ke krajině se na Slovensku mluví již několik desetiletí. Tato potřeba je stále narůstající, ať už kvůli ztrátě biologické rozmanitosti, obrovským problémům s půdní erozí nebo narušením vodního režimu v krajině v důsledku jejího velkoplošného odvodnění v minulém století. Přesto je slovenská zemědělská krajina stále světem monotónních polí osetých monokulturami a systémová řešení jsou v nedohlednu. Předkládaný článek prezentuje studii konverze orné půdy v obci Preseľany (Slovensko) na multifunkční venkovský prostor s ohledem na současné trendy v agroturismu a eko-socialismu.

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