SCENARIOS FOR OPEN SPACE CONVERSION FROM AN EXHIBITION GROUND TO A SUSTAINABLE MULTIFUNCTIONAL URBAN PARK

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Abstract
It is not usual that in a strictly urbanised environment in the immediate vicinity of a regional capital centre, a large number of open spaces with a huge potential for future recreational use are concentrated in one place. The largest Slovak exhibition centre Agrokomplex, which at national level ranks among the most important trade fair and exhibition companies, has a long tradition in organising various events. Unfortunately, the current state does not meet the requirements of existing or potential users. Over time, its primary function has slowly faded, which has left behind spaces available for change. The article focuses on the potential use of the area in changing conditions through the perspective of diverse ideas, scenarios and solutions developed within three design studios. Following the methodology of Research by Design (Deming & Swaffield, 2011) (van den Brink, 2017) the paper identifies the main approaches and key principles to a complex renewal of the site. All designed interventions were proposed while considering various possibilities of creating an open multifunctional part of the surrounding residential complex and adjacent locations with the predominance of recreational and leisure activities. The results provide three different design scenarios with various approaches to introducing multi-layered functions into non-functional spaces.

Key words: landscape architecture, urban design, urban environment, open space, research by design, social interaction

Introduction

Exhibition grounds as semi-public spaces represent an important part of the urban structure and contemporary landscape architecture. Unfortunately, they often remain forgotten compared to more significant public open spaces such as parks, squares, streets, or riverfronts. As they are usually privately owned areas, the problem is the lack of interest of the private sector, incompetence, and unclear management strategy, leading to an untapped potential. Due to their size and diversity of premises, they form an important space within the urban environment (Castello & Prochnow, 2021). From this point of view, exhibition centres stand for extraordinary objects, where commercial function may not be the only one, but much rather every exhibition ground needs to be designed as a sustainable multifunctional part (Marques et al., 2020) of the urban fabric, which leads to fostering the relationship between humans and their environment (Tóth et al., 2018). In 2020, the Institute of Landscape Architecture at the Slovak University of Agriculture in Nitra (SUA), in collaboration with the University of Natural Resources and Life Sciences, Vienna (BOKU) elaborated several possible scenarios for the Agrokomplex exhibition centre, located in Nitra, (Western Slovakia), as a publicly accessible open space. The assignments were developed by students within the international workshop "Global Design Studio", which has been established at BOKU since 2007 and takes place in a different city and country every year. Due to the COVID-19 pandemic situation and the resulting travel restrictions, the workshop was held online. During this time, other groups of students worked on proposals within the two design studios, where they primarily focused on a larger scale and scope of the area.

Materials and methods

The object of design was the Agrokomplex exhibition centre located in the city of Nitra (Slovakia) on the right side of the Nitra River close to the housing estates Chrenová I. and Chrenová II. It offers trade fair and exhibition services focused mainly on the economy and agriculture and is one of the largest and most recognised exhibition areas in Slovakia. The main goal of the company is to increase the quality of exhibitions and its internationalisation. The exhibition serves communication purposes for both professional and non-professional visitors, for creating international relations and gaining new potential customers for exhibitors. From this point of view, Agrokomplex takes over mainly a commercial function. The whole complex has an area of 143 ha of which 63 ha are green areas, 20 ha paved areas and 6 ha form water bodies. The site also includes an amphitheatre, which hosts various

cultural events throughout the year. The area is fenced without the possibility of entering outside the exhibition season. The overall area has seven entrances.

For the future development of the selected area, three main topics were chosen: “Foodscape”, “Water and Drought” and “Renewable Energies”. The design process began with the small introductions to selected topics and online presentation of the current state of the complex prepared by lecturers from Institute of Landscape Architecture in Nitra after completing on-site field mapping. Due to the pandemic situation, it was not possible to carry out any other field work or descriptive strategies such as observation, secondary description, complex description, inventory of woody plants and collection of site-specific data. For this reason, it was necessary to consult the analytical part with the locals on a regular basis. Based on the summarised information, the positives and negatives of the solved area were examined. According to the collected data, the goals, directions, and visions of the qualitative development of the space within each topic were subsequently set. In its conclusion, the work links aspects of qualitative and quantitative research and focuses on the practical use of data. The last phase of the design process was focused on a comprehensive evaluation of the researched issues and formulation of conclusions, characterisation of potential and preparation of a set of recommendations for planning practice, which creates the basis for the management of Agrokomplex and which shapes its starting points and quality development goals (Čibik & Štěpánková, 2021). The intensive workshop ended with presentations to an international jury with lecturers from Vienna and Nitra.

Results

The results of the design studios consist of three complex design concepts applied for the whole area as well as several detailed landscape-architectural proposals applied only to selected parts of the space. Each of the present outputs contains expected changes on the global level over a period of 30 years, to which students try to respond with their proposal. Some of these designs is therefore very conceptual and perhaps utopian (Aidnik, 2020), but the aim was to motivate participants of the workshop to think about possible scenarios.

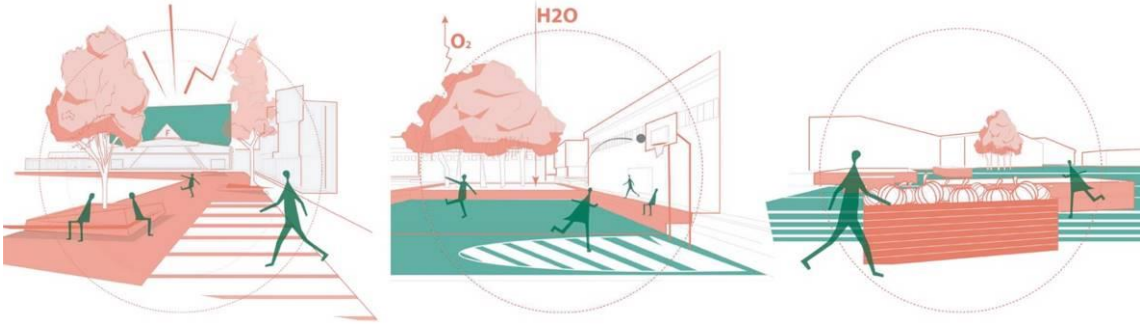

Fig. 1: Visualisations. From the left “central loop”, “small squares” and “collective gardens”. Source: Global Design Studio, Nitra (Ilic Djordje, 2020)

Various scenarios

Design proposals within selected topics contains several interesting ideas. The first presented scenario (Fig. 1) counts with the possibility of building a so-called “Utopia” station as a background for the new route that was created as a central loop through the neighbourhood connecting the surrounding housing estates. This object offers several functions including the restaurant, where one of the most important functions is the presentation of vertical farming. The system of corridors and pedestrian routes (Fig. 2) is also interesting. Along some of them are situated collective gardens, where production of food is main activity that is supposed to happen here. Food production also appeared in various forms in the peripheral parts of the complex.

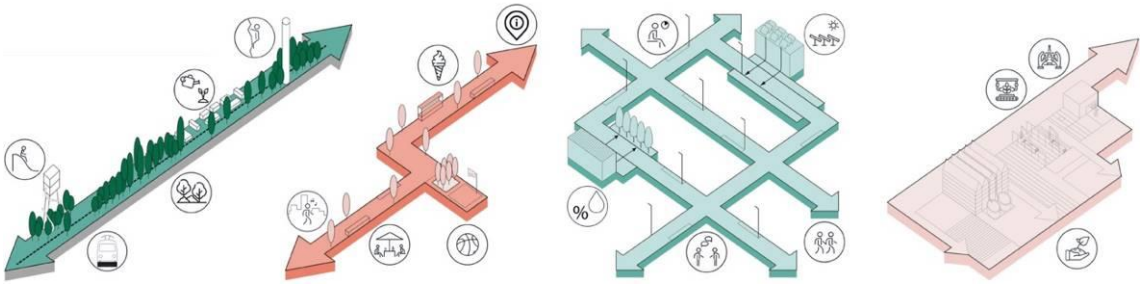

Fig. 2: Schemes of the main axes. “green corridor” , “transport network”, “production corridor”. Source: Global Design Studio, Nitra (Ilic Djordje, 2020)

Another scenario includes in its proposal mostly community gardens, temporary markets, and pop-up stores, but also aquaponic lake in the central part of the area, and educational or demonstration gardens. In their proposal, students developed a functional zoning of the complex, which divides the space into several small areas: service, production and community gardens, recreation, production and research and production, and agriculture. The third scenario brings to the area a central square, with a stream flowing through it that visually connects the entire complex (Fig. 3). Participants of the workshop also divided the area into several zones regarding to its functions. To these spaces, they added new elements such as edible parks, rooftop horticulture, or floating horticulture. Another group of students within the “Water and Drought” topic came up with the idea of collecting stormwater from the surroundings, where the water from the city will be guided with a drainage system and will be collected and filtrated in water ponds. An important aspect in their design is also the connection between the green areas by creating a green infrastructure linking the city and the complex.

Fig. 3. Site plan of the landscape architectural design developed by student. Source: Global Design Studio, Nitra (Alessandro dalla Libera, 2020)

Conclusion

The exhibition ground is a significant element of the urban landscape. Due to its size and character, it markedly influences the development of the surrounding environment and its physical integration in the city helps economic growth, increases social activities, creates a cultural and social background, connects people's communities (Lukas-Sithole, 2020), and changes the overall appearance, image, and characteristics of its immediate surroundings. Based on this fact, a strategic intention was set, namely, to connect the Agrokomplex exhibition centre with urban structures with the intention of preserving the idea of a sustainable multifunctional part of the urban environment. The goal was to prepare several scenarios of possible future use of the area. The different scenarios serve for the company management and municipality as a useful material for the future development of the area and the possibilities of its use. From the scientific perspective, Global Design Studio and two other design studios focused on this topic, provided a great opportunity to implement scientific research methods such as Research by Design and Case Study Research. It was also important to examine the relations between exhibition ground and the city in terms of physical, social, economic, and cultural-social dimensions to find out what role the exhibition centre plays in the urban area and how it can serve as a publicly accessible open space without compromising the integrity and privacy of company, and what criteria should determine the design of an ideal exhibition ground.

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Souhrn

Výstaviště jako poloveřejná prostranství představují důležitou součást urbanistické struktury a současné krajinářské architektury. Článek prezentuje různé případové studie, nápady, přístupy a řešení vyvinuté studenty v rámci tří designových studií aplikované na výstaviště Agrokomplex v Nitře,

které vzešly ze spolupráce mezi Ústavem krajinářské architektury Slovenské zemědělské univerzity v Nitře a Univerzitou přírodních zdrojů a přírodních věd, Vídeň. Pro budoucí rozvoj této oblasti byly vypracovány scénáře na různé témata, přičemž se do návrhového procesu implementovali vědeckovýzkumné metody “Research by Design“ (Hauberg, 2011) a “Case Study Research“.

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