

FROM THE BISHOP'S ESTATE OF THE 19TH CENTURY TO THE CAMPUS OF THE 21ST CENTURY ZÁGRÁB, MAXIMIR PARK. 19. SZÁZADI PÜSPÖKI BIRTOKBÓL 21. SZÁZADI EGYETEMI CAMPUS

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ABSTRACT

In this paper, the development of Maksimir Park from an archdiocesan forest and agricultural estate of the 18th century through the foundation of the first city park and a bishop's exemplary agricultural estate of the 19th century to the present will be analysed and introduced.

The design of Maksimir park was initiated by Bishop Maksimilijan Vrhovac, and was further developed by archbishop Juraj Haulik. Haulik completed Maksimir Park and created a model estate based on the highest contemporary achievements of the agricultural profession. In addition to producing food for the needs of the Zagreb Archdiocese, the estate was open and accessible to all citizens and visitors. Located outside the city, "not far from Zagreb", it has equally served for the education of the local farmers as well as for the education of the citizens. At the beginning of the 20th

century, the land of the estate was purchased by the state for the purposes of today's Faculties of Agriculture and Forestry, who are further developing and adapting it to their needs.

The goal of this paper is to review primarily the educational roles of Maksimir Park and Estate, which were recognized already at the time of their emergence, the changes that have occurred due to the development of the two faculties and, most importantly, to determine the opportunities for their future development. The park renovation and its adaptation to contemporary needs, especially the further development of the faculty estate as a more open ground for contemporary methods, aimed at solving current problems of global warming, sustainable and ecological agriculture, achievements in collecting, purifying and reusing rainwater, and ultimately, contemporary trends in landscape design. The reopening of the institution and its resources to both

interested agricultural producers and the greater urban audience, involves an enormous educational potential (not only of local but also national character) that our faculties have yet to face.

1. INTRODUCTION

Green infrastructure can be considered as one of the main structural systems of the contemporary city within which public green spaces are of a particular importance. Although the need to create public spaces had already been recognized by the Assyrians, it was not until the 19th century that planning of green systems began (Boston Emerald Necklace by F. L. Olmsted), while the formal recognition of the status and the role of green spaces in the city was defined by the Athens Charter in the first half of the 20th century. Ogrin (2010) divides the role of urban green spaces (natural or designed) into active and passive, where the former one refers to the structural function in the city (opening up the urban grain, defining the city, designing/shaping the image of the city) and the latter one implies all functions needed by citizens for active uses (walking, playing, sports and recreation etc.).

The emergence and the increased number of public parks in Europe and the United States was a consequence of the Industrial Revolution when the importance and impact of parks on improving the quality of citizens' lives was recognized. Since then, during the two hundred years of its development, the public park has undergone significant changes and conceptual transformations, and has even been "a training ground for projecting diverse ideological views" (Ogrin, 2010).

The rapid development and the significant economic, social and cultural changes in the 20th century led, on the one hand, to the development of a diverse park typology and, on the other, to the enrichment of the park programmes, and thus the contemporary city parks can be considered the most complex public spaces in terms of meeting citizens' needs. Unlike the first public parks, which were primarily designed for walking and relaxation of all city residents, a contemporary park that meets the needs of the city residents must, in a structured or unstructured way, simultaneously fulfil a number of significantly different functions - recreational, cultural, health and well-being, ecological, imitation of nature, educational etc.

In order to propose an integrated strategy for the development of Maksimir Park, its historical evolution and the potential for its future transformation should simultaneously be considered from various aspects (spatial, heritage conservation, social etc.), which by far exceeds the purpose of this publication. In this paper, the development of Maksimir Park from an archdiocesan forest and agricultural estate of the 18th century through the foundation of the first city park and a bishop's exemplary agricultural estate of the 19th century to the present will be analysed and introduced, with the goal to review, primarily, the educational roles of Maksimir Park and Estate, which were recognized already at the time of their emergence, the changes that have occurred due to the development of the two faculties and, most importantly, to determine the opportunities for their future development.

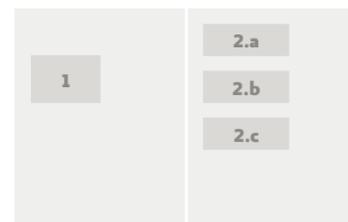
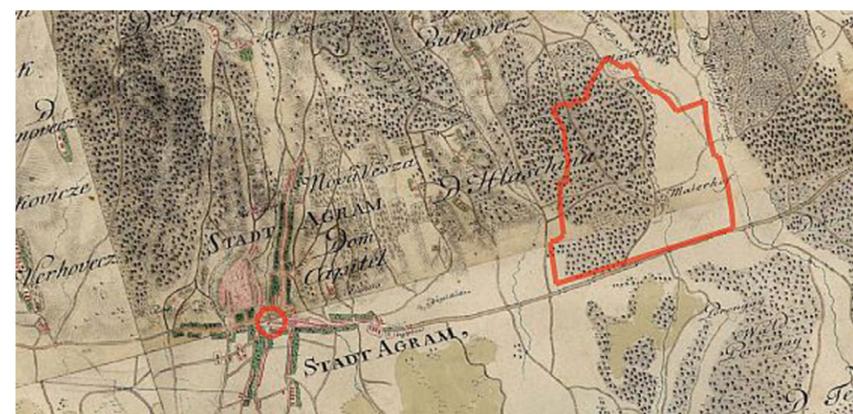


Fig. 1: Maksimir Park in the context of the City of Zagreb, 2020 (SOURCE: [HTTP://PREGLEDNIK.ARKOD.HR](http://preglednik.arkod.hr); CENTRE AND PARK ADDED BY THE PAPER AUTHORS)

Fig. 2.a: The park location and its surroundings, 1783-1784 Provinz Kroatien, First Ordnance Survey of the Habsburg Empire (MOLNÁR ET AL., 2014);
Fig. 2.b: 1865-1869 Croatia, Second Ordnance Survey of the Habsburg Empire (TIMÁR ET AL., 2006);
Fig. 2.c: 2020 Aerial view (SOURCE: [HTTP://GEOPORTALS.DGU.HR](http://geoportals.dgu.hr); CENTRE AND PARK BOUNDARIES ADDED BY THE PAPER AUTHORS)



2. DEVELOPMENT OF MAKSIMIR PARK

Maksimir Park was part of the several hundred hectare central diocese (archdiocese since 1850) property located a few kilometres from the City of Zagreb since the 13th century (Mudrinjak, 1982). The land of the estate extended between the southern slopes of Medvednica Mountain and the Pannonian Plain (Sava River Plain) in the northeastern part of the city (Fig. 1). The northern and western parts of the estate were covered by old dense oak forest with numerous gullies and were used only for hunting and logging, while the eastern and southern parts of the estate, surrounding the forest, were covered with arable land and meadows (Fig. 2a).

It should be emphasised that, until the unification in 1850, the city of Zagreb consisted of two small medieval settlements Gradec and Kaptol (the seat of the Zagreb diocese) with a total population of only 10,000 inhabitants at the beginning of 19th century and about

15,000 in 1850. These facts are even more interesting regarding that at that time the entire city occupied an overall area of 150 hectares and the Maksimir Park 402 hectares (according to Mudrinjak (1982) the total area was even 650 hectares, 192 ha of which was park, 191 ha arable land, 58 ha meadow, 173 ha forest etc.). Today, the City of Zagreb has a population of about 800,000 inhabitants, the park occupies an area of 316 hectares and it is located closer to the city centre than to the peripheries of the city (Fig. 2c).

The decision to transform the land of the bishop's estate into a city park was made by Bishop Maksimilijan Vrhovac (1752-1827) in 1787, but the final design of the park is attributed primarily to (Arch)bishop Juraj Haulik de Varally (1788-1869). The peculiarity of Vrhovac's original idea of Maksimir Park from the very beginning is the formation of three distinct spatial and functional parts: a forest in the northern part (existing), a designed public park in the southern/

south-eastern part (mostly within the existing forest) and an agricultural estate in the eastern part (existing agricultural fields and meadows) of the area (Fig. 2b).

Vrhovac conceived the park in a geometrical, Baroque style, and even though, unfortunately, the original plan has not been preserved, a detailed description was published in the album Park Jurjaves in 1853. Although the author is not explicitly mentioned, it certainly originated under Haulik's supervision (Žmegač, 2002). The only known and preserved elements from

that time, which are still noticeable today, are the entrance and the main alley ending with an elevated view-point (a kiosk was built later by Haulik) from which distant views were provided through ten linear, star-shaped forest openings (only the main alley has been preserved). His successor Bishop Aleksandar Alagović (1760 - 1837) decided to redesign the park in the English landscape style, but the final concept and park realization is from the mid 19th century by Archbishop Haulik with the help of Vienna masters - Michael

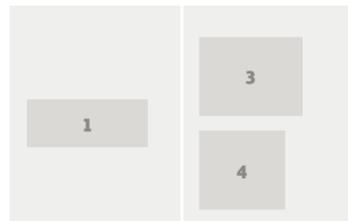
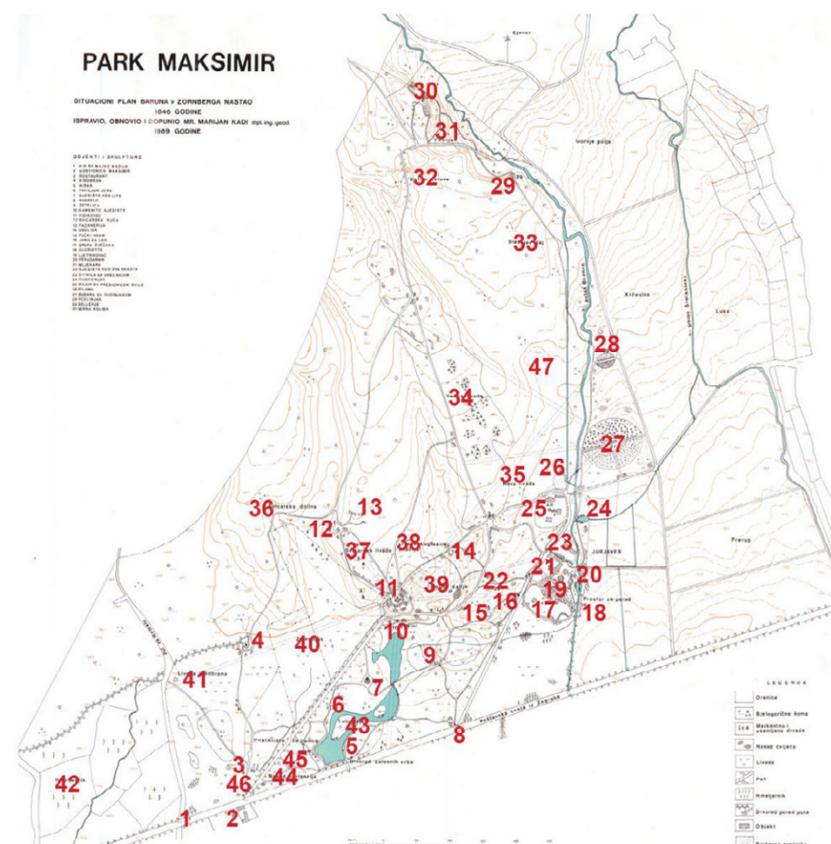


Table 1.: Architecture, sculptures, gardens and groves in Maksimir Park
Fig. 3: The Zornberg map, 1846 (SOURCE: NATIONAL AND UNIVERSITY LIBRARY IN ZAGREB)
Fig. 4: Maksimir Park – The Zornberg plan from 1846 / corrected, renewed and updated by M. Kadi in 1989 (SOURCE: NATIONAL AND UNIVERSITY LIBRARY IN ZAGREB; RED NUMBERS ADDED BY THE PAPER AUTHORS)

Legend: **1.** St. Mother of God, **2.** Old Tavern Maksimir, **3.** Restaurant, **4.** Umbrella pavilion, **5.** Fisherman from Naples, **6.** Echo pavilion, **7.** Seat at two oaks, **8.** Crucifix, **9.** Barn, **10.** Stone seat, **11.** Kiosk, **12.** Swiss house, **13.** Pheasant farm, **14.** Obelisk, **15.** Public temple, **16.** Ice pit, **17.** A group of boys, **18.** Gloriette, **19.** Hauliks' villa, **20.** Poultry farm, **21.** Dairy farm, **22.** Seat at two oaks, **23.** Barn, **24.** Leech pond, **25.** Grange with Silk house, **26.** Sawmill, **27.** Silkworm house with mulberry trees plantation, **28.** Apiary, **29.** Bellevue, **30.** Peaceful cottage with vineyard, **31.** Orchard, **32.** Pine valley, **33.** Nightingale grove, **34.** New meadow, **35.** Big meadow, **36.** Swiss valley, **37.** Swiss meadow, **38.** Acacia meadow, **39.** Dahlia valley, **40.** Menagerie (Deer grove), **41.** Umbrella valley, **42.** Hop plantation, **43.** Swan islet, **44.** Hydrangea garden, **45.** Gatekeeper's cabin, **46.** St. Juraj, **47.** Birch cottage (1-30 ORIGINAL MAP LEGEND, 31-44 DESCRIBED ON THE MAP, 45-47 ADDED BY THE PAPER AUTHORS)

ARCHITECTURE		SCULPTURES	GARDENS AND GROVES	
[N] Old Tavern Maksimir (2)	[E] Hauliks' villa (19)	[E] St. Mother of God (1)	[R] Linden seat (7)	[N] Swiss meadow (37)
[E] Restaurant (3)	[E] Poultry farm (20)	[R] Fisherman from Naples (5)	[R] Stone seat (10)	[R] Acacia meadow (38)
[N] Umbrella pavilion (4) / [E] Mogila at same location from 1925	[E] Dairy farm (21)	[E] Crucifix (8)	[N] Ice pit (16)	[R] Dahlia valley (39)
[R] Echo pavilion (6)	[N] Barn (23)	[N] Reaper woman (9)	[N] Hauliks' villa garden (19)	[N] Menagerie (Deer grove) (40)
[R] Kiosk (11)	[N] Leech pond (24)	[R] Obelisk (14)	[N] Seat at two oaks (22)	[E] Umbrella valley (41)
[R] Swiss house (12)	[N] Majur with Silk house (25)	[E] A group of boys (17)	[N] Mulberry plantation (27)	[N] Hop plantation (42)
[N] Pheasant farm (13)	[E] Sawmill (26)	[N] St. Juraj (46)	[N] Apiary garden (28)	[R] Swan islet (43)
[N] Public temple (15) / [E] St. Juraj's chapel at same location from 1864	[N] Silkworm house (27)		[N] Orchard (31)	[R] Hydrangea garden (44)
[N] Gloriette (18)	[E] Apiary (28)		[R] Pine valley (32)	
	[N] Bellevue (29)		[N] Nightingale grove (33)	
	[N] Peaceful cottage (30)		[N] New meadow (34)	
	[R] Gatekeeper's cabin (45)		[N] Big meadow (35)	
	[R] Birch cottage (47)		[N] Swiss valley (36)	

LEGEND: [N] NON EXISTING [E] EXISTING [R] RESTORED
 NUMBERS: SHOWN IN FIG. 4



Riedl, landscape architect (Schönbrunn, Laxenburg and Hetzendorf), Franjo Serafin Körbler, gardener, Franz Schücht, architect (Laxenburg), Josip Käszmann, sculptor, Leopold Phillip, head of construction works, Anton Kothgasser, stained glass master, Eduard Gurka, engraver and painter, and Haulik also employed quite a few of Zagreb masters. Engaging known and recognised contemporary experts from all relevant professional fields also illustrates the importance that Haulik attributed to the concept and integral design of the park.

Haulik keeps the basic park division into the public park and the agricultural estate as well as the main built elements of the Baroque composition, and integrates them into a new English landscape style design.

Using existing natural features (gently rolling topography, water features / streams and dense forest) as a design starting point, a remarkable plasticity of the composition, was achieved (Rechner Dika and Toorn, 2018).

In the period 1838-1843, Haulik carried out extensive works - opened broad meadows by clearing the dense forest, constructed roads, pathways and bridges, and numerous buildings (Table 1), excavated the first two lakes, placed many sculptures and pavilions (Table 1) and introduced diverse plants (trees, bushes including exotic species) and forms of planting (Dahlia Valley, rose garden etc.).

It needs to be added that, in spite of a significant, formal change in the design paradigm (from Baroque geometry to

English landscape style free curvilinear forms), in reality, the "park was built simultaneously with the overlapping of these two ideas" (Rechner Dika and Toorn, 2018). As it was noted by the same authors, the actual geometry of the characteristic elliptic plantations in Dahlia valley, around the Silk house and the Apiary, also oppose the concept of free, English landscape park design. The original idea of a Baroque star-shaped forest with linear openings was also integrated into the new design. As it is visible on Zornberg map (Fig 3.), there are nine linear forest openings mainly directed towards new buildings constructed by Haulik (only the main alley is from the original Baroque layout). Žmegač (2002) questions if the openings were actually made, and suggests they should be understood as a programme planned for the future. Nevertheless, besides the main alley, their function was only to achieve visual connections between important buildings in the park and the estate.

It can be concluded that the result of this approach is "a subtle superposition" of two distinctively different design approaches and philosophies, which "can be considered as a unique design value of the Maksimir Park" (Rechner Dika and Toorn, 2018).

3. AGRICULTURAL ESTATE IN THE 19TH CENTURY

Although the agricultural estate (Mayerhof / Majur) was established by Vrhovac at the beginning of the 19th century (Žmegač, 2002), Haulik is solely responsible for its prosperity. Haulik's advanced and farsighted vision, as

well as intentions for the further development of Maksimir Park, are best described in a letter he wrote to the Royal Hungarian Council in 1843: "to give the poor who want to work an opportunity to earn a living, to help diligent craftsmen and other civic skills, I as a head of the Croatian Economic Society, set a model for conducting agriculture on reasonable economic principles, to encourage more noble gardening and to raise the taste and decorate not only the city but also the whole surrounding area, and finally for the local people to have places with innocent natural delights where they can refresh their souls, tired of public or serious business" (Mudrinjak, 1974). It is clear that he does not think about Maksimir as a public space only for relaxation, rest and leisure, but also, maybe even more so, as a space for teaching and education of the public.

Initially, the main activities in the estate were cattle breeding and poultry farming, dairy farming (milk, cream and cheese production) and various crops were cultivated on the surrounding land (Mudrinjak, 1974). Haulik significantly expands and enhances the estate. The resulting exemplary estate in the middle of 19th century includes an extraordinary variety of farm buildings (described by Ivanković, 2009), agricultural activities and production (Fig. 4): dairy, apiary (including flowers and lime trees for bees), a house for breeding silkworm cocoons (surrounded by 10000 mulberry trees), a house for silk production, an orchard with 2000 trees of different varieties, pheasant farming, deer farming, a poultry farm with various rare poultry species, a brewery, a mill, a sawmill, a pond with turtles,



Fig. 5.a: Hauliks' villa, 1900-1905 (PHOTO: UNKNOWN AUTHOR; THE MUSEUM OF THE CITY OF ZAGREB),

Fig. 5.b: 2014 (PHOTO: STANKO STERGARŠEK)



leech breeding for health purposes (Mudrinjak, 1982), a vineyard with several hundred types of vines (Milić, 1960) etc. The same author claims that the agricultural products were exhibited and have received the highest recognitions at European fruit and wine exhibitions, which also illustrates high level and exceptional quality of modern agricultural production at that time.

Near the dairy and pheasant farm Haulik built his summerhouse - a villa (Fig. 5) with a very peculiar landscape design primarily due to the abundant use of plants - flower beds, rose garden, rhododendrons, azaleas etc. The house and the garden were fenced (as well as the rest of the estate), but also open to and for the education of the public. All plants were labelled

so that "besides being fascinated by the variety of colours, shapes, leaves and plants" the visitors could also "practice their botanical knowledge" (Haulik in Janjić et al., 1993).

The integral thinking about Maksimir Park and the estate as inseparable interdependent and interconnected space entities (from the "big scale" down to the smallest detail) is represented by the sculpture of The Group of Boys in the front of the villa (today in the Museum of the City of Zagreb.) Three boys playing with flowers, pigeons and silkworms. One of the boys holds a honeycomb, a hive is in the front and a pheasant, a peacock and a wild duck are at the back - all details indicating agricultural and economical aspects of Maksimir summarized in one piece of art.

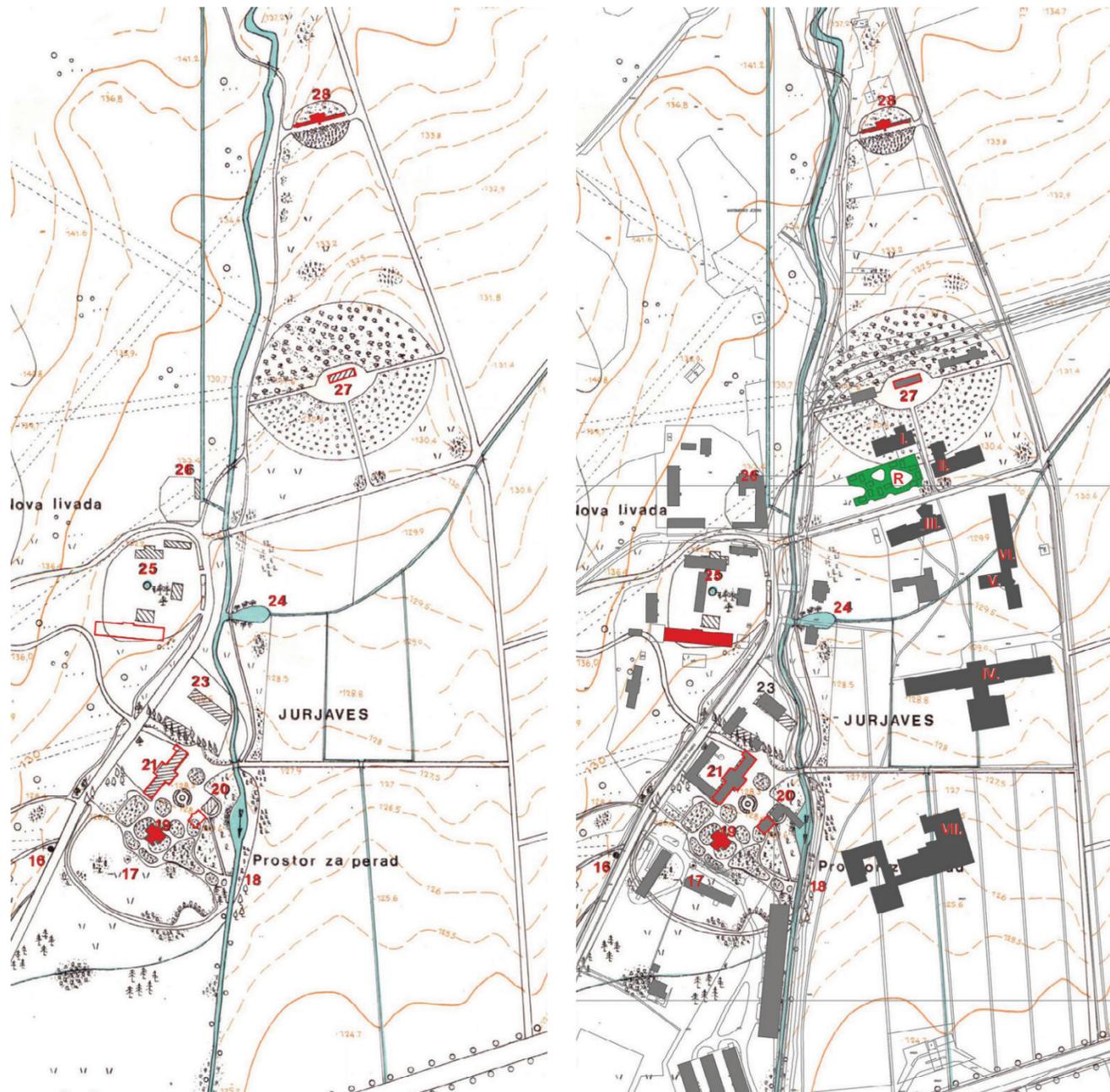
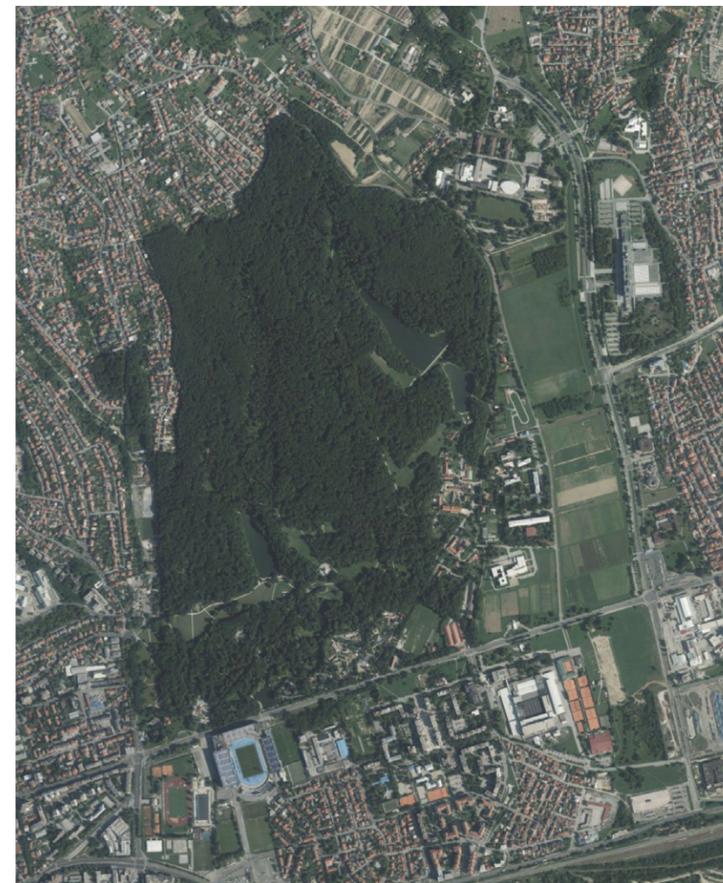


Fig. 6: Part of the Zornberg plan from 1846 / corrected, renewed and updated by M. Kadi in 1989 (SOURCE: NATIONAL AND UNIVERSITY LIBRARY IN ZAGREB; UPDATED BY THE PAPER AUTHORS)
Legend: **16.** Ice pit, **17.** The group of boys, **18.** Gloriette, **19.** Haulik's villa, **20.** Poultry farm,

21. Dairy farm, **23.** Barn, **24.** Leech pond, **25.** Grange with Silk house, **26.** Sawmill, **27.** Silkworm house with mulberry trees plantation, **28.** Apiary, **I.** Pavilion I, **II.** Pavilion II, **III.** Pavilion III (I-III /1932-40, Group Earth), **IV.** Pavilion IV. (1942.- 49.,

R. Nikšić), **V.** Pavilion V (1975.- 79., H. Auf-Franić, L. Pleština, B. Radimir), **VI.** Pavilion VI (1997.- 2002., H. Auf-Franić, V. Olujić), **VII.** Faculty of Forestry pavilion (1992.-99., Architects Vulin - Ileković) **R.** Restaurant (2014-today, 3LHD)

Fig. 7: Aerial view, 2016 (SOURCE: HTTP://GEOPORTAL.DGU.HR)



The golden era of Maksimir unfortunately ends with Haulik's death, and a long period of gradual deterioration and decay begins.

4. THE FACULTIES OF AGRICULTURE AND FORESTRY IN 20TH CENTURY

The beginning of the 20th century brings significant changes - the Zagreb Archdiocese sold the property, and the public Maksimir Park fell under the management of the City of Zagreb, and

the estate section (including all existing buildings) was given to today's Faculty of Agriculture and Faculty of Forestry in 1922. The forest in the northern part of Maksimir Park was dedicated to scientific research and teaching for the purposes of the Faculty of Forestry, while the agricultural areas, along with all the estate facilities, for the needs of the Faculty of Agriculture (Mudrinjak, 1982).

The expansion of both faculties caused the most significant and irreversible changes (Fig.6) - new pavilions

I, II and III were built in the estate area along Haulik's axis extending from the Silkworm house. This spatial concept was abandoned with the construction of the sizable pavilion IV, towards which pavilion V and VI were later oriented forming a relatively isolated central park (campus) space. The completely separated large pavilion of the Faculty of Forestry was built in the middle of experimental fields and is oriented towards Maksimirska Street.

During World War II, a series of military buildings, of exclusively

utilitarian value (the so-called "camp") were built south of Haulik's summer house. Both the quality of their design and construction and the overall layout do not respect the existing spatial values of the complex. A number of smaller buildings were built during and after WW II without an obvious urban plan (Milić, 1960).

Most of the 19th century estate buildings have changed their purpose, some have been demolished, but it should be noted that Haulik's villa was partially renovated for the needs of the



Fig. 8: Experimental fields with greenhouses (PHOTO: STANKO STERGARŠEK, 2020)

Fig. 9: The Old Stable (PHOTO: STANKO STERGARŠEK, 2014)

Fig. 10: Apiary (PHOTO: STANKO STERGARŠEK, 2015)



School of Landscape Architecture (the building was declared as the "Home of Landscape Architecture" in the plans).

A comprehensive analysis of the Grange / Campus area from the end of the 20th century shows that, despite the fact that well-known and renowned architects were hired to design new buildings, a certain absence of integral development vision is apparent (Fig. 7).

The use of agricultural fields for scientific and teaching purposes contributed to preserving the original educational role of the estate, while at the same time protecting the entire (eastern) valley from Maksimir to the Štefanovec Stream (where a Police Academy was built in 1960) from intensive expansion of the urban tissue that has changed all the other park boundaries and has reduced the park's area.

Agricultural fields are still used today (Fig. 8) for experimental cultivation of numerous crops, which enables agriculture students to gain practical knowledge during their studies. Several Departments at the Faculty of Agriculture have dedicated areas with fields and/or greenhouses for conducting experiments with different crops and cultures, genetic research, growing of medicinal and aromatic

herbs, vegetables, an orchard with about 40 cherry varieties and several varieties of apples, pears, plums etc.

The central campus area has been transformed in the middle of the last century as a joint project of both Faculties under the leadership of professors Ivo Pevalek, Elza Polak and Mirko Vidaković. Existing vegetation was enriched by introducing many different tree species, varieties and cultivars with a total of 112 taxa in 1992 (Zebec et al., 2014). From the very beginning, education was, and still is, one of the estate's basic features, but unfortunately, today only a small central "botanical" campus area is open to the public, while all experimental fields are fenced and inaccessible to visitors.

Also, despite the fact that there is no physical fence between the park and the campus, it is clear that, what was initially intended (and realized) as one integral multifunctional complex, is being developed as two separated units - a public park suffering from neglect and threatened by the surrounding urban development and a propulsive Faculty campus that is developing independently.

It was not until the middle of the 20th century that the cultural and natural

values of Maksimir were recognized: protected as a nature park in 1948 and as a cultural monument in 1964, without considering the different characters of the park and the estate.

5. MAKSIMIR PARK AND CAMPUS IN THE 21ST CENTURY

At the end of the last century, the awareness of the park values raised again and Maksimir Public Institution was founded in 1994 in order to manage the park and protect its natural and cultural values. Although Maksimir "must be understood as a living organism that cannot be treated as a museum or a historical monument" (Jeglic et al., 1985), 21st century brings just such an approach - mostly the existing structures in the park are being restored as well as some parts that have completely disappeared over time. According to the same authors, at the same time "a meaningful adaptation of the park to the needs of modern times" is necessary, but such an approach is still not in the focus.

Haulik's idea of introducing allochthonous species in the park, to create an educational botanical garden was restored and plants were labelled.

In the period 2014-2016, the ZOO has undergone a comprehensive modernization and reconstruction.

It was only in 2019 that a city project co-financed by EU "City windows in the nature - enhancing of urban biodiversity and developing of green infrastructure (Modernization II)" started, and by 2021 twelve various elements of infrastructure shall be built or restored, new urban equipment installed etc. A series of educational programmes and interpretative facilities shall also be developed.¹ The details of this ambitious project are not known, nor can the conclusions about the impact of its realization on the integrity of the historical matrix be drawn, but the intention to strengthen the educational component is clearly visible. From the available data, no effort is visible to involve the Faculty of Forestry or the Faculty of Agriculture with their scientific and professional capacities or spatial resources into this project. The parallel development of the two entities obviously remains a *modus operandi* in the immediate future.

The life of the campus, at the beginning of the 21st century, was marked by a landscape design project (Aničić et al., 2002) as an endeavour to create a representative open space

¹ <http://park-maksimir.hr/o-nama/#projekti>



Fig. 11: Garden for horticulture therapy (PHOTO: STANKO STERGARŠEK, 2020)

Fig. 12: Design & Build structure (PHOTO: A) STANKO STERGARŠEK, 2015, B) IVA RECHNER DIKA, 2015)



in front of the already built Pavilion VI. However, a holistic approach that would encompass the whole campus, and especially the idea of functional and design re-integration with the park, is still lacking.

The renovation and the conversion of Haulik's "Old stable" (Fig. 9) into a research centre (2010 - today) was the first major investment by the Faculty of Agriculture in the restoration of historical heritage, followed by restoration of the Apiary (Fig. 10) (unfortunately only the building) in 2012-2015. In addition to academic education, the Apiary is partially oriented towards working with school children, hobbyists and general public, unlike the Old Stable that, although intended for education, will not be open to the general public.

By building a new student restaurant (2010, still unfinished) that will be partially open to the public and offer food produced at the university's experimental fields and hunting grounds, the centre of the campus is moving northward. Innovative architecture could contribute to the integration of the campus into the public sphere of the park.

Thanks to the collaboration with the restoration department of the Academy

of Fine Arts, in 2010 the restoration research of Haulik's summer house began, which resulted in valuable knowledge of the building, and also the discovery of previously unknown wall paintings (two of which were subsequently restored). Unfortunately, in 2019 Haulik's villa was put out of function, and the landscape architecture school thus lost an important working and exhibition space.

As part of the IPA project "Training as preparation for work in ornamental horticulture" an adequate space adapted for persons with reduced physical and mental abilities was designed (S. Stergaršek, I. Rechner Dika, 2014) and realized (Fig. 11).

At the month-long international workshop for landscape architecture students 'Design & Build 2015', with the participation of about 40 students and professors from Zagreb, Ljubljana (Slovenia) and Seattle (USA) schools, students designed and then built a two-part garden structure² (Fig. 12). The structure is extensively used by students and also frequented by visitors from outside of the faculty campus, showing that such manifestations of the educational process stimulate the interest of the public.

² https://issuu.com/landscape_architecture_zagreb/docs/design_build-zagreb_2015

In 2017, inspired partly by the experience of North Carolina University, USA (project on 'Agroecology Education Farm')³, the Faculty of Agriculture promoted the idea of transforming the experimental fields into a demonstration space for new sustainable food production technologies with the opportunity of insight and the participation of students and the wider interested public (volunteer work).

The potential of this idea is to address current problems of global warming and to propose solutions through the application of sustainable and ecological agriculture methods, presenting them through high-quality contemporary landscape design on the experimental fields while offering the opportunity for volunteer work to the general public. Haulik's experiences of building self-sustaining artificial lakes (connected to existing streams) need to be upgraded with up-to-date knowledge in collecting, purifying and reusing rainwater, making the processes visible and applicable in both the park and the campus area. Out of these landscape-designed hydro technical interventions (wetlands and other forms of biological water purification), the reconstruction of a special turtle lake from the 19th century is desirable, along

with other new major water bodies within the campus that could be used as a study site for applied zoology (fish farming). The collected and naturally purified water would provide an opportunity for the installation of contemporary irrigation systems, both for the surrounding experimental fields and the units of ornamental horticulture within the campus.

Ultimately, contemporary trends in landscape design including the use of green roofs (with the first one already designed upon a new restaurant), solar and other renewable energy sources, green walls, composting and recycling, and other contemporary, even experimental tools to create sustainability, are all opening up new areas of cooperation with other parts of the academic community. Their implementation in a form presentable to both the professional and the wider audience, as an open laboratory designed using landscape architecture knowledge, presents a great potential for raising awareness of the need to cope with climate change.

The use of modern information technologies for monitoring the process is a necessary part of such a vision, and their use for presentation purposes is no less important. Only a clear reopening of the institution and its

³ http://www.agr.unizg.hr/hr/article/1639/predavanja_gostujući_predavači_s_north_carolina_state_university

resources to both the interested agricultural producers and the large urban audience can lead to the desired results.

The great challenge at the moment is to establish functional cooperation between the two entities – the public park on one side and the two faculties on the other, because only the development of joint projects with a unique vision can lead to the restitution of Haulik's ideal: an educational platform that unites the park and the estate / campus and is open to the interested public. Leaders in this vision should certainly be landscape architects, as professionals who acquire multidisciplinary knowledge in the fields of biotechnology, engineering, humanities and arts during their education.

After restoring the building and the surrounding landscape (sufficient historical data are available), Haulik's villa, as a building with historical and architectural value, has the potential to become an important connecting point between the park and the campus and thus finally bring to life the idea of a "House of Landscape Architecture".

6. CONCLUSION

Archbishop Haulik's comprehensive approach to designing Maksimir Park and the estate as its integral part, in addition to the park's usual recreational purpose, explicitly includes a cultural (to develop good taste), an educational (to encourage more noble gardening) and even a social role (to give the poor who want to work an opportunity to make money), all with the intention that the widest circle of the population be able to enjoy the park and enhance their well-being. Such an approach,

the so-called 'big-picture' is unfortunately not visible in the later development of either the park or the estate.

It can be said that the neglect during the twentieth century has led to a decrease of the original compositional features (the simultaneous existence of Baroque and English landscape style features), the park's spatial values (linear openings and meadows decreased due to forest expansion), and was damaged by aggressive urbanisation along the edges and poor planning within some of its parts. At the same time, only a small number of new elements (children's play ground, stage), of questionable value, have been introduced into the park.

At the beginning of the 21st century, efforts were made, in the park and on the campus, primarily to restore a part of the existing elements and to reconstruct some of the historical elements and buildings that have decayed with age. In terms of general public education, these initiatives raise the awareness of the historical and cultural value of particular segments, and to a smaller extent of the entire complex.

Also, the latest ideas promoted for the park through the project "City windows to nature" and the Faculties' initiative to transform experimental fields and open them to the public, show an increased awareness of the educational segment's importance in re-thinking of both the park and campus functions.

However, it is still more about parallel projects and visions / initiatives that only partially consider the integrity of one or the other part, and not both parts in Bishop Haulik's 'big picture' manner. In the near future, there is a chance to use education, in the widest sense of the word, as the main connecting element. ©

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ZÁGRÁB, MAXIMIR PARK. 19. SZÁZADI PÜSPÖKI BIRTOKBÓL 21. SZÁZADI EGYETEMI CAMPUS

A cikk a Maksimir-park fejlődését ismerteti és elemzi a 18. század érseki erdejétől és majorságától kezdve az első városi park és püspöki mintagazdaság megalakulásán át napjainkig.

A Maksimir-park létesítése Vrhovac püspök nevéhez fűződik, fejlesztését később Juraj Haulik érsek folytatta. A Maksimir-park végleges kialakításán túl Haulik egy korának kiemelkedő mezőgazdasági vívmányait felvonultató mintagazdaságot is kialakított. Amellett, hogy élelemmel látta el a Zágrábi Püspökséget, a birtok a városiakok és látogatók előtt is nyitva állt. A városon kívül „Zágrábtól nem messze” fekvő park egyaránt szolgálta a környékbeli földművesek és a városi polgárok képzését, ismereteinek bővítését. A birtokot a 20. század elején vásárolta meg az állam a mai Mezőgazdasági és Erdészeti Karok számára, amelyek azt jelenleg is hasznosítják és igényeiknek megfelelően alakítják.

A cikk célja, hogy áttekintést adjon a Maksimir-park és birtok kezdetektől fogva elismert oktatási szerepéről, a

karok fejlesztése nyomán bekövetkezett változásokról, és legfőképpen, hogy meghatározza a jövőbeli fejlesztés lehetőségeit. A park felújítása és a jelen kor igényeinek megfelelő átalakítása, mindennek előtt az egyetemi campus kortárs megoldásokra nyitott fejlesztésével, a klímaváltozás kihívásainak kezelésére, a fenntartható ökológiai gazdálkodás megteremtésére, a csapadékvíz gyűjtésének, tisztításának és hasznosításának megoldására, a park megjelenésében pedig kortárs elemek alkalmazására irányul. Az intézménynek az érdeklődő mezőgazdasági termelők és a szélesebb városi közönség számára történő újbóli megnyitása jelentős oktatási és szemléletformálási lehetőségeket rejt magában (nem csupán helyi, hanem országos szinten is), amelyre a karoknak a jövőben fel kell készülniük. ©