

## WP-T2

### TOOL DEVELOPMENT AND CONSENSUS BUILDING

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D.T2.1.3 Transnational decision support tool  
with guidelines to foster / advance historical  
parks protection

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Version 1.0





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## The HICAPS project

Central Europe's cultural heritage is rich and diverse, but under pressure often due to the lack of capacity, in terms of common policies, know-how, resources. In some areas, the situation is rapidly deteriorating.

In the past, many castle buildings were decorated with parks, according to the socio - cultural values of the time. Their purpose was to demonstrate the political and economic power of the owners, whose ambition was also to spend quality time in beautiful landscape. Nowadays many of those parks don't exist anymore, especially in small towns. The main reason is the lack of financial resources for the protection of cultural and historical buildings and their contents.

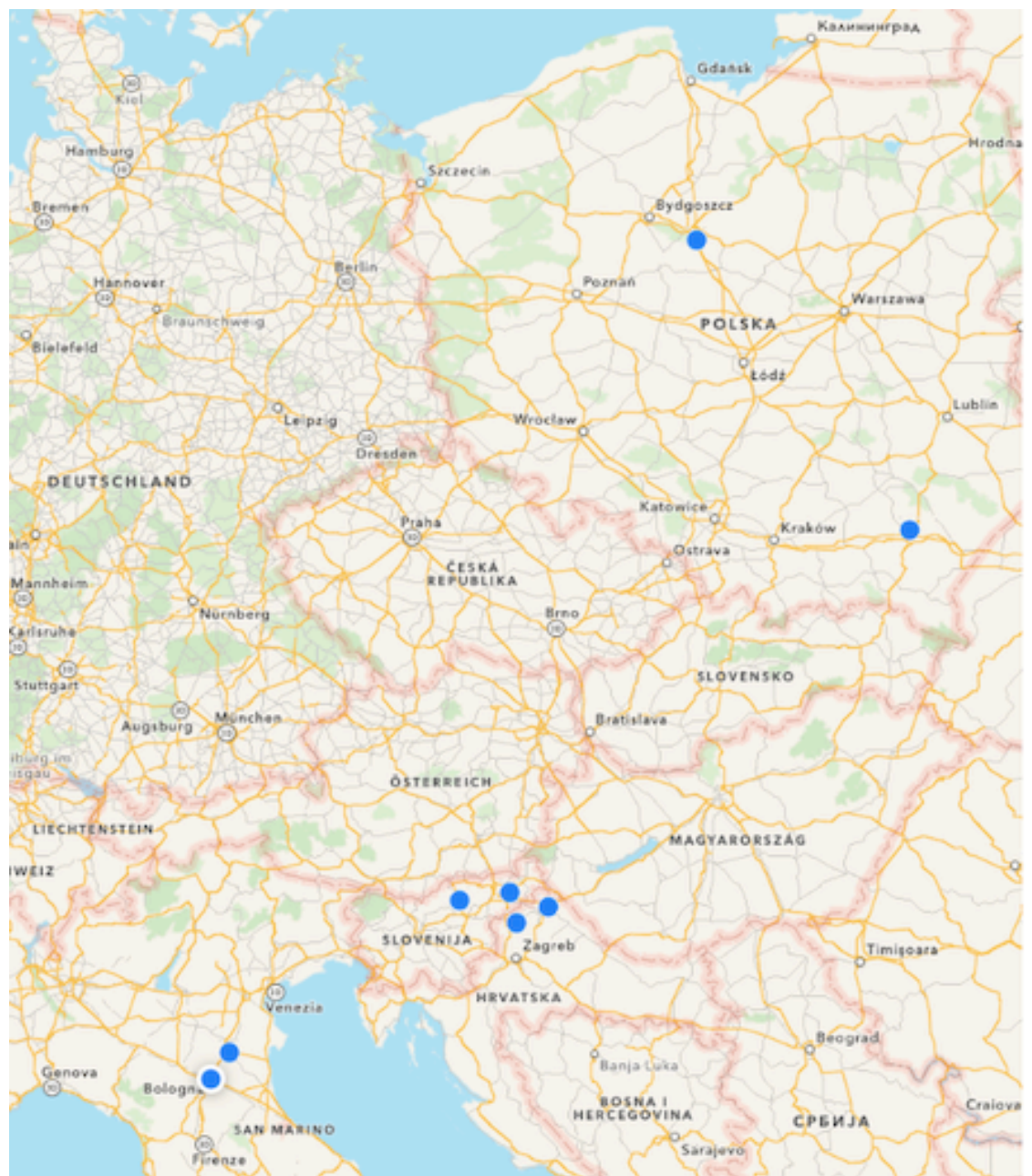
The surrounding of these ancient buildings, due to the lack of knowledge of the past as well as of financial resources, is therefore mostly arranged according to the needs of the present days. The HICAPS project intends to: strengthen capacities of public and private partners for improving the use of cultural heritage through transnational cooperation; raise awareness amongst schools and citizens about the historical past of our cities and towns and; improve benefits for the citizens and the public administrations.

Its main outputs are: a joint transnational strategy on the evaluation of the potential of historical parks; eight local action plans; the present decision support tool with guidelines for self-assessing the strategy for local and regional development; a set of educational outdoor trail tools and a handbook for improving landscape accessible; eight local revitalisation concepts and seven revitalised historical gardens.

Due to the big varieties of typologies and the fragmentation in managing historical gardens at Central Europe level, it would not be possible to tackle all these challenges in a single area. However the diversity of the partners' experience provides a transnational added value supporting a wide diffusion of the project results in many other Central Europe regions.

The partner organisations are:

- [Municipality of Bedekovčina \(Croatia\)](#)
- [Municipality of Varaždin \(Croatia\)](#)
- [Association "Petit Philosophy" \(Croatia\)](#)
- [Municipality of Ferrara \(Italy\)](#)
- [Villa Ghigi Foundation \(Italy\)](#)
- [Kujawsko-Pomorskie Voivodeship \(Poland\)](#)
- [Rzeszów Regional Development Agency \(Poland\)](#)
- [Scientific research centre Bistra Ptuj \(Slovenia\)](#)
- [Municipality of Velenje \(Slovenia\)](#)
- [Faculty of Architecture of the University of Ljubljana \(Slovenia\)](#)





## Introduction

This Decision Support Tool addresses the stakeholders of HICAPS partner cities and regions interested in implementing the methods, strategies and tools designed by the project - as well as the managers of other historical gardens and parks and the public decision makers of the Central Europe countries who intends to know more about the actions and efforts necessary to replicate this experience.



For this reason the document presents the current achievements of HICAPS, and provides the people interested in implementing the project's results and exploiting the potential of historical castle gardens in Central Europe with a practical instrument able to guide them in the identification of the key elements to be considered when developing the strategy to preserve, revitalise and exploit the natural and cultural heritage present in historical parks.

The Tool also provides a set of good practices coming from the lesson learnt by the HICAPS project, made available of the whole Central Europe community.

## Why a project on Gardens?

It is well known that the word "paradise" originates from the Persian pairidaez, which means garden.

The history of the garden has intertwined with that of humanity from the very beginning, as it is evident in the Genesis story and in the countless reminiscence of precious gardens of ancient times: from the gardens of the Urk of Gilgamesh to the famous hanging gardens of Babylon, from the Ptolemaic gardens of Alexandria in Egypt to those of Villa Adriana in Tivoli, without forgetting the many gardens present in many mythological tales or sung by famous poets, starting with Homer.

In Europe, after the fall of the Roman Empire, the garden survives - as a religious symbol but also for food and medicinal reasons - almost only in the monasteries. It is only from the XV-XVI century that it returns to be a protagonist in royal courts and aristocratic residences. This reaffirmation of the garden in Europe is well evidenced in this famous passage, written by Francis Bacon in his essay *Of Gardens* in 1625: "God Almighty first planted a garden. And indeed it is the purest of human pleasures. It is the greatest refreshment to the spirits of man; without which buildings and palaces are but gross handiworks; and a man shall ever see that when ages grow to civility and elegancy, men come to build stately sooner than to garden finely; as if gardening were the greater perfection."

After the Middle Ages, the gardens gradually began to enrich the castles - which were gradually starting to lose their defensive and military functions to transform themselves into sumptuous residences - as well as the city palaces and suburban villas. Initially they were located at the centre of agricultural estates, but soon they became also places of pleasure, rich of ornamental and artistic elements, such as flowering hedges, pergolas, groves, stairs and terraces, fountains and other water games, statues, etc.

The gardens reached the peak of their splendour during the Italian Renaissance, and later in the seventeenth-century France. The French model, developed by integrating and elaborating elements of the Italian garden, dominated in the following two centuries. It was later replaced during the Romanticism time by the new model of landscaped park, that favoured a design aimed at surprising with unexpected and picturesque views of nature, in continuity with the surrounding environment, with a strong contrast with the previous formal imprint of the green spaces.

In more recent times, with the extensive and intense process of urbanization and industrialization started in the 19th century, gardens and parks have become essential elements of urban planning and, especially since the second half of the nineteenth century, European cities have had large urban parks, sometimes realized ex novo, but often taken from previous parks of the aristocracy, and created for leisure and recreation of the modern citizens. During the first decades of the twentieth century, public green spaces have become an increasingly essential component of urban development of cities, an important parameter of the quality of settlements and a fundamental factor for the improvement of the climate and the urban environment, of the well-being and the health of citizens and of the aesthetic appeal of cities. Also in the twentieth century, on the basis of the North American experiences of protection initiated in the second half of the nineteenth century, the first large natural parks were established in Europe too. Most of them are today part of the Natura 2000 network, the great ecological network of the European Union, together with many other natural areas identified throughout Europe.

The parks involved in the HICAPS project are fragments of this complex and very rich history. The Linear Park of the Walls of Ferrara - built in the Middle Ages and reworked by the Este family between the fifteenth and sixteenth centuries - is an example of an impressive historical artefact born for quite different purposes, that today has assumed unexpected ecological values, while keeping its original function for the well-being, leisure, physical activity of citizens, proposing pedestrian and cycle routes. The parks linked to the medieval castles of Velenje and Ptuj in Slovenia are an evidence of how the historical troubles of single buildings can sometimes profoundly modify the attitude of the connected green areas, in some cases reinventing the whole complex. On the other side, the Walk Lane of Josip Juraj Strossmayer, around the Varaždin Renaissance fort, and the Bedekovčina castle-residence, both in Croatia, have preserved significant monumental aspects. A still different case is the Bologna's Villa Ghigi, in Italy, a villa built on the first hills close to the city in the seventeenth century, which is characterized by a predominantly rural park with scattered ornamental elements, which then fades into the natural plant landscape of the hills. Lastly, the Polish park of the castle of Wieniec, is a notable example of large landscape parks, associated with castles and mainly baroque and neoclassical residences.





## Structure of the document

The Decision Support Tool is presented as an electronic publishing (ePub) document, to be more effective in different usages and take benefit of the direct links made available by the electronic version. The knowledge developed by the HICAPS project has been organised in the following sections:

### [National legislation and local regulations regarding historical parks](#)

Key regulations for historical parks on the EU/international level. National regulations for historical parks and gardens (national, regional and local levels): Croatia; Italy; Poland; Slovenia. Collections of Case study, identified problems and recommendations.

### [Good practices in the HICAPS countries](#)

Collection of good practices in 5 thematic areas:

- Accessibility to cultural and environmental heritage objects for people with disabilities: 11 good practices.
- Educational thematic trails dedicated to different target groups. IT and didactical based tools: 7 good practices.
- Innovative educational concepts for attracting schools, families, general public to cultural and environmental heritage objects: 14 good practices.
- 3D visualization models of historical objects for management, maintenance or educational purposes: 4 good practices.
- Public events or initiatives facilitating the management of the park, e.g. gardening cleaning etc., involving citizens and greater public: 11 good practices.

### [Selection of the most appropriate locations](#)

Presentation of the potential park areas analysed according to the following characteristics: accessibility; ownership structure; spatial planning documentation; historical documentation; preservation aspects: development plans.

### [Socio-historical overview of historical parks](#)

Presentation of the selected historical parks in the partner areas.

### [Accessibility conditions](#)

8 Reports presenting the accessibility conditions in 8 historical parks, according to the following characteristics: Location in the territorial area: how the park can be reached; Usability of the park: how the geomorphologic characteristics of the park limit its usability; Viability of the park: how the viability is organised and articulated; Facilities for visitors: how the park is equipped to make the visitors' experience easier / more pleasant; Facilities for specific activities, such as sports and children games; Specific activities for disadvantaged people, e.g. if the park organises activities for people with specific needs; Specific activities which foresee a real interaction with plants.

### [Improving landscape accessibility](#)

Presentation of 10 tools for increasing landscape accessibility.

### [Plant diversity and their value](#)

Presentation of 8 reports highlighting plant diversity and their value for pharmaceutical, health or nutrition purposes.

## [Educational outdoor trail tools](#)

Presentation of 24 educational tools, covering three key areas: History of the park; Biodiversity, Natural sciences; and Health, Wellness, Entertainment. They targets 9 different categories of users: Children 0-6; Children 7-11; Children 11-15; Youngsters; Adults; Tourists; Special Needs; Scholars; Specific interest groups.



# National legislation and local regulations regarding historical parks

## Key regulations for historical parks at international level

### National regulations for historical parks and gardens:

[Croatia](#), [Italy](#), [Poland](#), [Slovenia](#)

### Case study, identified problems and recommendations:

[Croatia](#), [Italy](#), [Poland](#), [Slovenia](#)





## Key regulations for historical parks on the EU/international level

### Glossary

ICOMOS - International Council on Monuments and Sites

ICOMOS-IFLA - International Committee on Historic Gardens and Sites

Historic garden – architectural and horticultural composition of interest to the public from historical or artist point of view

MAB – Man and Biosphere Programme, Unesco  
Venice charter (1964) - set of guidelines providing an international framework for the conservation and restoration historic buildings

Landscape - an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors



### Key regulations for historical parks on the EU/international level

*Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, 1972) adopted by the United Nations General Conference for Education, Science and Culture.*

The Convention defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List. The Convention sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. The States Parties are encouraged to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.

**MAB – Man and Biosphere Programme, Initiated UNESCO**

The Man and the Biosphere Programme, initiated by UNESCO in the 1970s, aims to improve the relationship between man and the environment and reduce the loss of biodiversity through research and capacity-building actions. The programme has promoted Biosphere Reserves, marine or land areas managed with the aim of resource conservation and sustainable development, and having care to ensure the direct involvement of local communities.

**The Florence Charter - Historic Gardens (Florence, 1981), approved by ICOMOS**

The Florence Charter, approved by ICOMOS, as a part of the Venice Charter, sets out the international rules and guidelines for the preservation of historic gardens. The document defines historic gardens as architectural compositions and recommends their preservation as living monuments. It characterizes a general approach to maintenance, conservation, restoration, and reconstruction of gardens, including their plans, vegetation, structural and decorative features, and use of water. Moreover it also outlines legal and administrative issues.

Please note that according to the Article 6 of the Charter: The term "historic garden" is equally applicable to small gardens and to large parks, whether formal or "landscape".



*Convention for the Protection of the Architectural Heritage of Europe (Granada, 1985) Approved by Secretary General of the Council of Europe*

The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented.

*European Convention on the Protection of the Archaeological Heritage (La Valetta, 1992), adopted by the Council of Europe*

The European Convention for the Protection of the Archaeological Heritage replaced and updated the original London Convention of 1969. It reflected the change in the nature of threats to the archaeological heritage, which now came less from unauthorized excavations, as in the 1960s, and more from the major construction projects carried out all over Europe from 1980 onwards. It established a body of new basic legal standards for Europe, to be met by national policies for the protection of archaeological assets as sources of scientific and documentary evidence, in line with the principles of integrated conservation.

*European Landscapes Convention (Firenze, 2000) Adopted within the Council of Europe.*

The European Landscape Convention is aimed at promoting the protection, management and planning of European landscapes and organizing European cooperation on landscape issues. It is the first international treaty to be exclusively concerned with all dimensions of European landscape. It applies to the entire territory of the Parties and relates to natural, urban and peri-urban areas, whether on land, water or sea. It therefore concerns not just remarkable landscapes but also ordinary everyday landscapes and blighted areas. The Convention represents an important contribution to the implementation of the objectives of the Council of Europe: these seek to protect Europeans' quality of life and well-being, taking into account landscape, cultural and natural values.

*Convention on the Value of Cultural Heritage for Society (Faro Convention, 2005), Adopted within the Council of Europe.*

The Faro Convention is a "framework convention" which defines issues at stake, general objectives and possible fields of intervention for member States to progress. The Convention emphasizes the important aspects of heritage as they relate to human rights and democracy. It promotes a wider understanding of heritage and its relationship to communities and society. Each State Party can decide on the most convenient means to implement the Convention according to its legal or institutional frameworks, practices and specific experience. Compared to other conventions, the "framework convention" does not create specific obligations for action. It suggests rather than imposes.

*The Florence Declaration on Heritage and Landscape as Human Values (2014) Adopted by ICOMOS*

Declaration of the principles and recommendations on the value of cultural heritage and landscapes for promoting peaceful and democratic societies. The Declaration encourages an in depth reflection on the ethics and processes of heritage management, and a shared concern regarding the challenges that current and future generations will have to deal with.

*European Cultural Heritage Strategy for the 21st century (2017) adopted by Council of Europe*

"Strategy 21" redefines the place and role of cultural heritage in Europe and provides guidelines to promote good governance and participation in heritage identification and management, and disseminates innovative approaches to improving the environment and quality of life of European citizens. It sets challenges, recommends actions and highlights best practice to be followed by all actors and stakeholders – governments, local authorities, civil society and professionals.

## National regulations for historical parks and gardens: Croatia

### National Regulations:

- Taking into account the aspect of environmental protection and the fact that Historical parks (around castles) in Croatia are mostly preserved as “Monument of park architecture”, the most important national law governing the reconstruction of Historical parks would be the Law on nature protection. It can be found in the OJ (Official Journal number 80/13)
- As regards the conversation, relevant law is the Law on Protection and Conservation of Cultural Property. It can be found in the OJ (Official Journal number 69/99, 151/03, 157/03, 100/04, 87/09, 88/10, 61/11, 25/12, 136/12, 157/13, 152/14, 98/15, 44/17)



### Regional Documents:

- As regards the conversation, regional offices for conservation in every County (konzervatorski uredi) are the official government institutions in charge of conservation issues. They are mandated from the Ministry of Culture.
- Ministry of Culture as the overall responsible institution on the Government level, including regional offices mentioned above
- If we go to the regional level and take the example of Krapina Zagorje County (in which Municipality of Bedekovčina is located and in which the HICAPS park is located (also registered as monument of park architecture) a very important institution is the Public Institution for the Management of Protected Areas of Nature I Administrative Department for Physical Planning and Environmental Protection of the Krapina -zagorje County that issues permits for performing activities according to the Nature Protection Act (OJ 80/13) and will also issue a permit for activities which will be done through the HICAPS project in Bedekovčina.
- Very similar is also in Municipality of Varaždin which is in Varaždin County with little difference: The castle and its surroundings is under direct supervision of Ministry of culture and regional office for conservation because it's protected as part of cultural historical center and cultural monument.

## National regulations for historical parks and gardens: Italy

### National Regulations:

- Law n. 394 6/12/1991: it defines the National Framework for protected areas. It establishes principles and regulations for identification, management, governance of protected natural areas, including parks, at national and regional level. It is currently subject to a general revision.
- Rete Natura 2000: national law and regulations:  
<http://ambiente.regione.emilia-romagna.it/parchi-natura2000/consultazione/normativa/norme-nazionali/natura2000-normativa-statale>.
- Decree 22 January 2004, n. 42 "Codice dei beni culturali e del paesaggio": among other dispositions, it enlarges the concept of "cultural asset", also including landscape, forestry and natural areas:  
<http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2004-01-22:42!vig>.
- Law 14 January 2013, n. 10 "Norme per lo sviluppo degli spazi verdi urbani": it promotes initiatives for urban green areas (such as the Trees Day), the obligation for each municipality to set a "trees balance". It also defines the national Public Green Development Committee:  
<http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2013:10>.
- Law n. 132 (28 June 2016): it creates the National System Network for Environmental Protection (SNPA), an integrated system of regional and national agencies in charge of: monitoring, research, technical support, data collection and analysis, and acting as a point of reference for public administrations.



### Regional Documents of Emilia-Romagna:

- Regional Law 24 January 1977:  
<http://ambiente.regione.emilia-romagna.it/parchi-natura2000/sistema-regionale/alberi-monumentali>: it defines actions for the protection of regional flora, such as establishment of a regional nature conservation fund, and discipline for the collection of undergrowth products.
- Tools and documents for management and government of regional protected areas:  
<http://ambiente.regione.emilia-romagna.it/parchi-natura2000/consultazione/Programmi-Piani-e-Regolamenti/piani-programmi-e-regolamenti-del-settore-aree-protette/Programmi-Piani-e-regolamenti-del-settore-aree-protette>
- Programme of the Regional System of Protected Areas:  
<http://ambiente.regione.emilia-romagna.it/parchi-natura2000/consultazione/Programmi-Piani-e-Regolamenti/programma-regionale/programma>
- Regional territorial plan:  
<http://ambiente.regione.emilia-romagna.it/parchi-natura2000/consultazione/Programmi-Piani-e-Regolamenti/piani-programmi-e-regolamenti-del-settore-aree-protette/ptp/Piani-territoriali-dei-parchi>
- Regional parks regulation:  
[http://ambiente.regione.emilia-romagna.it/parchi-natura2000/consultazione/Programmi-Piani-e-Regolamenti/piani-programmi-e-regolamenti-del-settore-aree-protette/reg\\_parchi/regolamenti-parchi](http://ambiente.regione.emilia-romagna.it/parchi-natura2000/consultazione/Programmi-Piani-e-Regolamenti/piani-programmi-e-regolamenti-del-settore-aree-protette/reg_parchi/regolamenti-parchi)
- Regional laws for the creation of regional parks:  
<http://ambiente.regione.emilia-romagna.it/parchi-natura2000/consultazione/normativa/norme-rer/istituzione-parchi-regionali>
- Act establishing the Itinerary "Alta via dei parchi":  
<http://ambiente.regione.emilia-romagna.it/parchi-natura2000/fruizione/altavia/allegati-alta-via-dei-parchi/delibera-di-giunta-regionale-n-2039-2009>
- Act approving the cycle itinerary "Ciclovie dei parchi":  
<http://ambiente.regione.emilia-romagna.it/parchi-natura2000/fruizione/ciclovie/documenti-progetto-ciclovie/delibera-di-giunta-regionale-n-288-2011>

### Local Documents of the City of Bologna and Villa Ghigi Park:

- The regulation of public and private green areas in the City of Bologna:  
[http://www.comune.bologna.it/media/files/regolamento\\_comunale\\_del\\_verde\\_testo\\_consolidato\\_280416.pdf](http://www.comune.bologna.it/media/files/regolamento_comunale_del_verde_testo_consolidato_280416.pdf)
- The Villa Ghigi Park is located in an area of great importance from the landscape point of view, on the hills of Bologna. This territory that has been protected for decades on the basis of Legislative Decree 42/2004 art. 136: Code of Cultural Heritage and Landscape - ex Law 1497/1939. In particular, the specific Ministerial Decree (dated 9 November 1955) refers to the area south of Bologna, which has been declared of considerable public interest in the city regulation:  
<http://urp.comune.bologna.it/portaleterritorio/portaleterritorio.nsf/54d343d22fed7808c1256cfb002e416e/aaf414b396f3be14c1257ab50050049f?OpenDocument>  
This statement recognized the area, also including interesting natural parks - such as the hills of Paderno, Gaibola, Casaglia, Osservanza, etc., as a natural landscape of singular beauty. This regulation also includes the streets enclosed in this area, with their viewpoints accessible to the public, from which you can enjoy the view of the city and its surrounding hills. All these elements are therefore subject to all the provisions contained in the specific law.
- A second level of protection for the Villa Ghigi Park concerns the villa and the surrounding green space, that are cultural objects declared on the basis of Legislative Decree 42/2004 art. 13 - Code of Cultural Heritage and Landscape (ex Law 1089/1939). In particular, it refers to the specifications contained in the text of the Ministry for Cultural and Environmental Heritage (Villas, Parks and Gardens for an Atlas of the Constrained Heritage, edited by Vincenzo Cazzato, Polygraph Institute and State Mint, Rome 1992).
- Finally, the aforementioned Code of Cultural Heritage and Landscape also protects some of the wooded areas within the park for their landscaping interest (Legislative Decree 42/2004, article 142, paragraph 1, letter g). In particular it includes the forest on the eastern sector of the park and the bushes along the Fontane River.
- At the level of municipal urban planning (PSC\_RUE\_POC), the Carta Unica del Territorio of the Municipality of Bologna is the document setting out and governing all the aforementioned aspects of protection.
- In the regional context, the Villa Ghigi Park falls within the system of protected areas of Emilia-Romagna, consisting of a complex set of parks, reserves and protected landscapes (to which the Natura 2000 Sites are linked to environmental protection policies at European level). In particular, the park is included within the perimeter of the natural and semi-natural Protected Landscape "Hills of San Luca" which includes

much of the hilly area south of Bologna between Reno and Savena (Provincial Council Resolution No. 5 of 22/01/2014). The protected area of the natural and semi-natural Protected Landscape Hills of San Luca is under the direct responsibility of the Metropolitan City of Bologna.

### Local Documents of the City of Ferrara:

- The regulation of public and private green areas in the City of Ferrara:  
[http://servizi.comune.fe.it/attach/superuser/docs/regolamento\\_verde\\_pubblico\\_privato\\_rev1.pdf](http://servizi.comune.fe.it/attach/superuser/docs/regolamento_verde_pubblico_privato_rev1.pdf)
- The Green Areas Office of the City of Ferrara performs only the ordinary maintenance activities (mainly cleaning, pruning, stability checks, control of urban furnishing) of the green areas in the municipal territory. There is currently no regulation on the maintenance and conservation of parks and historical gardens, however the City of Ferrara issued a Public and Private Green Areas Municipal Regulation, dealing with the proper management of historical trees and maintenance activities.
- On the 4th July 2016, the City of Ferrara also issued the new Municipal Regulation for Preservation and Participative Reorganisation of Public Green Areas:  
<http://servizi.comune.fe.it/4548/regolamento-per-la-cura-e-riconversione-di-aree-verdi-pubbliche>
- The City of Ferrara, aware that public green areas and urban furnishing belong to the community and that their maintenance and preservation represent an activity of public interest, issued this regulation to govern the forms of shared responsibility among citizens, associations and the City itself, to take care of preservation and reconversion of public green areas. This action aims to:
  - stimulate and increase the sense of belonging of citizens;
  - raise awareness on the protection and safeguard of the municipal territory through processes of participation and self-management of the natural heritage;
  - reclaim public green spaces, with social, aesthetic-landscaping and environmental purpose, improving their use and deployment.
- The area where the H interventions are planned is subject to safeguard for the respect of the "prospect, environment and decorum", according to the mentioned Code of Cultural Heritage and Landscape. For this reason the Regional Superintendence is requested to express its opinion and authorize the transformation and compatibility with the protection of the cultural values present. No building works are allowed in the park of the walls.
- By the end of 2017 a direct reference to the RUE (Urban Planning Directive) of the City of Ferrara (<http://servizi.comune.fe.it/6953/regolamento-urbanistico-edilizio-rue>) will be also added. The RUE, and also the PSC (Municipal Structural Plan, <http://servizi.comune.fe.it/6935/piano-strutturale-comunale-psc>), protect the landscape as part of the Unesco Site including the centre of Ferrara with its Walls and the Barco del Duca. In particular, Art. 107.3.1 of the RUE NTA protects the paths of the embankments and the valley for their panoramic value.
- An additional protection from the archaeological point of view is set up by art. 107.2.4.5 and art. 107.2.4.4 of RUE. The area has a "high archaeological potential" at the bastions of St. Paul, where the ancient fortress was erected at the beginning of the 1600s. Any interventions must be preceded by a preventive survey in agreement with the Superintendence of the Archaeological Heritage of Emilia Romagna in order to ascertain the existence of archaeological materials or in any case to provide prescriptions on how to carry out the work.

### Key institutions and organizations

- Italian Ministry of Environment, Land and Sea – Division II – Biodiversity, Protected Areas, Flora and Fauna  
<http://www.minambiente.it/pagina/direzione-generale-la-protezione-della-natura-e-del-mare-pnm>.  
The existing Italian national parks (5% of the national territory) are formally under the responsibility of this Ministry, but their direct management is entrusted to external bodies with autonomous legal entity (national, regional, local bodies, associations, etc.).
- Regional parks are formally managed by Regions. Each Italian Region has its own department or office for environment and parks. Local parks are under the responsibility of the municipalities. In most cases the management is entrusted to external bodies. Natural areas also exist under the responsibility of the Ministry of Agriculture.
- Italian Federation of Parks and Nature Reserves, founded in 1989, joins over 160 bodies managing national and regional parks, marine protected areas, regional and state nature reserves, and consists of regional coordination offices. Since June 2008, the Federparchi has also been established as the Italian Section of the Europark Federation:  
<http://www.parks.it/federparchi/Eindex.php>.
- The State Forestry Guard (Italian: Corpo Forestale dello Stato or CFS) was a national body established on 15 October 1822 for Forestry administration and control. CFS was closed on December 31, 2016 and all the personnel became militarized and absorbed by the Carabinieri (military force with police duties under the authority of the Ministry of Defence).
- Public Green Development Committee – created by law 10/2013 on Regulations for public green development - is in charge of monitoring, promoting and planning urban green areas development. The Committee publishes every year a Report on Public Green. The Committee is supported by the Italian Institute for Environment Research and Protection (ISPRA) for data collection and analysis, as well as organisation:  
<http://www.minambiente.it/pagina/comitato-il-verde-pubblico>.
- ISPRA is part of the National System of Environmental Agencies (21 agencies, one for each Italian region) which deals with local problems and national regulations in terms of environment protection and preservation. In January 2017 the law 132 (dated 28 June 2016) entered into force: it has created the National System Network for Environment protection (SNPA) a more integrated system of regional and national agencies in charge of: monitoring, research, technical support, data collection and analysis, acting as a point of reference for public administration. The System's council is also in charge of guiding --with binding advice- the decision of the Italian Government on environmental matters



## National regulations for historical parks and gardens: Poland

### National Regulations:

- Act of 23 July 2003 on the Protection and Care of Monuments- the Ordinance of the Minister of Culture and National Heritage of 28 June 2017 concerning conservation and restoration works, as well restoration research with regard to a monument entered in the monuments register or Heritage Treasure List, as well as construction works, architectural studies and other activities with regard to a monument entered in the monuments register, as well as archaeological research and search for monuments.
- Act of 07 July 1994, Construction Law
- Act of 16 April 2004 on the protection of nature
- Act of 27 March 2003 on planning and spatial development
- Act of 18 July 2001, Water Law
- Act of 21 August 1997, on property management
- Act of 24 April 2015 on altering certain acts on account of enhancing the tools for environmental protection
- Ordinances of the Minister of Infrastructure as of 12 April 2002 on technical conditions which should be fulfilled by buildings and their location
- Regulation of the Minister of the Environment from 16 December 2016 on species-specific protection of animals
- Regulation of the Minister of the Environment from 9 October 2014 on species-specific protection of plants
- Regulation of the Minister of the Environment from 9 October 2014 on species-specific protection of mushrooms
- The concept of the country's spatial development
- A domestic programme of monument protection and monument care for the years 2014-2017



### Regional Documents of the Kujawsko-Pomorskie Region:

- Programme for the Protection of Historical Monuments of the Kuyavian-Pomeranian Voivodeship for the years 2017-2020
- Regional Operational Programme of the Kuyavian-Pomeranian Voivodeship for the years 2014-2020
- Strategy for the development of the Kuyavian-Pomeranian Voivodeship until 2020 and modernisation plan 2020+
- The spatial development plan for the Kuyavian-Pomeranian Voivodeship
- The Strategy of Tourism Development for the Kuyavian-Pomeranian Voivodeship

- Territorial Contract for the Kuyavian-Pomeranian Voivodeship for the years 2014-2023

## Regional Documents at a district/municipality level:

- Studies of conditions and directions of spatial development in the communes.
- Strategies for the development of communes
- Local plans of spatial development
- district/commune programmes for monument protection

## Key institutions and organizations

### *Governmental Bodies:*

- The Ministry of Culture and National Heritage, General Conservation Officer as an Undersecretary of State operates within the structures of the ministry together with the Agency for the Preservation of Monuments
- National Heritage Board, together with its local branches

### *Regional Government Bodies:*

- Kuyavian-Pomeranian Voivodeship Conservation Officer
- Local branch of the National Heritage Board in Toruń
- General Directorate for Environmental Protection

### *Local Government Institutions:*

- Municipal Conservation Officer (Bydgoszcz, Toruń, Chełmno, Grudziądz)
- District Conservation Officer (this function is not present in the Kuyavian-Pomeranian Voivodeship)
- District Starost – as a construction supervision body
- Commune council – as a natural monument protection body

### *Associations:*

- Polish National Committee ICOMOS
- Association of Conservation Officers (with local branches)
- Society for the Preservation of Monuments (with local branches)
- Association of Polish Architects (with local branches)
- International Association of Cultivation and Protection of Trees
- Society for Landscape Architecture (with local branches)
- Society for Polish Landscape Architects (with local branches)



# National regulations for historical parks and gardens: Slovenia

## National Regulations:

### Strategic documents

- Slovenian Development Strategy 2030
- 2018–2025 National Programme for Culture
- 
- Strategy for Sustainable Development of Slovenian Tourism 2017-2021
- Strategy of cultural heritage 2018 - 2026



### Key Acts

- Spatial Planning Act (ZUreP-2) (Official Gazette of the RS, no. 61/17)
- Building Law (GZ) (Official Gazette of the RS, no. 61/17 and 72/17 - corr.)
- Architecture and Civil Engineering Act (ZAID) (Official Gazette of the RS, no. 61/17)
- Nature Conservation Act (ZON) (Official Gazette of the RS, no. 96/04, 61/06 – ZDru-1, 8/10 – ZSKZ-B, 46/14, 21/18 – ZNOrg and 31/18)
- Cultural Heritage Protection Act (ZVKD-1) (Official Gazette of the Republic of Slovenia 16/2008, 123/2008, 8/2011, 90/2012)
- Documents, complementing the act (ZVKD-1) related to project topics:
  - Rules on the Cultural Heritage Register (Official Gazette of the Republic of Slovenia 66/09)
  - Conservation Plan for Renewal (Official Gazette of the Republic of Slovenia, 76/10)
  - Rules on Conservation Plans (Official Gazette of the Republic of Slovenia 66/09)

## Local Documents of the Ptuj Municipality:

- Municipal Spatial Plan of the Municipality Ptuj (Article 13 - other important areas of the municipality - castle and park Turnišče)
- Order declaring Castle and Park Turnišče a cultural monument of national importance (Official Journal of RS, Nos. 81/99, 55/02, 54/03 in 16/08 – ZVKD-1)
- Special regulations protection areas (Natura 2000 sites) (Official Journal of RS, No. 49/04)
- Special regulations protection areas (Natura 2000 sites)(Official Gazette of RS, No. 49/04, 110/04, 59/07, 43/08, 8/12, 33/13, 35/13-OdlUS and 3/14).
- Decree on the proclamation and protection of natural areas and monuments of nature in the Municipality of Ptuj (Official newspaper of the municipalities of Ormož and Ptuj, no. 14/79)

## Local Documents of the Velenje Municipality:

- Municipal Spatial Plan of the Municipality Velenje /dolgoročni prostorski plan MoV 2009 (Uradnem listu RS št. 21/90, 34/92 (za dele bivše občine Žalec) in Uradnem vestniku MoV Velenje št. 17/88, 7/01, 13/04, 17/10, 21/10).

- 
- Odlok o prostorskih ureditvenih pogojih za območje planske celote 02; Krajevni skupnosti Škale-Hrastovec in Konovo-del (PUP 02) (Uradni vestnik MoV, št. 6/10 - UPB1, 27/10, 6/12, 9/13, 13/13, UI RS št. 27/13 – DPN))
- Odlok o prostorskih ureditvenih pogojih za Gorico v Velenju (Uradni vestnik MoV, št. 4/99 in 1/02, 20/05, 26/06, 12/09, 06/12)
- Odlok o ureditvenem načrtu grajski hrib II. faza, za del območja urejanja R 4/6 v Velenju (Uradni vestniku MoV, št.: 16/91)
- Odlok o ureditvenem načrtu Šalek, za del območja urejanja S 4/8 v Velenju (Uradni vestnik MoV št. 5/96) - neuradni čistopis

## Key institutions and organizations

### *Governmental Bodies:*

- The Ministry of the Environment and Spatial Planning / Ministrstvo za okolje in prostor (MOP).  
With competent public institution: / Agencija Republike Slovenija za okolje (ARSO) Institute of the Republic of Slovenia for Nature Conservation / Zavod Republike Slovenije za varstvo narave (ZRSVN)
- The Ministry of Culture / Ministrstvo za kulturo (MK).  
With competent public institution: Institute for the Protection of Cultural Heritage / Zavod za varstvo kulturne dediščine Slovenije (ZVKDS).

### *Local Government Institutions, Ptuj:*

- City Municipality of Ptuj /Mestna Občina Ptuj
- Institute for the Protection of Cultural Heritage - Regional Unit Maribor
- Institute for the Protection of Natural Heritage - Regional Unit Maribor

### *Local Government Institutions, Velenje:*

- City Municipality of Velenje / Mestna Občina Velenje
- Institute for the Protection of Cultural Heritage - Regional Unit Celje
- Institute for the Protection of Natural Heritage - Regional Unit Celje

### *Associations:*

- ICOMOS Slovenia
- Društvo krajinskih arhitektov Slovenije /Slovenian Association of Landscape Architects
- Zveza društev arhitektov Slovenije



## Case study, identified problems and recommendations: Croatia

### Exemplary investment process of park/garden restoration or reconstruction

- According to the Nature Protection Act (NN 80/13), Article 18 (1) The Park Architecture Monument is an artificially formed space (castle parks, botanical garden, arboretum, city park, tree – line, as well as other forms of garden and park design), i.e. individual tree or a group of trees that has esthetic, stylistic, artistic, cultural-historical, ecological or scientific value. No action or actions that could change or impair the values for which it is protected are allowed and shall be prohibited on the monument of the park architecture and its immediate vicinity forming an integral part of the protected area.
- According to Article 38 of the Nature Protection Act, the State Administration Office of the County, or the administrative body of the City of Zagreb responsible for nature protection (hereinafter: the State Administration Office) establishes special nature protection requirements in the process of issuing a location permit for the construction and execution of works and interventions in the area of a regional park, significant landscape, park-forest, monuments of park architecture, and beyond the boundaries of the construction area. According to Article 127 (4) Permission for interventions and actions in the regional park, significant landscape, park-forest, and monument of park architecture shall be issued by the competent state administration office.
- The investment has to also have a timeframe which depends on the complexity, scope, scale and nature of investment – reconstruction, significant upgrade etc. The issue of ownership as well as sustainability is to be solved as a precondition. Many of the institutions/CSOs/Municipalities are trying to apply their projects to EU funds and get cofinancing, as public budgets are scarce. There are also possibilities of Private-public partnerships, crowdfunding etc.
- Institutions that are usually involved are in general Municipalities on local level, Administrative Department for Physical Planning and Environmental Protection of the certain County, Public Institutions for the Management of Protected Areas of Nature on regional level and Ministry of culture / regional offices for conservation partly on regional and partly on national level.



### Shortcomings:

- The problem of ownership, lengthy and unpredictable duration of the timeframe for obtaining the consent of the owner to perform the activities
- Lengthy and unpredictable duration of the timeframe for obtaining all necessary permits
- The problem of maintenance, and neglect of the park - a systematic restoration of the park is needed as most trees are too dangerous and present a hazard for potential visitors/tourists
- Areas of the park are of vast surface and very hard to maintain
- Harsh winters can ruin trees plants and flora
- Lack of new and modern vision for the castle and park that should work in synergy / have compatible content.
- Lack of management strategy of the complex.



## Case study, identified problems and recommendations: Italy

### Exemplary investment process of park/garden restoration or reconstruction:

In the Bologna area, it is important mentioning the activities run at the San Michele in Bosco Park. Built at the end of the 19th century together with the building of Rizzoli Orthopaedic Institute, it is one of the most popular parks on the Bologna hills, because from its summit you can enjoy a close view of the city. The place had been well-known for centuries due to the presence of the convent, founded in the Middle Ages. The belvedere, described by famous travellers and writers at least from the 15th century, had been progressively clouded by the growth of many conifers planted in the 1950s. Between 2008 and 2011, the park was object of a restoration project, managed by the Villa Ghigi Foundation, thanks to a funding from Fondazione del Monte, which restored the splendid view of Bologna. The experience and the intervention model followed in this previous experience will drive the activities planned within the HICAPS project.



The pilot area identified by the City of Ferrara concerns the Lineare Park of the city walls, almost completely accessible by foot or bicycle. The case study has a particular interest, since it involves both the historical and environmental heritage, and is aimed at stimulating tourism development and promoting the image of Ferrara as a centre of art and culture. All along the walls, the environmental and landscape relevance has been enriched by gardens and tree lines, harmonising the natural environment, the existing architecture and the overall urban layout. Several interventions have been done in the past (please also see deliverable D2.1 of thematic workpackage 2) to the original area adjacent to the walls, where –starting from the 15th century– many delightful green areas have been created (Ragnaia, la Castellina, the gardens of Belfiore and Montagnola, the Montagna di Sotto, etc.). They were rich of gardens, grottoes, ponds, fountains and labyrinths, whose beauty have been described by many writers. The extensive documentation present in the city archives provides the potential for reconstructing the entire system thanks to new and appropriate technologies.

### Shortcomings:

The key traditional obstacles and problems come from financial limitations, procedures for authorization, coordination of activities and conflicts between stakeholders, however we intend to stress the biodiversity issues. Often old and damaged buildings have become shelter for protected species (e.g. bats, birds, small reptiles, etc.). Restoration interventions may cause destruction of such shelters. For this reason it is necessary to foresee careful inspections to verify the presence or absence of certain species. If they are present, we will take mitigation measures that allow man-nature coexistence, as well as compensation measures, to minimize damages to natural species. In the management of wooden parks, large and old trees must be preserved as much as possible, even if they have cavities, avoiding unnecessary destruction. Older trees are valuable for some animal species among the most threatened in Europe, and such large trees are often found in our towns and cities, especially in old parks or along the streets. If necessary, trees can be scaled down, to make them less susceptible to wind action, or can be harnessed to keep them standing. It is necessary to find a way to preserve the dead wood, that is considered to be the

most threatened habitat, searching for solutions allowing the coexistence among the different ways to use the park.

## Case study, identified problems and recommendations: Poland

### Exemplary investment process of park/garden restoration or reconstruction:

Conservation, restoration, construction works, conservation and architectural studies, works around the monument or other activities with regard to the monument entered into the monument register, as well as archaeological research, require (in accordance with the act on the protection and care of monuments) a relevant authorisation from the Voivodeship Conservation Officer, issued as an administrative decision – separately for each type of works listed above. The authorisations are issued at the request of the owner (authorised entity) on the basis of relevant documentation and appendices defined in the Regulation regarding conservation works (...).

The execution of construction works at the monument is subject to the provisions of the Construction Law, and requires a relevant construction permit issued by a construction supervision body (District Starost).

*The requirements of the investment process include:*



- Conservation recommendations to reshape the historical park layout – issued by the Voivodeship Conservation Officer at the request of the monument's owner;
- Preparation of the concept design for the reshaping of the park layout based upon park survey, dendrochronology based on non-invasive methods, wood stand evaluation, as well as the analysis of historical composition based on field studies, analysis of archival materials, iconography, cartographic materials and, in justified cases, supplemented with an exploratory study performed with archaeological methods. Conservation studies require a permit of the Voivodeship Conservation Officer.
- Once the design concept has been agreed on with the Voivodeship Conservation Officer, one may proceed with industrial designs: conservation and restoration works schedule; design documentations, industries: sanitation and water supply, electricity and power, roads, architecture with spatial development, landscape architecture – planting plan; landscape architecture - management of the wood stand;
- The choice (possibly by way of public procurement) of the site manager, a person responsible for investor supervision, and a person executing conservation works. The people listed above must comply with the requirements laid down in the act of protection and care of monuments;
- Obtaining conservation authorisations as well as permits or notifications with the bodies of construction administration;
- Preparation of the financial engineering – own funds + public funds intended for the protection of heritage, including the possibility to obtain subsidies in a competition mode: from the Minister of Culture and National Heritage, the Voivode (through the Voivodeship Conservation Officer), voivodeship, district and commune self-governments; environmental protection – subsidies from the Voivodeship Environmental Protection Fund Possibility to apply for EU funds.

## Shortcomings:

A complex system of obtaining conservation authorisation, separately for each category of pre-conceptual works – conservation studies, architectural studies; execution: conservation and restoration works, construction works, works around the monument or other activities at the monument, archaeological research:

- obtaining authorisation from different administrative bodies: Voivodeship Conservation Officer, General Directorate for Environmental Protection, the Commune;
- limited financial funds for task subsidies;
- long waiting-time for the issuance of authorisation Construction permit (60 days) following the prior authorisation from the Voivodeship Conservation Officer (30 days). On account of frequent lack of legal status regulation of the park (property, responsible entity), compensation claims and similar cases may take years;
- possibility to revoke or annul authorization from the Voivodeship Conservation Officer within two years of the issuance of the decision by the Minister of Culture and National Heritage, which may cause the initiated actions and invested funds to be lost – lack of investment stability, which will reflect the possible provision of loan funds for it;
- discrepancy in the priorities as regards the protection of monuments and environmental protection;
- a small number of local plans of spatial development;
- lack of law-supported standards for reshaping documentation of historical parks.

## Recommendations:

- simplification of administrative procedures and the number of authorisations that are necessary to obtain, through accurate legislation changes;
- increase in social awareness in relation to the protection of historical greens as well as conservation priorities which sometimes depart from the principles of natural conservation;
- Bringing the legal status of historical parks to order;
- increase in the provision of funds for public aid for the reshaping of historical parks;
- protection of the surroundings and connections of views in historical parks in local plans of spatial development;
- establishment of standards for design documentation in historical parks;
- recording the principle of permanence of the issued administrative decision in the legal system– authorisation from the Voivodeship Conservation Officer.



## Case study, identified problems and recommendations: Slovenia

### Exemplary investment process of park/garden restoration or reconstruction:

Due to different types of procedures for interventions which need building permit and the ones which don't need it both procedures are presented:

#### Works which require a building permit

A building (construction) permit is required for a change of the use of a building or site, a reconstruction of a building or site, a new building or site (which includes demanding, less demanding and non-complex buildings) and a removal of a building.

- The necessary documentation is prepared by an authorised registered architect and/or landscape architect in the collaboration with other authorised engineers.
- Competent public institutions must be involved into the process in order to give the Planning conditions for the specific case. Which institutions are competent is defined in Spatial planning documents. Usually they are: municipality and institutions managing public infrastructure. In the case of cultural heritage and special areas of nature preservation, those institutions are also the Institute for the Protection of Cultural Heritage (ZVKD) and the Slovenian Environmental Agency (ARSO). They have to issue Protection conditions. Special areas of nature preservation are: Areas of Natura 2000, protected areas (defined by protection legislation) and areas of natural values of local or national significance. Cultural heritage areas are all entered in national register of cultural heritage as: cultural heritage or monuments of local or national significance.
- In general Protection conditions define if the Conservation plan is needed or not. In the case of interventions in building or site declared as monument of local or national significance (also in the case of historic parks/gardens) the Conservation plan is needed.
- On the basis of the issued Planning and Protection conditions and Municipal (detailed) spatial planning documents (OPN, OPPN, special regulations) the Conceptual project (IDZ and/or IDP) is made with the designs of the intended intervention. Project includes basic plans and technical reports.
- The Concept project has to be made in accordance with all planning and protection conditions. It is submitted to the responsible public agencies to control it and when all of the conditions are fulfilled the Approval is issued. Approvals are issued by each agency for the conditions they cover.
- The next stage is to make The project for the acquisition of a building permit (PGD) in which it is necessary to prove that the design of the intended intervention is consistent with the spatial planning documentation, in accordance with building regulations and has all of the demanded approvals. Project consists of a group of plans, detailed plans, technical reports, etc. The project is submitted to the Administrative Unit which runs the procedure and issues the Building permit.
- In order to start the construction, Project with detailed plans for construction (PZI) has to be made.



- In case of buildings, which are intended for public use (also historic parks/gardens), after the completion of the construction additional technical documentation (Project PID) must be made in order to obtain the Operating Permit.
- Operating Permit is issued after the Administrative unit assemble the special commission (consists of the representatives of the institutions, which gave the approvals). The commission conducts a technical inspection carried out on-site and if all of the demands are met, the Administrative unit issues the operating permit.

## Works which doesn't require a building permit

A building permit isn't required in an instances of a building of a simple building and a regular maintenance work. A simple building is structurally non-complex, has no effect on its surroundings and it's not intended for living. Those interventions are in a case of historical parks/gardens for ex. removing ill and damaged trees, planting new trees and plants, making new pathways, lawns, making the accessibility ramps for disabled, establishing new sitting areas, installation of urban equipment etc.

- In historical parks/gardens, due to their protected status, the Protection conditions from competent institutions must be obtained. In the case of a protected cultural and natural heritage, those institutions are the Institute for the Protection of Cultural Heritage (ZVKD) and the Slovenian Environmental Agency (ARSO).
- Protection conditions are issued based on the draft and the description of the intended works. Protection conditions could demand preparation of The Conservation plan, if intervention is proposed for monument of local or national significance.
- Based on a draft concept competent public agencies issue Approvals.
- After Approvals are issued works can start.

## Institutions involved

- Institute for the Protection of Cultural Heritage (ZVKD), regional office, issues Cultural protection conditions and Protection approval.
- Slovenian Environmental Agency (ARSO) issues Environmental protection conditions and Protection approval.
- Municipality – Spatial planning office issues planning conditions and approval regarding municipal (detailed) spatial acts (OPN and OPPN).
- Municipal or regional services for public infrastructure issues planning conditions and approvals based on possible interventions to the public infrastructure.
- Administrative Unit – regional subdivision – Department for environment and space - runs the proceedings for acquisition for Building Permit and issues the Building Permits, runs the proceedings for obtaining Operational Permits.

## Time frame

Due to very complex legal proceedings it is hard to determine the time frame for any kind of intervention.

The deadline for institutions to issue planning and/or protection conditions is 15 working days. The deadline for issuing the approval is 15 days for less demanding objects and 30 days for demanding objects.

The deadline for Administrative unit to issue the building permit is 30 days although final date varies on different circumstances. First major factor is the type of object being build (defined in the Construction Act). In a case of a non-complex objects the procedure is shortened. The next factor is how many parties to proceeding are involved and what are their interests. In case they oppose to the intended intervention, proceeding is automatically delayed and expert opinions must be obtained to achieve the final decision.

## Possible financing sources

In Slovenia, owners and possessors of the heritage are obliged (according to ZVKD-1) to maintain and protect them in proportion to their abilities. They have the right to the free explanations, advice and instructions from the competent organizations.

If the implementation of protection measures requires extraordinary costs, which aren't within the capabilities of the owner, they can be publicly funded from the budget of Republic of Slovenia. However, that isn't often the case and as the result the owners are forced to find other sources for financing. One of the possible sources are European funds.

## Shortcomings:

- Very complicated legislation and procedures and therefore obtaining a building permit is a time consuming and a lengthy process. It leads to the fact that it is impossible to precisely define the timeline for preparation of projects, planning and building.
- Legislation dictates that Protection conditions are separated for nature and cultural heritage. For the case of historical parks/gardens that means that conditions have to be prepared by two different agencies which leads to the confusion regarding the competences for the interventions in the heritage sites. E.g. the division in legislation into two fields: environment and culture in practice means, that the historical parks aren't taken into consideration as one entity, consisting of natural and cultural heritage. Therefore, during the construction phase most of the funds are used for build-up structures and the horticultural part of the project is often neglected.
- In the case of the conflict of interests between the environment and cultural heritage, The Ministry of the Environment and Spatial planning has the sole jurisdiction to decide, which Protection conditions will be taken into consideration, what is questionable in the professional sense.
- The responsibilities and the competences of the parties involved (owners, municipalities and the state) in terms of maintenance, reconstructions and possible interventions are not clearly defined. It leads to the transferring responsibility and consequently to the damage on a heritage.
- Vague and unspecific legislation in terms of defining financial responsibilities of the owners and the state. Lack of funds from the state.
- Complicated and time consuming procedures in terms of acquiring necessary Approvals disables the possibility for the establishment of temporary uses and more vivid life of historical parks.

## Recommendations:

- The legislation and the procedures should be simplified and shortened.
- In the case of historical parks only one combined and harmonized Protection conditions documents regarding environment and cultural heritage should be applied, containing both



topics: environment and cultural heritage. Consequently, the same should apply for Approvals.

- The expert opinion on the matter of two protection statuses should be in the jurisdiction of an adequate professions, not (solely) in The Ministry of the Environment and Spatial planning.
- The responsibilities and competences of all parties involved in the maintenance and preservation works ought to be determined in detail and their implementation supervised regularly.
- Financial responsibilities of the state for protected areas should be extended and specifically defined. Nature and cultural heritage are defined as special values in need for protection in all national strategic documents, yet still that fact isn't reflected in everyday practice. Public-private partnership should be encouraged in projects of preservation and renewal of historic parks and gardens.
- Simplified procedures for the establishment of temporary public use and therefore to open historic parks/gardens to public and arise the awareness of their importance.



## Good practices in the HICAPS countries

This section presents a collection of good practices identified in the partner countries, within 5 thematic areas:

- Accessibility to cultural and environmental heritage objects for people with disabilities (e.g. hearing, visual, physical): 11 good practices:

[Nature Park Papuk](#) (Croatia), [Brdo Estate Park Tours for Disabled](#), [Centre IRIS - Sensory Gardens](#), [Feri Gradnik: Visiting Courts and Castles](#), [Forest Classroom for Blind people in Ljubljana](#), [Ljubljana Castle](#), [Mozirski Gaj Flower Park](#), [Ormož Castle Elevator](#), [Tactile 3D Model of City Ptuj](#), [Therapeutic Horseback Riding at Castel Prestranek Estate](#), [Virtual Reality Walk in the Škocian Caves Unesco Heritage Site](#) (Slovenia)

- Educational thematic trails (e.g. zoological and botanical flora species) dedicated to different target groups. IT and didactical based tools: 7 good practices:

[Fabiani Theme Park Štanjel-Kobdilj](#), [Mozirski Gaj Flower Park](#), [Sava River Trail](#), [Science Field Trail Šturmovci](#), [Škocian Caves Unesco Heritage Site](#), [Thematic Trail at Botanical Garden Sežana](#), [Thematic Trail Berl](#) (Slovenia)

- Innovative educational concepts for attracting e.g. schools, families, general public to cultural and environmental heritage objects: 14 good practices:

[Energy Centre Bračak Castle](#), [Karlovac Freshwater Aquarium](#), [Nature Park Medvednica](#) (Croatia), [BioBlitz](#), [The School in the Wood](#), [The Sottomura and Bassani Parks in Ferrara](#) (Italy), [Archaeological Museum in Biskupin](#), [International Knight's Tournament](#) (Poland), [Mozirski Gaj Flower Park](#), [Ormož Basins Natural Reserve](#), [Polhov Gradec Castle Park](#), [Prestranek Castel Estate](#), [University Botanic Garden Ljubljana](#), [University Botanic Garden Maribor](#) (Slovenia),

- 3D visualization models of historical objects for management, maintenance or educational purposes: 4 good practices:

[Krapina Neandertal Museum](#) (Croatia), [Kujawsko-Pomorskie in Minecraft](#) (Poland), [iEmona](#), [Ljubljana Castle](#) (Slovenia)

- Public events or initiatives facilitating the management of the park, e.g. gardening cleaning etc., involving citizens and greater public: 11 good practices:

[Sfinga Space for Socialising](#) (Croatia), [A Tree for You](#), [Interno Verde](#), [Sheep on the Wall](#) (Italy), [Music Festival in Łańcut](#) (Poland), [Cleaning Action in Ptuj](#), [Library Under the Treetops](#), [Moj Grajski Park](#), [Mozirski Gaj Flower Park](#), [Rose Festival in Nova Gorica](#), [University Botanic Garden Ljubljana](#) (Slovenia)



## Accessibility to cultural and environmental heritage objects for people with disabilities: Nature Park Papuk

The Nature Park Papuk offers a numbers of possibilities for recreation and is a perfect place for an active vacation. It offers lots of trails for walking through the nature and is attractive in all seasons. Because of the heights of the Papuk pikes, up to 1000 m, the visitors can enjoy their activities regardless of their age.

At the the main entrance to the Nature Park, in a historical building, built in the 19th century and completely restored in 2007 is situated the centre for visitors. At the Centre there is permanent and occasional exposition and it is equipped with a multimedia and conference room. The permanent

exposition at the Centre covers the most interesting biological, geological an historical exhibits of the area of the nature park. Visitors have the chance to discover the geological inheritance through many exposed geological samples and crystals. A rich collection of fossils are also exhibited permanently. The biological exhibits include among other things the nests of diverse birds and a sample of insects. The Centre is open at work-days. Lectures and educative workshops are organized for schools and organized groups of visitors, whom have announced their arrival.



Across the Park there are numerous educational paths and since they are under protection, the great importance is given to education of visitors and one of the educational means is educational walking-paths. The Public Institution of the Nature Park Papuk has build seven educational paths until now, located at the most attractive locations at the Park.

We would like to point out especially to the Count's educational path on Jankovac. Length of the path is 2,3 km, duration of the visit is ca 3 hours. The educational path is built on the most beautiful part of the Park-woods Jankovac, next to the mountain house, the Jankovac lakes and the waterfall Skakavac. Stairs, small wooden pedestrian bridges and handrails were installed along the path, enable the visitors access to the most beautiful sights of Jankovac. Along the path were installed educational panels describing the natural and culture-historical notabilities in the surrounding of the path. The educational path is named the Count's path, in memory of the Count Josip, the honorable Janković, the first man who recognized the esthetical and landscape values of this valley. The track was later fully adapted to the disabled, with braille plates on the Braille letter for the blind and the weak. In addition to the mentioned infrastructure, the public institution has also arranged a children's playground for the youngest visitors. The path has received the Award "Zeleni cvijet" (Green flower) from the Croatian touristic collective in 2006, as best in the category of original touristic destinations of the continental part of Croatia.

More information at:

<http://www.papukgeopark.com>



## Accessibility to cultural and environmental heritage objects for people with disabilities: Brdo Estate Historical Park Tours for Disabled

The Brdo Estate near Kranj is cultural and natural heritage site with a renaissance chateau, built in 16th Century surrounded by a park with diverse flora and fauna. The estate's history, flora and fauna are thus accessible through thematic tours; the park offers walking paths, avenues along lakes and bridges, where the visitor comes across diverse animal and plant species as well as architecture from various historical times.

Custom designed guided tours can be arranged that focus on people with disabilities (hearing – tactile tour, horseback riding; visual – audio guides) and make it possible for them to access cultural and environmental heritage.



More information at:

<https://www.brdo.si/sl/park-brdo>



## Accessibility to cultural and environmental heritage objects for people with disabilities: Centre IRIS - Sensory Gardens

Sensory garden of the Centre IRIS - Centre for Education, Rehabilitation, Inclusion and Counselling for the Blind and Partially Sighted Ljubljana is designed as a teaching and exercising tool - polygon - for the children with sensory difficulties.

Its main intent is to encourage blind and partially sighted children to improve their mobility and orientation. It is also used as an educative tool for the wider public about the obstacles people with sensory difficulties face in everyday life. For that goal the Centre organizes different workshops for pre-school and school children as well as adults.



The Garden is divided into several thematic areas: a trail simulating the experience of the forest environment, outdoor classroom for the introduction of different materials, a polygon for training orientation and mobility skills, area with sandboxes and water for experiments, area with sound props, fragrant garden and a children playground.

More information at:

<http://www.ecetera.si/za-medije/odprtje-vrta-cutil/>

<http://center-iris.si/ponudba/vrt-cutil/>

<http://center-iris.si/o-zavodu/center-iris-en/>





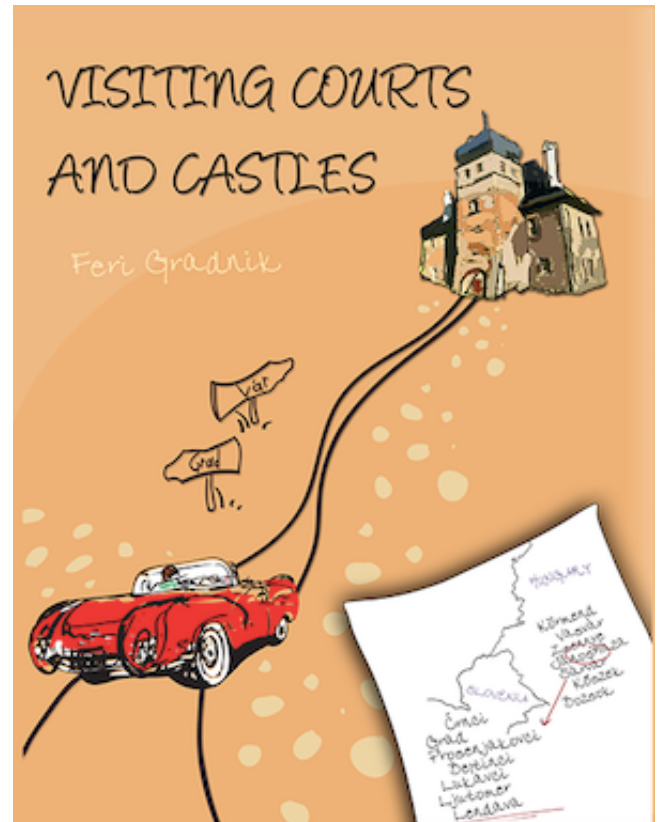
## Accessibility to cultural and environmental heritage objects for people with disabilities: Feri Gradnik: Visiting Courts and Castles

It was created as part of the cross-border project - The Futur 1. It contains 14 courts and castles on both sides of the Slovenian-Hungarian border. The e-monograph contains the information for the presentation of castles, photo galleries, maps and 3D models of castles and enable accessibility to physically disabled.

It has potential to be upgraded with presentation of castle parks in the future.

More information at:

<http://www.pannon-castles.eu/en#6>





## Accessibility to cultural and environmental heritage objects for people with disabilities: Forest Classroom for Blind and Visually Impaired People in Tivoli Park Ljubljana

Tivoli Park is Ljubljana's largest park, stretching from the city centre to the slopes of the Rožnik hill to which it is connected by walking paths and a trim trail. It was designed in 1813 by Jean Blanchard and created by joining together the parks surrounding Podturn and Cekin Mansions. Since 1813 several expansions, re-design and re-landscaping projects were undertaken.

In 2016 a Forest Classroom, intended especially for blind and visually impaired, was designed. It is placed near the edge of the forest and consists of an accessible pathway, sandy platform and a wooden terrace. Visitors are guided through the educational material equipped with the braille writing with the help of the wooden railing. Wooden terrace is placed in such a way that visitors can touch different trees. All elements are designed to help the blind and visually impaired with the orientation.



More information at:

<http://ljublanski.projekti.si/gozdna-u%C4%8Dilnica-za-slepe-in-slabovidne-v-tivoliju.aspx>

<http://www.dostop.org/prostor.php>



## Accessibility to cultural and environmental heritage objects for people with disabilities: Ljubljana Castle, A Tactile Model of the Castle

Ljubljana castle complex is a former medieval fortress, situated on a hill in a city centre. It is a mayor cultural venue as well as a recreational area with numerous pathways, connecting the castle with the city centre.

The castle is connected to city centre by Funicular Railway. Physically disabled persons have access to almost all facilities and spaces.



Since 2013 a bronze tactile model of the Castle is placed in the Castle courtyard for blind and visually impaired people. With its legend in Braille, the model enables users to become familiar with the Castle.

More information at:

<https://www.ljubljanskigrad.si/en/the-ljubljana-castle/>

<https://www.ljubljanskigrad.si/en/visit-us/how-to-get-to-the-castle/>

<https://www.ljubljanskigrad.si/en/visit-us/interesting-facts/tactile-model/>





## Accessibility to cultural and environmental heritage objects for people with disabilities: Mozirski Gaj Flower Park

The park is fully adapted for people with special needs. The trails are wide, nicely arranged and flat.

Rental of wheelchairs (3 new wheelchairs are available for visitors). They are designed for people with disabilities and older people who will make the park easier to see and experience carefree and satisfied ones.



Unfortunately, the wheelchair visit is not yet possible on the SVEA lookout tower and in the Japanese garden.

Adapted toilets are available to visitors with special needs.

There are no entry fees for serious disabled people.

More information at:

<http://www.mozirskigaj.com/en/>

Contact:

[info@mozirskigaj.com](mailto:info@mozirskigaj.com)



## Accessibility to cultural and environmental heritage objects for people with disabilities: Ormož Castle Elevator

Ormož Castle has an elevator, which allows physical disabled people to reach upper floors. It is one of few castles in Slovenia that has an elevator for disabled persons. Part of Ormož Castle is Castle landing Ormož, which once reached to the castle, but today part of it is ruined. The remaining of castle landing is renewed and entirely adapted to people with disabilities. Big parking space is suitable for people with disabilities as well as entrance and cash office. Toilets are in ground floor and entire complex is adapted to needs of people with disabilities.

More information at:

<https://www.pmpo.si>

Contact:

[muzej-ptuj.uprava@siol.net](mailto:muzej-ptuj.uprava@siol.net)





## Accessibility to cultural and environmental heritage objects for people with disabilities: Tactile 3D Model of City Ptuj

It is used for better orientation of visual disabled people in old part of city Ptuj. 3D model includes Braille writing.

More information at:  
<http://www.ptuj.si/en>

Contact:  
[obcina.ptuj@ptuj.si](mailto:obcina.ptuj@ptuj.si)





## Accessibility to cultural and environmental heritage objects for people with disabilities: Therapeutic Horseback Riding at Castel Prestranek Estate

The tradition of horse breeding and horse-related activities continues there from 18th century, when the Austrian Emperor Charles VI bought the property and attached it to the Lipica Stud Farm.

They offer therapeutic horseback riding lessons to children and adults of all abilities on special trained horses. Therapeutic horseback riding provides physical, cognitive, behavioural, social, and emotional benefits to participants. Lessons are individual or group but adapted to the unique needs of each participant supported with professionals.



More information at:

<http://gradprestranek.si/konjenistvo/terapija-s-pomocjo-konja/>



## Accessibility to cultural and environmental heritage objects for people with disabilities: Virtual Reality Walk in the Škocjan Caves Unesco Heritage Site

The Škocjan Caves Regional Park is situated in the classical Karst region and constitutes a typical “Karst architecture” with its system of caves and individual natural and cultural monuments. The area is renowned for its exceptional archaeological finds, pioneering explorations of the Karst underground.

Caves are mainly inaccessible for physically disabled people due to the special terrain. Regardless all of the other premises (entrance building, info point, restaurant, exhibition rooms...) are fully adjusted. Special virtual reality glasses showing the filmed tour of the Caves are available for those who are incapable to attend the tour.

More information at:

<http://www.park-skocjanske-jame.si/en>

<https://www.brezovir.si/scaronkocjanske-jame.html>







## Educational thematic trails: Fabiani Theme Park Štanjel-Kobdilj

The circular path from Stanjel to Kobdilj (30'), offers beautiful views on cultural and natural features of the Branica Valley.

It is designed on the basis of the everyday path of architect Maks Fabiani from his home in Kobdilj to Štanjel where he worked as an architect and mayor and designed beside other works also Ferrari garden (1925-35) - one of the most picturesque 20th century gardens in Slovenia.

More information at:

[https://www.stanjel.eu/stanjel/ferrarijev\\_vrt/](https://www.stanjel.eu/stanjel/ferrarijev_vrt/)





## Educational thematic trails: The European Union Tree Alley in Mozirski Gaj Flower Park

In the autumn of 2007 27 equal-size ornamental maple trees were planted along the walkway from the look-out tower to prevžitkarska hiša to form a tree avenue of the European Union. The avenue is composed of representing the 27 EU member states. With the creation of the alley they celebrated both the 30 anniversary of Mozirski gaj and a historical event of Slovenian EU presidency in the first half of 2008.

It represents example of education on the strengthening the European spirit and connection.



More information at:

<http://www.mozirskogaj.com/en/>

Contact:

[info@mozirskogaj.com](mailto:info@mozirskogaj.com)



## Educational thematic trails: The Sava River Trail, near Radovljica

Walking path runs alongside the Sava River, Slovenian longest river. The path leads from the Fux footbridge along tracks and old fishing paths to the wetlands at the Šobec camp and it can also be combined with other walking paths to make a circular route.

Interactive informative elements show visitors the rich diversity of the Sava river and its banks and the geological and geographical characteristics of the area.



More information at:

<http://www.radolca.si/en/the-sava-rivertrail/>



## Educational thematic trails: Science Field Trail Šturmovci

Science Field Trail Šturmovci is located near Ptuj at the bed of the river Drava and Lake Ptuj. It is a part of an area protected under Natura 2000 and is registered on the list of Important Bird Areas in Europe. The teachers and the students of Primary School Videm designed a natural science learning trail in the area of the landscape park in 1995. At the same time, they created and issued a brochure describing the nine monitoring stations.

More information at:

<http://www.videm.si>

Contact:

[info@videm.si](mailto:info@videm.si)





## Educational thematic trails: Škocjan Caves, The Unesco World Heritage Site

Škocjan Education Trail provides an experience of Classical Karst features above ground and helps visitors to better understand the natural phenomena and cultural heritage monuments.

The circular trail is about two kilometres long and it takes less than one hour to walk. It features wonderful views of Karst, steep walls, the disappearing Reka River.

Incorporated in the trail are the renovated J'kopin and Jurjev barns in the village of Škocjan where an ethnology exhibition and an exhibition devoted to the history of exploring the Škocjan Caves are on display. A cross-section model of the underground canyon of the Škocjan Caves and a model of the central area of the Park are also displayed here. Only a portion of the trail is accessible for people with physical disabilities.



More information at:

<http://www.park-skocjanske-jame.si/en>

<http://www.park-skocjanske-jame.si/en/read/educationalprogrammes/skocjan-education-trail>





## Educational thematic trails: Thematic Trail at Botanical Garden Sežana

Botanical garden Sežana and vila Mirasasso were built in 1850s as a counterpoint to the Miramare castle and designed in the style of the then Italian bourgeois gardens. As such the garden has a comprehensive botanical trail.



There are several educational thematic trails focused on the rich flora of the garden with species from all around the world dedicated to different school groups as well as tours accustomed for families. The Sežana botanical garden is accessible for the disabled.

More information at:

<http://http://www.vrtsezana.si/>



## Educational thematic trails: Thematic Trail Berl (Slovenia)

Municipality of Hajdina has arranged 2 kilometers long circled educational thematic trail, called Berl. Trademark of the path is bird kingfisher, who is protected zoological specie. Within the trail there is an arranged classroom in nature, which presents the typical botanical and zoological species in this area.

More information at:

<http://td-mitra-hajdina.si/en/relaxation-in-nature/>

Contact:

[td.mitra.hajdina@gmail.com](mailto:td.mitra.hajdina@gmail.com)





## Innovative educational concepts: Energy Centre Bračak Castle - The European Centre of Science and Expertise

The Bračak Castle built the Kulmer family in 1889 on a shallow hill rising from the northern side of the Krapina River and the newly built railway line Zagreb-Budapest. For the Count of Milan Kulmer, this line was crucial when deciding on the purchase of the Bračak estate and the construction of a new castle on the site of the old curia, damaged in the earthquake of 1880. In the same year when a castle was built, the perennial surrounding the castle and the entire southern slope of the hill was formed.



After the end of World War II, then the owner of the castle, the painter Ferdinand Kulmer (the granddaughter of Milan Kulmer), is presenting a hospital castle, and since 1947 he started the work of the Children's Hospital for Pulmonary Diseases. The adaptation of the castle for the hospital represents the third stage in the development of the castle, as the original spatial organization has been modified to adapt to the hospital's needs.

After the construction of a new hospital on the neighboring hill in 2007, Bračak Castle loses its hospital function and was abandoned, emptied and left behind despite the fact that it is protected as a cultural asset.

Reconstruction project was prepared from 2011, and in 2015 Krapina - Zagorje County starts work on the complete reconstruction and revitalization of the Bračak Castle and its transformation into the Bračak Energy Centre. His new purpose is to show how the castle can give new life using modern 21st century technology.

The implemented projects, realized investments, collected knowledge and international visibility are the real basis of a unique project for energy reconstruction and revitalization of the Bračak Castle, jointly carried out by the Regional Energy Agency of Northwest Croatia - REGEA and Krapina-Zagorje County.

Realization of this project has created a framework for projects and investments that have been implemented in 2008 throughout North-Western Croatia, and beyond - in the Republic of Croatia, Southeast Europe and the European Union.

In addition to the REGEA headquarters and the education center, there is also an entrepreneurial incubator for start-up companies that want to be active in the field of sustainable development and energy efficiency.

More information at:

<http://bracak.croenergy.eu>



## Innovative educational concepts: Karlovac Freshwater Aquarium

Each town of the Karlovac County has its river – Ozalj has Kupa, Duga Resa has Mrežnica, Slunj has Korana, and Ogulin has Dobra. The four rivers meet in Karlovac. Karlovac is famous for its four rivers, and that was the starting point which gave the idea to build an Aquarium as suitable place to present the natural richness of fresh waters and rich ichthyofauna and flora. Beside ichthyofauna and flora, it is also place to present rich natural and cultural heritage, especially the element of water.



The city of Karlovac applied this project to EU funds.

The European Union acknowledged the idea and has decided to support project.

The importance of an aquarium reflects in touristic development of the city of Karlovac but it also represents the business opportunity for all the entrepreneurs in the area.

Through the aquarium the local tradition of life on rivers and with rivers will continue.

Fresh water aquarium Aquatika offers each visitor the unique experience of underwater world but is primarily created to meet the demands of children and youth, students, scientists, aquarists and local population – not only to create awareness of extraordinary biological diversity but also to meet the demands and educate its visitors to sustainably use the exceptional richness of their mother country.

More information at:

<http://aquariumkarlovac.com/about-us/>



## Innovative educational concepts: Nature Park Medvednica

The Nature Park Medvednica is managed by a Public Institution under the jurisdiction of the Ministry of Environment and Energy of the Republic of Croatia.

The Institution's activities include protection, maintenance and promotion of the Nature Park Medvednica with the purpose of protecting and preserving the originality of nature, ensuring an undisturbed conduction of natural processes and sustainable usage of natural goods, supervising the conditions and measures of nature protection in the managed area and participating in the collection of data for the purpose of monitoring the state of nature preservation.



Except from natural protection Nature Park Medvednica is well known for its Stories and legends and Ethnic heritage in general, that are very well integrated into the park's offer.

Also, Nature Park Medvednica has several educational programs for kindergarten and school children. Their programmes are adjusted to different ages of primary-school children in terms of subject, content and methodology. Some of titles are: The Forest Around Us (for the youngest), What if I were a tree? (1st – 5th grade), Products and fruits from forests (1st – 5th grade), The network of life (1st – 5th grade), Birds and worms (1st – 5th grade), Orientation (1st – 5th grade), Bats (1st – 5th grade), Forest adventure (1st – 5th grade), Deciduous forest (expert guidance – 6th grade) and “Young Ranger” Programme.

In this second example of good practice the focus is actually on the "Adopt a Bat" programme that is also developed by the Public Institution Nature Park Medvednica. On the mountain Medvednica there is a cave Veternica that has one of the biggest bat population in Croatia. This cave is a habitat for 18 different bat species, which is an extremely high number considering the fact that 35 species of bats live in Croatia.

So, the idea is to attract people and donations in an innovative way by "adopting" a bat. You can specify the species of bat that you want to adopt and even give him a name. There is adoption programme for individuals, groups and even for companies and associations.

This is a good example of how to attract new target audiences, more accurately donors, as it provides an opportunity for businesses and NGOs to make donations and thus increase their organization's visibility because the name of the adopter is published on the web site of the Nature Park Medvednica. Also the Parks activities i.e. programmes are being more visible because donors receive certificates for each donation/ adoption of the bat, free T-shirts with appropriate content and free visits to Veternica. In general, all the resources go for the preservation of the bat population what contributes to the sustainable park management.

More information at:

<http://www.ppmvednica.hr/en/>

<http://www.ppmvednica.hr/en/ukljuci-se/usvojisismisa/>

<http://www.ppmvednica.hr/en/o-nama/upravljanje/>





## Innovative educational concepts: BioBlitz

BioBlitz is an activity focusing on biodiversity research, carried out in collaboration with ordinary citizens, even completely inexperienced but interested in knowing more about nature.



The aims of BioBlitz are: collection of information on biodiversity, to support the work of professional researchers; and spreading naturalistic knowledge and awareness on environmental issues. The activity consists of identifying a fairly circumscribed area - such as a city park, a small natural area, a portion of a protected area - where an intensive investigation of the environment is carried out, over a period of time that usually does not exceed 24 hours, with the objective to identify the species present.

BioBlitz can be generalist, that is aiming at the realization of an extended list of all that is present, or it can focus on single species or groups of species.

For example, generalist BioBlitz's are often conducted to draw up quite complete lists of: all the flowering plants present in the selected area; whether there are grasses or trees; all detectable insects. BioBlitz's, however, require the involvement of several experts who help citizens to find their way around the large number of species they may encounter.

Alternatively, focused BioBlitz's seek to narrow down the field of interest: they can focus on the search of a single species, for example to evaluate the numerical consistency in a certain area of an invasive exotic species, such as the harlequin ladybug or the Asian bug. These are species that also have economic impact, because of the damage they can cause to crops. Additionally you can search all the species belonging to a single group (for example, the terrestrial snails) to detect useful indicators of the degree of naturalness of the habitat.

A well-organized BioBlitz provides an initial good communication to gather a large group of people. Participants are informed about the purpose of the survey, which is part of a larger biodiversity assessment project, and equipped with useful tools for collecting observations.

In recent times, these activities can benefit from information technology: many Internet sites allow you to upload naturalistic observations for free, via PC or smart-phone, together with a minimum set of elements useful to give observation a scientific value, such as place and date of collection and name of the observer. Attaching a photograph is strongly recommended: in all websites, the observation accompanied by a photograph allows scientific validation by experts, who can confirm or deny the correctness of the recognition. The presence of photography also makes it possible to receive a support for the recognition of the species photographed. There are sites, born initially to support the activity of scientific societies composed of relevant experts, with plenty of reports without photographs: we consider the reporting credible, due to the high technical reputation of the observers.

Among all the possible sites, the best ones are those where the inclusion of the photograph is strongly recommended, and are also able to quickly return suggestions for the identification of the animals or plants photographed. These sites are "open", i.e. participatory, and provide those who contribute to the collection with real time information about the increase in the knowledge they are contributing to.

More information at:





## Innovative educational concepts: The School in the Wood

In recent years, the Villa Ghigi Foundation is proposing to the citizens of the metropolitan area of Bologna some experiences of school in the woods. They are organised both within the school curriculum, in collaboration with local schools and the Department of Educational Sciences of the University of Bologna, and in a free-time context, addressing children and families.



The educational project was started in 2011 within the regional INFEA - Environmental Education Information Plan, with a series of activities in the Villa Ghigi Park inspired by the forest pedagogy: some weeks of full immersion in the nature addressing kindergartens; first experiments with 0-3 children; morning Saturdays events targeting children and parents; a summer camp in the woods for children. The project is inspired by the many experiences of school in the woods from central and northern Europe, based on the organisation of activities in direct contact with nature in any season, with good and bad weather. Together with the educational characteristics typical of the activities run by the Villa Ghigi Foundation, they are also based on the pedagogical tradition that distinguishes the services for childhood in the Emilia-Romagna (Bologna was one of the first Italian cities to create one century ago "outdoor schools" ).

In its initial phase, the project included several public meetings involving families and a rather demanding training programme, that was the very heart of the project. The impact of the experience was then analyzed and highlighted by a research project run by the Department of Educational Sciences of the University of Bologna, involving several actors: children, teachers, parents, pedagogical coordinators and environmental educators. The basic idea is to bring children continuously into the woods all the year long, to encourage free play in the open air and to promote an adventurous approach to the discovery of nature, promoting the development of the five senses and hands-on activities. In an era characterized by the diffusion of new technologies and in which educators start talking about diseases linked to the so-called "nature deficit", many pediatricians are starting to support these projects. This is because many studies and researches show how in a society where the free play in the open air is replaced more and more by activities in closed spaces, the continuous contact with nature can improve physical and mental health and the emotional well-being of children and adults, strengthen the immune system, reduce anxiety and stress, improve the quality of sleep, increase creativity, memory and the ability to concentrate.

In the activities in the wood organised by the Villa Ghigi Foundation, the children spend 3-5 days immersed in nature, with any weather condition, always outdoors. The days are marked by a routine that introduces continuity and rituality, providing children with precious points of reference: the morning circle, where they meet and exchange their thoughts, sing a greeting to the forest and remain silent waiting for an answer; the handcart, irreplaceable travel companion; the objects for lunch made with acorns, pine cones, barks and other natural materials collected during the morning; water in the buckets and soap to wash the children hands; lunch together sitting in the grass; going to bed in the shade of the trees. Finally, children say goodbye again, hand in hand, and sing the last song in a circle: tomorrow is a new day.

The children are immersed in the hills, a short distance from the centre of Bologna, in a public park that is a large natural laboratory, where they can experiment, get involved and share knowledge. It was precisely in this context that in 2012 the Saturdays in the woods were born, to

respond to the need for natural spaces solicited by many parents. The activity, repeated every year from October to May, wants to be an opportunity for adults to go back to nature and discover it with their children. Always to respond to the request for spaces of nature and freedom for children aged 3-6 years, the Villa Ghigi Foundation has started a very appreciated summer school in the forest, organised in the first two weeks of July. Even reading books in the wood is a very lively experience: for this reason, in March 2015, in collaboration with the Children City Library Salaborsa, the project "La biblioteca va nel bosco" was launched. Many books move among the trees of the park, they are placed on a cart, the children can read them, and also take them home. Occasionally, usually on Sunday mornings, there are also public readings organised outdoors.

The past experience show that children move in the woods with passion, jumping ditches and puddles, descending along slopes, balancing on old trunks, exploring and unconsciously applying scientific methods, touching and rubbing herbs, eating freshly picked fruit. They search for traces and 23

animal footprints, build huts and invent games with natural materials. Even more important, in the forest children have fun, laugh, get excited, look happy and build a deep connection with nature that will encourage them to take care of the environment once they become adult citizens. The project arouses a remarkable participation by all the actors involved. Among the main results, it must pointed out the start of a discussion between parents, teachers, educators and public decision makers on the theme of childhood and the particular relationship that binds young children to nature. The project, in fact, also represented an opportunity to rethink and enrich the school gardens, as a daily opportunity to work outdoors using natural materials and enhancing the many interests and curiosities of children towards nature.

The results are always very interesting and in some cases exciting, urging the Villa Ghigi Foundation to continue these activities of experimentation and innovation, giving life to a stable and continuous experience. The idea consists of building a real "school in the forest", in an area already identified at a short distance from the Villa Ghigi Park. It could provide a new perspective on the many implications of an educational approach that is increasingly effective and useful to grow children in a balanced way.

More information at:

<https://www.fondazionevillaghigi.it/educazione-ambientale-educare-alla-natura/il-progetto-la-scuola-nel-bosco/>

[illegible]



More information at:

<http://servizi.comune.fe.it/7679/metrominuto-ferrara>



## Innovative educational concepts: Archaeological Museum in Biskupin

According to the slogan "learning through play, playing through science", the museum tries to disseminate knowledge about human life in the distant past in the most accessible way. These goals are achieved through: - visiting the archaeological reserve with a guide, - museum lessons, - reconstruction shows, - workshops and - educational events. The museum lessons include thematic classes along with classes on horn making and production of objects from animal bones, lessons about glass and metal ornaments used in the past, and classes during which we talk about old weaving and pottery. All the scenarios are consulted by archaeologists employed in the museum. Non-AMB people are also invited to cooperate with the museum. These people are staying in the archaeological reserve not only during organized events, but also every day throughout the spring and summer season.



Education, however, is not only addressed to the visitors. Employees, as well as, supporters of the museum have the opportunity to develop themselves, which is why the initiatives proposed by them, including projects in the field of experimental archaeology, are willingly supported.

Cooperation with volunteers, historical performers and scientists takes place on different terms depending on the performed task. People from the scientific community often cooperate with the museum as historical performers as part of volunteering. People cooperating with the museum are passionate about what they do, they have a broad knowledge of not only crafts and other aspects of life that they present, but also the era they play. These people constitute a direct bridge between the museum and visitors, they conduct direct talks with tourists and provide them with knowledge about life in the past. Therefore, when choosing people invited to cooperate, it is taken into account that they are not only competent but also willingly sharing their knowledge with visitors. Among those who engage in the festivities, there are those that are not completely related to the reproductive movement, and during the event appear with their stands. These are the local schools that the museum supports, for example by borrowing to them the museums costumes.

In the Biskupin Museum, volunteering mainly concerns the academic community. Students cooperate within the agreements between institutions, or volunteer for themselves to participate in the project Archaeology mission, which allows people from outside a longer stay at the museum. Currently, cooperating with us are: - Institute of Archaeology at the University of Warsaw, Institute of Archaeology at the Adam Mickiewicz University in Poznań - Experimental Stone Age camp, Institute of Archaeology at the Nicolaus Copernicus University in Toruń, Artur Grottger Art High School in Supraśl. Apart from groups, individual people are also applying for cooperation.

During the season, they are mainly students who want to develop their interests in archaeology, history or old craft. It was possible as part of the archaeology mission project, and the participants were not only students of archaeology but also students of such fields as cultural tourism, chemistry or Polish philology. Historical performers are also participants in the majority of events organized by the museum. People who are invited to cooperate on particular events, stay in the museum on various conditions. Co-organizing the event or participating in the event, they are

provided with full board and lodging.

More information at:  
<http://www.biskupin.pl>

Contact:  
[m.habel@kujawskopomorskie.pl](mailto:m.habel@kujawskopomorskie.pl)



## Innovative educational concepts: International Knight's Tournament

In the south-eastern part of Poland, near Przemyśl, in the close vicinity of Ukraine, there is the late-Renaissance castle in Krasiczyn. The "International Knight's Tournament" takes place in the beautiful scenery of the castle and a park complex. It is an outdoor event, where you can watch the knights fight in the castle halls and in the castle courtyard. The event is attended by knights brotherhoods from the whole country as well as from abroad, including Historical Fencing Group "Cohors" from Presov from Slovakia. During the tournament observers can watch skirmishes with the use of white weapons, as well as shows: drills, musketeer and artillery.



You can admire the eighteenth-century struggle of the Polish nobility. In addition, a military camp is available for visitors, smashed at the foot of the castle, arts and crafts fair, games and competitions for children, performances of the fire theater "Butterfly" and dance shows ". The Knightly Tournaments in Krasiczyn takes place in the summer and it keeps an attention of many tourists with the attractions that accompany this event.

Krasiczyn Castle and Park complex runs an informative and educational project using different forms of popularization of knowledge about history, natural science, environmental protection, botany and tourism development. In particular, the publications about the castle and the park (including the guide books and albums), educational activities about history and natural science for children, teenagers and students, thematic offers, photographic and painting competition, exhibitions and the open-airs, informative boards, multicultural festivals, folk artists' performance and living history lessons as well as medieval tournaments in historical scenery of the castle.

The idea of building intercultural connection through organizing Galicja International Festival and Japanese Culture Festival has been another step to contribute promotion of our multicultural region. The realization of the project has enabled viewers to understand the culture and history of other countries and ethnic groups. The medieval tournaments and the shows of Sarmatian fights have set perfectly into the character of the place.

Discovering and presenting the history via multiperspective historical reconstruction is from the longer perspective a historical phenomenon that has an enormous influence on both a historical education and the interest of history. What is more, the organisation of these types of events affects the increased tourist traffic. All of these actions are the great opportunity to promote Krasiczyn Castle and Park Complex in an interesting and vivid way.

In order to make visiting more comfortable for tourist, the plan with detailed description of the alleys and the crucial historical and environmental places was worked out. The sightseeing is also possible with the guide. The offer is directed to tourist groups from different parts of the country and the world.

More information at:

<https://www.krasiczyn.com.pl/en>

Contact:

[Zaneta.niedbala@krasieczyn.com.pl](mailto:Zaneta.niedbala@krasieczyn.com.pl)





## Innovative educational concepts: Educational Activities in Mozirski Gaj Flower Park

Park acts as a day centre with a rich offer of natural science activities. With a program that lasts 3-4 school hours, pupils enjoy a lot of active practical work on the field, learn about the basic principles of nature and the basis of survival techniques in nature.

In the park are set up open air museum of buildings from the area to convey the image of the life of our ancestors to visitors. The granary, the blacksmith, the beehive, the water mill, the treasure house ... talk about living and building tradition of the region.



Concepts for getting different target groups:

- renovated children's playground for the youngest visitors is a suitable place for a family trip – Family ticket, Children can learn about and observe nature where they can see birds, fish, squirrels and other animals, as well as many different flowers, trees, shrubs),
- an extra bio-outdoor exercise,
- the implementation of a variety of workshops with different animals,
- combined programs of guided tours of the most interesting corners of the Savinja Valley,
- renewed school programs with the possibility of cross-curricular integration in the implementation of natural science, technical, cultural and sports days,
- the possibility of enlarging the program to school groups, which perform various school activities in the Savinja Valley. The latter can be enlivened in the Mozirje gaj with short, variegated workshops in nature, which we adapt to your time frames,
- Mozirski gaj became a park of unforgettable wedding hours...
- The Hikers' Home During the arrangement of the flower park the members of the Mozirje Hikers Association constructed a small cottage in the flower park and named it their home. They wanted to draw attention to the respectable tradition of the organized Slovenian hiking in the Upper Savinja Valley which dates back to the period of Mr Fran Kocbek and the establishment of a subsidiary of the Slovenian Mountain Association in 1893. The Mozirje Hiking Association was established in 1950 and today it has more than 600 members.

More information at:

<http://www.mozirskogaj.com/en/>

Contact:

[info@mozirskogaj.com](mailto:info@mozirskogaj.com)



## Innovative educational concepts: Ormož Basins Natural Reserve

Ormož Basins Nature Reserve, a 55 hectares wetland of anthropogenic origin, lies within the Drava River ecosystem by the Ormož Lake. It consists of shallow pools with reeds and rushes, surrounded by flooded forest, a rare remainder of an extensive riparian forests in Slovenia. The wetland is of exceptional national and international significance for many endangered bird species. Ormož Basins are an important water birds nesting site and a key rest stop for migratory birds in Slovenia. 29 breeding water bird species have been spotted here, including endangered and rare species such as little bittern, little crane, ferruginous duck, black-winged stilt, common redshank and common tern.



More information at:

<http://ptice.si>

Contact:

[dominik.bombek@dopps.si](mailto:dominik.bombek@dopps.si)



## Innovative educational concepts: Polhov Gradec Castle Park

The Polhov Gradec Castle with park was built throughout centuries from 13th cent. onwards and in 19th century the facilities with a vast park became a centre of Enlightenment ideas. The park today accommodates many activities that connect different buildings of the estate in a comprehensive event area.

Their innovative educational concepts for attracting schools, families, general public to cultural and environmental heritage objects stems in their management – a public institute organizes the events, but the complex itself is managed by the Technical Museum of Slovenia. The events are thus accompanied by temporary exhibitions. There is a special corner Živa for the young visitors that offers workshops and games to access the past.

More information at:

<http://www.gradpolhovgradec.si>





## Innovative educational concepts: Prestranek Castel Estate Educational Programmes

The tradition of horse breeding and horse-related activities continues from 18th century, when the Austrian Emperor Charles VI bought the property and attached it to the Lipica Stud Farm.

They offer programs for different groups, beside therapeutic horse-riding they are specialized on programs for children education from kindergartens onwards.

They organize guided tours to present ecological farming and self-sufficiency approaches of the estate (cattle breed German Black Angus farm, farm of black and white cows, cultivation of organic cereals, herbal garden, herbs and honey products).

More information at:

<http://gradprestranek.si>





## Innovative educational concepts: University Botanic Garden Ljubljana

Ljubljana Botanic Garden is the oldest Slovene cultural, scientific and educational institution operating uninterruptedly since its foundation in 1810. In 2008 the estate was proclaimed a cultural monument of national importance.

The Garden plays an important role in the growing and protection of Slovenia's endemic, endangered, vulnerable and rare species. With the exception of the Tropical Glasshouse the visit to the gardens is free and accessible to all.



A specially trained team of volunteers, working under the auspices of Slovenian Third Age University, regularly help with the maintenance of the gardens in exchange for knowledge, relaxation, socializing and new experiences.

More information at:

<http://www.botanicgardensljubljana.com/en/>

<https://www.visitljubljana.com/en/visitors/things-to-do/natureactivities/ljubljana-botanic-garden/>





## Innovative educational concepts: University Botanic Garden Maribor

Botanical garden is located below the green slopes of Pohorje in a former castle park. Their main goal is to sustain biodiversity and teaching about nature and plants. They hold some permanent exhibitions showing history, geology and local hunting tradition. They use their plants and many events they organize as a successful teaching tool.

University of Maribor, Faculty of Agriculture and Biosciences with Botanical Garden are a project partner on the ongoing project PeleoDiversiStyria - the Paleolandscape of Styria and their biodiversity from prehistory to the discovery of the New World.



Currently the Archaeological park is under construction on the protected mount graveyard dated back to the late iron age, which is a part of the estate. On the south border of the park there are over twenty additional well preserved mount graves. Archaeological park will have an information centre with broad archaeological exhibition, presenting life and customs in late iron age.

More information at:

<http://botanicivrt.um.si/pages/en/research-and-projects.php>

<http://botanicivrt.um.si/pages/en/home.php>



## 3D visualization models of historical objects: Krapina Neandertal Museum

Krapina Neandertal Museum was opened in 2010 and since then it attracts visitors from all over Croatia. It was financed by budgetary funds of the Ministry of culture of the Republic of Croatia, also supported by the town of Krapina.



The topic of Neanderthals is extremely interesting; however its appeal comes also from concept of presentation which was done by architects and paleontologists working together in setting up the scenery for “time travel” through history up to present day with emphasis on the Neandertal period.

Museum is located near the world famous site of the Krapina Neanderthals “Hušnjakovo”. The Museum was built to look like habitat of prehistoric man and it is incorporated in the surrounding countryside, nestled between two hills, with only the front, coated with yellow Miocene sand, visible.

The existing stream runs through a channel under the building and surfaces in front of the Museum where visitors cross it at the entrance. The stream represents the passage of time and crossing over the stream journey into the ancient past begins.

The interior of the Museum is made to mimic stone and conditions in prehistoric habitat.

During visit film about the everyday life of the prehistoric man is shown.

Exhibition is on the two floors, shifting colours of the surrounding space, sounds, odours and atmosphere creating unique experience for visitors.

The Krapina Neandertal Museum, through its varied educational programmes, brings closer a distant and mysterious world of prehistory to visitors of different age and profiles, but especially to children and young people.

After the visit, the visitors have the opportunity, by participating in various workshops and playgroups, to actively research and discover the prehistoric world of fossils, the evolution of life on Earth and the world of Neanderthals. Various games and entertainment will foster creativity and independent reasoning in children, as well as expand their interests and satisfy their curiosity.

More information at:

<http://www.mkn.mhz.hr/en/>



## 3D visualization models of historical objects: Kujawsko-Pomorskie in Minecraft

In 2015, in cooperation with gamification students from the Kazimierz Wielki University in Bydgoszcz, Minecraft map of the region was built, with rivers with projections of the terrain in 1:10 scale (where one block is one meter). On this map, students have mapped the 15 most important tourist attractions of the region (including the entire settlement in Biskupin, castles, etc.). The map has been posted on the Minecraft server.



The campaign had two editions in 2015 and 2016. It was held in June as part of the festivities for the holiday of the region. In June 2015 children and youth from the region were invited to learn about the map, build attractions from their towns, and above all, to play with the map. For this purpose, special events for players were prepared, designed in accordance with the rules of gamification, for example, parkour, archery tournament in Biskupin, battle of Płowce. The events were educational and related to the history of the region.

In June 2016, a competition for the construction of a tourist attraction was organized. Communication was based on social media and media relations (mainly online media).

The objects were built in 1: 1 scale (i.e. the player's character is the average person's height, so you can see these objects from the outside, as well as enter inside). The stairs, windows, balconies, doors and other elements that are relevant in a given building have been depicted. Color compatibility was maintained (building from the blocks most similar in color to the original). The quality of the finished object was assessed both among the builders and by an external expert, archaeologist of architecture.

The Kazimierz Wielki University in Bydgoszcz, and more specifically the Department of Journalism, New Media and Social Communication, where the course on the development of games is part of the Humanities 2.0 course, was involved in building the map and substantive supervision over the project ([http://gamedec.ukw.edu.com /](http://gamedec.ukw.edu.com/)). Students of this direction have built a map with attractions. University's academic staff have been involved in the information campaign.

More information at:

<https://www.kujawsko-pomorskie.pl/informacje-prasowe/29334-budujemy-kujawsko-pomorskie-w-minecraft>

<http://gamedec.ukw.edu.pl/category/minecraft/>

Contact:

[m.habel@kujawsko-pomorskie.pl](mailto:m.habel@kujawsko-pomorskie.pl)



## 3D visualization models of historical objects: iEmona

iEmona, located in the underpass Parking house Kongresni trg in Ljubljana, is an innovative museum presentation and an information point about the legacy of the Roman city of Emona, a predecessor of Ljubljana. It is a part of an archaeological trail around the remains of ancient Emona. (In the immediate vicinity are located the remains of the northern city gate of Emona.)

The presentation includes the in-situ archaeological remains of an Emonan pavement, a virtual projection, a physical model of Emona, a film presentation Colonia Iulia Emona (One Day in Emona) about the city and its life in Roman times, presentation is in Slovene and English.



Presentation is accessible to all and free of charge.

More information at:

<http://www.mgml.si/en/city-museum-of-ljubljana-377/archaeological-park-emona/iemona/>

<https://www.visitljubljana.com/en/visitors/things-to-do/sightseeing/iemona/>



## 3D visualization models of historical objects: Virtual Presentation of the Ljubljana Castle

Virtual Castle takes visitors on a 12-minute virtual walk along the Castle's history, its architectural development and archaeological discoveries.

Virtual Castle also offers vast knowledge on the development and cultural heritage of the castle.

More information at:

<https://www.ljubljanskigrad.si/en/castle-experiences/castle-content/virtual-castle/>

[https://www.youtube.com/watch?time\\_continue=7&v=QtlO6qzc2GE](https://www.youtube.com/watch?time_continue=7&v=QtlO6qzc2GE)







## Public events or initiatives facilitating the management of the park: Sfinga: A Space for Socialising

Association for supporting of informal education, critical thinking and philosophy in practice "Petit Philosophy", was a leader organization of the international project Art of Democracy in Euro-Med region, project supported by Anna Lindh Foundation. The project was implemented from 01/09/2016 - 31/07/2017. Except from "Petit Philosophy", three other organizations have participated from Turkey. One of the goals of the project was to extend democratic values and human rights by increasing the level of knowledge about democracy and development of critical thinking along with intercultural dialogue in order to encourage the active citizenship. So, by directly engaging students and teachers from two countries into implementation of civil actions our project has raised the awareness of importance of democratic process and human rights.



Our first example of good practice refers to the Civic action „Sfinga space for socializing“ that took place on July 1st, 2017 in Zadar (Croatia) and refers to the renovation of the old historical park „Sfinga“. A plan was developed to revitalize the park that needed immediate attention. The idea was to renovate the space for renovation of community! Renovated park was conceived as a place for: spending time in, socializing in nature, interaction, educational workshops, game..., by building several different interactive contents like: A place for socializing, Eco Zone, Interactive content, Educational Content. The goal was to raise awareness of the Local Community about: cultural heritage, active citizenship communion and unity.

In order to implement the civil action activity, the dialogue with our decision makers, had to be opened. So, very important issue regarding the implementation of this civic action was the relationship between our organization and public authorities. We have had to gain a letter of approval from both Ministry of State Property and the City of Zadar. This provided a problem for both institutions since was unclear which institution has management rights over the area where action would be implemented. The importance of our project was recognized by both parties, and, in the month long process, they have managed to communicate a legal way for our action to take place. Ministry of State Property of Croatia has sent an official request to Administrative Department for Urban Property Management in Zadar in order for them to issue an official approval for civic action which would be one-day open manifestation. As a result, we gained an approval from the Mayor of Zadar in order to conduct the action on public property.

Conducted civic action, renovation and revitalization of the old historical park „Sfinga“, meet the needs of the specific problem within the community. Furthermore, the civil action had an impact not just on the project participations but also on the wider citizenry and the local governments that had been invited to support the goal. Through this action, general public was reached as well as local decision makers and other NGO's. So, indirect beneficiaries were involved in the project and also general public has and will continue to benefit from having members with better awareness of democratic values, social inclusion etc.

During the implementation of the civic action we have also taken a special interest in the environmental and social responsibility. Renovation and revitalization of the park „Sfinga“ had an

underlined ecological point. A park was cleaned and trash bins were installed, trees were planted, eco-workshops were organized and a lot of used materials were recycled. Also, the park was equipped with outdoor furniture made out of materials donated by the local businesses: benches, tables, garbage bins, „little library“ box with free books.

Idea was to renovate the park and make it a place for:

- Place for socializing, resting and reading in nature which consists of benches that were made of painted boards and concrete panels, stools made of chump of wood, armchairs made of painted automotive tires. Almost all items were made from natural and recyclable materials and are easily assembled and disassembled without damaging the natural environment.
- Place for social games that were sculptured on wood panels, like: chess, mill, etc.
- Eco Zone: In addition to the garbage cans themselves, there were inscriptions that reminded the visitors to keep and maintain the space clean. Inscriptions also showed the necessity of recycling waste and throwing garbage into adequate landfills. Also, hanging gardens were made of painted cans and were hanged from trees and protective fences near the road. Resistant plant species were selected so that they do not require excessive care and are easy to maintain.
- Interactive Content: Labyrinth made of small stones. Labyrinths for the contemplation of thoughts and feelings had a simple concept: you enter the labyrinth with a question, and you think about it as you move through it. As you leave the labyrinth you should find the solution.
- Interactive content: „Take a book, leave the book“ - Intention was to encourage people to exchange books in a way: "take one book, and leave the other". It is like a small free library
- Interactive Content: „Love Stories“ - Little stones were placed on which the visitors could write their personal love stories (family, friendly or any other kind of love). They could also read stories that already were written. Among the stories there was stone that tells „Sfingas“ love story and the visitors had the task of finding it.
- Interactive Content: „Find and solve the riddle“ - Riddles were hidden in the park, and visitors had a map and had to find them and figure them out. Among them there was also the „Sfingas“ riddle. Visitors also had the opportunity to create their own riddle.
- An open-air cinema
- Workshops implemented on that day were: "Waste is not garbage", "Making a natural dental paste", "Democracy in writing".

Civic action „Sfinga - a place for socializing“ is a good example of building active community as its aim was to revitalize community park space in a way to become a place to interact and socialize in nature.

More information at:

<http://www.petit-philosophy.com/en/umjetnost-demokracije-u-europskoj-i-mediteranskoj-regiji/>



## Public events or initiatives facilitating the management of the park: A Tree for You

The project, launched at the end of 2015 and still ongoing, is a success story initiated by the willingness to involve the visitors of the park: The original aim was to raise people's awareness about environmental and cultural issues, as well as to make the management of the Villa Ghigi Park even more effective. This also accelerated the programme to enrich its botanical heritage, that the Foundation has been pursuing for many years. The project is aimed at all citizens who, for different reasons, want to plant a tree to remember someone who died, as well as to celebrate a wedding, the birth of a child, another important event or simply because they love nature. In this way people can also support the activities of the Foundation, starting with the management of the park, contributing quickly and concretely to the renewal of the arboreal heritage of the green area by introducing new quality tree specimens in strategic areas, that are in this way redesigned, integrated and completed in their plant characteristics.

Planting a tree, moreover, is always an action rich of deep meanings, a metaphor of life, which has its cycle, its purposes, its specificities. In the past decades, already some trees were introduced in the park, to respond to requests from individual citizens. Even before, the last private owners of the green area, the Ghigi family, had adopted this practice for important events (some trees were planted at the end of the nineteenth century by Callisto Ghigi to celebrate the purchase of the property and the birth of his sons Alessandro and Antonio).



So far, the project has allowed the introduction of about eighty new plants and involved some hundreds people (individuals, families, groups of friends, etc.) mainly in Bologna but in some cases also in other Italian and European cities. The response from the citizens has been very good and for the future other plantations are planned according to the modalities of the project.

As regards the methods of operation of the project, the process generally starts with a preliminary interview with the people concerned, during which the tree species, the place, the date of planting and the size of the plant are chosen. The donor provides the money necessary to cover the costs for the purchase of the sample, its plant and some expenses for its maintenance, relevant especially in the first three years after its planting. This amount (about 250-300 Euro per plant). also provides a small contribution to the Foundation for the maintenance of the park. The plants are chosen directly by the Foundation's technicians in trusted plant nurseries, favouring small and medium-sized specimens that offer greater guarantees of engraftment, local ecotypes to avoid problems of genetic pollution of the park's plant heritage and, as regards the fruit-bearing species, typical cultivars suitable for the natural characteristics of the Bologna's hills. The plantation always takes place in the presence of donors, which sometimes are a single person, sometimes large

groups. It is organised as a sort of small ceremony during which representatives of the Foundation provide botanical news and read literary pieces on the species, interacting in various ways with donors.

On the Foundation's website, in the specific section dedicated to the project, there is a diary that presents the donations and shows the motivations that have pushed the various donors to this gesture. The donors are also given a kind of certificate, designed specifically by the students of the Bologna Institute of Art, which summarizes the essential data of the plantation (date, species, name of the donor). Over time, it has also started the custom to provide the donors with information on the status of plants, by telephone or messages, organise visits to specimens or to the Foundation's office. Often those who did not know the park have started to visit it and follow the activities of the Foundation. At the end of the day, the project is proving a wonderful experience, also from the human point of view, witnessed by the long list of donors and their motivations.

Until January 2018, 75 plants belonging to 32 different plant species have been introduced into the park, distributed in different sectors in a coherent manner and respectful of the peculiar landscape and environmental characteristics of the green area, and other plantations are expected soon. They are mainly fruit trees or agricultural interest (44 plants out of total), which recall the past rural use linked to the ancient agricultural estate, including cherry trees (*Prunus avium*, *P. cerasus*), pomegranates (*Punica granatum*), almond trees (*Prunus dulcis*), quince trees (*Cydonia oblonga*), khaki (*Diospyros kaki*), figs (*Ficus carica*), etc. Other trees belonging to native species (25 plants out of total) recall the value and the naturalistic vocation of the park: among these prevail the oaks (*Quercus pubescens*, *Q. cerris*, *Q. robur*) which are the great protagonists of the natural plant landscape of the Bolognese Apennines. Finally, in special areas of the park, as in the garden around the villa and in the spaces belonging to the other buildings, arboreal specimens of remarkable ornamental value have been introduced, sometimes also with shrub characteristics. There are only a few specimens (6 plants out of total) including a lime tree (*Tilia cordata*), a Judas tree (*Cercis siliquastrum*), a laurel (*Laurus nobilis*), a raven pear (*Amelanchier x grandiflora* 'Ballerina'), a hackberry (*Celtis australis*) and a young palm (*Trachycarpos fortunei*) belonging to a species that appears frequently in the parks and gardens of Bologna.

More information at:

<https://www.fondazionevillaghigi.it/parco-villa-ghigi-bologna/un-albero-per-te/>





## Public events or initiatives facilitating the management of the park: Sheep on the Wall

In November 2015, the Municipality of Ferrara launched a pilot action, allowing the shepherd Massimo Freddi to let a flock of 600 sheep, coming from the Trompia valley – in the Province of Bergamo, pasture in some green areas of the city.

After receiving the shepherd's request, the Municipality agreed with the initiative, which received the approval of the Veterinary Unit of the Department of Public Health, after executing the hematic tests for brucellosis.



Thanks to the pasture, the involved areas have been excluded from the ordinary activities for grass shearing run by the Municipality. The sheep provided indeed an alternative service, ecological, silent, efficient and free.

It has also become a successful example of environmental education, involving citizens and children meeting the sheep moving around the green areas of Ferrara. The primary school Perlasca at Pontelagoscuro organised some training actions, together with the shepherd and the sheep.

Following the agreement "we give you a place to graze, and you guarantee us the maintenance of the area", a classic "win-win situation" started, in which everyone gained.

The shepherd had a good quality fodder for his sheep community; the City saved the money necessary to clean up an area constantly frequented by walkers, cyclists and tourists. Furthermore, the flock also automatically guaranteed a capillary fertilization of the grass.

More information at:

<https://lanuovaferrara.gelocal.it/ferrara/cronaca/2016/12/31/news/e-tornato-il-pastore-freddi-1.14643400>





## Public events or initiatives facilitating the management of the park: Interno Verde

Interno Verde is the event that once a year, for two days, opens the most interesting private gardens of the historic centre of Ferrara, islands full of memories through which you can read the changes of the city.

After the success of the first two editions, which involved a total of almost 10 thousand participants and more than 80 beautiful gardens, the next session will take place on Saturday 12 and Sunday 13 May 2018.

The programme will be enriched thanks to a dense proposal of cultural initiatives: concerts, projections, river excursions, photographic exhibitions, guided tours, workshops for children and adults, artistic performances, readings and meetings.

Great attention will be also paid to the accessibility of spaces for people with limited mobility: thanks to the collaboration already started with the Municipality's Environmental and Wellbeing Office, the accessibility of all the festival spaces will be certified, including over 50 gardens. The entire event, like the previous editions, will be included in the European ZeroWaste sustainable events circuit.

Interno Verde is aimed at a transversal and intergenerational public. Active student participation is a key factor for engaging the under 30s. The charm and curiosity aroused by the gardens naturally involves families, groups of friends and older people. The programme of events is designed to facilitate dialogue and informal exchange between people of different ages, interests and backgrounds. Interno Verde intends to make the community aware of the protection and enhancement of urban green areas and solicit a more complete understanding of the territory. The curiosity that the theme of the secret garden inspires in a transversal public is able to activate more extensive community dynamics: what the project intends to stimulate is the sharing of experiences, conveyed by the sharing of spaces and the dialogue between social contexts and generations that often communicate with difficulty.

Interno Verde issues a publication, with colour photographs and descriptions of the open gardens, which includes not only historical, architectural and botanical information, but also anecdotes and memories collected directly from the owners of the spaces.

More information at:

<http://www.ferraraterraeacqua.it/it/ferrara/eventi/manifestazioni-e-iniziative/eventi-multipli/interno-verde>





## Public events or initiatives facilitating the management of the park: Music Festival in Łańcut

The Łańcut Castle – one of the most beautiful aristocratic residences in Europe, resounded with music in the first decades of the eighteenth century, thanks to the owners of the Castle of the Lubomirskis family, and later the Potockis family.

The centuries-old musical tradition at the Łańcut Castle were revived in 1961. – in June the same year, the State Philharmonic in Rzeszów and its director Janusz Ambros inaugurated the first “Days of Chamber Music” transformed in 1981 by the then artistic director Bogusław Kaczynski into the “Łańcut Music Festival”

and later “Music Festival in Łańcut,” which became an event of a deserved world-renown and “now the most famous Festival in Poland” – in the words of Krzysztof Penderecki.



The Festival formula includes the recitals of prominent singers and instrumentalists, celebrities, and concerts of renowned orchestras and chamber bands, as well as scientific sessions and music workshops. The concerts within the Festival are held in various places, which harmonize with the nature of the presented works – Ballroom of the Łańcut Castle Museum, Castle Park, where outdoor concerts are held, Basilica of the Bernardine Fathers in Lezajsk, Łańcut Synagogue and the Podkarpacka Philharmonic Hall.

During the decades of the Festival history, many masterpieces of the world music literature, starting from early music ending up on contemporary music; instrumental works, vocal, vocal and instrumental works, such as oratorios and opera, with special emphasis on Polish music were performed. The broad spectrum of festival concerts also included jazz and projects standing on the borderline of different species of art. Each concert is seasoned with the word of eminent musicologists who supplement program with valuable commentaries.

The reputation of the Music Festival in Łańcut can be proven by excellent names of the artists who have honoured it with their presence. They include, e.g.: Adam Harasiewicz, Rafał Blechacz, Joseph Malovany, Mischa Maisky, Shlomo Minz, Andreas Scholl, legendary tenor – Jose Carreras, Kate Liu or Julian Rachlin. The festival is very popular and each time attracts crowds of several thousand listeners. Despite the many changes that have passed through the 56 years of its existence, it still retains the character of the music festival reaching an even wider audience.

A constant and invaluable asset of the Festival remains a unique atmosphere of Łańcut castle and its surroundings, allowing listeners move to the world of beauty and musical culture based on the centuries-old tradition. In maintaining the continuity and high artistic level of the Music Festival in Łańcut help our Donors and music lovers – offering it financial support, kindness and friendship. Every edition of the Music Festival in Łańcut, is also an important new written card in the cultural history of Podkarpackie Region.

More information at:

<http://festiwallancut.pl/en>

Contact:

[sekretariat@filharmonia.rzeszow.pl](mailto:sekretariat@filharmonia.rzeszow.pl)



## Public events or initiatives facilitating the management of the park: Cleaning Action in Ptuj

Municipality of Ptuj every year around 22nd of April (Earth Day) organizes cleaning actions in every part of Ptuj. General public is invited and many families, seniors, officials and others participate in the action.

More information at:

<http://www.ptuj.si/>

Contact:

[obcina.ptuj@ptuj.si](mailto:obcina.ptuj@ptuj.si)





## Public events or initiatives facilitating the management of the park: Library Under the Treetops

The Library Under the Treetops is a growing project ongoing since 2004. It is run by a non-profit organisation Divja misel and supported by volunteers, local partners, Slovenian Book Agency and local municipalities.

The Library provides an escapist-friendly environment under the mighty trees for the free outdoor reading. It is organised at several public locations in Ljubljana, around Slovenia and abroad.

The reading islands with book racks and comfortable recliners are often placed in historical parks e.g. Park Tivoli, Ljubljana Castle, Kongresni square in Ljubljana and Polhov Gradec castle park.

Books, newspapers and magazines are of various styles and languages and supplied by different Slovenian publishing houses.

More information at:

<http://www.knjiznicapodkrosnjami.si/>





## Public events or initiatives facilitating the management of the park: Festival Moj Grajski Park Radovljica Castle Park

The castle park is positioned near the entrance to the old city centre of Radovljica. It is the remaining part of the former baroque castle garden, designed in 18th century.

In 2016 the project called "Moj grajski park" (My Castle Park) was undergoing. Its purpose was to alert and educate the public about the park and its former glory.

The final objective of the project was to encourage the wider thinking about the future of the park and its use for the public.



The project was set in an innovative way. The ground plan of a former baroque castle garden from 200 years ago was presented on a lawn with the carefully mowed patches of grass.

More information at:

<http://www.radovljica.si/files/other/news/112/38360Moj%20grajski%20park%20-%20zgibanka.pdf>





## Public events or initiatives facilitating the management of the park: Events and initiatives in Mozirski Gaj Flower Park

The park has been managed by the Ecological Horticultural Society Mozirski Gaj for the past 15 years, whose revenues represent the collected entrance fee, the merchandise of Slovenian gardens, and recently more and more sponsorships of companies, which in turn, are arranged in the park for advertising and floral gardens.

Park manager offers to the companies to join in the park as a long-time owner of one part of our park - that is, flower beds, which represent the company in the best and most visible way to the visitors.



Planting of the billet - twice a year. For a financial contribution from 1,000 to 2,000 EUR net (depending on the size of the beam), they will plant companies flowerbed twice a year, which will make numerous visitors happy and present the company throughout the entire season in full flowering.

Regular public events: Great summer exhibit (12. – 16.08.) Pumpkins exhibit (23.09. – 08.10.), Christmas tale (01.12. – 06.01.)

More information at:

<http://www.mozirskigaj.com/en/>

Contact:

[info@mozirskigaj.com](mailto:info@mozirskigaj.com)



## Public events or initiatives facilitating the management of the park: Rose Festival in Nova Gorica

The festival is happening in the city of roses - Nova Gorica at various venues. Visitors are able to see numerous rose plantings in city parks, a garden of Bourbon roses (one of the largest collections in the world) at the Franciscan monastery Kostanjevica, as well as visit lectures, exhibitions.

They are also able to see the Viatori garden in the nearby Italian city of Gorizia, which is housing one of the most beautiful botanical collections in the area.

More information at:

<https://www.novagorica-turizem.com/eng/destinations-and-events/events/2012052118194508/The-Rose-Festival/>





## Public events or initiatives facilitating the management of the park: Plant Flea Market at the University Botanic Garden Ljubljana

Several initiatives and events are ongoing at University Botanic garden in Ljubljana in order to help finance the Gardens. Every year the Flea Market for Plants is held, where citizens can buy, exchange or donate plants.

The event is complemented by educational lectures. People can also help and donate by adopting their favourite plant.

More information at:

<http://www.botanic-gardens-ljubljana.com/en/>

<https://www.visitljubljana.com/en/visitors/things-to-do/nature-activities/ljubljana-botanic-garden/>





## Selection of the most appropriate locations

The most important outcome of the HICAPS project is the development of revitalisation concepts for the identified historical areas. A pilot action will be implemented in all partner area, with the objective to implement the developed tools and acquire a comprehensive knowledge that can be transferred among the interested bodies.

This section presents the selected locations for pilot areas. The benchmark embraces potential areas for pilot investments and local valorisation concepts of each project partner and focuses on several predefined fields, which are crucial for further investment process:

- Accessibility to the historical objects,
- Ownership structure of buildings and park area,
- Regulations or guidelines in the existing spatial planning documentation,
- Historical documentation and valorisation expertise,
- Preservation aspects, including protected areas and monuments,
- Development plans and complementary actions.

The potential park areas were analysed by each partner. The following chapters present this analysis; the last element of each Ireport – recommendations – shows the location identified for pilot area:

- [Municipality of Bedekovčina, Croatia](#)
- [Municipality of Varaždin, Croatia](#)
- [Municipality of Ferrara, Italy](#)
- [Villa Ghigi Foundation, Italy](#)
- [Kujawsko-Pomorskie Voivodeship, Poland](#)
- [Rzeszów Regional Development Agency, Poland](#)
- [Municipality of Velenje, Slovenia](#)
- [Scientific Research Centre Bistra Ptuj, Slovenia](#)



## Municipality of Bedekovčina, Croatia

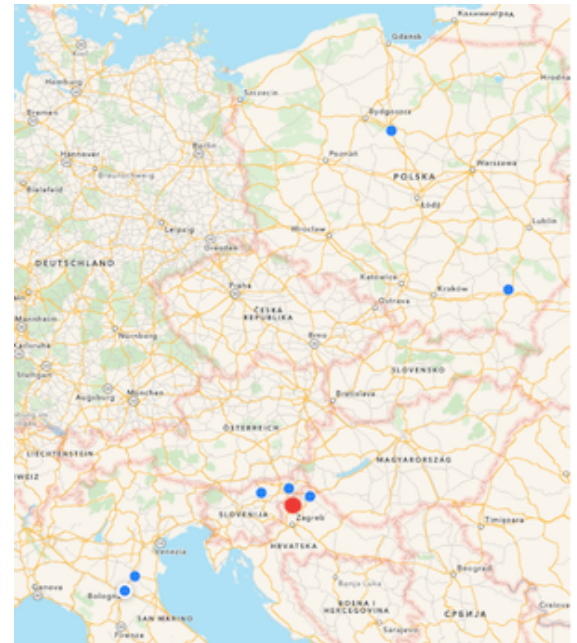
### CONSIDERED PARKS

- Park around the Castle Bedekovic Vranyczany in Gornja Bedekovčina
- Park around the Castle Bedeković
- Park around the Poznanovec Castle

### ACCESSIBILITY

Baroque castle Bedekovic Vranyczany is located on top of the hill in Bedekovčina. The castle belongs to the first category of cultural monuments, it is well preserved and maintained. The park is relatively small, it currently has not specific purpose and is currently not well maintained. The castle Bedeković is situated on the slope above the valley of the Krapina river. There is a park around the castle. The courtyard is now privately owned, restored and maintained.

Poznanovec castle is located in the valley of the Krapina river, along the stream Velika. In front of the castle there is a park, and north of the castle are outbuildings. The castle and park around it is currently in a very bad condition. Remains include a pond, a tennis court and an access, but all this is ruined by a underbrush.



### OWNERSHIP STRUCTURE

Park around the Castle Bedekovic Vranyczany in Gornja Bedekovčina is owned by Rehabilitation Centre Bedekovčina and Municipality of Bedekovčina has right to use it for next 10 years. Park around the Castle Bedeković is a private property. Park around the Poznanovec Castle is owned by the Republic of Croatia.

### SPATIAL PLANNING DOCUMENTATION

All three castles and parks around them are protected cultural monuments thereby, for each action and change in the area of the Castles and surrounding parks we need prior approval from Conservation Department in Krapina for the area of Krapina-Zagorje County (body from Ministry of Culture). In Municipality of Bedekovčina Single administrative department creates and change spatial plans for the Municipality and all the necessary procedures regarding approval and spatial planning for reconstruction and rearrangement will be conducted in accordance with them.

### HISTORICAL DOCUMENTATION

There is a considerable historical documentation about all three castles and parks around them. Castle Bedekovic Vranyczany was built from 1740 to 1750 by Nikola Bedekovic. It's one of the most beautiful castles in Krapina-Zagorje County and one of the earliest and most complete baroque-style creation, the starting point and the culmination point in the development of a one-lane castle. The castle was in the middle of a beautiful landscape park. There was three lakes and only the smallest still exist, although without water. The Castle Bedeković was built about 1780 for a part of the family Bedekovic. The courtyard is now privately owned, restored and maintained. The exact time of creation of the park around the Poznanovec Castle is unknown, but it can be concluded that it was in the first decades of the 19th century. The park included lake, a pond, an orchard, a garden and an orangery. There was a 200-meter long tree avenue and a park in front of the castle.

### PRESERVATION ASPECT



The park around the Castle Bedekovic Vranyczany is relatively small and hasn't specific purpose currently. It isn't well maintained. Considering his size, relatively small investment is needed for it relativisation. Park around the Castle Bedeković is privately owned, restored and well maintained. The Castle Poznanovec and park around it are in very bad condition. Remains include a pond, a tennis court and an access, but all this is ruined by a underbrush. Considering the size of the park around Poznanovec Castle and it's condition nowadays, large investment is needed for its revitalisation.

## DEVELOPMENT PLANS

The park around the Castle Bedeković-Vranyczany is settled near the centre of Bedekovčina. Many stakeholders are interested in it's revitalisation for many reasons: preservation of cultural heritage, providing place for private and public outdoors activities etc. Municipality od Bedekovčina has right to use the park for ten years from the beginning of the project and wants to make it more accessible for public and private sector. The park around the Castle Bedekovć is private property, therefore, approval of it's owners is needed for any kind of future revitalization activities and it's usage. Revitalisation of the park around the Poznanovec Castle is also interesting for stakeholders, but one of the main problems to start it is ownership structure and financial issues.

## RECOMMENDATION

For further activities, the location of the park around the Castle Bedekovic Vranyczany is the most appropriate.



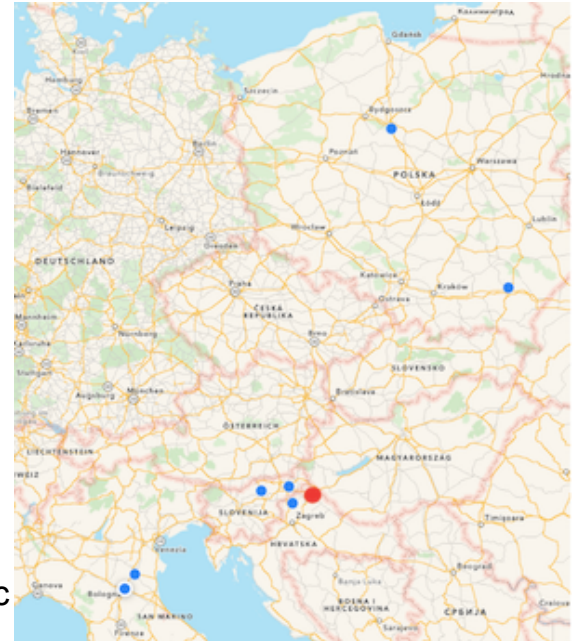
## Municipality of Varaždin, Croatia

### CONSIDERED PARKS

- The walk lane of Josip Juraj Strossmayer in Varaždin
- Arboretum Opeka in Marčan
- Park Leitner in Jalkovec
- Park Zrinski in Čakovec

### ACCESSIBILITY

The walk lane of Josip Juraj Strossmayer is in the part of Varaždin where the City museum is located, to be more exact in the premises of Old Town castle. The Old Town castle, beside museum's exhibition, attracts a great number of visitors in all seasons and therefore this park is the most visited in comparison with other locations, in the year 2016 there were 17.488 visitors. Although Opeka is open for public as educational area for different types of visitors, the Opeka castle is in ruin and it has fewer visitors than the Old Town Castle in Varaždin. For Opeka there is need to restore the building first and after that there can be additional interventions in landscaping. Park Leitner is in a private property and there are very few visitors that can benefit from that location. On the other hand, in the Park Zrinski in Čakovec, Zrinski castle is situated and it houses the Međimurje County Museum in Čakovec (similar collection to the one in Old Town Castle). Number of visitors in Međimurje County Museum in Čakovec in year 2016 was 13.223. Since the Old Town Castle is rebuild, landscaping the walk lane of Josip Juraj Strossmayer will directly benefit the largest number of people and will be most visible.



### OWNERSHIP STRUCTURE

The Old Town Castle is owned by the Municipality of Varaždin. Park Leitner is a private property 100%.

Park Zrinski in Čakovec is owned by the Municipality of Čakovec.

Since December 2007, the castle and arboretum has been protected by the cultural heritage of the Republic of Croatia, and from that same year the arboretum is maintained and regulated by the Public Institution for the Management of Protected Natural Values in the Varaždin County and Municipality of Vinica, students of the Arboretum High School in Vinica and Municipality of Vinica.

### SPATIAL PLANNING DOCUMENTATION

Due to its location in historic city centre, the walk lane of Josip Juraj Strossmayer is subject to strict rules. For each action and change in the area of the Old Town castle and surrounding park we need prior approval from Conservation Department in Varaždin for the areas of the Varaždin and Međimurje Counties (body from Ministry of Culture). In Municipality of Varaždin Department for communal services, urban development and environmental protection creates and change spatial plans for the city and all the necessary procedures regarding approval and spatial planning for reconstruction and rearrangement will be conducted in accordance with them.

### HISTORICAL DOCUMENTATION

There is a considerable historical documentation and other written material about the Old Town castle in Varaždin and its surrounding walk of lane, therefore the decision to conduct on intervention in this area is a justified one. Opeka also has documentation about the castle and park but its maintenance is regulated by the Public institution and hence its interventions are depending on the program made by this Public institution. The development of the "decorative

garden” belonging to the fort in the Old Town castle in Varaždin is documented in plans; from 1750 the development of the garden can be tracked. It is visible in plans of Joseph Podharsky in 1823 and in the zoning plans from 1860. The plans can be tracked at the end of 19th century and during the 20th century.

## PRESERVATION ASPECT

The preserved landscape system around the Old Town castle is the most complex and comprehensive in comparison to the other parks. The degree of preservation and authenticity of the arrangement is at the very high level in the walk lane of Josip Juraj Strossmayer. It is possible to divide the total intervention there into several mutually independent smaller-scale interventions that can be implemented over a longer period of time, depending on the financial resources available. Other locations mentioned above have their challenges and limitations, a major financial contribution would already be required at the start to renovate the building in Opeka. Also, Park Leitner in Jalkovec is only partially preserved from its original phase shape and has a lot of contemporary interventions.

## DEVELOPMENT PLANS

Renovation of the walk lane of Josip Juraj Strossmayer is desired by many stakeholders in Varaždin; Municipality of Varaždin, Varaždin City Museum and Varaždin Tourist Board. The Municipality of Varaždin takes care of the walk lane of Josip Juraj Strossmayer and wants it to be more accessible to Wider public, especially for user with disadvantages. Also, Varaždin City Museum wants for its main object, the Old Town castle to be more attractive to all types of visitors which enjoy the exterior and interior of the castle. Since the Old Town castle is one of the most famous sights in Varaždin, Varaždin Tourist Board has big expectations from these interventions in sense of new solutions regarding marketing and communication to visitors about this landmark. For Park Leitner in Jalkovec the decision for change and intervention rests entirely on the owner and his willingness to open the park to public. On the other hand, there is the desire to change situation in Opeka, but substantial financial funds required for overall restoration of Opeka castle and park are the obstacle in implementation of any project.

## RECOMMENDATION

For further activities, the location of the walk lane of Josip Juraj Strossmayer is the most appropriate.



## Municipality of Ferrara, Italy

### CONSIDERED PARKS

- The Linear Park of the Este Walls
- Po River and Bianca island - Po di Primaro and Tragheto basins
- Eco-Balancing Area "Nutcracker"

### ACCESSIBILITY

The Este walls almost entirely circle the city of Ferrara, and are one of the most complete example of ancient walls still existing in Italy: the most relevant historical periods of Italian military architecture are represented in this fortification. Located in the green area of embankments and the valley creating the Linear park crowns the city centre.

Near Ferrara, there are some Natura 2000 site touching several places of high naturalistic interest: the Bianca Island and a large white monumental pier accommodated in its spruce, the Po Park, the Vallelunga area, the Bosco Nuovo of Ravalle and the Woods of Porporana. The Primaro river existed before the year 1000 BC, and the city of Ferrara was born where the river Po was divided into the two branches of the Po of Volano and of the Po of Primaro. It was probably the most important branch of the delta and hence its name ("primaro", i.e. "the main one"). Today Primaro Po does not reach the sea anymore: it ends with some large pipes against the river Reno at Tragheto, and its waters do not communicate with those of the Reno.

Close to Ferrara, there are two Areas of Ecological Balance (ARE), a kind of protected area typical of the Emilia-Romagna Region, established under the Regional Law 6/2005. As the name suggests, these are places that seek to compensate the effects of anthropization, i.e. they are places with natural elements embedded in heavily anthropic contexts.

### OWNERSHIP STRUCTURE

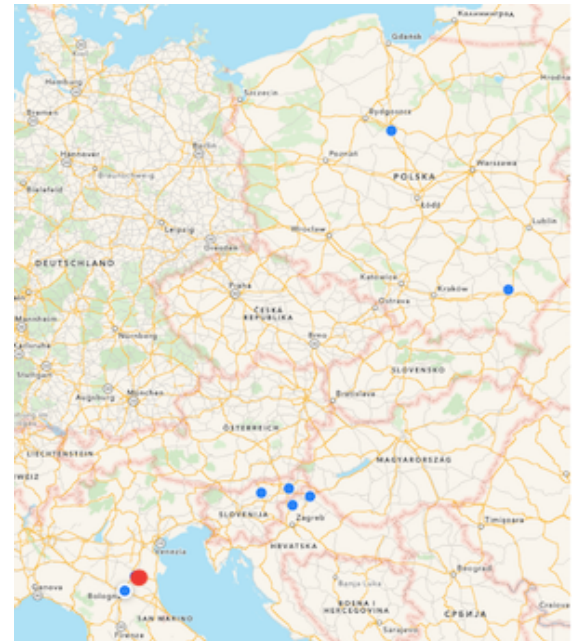
Several public services are located in the proximity of the Walls, and also many private cultural and naturalistic associations have their premises close to them, making the Walls a very attractive area of cultural and environmental interest.

The Bianca Island is a rich place for flora and fauna: in 1986 the Province and the Municipality of Ferrara identified the area as an oasis for fauna protection. In 1991 its management was given to LIPU, the Italian Bird Protection League. Step by step, the oasis was extended to the areas adjacent to the island reaching the current 360 hectares. For several years, the LIPU organised guided tours on the island, however, after numerous high water events, it became increasingly difficult to run the tours and currently the visit service is suspended.

ARE Nutcracker is located in the residential suburbs east of the city, not far from the city walls. The historical story of the ARE Nutcracker is quite singular. The name was chosen in 2009 by citizens who, worried that the natural area spontaneously formed could be destroyed by urban expansion, created a committee that obtained the responsibility of protecting this site.

### SPATIAL PLANNING DOCUMENTATION

The Walls now represent an important green lung and a large outdoor museum, consisting of massive towers, long hedges, imposing bastions and many other architectural structures, creating a landscape balancing city and countryside elements. It is a vast and articulated urban area that only a few other European cities can boast. In the last years, many theatre performances, cultural walks, historical events have been organized along the walls and the park, also involving the city



districts participating in the Palio di Ferrara. Similarly, hiking and biking tours let visitors know the tree species and in general the flora of the areas around the embankments of the park. Despite crossing a heavily anthropic region, the Po river houses a rich fauna, with 24 species of nesting birds and other 32 migratory species, and also insects, amphibians and protected reptiles. Since 2006, its importance has been recognized, and it is listed within the ecological network of European Natura 2000 sites. With some minor differences, flora and fauna are similar to those already presented for the Po River and Bianca Island site. Primaro's Po is the western border of the UNESCO site "Città di Ferrara and its Delta".

## HISTORICAL DOCUMENTATION

As an exceptional example of Renaissance cities, Ferrara has been included since 1995 in the UNESCO World Heritage Sites list. Thus, the universal value of its historic centre and surrounding walls has been acknowledged, in order to guarantee its protection for the benefit of the humanity. Studied by Michelangelo in 1529, the Walls were the highest example of military art in that day. The three courtyards witness one of the most important pasts for Ferrara, while the embankments of the walls are still today, such as they were in times of peace, a large park perfectly integrating the other gardens within the city.

The first area of Ferrara was built at the division of two delta branches, the Po of Volano and the Po of Primaro, before 1000 AD. The two branches still exist but have lost almost entirely their old relevance for trade. The river's main course moved into the existing situation as a result of disastrous river routes around 1200, and for man-made corrections after the great earthquake of 1570. Some sources witness that it was already present in late medieval times, but the 1590 map of Este Countries by Marco Antonio Pasi, now kept at the University Library of Modena, does not draw it.

In the past, the ARE Nutcracker area was intended to feed a local furnace. The clay needed for the production of the artefacts was taken from the surrounding land by digging large holes, which were then filled with the wastes. The use of furnace digging as a dump was usual in Ferrara since the Middle Ages. After World War II, landfills received not only inert materials, but also hazardous pollutants from the petrochemical plant located northwest of the city. This continued until the 1980s, when national laws started regulating disposal of waste.

## PRESERVATION ASPECT

The Walls originally were a fortification for the city, constituting a military machine. Restoration was done with the goal to provide the visitors with an educational description of the monument through exemplary models. The whole restored Walls have been therefore transformed into an open air Museum. Furthermore some parts of the Wall have been organised as a true museum. The variability of plants components host a flora of about 240 species, that exceed 300 including those introduced for ornamental purposes. The total number of species reported over the years for the urban area of Ferrara is 771, and the walls thus account for 39% of the urban flora species. Compared to the Park of the Walls, the Bianca Island area is an extra-urban environment, less disturbed, definitely hygrophilous, with more natural features and the ability to accommodate a large number of protected species. The right bank of the river is visible from the walls of Ferrara, and the Natura 2000 site is connected to the walls itself by the large urban park and agricultural land located just between the city wall and the Po river.

## DEVELOPMENT PLANS

The works done to enhance the role of the Walls aimed at reconfiguring the visual continuity of the Walls, where some parts were missing, and making the Walls a strategic element of the whole city's museum system. The planned interventions aimed at bringing together, in a coordinated way, the single elements of the museum structure and more precisely through:

- a system of itineraries that has become the element able to link all the tourist services provided by the museums;
- specific activities for the environmental re-qualification of the same routes.

The new information brochure for 2017-2018, targeting primary and secondary schools, includes a two-days course called "Biodiversity for All". Another initiative (BioBlitz) can be also carried out with the support of volunteers from the national or civil service, without any costs for the citizens.



who participate.

The Nutcracker area is surrounded by urban settlements, but it is only 800 meters from the City Walls. Compared to the walls area, it differs mainly due to the presence of permanent humid environments. The part that can be used by the public is the one where the retting-ground is located. The area is easily accessible thanks to the cycling paths that depart from the valley along the city walls. It is used for dissemination and teaching activities by groups such as Volunteer Ecological Guards and the Didò Association.

The Municipality of Ferrara recently launched MuseoFerrara ([www.museoferrara.it](http://www.museoferrara.it)), a web site born with a participatory approach, involving the municipal administration, the territorial and protection agencies, museums, research institutes, cultural associations and companies. It has been conceived as a dynamic site, in continuous expansion, enriched over time by targeted sections dedicated to specific themes, presenting both the physical locations and the events that have contributed to characterise a particular historical period or place. The first sections concern the Jewish traditions of the city, the Metafisica art period, the heritage of Ludovico Ariosto's poems, the Street Art, and the Cinema. New ones are expected to be started during the time life of the HICAPS project.

## RECOMMENDATION

Due to the high potential of the Linear Park, it has been chosen for setting the pilot action on the HICAPS project within the City of Ferrara. The extension of the park, together its location just around the old town, offer the most interesting situation to test innovative solutions for revitalising the historical green area of the Municipality.



## Villa Ghigi Foundation, Italy

### ANALYSED LOCATIONS

- The entrances to the Park
- The Fenced Wood and the Beech Forest
- The Garden of the Villa

### ACCESSIBILITY

The current three entrances are one of the main critical issues of the park, as they suffer from a condition of poor visibility and functionality and they are not able to guide the visitors in an effective way. If adequately redesigned and equipped, however, they could become very pleasant, attractive and welcoming points. The entrance by via San Mamolo represents the main historical entrance of the park.

The entrance by via Martucci is located at the end of a side street of Via San Mamolo with a cul-de-sac, is a pedestrian entrance, located in a very shady and dark area, which is used primarily by people living there, but that in recent times is increasingly used by school children and participants in educational and extracurricular activities promoted by the Foundation. At present, many visitors do not know the existence of this entrance. Therefore, it requires a better promotion and an organic arrangement that makes it perceive as a pleasant starting point for the visit to the park as an alternative to the nearby entrance of via San Mamolo.

The other areas concerned (Fenced Wood and the Beech Forest, as well as the Garden of the Villa) are well inside the public property of the City of Bologna, and does not have particular accessibility problems.

### OWNERSHIP STRUCTURE

It is emphasized that, for the two entrances of via San Mamolo and via di Gaibola, any intervention must necessarily involve the neighbouring private properties. For this purpose, contacts and negotiations have been started by the Municipality of Bologna to find a proper solution (problems with neighbouring private properties date back to the passage from the private to the public condition of the park, in the 1960s, and to the agreements made by the last owners, the Ghigi family, with the municipal administration). Thanks to an agreement with the neighbouring private property, a dozen years ago it was already possible to open the gate present at the entrance by via San Mamolo and ensure the pedestrian crossing for visitors to the park.

Also any intervention concerning the entrance of via Gaibola will first deal with the ownership issue, to find a solution that will allow the Foundation to manage it without problems (avoiding that the property may in the future stop the passage). Once the ownership issue has been solved, it will be possible to provide a more accurate arrangement of the space, which is strategic for the use of the park.

The other areas concerned (Fenced Wood and the Beech Forest, as well as the Garden of the Villa) are well inside the public property of the City of Bologna, and does not have any ownership problem.

### SPATIAL PLANNING DOCUMENTATION

The current main entrance to the park is immediately beyond the private sector, along the road going inside the park. It is located in a cramped and dark spot on the right bank of the Rio Fontane and is not very recognizable. It has few signposts, with the exception of a wooden bulletin board and a couple of signposts common to all the public green areas of the Municipality of Bologna. Currently the entrance does not invite and motivate the visitor to enter into the park.

The reorganization of the entrance has a fundamental preliminary condition in the agreement between the Municipality of Bologna and the neighbouring residents to check the boundaries in

the city cadastre.

## HISTORICAL DOCUMENTATION

It should be noted that the past urbanization of the hills around Bologna, dating back especially to the mid-twentieth century and then stopped by subsequent policies to protect the hilly area, involved the burial and deviation of the waterways in correspondence of their entry into the city. In recent years, however, the increase of heavy rains is proving to be one of the most important climatic and environmental emergencies for Bologna and for many other Italian cities.

The remains of an ancient nineteenth-century building used as a powder keg still survive in the area, documented by various historical maps and oral sources, destroyed in the twentieth century at the time of the Second World War. It could be recovered from a perspective of valorisation of the historical remains of the park.

The forest sector that marks the eastern boundary of the park, has an ancient origin and its presence is witnessed by several historical documentary sources. The agricultural areas of the Bolognese hill have been always equipped with wooded areas for the production of wood for fire and work.

The garden around the villa is a central place in the park and is the main ornamental component of the green area. Analysing the historical documentation relating to the villas in the Bolognese context and considering the tree presence in the garden, including a secular yew tree (*Taxus baccata*), the garden should be contemporary of the villa, in the seventeenth century. The garden, which develops on a slope, has recently shown signs of suffering due to the precarious vegetative and phytosanitary conditions of the arboreal, shrub and herbaceous components. The undergrowth appears to be very impoverished and degraded, due to the high attendance of this space.

## PRESERVATION ASPECT

It would be appropriate to preserve and enhance the ancient boulevard of horse chestnut trees connected to the historical gate, a highly symbolic and crucial element to safeguard the unitary image of the ancient estate.

A substantial body of interventions should be used in the reorganization and in the safety of the existing plant cover close to the entrance by via di Gaibola, today in conditions of total abandonment, and in the introduction of new trees and bushes able to enrich and enhance the current physiognomy of this space.

The fenced wood is one of the most delicate areas of the park, both for the precarious vegetative and phytosanitary conditions of many trees and for the undergrowth, altered by the attendance of groups of ungulates, especially wild boars (*Sus scrofa*) and roe deer (*Capreolus capreolus*) from adjacent hill areas. Therefore, the possible pilot action should protect and guarantee this wooded area.

## DEVELOPMENT PLANS

A more welcoming new entrance to the park is necessary, functional and safe, with a large equipped area, bike racks and other items of furniture, an original and multilingual signposting system and a new pedestrian path going parallel to the driveway along the left bank of the river. Among the further interventions to be provided, new trees and shrubs are planned, to enrich the overall image of the place, as well as the installation of new natural elements and services to promote games and contact with nature, the creation of an original and multilingual signposting similar to the other entrances to the park.

The potential pilot action consists of a series of coordinated interventions, some of which have already started in the ordinary management of the park. They intend to:

- start a program of new plant introductions, aiming to renew and enrich the current deteriorated tree heritage by seeking a new appearance for this forest sector;
- create in the forest an area dedicated to educational activities, to be enriched with some suggestive creations, including a platform among the foliage of the trees where you can stop and observe the nature;
- create some areas for visitors to rest, characterized by "natural" furnishings, suitable for the context, using part of the vegetable materials.

The expected opening of the Guardian House, the building next to the villa that will be used as a refreshment point, and the recreational and cultural activities planned in this sector of the park, will attract an ever wider audience increasing the problems related to its attendance. It is therefore necessary to plan a model of "sustainable" management of the garden that aims to safeguard and enhance its historical, ornamental and landscape value through a series of coordinated actions related to take care of the valuable historical tree heritage through planned interventions, such as pruning, consolidation, Visual Tree Assessment (VTA),

#### RECOMMENDATION

All the analysed areas will be touched by the opportunities offered by the HICAPS project.



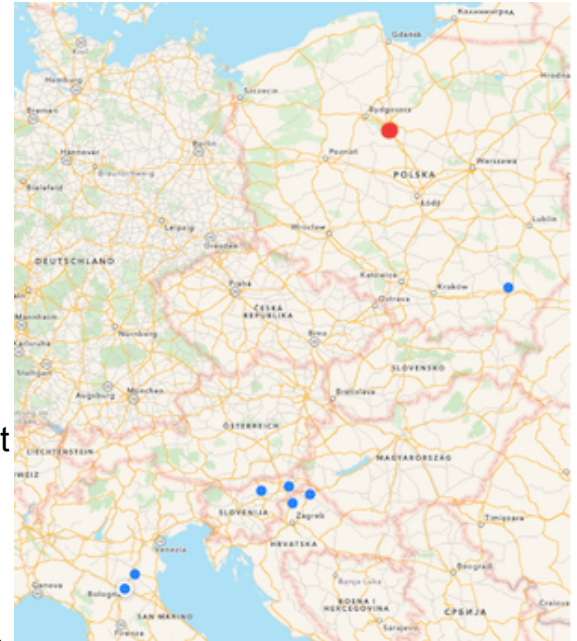
## Kujawsko-Pomorskie Voivodeship, Poland

### CONSIDERED PARKS

- Park in Lubostroń
- Park in Wieniec
- Park in Kłóbka
- Park in Szafarnia

### ACCESSIBILITY

Parks presented in the analysis are mostly open to visitors. For example, the court park in Kłóbka is a part of the Kuyavian-Dobrzyn Ethnographic Park in Kłóbka. Therefore, it is available on the same basis as the museum: every day of the week except for Mondays, from May 1 to October 31 from 10:00 to 18:00 and from November 1 to April 30 from 10:00 to 16:00. On Fridays the entrance is free of charge. In other parks, no admission fees are charged to the park itself, only to facilities – for example to the Palace in Lubostroń or the Chopin Centre in Szafarnia. In Wieniec, the situation is different, the Voivodeship Office for the Protection of Monuments in Toruń Delegation in Włocławek on March 23, 2017 issued an opinion on the state of the monument (sign of the writing WUOZ.DW.WZN.5183.6.8.2017.ERK). The opinion underlined the fact that: "Currently, the park area is closed to unauthorized access and guarded, while the historic buildings are not protected against weather (no glazing of the windows on the first floor), unused and unheated." It was stated that "the current way of maintaining the aforementioned historic complex, i.e. the lack of ongoing renovation and restoration works, exposes it to the loss of its retained values."



### OWNERSHIP STRUCTURE

Lubostroń - the Park is administered by the Lubostroń Palace – voivodeship's cultural institution. The park together with the whole palace and park complex is under lease for 30 years from the Agricultural Property Agency in Bydgoszcz. Kłóbka – Museum of the Kuyavian- Dobrzyn Land in Włocławek/ cultural institution; Szafarnia - the owner of the park is the Radomin Commune. Wieniec - the owner is the self-government of the Kuyavian-Pomeranian Voivodeship.

### SPATIAL PLANNING DOCUMENTATION

In the case of most locations, there is a local spatial development plan. Only the area of Wieniec is not covered by such a plan.

### HISTORICAL DOCUMENTATION

For the most part, historical documentation exists and is available at the Kuyavian-Pomeranian Voivodeship conservator. There are also several publications and conservation proposals in Lubostroń for a historical study and analyzes of the state of preservation for a park revalorization project.

### PRESERVATION ASPECT

In the case of Szafarnia, new plantings of trees and shrubs are planned under the supervision of the Voivodeship's Conservator. In Kłóbka, current care activities, gardening works - replenishment of plantings, etc.

In Lubostroń, the situation is quite unprecedented, there is a conceptual design for the revalorization of the park, whereas due to the fact that the historic park in Lubostroń was affected



by the storms in August 2017 and lost 1,288 trees including nature monuments. Work is currently underway to eliminate damage caused by the removal of broken trees. While waiting for financial support, the time of repair, reconstruction and revalorization is planned. The Lubostroń Palace received a declaration of support by the National Heritage Institute in the reconstruction of the historic park.

#### DEVELOPMENT PLANS

Apart from the complex in Lubostroń, indicated areas have no development or investments plan for the park areas. For Lubostroń, a conceptual design for the revaluation of the complex has been developed "Conservation conclusions of a historical study and analysis of the state of preservation for the project of revalorization of the park of the former residence of the Skórzewski Counts". However, for the palace and park complex in Wieniec, a feasibility study for the palace building was made, with no plans for the park itself.

#### RECOMMENDATION

The most appropriate park for further activities is the Park in Wieniec.



## Rzeszów Regional Development Agency, Poland

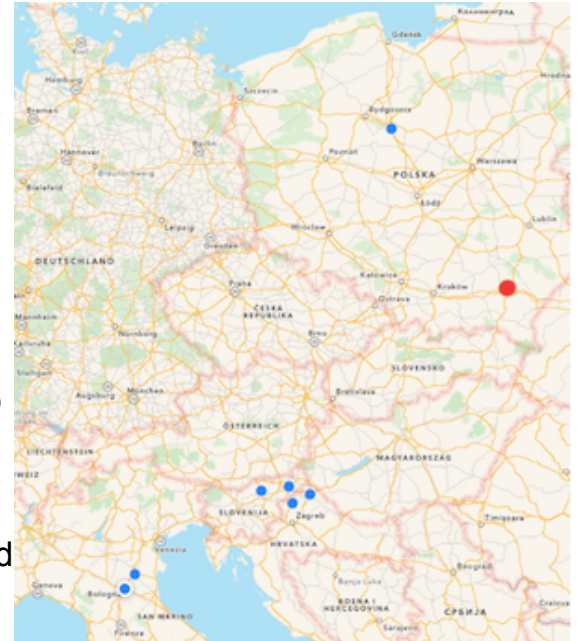
### CONSIDERED PARKS

- Park in Łańcut
- Park in Przeworsk
- Park in Zarzecze

### ACCESSIBILITY

The historic park near the Museum - Castle in Łańcut, is located in the city center. It is available for residents and visitors throughout the year from dawn to dusk. Admission to the park is free, what is an additional advantage attracting many lovers of natural and architectural attractions. It is the largest and most prestigious park complex in the Podkarpackie Voivodeship, what was particularly appreciated by placing the castle and park complex by the Polish President on the list of History Monuments. The number of visitors of the historic park in Łańcut exceeds the turnout in both other parks (taken together) at least several times.

The palace and the park in Zarzecze are open for the public. The interiors of the palace can be visited during the museum opening hours. Price of sightseeing. Sightseeing is free. Przeworsk - admission to the park is free and unlimited.



### OWNERSHIP STRUCTURE

Museum - Castle in Łańcut is a cultural institution that runs as a common cultural institution of the minister competent for culture and protection of the national heritage and the Podkarpackie Voivodeship. The museum has legal personality and is entered into the register of cultural institutions and the State Register of Museums collected by the Minister. Such structure of ownership, uniqueness and extremely rich decor of this institution guarantee its existence and co-financing. Other parks that were considered before do not have such a rank.

Zarzecze - In February 2007, the commune of Zarzecze, the powiat starosty in Jarosław and the Union of the Dzieduszycki family of the Sas coat of arms established the Museum for them. Dzieduszycki, as a branch of the Museum in Jarosław

### SPATIAL PLANNING DOCUMENTATION

A project "Protection and development of the cultural heritage of the former Łańcut Ordynacja by renovating and conserving works and creating new exhibition spaces in the Castle building and the historic Museum of the Museum - Castle in Łańcut" is realised in Łańcut Castle at the moment. This project will allow better object preservation for future generations. Thanks to the integrated project it will be possible to provide comprehensive security and increase the accessibility of the cultural heritage of the Castle Museum in Łańcut.

Renovation and conservation works will include, among others: small architecture in the park, alleys and the fence with gates. The effect of the project will be to restore the splendor of the historic assumption and improve the conditions of functioning and storage of the Museum's unique collections. Planned works will additionally increase the attractiveness of the place and thus the greater interest of visitors.

The strategy of the development of Łańcut city 2015-2020 indicates the park in Łańcut as the area of Łańcut City area designated for revitalization.

### HISTORICAL DOCUMENTATION

The existing archival documentation is primarily a rich collection of photographs by Józef Piotrowski made around 1929 showing the composition of the park. Dr Józef Piotrowski was the State Conservator of the Monuments of Art and Culture of the Lviv District. Additional information about the park might be found in the publication entitled "Castle in Łańcut, Concise description of history and collections" published in Lviv in 1933 by Józef Piotrowski. In its archives the Łańcut Castle also has cartographic materials and aerial photographs from that period. On the basis of these and many other available historical materials, works have been carried out for many years aiming at the most faithful reproduction of the historical arrangement and species composition of plants. The other two assumptions do not have such rich and valuable historical documentation in terms of authenticity and rank.

Historical documentation of Zarzecze is partially preserved till today - we can see "The exhibition The Dzieduszycki Palace in Zarzecze - Yesterday and Today" - opened at the Dzieduszycki Museum in Zarzecze. It was based on photographic documentation for the Conservation of Cultural Property in Rzeszów. The photographs of the Conservation Officer of the Podkarpackie Province in Przemyśl. They present the history of the Palace from the 1970s and 1980s. Older photographs documenting the condition of the Palace in 1938 complement the exhibition. Visitors of the Dzieduszycki Museum and the Park and Palace in Zarzecze have the opportunity to follow the last decades.

## PRESERVATION ASPECT

The most complex and best-preserved compositional layout is found in the historic park in Łańcut. In terms of area it is also the largest one (36 ha). The park in Przeworsk has an area of 12 ha, and the park in Zarzecze only 9 ha. It is also one of the best preserved and most beautiful aristocratic residences in Poland. Eminent planners, architects and gardeners like Christian Piotr Aigner and Franz Maxwald were active here. The garden interiors designed and built with great impetus, such as a rose or Italian garden located in the internal garden (in the immediate vicinity of the Castle) were additionally decorated with sculptures from the 18th and early centuries. Such a rich park design does not have both other assumptions. The multitude of interiors and garden forms that occur here allows the implementation of specific activities depending on the amount of the financial contribution.

## DEVELOPMENT PLANS

The layout of the historic park in Łańcut was created at the beginning of the 20th century and as one of the few in the country remained almost unchanged till now. Plans for the coming years are to carry out activities aimed at the maximum restoration of the appearance of the park from the 1930s (the period accepted for revalorization as the most complete and best documented). In both other buildings, such works have already been completed (park in Zarzecze) or are planned to be implemented in an undefined time (park in Przeworsk).

Zarzecze, Przeworsk - no development plans for the near future.

## RECOMMENDATION

Museum - Castle in Łańcut is also a place of many important cultural, scientific and social events, often of international significance. Music festivals and master music courses are held here for many years.

Zarzecze - After many years, the former splendour was restored to Zarzecze. The palace and park complex has been carefully restored, and the Dzieduszycki Museum was opened in 2008. The park is extremely picturesque, calm and secluded. Numerous, winding alleys invite to walks, and benches to rest in the shade of majestic trees.

Przeworsk - The terraces, the presence of natural monuments, and the charms.

The most appropriate park for further activities is the Park in Łańcut.



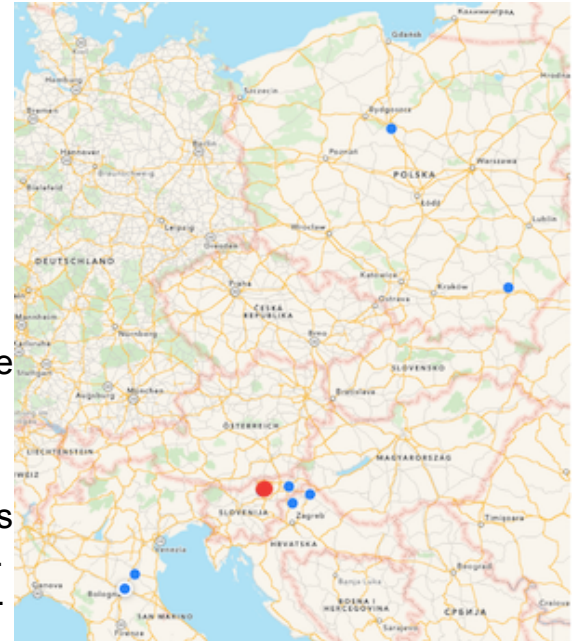
## Municipality of Velenje, Slovenia

### CONSIDERED PARKS

- Velenje castle
- Šalek castles
- The Gorica manor

### ACCESSIBILITY

The Velenje castle is the most visited in comparison with other locations. There is a museum on the Velenje castle, the castle itself is the location for many cultural events, and the racing competitions take place on the ski-jumping polygon. Šalek is a stabilised ruin, but has considerably less visitors than the Velenje castle. Due to its decay, the Gorica manor is closed and therefore is not a suitable place for public events. It will be necessary to restore the building first, then the park. The results of interventions in the Velenje castle park will directly benefit the largest number of people and will be most visible.



### OWNERSHIP STRUCTURE

The ownership structure of the site is appropriate, assuring the cheapest start of the intervention. The Velenje castle park is owned by the municipality. In case of Šalek castle, the ownership structure is fragmented, large parts of land are in private ownership. For the reconstruction of landscape management at Šalek, it would be primarily necessary to buy land and existing private buildings. Arrangements in the surroundings of the Gorica Manor have been largely removed, the area is recognized as a degraded urban area, therefore it requires a wider intervention (for the entire functional revitalization of the area), not just the rearrangement of the park.

### SPATIAL PLANNING DOCUMENTATION

Spatial acts support the desired arrangements. The valid spatial planning document for the area of the Velenje castle already anticipates the procedures necessary for the reconstruction and rearrangement of the castle park. Part of the interventions (east access footpath) has already been carried out according to these plans.

### HISTORICAL DOCUMENTATION

There is a lot of documentary material for the park of the Velenje castle, therefore the decisions on the design of the interventions can be of the highest quality. For the garden and tree-alley at the castle Šalek we know only on the basis of one graphic, in the contrary, there are many documentary photographs of the landscape arrangements around the Velenje castle. The development up to the present situation is most documented there. Imitators of interventions (Hubert Count Harnoncourt and Bianca Countess Wickenburg / Adamovich / Mensdorf) are known, we know the direct model of the park (Graz) and the stylistic inspiration of the creators (English park).

### PRESERVATION ASPECT

The preserved landscape system around the Velenje castle is the most complex and comprehensive in comparison to the other two. The degree of preservation and authenticity of the arrangement is the highest in the Velenje castle park. It is possible to divide the total intervention there into several mutually independent smaller-scale interventions that can be implemented over a longer period of time, depending on the financial resources available. In both other locations, a

major financial contribution would already be required at the start in order to re-establish the landscape completely.

#### DEVELOPMENT PLANS

For the renovation of the park, there is a direct interest of the Velenje Museum, which will also take care of the park. For other two locations at the moment there is no public institution that would have a great interest in them and a desire to change the current situation. It is also necessary to designate new administrators of these park areas and to define functional contents that are already present due to the presence of the Museum in Velenje Castle.

#### OTHER

Park around Velenje castle is a nesting-place of protected animal species - owls. This can be a great magnet especially for the young audience and an excellent starting point for actives, graphic elements and stories. Through the park, the children could be led by the castle owl Lenka (deriving name from VeLENje), a bird-friend of the castle witch Kunigunda. This kind of authentic story is not yet recognized / configured for the other two locations.

#### RECOMMENDATION

For further actives, the location of the Velenje castle park is the most appropriate.





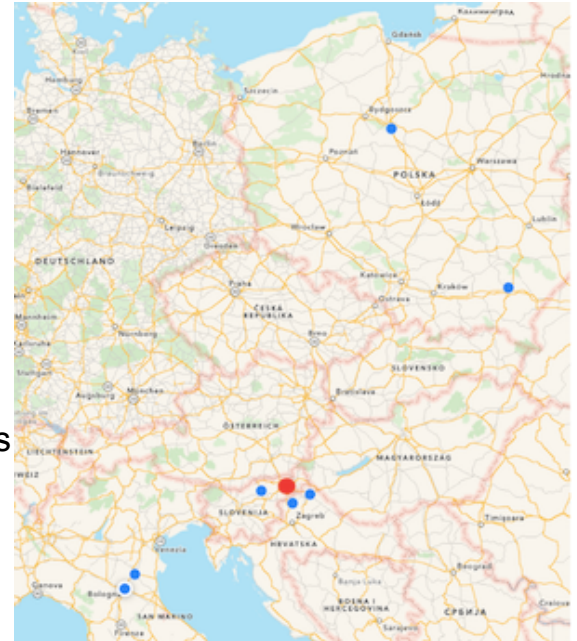
## Scientific Research Centre Bistra Ptuj, Slovenia

### CONSIDERED PARKS

- Castle Park Turnišče
- Sunny Park Ptuj
- Castle Park Dornava

### ACCESSIBILITY

Presented parks are mostly open to visitors. But all three of them have few or none activities for public. Castle park Turnišče lays at the edge of city Ptuj and is easy reachable by car. Although it is only 2,5 km away from city centre, it has inappropriate connections for pedestrians and cyclist. Sunny park Ptuj lays in old centre part of Ptuj. It is easy reachable for pedestrians and cyclist, parking area is 100 m away. Castle Park Dornava is centred in municipality Dornava. It is easy accessible by car, also kind for cyclist. But it is not freely open for visitors. Unauthorized access is not allowed, and even if you want to arrange the visit in advance it is hard to find a person who could guide you through.



### OWNERSHIP STRUCTURE

Castle park Turnišče and Sunny park Ptuj are in ownership of Municipality of Ptuj. Castle Park Dornava is in state ownership.

### SPATIAL PLANNING DOCUMENTATION

All three parks have a local spatial development plan.

### HISTORICAL DOCUMENTATION

Also a rich historical documentation is available – Museum of Ptuj, Cultural heritage protection institution.

### PRESERVATION ASPECT

In Sunny Park Ptuj the Municipality of Ptuj will made some reconstruction works. Architectural plans have been made. Preservation concept of Castle park Turnišče is also in process – conservatory plan has been made together with arborist plan. State as owner of Castle park Dornava isn't investing (at time) in new preservation concepts.

### DEVELOPMENT PLANS

Development plans for Castle park Turnišče and Sunny park Ptuj have been made and are still developing. Investments upon development plans will be made. Castle park Dornava is waiting for its development plans.

### RECOMMENDATION

Most appropriate park for further activities is Castle park Turnišče. Because the ownership of Castle park Dornava is a strong inhibitory factor – the state currently isn't preparing any preservatory or development plans. For Sunny park Ptuj municipality of Ptuj has already taken firm steps towards reconstructions.



## Socio-historical overview of historical parks

This section presents a socio-historical overview of the role of the HICAPS historical castle parks in the past and their current role in the modern society, together with a general introduction to the park, its location and general purpose, each local report details:

- the history of the park, and the main events occurred during its life;
- how the park got to the present situation;
- a short description of its biodiversity features, together with a presentation of existing flora and fauna, and an overview of naturalist elements and protected species;
- the services currently offered by the park, plans for new ones;
- a description of key target groups;
- a presentation of educational activities, materials and tools developed and used for attracting different categories of users;
- a list of publications presenting the park;
- the expected exploitation plans over the next 3 to 5 years, as well as a description of other parks and gardens in the surrounding area that can take benefits from the outputs of the HICAPS project.

The following parks are presented:

- [Park of the Castle of Gornja, Bedekovčina \(Croatia\)](#)
- [Walk Lane of Josip Juraj Strossmayer, Varaždin \(Croatia\)](#)
- [Linear Park of the Este Walls , Ferrara, Emilia-Romagna Region \(Italy\)](#)
- [Villa Ghigi Park, Bologna, Emilia-Romagna Region \(Italy\)](#)
- [Parks in Lubostroń, Kłobka and Szafarnia, Kujawsko-Pomorskie \(Poland\)](#)
- [Łańcut Park, Rzeszów \(Poland\)](#)
- [Turnišče Park, Ptuj \(Slovenia\)](#)
- [Historical Castle Park, Velenje \(Slovenia\)](#)



## Park of the Castle of Gornja, Bedekovčina

During the 16th and 17th centuries, under the influence of enlightenment, parks around castles in European cities ceased to be the area of economic self-sufficiency and became the space for realizing aesthetic and urban planning efforts. It led to the improvement of public spaces in the city and provided for creation of baroque parks. The baroque park architecture of European castles arises from the renaissance traditions of Italian villas and gardens of French castles. Although already in the first half of the 18th century there were some public promenades in Europe, the systematic establishment of public parks and promenades was launched in the second half of the century. This practice spread to all parts of Europe in the 19th century, including Croatia.



Baroque architecture and urbanism in Croatia has been well developed and preserved. However, this is not the case with parks – there is limited number of baroque parks in Croatia, despite the fact that their development started early. The main promoter of establishment of parks was Zagreb Bishop Maksimilijan Vrhovac in late 18th century.

There are a few reliable data and historical sources documenting the design of baroque castle parks. Drawings and descriptions of parks are extremely rare, and the existing remains are few, due to later transformations and extensions. In the early baroque decades parks of castles were useful, and decorative parks were rare, usually in front of the main façade. Cadastral maps and artistic drawings provide the most information about the baroque gardens and parks. Area around the castle was usually surrounded by a wall or a wooden fence, and the entrance to the yard was highlighted by the entrance door (portal). Within relatively large yard, a castle, a variety of farm buildings and trees were situated. In the courtyard (and often outside it) included fenced garden divided into squares with garden beams, bushes or ornamental plants, and the edges were mostly fruit. Around the castle there were meadows, fields and forests.

The municipality of Bedekovčina is located in the north-western part of the Republic of Croatia, in the Krapina-Zagorje County. The municipality includes 15 settlements and 8041 inhabitants.

The settlement Bedekovčina is located in the Krapina River valley, along the railway line Zaprešić - Zabok - Varaždin - Čakovec. The settlement Poznanovec is five kilometres from Bedekovčina, near the Zabok - Zlatar Bistrica road and the Zaprešić - Zabok - Varaždin - Čakovec railway line.

Three suitable castles / parks with parks are identified in the area: Bedeković-Vranyczany Castle in Gornja Bedekovčina, Kurija Bedeković in Donja Bedekovčina and Sermage Castle in Poznanovec.

Baroque castle Bedeković-Vranyczany is located on top of the hill in Bedekovčina. The castle belongs to the first category of cultural monuments, it is well preserved and maintained. Bedeković Vranyczany castle is one of the most beautiful Zagorje castles. It is one of the earliest and most complete baroque-style creation, the top point in the development of a one-lane castle. According to the inscription above the entrance to the castle, it was built from 1740 to 1750. The castle was in the middle of a large and beautiful landscape park. The classical orangery in the park has been preserved until now. There were three lakes and only the smallest still exists, although without



water. The park is relatively small, and currently it has not specific purpose. The park is currently not well maintained and a relatively small investment is needed for its revitalisation.

The castle Kurija Bedeković is situated on the slope above the valley of the Krapina river. There is a park around the castle. It was built about 1780 for a part of the family Bedeković. A landscaped park spreads in front of the main façade. The orchard is preserved in fragments. The courtyard is now privately owned, restored and maintained.



Poznanovec Castle is located in the valley of the Krapina River, along the stream Velika. In front of the castle there is a park, and north of the castle are outbuildings. The exact time of creation of the park is unknown, but it can be concluded that it was in the first decades of the 19th century. The park included lake, a pond, an orchard, a garden and an orangery. There was a 200-meter long tree avenue and a park in front of the castle. The castle is currently in a very bad condition. Remains include a pond, a tennis court and an access, but all this is ruined by a underbrush. There is also a football field in the park. The castle is owned by the Republic of Croatia but, despite the renovation of the roof, it is not being used.

## History of the park

The castle in Gornja Bedekovčina is predominantly located on a hilltop in Bedekovčina, offering a view of the valley Krapine and northern slopes of Medvednica. Nearby is a late Baroque manor Donja Bedekovčina. The castle and manor belonged to the family Bedeković: according to the inscription above the entrance to the castle, Nikola Bedeković built it from 1740 to 1750.



The castle was then bought by Dr. Viktor Baron Vranyczany-Dobrinović in 1887, who married Baroness Zdenka Hellenbach from Marija Bistrica. The castle was inherited by their son Ambrose, and his son Janko, who lived in Belgium. Family Vranyczany owned a few castles in the Croatian Zagorje region in the 19th century. and in the first half of the 20th century.

The castle belongs to the first category monument, is well preserved and maintained, and it is now in an institution for the education of female problematic youth. This is one of the most beautiful castles in Zagorje and at the same time indicates the earliest and most complete stylistic achievement, thus starting and also the culminating point in the development of a one-wing of the castle in the area of the Croatian Zagorje.

In its glory days, the castle was in the middle of beautiful landscape gardens. The development of the park can be seen in three phases. The oldest stage from the time (mid-18th century) gives little or no data, although it can be determined that the park baroque expression probably existed. The second phase in the development of the park that can be seen on the cadastral map from 1897. Then the park took up an area of 4.7 hectares and features a landscape garden. There were three lakes: the smallest one was of the area of approximately 83 m<sup>2</sup>, the middle 157 m<sup>2</sup> and the greatest 480 m<sup>2</sup>. Next to the orangery there were two gardens that are growing

vegetables and flowers, and served as nurseries. The third phase of the park show the arrival of the family Vranyczany late 19th century. Viktor Vranvczany-Dobrinović performed a significant change in the park. Neglected the old entrance road for carriages from the southwest, which is seen on the cadastral map from 1897, and paved a new avenue of wild chestnut from the southeast, which goes through a park to the castle (today's access road), built a pavilion, a bowling alley and tennis court, which are no longer present to this day.

Today, the park is fairly neglected and only the necessary pre-caution measures or post force majeure kind of interventions are done (falling branches after storm that need to be cleared from the existing pathway in the park).

## The park nowadays

The park around the castle Bedekovic Vranyczany is one of the recognized architectural monuments and it has a preserved status and is protected by law. The park is actually surrounding the Castle of Upper Bedekovčina. Currently the Castle serves as an administration for juvenile problematic female youth.



The municipality of Bedekovčina is one of the largest municipalities in Krapina-Zagorje county (Regional level). It has around 8.000 inhabitants. It is famous for clay industry. The liveliness of the municipality comes from a large number of high school children. Up to 1000 students everyday go to class. Some of the classes have even been held premises of the castle and surrounding buildings which are actually in the vicinity of the park. The park has been neglected for many decades and therefore the current state of the Park needs revitalization and custom-made investments. Investments in the park which will be done through this project will have to be in line with the level of the legal possibilities and at the same time harmonized and discussed with the relevant bodies. What is of utmost importance is that the materials used will have to be natural whenever that is possible. The majority of Investments of the river elevation of the park will be connected to plants and flora management. Today the park does not have a specific purpose and is rarely visited by local population school kids etc. Touristic purpose is also not used and valorised. With this project this is about to change.

## Biodiversity features

The existing flora in the park is the following: common juniper, sycamore, elm, maple, maple milt, ash, larch, red beech, yew, Aesculus hippocastanum, Cydonia oblonga, Quercus petrea, Picea abies, Juglans regia, Betula pendula, Fraxinus excelsior, Carpinus betulus and others.

## Services offered by the park

Unfortunately, currently there are no services offered by the park. It is also important to mention that the park never offered any services in its history. There are no payments/fees to visit the park and no guided tours are available. It takes around 10 -15 min of short walk to go through the park, so no guided tours are necessary.

There are also no clerks, gardeners, teachers or scientists employed. Through the HICAPS project park will be revitalized, and it will need to be kept sustainable in terms of regular gardening, but due to its relatively small size and surface (the part that will be revitalized), there are no plans to additional employment, or introduction of fees and tickets for visiting the park. The park is planned to be opened for public and visited by local population,





school kids, young families with kids, senior citizens etc. Potentially in the near future it can be used in touristic purposes.

## Typology of visitors

Unfortunately, there are no statistical data of the number or type of visitors of the park. As currently the park is not that attractive, the number of people visiting it is very small. The main target groups of the project and after revitalization of the park will be young families with children, senior citizens and school kids from different parts of Croatia.

## Educational activities, materials and tools

Currently there are no educational activities, materials and tools developed, as well as no educational strategy, interaction with schools, general public, academia and research centres. However, during the implementation of the project, tools will be developed, and elementary school kids will be the main focus group and tables and brochures of the park will be custom made for school children. Academia and researchers will be involved in making the studies and plans for valorisation of the park.

## Publications presenting the park

There are only few publications where the park is mentioned and they are all in Croatian Language:

- Mladen Obad Šćitaroci : Dvorci i perivoji Hrvatskoga zagorja
- Bedekovčina stara i plemenita

Some more publications concerning the history of parks around Bedekovčina:

- Bajza, Ž. (ur.) (1997.) Bedekovčina: stara i plemenita. Bedekovčina: Općinsko poglavarstvo.
- Filko, M., Špiranec, K. (ur.) (2017.) Plemenito srce Bedekovčine. Bedekovčina: Općina Bedekovčina.
- Marković, V. (1987.) O baroknim dvorcima u Hrvatskoj. Radovi IPU, 11, 143 157.
- Obad Šćitaroci, M. (1990.) Perivoji i dvorci Hrvatskoga zagorja. Zagreb: Školska knjiga.
- Obad Šćitaroci, M., Bojanić Obad-Šćitaroci, B. (2006.) Kriteriji vrjednovanja dvoraca – prilog za odabir najvrjednijih hrvatskih dvoraca. U: Obad Šćitaroci (ur.) Dvorci i ljetnikovci – kulturno naslijeđe kao pokretač gospodarskog razvoja (zbornik radova). Zagreb: Arhitektonski fakultet.
- Obad Šćitaroci, M., Bojanić Obad-Šćitaroci, B. (2009.) Barokna perivojna arhitektura u Hrvatskoj. U: Cvetnić, S., Pelc, M., Premerl, D. (ur.) Barokna perivojna arhitektura u Hrvatskoj. Zagreb: Institut za povijest umjetnosti.



More information available at:

<http://www.zagorje-priroda.hr/vrijednosti.aspx?catId=40>

## Exploitation plans over the next 3 to 5 years

Without HICAPS project, the park in Gornja Bedekovčina would most probably not be revitalized, hence the importance of this project for the Municipality of Bedekovčina is even bigger. Currently the only existing plan is to revitalize the park through HICAPS project and develop Local action

plan. Once the park will be finished, investments like building a multipurpose children playground with anti-stress surface purpose are possible. Also, opening of small cafeteria/snack bar for kids would also be possible. A very important investment would be the renewal of the castle and this will also be applied to EU funds- The castle should be renovated in an energy -efficient way.

## Other parks and gardens in the surrounding area

### Park around the Castle of Stubički Golubovec

Protection category: Monument of park architecture.  
Area: 21.53 ha. Year of Protection: 1952.

In the history of Croatian Zagorje and Donja Stubica-Subotica, Donja Stubica left a particular trace, mainly because of Matija Gupca and peasant revolt in 1573, but also because of its castles and curios, which were quite a number in the Stubica region. In Donja Stubica, a fortress was mentioned already in 1209 in the charter of King Andrew II. From the 13th to the 15th century Stubica belonged to the Aka tribe, Arlanda I. In 1564, half of the Kaštela Stubice and Susedgrada, from the

then owner of Andrija Bator, was bought by the Hungarian nobleman Franjo Tahy. The Donjostubica fortress had been destroyed in the peasant revolt, and since then it has become more and more decadent. At the end of 1790 Domjanic built the Baroque Stubicki Golubovec Castle.



Golubovec was a half-way estate between Donja i Gornja Stubica. In the 17th and 18th centuries, the owners of the barons Mallakoczv Deszomszedvar (Susedgrad) family were mentioned as owners. The noble family Domjanić from Zelena, whose last descendant was poet Dragutin Domjanić, managed the estate until 1805 when selling it to Zagreb bishop Maksimilijan pl. Vrhovac, the founder of Zagreb's garden named Maksimir under his name. He had left him reluctantly to his nephew Ani Sermage of Susedgrada and Medvedgrad, after whose death the estate belonged to her daughter Antonia, the wife of Croatian Baron Levin Rauch de Nyek, a well-known signatory to the Croatian-Hungarian Settlement. In 1877, the owner of Stubički Golubovec became the Steeb family, who lived there until 1945 when they moved to Austria.

Along with the castle in Stubička Golubovac, at the beginning of the 19th century, there was a park space that nowadays consists of two parts: the park around the castle and the park-forest. The Park-Forest is part of the oak-tree oak forest and the common grayling shrub, and in part is the forests of American pines. Looking at it as a composition, it represents the immediate natural framework and foundation of the Peruvian and connects the garden with the surrounding landscape. The forest made the scenic eastern curtain of the Vilinci polje from where they provided magnificent views of Medvednica and its hillocks on Stubica. The former Vilin fields (Geistervviese), are largely preserved and are one of the essential values of Stubički Golubovec.

The park around the castle has features of landscape parks. In the compositional aspect, the northernmost part of the perimeter is the most valuable, which stands out with the high value of the aesthetic composition of individual trees and their groups, on lawns and nearby forests. Since the former strong coloured composition of the landscape, due to numerous exotic species, very little remains today. Thick, which gave their accent in its dark colour, almost disappeared, and the former polychromatic composition turned into a monochrome because of the domination of indigenous trees. Of the remaining exotic species in the area, the sassafras shrub (*Sassafras officinale*) is particularly valuable because it is the last of its kind in the Croatian Zagorje and perhaps in Croatia.

There are two phases of the development of the parks in Stubički Golubovwc: the first from the

first half and the middle of the 19th century, and the second from the end of the 19th and the first half of the 20th century. These two phases differ significantly. The composition of the first phase of the first phase (in Vrhovac's time) was preserved only partially in the northern part between the road and the castle. The second phase brought significant changes in the composition of the architectural elements of the landscape, preserved only in traces.

The castle and the parish survived the war without any damage. Even in 1944, all facades of the castle were restored. Since 1945, To this day, the castle has changed many of the users who were mostly from the castle and the outskirts, and they did very little or nothing. Today, in the castle, the permanent exhibition of the Kajkavian Croatian exhibition - the Croatian Kajkavian written word. Since February 1989, in the premises of the castle, "Kajkavian" society for the collection, preservation and promotion of the Croatian cultural heritage is having its headquarters.

## Park around the Castle of Gornje Oroslavje

Protection category: Monument of park architecture.  
Area: 5.78 ha. Year of Protection: 1965.

In the settlement of Bela there are two castles, one from the 17th and the other from the 18th century, belonging to the same family. There were also two castles in Oroslavje, three hundred meters apart. Their baroque portals, marking their entrance into the courtyard garden, are the ultimate points of today's centre of settlement. The castles did not belong to the same owners, and they were created at different times. The older castle, located south, was named Oroslavje Gornje. The Vojkovic Castle, Oroslavje Donje, was situated to the north.



The castle was built at the end of the 18th century between 1770 and 1790. Although today's park garden has the character of a landscaped parkland, historical sources point to the baroque-classical elements of garden architecture around the castle in Oroslavje Donje. Gardens near the castle were probably built at the end of the 18th century, and as they appeared in the second half of the 19th century, they can be seen on the old cadastral map. The castle then approached the awning 230 m long, and in front of the south facade was a decorative garden. Towards the southwest the perivoj is tied to the existing forest. To the left of the entrance hall, and south of the ornamental garden, there was a spacious meadow where today is a football field. By the transformation of 1885, the perivoj expanded and gained features of landscape-romantic garden architecture. The floor-plan composition is also altered, so the baroque ale is a mechanical one and thus adapts to the modern park concept. This shaped park, with few modifications, has been preserved to date, but impoverished for numerous facilities, abandoned and degraded by the football field and individual residential facilities with access to the main aisle.

The park enters through the lavish and very beautiful baroque portal that, overlooking the south, completes the tour of the main road in Oroslavje. In front of the eastern facade of the castle there are two baroque stone statues from the 18th century. There are rare baroque statues with mythological beings. Flora, the goddess of flowers, and Satir were in the garden in front of the Oroslavje Gornje castle, and in Oroslavje Donje they were probably transferred between the two wars, when industrialist Milan Prpić owned both castles. In addition to numerous conifers and leaf worms, domestic and insects, there are also a large number of specially cultivated garden shapes of trees mostly sorrowful, sorrowful beech, mournful ash and sour cherry. In addition to interesting flora, the garden has an interesting fauna. From 1980 to 1983, it recorded 37 species of birds nestled in the branches of park trees in Oroslavje Donje.



## Park around the Castle of Marija Bistrica

Protection category: Monument of park architecture.  
Area: 1,92 ha. Year of Protection: 1950.

Not far from Marija Bistrica, on the road to Zlatar Bistrica, hidden from the view, is this beautiful castle where the baroness Gizela Hellenbach lives with his family. It is one of the few castles in the Croatian Zagorje and Croatia, which managed to maintain the continuity of living and completely preserve the interior as it was in the last century.



The garden surrounding the castle was created after the construction of the castle, around the middle of the 19th century. The classical concept is recognized by the symmetrical composition of the park space. Three paths led from the main road to the castle. The entrance to the castle was on the opposite, east side. The approach to the castle led to the castle from the southern side of the park and so divided it from the economic complex. The garden was about 1.4 ha. There are three access roads to the castle, as well as the access road from the south. Creating a new walk-in pedestrian access to the castle from the north, a trail that makes a small serpentine to overcome the ground slope. The garden then extended to the east, covering part of the former economic space and part of the garden. The exact time of change is not known, but it was certainly between 1860 and 1924. There are several trees, lime, red beech, chestnut, plane bean and spruce tree in the park today. In 1851, with the marriage of Baron Lazar Hellenbach and Klotilde Jelačić, Marija Bistrica became the property of baron Hellenbach whose family still lives in the castle.



## Walk Lane of Josip Juraj Strossmayer, Varaždin

The City of Varaždin is located in the North of Croatia on the southern bank of the River Drava. With 46.946 inhabitants and the average annual temperature of 10°C, the city of Varaždin is one of the most attractive destinations to live in or to visit in continental Croatia. It is the tourist, cultural, economical, educational and sporting centre of North-western Croatia and the Capital of Varaždin County. The city of angels, colourful and magical events; the most famous ones 'Špancirfest - the Street Festival of good emotions - in summer and the classical music festival -Varaždin Baroque Evenings- which celebrates music, baroque architectural inheritance and authentic instruments, in autumn.



The park known as the Walk lane of Josip Juraj Strossmayer is part of the Varaždin Fort area where the City Museum is located today. It is part of a whole that represents one of the most important sites of the cultural-historical heritage and cultural tourism of the city of Varaždin. It is a place that citizens of Varaždin themselves choose for walking, teachers and professors for different field studies with students and young people for going out. The space is used for different events like Špancirfest, flower exhibits, performances of horse riders, arrow shooters or productions of different NGOs that are active in the city.

### History of the park

Varaždin Old Town is a typical example of a low fort that is surrounded by a park today. The area is called Arx varasdiensis / Fort area that is comprised of the gothic – renaissance fort where Varaždin bishops lived, the area of the Armory that changed its purpose over centuries from crop house of lords of Celje through the armoury of the Slavonian border, renaissance fortification parts like the hills that connect bastions, indoor and outdoor assembly and a courtyard by the Old Town where up until the 1930s business areas were situated. Although this fort represented one of the key points for the defence of Croatia, and also Europe, from the Osman Empire, when the war danger stopped after 1699, we find a decorative garden that is located between the fort itself and the Armory building. By analysing plans we find that from 1750 we can track the development of this garden that belonged to the fort. It is visible in the plans of Joseph Podhardsky in 1823 and in the zoning plans from 1860.

At the end of the 19th century the Varaždin City Council in the time of Head Council Stjepan pl. Belošević Gornjostubički had the basis for the park maintenance made around the Old Town projected by engineer Ritzl. With this project it was foreseen to completely preserve the hills and bastions, and to partly fill the assemblies. Although the city budget had the means for this project foreseen it was never completed since the owner of the goods, count Rudolf Erdody disagreed, to be precise agreed with the park decoration, but asked for the owners of the Old Town to keep the right to chop down





planted trees and bushes and to forbid access to citizens in the walk lane.

When the City Museum was established in the premises of the Old Town, the Museum Society started to create plans to decorate the walk lane. Since Varaždin at this time had no outdoor architects, the Society turned to the German gardening architect Wilhelm Rhonick from Dresden. During 1928 Rhonick made the planned documents that, in opinion of members of the Society, wasn't completely adapted to cultural-historical significance of the object since it hid it more than it revealed it. Although the Society continued to search for best solutions by counselling with Đuro Szabo and by using the opportunity that in 1934 the city was visited by Austrian migrants including gardener A. Pirker who formed partial solutions that were only usable in a small part. This year, in the fall of 1934, after the tragic death of Aleksandar Karađorđević, an action started to lift a monument for him in the city. The Museum Society managed to convince the City Council to ensure the budget for the park maintenance for the next few years. Works started on 19th October 1938, under the supervision of Krešimir Filić and Alfred Leitner. Parts of different plans for decoration were used, solving problems as they went along to satisfy the conservational, esthetical and hygienic demands of the time. The space between the armoury and the fort was levelled, a path was built leading from the east side to the Nazor street and some trees and bushes were planted that were delivered from Prekmurje (Tišina). Works were continued in the spring of 1939 when the space in front of the fort, two terraces supported by a dry stone wall were constructed and the leftovers of previous walls that enclosed the first courtyard were fixed. The works were continued in 1940 when mostly the outer assemblies were worked on where there were trees and bushes planted and grass was sowed. During the war years little was done and the entrance gate (watch tower) was damaged during the bombing when a roof collapsed and first floor was greatly damaged. Works were continued after the war when the entrance gate were repaired and path along Lypoldt house to Vrazova street was decorated. Also, a path to hills and bastions was set up and step paths to them were decorated, and the entire area was surrounded by finished gardens in Nazorova street and a lot of plants were planted in 1947.

## The park nowadays

From 1948 this area is managed by Parkovi (Department of public parks and green areas). They invited a famous Slovenian outdoor architect Ciril Jeglič to Varaždin in 1951 with the purpose to project the design of land around the Old Town and the Drava park. In its basis, the park in front of the Old Town was



kept with few corrections while the stress was put on decorating hills and assemblies on both sides. In his opinion, assemblies must remain clear for the most part with accent put on green grass. Also, the outlines of hills must be stressed out so on the steep hills low pine trees were planted, while the basis had rose bushes, and flowers along the paths. In close proximity of the Old Town, pines were planted along with cherry trees. Only domestic plants were used, with only a few imported plants added. Behind the houses in Nazorova street a rich vegetation was planted. In total, it was foreseen to plant 15,000 plants. Professor Pavle Vojković made the solution for making benches in the park that serve for rest of walkers.

By initiative of the Varaždin Tourist Board in mid 1990s of the 20th century, in this space the first info tables were set up. Parkovi fixed the paths several times, along with steps, benches, removed plants and planted new ones. Biggest changes happened in 1995 when a part of paths was closed and when green plants were planted in front of the entrance gate. They also maintained care of seasonal flowers, mowing the grass and cutting plants.

With the project "Bastion", the City Museum Varaždin in cooperation with Pokrajinski Museum Maribor participated in INTERREG IIIA cooperation programme and enabled research of preserved fortifications through archaeological and historical researches that resulted in a presentation of the discoveries from 2006 to 2008.

## Biodiversity features

The plant variety introduced by Jengić and the supplementary spontaneous planting occurred later on are not in line with the stylistic multilayer structure of the Old Town, that includes medieval features and the Renaissance, with unique soil ramparts and bastion. The current arrangement of green areas in the historical complex of the Old Town, in fact, includes earlier spontaneously planted tree solitaires, the Jeglić's concept of park design, and subsequent free placement on the ramparts and elsewhere with the spontaneous spread of vegetation in the last 60 years.



In the area closer to the fortress is predominantly the coniferous, while in the peripheral parts of the monumental complex there are a deciduous plants. From the existing coniferous trees and shrubs it is important to emphasize: *Cephalotaxus drupacea*, *Chamaecyparis lawsoniana*, Low pines (*Juniperus horizontalis*, *Juniperus media* etc.), *Juniperus virginiana*, European larch (*Larix europea*), coniferous spruce (*Picea conica*), Spruce (*Picea excelsa*), Blue Spruce (*Picea pungens glauca*), Himalayan pine (*Pinus excelsa*), Black pine (*Pinus nigra*), Pine (*Pinus silvestris*), American pine (*Pinus strobus*) (*Pseudotsuga taxifolia*). In particular, we point out a lots of *Taxus baccata* formed in larger groups, and individual specimens of yew (*Taxus baccata fastigiata*) and thorax (*Thuja gigantea* and *Thuja occidentalis*), and a wonderful group of wet taxodens (*Taxodium distichum*), planted directly by the fortress as a reminder of the former water the surface in the loopholes. In the outer yard, there is also an exceptional specimen of the white spruce (*Picea conica*), followed by a group of yew's (*Taxus baccata*), a specimen of the plum yew (*Cephalotaxus drupacea*), *Thuja* (*Thuja* spp.). From the existing deciduous trees and shrubs it is worth mentioning: *Acer ginnala*, *Acer negundo*, *Acer platanoides*, *Acer pseudoplatanus*, *Acer rubrum*, *Aesculus hippocastanum*, *Populus nigra* (*Populus nigra Italica*), ornamental cherry (*Prunus* sp.), birch (*Betula pendula*), European hornbeam (*Carpinus betulus*), beech (*Fagus sylvatica*), *Gleditsia triacanthos*, tulipan tree (*Liriodendron tulipifera*), oak (*Quercus robur*, *Quercus robur fastigiata*), weeping willow (*Salix babilonica pendula*) and lime (*Tilia parviflora*).

Shrubs: *Berberis thunbergii atropurpurea*, *Berberis verruculosa*, *Ceanotus dentatus*, Japanese quince (*Chaenomeles japonica*), *Cornus alba spaethii*, *Cornus mas*, *Corylus avellana*, *Corylus maxima atropurpurea*, *Duck* (*Deutzia scabra*), *Forsythia* (*Forsythia intermedia*), *Evergreen calina* (*Ligustrum ovalifolium*), *Cherry laurel* (*Prunus laurocerasus*), *Sambucus nigra*, *vanhouttee spirea* (*Spirea vanhouttei*), *Syringa vulgaris*, *tamarisk* (*Tamarix gallica*), *weigelia* (*Weigela florida variegata*).

There are also numerous perennials that complement the atmosphere of a naturally shaped garden in the outer yard of the Old Town. In the literature on the history of European parks, castles and dungeons, no copies of soil renaissance ramparts have been discovered in the surroundings of a castle or an old town, such as in Varaždin, giving it a unique value.

## Services offered by the park

There are no services offered by the park. The park is currently being experienced only as a scene where free supplemental activities are organized by the City Museum in cooperation with the Tourist Board of the City of Varaždin and individual associations.

## Typology of visitors

Visitors in the existing walkway J.J. Strossmayer are tourist groups that use the walkway as the shortest path from a parking lot for buses to the Old Town Museum or the Varaždin historical city centre. Besides visitors, the park is important for the domestic citizens, but their number depends on activities it offers. For example, during the Špancirfest the number of users is in the thousands

while in the days of no activity individual walkers, hikers and pet owners are counted in dozens.

## Educational activities, materials and tools

There is no educational work with school groups or any other groups or individuals that would thematically cover the surrounding of the Old Town.

## Publications presenting the park

There are none official publications that would present the park but the park is mentioned in other publications regarding the castle and Varaždin.

## Exploitation plans over the next 3 to 5 years

There are no exploitation plans without the opportunities offered by the HICAPS project.

## Other parks and gardens in the surrounding area

### Municipality of Vinica, Marčan: Arboretum Opeka

Complex Opeka is in settlement Marčan, 20 km western from Varaždin and consists of castle and Arboretum. Very few Zagorje manors had no garden, usually there was at least a small one round the house. Opeka (brick), whose name comes from the nearby brickworks, is at the other extreme. No other Zagorje manor had a garden like that of Opeka. It is outstanding for the number of exotic plants from all parts of the world. The castle was built in 1674, as evidenced by the label that is located at the main entrance to the castle. The Castle in the original form is Baroque style, but during the 19th century was completely renovated in the historicist style with an open ground plan with three wings. After the Second World War the castle had different use – in the '50 it was a gardening school, afterwards dormitory for the school, but after the '70 it was completely abandoned.



The first seeds of the park was already set in the 17th Century but its original shape as today Arboretum became in the late 19th Century, more precisely in 1884, by the owner Count Marko Bombelles. He travelled around the Europe and the World and like other aristocrats wanted to surround his castle with beautiful park. So he and his family planned and tended with exceptional care many exotic plants from all parts of the world. They managed to grow one of the most beautiful and rich parks and turned it into arboretum. Because of its artistic and dendrological importance, its educational, cultural and historical value, it has since 1947 been under protection as a natural rarity and today is classed in the 0 category monument as No. 1 in the Register of Protected areas. Arboretum spreads on 64 ha and is divided, related to landscape, in two parts – lowland shaped as English gardens and hillside shaped like park-forest. Regarding the good climate there are more than 800 different species of trees, shrubs, climbing plants and flowers.

Today, the Arboretum is maintained by the Agricultural and veterinary high school "Arboretum Opeka" in Vinica and Varaždin County under supervision of Public Institution for the Management of Protected Areas of Nature in Varaždin County. It is open for public and serves as educational area with its educational trail and for leisure of different types of visitors.

<http://dev.typed.pro/juzup/podrucja/arboretum-opeka/>



<http://www.dvorci.hr/Page.aspx?pageID=757>

<http://www.hrt.hr/284139/magazin/napunite-baterije-posjetom-arboretumu-opeka>

[http://landmarkings.com/opeka\\_hr.php](http://landmarkings.com/opeka_hr.php)

## City of Varaždin: Park Leitner in Jalkovec

The castle in Jalkovec, built in 1911, is the youngest castle in this part of Croatia. The castle is located near Varaždin, on its southern part, around 15 minutes from the city centre. It is private owned. The estate was established in the middle of 19th Century by Josipović Family but the next owner, the Leitner Family, invited the famous German castle architect Paul Schulze-Naumburg to built today's castle. It's a two storey building in eclectic style with no significant historical value. After the Second World War it was, like lots of other castles, used as industrial facility. Today it serves as summer residence of famous Varaždin entrepreneur who redesigned the castle two decades ago and is closed for the public.



The park was developed in three phases: neoclassical phase in first part of 19th Century on 1 ha, landscape phase at the end of 19th Century when the park was extended and included part of nearby forest, and the third phase was when flower compositions were planted after the castle was built. Today, the Park is spread on 2,7 ha and is classified as protected Monument of Park Architecture in the Register of Protected area under No. 297 from 1972. It's only partly preserved from its original three phase shape and has a lot of contemporary interventions.

The most present trees in the Park are autochthonous: *Carpinus betulus*, *Fraxinus angustifolia*, *Acer campestre* but there are also a lot of exotic plants like *Catalpa bignonioides*, *Gymnocladus dioica*, *Juglans nigra*, *Liriodendron tulipifera*, *Liquidambar styraciflua* etc.:

<http://dev.typed.pro/juzup/podrucja/jalkovec-perivoj-uz-dvorac/>

## City of Čakovec: Park Zrinski

Čakovec Castle or Zrinski Castle (Croatian: Čakovečka utvrda or Stari grad Zrinskih) is a medieval fortification in the middle of the town of Čakovec, the administrative seat of Međimurje County, northern Croatia. The castle is located in the Zrinski Park, not far from the city's central square, and is the biggest fortification in Međimurje County. It was constructed of hewn stone and red brick and, during its more than 7-centuries-long history, subjected to several reconstructions. Today it is partly restored. First fortification, a wooden tower, was built in the 13th century by Count Dimitrius Csáky, after whom the city of Čakovec is named. It was later owned by many other notable families; now is owned by the Municipality.



Nikola Šubić Zrinski, Ban (viceroy) of Croatia and hero of Siget, was granted the castle together with the whole area of Međimurje on 12 March 1546 from King Ferdinand as a compensation for his battles against the Ottomans. He converted the fortress into a Renaissance castle (castellum)

which was protected by bastions and walls, and which was surrounded by lakes. On 30 April 1738 the castle was heavily damaged in an earthquake. It was immediately rebuilt and redesigned in baroque style, and it was given its present-day look. Water-filled moats, that entirely surrounded the castle, were later drained and filled with earth.

Today, the Old Town is a symbol of Međimurje's tradition and identity. It is a heritage monument and cultural property of national value. On 19 November 2007 Čakovec Castle was classified as protected cultural good in the Register of Cultural Goods of Croatia under No. N-23.

The castle's main palace houses the Međimurje County Museum since 1954, and it has 19 thousand items in 51 collections and an open permanent exhibition. Its atrium is also used as an outdoor theatre during the summer months. The place was the scene of the Zrinski-Frankopan conspiracy, a significant event in the history of Croatia. The castle is surrounded by Park Zrinski which was classified as protected Monument of Park architecture from 17 September 1975.

The Park is artificial formed area (Park, Botanical garden, Arboretum, City Park) which has esthetical, stylistic, artistic, historical and educational value. The aim of its protection is to preserve its most important design phases: the renaissance phase and historicist phase.

The renaissance phase is marked with bastions, moats and meadows with groups of wild grown trees and shrubs. In historicist phase from the beginning of the 20th Century geometrical decorative vegetation is formed and it started the planting of exotic tree species and shrubs around the castle and inside the moats. The size of the Park is 13,5 ha. In 2012 Croatian Forestry Institute made Trees health study and the results are more than 1400 trees. The most present trees in the Park are: *Carpinus betulus*, *Fraxinus angustifolia*, *Acer campestre*, *Fraxinus pennsylvanica*, *Aesculus hippocastanum*, *Picea abies*, *Pinus sylvestris*, *Pinus nigra* and *Picea omorica*.

<http://www.medjimurska-priroda.info/zastita/spomenik-parkovne-arhitekture-perivoj-zrinski-u-cakovcu/>

[https://hr.wikipedia.org/wiki/Perivoj\\_Zrinskih](https://hr.wikipedia.org/wiki/Perivoj_Zrinskih)

<http://www.visitcakovec.com/grad-zrinskih/>

<https://hotelpark.hr/en/destinations/destination/old-town-zrinski-3/>

<https://www.youtube.com/watch?v=eg9KBkrC94c>

<http://varazdin.hr/en/>

<http://www.tourism-varazdin.hr/en/>

<http://www.gmv.hr/en/>

<http://www.parkovi.com/index.php?content=pocetna>





## Linear Park of the Este Walls , Ferrara

The Linear Park of the Este Walls has an extension of 9.2 km. It is close to the ancient walls surrounding the historic centre of Ferrara and can be accessed by foot and bicycle, at the top or bottom of the embankments. The Walls have lost their original role as a defensive barrier, and have been transformed into an element of the historic centre, interconnecting the inside and the outside parts of the city. They are one of the key attractions boosting tourism development and promoting the city as a centre of art and culture. As an exceptional example of Renaissance cities, Ferrara has been included since 1995 in the UNESCO World Heritage Sites list. Thus, the universal value of its historic centre has been acknowledged, in order to guarantee its protection for the benefit of the humanity. Its history, made up of myths, legends and rich of famous characters, is indissolubly tied to the Este Family.



The original nucleus of the city was a Byzantine military settlement, the "castrum" (fortress), on the left bank of the Po river, where - at the beginning of the 17th century - a garrison of soldiers was organized to defend the territories of the Exarchate from the invasion of Longobards, who later occupied the new "civitas" (city).

In 1135 the construction of the present Romanesque-Gothic Cathedral began. Over the centuries, it has been enriched with new entrances, becoming an authentic masterpiece of architecture and sculpture, a casket of works of art belonging to various ages. When the fights between the Italian municipalities and the German Emperor Barbarossa took place in the second half of the 12th century, the city supported the Lombard League. In the same years, the Este family established in Ferrara, and in 1264 Obizzo II became Lord of the city.

This was the beginning of an extraordinary period for Ferrara, as demonstrated by the creation of the University (1391), where Nicolaus Copernicus graduated in canon law, by the construction of the Este Castle (1385) and by many other relevant architectural monuments realized both in the medieval and in renaissance part of the centre. The city became one of the most important Renaissance capitals, especially thanks to the cultural enhancement supported by the court. In fact, the Este Marquis (then Dukes) hosted in Ferrara artists such as Piero della Francesca, Leon Battista Alberti and even Michelangelo. Here were written the great epic poems of Boiardo, Tasso and Ariosto, while the painting school of Ferrara reached one of its highest figurative expressions in the 15th century frescoes of the Salone dei Mesi (Hall of the Months) in Palazzo Schifanoia. Additionally, from 1492 Ferrara also had an effective urban plan, the Erculeo Addition: the medieval city, originally developed in the area south of the Este Castle, was doubled with the construction of large and straight roads, churches and convents, amazing palaces and fortifications.

Today, thanks to the preservation and recovery of its historic centre, Ferrara has increasingly taken the peculiar characteristics of a city with a human dimension, with a strong identity as a centre of art, enhancing its wide cultural heritage and museums for tourists.

### History of the park

The walls, with their extension of 9,2 Km, almost entirely circle the city of Ferrara, and are one of the most complete example of ancient walls still existing in Italy: the most relevant historical periods of Italian military architecture are represented in this fortification. Located in the green area of embankments and the valley creating a wide park that crowns the city centre, the 15th century towers at north, the 16th century bastions at east and south, the two bastions of the 17th century pontifical fortress, constitute a splendid ecological belt enveloping the old town. Studied by Michelangelo in 1529, since they were the highest example of military art in those days, the red courtyards witnesses one of the most important pasts for Ferrara, while the embankments of the walls are still today, such as they were in times of peace, a large park perfectly integrating the other gardens within the city.



After the restorations made by the Mura Project (mura means "walls") from 1988 to 1999, after 2001 other restoration works in the historic fortifications promoted by the City Administration have been completed. The aims of the Mura Project were: to protect and restore the Walls to stop degradation of the monument; to reorganize the whole complex and create an equipped "urban system", able to serve the city and the surrounding areas; to strengthen and develop the city museum system, in order to integrate it with the wall system.

The entire Walls circle has been given back to citizens and tourists, who can now enjoy panoramic views using pedestrian and cycling paths developed in the valley and in the embankments. The Walls now represent an important green lung and a large outdoor museum, consisting of massive towers, long hedges, imposing bastions and many other architectural structures, creating a landscape balancing city and countryside elements. It is a vast and articulated urban area that only a few other European cities can boast. In the last years, many theatre performances, cultural walks, historical events have been organized along the walls and the park, also involving the city districts participating in the Palio di Ferrara. Similarly, hiking and biking tours let visitors know the tree species and in general the flora of the areas around the embankments of the park.

## The park nowadays

The Walls originally were a fortification for the city, constituting a military machine. Restoration was done with the goal to provide the visitors with an educational description of the monument through exemplary models. The whole restored Walls have been therefore transformed into an open air Museum. Furthermore some parts of the Wall have been organised as a true museum. The works therefore aimed at reconfiguring the visual continuity of the Walls, where some parts were missing, and making the Walls a strategic element of the whole city's museum system. The planned interventions aimed at bringing together, in a coordinated way, the single elements of the museum structure and more precisely through:

- a system of itineraries that has become the element able to link all the tourist services provided by the museums;
- specific activities for the environmental re-qualification of the same routes.

The current situation started in 1999, following the end of the renovation of the Mura Project, through the realization of foot and cycling paths in the park, both in the valley and in the tree-lined embankments.

## Biodiversity features

With their external line, which once was flooded for defence purposes and is currently subject to

temporary water stagnations favouring wetland and flora species, the Ferrara walls are an important aspect of urban biodiversity. According to recent studies, the Este Walls are the urban green area of Ferrara with the most important and diversified flora (Pellizzari et al., 2015), and the area has been studied for many years (Piccoli, 1986; Piccoli & Pellizzari, 2003). Even after the restoration works, the complex formed by the slopes of the Walls and the surrounding area, i.e. the vast depression once flooded, hosts a large number of species. The high biodiversity is due to the extension of the park, and its multiple orientations, which determine different conditions of sunshine. There is a remarkable



wealth of habitats: heavily-sunken skies, areas with southern exposure with high drainage and sunshine, drained areas with northern exposure, other areas exposed to the north with damp and shady soils. Besides these physical characters, we have also to consider the production of biomass and humus of the trees planted along the enclosure, the mineral component generated by the biodegradation of materials, the proximity of a ground water table. This variability is negligible in comparison with the altitude and geochemical gradients of hilly or mountainous environments, but it is sufficient to host a flora of about 240 species, that exceed 300 including those introduced for ornamental purposes. The total number of species reported over the years for the urban area of Ferrara is 771, and the walls thus account for 39% of the urban flora species. In addition, the calculation of the rarity index of species has here the highest value (92,5 against a minimum value of 0,5): i.e. the walls are the urban area with the largest number of species that are poorly represented in other areas of the city. However, many species (159) are no longer reported in the city and 23 are probably extinct elsewhere: a check on the flora of the city walls would be also necessary. In the last years, the emergence of invasive exotic species has been noted, favoured by the globalization phenomena that affect the whole planet.

As far as fauna is concerned, the ground beetles (Grillenzone, 1990) and the Ephemeroptera (Dioli, 1995) have been studied in detail, with researches dating back to the time prior to the restoration of the walls. Even for these animals, the high diversity of habitats allowed the establishment of numerous species: 83 were the species of Ephemeroptera found on a total of 149 collections in different locations in the province of Ferrara, including some protected areas such as the Mesola Wood. The species of ground beetles were about 70, another relevant number. Since then, however, there have been no systematic surveys of the fauna component of the walls and adjacent areas, except for studies on hoverflies conducted by the Museum of Natural History of Ferrara in the nearby Bassani urban park, also studied by the University of Ferrara. An entomological sampling, which began in May 2017, is currently underway through Malaise trap in the area called "Terraviva Biopastoriera". This is an agricultural area of approximately 5 hectares that has survived urbanization and is located within the city walls, to which is connected by eco-friendly corridors with hedges and grassy margins of foot and bicycle paths. The land is owned by the Municipality of Ferrara and is managed by farmers who, in this area, adopt techniques of organic cultivation. There is also an artificial pond used for irrigation. The installed traps are approximately 500 meters from the Walls. Sampling aims at obtaining indications on the presence of hoverflies, so that a biodynamic conservation status protocol called Syrph the Net can be applied. The data of this area will be compared with those of about 20 other locations in the Ferrara area, studied by the Museum in recent years. In parallel, the component of Apoidea (honey bees, bumblebees and other wild bees) will be studied to assess the biodiversity of Apoidea in other areas, also using Malaise trap samples, a passive collection technique suitable for capturing Diptera and Hymenoptera as active flyers.

With regard to vertebrates, a short list can be drawn up based on the personal experience of the researchers of the Museum of Natural History of Ferrara. Vertebrate species for the area are briefly listed in the following table. Some more accurate and documented data on fauna, as well as on flora, are progressively provided by citizen science projects created and coordinated by the



Museum in the territory of the Po River Delta. They include both direct monitoring by the staff of the Museum and observations by private citizens. The projects have become operational in autumn 2016.

Please read: Corazza C., ed., 2012. The Dither Syrphids in bioindication of biodiversity. The Syrphids, the Syrph the Net database and a dichotomous key to the generals of the Italian Syrphids. Quotations from the Ecology Station of the Civic Museum of Natural History of Ferrara, 20, 165 pp. Italian English:

<http://storianaturale.comune.fe.it/modules/core/lib/d.php?c=cDJP2>

## Services offered by the park

The City Museum of Natural History, in cooperation with the Didò Association, offers educational and information activities. In particular, the following initiatives took place in the city of Ferrara during the academic year 2016-2017:



- An intensive study of a semi-natural urban area, targeting the High Schools in the city, took place between late October and early November. The activity was aimed at gathering, in a few hours, as many information as possible on the biodiversity of the area located at the "Biopastoreria Terraviva". During the first meeting, the students under the guidance of the Didò Association, the Civil Service Boys and the experts of the City Museum of Natural History, presented a research protocol for monitoring of smaller fauna in order to detect the state of the health of the environment. The data collected in real time were recorded on the online "iNaturalist" platform for monitoring fauna and flora at international level. The activity aimed to raise awareness and enthusiasm of young people to participate in the research activities of Citizen Science. The second meeting took place at the City Museum of Natural History. Students were engaged in the analysis of materials collected from the traps placed during the first meeting and from soil samples. Through the use of microscopes, stereoscopes and appropriate identification manuals, students have identified and separated the small invertebrates. The activity was free of charge.
- In May, teachers of a primary school carried out an activity on ecosystems. The first meeting was run on the field and the second in the classroom. During the first event, the children followed by the operator identified and analysed the flora and fauna of the Linear Park, then in the classroom they observed and compared the samples; the data collected were used to help children reflect about the health of the environment and whether the man influences it. A ticket fee was requested.
- Two afternoon events for families were organised at the end of April on "Small inhabitants of the Walls". The aim of the activity was to involve parents and children in the search for arthropods of the park, by using small nets and containers for collecting and observing the first layer of soil, also using magnifying glasses and trays. The operators, using the online platform "iNaturalist", entered the real-time sightings and made parents and children part of the Citizen Science projects launched by the City Museum of Natural History of Ferrara and how to become a scientist in autonomy. A ticket fee was requested.

New Activities: the new information brochure for 2017-2018, targeting primary and secondary schools, includes a two-days course called "Biodiversity for All". The first meeting consists of a walk in an environmental area chosen by the teacher (lawn, forest, river, retting-ground, etc.) for observation, sampling and entry into the "iNaturalist" platform of collected data. The second meeting is run at the Museum to analyze samples and findings collected, and discuss the state of health of the environment visited. A ticket fee is requested. Another initiatives (BioBlitz) can be also carried out with the support of volunteers from the national or civil service, without any costs

for the citizens who participate.

## Typology of visitors

The key target groups include: schools, families, scholars, passionate citizens and curious about natural sciences.

## Educational activities, materials and tools

The activities include the use of paper forms, the simulation of scientific monitoring activities of the selected area without killing animals, the use of microscopes for the detailed observation of exhibits, the use of an online platforms such as iNaturalist and CS-MON for recording and sharing data.



iNaturalist (<https://www.inaturalist.org>) is an open source website managed by the California Academy of Science. It is a system where you can record what you have observed in nature, meet other nature lovers, and learn about the natural world. From hikers to hunters, birders to beach-combers, the world is filled with naturalists, and many of them record what they find and share the information online. The terms of service are published here: <https://www.inaturalist.org/pages/terms>.

CSMON-LIFE (Citizen Science MONitoring, <http://www.csmon-life.eu>) is an Italian citizen science project on biodiversity, funded by the European Union within the LIFE+ programme. The initiative targets the general public and aims to involve citizens in the study, management and conservation of biodiversity, creating an active collaboration among citizens, the scientific community and the institutions. The Museum of Natural History of Ferrara uses this platform to collect reports on molluscs.

At the base of these two projects there are four fundamental concepts, which are the pillars of citizen science: citizen involvement, understanding (nature conservation issues), collaboration (in the development of effective and shared solutions), change (of our behaviour towards the environment). Both sites allow the entry of messages via PCs and smartphones and the validation of photo-based observations: iNaturalist follows the philosophy of social networks used for scientific knowledge and dissemination. It entrusts the validation of the researches done to the scientific community which created CS-MON. From this point of view CS-MON is not social and relies on a panel of experts. Communication is carried out through: press releases, institutional websites, online newsletters, meetings with citizens and associations, conferences, open days and nights at the Museum, in partnership with private sponsors.

It is worthwhile mentioning also the educational activities and workshops organised at the Sottomura and the Bassani Parks, managed by the IDEA Centre:

- Metrominuto Ferrara is a project to promote soft mobility. It is a map similar to that of the Metro lines in the big cities, but it provides information on distances and walking times between major points of interest. The map presents the pedestrian path of the city walls and the Urban Park: <http://servizi.comune.fe.it/7679/metrominuto-ferrara>
- “You read Biodiversity” consists of a marathon of public readings, songs, poems and stories dealing with the topic of Biodiversity, taking place at the same time in several places: Bassano Urban Park, Museum of Natural History and at Terraviva: <http://servizi.comune.fe.it/index.php?id=7821>
- ActivECOLab is a path promoted to raise awareness among the citizens, through free laboratories developing small sustainable practices that can be used in the everyday life, such as, e.g., how to recognize spontaneous herbs:



<http://servizi.comune.fe.it/6885/impriamo-a-riconoscere-le-erbe-spontanee>

- A tree to reduce CO2 is a publication presenting the main trees and shrubs of the Ferrara territory, with specific leaflets that are distributed during the National Tree Day:  
[http://servizi.comune.fe.it/7103/attach/idea/docs/versione%20\\_web\\_def.pdf](http://servizi.comune.fe.it/7103/attach/idea/docs/versione%20_web_def.pdf)
- Green 2.0 intends to broaden the knowledge about the green areas present on the municipal territory, as well as promote the active participation of citizens and share information on the natural, historical and social values of the landscape. The Bassani Urban Park has been identified as one of the pilot areas of the project, and information panels have been installed. Each panel contains a QR code containing information about the different tree species:  
<http://servizi.comune.fe.it/6005/index.php?id=5113>
- EcoMappa of the province of Ferrara developed a map of sustainable tourism in the territory of Ferrara, covering the whole area of the Suburban and the Urban Park:  
<http://servizi.comune.fe.it/4431/ecomappa-partecipata-della-provincia-di-ferrara>

## Publications presenting the park

Italian language:

- Dioli P, 1995. Eterotteri del Ferrarese. 1. La fauna terrestre (Heteroptera Cimicomorpha et Pentatomorpha). Quaderni della Stazione di Ecologia del Museo Civico di Storia Naturale di Ferrara, 8, 7-49. [https://www.ndsu.edu/faculty/rider/Pentatomoidea/PDFs/D/Dioli\\_1995a.pdf](https://www.ndsu.edu/faculty/rider/Pentatomoidea/PDFs/D/Dioli_1995a.pdf).
- Pellizzari M, Piccoli F., Alessandrini A., 2015. La flora vascolare urbana di Ferrara. Quaderni del Museo Civico di Storia Naturale di Ferrara, 3: 55-90, abstract in English.  
<http://storianaturale.comune.fe.it/modules/core/lib/d.php?c=cwJ37>
- Sciaky R. & Grillenzoni G., 1990. Coleotteri carabidi di Ferrara (Coleoptera Carabidae). Quaderni della Stazione di Ecologia del Museo Civico di Storia Naturale di Ferrara, 3, 7-63.
- Scienze naturali e ambiente: proposte per anno scolastico 2017-18.  
<http://storianaturale.comune.fe.it/modules/core/lib/d.php?c=cmAZ7>  
<http://storianaturale.comune.fe.it/824/citizen-science-raccolta-di-segnalazioni>
- News observations from “Mura di Ferrara” are progressively posted here:  
<https://www.inaturalist.org/places/mura-di-ferrara>

## Exploitation plans over the next 3 to 5 years

A key direction consists of a major support to scientific research and enhancement of educational and dissemination activities with sampling carried out by experts for updating fauna lists and assessing the state of conservation of populations. Targeted control of invasive exotic trees and shrubbery components, in particular *Ailanthus altissima* and *Broussonetia papyrifera*, through drastic actions (use of selective herbicides applied on the cut surfaces of plants), applied individually to each element. Control should take place gradually, while at the same time strengthening the native component: a modification of the vegetation should be pursued without substantially compromising the scenic appearance of greenery. The enhancement of ecological connections through the implementation of the ecological programmes is also foreseen in the Municipal Structural Plan.

## Other parks and gardens in the surrounding area

### Po River and Bianca island: A Natura 2000 site

To the north of the city of Ferrara flows the main branch of the river Po, the largest Italian river, 652 kilometres long, connecting the Alps to the Adriatic Sea. In the past, when its course was further south, the river had a great importance in the birth of Ferrara: the first area was in fact at the division of two delta branches, the Po of Volano and the Po of Primaro, before 1000 AD. The two branches still exist but have lost almost entirely their old relevance for trade. The river's main course moved into the existing situation as a result of disastrous river routes around 1200, and for

man-made corrections after the great earthquake of 1570. The Po River is a very important ecological corridor: the stretch of land close to Ferrara is rich of interesting habitats and species. For this reason the area has been included in the European ecological network of Natura 2000, aiming to protect biodiversity. On the right riverside of the Po river runs a bike path, a track that runs almost uninterrupted for about 120 km between Stellata and Gorino.



Near Ferrara, the Natura 2000 site touches several places of high naturalistic interest: the Bianca Island and a large white monumental pier accommodated in its spruce, the Po Park, the Vallelunga area, the Bosco Nuovo of Ravalle and the Woods of Porporana.

The Bianca Island is a 360 hectares island located in the Po river between the villages of Francolino and Pontelagoscuro. It is the closest place to the city of Ferrara. Some sources witness that it was already present in late medieval times, but the 1590 map of Este Countries by Marco Antonio Pasi, now kept at the University Library of Modena, does not draw it. An island, however, appears in the maps of Andrea Chiesa of 1762, but it is associated with the Venetian side (northern) of the Po. Finally, in the so-called "Napoleonic" map of 1814, a large sandy island appears at the centre of the river, with an area full of trees near to the Emilia side. It's probably this tree-lined core, where plant roots have consolidated the river sediment, which progressively has extended and maintained over time.

The Bianca Island is a rich place for flora and fauna: in 1986 the Province and the Municipality of Ferrara identified the area as an oasis for fauna protection. In 1991 its management was given to LIPU, the Italian Bird Protection League. Step by step, the oasis was extended to the areas adjacent to the island reaching the current 360 hectares. For several years, the LIPU organised guided tours on the island, however, after numerous high water events, it became increasingly difficult to run the tours and currently the visit service is suspended. When the Po river has poor water, the island connects different lands: in these periods, any access must be carried out in the highest respect of the flora and fauna that live in the oasis.

Hygrophilous species are present, such as white poplar, white willows and *Fraxinus oxycarpa*. There are also black poplars, elms, morus, some black alders, shrubbery. Amazing ephemeral plumes in periodically flooded areas and hedges complete a changing mosaic that is strongly influenced by human activities and the behaviour of the river. Sometimes screeches or sands are emerging, important for certain ephemeral vegetation and the nesting of some birds. Among the rare and threatened plant species, the presence of the *Leucojum aestivum*, which appears in the flooded edges together with *Carex elata*, must be mentioned. *Gratiola officinalis*, *Veronica anagallis-aquatica*, *Euphorbia palustris*, *Trapa natans*, *Wolffia arrhiza* and other species are in general rarefaction. Among the traceable species, a potential list of species to be protected include *Galium palustre*, *Tulipa sylvestris*, *Nymphaea alba* and at least three orchids: *Ophrys sphegodes*, *Neotinea tridentata*, and *Anacamptis morio*, reported in the regional Atlas of the protected flora. Among the very invasive exotic ones are the American *Sicyos angulatus* and the *Amorpha fruticosa*. The island houses a large white poplar (*Populus alba*) known locally as "La Pioppa" and listed among the monumental trees of Emilia-Romagna Region.

The forest of the island is made up of *Quercus robur*, *Morus alba*, *Morus nigra*, *Robinia pseudoacacia*, *Populus alba*, *Populus nigra*, *Ulmus minor*, *Salix alba*, i.e. the vegetation typical of the so-called "river forests". There are more than 70 species of birds on the island, including several *Ardeidae* (little egrets, green herons, etc.) nesting on trees. Among the amphibians, there are the green frog (*Pelophylax* spp.), the *Rana dalmatina*, the *Hyla intermedia*, the common toad (*Bufo bufo*) and the emerald toad (*Bufo balearicus*). Among the reptiles: the *Natrix natrix*, the *Lacerta bilineata*, the lizard (*Podarcis sicula*). There are also several turtles (*Emys orbicularis*).

Among the fourteen bird species of community interest, *Alcedo atthis*, *Nycticorax nycticorax*, *Egretta garzetta* and *Ixobrychis minutus* are nesting there. Other species use the area as a feeding site or stop during migrations following the breeding period. At least 20 migratory species are reported, most of them nesting within the site (*Cannabis Acrocephalus*, *Juncus torquilla*, *Streptopelia turtur*, *Upupa epops*) or close to it (e.g. *Hirundo rustica*, *Delichon urbicum* and *Apus apus* feed near and along the banks of the river. Many species of community interest could nest at the naked soils that emerge during the summertime, but they are negatively affected by excessive human pressure.

Compared to the Park of the Walls, this area is an extra-urban environment, less disturbed, definitely hygrophilous, with more natural features and the ability to accommodate a large number of protected species. The right bank of the river is visible from the walls of Ferrara, and the Natura 2000 site is connected to the walls itself by the large urban park and agricultural land located just between the city wall and the Po river. Cycling trails connect the Ferrara Walls to the Po River, through the village of Francolino.

## Po di Primaro and Traghetto basins: A Natura 2000 site

The Primaro river existed before the year 1000 BC, and the city of Ferrara was born where the river Po was divided into the two branches of the Po of Volano and of the Po of Primaro. It was probably the most important branch of the delta and hence its name ("primaro", i.e. "the main one"). Today Primaro Po does not reach the sea anymore: it ends with some large pipes against the river Reno at Traghetto, and its waters do not communicate with those of the Reno. In fact, it is a basin about 28 km long and 20 metres wide, driven by the Po of Volano, with almost standing waters, moved only by water drains for irrigation of fields in the summer and the water that drains from the surrounding terrains in autumn and winter. Its maximum depth is 4,5 m. Despite crossing a heavily anthropic region, it houses a rich fauna, with 24 species of nesting birds and other 32 migratory species, and also insects, amphibians and protected reptiles. Since 2006, its importance has been recognized, and it is listed within the ecological network of European Natura 2000 sites. With some minor differences, flora and fauna are similar to those already presented for the Po River and Bianca Island site. Primaro's Po is the western border of the UNESCO site "Città di Ferrara and its Delta". Its course begins near the southern part of the city wall. Its natural conditions are to be considered as intermediaries between those of the Park and those of the previous River Po Natura 2000 site. Its final sections are characterized by several Natura 2000 habitats including a xeric lawn with splendid orchid blooms.



## Eco-Balancing Area "Nutcracker"

Close to Ferrara there are two Areas of Ecological Balance (ARE), a kind of protected area typical of the Emilia-Romagna Region, established under the Regional Law 6/2005. As the name suggests, these are places that seek to compensate the effects of anthropization, i.e. they are places with natural elements embedded in heavily anthropic contexts. ARE Nutcracker is located in the residential suburbs east of the city, not far from the city walls. The area covers about 23 hectares, in an arboreal and shrubby zone spontaneously grown on abandoned land. There are trees as *Quercus robur*, *Populus alba*, *Salix alba*, *Cornus sanguinea*, *Rosa canina* and the exotic *Acer negundo* and *Robinia pseudoacacia*. The historical story of the ARE Nutcracker is quite



singular. The name was chosen in 2009 by citizens who, worried that the natural area spontaneously formed could be destroyed by urban expansion, created a committee that obtained the responsibility of protecting this site.



In the past, the area was intended to feed a local furnace. The clay needed for the production of the artefacts was taken from the surrounding land by digging large holes, which were then filled with the wastes. The use of furnace digging as a dump was usual in Ferrara since the Middle Ages. After World War II, landfills received not only inert materials, but also hazardous pollutants from the petrochemical plant located northwest of the city. This continued until the 1980s, when national laws started regulating disposal of waste. When the furnace was closed, the abandoned areas were gradually colonized by vegetation. They have been transformed into a residential area around 1990, by building new neighbourhoods composed mainly of terraced houses. The creation of ARE blocked further expansion, and a collection and removal system is now in place to prevent the polluting substances present in the waste from falling into the subsoil.

Within the ARE, there is a retting-ground, an artificial basin of stagnant water, used for hemp processing. In the second half of the twentieth century, with the decline and abandonment of this cultivation, many of these ponds were closed to recover agricultural and building land. In 2004, the Ecology Station of the Museum of Natural History of Ferrara made a census of naturalistic sites, including debris. The aquatic habitat of a retting-ground is not very deep and its waters are very rich in nutrients coming from adjacent cultivated fields. On the surface of the water it is easy to observe floating plants with small leaves, this is *Lemna* spp. and *Spirodela polyrrhiza*. When the light filters, it is possible to identify the plants rooted on the bottom, from which only flowers (*Myriophyllum spicatum*, *Potamogeton crispus*) emerge. The shores are rather steep, originally almost vertical. The predominant plant species in this area are: *Phragmites australis*, *Typha latifolia* and *Typha angustifolia*. Around the water mirror can coexist different tree species, spontaneous or planted. Among the most common we find: *Salix alba*, *Ulmus minor*, *Quercus robur* and *Populus nigra*. There are also numerous shrubs, including *Cornus sanguinea*, *Robus ulmifolius* and *Robus coesius*, *Sambucus nigra* and *Prunus spinosa*.

Many animal species find hospitality inside the retting-grounds. Alongside various unicellular organisms, there are sheltering gastropod molluscs of the *Viviparus*, *Stagnicola*, *Planorbis* and *Anodontus* bivalve species, aquatic insects such as dithicides and dragonflies, crustaceans such as *Palaemonetes antennarius* shrimp, isopods and aquatic amphipods. Many fishes are also present; frequent is the tench (*Tinca tinca*), the bream (*Abramis brama*), the bullhead catfish (*Ictalurus melas*) and the carp (*Cyprinus carpio*). There are also many amphibians and reptiles that use these areas for rest, feeding and reproduction: green frogs (*Pelophylax* group), common toad (*bufo bufo*) and emerald toad (*Bufo balearicus*), grass snake (*Natrix natrix*). The most rare, but not impossible, is the sight of newts (*Triturus carnifex* and *Lissotriton vulgaris*) and European turtle (*Emys orbicularis*). There are numerous birds nesting there: *Gallinula chloropus*, *Ardea cinerea*, *Nycticorax nycticorax* and *Anas platyrhynchos*. The *Myocastor coypus*, introduced by South America, is surely the most present mammal, while more rare is the *Arvicola terrestris*. A special case is represented by the red shrimp of Louisiana (*Procambarus clarkii*), originating in the sweet waters of the regions north of the Gulf of Mexico. This is a very easy to breed shrimp, resistant to disease and with a good taste, characteristics that facilitated its import and diffusion even in Europe. It has spread to all wetlands in the North-Centre Italy, thus severely threatening the indigenous communities of freshwater animals and plants. Sometimes the Exotic *Trachemys scripta* and *Lithobates catesbeianus* are also found, which are also very impacting on native ecosystems.

The Nutcracker area is surrounded by urban settlements, but it is only 800 meters from the City Walls. Compared to the walls area, it differs mainly due to the presence of permanent humid

environments. The part that can be used by the public is the one where the retting-ground is located. The area is easily accessible thanks to the cycling paths that depart from the valley along the city walls. It is used for dissemination and teaching activities by groups such as Volunteer Ecological Guards and the Didò Association.





## Villa Ghigi Park, Bologna

The Villa Ghigi Park is one of Bologna's best-known, large and charming green areas. It is located on the first Apennine reliefs of the city that, as written in the past by famous travellers, is literally lying in the hills. On the southern side of Bologna, the distance between the ring of circular avenues, following the track of the ancient Medieval walls (largely demolished in the early 1900s), and the slopes of Apennine is almost non-existent.



The park, which has an area of about 30 hectares, is the most important part of the wide estate that belonged to the Ghigi family for about a century. The most important character was Alessandro Ghigi (1895-1970), naturalist, Rector of the University of Bologna in the 1930s, and key figure of nature protection in Italy. The present park, partially received as a present and partly purchased by the City of Bologna after the death of Ghigi, was opened to the public in 1974. In those years, the Bologna administration, following a series of town planning decisions protecting the entire hilly area from new buildings, provided the city with a massive public green estate in the hilly area, acquiring historical holdings and farms close to the city (Villa Spada and San Pellegrino parks), or within the urban area (Paleotto, Fort Bandiera, Mount Paderno, Cavaioni, Calanchi di Sabbiano).

The Villa Ghigi is home to the Villa Ghigi Foundation, which has been managing the park for many years, thanks to an agreement with the Municipality of Bologna. The restoration and enrichment programme is aimed at exalting the exemplary botanical and landscaped features of the first hills of Bologna. Within thirty-five years, the Foundation has also promoted the park for many activities of environmental education and promotion, which began in the early 1980s and still continues today for schools, as well as for families and citizens.

### History of the park

Although the very first construction is more ancient, the villa in the today's park has been known since the early 1600s, when the building and the surrounding areas moved from the Volta family to the Earls of Selva, a branch of the noble and powerful Malvezzi family. In 1691, Abbot Roberto Malvezzi sold to the merchant Giacomo Zagnoni the property, that later was given to the Earls of Cavalca. During the Napoleon period, the estate, which in the late 18th century included seven farms, passed from the Cavalca to the Caldesi and then to the Chelotti family, and in 1840 to Giuseppe Dozza (the Gregorian Cadastral documents mention the names of Palazzo Dozza and Palazzino Dozza).



The estate is located in the lower and middle part of the northern slope of the Ronzano hill, which houses the ancient monastery of the "Fratelli Gaudenti", quoted by Dante Alighieri in the XVIII canto of the "Inferno". Then the monastery passed to the Dominicans and nowadays belongs to the

order of the Servants of Mary. It is located on the first hills of Bologna, in an area rich of historical buildings and memories, as well as literary references. The closest hill hosts the monastery of Osservanza and the neoclassical Villa Aldini, built in the Napoleon era and replacing the previous sanctuary of Madonna del Monte. Just in front it also lies the seventeenth-century Osservanza street, dotted with villas and other historic-architectural buildings.

In 1874 the property was purchased by the lawyer Callisto Ghigi, and was owned by his family until 1972. At these times the estate, consisting of Il Becco, the Palazzino, Tre Portoni, Stradelli and San Michele III (today's park includes only the first two), was extended for over 50 hectares. The Ghigi family also had a home in town and, as a tradition, moved to the hill in the summer season, going to "holiday" and to supervise the activities of the farms, entrusted to sharecropper families. Callisto Ghigi, enthusiast of botany and ornithology, is probably responsible of some decorative works with exotic trees and a group of beech trees in a particularly fresh spot of the area (the park is located at 200 m of altitude, while the beech in the Apennines Bolognese usually grows over 800 m).

One of the children of Callisto, Alessandro (1875-1970), while maintaining a residence in the city, lived in the villa for the rest of his life, cultivating from his infancy his naturalist vocation, certainly inspired and also supported by his father's passions. In 1922 Alessandro Ghigi obtained the Zoological Chair of the University of Bologna, of which he was subsequently Rector from 1930 to 1943. In the villa, he started breeding of exotic pigeons and pheasants, for which he prepared a series of aviaries (of which no more traces remain today). Founder and animator of protectionist associations and institutes for the study and conservation of fauna, flora and natural heritage, as well as the promotion of the teaching of natural sciences in schools, Alessandro Ghigi is one of the most active forerunner of nature protection in Italy: his activity in favour of the creation of new national parks and, more generally, for the protection of Italian natural beauty was particularly intense.



As evidence of his constant commitment to the preservation of Italian bird species, in 1936 Ghigi had promoted the creation, in his hilly property and adjacent areas, of an oasis for the protection of fauna within the hunting reserve "Tenuta di Monte Scalvato". Initially about ten acres wide, the wildlife protection oasis of Monte Scalvato, under the Ghigi's impulse, replaced the hunting reserve in 1947 with an area of 262 hectares, and in 1952 it expanded for more 21 hectares. It ceased to exist shortly after the Ghigi's death. In 1962, Ghigi, who had already begun to donate to the City of Bologna part of his estate, told to mayor Giuseppe Dozza: "The oasis has a remarkable naturalistic importance, as it includes the magnificent ravine of Montescalvato and Vincareta, the chestnut trees (unique in the municipality) of Ronzano, the Gaibola plaster natural beauty area, and it is susceptible, due to the decline of agriculture in the hill, of further developments and enlargements". The following year, Ghigi donated a part of the estate to the Municipality of Bologna, while continuing to live there, obtaining in return a building authorisation in the area at the beginning of the property, closer to via San Mamolo.

At his death in 1970, his heirs sold the villa and part of the remaining land to the municipal administration and two other farms (St. Michael III had been previously donated by Ghigi to the CNR - National Research Council, within his project on the oasis of fauna protection). The park, after some adjustments to the new function, was opened to the public in 1974. Since the death of Ghigi, the villa is no longer inhabited and is in a state of abandonment.



In 1980, the City of Bologna, in accordance with the request of some naturalistic associations, such as the Union of Bolognese Naturalists, particularly linked to the figure of Alessandro Ghigi, decided to establish a centre that had to have its seat in the villa, manage the park and to deal mainly with the protection of nature and didactics of natural sciences. The decisive imprint of the nascent Centro Villa Ghigi, which began operating in early 1982, was however given by its first president, Delfino Insolera (1920-1987). He had been director of the Zanichelli publishing house in the 1960s and possessed an original vision of natural and scientific education and experimentation, tested and refined throughout his life (before his experience at Zanichelli, of which he remained a lifelong consultant, he had worked for years at Olivetti, collaborating to important cultural initiatives promoted by Adriano Olivetti). The centre immediately launched a series of guided tours in the park for schools, that had an immediate success, and gathered a first group of young naturalists and graduates in similar disciplines with a strong attitude to educational aspects. They have formed the first nucleus of an operational staff that has been operational over the years, progressively expanding the activities of the centre. From more than thirty years, the Centre and then the Villa Ghigi Foundation are a reference point for environmental education and sustainability at regional level (the foundation is now a CEAS - Centre of Education for Sustainability of the Emilia-Romagna Region). They are also well-known for their educational publications about public green areas, natural parks, as well as surveys and projects developed for the City of Bologna and other public entities. More and more they have been increasing their managerial skills and capacity in the organization of environmental events and initiatives for citizens, involving not only the Villa Ghigi Park, but also other green areas in the territory of Bologna.



## The park nowadays

The Villa Ghigi Centre, although initiating and managing the educational activity in the same park since the early 1980s, always had its main premises in another important city park. Only after the creation of the Villa Ghigi Foundation in 2001, the headquarters could finally be transferred to Villa Ghigi Park, not in the mansion building, abandoned for almost fifty years and still waiting for recovery, but in a nearby farmhouse, the Palazzino, which has since then hosted the didactic structure (ground floor) and offices (first floor) of the foundation. Shortly after the transfer of the headquarters, the foundation also signed an agreement with the City of Bologna for the direct management of the green area and launched a careful and attentive programme of restoration and enrichment of the park, with the aim of enhancing its key characteristics of being an exemplary situation of the Bolognese hilly environment, and becoming a large open educational and educational laboratory for schools and citizens.



For the past fifteen years, the park has been the subject of accurate maintenance activities and a series of extraordinary interventions, such as: restoration of the drainage network; renovation of furnishings - while maintaining the sober typologies adopted in the 1970s; enriching the arboreal and shrubby heritage with new plantations of indigenous species; to a lesser ornamental extent, a substantial increase of the fruit trees of

traditional varieties that were already in the park for quantity and origin and represent one of the elements of excellence; a particular attention has been paid to its vineyards, gardens and fields, also for an educational function; redefine the physiognomy of certain angles and environments of the park; adopt a series of arrangements to promote the presence of fauna and its observation (artificial nests for birds and bats, a pond, etc.). Among the various interventions in the last few years, the creation of the Frutteto del Palazzino, realized in collaboration with ARPAE, the regional environmental agency, near the headquarters of the foundation. It now houses some thirty fruit plants derived from secular specimens of the region and represents an interesting showcase for the rural biodiversity of the Emilia-Romagna region. It also hosts an experimental station dedicated to the herbaceous species *Dictamnus albus*, realized in collaboration with the University of Bologna under a European project, and the numerous plantations of trees made by donations received from citizens and ordinary people through the project "A tree for you", which made it possible to make the renewal and increase of the park's natural heritage even faster.

For the schools and citizens of Bologna, the Villa Ghigi Park is now a popular and loved place. Visitors vary from those who attend it daily, to the classes that follow some educational experience, to the families who take advantage for their children of the summer centre run by the Foundation, as well as of laboratories, readings on nature and other extra-school activities, to citizens participating in guided walks and hikes in the park and in the surroundings, courses and other initiatives organized by the foundation throughout the year. In Summer 2017, the park was enriched with a new element. In the small custodian's house next to Villa Ghigi, a temporary refreshment point was set up. It was operational for about two months offering a series of small concerts, shows and meetings. From Spring 2018, once the renovation works are completed, the refreshment point will be permanently opened and will offer, in coordination with the activities of the Foundation, a calendar of cultural events throughout the year.

## Biodiversity features

The Villa Ghigi park is located on the left slope of a small valley known as Valverde, surrounded by a natural stream, the Rio Fontane, the tributary of the Aposa stream. Due to its variety of species, the park is a rather representative sample of the hilly landscape around Bologna. It captures in a limited space also very different aspects and a wide variety of species, increasing biodiversity of the green area, such as: plots no more cultivated and turned into meadows, sometimes coming back wild, often flanked by old fruit trees; wooded edges of various nature including a beech grove; a natural forest of ancient origin on the eastern border and some reforestation of



autochthonous tannins made in the first years after the opening to the public; a beautiful ornamental garden framing the villa where you can find the essences characteristic of the parks of the historic Bolognese dwellings; and, distributed in various areas of the park, monumental specimens of downy oak, the typical oak of the most dry and sunny areas on the Bolognese hills.

As far as the ancient rural areas, previously used for agricultural and productive purposes, the arable crops have largely been transformed into meadows, but there are still rows of fruit trees in the spots along the rocks. In many cases they are ancient cultivars typical of the Bolognese hills nowadays rare and at risk of extinction that constitute an important historic-testimonial and genetic heritage. Among them are plums, khaki, cherry, apples, quinces, pears, figs, pomegranates, apricots, almond and cherry plums also with specimens of considerable size, if not even secular. There are also numerous fruit trees scattered in the meadows, which in many cases are old planted remains, presenting a characteristic feature of the Bolognese countryside of a time, when the vines that were bred in a row of arable fields were supported by live guards (maples, elms, various kinds of fruit trees). In the park, there are also some old vineyards still cultivated,



entrusted with the management of vineyards expert, precious elements for the protection of the characters of the traditional rural landscape. These vineyards also have some form of farming used in the past, with rows mounted on horseback, i.e. transversely to the slope, and hosting ancient varieties typical of the Bolognese hills, including Angela, Paradisa and Saslà. Only one of the vineyards of the old estate near the Becco, abandoned for decades, has gradually been re-colonized by shrubs and young trees, and today has become a dense and intricate shrub where many wild animals find shelter and nurture in the park. After some years of valuable work for safeguarding and enhancing the heritage of the rural biodiversity of the park and the realization of the Palazzino Orchard, the relevant role of Villa Ghigi Foundation in the programmes launched by the Emilia-Romagna Region to counteract progressive genetic impoverishment in the agricultural field has been acknowledged. In this sense, the park can be considered an open-air museum dedicated to fruit cultivation in the Bolognese hills.

From the point of view of the most strictly natural plant cover, given the location and the environmental characteristics of the area, and thanks to the Foundation's choice to implement maintenance based on the principles of organic green management and sustainability criteria, the green areas offer several spots of interest. A relevant naturalistic value is given to the wood that marks the eastern border of the park, characterized by large specimens of black hornbeam, oak, ash and cherry, together with other shrubby species typical of hillside mesophilous forests.

Remarkable is the rich grassy undergrowth of the forested areas that in early spring are coloured by anemone blooms (*Anemone nemorosa*, *Anemone ranunculoides*), primrose, violet, elbows and lungs. Even lawns and slopes, which are sown in accordance with the biological cycle of the plants, give a rich blossoming of a variety of species, including those of rare and protected plants, such as orchids (*Orchis purpurea*, *Orchis morio*, *Orchis simia*, *Cephalanthera damasonium*), narcissus (*Narcissus poeticus*, *Narcissus tazetta*), tulips (*Tulipa oculis-solis*, *Tulipa sylvestris*) and Carthusian pinks (*Dianthus carthusianorum*, *Dianthus balbisii*).



A significant plant component of the park is given by its ornamental character that focuses particularly on the garden of the villa and emphasizes the fun and delight that this place has coated in the past - common to most of the historic manor houses of the first hills of Bologna - as well as the passion for the introduction of exotic plants and botanical curiosities typical of the past centuries. In the garden surrounding the villa, the trees and shrubs are distributed so as to form a dense cover, predominantly from evergreen trees, shadowing an articulated net of trails and some old stone sitting. They recognize a long line of old lime trees, some beautiful pines and some sizzling cypresses, while in the undergrowth there are many laurels, viburnum tinus and prunus laurocerasus. Noteworthy is an impressive cedar of the Himalayas (*Cedrus deodora*) that dominates the lawn in front of the building, implanted by Callisto Ghigi for the acquisition of the property. The specimen, unfortunately, had its top burned by a lightning some decades ago, while a second specimen was cut down a few years ago for plant protection purposes and today its trunk lays in the adjacent lawn. Another very remarkable tree kept in the lush garden is a female yew tree (*Taxus baccata*), an evergreen rather rare in the spontaneous state and often used in the past for ornamental purposes. The species is characterized by slow growth and, judging by the exceptional size of the specimen of the park, it could be one of the oldest plants in the green area, and surely the progenitor of the many spontaneous trees that grow spontaneously in the park. The foliage of a big photinia (*Photinia serratifolia*) shades the beautiful masonry staircase that connects the main street inside the park with the villa's plateau, while a large magnolia tree (*Magnolia grandiflora*) has been recently planted in the side of the building where once a mature exemplar of the same species grew in the centre of a formal lawn with chalk curbs (traditional building material of the Bolognese area which in the parks and historic gardens was commonly used for artefacts and decorations). In the garden of the villa, there are also truly majestic and

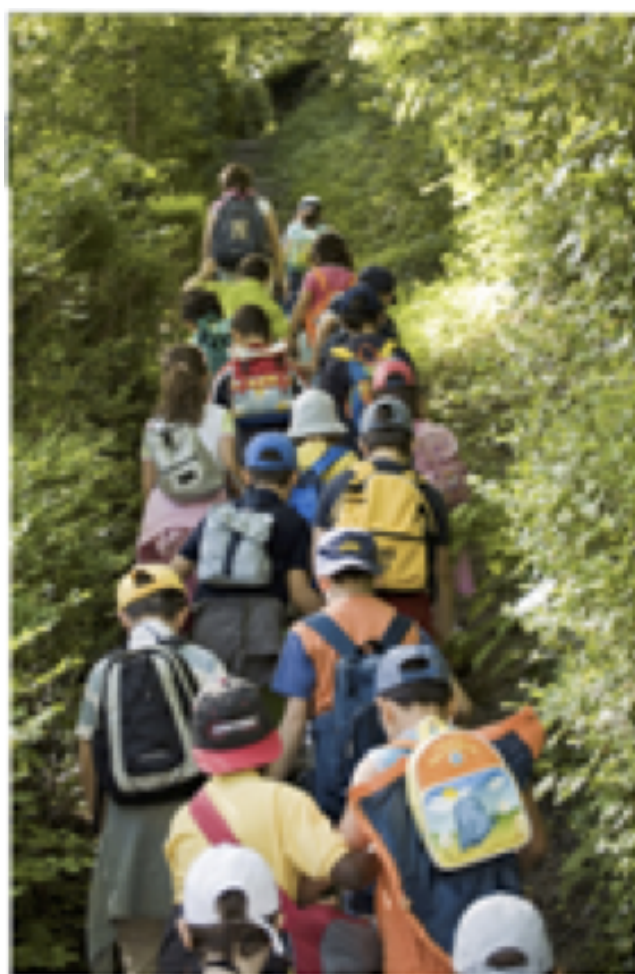


secular downy oak specimens, which also meet along the internal roadway of the green area (the widespread presence of oaks is already reported in the eighteenth century descriptions of the area).

From the plateau in front of the villa, you can enjoy a beautiful panoramic view of the centre of Bologna extending north to the plain and, in some particularly clear days, lets you see the profile of the Prealps. It is always surprising the extreme proximity to the city centre, compared to the quiet character of the park, isolated and away from traffic noise. The rich mosaic of environments of different nature that distinguish the park and its particular location projected towards the hilly area, favour the presence of a rich fauna, which is well suited to the typical hilly area. Along with species spread in city gardens and in cultivated fields, they are more characteristic of woods, shrubs, uncultivated and ravine areas. In the last few decades, it has been noted the remarkable increase of ungulates, such as roe deers and wild boars, that habitually attend the park and the surrounding areas, and the sporadic appearance of wolves, for years present in the first hills of Bologna and of which it is easier to see traces.

## Services offered by the park

The Villa Ghigi Park is a public green area belonging to the Municipality of Bologna, whose management has been entrusted to the Villa Ghigi Foundation for a period of fifteen years by a specific agreement, renewed every three years. Access to the park is free. Since the green area does not have a fence around the perimeter, there is no real opening and closing time. The park is usually frequented by the citizens, especially those living in the adjacent areas, and nature lovers who appreciate that the park is very close to the city. From thirty-five years the park is a very popular place for schoolchildren, who have an articulated educational programme that the Foundation enriches and renews every year. The park is also home to training courses for educators, teachers, environmental professionals and ordinary citizens. Educational activities are partly free and partly paid or carried out under projects funded by the municipal administration or other bodies. The Foundation also offers workshops and other extracurricular activities, especially on weekends. During summer holidays, it manages a small summer centre for children of 6-12 years old and offers other proposals for younger children and adolescents.



The park also proposes theme walks for citizens, in the context of initiatives funded by the Foundation, such as the programme “The hills outside the door”, which now reached the eleventh edition and each year proposes 15- 20 excursions to the hilly part of the Bolognese territory. Sky observation evenings have been organised in the last few years, in collaboration with the Astronomical Observatory of Bologna, together with night and evening excursions, children's books readings, literary events inspired by nature, theatre performances, open air concerts and other initiatives. With the opening of the refreshment point of the Custodian House next to Villa Ghigi, from Spring 2018, a set of events will regularly take place throughout the year. All these events are usually free. Educational and dissemination activities are usually organized and run by the staff of the Villa Ghigi Foundation, amounting to about ten people. Half of them are almost exclusively devoted to environmental education activities, supported by several part-time workers and a network of experts and specialists on various topics. The maintenance operations of the park are carried out by the Foundation, such as cleaning of the

green area, new plantations, restorations and other management issues, with the help of a social cooperative. For the park's supervision, however, the Foundation has signed a convention with voluntary ecological guards in Bologna, who carry out inspections in the park, especially during the weekends and to a lesser extent in other days.

## Typology of visitors

It is not easy to quantify the daily attendance of the park, which varies greatly depending on the seasons, the days of the week, the weather. Usually, the park is certainly not a crowded green area, as in Bologna the Giardini Margherita, which are flat, have very different characteristics and attractions, and are immediately adjacent to the historic centre, well served by buses and rich in parking in the surrounding streets. The Villa Ghigi Park, however, since its opening to the public, has always been able to count on a group of visitors who appreciate it for a variety of reasons. Since the 1980s it has become particularly known to schools and has, over the last fifteen years, progressively increase the number of people who usually access.



Early in the morning the park is visited by the owners of dogs, walking with their animals, by jogging athletes and people using the equipment for various exercises of a Healthy Path that was installed in the park about forty years ago, by mountain bikers and trekking enthusiasts (a portion of the park is crossed by the CAI 904 trail, which from the city ring road leads to the convent of Osservanza, Ronzano, to San Michele di Gaibola and ends in the Park of Monte Paderno). From March to October-November, on weekdays, at least 100-150 people a day access the park. When the weather in spring, summer and fall is fine, visitors can exceed 250-300 people, and at weekends can reach 400-500 units a day. In the winter season, the attendance obviously diminishes, but dogs and sports owners continue to attend the park. When the weather is fine, visitors tend to increase, as well as at the winter's end, when the park is used by those who love to capture the first sunbeams (the south facing wall of the Foundation's headquarters and other neighbouring areas are among the favourite places for late winter / early spring tanning lovers).

Guided walks are also popular and, in recent years, probably thanks to a stronger promotion through the social networks - which has been added to the traditional forms of communication (folders, newsletters, announcements on the Foundation's website, radio interviews and local TV) - participation has reached very high numbers. In the past, depending on the weather, walks collected on average 50-100 people, while more recently there were peaks of 200-250 people, that will probably force the Foundation to review the organization of the events (now free of charge and without reservation) and to increase and diversify the offer. Currently about dozen walks per



year in the park and in the surrounding areas are proposed, mainly in spring and fall, but other guided walks in other parts of the city have been also added. The evenings when star observation have been organised, have reached even higher peaks, with 400, 500 and even 600 people, who have reached and left the place of the event in a very easy way, supported by torches and mats. Also some concerts, readings, parties, local product markets have had similar numbers. These activities, with some good exceptions in different periods of the year (e.g. The Night of Researchers), are proposed especially during the summertime (June to September). The recent experiment of temporary opening of the refreshment area at the Custodian House, which ran from mid-June to mid-August during the event "The Echo of the First Hill", led to a further increase of



visitors to the park in a time usually less frequented (between 6:30 and 11:00 pm). During the two months of opening, about 50-100 people attended the events (projections, sound concerts, meetings, etc.).

With regard to the educational activities carried out in the park, at least one hundred classes are welcomed over the course of the year, mainly from primary and secondary schools, with a strong increase in the last years also of pre-primary and kindergartens, linked to the projects targeting the 0-6 years old groups. More occasional attendance of secondary school, both first and second degree, are also counted. These are numbers that do not represent, however, the complex of educational activities of the Foundation, which are also run in other green areas of the city, directly at school and in the classroom, as well as carrying out intense training activities (sometimes even in the park) and some adult courses (in the last years focused on garden therapy, for example).

Finally, extracurricular activities of the Foundation involve children and, often, parents. The labs are attended two Saturdays per month by a dozen children every time, and much higher are the numbers of people involved in the summer centre organized every year at the park, which accommodates 30 children per week for a total of 9-10 weeks between June and September.

### Educational activities, materials and tools

The educational activities carried out in the park are presented annually in a special section of the website of the Villa Ghigi Foundation:

(<http://www.fondazionevillaghigi.it/scuola/proposte-per-le-scuole-nel-parco-villa-ghigi/>) within the broader

section dedicated to school and extracurricular activities. Traditionally, the first activity proposed to classes is a guided tour of the park (free of charge for Bologna schools, from pre-primary to secondary schools). This first visit is an opportunity to discover the park, during a morning or even a full day, providing the children with the opportunity to face many different

themes and performances and a number of activities based on the student age, and on the interests, knowledge and expectations of the classes. After the free visit, organised in fall or winter, classes are proposed to return to the park for continuing the initial work or being engaged in different topics. These courses are organized on multiple meetings (typically 2 or 3), including a targeted programme, the use of special equipment, and the availability of a foundation operator all over the course of their experience, which can be developed for the whole school year or for several years. In more than thirty years of activity in the park, the Foundation sparked dozens and dozens of educational activities related to exploration, knowledge and care of the park. The opportunities offered are really innumerable: they depend on the age of children and teenagers, their past experience, the curiosity and expectations of the classes and are the result of the common work of teachers and practitioners.



Unfortunately this format, which for more than twenty years has been the most used, is now more difficult to follow due to the greater difficulty of classes to go to the park. The schools tend to make it less easy to go outdoors, at places other than the school building. For this reason, the Foundation has intensified in recent years, in collaboration with the City of Bologna and the University of Bologna, educational programmes targeting school educators and teachers, both in Bologna and in other school districts. The focus is now in bringing schools' attention closer to nature, rediscovering, updating and reviving environmental education and outdoor school experiences, as well as promoting outdoor education from the earliest age.

At the same time, the foundation has enriched its educational offer with new opportunities for schools to visit the park and, more generally, to improve the study of nature on the ground and increase attention to environmental issues. A very important initiative, expressly dedicated to the

pre-primary school and recently experienced with the 0-3 age group, is the project "The school in the woods", which aims to spend a few days with the children in a sort of total immersion in nature. In the programme, there are some routine activities that are repeated every day and help to increase the spirit of the group and the sense of confidence and security in the surrounding environment: the morning circle; the song of greeting to the forest; the silence in waiting for its answer; the sharing of thoughts, emotions, desires; the construction of a table set with natural elements collected in the morning; the circle of the "pappa" (dining); the sleep in the shade of the trees and so on.



Another proposal is to make an enchanting trip in an unfamiliar environment near the house, arriving at the park in the late afternoon and staying until the following morning to experience the arrival of the evening, discover unusual nature and some mysterious characteristics of the night, take a stroll to the early dawn, standing in the park in unusual, but full of charm, hours. Accommodation for the night is on mattresses, in a large room that used to be a barn. Other proposals offer an opportunity to go hiking with the class in the Villa Ghigi Park and in the surrounding areas, combining an approach to the hilly Bologna landscape with a series of information on historical, landscaping, urban development and evolution of the city. More initiatives also invite people to visit the park in the winter season, rich of curiosities such as bird-watching, rediscovering silence and listening to all the sounds of nature, using the park to understand more clearly what biodiversity, evolution and landscape mean, and, for newly formed classes at the beginning of the school year, to know each other better.

## Publications presenting the park

Italian language:

- Il Parco Villa Ghigi, Centro Villa Ghigi, leaflet, 1982
- Il Parco Villa Ghigi, in Parchi e giardini bolognesi (First issue and second issue), Comune di Bologna, edited by Centro Villa Ghigi, 18 leaflets annexed to la Repubblica newspaper, 1990 and 1992.
- Parco Villa Ghigi, in AA.VV., Parchi e giardini di Bologna: una guida al verde della città, Compositori, 1996
- Il Parco Villa Ghigi. Un grande laboratorio naturale in città, Fondazione Villa Ghigi, 2013
- Parchi e giardini della collina di Bologna, edited by Fondazione Villa Ghigi, Comune di Bologna, 2014, revised in 2017)



English language:

- Parks and Gardens in the Bologna hills, edited by Fondazione Villa Ghigi, Comune di Bologna, 2017

More information available at:

<https://www.fondazionevillaghigi.it/parco-villa-ghigi-bologna/>

## Exploitation plans over the next 3 to 5 years

Over the next few years, the Foundation intends to continue and intensify the programme of

restoration and enrichment of the Villa Ghigi Park, planting new trees and shrubs belonging to the native species of the Bolognese hills, as well as more fruit trees of the Bolognese tradition. The objective is to supplement and complete the fruit collection already present and, to a lesser extent, enrich the ornamental species and renew the park's diversity. The Foundation also intends to improve the management of a number of wooded areas, such as the beech grove - planted at the end of the nineteenth century - affected by aging and also changing climate conditions, with the goal to enrich them and gradually transform the park from a botanical point of view.

At the same time, the Foundation intends to include some elements that can make the experience of visiting the park more enjoyable, original and educative, for both schools and citizens: a house positioned on a great tree will make the visitor spend some time at the top, 10-15 meters from the ground; a small "living room", in a shady and quiet area of the park will allow to listen to birds singing; some equipped places will facilitate animal watching; a new traditional signpost system and an IT app about the park -accessible through smartphones - will enrich information provided to the user. thanks to some sensors located at sensitive points in the park characterized by important botanical presences, as well as at relevant buildings, artefacts, views and other landscapes.

The Foundation is also committed to finding new opportunities for an educational use of the park. This will be achieved through new activities for schools, training courses for teachers, information and awareness events for citizens, new ways to visit the park, even through a partial reorganization of the premises of the Foundation. Finally, thanks to the refreshment area at the custodian house near Villa Ghigi, the Foundation is planning a calendar of outdoor events, mainly in the evening but also during the day, devoted to: naturalistic and environmental themes; concerts; outdoor theatre performances; reading books and poems; videos, documentaries and films; gastronomic events dedicated to local products; thematic events.

## Other parks and gardens in the surrounding area

### Giardino della Montagnola (Montagnola Garden, montagnola=poor mountain)

The garden, with an extension of 6 hectares at the intersection between Independence street and Innerio street, was the first public garden in Bologna and it is today the only quite large green area located within the historic centre. According to tradition, this artificial hill, rising about ten meters over the surrounding area, was formed by the accumulation of the ruins of the Galliera fortress, built in 1330 and later destroyed and rebuilt five times over two centuries. However it is most likely due to the sixteenth-century habit of crowding in this place, close to the city wall circle, waste and remains of the excavations for building the city's senators' palaces.



From 1662 the area was addressed to public use, with a "Passeggiata dei carrelli", i.e. a walk on the hillside and in the adjacent large square of the former Campo di Marte (today's VIII August square). Partly covered by gardens and mulberry plants, the green space was equipped with avenues and a central square completed with large stone seats in the 1700s, to be used for amusements and competitions of various types.

Today's garden design, however, dates back to the early nineteenth century, when – according to the Napoleon's wish after visiting Bologna in June 1805 – it was revised according to the shape of the French gardens. The project of Giovanni Battista Martinetti, supported by Giosuè Scannagatta, director of the Botanical Garden, mapped the top of the hill with a circular avenue, from which four ways drive to the inner park, all of them surrounded by a double line of trees. Two wide avenues along the light slope descend to the square.



Since then, the garden has been home of great exhibitions, celebrations, sports and entertainment. In 1896 the panoramic entrance on Indipendenza street was realized, with the monumental staircase (the so-called Pincio) looking out to the old gate and the ruins of the ancient fortress of Galliera. The large staircase, designed by Tito Azzolini and Attilio Muggia, is decorated with reliefs and sculptures inspired by the city's history. Later, a circular bathtub was placed in the centre of the garden, enriched by the sculptures of Diego Sarti, who had created them for the Emilian Exhibition (1888) in the Giardini Margherita. In 1903, the Pasquale Rizzoli's monument dedicated to the battle of VIII August 1848 was placed at the foot of the garden. In 1912 the opening of Via Irnerio stated the separation between the square and the garden. After a period of relative abandonment, the garden was reopened in 1934, after a general resettlement involving also the construction of the balustrade towards VIII August square, the custodian's residence and the pavilion of the Direttissima (dedicated to the Bologna-Florence railway and now used by a school). After World War II, when all the watercourses in the surrounding area were closed together with the related activities, the city's appearance around the Montagnola completely changed. From 1951 to 1964, before the construction of the new fair ground in the northern area of Bologna, the garden hosted 14 editions of the Bologna's Campionaria Fair.

In the early 1970s the Montagnola was once more restored, but the nineteenth-century organisation of the garden was still preserved. Among the trees planted in the Napoleonic era, still survive some monumental trees, whose circumference exceeds four meters, and also the limes, leeks and horse chestnuts along the main road belong to the original green design, even if they are any more the same original trees.

Despite having lost the city's main garden palm since the end of the nineteenth century, in favour of Giardini Margherita - wider and more in tune with the tastes of that time, Montagnola still today is one of Bologna's main landmarks. Monumental entrances to the park are among the most traditional city views and, for those coming from the station, the large scale is one of the first spectacular images offered by Bologna. The garden, however, especially since the 1970s, perhaps due to its position close to the railway and bus stations, has experienced the usual problems of many urban gardens with evident signs of degradation, aging of structures, improper attendance, vandalism, abandonment of some hidden and isolated areas, etc.

To overcome these problems and give back life to a green spot among the most significant in the city, the City of Bologna has, in the XXI century, tested new ways of managing activities and initiatives, supported by some well-known associations present in the city. After a first trial lasting a few years, in 2010 the Montagnola Project was launched, born for the common will of two important Bolognese associations such as Arci Bologna and Antoniano (one civic and one catholic organisation). They were given the goal of returning to the city a park that was also a cultural and aggregation centre, a meeting place for common activities. The project, which is still ongoing, has involved several other associations: the two equipped facilities of the House of Colours and the Green Space offer to children and families, without neglecting other age groups, a rich calendar of cultural, educational and creative initiatives focused on multiculturalism and integration (courses, thematic events, celebrations, concerts, summer and winter camps, workshops and shows).

## Giardini Margherita (Queen Margaret gardens)

The park, housed in an area of about 25 hectares, is the most popular and beloved of Bologna. Designed by Ernesto Balbo Bertone Count of Sambuy (who in the previous years had worked in the Park of Valentino of Turin), it had the goal to equip Bologna with a large public green area, following the example of the major Italian and European cities at the end of nineteenth century. It was inaugurated in 1879 with the name of Passeggio Regina Margherita (in honour of the wife of King Umberto I). The development of the botanic plan was entrusted to Giuseppe Roda, professor of tree cultivation in Turin. Even today, the park still keeps much of its original design, inspired by the English romantic parks, with its tree-lined avenues, a pond encircled by fake plaster cliffs, vast

lawn surfaces, oak groves and other corners with remarkable trees with an exotic taste.



The green area is characterized by a wide array of decorative elements, largely introduced within the framework of the new settlement carried out in the mid-1980s. It also hosts several buildings, including a nineteenth-century house, built at the time of the park's construction, other artefacts formerly part of the Municipal buildings and, at the far end of the park, an Art Nouveau style house designed by Edoardo Collamarini to replace a previous wooden chalet. On the pond, where another typical chalet was once present, there is a heavily restored 1930s building, now housing a coffee bar with open-air spaces and a ballroom. Two schools are located in the garden areas unavailable to the public: the Fortuzzi's primary outdoor school, inaugurated in 1917, and the Molino Tamburi kindergarten, located in the building of the ancient Molino di Frino. The Giardini Margherita tennis club is also located in the southern area, which, after World War II, have been hosting some sport grounds.

Among the curious features of the park, on the southern side of the pond, a small open-air part of the ancient channel of Savena (excavated in 1176) still survives, as a memory of the waterways that once characterized the city. In this area, during the works for the construction of the park, an Etruscan burial ground was also discovered: the precious travertine tomb on the edge of the large central lawn comes from it. Near the entrance of Castiglione square, where the garden is bordered by the church of Santa Maria della Misericordia, on a small foothill, a section of pavement coming from the greatest decuman of the Roman time Bologna (found under Rizzoli street in the city centre) has been placed. Near the entrance of Porta Santo Stefano, during World War II was transferred the equestrian monument to Vittorio Emanuele II, made by Giulio Monteverde, until then located in Piazza Maggiore.

The Giardini Margherita have hosted and still host many events. Nine years after the inauguration, in particular, the park was closed for about a year and was reopened to the public on May 6, 1888, on the inaugural day of the most celebrated event that has ever taken place there: the Emilian Exhibition. For Bologna it was an important event, which also coincided with the celebrations for the eighth centennial of the University. The exhibition, whose purpose was to document the traditions and progress of the city and of the whole region in the agricultural, industrial and artistic fields, was almost entirely housed in the Passeggiata Regina Margherita, except the section dedicated to the fine arts, hosted in San Michele in Bosco, in the rooms of the former convent. During the closing year, many new pavilions with non traditional architecture, designed by Filippo Buriani, were created, as well as a steam-powered tramway connecting the garden with the San Michele in Bosco hill. The exhibition, which ended in November 1888, had a great success, was visited by about half a million people and represented an important moment for the development of Bologna, although the immediate economic result was rather negative and the municipal administration had to cover a significant part of the costs. The exhibition also had a strong impact on the park: considerable damage was caused by building and subsequent disassembling of the pavilions (among the various buildings only a chalet on the lake and a large circular fountain, subsequently demolished, were left. The sculptural groups of the fountain are now visible at the Montagnola).

Today, the Margherita gardens look like a large public park that retains a portion of landscape rebuilt in imitation of nature, as in the nineteenth century tradition. However they are strongly threatened by the constant presence of a large number of visitors and many activities that take place there. The large asphalted avenues separate large lawn areas, often crossed by paths linking the main road with areas where you can engage in sport activities. Bushes are few and hedges are located almost exclusively along the outer perimeter. Both inside and along the edges of the large meadows, trees are arranged according to groves of plants belonging to the same species, alternating with evergreen and deciduous leaves. Besides an oak and a holm-oak groves, still belonging to the original plants, one of the key park's feature, which has a scarce presence of

indigenous species, is the existence of a beautiful collection of exotic plants, often with extravagant names, as well as strange flowers and fruits. Today, the most characteristic species within the gardens, due to its wide spread all along the garden area, is certainly the horse chestnut, together with platanus trees, black nuts, Japanese pagoda trees, thorn trees, lime trees, pines and cedars. Among the most high-altitude species, reaching 30-40 m, a specimen of California sequoia, bald cypresses along the banks of the pond, several oak and cedar specimens are also to be mentioned.

Giardini Margherita are surely the most well-known park in Bologna, both from citizens and tourists visiting the city (in spring the park is often used as a stopover during the school trip). In summertime the number of visitors is often impressive and overwhelming even for such a large green area, due to the many events and initiatives of any kind organised here. Since many years, the City of Bologna has set rigid rules for carrying out activities and events, but in many occasions they still invade the park, where also sport equipment and games for children are located. The area of the Municipal Greenhouse, partly still to be recovered, has for some years hosted Kilowatt Summer, a summer event of great success, where it is possible to drink a cocktail, have a dinner, attend concerts, shows, films, cultural events.

### Parco dei Prati di Mugnano (Park of Mugnano grasses)

The park, included in the territory of Sasso Marconi but largely owned by the Municipality of Bologna, has an extension of about 110 hectares. It has a long and narrow shape, from north to south, bordered by the Reno river and some smaller watercourses. On the southern border, it overlooks the arenaceous areas of the Pliocene Contrafforte, between the peaks of Monte Mario and Rocca di Badolo. The entire park is included within the Site of Community Importance - Special Protection Zone "Pliocenico Contrafforte" and for half of its extension it is included in the Pliocene Contrafforte Natural Reserve (the largest in the Emilia-Romagna region).



Since the end of the 1700s, most of the greater area, including the one where the park is today located, belonged to the Cadestellano farm, which still after World War II was one of the major farms in the Sasso Marconi municipality. Just outside the boundaries of the park, there are some buildings whose names still relate to the company's history, such as the Ca 'di Stellano farmhouse and the prestigious Villa Francia, formerly known as Villa Ca' di Stellano or Palazzo di Mugnano. The latter was built in the second half of the eighteenth century in the place the ancient castle of Mugnano probably was located where in the Middle Age.

Towards the end of the 1960s, the Cadestellano company entered a serious crisis, that caused the selling of many areas in a fragmented way, for speculative purposes. In 1972, under the initiative of the workers who had remained in the company before its dissolution, the agricultural cooperative Vittorio Marzolini was born. In agreement with the municipal administrations of Bologna and Sasso Marconi, they bought the areas of the farm most suitable for agriculture. The Municipality of Bologna became owner of a large area, mainly including woods and meadows, to be used for public parks, in this way inaugurating a happy season of public hilly parks (in the same years the City of Bologna also launched the parks of Villa Ghigi, Paleotto, Mount Paderno, Cavaioni, Sabbiano, etc.). The cooperative started many works to recover areas for agriculture purposes, creating new vineyards, transforming some abandoned areas in pasture and arable land, restructuring old rural buildings. Today, however, the agricultural area of the cooperative has been abandoned since a long time: the new property, namely Manutencoop, has sold part of the

property to private customers, while it is committed to selling the remaining areas, which are intended for public green use, to the Municipality of Sasso Marconi as part of a more complex urban settlement which also covers other areas owned by the cooperative.

The traditional coppice woods of the park are mainly oak groves, with different appearances depending on the exposure of the slopes and the degree of soil moisture. In the southern exposition, we observe xerophilous oak trees, mainly downy oaks together with manna ashes. These areas, not too dense, are characterised by heavily illuminated undergrowth, covered by grasses and with many shrubs of cedar, *Coronilla emerus*, *Ligustrum*, *Erica*. The northern slopes are home to mesophilic forests, such as *Ostrya carpinifolia*, together with manna ashes, downy oaks, *Acer opalus*, *Laburnum anagyroides*, hazel tree, checker trees. Often present is also the chestnut tree, whose diffusion is closely related to old cultivation techniques that are now in disuse. Near the watercourses, in the coolest and most damp areas of the valleys, we can observe a hygrophilous vegetation consisting of white and black poplars, black alder trees, willows, with a great variety of moss, liverworts and ferns, including the *Adiantum capillus-veneris*, which often covers the most humid and shaded areas.

The park has still environmental, floristic and vegetational characteristics of great interest, with rare herbaceous and protected species, such as *Erythronium dens-canis*, scilla, snowdrops, red lily, martagon lily, spurge-laurel, various orchids (*Orchis purpurea*, *Orchis simia*, *Cephalanthera longifolia*, *Dactylorhiza maculata*, etc.). Specific microclimatic conditions also allow the presence of beeches, here below their usual altitude boundary, at the bottom of the wetlands valleys, or species with a predominant Mediterranean distribution, such as *Asparagus acutifolius*, guelder rose and *Acer monspessulanum* in the sunniest wooded areas. Also introduced during the historical periods is the pine, now present in the slopes of Monte Mario, above Battedizzo, in the south-western area of the park, near the Commenda. Very rich is fauna, including rare species, such as *Bombina pachypus*.

The park of Prati del Mugnano is visited for daily trips and picnics all over the year, mainly in spring and summer weekends, for hiking or mountain biking. It has still a great fascination, even if it is in a situation of progressive abandonment. In the last twenty years, all the agricultural activities in the surrounding areas have gradually disappeared and the buildings in the municipal property have been gradually abandoned: first the rural area of Piazza, with a large barn and then Mugnano di Sopra, where one building had been used since the 1970's as a restaurant with a sound success.

Since 2014, the City of Bologna entrusted the Villa Ghigi Foundation with the management of the green area. The Foundation started an accurate management programme and carried out some information and educational initiatives. It is clear, however, that any consideration about the future of the park must include also the recovery of buildings, currently not managed by the Foundation, using them for purposes coherent with the strategy for a revival of a green area with a great potential. In recent years, the so-called "Via degli Dei" (Gods route), a way connecting Bologna to Florence which can be done in 5-6 stages, is increasingly popular. The route goes right to the Mugnano Park and the core of Mugnano di Sopra could be one of the landmarks for hospitality in the Bolognese section, creating a restaurant and a hostel or bed and breakfast facility for the hikers.

## An additional video and photographic collection of the park:

- La scuola nel Bosco (The School in the Wood): <https://www.youtube.com/watch?v=ryqpCgg4vSw>





## Parks in Wieniec, Lubostroń, Kłóbka and Szafarnia

### Lubostroń

The palace and park complex in Lubostroń is located on the north-eastern border of Pałuki, 5 km from the city of Łabiszyn on the upper part of Noteć (Noteć Górna) and is considered one of the most beautiful classicism complexes in Poland. It consists of a classicism palace built in 1795-1800, outbuilding, stables, palace coach-house and other service buildings. The Lubostroń Palace pursues its institutional goals through:



- maintenance of the historical, architectural and natural values of the palace and park complex;
- protection, maintenance and care of movable and immovable cultural property in the possession of the Palace;
- development and implementation of cultural and artistic projects from various areas of art, in particular concerts, exhibitions and literary and theatre meetings;
- organization of scientific, educational and popularizing projects, in particular conferences, symposiums and lessons;
- organization of promotional and recreational events, including those popularizing equestrian and hunting traditions;
- organization of workshops and master classes in various fields of art;
- creation of a touristic offer that promotes the historical and architectural value of the palace and park complex as well as the artistic activity performed there;
- gathering of cultural goods and making collections available for tourists.

### Kłóbka

The Kłóbka village is located in the very centre of Poland, 6 km from the "Kowal" junction on the A1 motorway, in the vicinity of the national road number 91 (80 km north of Łódź and 25 km south of Włocławek).

The first written source about the village comes from 1325-1327. Before 1448, there was a fortalice in Kłóbka in the form of a "mansion on a mound behind a dike". It was functioning until the mid-17th century. To the present day a rampart of a scone known as the old hill fort (dawne grodzisko) has survived. Probably at the end of the 17th century a new manor was built on a neighbouring hill, east of the mound. Since the Middle Ages a watermill has been operating on the dam on the Lubieńka River. The historically shaped spatial layout with the church, hill fort and manorial foundations (also farm and park) located on the neighbouring hills and located below the watermill has survived to the present day. In 1993, the Kuyavian-Dobrzyn Ethnographic Park was opened to





the public. Since then, the open-air museum has been systematically expanded and will eventually include 40 buildings typical for the rural architecture of Kuyavian-Dobrzyn region.

## Szafarnia

Szafarnia is a village located in the Kujawsko-Pomorskie Voivodeship, in the Golub-Dobrzyń powiat, in the municipality Radomin. The name of the village probably exists already from the end of the 13th century, but in written sources it was mentioned for the first time in the Prussian tax register from 1772-1773, prepared after the first partition of Poland.



The most significant event, thanks to which Szafarnia appeared on the cultural map of Europe, was the moment when in the years 1824-1825 the local estate of family Dziewanowski became the holiday destination of Fryderyk Chopin (1810 -1849) - an outstanding Polish composer and pianist. The park itself was built before 1839, perhaps after 1792. After 1864 (or 1871) it was re-composed after the creation of a new mansion (among others, a new pond was dug). The area of the park is approx. 6 ha, including 0.3 ha of water. In the park in which the Palace in Szafarnia is located was built at the end of the 19th century. d. The estate in Szafarnia was located in the Sokołowska Primeval Forest, very rich in pines and oaks. This forest area evolved around the residential part of the park, in which there was a garden, orchards and two small ponds.

## History of the park

### Lubostroń

The classicist palace from 1795-1800, was built for Fryderyk Skórzewski by Stanisław Zawadzki, modelled on the renaissance Villa Rotonda by Andrea Palladio (XVI c.) from Vicenza, but also on Villa Trissino in Meledo and on the Merlini's Rabbit House (Królikarnia) in Warsaw. Next to the palace, there is a classicist outbuilding from the end of the 18th century called the "old manor", a classicist stable and a coach-house from the beginning of the 18th century and a complex of neo-gothic farm buildings from the second half of the 19th century.



### Kłóbka

The complex includes a manor from 1850 together with a landscape park with an area of 7.5 hectares and an adjacent open-air ethnographic museum (the Kuyavian-Dobrzyn Ethnographic Park - area: 13 ha, branch of the Museum of the Kuyavian-Dobrzyn Land in Włocławek), to which objects from historic architecture from the Kuyavian-Dobrzyn area are moved.

The park was founded at the end of the 19th century, when the owner of the estate was Stanisław Orpiszewski (died in 1908). The area of the park was 9 ha, including 0.8 ha of water. After the land reform, the manor and the park came under the control of the Municipality. In the northern

part of the park (where an orchard was established during the occupation in 1939-45), building lands were separated.

The Kuyavian-Dobrzyn Ethnographic Park is a place where you can see what the old buildings of the village looked like, traditional objects and tools and work of the residents of the region from the turn of the 19th and 20th centuries (until the 1930s). In the Kuyavian-Dobrzyn Ethnographic Park with an area of approximately 13 ha, there are almost 20 objects from the end of the 18th century, 19th and beginning of 20th century, which were mostly transferred from various villages of Kujawy and Ziemia Dobrzyńska. Representatives of rural architecture, both wooden and brick, made of clay or bricks typical of the region are represented. Ultimately, about 40 objects will be built in the museum. Most of all, homesteads with cottages, barns, pigsties, stables and granaries were moved and reconstructed. There were also old craft workshops: a forge, a potter's shop and a windmill „koźlak“, also a fire station, a tavern, a school with a classroom, a chancellery and a teacher's flat. Fences, wells, straw hives and cellars-dugouts as well as roadside shrines were also reconstructed. Care was also taken for home gardens with old varieties of flowers and traditional herbs, farmlands and orchards, as well as domestic and farm animals.

A special attraction is the raised and restored mansion of the family Orpiszewski from the mid-19th century, in which the painter Maria Orpiszewska of the family Wodziński (1819-1986) lived - the only fiancée of Fryderyk Chopin and the muse of Juliusz Słowacki. Inside there are her works: watercolours, drawings, gouaches, oil paintings. In 2018, a historic church moved from Brzeźno from the 18th century was opened in the Ethnographic Park, which originally had the form of an octagonal chapel, next to the Rościszewskis' court, the then owners of the village. Around 1789, the nave's body was added to it. As a result of the extension, an indoor church was built from the presbytery, the walls of which are the former chapel. In this shape, the church functioned until 1914. In the following years, the building's shape changed. The church was in use until 1996, when its functions gradually began to be taken over by the stone temple erected next to it. This contributed to the progressive destruction of the monument. Finally, on June 21, 2016, at the initiative of the local parish priest, the church was handed over to the museum in Włocławek with the friendly permission of the church authorities.

The building moved to Kłóbka was reconstructed in its original baroque shape. According to archival sources, the roofs were covered with aspen shingles, and the baroque turret with a bulbous helmet was covered with aspen bark. In the tower, the bell was probably hung from the original chapel, cast in the Fryderyk Beck's Toruń dome in 1729. The interior of the church was reconstructed in accordance with its state before the demolition. There is a gallery (a music choir) supported by two pillars and a wide facet with a painter's frieze with cartouches of Marian and Christ motifs under the ceiling. A representation of Mary Immaculate is placed on the ceiling surrounded by whirling clouds. The furnishings and interior decorations come from before the Second Vatican Council (1965), when the Mass was celebrated in the Tridentine rite, in Latin, and the priest, like the faithful, stood facing the altar.



## Szafarnia

The park was built before 1839, perhaps after 1792. After 1864 (or 1871) it was re-composed after the creation of a new mansion (among others, a new pond was dug). The area of the park is approx. 6 ha, including 0.3 ha of water. The Chopin Centre is working in Szafarnia since 1949. Its activity was inaugurated on September 25 with the "Chopin Festival". At that time, the Fryderyk Chopin Memorial Chamber was established and located in the Palace, under the patronage of workers from the nearby Sugar Factory in Ostrowit. In 1979, a fire broke out and the centre was

suspended. Many exhibits have been destroyed. In the years 1980-1988, a comprehensive renovation of the building was carried out. After the liquidation of the school in 2004, the Centre, now operated by the authorities of the Kuyavian-Pomeranian Voivodeship, took over the entire palace.

Fryderyk Chopin stayed at the estate of the family Dzięwanoski in the summer of 1824 and 1825. Today, it houses a centre of Chopin's culture and tradition, leading a lively museum, artistic and tourist activity. The Centre has a concert hall, a museum hall with exhibitions about Fryderyk Chopin's life and work, stylish exercise rooms and small lounges with pianos. Most likely, during Chopin's stay in Szafarnia, there was already a modest outbuilding on the right side of the palace preserved to this day.

## The park nowadays

### Lubostroń

In 1933 the palace in Lubostroń by the Ordinance of the President of Rzeczypospolitej was declared a monument. In 1939 the palace in Lubostroń furnished with valuable furniture, painting collection, porcelain, remarkable library collection shared the fate of thousands of other Polish palaces and manors. After the war it was the seat of Employees Holiday Fund which, although it wasn't the best solution, protected the palace from serious destruction. From 30 April 1994, the historic palace and park complex is the seat of a self-governing cultural institution. From 1 September 2009 to 31 December 2012, the Lubostroń Palace was a cultural institution co-hosted by the Self-government of the Kujawsko-Pomorskie Voivodeship and the self-government of the Powiat of Żnin. From 1 January 2013, the organizer of the cultural institution Pałac Lubostroń is the Kujawsko-Pomorskie Voivodeship.



### Kłóbka

The manor in Kłóbka, purchased in 2010 by the Kujawsko-Pomorskie Voivodeship, was the seat of the Orpiszewski family, who was a distinguished family in Polish history. Members of this family were participants in all Polish national uprisings. The ground floor part of the building was built after 1845. In the years 1882-1884, a two-storey palace wing was added to the manor, in which Maria Wodzińska Orpiszewska lived, the youthful love of Fryderyk Chopin.

The open-air museum is located on both sides of the Lubieńka river valley and consists of a former village and a park and manor complex formerly belonging to the Orpiszewski family. It covers the area of 13 ha, on which 18 objects of folk architecture are gathered in two sections: Kuyavian Land (two farms) and Dobrzyn Land (one farm). Wooden buildings with interior furnishings, traditional objects and tools show the everyday life of peasant families from the end of the 18th century to the 1930s. In the manor there is an exhibition of old interiors and a biographical and artistic exhibition of Maria Orpiszewska of the family Wodziński, fiancée of Fryderyk Chopin. A historical and natural education path is held in the historic park. On the site of the open-air museum there are: cottages, barns, livestock buildings (granaries, pigsties, stables, cellars, walls, wells and beehives) and craft workshops (forge, pottery, windmill, school, tavern, house, church, manor house).



## Szafarnia

The park covers an area of approx. 3 ha. It comes from the first half of the 19th century and is entered in the register of monuments. There are several musical accents in the form of metal sculptures. e.g. piano and double bass, clef. Weeping willow at the pond and wooden bridges, add a unique character to the park.

The Szafarnia estate was located in the area of the Sokołowska Forest rich in pines and oaks. This forest area evolved over time into a park in a residential area where there was a garden, orchards and two small ponds.

The park was probably built after 1792. After the construction of the new manor around 1864, the park underwent a rebuild and a new pond was buried, which has survived to this day. The area of the park is currently 3 ha, including 0.3 ha of water. Today, the park is a place where you can relax, break away from everyday life and relax in the silence of trees. The park around the manor is one of the most valuable objects of this type in the province because of the composition, preserved tree stand and diverse water system.

## Biodiversity features

In Szafarnia, the oldest trees in the park are oaks, small-leaved limes, common maples and tall ashes. Some of these trees remember Chopin's stay in Szafarnia. Nine specimens of trees in 1988 reached the dimensions required for natural monuments: three small-leaved limes (with cross-sections of 115, 105 and 105 cm) and five oaks (with a diameter in the diameter from 105 to 150 cm). Between them are "Lipa Chopina" and "Dzianie Dziewanowskie". The pond in the park has the shape of a piano.

Due to the need of further investigations the biodiversity features will be described in details within the chosen pilot area.



## Services offered by the park

### Lubostroń

Currently, the Palace runs a hotel and catering services. The hotel complex offers its guests 48 beds in the outbuilding (6 double rooms with bathrooms and 2 triple rooms), in the Main Palace (3 double apartments) and in the Hunting's Lodge (2 double rooms).

Weddings here also organized here. The natural conditions of the historical palace and park complex allow hosts to enjoy complete relax and free time. Beautiful avenues in the historic English park provide the possibility of carriage rides, bicycles, jogging or Nordic walking. The unique flora in the park along with secluded corners are suited perfectly for a peaceful and quiet rest.

Depending on the season, the Lubostroń Palace organizes park trips in a horse-drawn carriage, horse-drawn tram or sleighs. It is also possible to organize kayaking trips. The palace also has a very rich program of cultural events like concerts, culinary workshops and festivals. In the palace, after renovation completed in 1996, there is an exhibition of historic interiors, hotel suites,



conference rooms, and concerts are held in the rotunda. There is a hotel in the outhouse and a restaurant in the coach house. The main services offered include:

- Horse Racing Competition (in 2017 the 23rd competition took place, under the Honorary Patronage of the Marshal of the Kujawsko-Pomorskie Voivodeship Piotr Całbecki);
- organization of weddings, conferences
- hotels and catering services
- hemed walks
- kayaking trips, carriage rides, bonfires, festivals.

## Kłóbka

Manor in Kłóbka - permanent exhibition on the subject of the former residence and presentation of the paintings of Maria from family Wodziński. Ethnographic Park - visiting the open-air museum. One of the attractions are organized three times during the summer season folklore festivals under the title "From the life of the old village". Their aim is to show the customs, rituals and everyday life of the former Kuyavian village. During these meetings folklore groups and folk bands are performing, the craftsmen work in the workshops, etc. Folk artists are also invited, as well as producers of traditional food, from whom you can buy art products, folk handicrafts and regional food.

Interactive classes are also held for children throughout the year. They are a great opportunity to get acquainted with the old traditions, customs and craft of the Kuyavian region. An additional attraction to the open-air museum is organized every year: on the last Sunday of June, the first Sunday of August and the second Sunday of September folklore festivals "From the life of the old village". Traditional workshops are then organized, forgotten activities and customs. The regional dances are played to the rhythm of folk music. The main attraction of festivals is the thematic shows depicting old customs and rituals.

## Szafarnia

The centre mainly conducts concert activities. There are concerts of classical, jazz and entertainment music, which can be reached from Toruń by a special Chopin Bus. The Centre also conducts educational activities, under which various music programs devoted to the composer are organized with live music addressed to groups of young people, children and adults.

The Centre also hosts other artistic events such as exhibitions, meetings with authors, theatre performances, master classes, music workshops, a contest about Fryderyk Chopin, a recitation competition, as well as a prestigious 25-year-long International Chopin Piano Competition for Children and Adolescents. Visitors interested in the composer's character can increase their knowledge by using a rich library, audio guide and exhibitions.

Music broadcasts are amazing encounters with music, which in an interesting way can bring closer known and less known facts from the biography of the most outstanding Polish composer to the participants. Each of them is the next stage of exploring the knowledge about the composer and music in general, combined with the music of Fryderyk Chopin live performed by a pianist. Meetings are addressed to children, adolescents and adults.

Manor of the family Dziewanowski in Szafarnia has the option of renting some rooms. In the Chopin Centre, there are rooms that have been purposely adapted to the needs of companies, in particular in the field of business meetings, company banquets, etc. It is also possible to visit the Chopin Centre using an audio guide.

## Typology of visitors

Lubostroń: Target groups are individual recipients who want to organize a professional or a private event (e.g. wedding), individual and group tourists (accommodation and catering services). The Palace in Lubostroń is the place where many cultural meetings addressed to classical music enthusiasts, are organized. The offer can also be used by companies, organizing conferences or trainings in professionally adapted rooms.



Kłóbka: The offer of the Ethnographic Museum in Kłóbka is addressed primarily to schools and pre-school groups, offering participation in museum workshops and lessons. The aim of the visits is to broaden the knowledge of children and adolescents in the field of archaeology, ethnography, history, art and cultural heritage. The proposed topics of museum activities are related to the current school program, not only supplementing it, but also significantly expanding it. Meetings are conducted by the professional staff of the museum in an attractive scenery of permanent and temporary exhibitions. During the meetings students are allowed to contact with the exhibits, in some cases the lecturers use multimedia presentations. Manor of the family Orpiszewski in Kłóbka - an offer addressed to schools as well as individual and group tourists.

Szafarnia: The Chopin Centre in Szafarnia provides an extremely wide offer addressed to many target groups. Above all, however, the target groups are students of schools for whom international piano competitions or master classes are organized. Literary and artistic workshops as well as photographic and painting exhibitions, theatrical performances and many other activities such as lessons connected to visiting the Centre are also organized. The offer can also be used by companies, that want to organize conferences or trainings in professionally adapted rooms. Due to the specificity of the place, the target groups of the Chopin Centre can include national, as well as, foreign tourists (cultural tourism).

## Educational activities, materials and tools

### Lubostroń

- music events: regular "Palace Concerts" (last CCXXVI, October 22, 2017), concerts from the series "Palace to the children", extraordinary concerts, festivals, vocal courses;
- art exhibitions;
- events on the occasion of the European Heritage Days.

### Kłóbka:

- Museum lessons for school youth in the palace and ethnographic park
- Folklore meetings from the series "From the life of the old village", "Every Sunday, a Kuyavian is happy",
- "Evenings under the lime tree"

### Szafarnia:

- permanent concert activity (1-2 events per week)
- music broadcasts "Chopin for inquisitive" (7 themes of the program)
- International Chopin Piano Competition for Children and Adolescents in Szafarnia (the

competition has a 25-year tradition of continuous activity, it is the most important cultural event organized by the Chopin Centre in Szafarnia since 1992. Nearly a thousand participants from over forty countries have participated in it).

## Publications presenting the park

Lubostroń:

- Maciej Świątkowski, Katarzyna Balik, „Lubostroń. The history of the garden and park in the estate of the counts Skórzewski“ (Lubostroń. Historia ogrodu i parku w majątności hrabiów Skórzewskich). The National Heritage Institute 2017. Ed.: Palace in Lubostroń. <http://www.palac-lubostron.pl>



Kłóbka:

- <http://kujawsko-pomorskie.regiopedia.pl/wiki/zespol-palacowo-parkowy-w-lubostroiniu>

Szafarnia:

- <http://www.szafarnia.art.pl>

## Exploitation plans over the next 3 to 5 years

Lubostroń: As a result of the catastrophic storm from the 11-12 August 2017, which affected the park in Lubostroń, about 80% of the forest has been destroyed or damaged (total destruction of 1,288 trees, including 11 natural monuments) and the existence of birds and animals, including protected species is at risk: 14 species of plants, 17 species of birds and 8 species of animals. The loss of old trees has degraded the historical composition of the park, which currently requires reconstruction. In total, the destruction affected 46 historic parks in the North-Western part of the province.

Kłóbka: The park, after a recently completed revitalization project, will require ongoing care work

Szafarnia: The construction of an amphitheatre is planned.

## Other parks and gardens in the surrounding area

### Biskupin

Biskupin (about 30 km from Lubostroń) is a small village located in the Kujawsko-Pomorskie Voivodeship, in the Gniezno Lakeland, in the district of Żnin. The whole Pałuki is a picturesque land rich in forests, lakes and numerous monuments, extending between Greater Land (Wielkopolska), Pomeranian (Pomorze) and Kuyavian (Kujawy) Voivodeships. The Piastowski Trail crosses this route connecting Żnin, Venice, Biskupin and Gasawa. The section of this trail can be visited by a narrow-gauge train, popularly known as the Żnin Choo-Choo (Ciuchcia Żnińska), which passes over the Biskupin Lake, near the reconstructed Slavic settlement.

Sightseeing facilities: Biskupin is the biggest historical and tourist attraction of Pałuki. The famous settlement was discovered in 1933 by a local teacher, Walenty Szwajcer. Before the war, excavation on a large scale was carried out in Biskupin, of a fortified settlement of Lusatian culture from 2700 years ago. They were called "the Polish Pompeii". The archaeological research, begun in 1934 and with a war-break, it lasted until 1974. Within 35 seasons, 70% of the area was exposed and the rest was examined by means of a probe. At the moment, in the archaeological reserve in Biskupin, you



can see relics of excavations, reconstructions and an exhibition of finds from the Neolithic to the middle Ages. The modern furnished exhibition pavilion in an accessible way enables visitors to get acquainted with the history of Biskupin and the Pałuki Region with a history of 10,000 years. Here are arranged demonstrations of ancient techniques of making everyday objects, weapons, boats, etc. The largest such presentation is the annual Archaeological Festival organized in September. As part of experimental archaeology, breeding of Polish horses, goats, heather sheep and some plants grown in the Lusatian town. Biskupin visits about 300,000 people annually. For the transient merits of archaeology and history in Poland, the Biskupin Museum received the Monument of History from President Wałęsa. In 2007, the museum awarded the European Union medal "Europa Nostra" for achievements in the field of cultivating cultural heritage. The settlements willow barking courses, workshops for storing dates from tree trunks and forging arrowheads take place in the settlement. Visitors have the opportunity to watch demonstrations of underwater archaeologists and conservators of old weapons, see presentations of ancient and early medieval crafts and fights, listen to concerts of music from distant ages. Every year, there is also an archaeological festival, which is one of the largest events of this type in Europe. Its organizers are the Archaeological Museum in Biskupin and the Institute of Archaeology of the University of Warsaw.

Biskupin is located within the protected area of Jeziora Żnińskie, which covers an area of 9017 ha and includes two systems of lake gutters located within the borders of the Gniezno Lakeland. The western gutter serves as an area for protection for cultural and historical reasons (Biskupin, Gąsawa, Wenecja, Żnin). In the area of protected landscape there is a fragment of the city of Żnin, which is an integral part of the lake gutter.

## Wieniec

Wieniec is a village in the Kujawsko-Pomorskie Voivodeship, in the powiat of Włocławek and in the Kuyavian Brześć municipality. (About 100 km from Lubostroń, 40 km from Kłóbka and 80 km from Szafarnia). The first mention of the village is dated at 1252. Wieniec was mentioned in the privilege of Kazimierz I Kujawski, son of Konrad I of Mazovia, father of Władysław Łokietek. The mill, from which taxes were paid to the bishops of Włocławek, the formal owners of this and many other places, was located on the Zgłowiączka River that was flowing through the village.



In 1380, the parish in Wieniec was founded. In the end of 18th century, when the church property was confiscated by the Prussian authorities, the town came into the hands of general von Hohenlohe-Ingelfingen (in his family were great masters of the Teutonic Order, bishops and politicians). Later, the estate was bought by Józef Dąbski. The next owner was the Międzyński



family, who built the so called Old Palace in the English neo-Gothic style, which was later designated as the outbuilding. You can see it in the park behind the New Palace. Its turret is still decorated with a medallion with a depiction of Władysław Łokietek.

In 1868, the property was purchased by Leopold Kronenberg - banker, industrialist, politician and publisher from Warsaw with Jewish roots. He made his fortune on tobacco (a factory in Warsaw) and banking (in 1870 he founded Bank Handlowy). The present palace was built from the Kronenberg funds in 1875, as well as the road from Wieniec to Brzezina and the bridge on Zgłowiączka. After his death in 1878, his sons Stanisław and Leopold Julian took over the estate in Wieniec. After the Second World War, the palace was transformed into an anti-TB hospital. Then, for 20 years, until 2006 there was a pulmonologist and lung diseases department, belonging to the provincial hospital in Włocławek. Today, only information boards remain and the building is empty. The property is fenced and guarded by a porter.

Eclectic palace. The building was designed by architect Artur Goebel. The palace and park complex consists of the new and the old palace, a guard's house with an entry gate, a stable, a barn and a granary. The palace is made of bricks, it's a two-story building, founded on the plan of an elongated rectangle. The main entrance is a pseudorisalit located in the axis of the object, preceded by a one-speed staircase and an honorary courtyard. On both sides of the main body there are two three-storey, alcove wings. To the left wing was added a four-storey tower, covered with a pointed roof with a flag. The wings were covered with tent roofs and the body with a flat gable roof. The ground floor of the residence is rusticated and the elevations have rich sculptural decorations. On the west side of the palace was a swimming pool with a fountain.



Park: Landscape park established in the first half of the 19th century with an area of 8ha. The park is unmaintained and is growing wild- paths and alleys are covered in weeds and only old trees indicate that they were planted with the intention to create, together with the buildings, a harmonious landscape. There are over 1,400 trees and bushes among which the most impressive ones are: plane trees, chestnut trees and larches. It was redesigned in 1904. It is the work of Walerian Kronenberg- leading creator of parks and gardens in Poland at the turn of the 19th and 20th century, who founded more than 300 parks and gardens in Poland.



## Łańcut Park, Rzeszów

The castle complex in Łańcut is one of the most visited places in the Podkarpackie Voivodeship. The park with a wealth of old, monumental exotic trees is really worth to see. The founders of the castle park in Łańcut were Stanisław and Izabela Lubomirski, the owners of the castle. The park was established at the turn of the 18th and 19th centuries. The total area of the park is 36.3 ha, out of which about 24 hectares are green areas, formed over the centuries. The park is divided into two parts: the inner and the outside parks. The inner park is located between the castle and the moat and the outside park is located outside the moat on the west side of the castle. In the internal park you can see the Rose Garden and the Italian Garden, both full of beautiful plants. In the outside park there is placed an orangery, coach house, barns, riding hall and the Small Romantic Castle. In the park there are also numerous statues, pergolas and a marble fountain. There are also many species of trees, as well as very old and rare species of tulip trees, Chinese juniper, some kind of the Platanus gender trees and Ginkgo trees.



Łańcut is located in the Podkarpackie Voivodeship, 16 kilometres east of Rzeszów, on the outskirts of the Dynów Piedmont. Łańcut is a city in Podkarpackie Voivodeship, on the border of Rzeszów Piedmont and Podkarpacie Pradolina. It is the seat of the city and municipality authorities. The area of the city runs through the A4 motorway, what connects the west of Europe with Ukraine. The number of inhabitants is about 18.000.

### History of the park

The history of Łańcut stretches back to the early Middle Ages, as it was founded as a town in 1349 under King Casimir the Great. The major landowning families in Łańcut were, successively, the Pilecki's, Stadnicki's, Lubomirski's and the Potocki's (more history of the town on website: [www.lancut.pl](http://www.lancut.pl)).

The first residence of the "Łańcut dukes" was located on a hill in the northern part of the town. The present castle was built for Stanisław Lubomirski in 1629-1642. At that time it was a modern, "palazzo in fortezza" type of residence, consisting of living quarter with donjons at the corners, surrounded by bastion fortifications. The builders included Maciej Trapola, Krzysztof Mieroszewski, Tylman from Gameren and Giovanni Battista Falconi. In the second half of the 18th century, the then current owner of Łańcut, Izabela Lubomirska of the Czartoryski family, converted the fortress into palace-park complex. She employed outstanding artists such as Szymon Bogumił Zug, Jan Christian Kamsetzer, Christian Piotr Aigner, Fryderyk Bauman and Vincenzo Brenna.



The most important changes were made to the layout and equipment of the castle, adapting them

to the needs of the fashion of the times. The palace was filled with excellent works of art. In the 1870s, work started to create the park surrounding the castle. After levelling the embankments and re-aligning the road surrounding the moat, lime-trees were planted out creating an avenue. At the end of 18th century, Łańcut was one of the greatest residences in Poland. It featured an active musical and theatrical life, with many famous guests staying. In 1816, after Princess Izabela Lubomirska's death, the whole estate became a property of her grandson Alfred Potocki the First, who in 1830 created electoral law in Łańcut. His son, Alfred Józef the Second, was tightly connected with the ruling house of Habsburgs. He rarely visited Łańcut, and so the castle together with the park fell into disuse. After Alfred the Second's death, Łańcut moved into Roman Potocki's hands, who together with his wife, Elżbieta from the Radziwiłł family, returned it to its former splendour. From 1889 to 1911, the castle was renovated and reconstructed, the works led by French architect Armand Beaugue and Italian draughtsman Albert Pio.

The reconstruction included all floors, and water supply, sewerage and electrical systems were installed throughout the castle. Most of the present interiors were created at that time. The elevations were converted into French neo-baroque style. Works in the park started in 1890 and continued for 14 years. It was twice enlarged and surrounded fenced in. An Italian garden was created near eastern side of the castle, while a rose garden was arranged on the southern side of the Orangery. After this thorough reconstruction and modernisation, the Łańcut palace-park complex became one of the most luxurious residences in the continental Europe, and archdukes such Rudolf and Frank Ferdinand were frequent guests. The residence was visited by many representatives of famous aristocratic dynasties and famous diplomats. At the



beginning of 20th century Łańcut electoral law was in fifth place, in respect of its area, in Poland. The next Lord of the Manor in Łańcut, from 1915, was Alfred Potocki the Third. In 1920s the central heating was modernized, and a bathing suite installed in underground rooms. Łańcut Castle became a place for social meetings. The castle was visited by representatives of royal dynasties, Polish and foreign aristocracy and politicians. These included Rumanian King Ferdinand together with his wife, and George the Duke of Kent. In 1944 Potocki had to leave Łańcut. He settled in Switzerland, where he died in 1958.

The beginning of the story of the historic park in Łańcut dates back to the beginning of the 18th and 19th centuries, when Stanisław Lubomirski and his wife Izabela from Czartoryski lived. Then the garden was the centre of the court life. A number of garden buildings, such as orangery and glorietta, have been built in the park. Around the castle there is a small but beautiful and filled with many species of plants, flowers garden. Some changes were made when Roman and Elżbieta Potocki became the owners of the Łańcut city. They rebuilt the castle and the park surrounding it. Intensive activities of many gardeners that lasted for few years, changed the compositional shape a lot. Then the park has been divided into two parts – inner park with the Rose Garden, Italian Garden and Perennial garden in it, and the outsider park - outside the moat east of the castle. This arrangement with minor changes remained until 1944, when the castle, together with part of the park was taken over by the Ministry of Culture and Art. It is still held in good form and condition.

## The park nowadays

Łańcut Castle is one of the most beautiful and best-preserved magnate residences in Poland. It is included in the group of international monuments. In 2005 the castle was recognized by the



President of the Republic of Poland as a history monument. The castle is famous for its excellent residential interiors and horse-drawn carriages. The palace complex is surrounded by an old, picturesque park, where numerous pavilions and farm buildings rise, once connected with the daily life of the Łańcut mansion. Any gardening work is about to faithfully reproduce the arrangement composition and composition of plant species from the early 20th century. The park is famous for its richness of tree species, among which there are precious specimens from the times of Princess Izabela Lubomirska. In the park you can find precious, old, monumental species of exotic plants. In the landscape part of the park there are many old trees. They look beautiful in the autumn when their leaves change colour to golden and red colour. In this part of the garden most often grow: white chestnut (*Aesculus hippocastanum*), black locust (*Robinia pseudoacacia*), red oak (*Quercus rubra*), Douglas fir (*Pseudotsuga menziesii*) and ashlar maple (*Acer negundo*).



## Biodiversity features

In the park you can find precious, old, monumental species of exotic plants.







## Orchids in Łańcut

The park has always been famous for growing orchids. After a long break caused by the destruction of crops and greenhouses, the orchard was reactivated in the summer of 2008. It contains both modern crossbreeds bred by man and botanical orchids, suitable for the environment - shaped without human intervention- as well as historical species and varieties from the pre-war Potocki collection.



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The most effective and blooming plants that are in the blooming phase, are put to the exhibition greenhouse. For the rest of the year they are grown in one of the three greenhouses, under the conditions of the climate zone of origin.



## Services offered by the park

The park offers the following services: visit to the outdoor park, to the orchard and the orangery. Walking by carriage and sleigh - the castle organizes, only before the darkness, a ride with a stylish sled, suitable for weather conditions. The walking route leads through the streets of Łańcut and part of the park. Tickets for the ride can be purchased at the Carriage.

## Typology of visitors

- individual visitors – individual visitors do not need to book the time
- trips – there cannot be less than 11 and more than 25 people. The reservation of the entering of the museum exhibitions is obligatory
- school groups.

The museum provides sightseeing of the museum without a tour guide:

- the castle from 12.00 p.m. to 4.00 p.m.
- stables and coaches from 1.00 p.m. to 5.00 p.m.
- history of the City (including: 10th Rifle Regiment) from 12:00 pm to 4.00 pm.

Trips with a tour guide are made in Polish. It is also possible to visit major museum exhibitions with a sign language guide. Museum exhibitions can also be guided in the following languages: English, German, French, Russian. Guiding in the above languages depends on the availability of the guide. The wish for a trip guided in different language than Polish should be announced at least 7 days before the arrival. Only guided tour guides are allowed to tour the museum's exhibits.

## Educational activities, materials and tools

Currently there are no formal educational activities. However the Castle participates in the programme announced by the Ministry of Culture and National Heritage "Museum for a zloty". Currently tickets for 1PLN are available for children and teenagers between 7-16 years old. Every year a music festival is organised at the Castle Park. Łańcut Castle resounded with music in the first decades of the eighteenth century, thanks to the owners of the Castle of the Lubomirskis family, and later the Potockis family. The centuries-old musical tradition at the Łańcut Castle were revived in 1961. In June the same year, the State Philharmonic in Rzeszow and its director, Janusz Ambros, inaugurated the first "Days of Chamber Music", transformed in 1981 by the then artistic director Boguslaw Kaczynski into the "Łańcut Music Festival" and later "Music Festival in Łańcut," which became an event of a deserved world-renown and "now the most famous Festival in Poland" – in the words of Krzysztof Penderecki.



The Festival formula includes the recitals of prominent singers and instrumentalists, celebrities, and concerts of renowned orchestras and chamber bands, as well as scientific sessions and music workshops. The concerts within the Festival are held in various places, which harmonize with the nature of the presented works: ballroom of the Łańcut Castle Museum, Castle Park, where outdoor concerts are held, Basilica of the Bernardine Fathers in Lezajsk, Łańcut Synagogue and the Podkarpacka Philharmonic Hall. During the decades of the Festival history, many masterpieces of the world music literature, starting from early music ending up on contemporary music; instrumental works, vocal, vocal and instrumental works, such as oratorios and opera, with special emphasis on Polish music were performed. The broad spectrum of festival concerts also included jazz and projects standing on the borderline of different species of art. Each concert is seasoned with the word of eminent musicologists who supplement program with valuable commentaries.

The reputation of the Music Festival in Łańcut can be proven by excellent names of the artists who have honoured it with their presence. They include, e.g.: Adam Harasiewicz, Rafał Blechacz, Joseph Malovany, Mischa Maisky, Shlomo Minz, Andreas Scholl, legendary tenor – Jose Carreras, Kate Liu or Julian Rachlin. The festival is very popular and each time attracts crowds of several thousand listeners. Despite the many changes that have passed through the 56 years of its existence, it still retains the character of the music festival reaching an even wider audience. A constant and invaluable asset of the Festival remains a unique atmosphere of Łańcut castle and

its surroundings, allowing listeners move to the world of beauty and musical culture based on the centuries-old tradition. In maintaining the continuity and high artistic level of the Music Festival in Łańcut help our Donors and music lovers – offering it financial support, kindness and friendship. Every edition of the Music Festival in Łańcut, is also an important new written card in the cultural history of Podkarpackie Region.

## Publications presenting the park

- Website - <https://www.zamek-lancut.pl/pl/> - Published in 4 languages
- Aldona Cholewianka-Kruszyńska, Wit Karol Wojtowicz, Maciej Loba, Tadeusz Stefan Jaroszewski „Między Łańcutem a Antoninami”
- Aldona Cholewianka-Kruszyńska „Polowania u Potockich. Łańcut i Antoniny.”
- „Wozownia Łańcut” – folder
- „Muzeum – Zamek w Łańcut” – W i W System Warszawa
- Małgorzata Sady we współpracy z The Quay Brothers – „Inwentorium śladów. Jan Potocki na Zamku w Łańcut”
- „Zamek Łańcut - Przewodnik ilustrowany” – Foto Liner s.c. Warszawa – Publisher in 4 languages
- Opracowanie zbiorowe - „Łańcut - Dzieje rezydencji Potockich” – Publisher in Polish and English
- Adam Bujak „ŁańcutZamek, Powozownia, Park/Castle, Coach-House, Park” – Publisher in 3 languages, Polish and English, German
- Maria Nitkiewicz; Helena Maria Grad „Łańcut w starej pocztówce i fotografii” – Publisher only in Polish language



## Exploitation plans over the next 3 to 5 years

The complex has received EU funding for several renovations including the creation of a basement bath. The multimillion-dollar project also includes renovation of the facade of the castle and park alleys. The roof of the castle courtyard and monitoring in the park are also something new there. The project includes extensive conservation and restoration work for the castle itself as well as the surrounding historic park. The works will include renovation and maintenance of the façade including window and door joinery. The window joinery was recently revitalized in the 1950s of XX century. Those activities will also include fortifications, park alleys, small park architecture: the Kordegarda, the Concierge, the Elizin Pavilion, the pedestal under the statue of the Virgin Mary from 1852, the South Bridge, the Wood Pergola and the external fence along with the gates.

The park is about 32 hectares, and about 3 hectares of it are alleys. Where possible, restoration of the historic features of the alleyways will be possible through the elaboration of an old layout, from the year. Additional news, within the framework of this project will be a monitoring system in the park, protecting from damage, vandalism and theft. There is also going to be installed the Wi-Fi.

The project also involves the construction of a canopy in the inner courtyard of the castle, which will allow for the opening of cafes and a small catering centre serving small meals and refreshments surrounded by beautiful architecture. The project of the Castle-Museum in Łańcut will run until the end of 2019.



## Other parks and gardens in the surrounding area

### Castle and Park in Krasiczyn

The pride of Krasiczyn castle is its historic park. In its oldest parts, the park dates back to the 17th century, but its current style (English Landscape Garden) was introduced by Sapieha family.

Among its most picturesque elements are two beautiful ponds. The bigger Upper Pond with a small island is located in the southern part of the park. Lower Pond is almost next to the castle. Alleys running through the whole park and intersecting each other are full of rare species of trees, shrubs and flowers. Both old trees and younger plantations are perfectly integrated into the natural landscape of the park, impressive at any time of the year. In winter, the trees and shrubs covered with hoar-frost create a magical atmosphere. In the spring, when nature comes to life, the park delights visitors with its greenery. During the summer, the trees provide a natural and full of fragrance shelter from the sun. In autumn, the trees create a unique palette of colours shimmering in the sun, bringing to mind an impressionist painting.



Among other species, the park is adorned with a colourful group of Eurasian smoke trees, as well as an American tulip tree and Kobushi Magnolia - breath-taking during the flowering period. Nearby the renaissance castle grows a London plane and a beautiful specimen of ginkgo biloba. According to a local tradition, the aged ginkgo is blessed with magical properties – if one walks around it three times, their wish will come true.

Particularly noteworthy are the family trees - oaks and lindens planted by princes Sapieha to celebrate births of their children. The park is also a home for various species of birds. Their singing makes long walks through the park even more enjoyable.

The extensive landscape garden surrounding the castle was laid out by the Sapieha family from the mid-nineteenth century to the 30s of the 20th century. In its compositions there are lime plants - former staves - relics of the earlier geometrical foundations, created as castle gardens, were reconstructed simultaneously with the rebuilding of the fortress into a Renaissance residence. The oldest oaks - remnants of the former natural oak become from the period preceding the location of the fortress. These ancient trees are the dominant group of trees. Another significant element in the composition of the garden is the western pond originating from the premise. During the reconstruction of the garden it gained a slightly more varied, irregular shape with a tip and an island in the middle. Undoubtedly, the beauty of it is added to it growing white water lily, commonly called water lilies.

In the North side of the castle, in front of the clock tower and crossing the bridge, which replaced the drawbridge, the second pond with very regular shape and carved edges was preserved. Former extensive backwaters and moats and ramparts around the castle were razed in the 19th century during the reconstruction of the garden. In addition to the extensive water bodies, the characteristic feature of the assumption is the large number of trees of foreign origin accumulated in a relatively small area. Foreign species imported to Krasiczyn include: amber berries, black walnut, bitter bitter, clonal plane, American tulip, green fir, pine cone, trilobar, cypress, Lawson and pea, giant, ginkgo biloba, silver maple. The national species, in addition to numerous limes and oaks, another significant group is the pinwheel. It distinguishes the garden from other assumptions in the region. Pointed trees are mainly concentrated on the periphery, constituting its



compact and closed boundary. This density makes the view axes open only to the centre of the garden, exposing the castle in different perspectives.

## Palace and Park of the Museum in Przeworsk

Even though the garden was transformed in the Romantic era, the layout of the earlier Italian quarters is still clear. The terraces, the presence of the waterfront and beautiful specimens of trees considered as natural monuments, make them extremely picturesque and deserving of a thorough knowledge of all its charms.

Common species of dominant trees species are: lime and broadleaf, Canadian beetle and amber cork. Many of these trees have been designated as natural monuments, but there is also a number of specimens of former hornbeam, now create a charming alley. From the earliest establishment comes the linden near the palace, that is a part of the legend that it was pot by King John III Sobieski, and the Lubomirski took care about it and set up a pedestal with a royal bust.



## Palace and Park in Zarzecze

The garden in Zarzecze is a unique composition that has entered into the history of gardening and spatial planning in our country. The buildings belonging to the court complex are composed in a homogeneous garden environment consisting of a landscaped park and commercial gardens. The best features of the recreational park are great views but also the wide variety of plants and trees in it.

Establishment of the palace and garden in Zarzecze, the romantic seat of Magdalena from Dzieduszycki, is considered to be the most valuable residential complex in Poland. What distinguishes it and makes it unique is the Magdalene idea of creating a *une ferme modèle*, a model residence and farm of a rural and modern centre of administration of goods, bringing the whole neighbourhood "the light of new science." Founded from the ground up, the residence and its farm included representative, administrative and economic buildings in a unified garden environment consisting of a landscaped park and commercial gardens, economic mansions, avenue and access roads. The project included church buildings - parish church and bell tower. Magdalena's wide plans did not omit rural development either.

The idea of building of the palace and creating of the residence in Zarzecze arose in the latest years of the XVIII century. Before that time there were no similar mansions. Magdalena and Ignacy Morski chose Zarzecze because of its landscape values - varied terrain and the Mleczka River. Most of all, however, they were inspired by a cluster of old oaks counting no more than 300 years, which Mrs. Morska intended to incorporate in the romantic garden surrounding the palace. The location of their residence was a place with an excellent exposure - the top of the hill from the south quite steeply descending. It stretched from it a picturesque view of the river valley, surrounding meadows and fields, and further to the undulating hills of the Przemysko-Dynowski Piedmont are seen on the horizon.

The landscape garden founded by Magdalena Morska is not only worth seeing, but there is also a wide variety and diversity of the plants gathered there. The garden founded in the area of court and sacred buildings was divided into two parts: the north - representative, lying on the upper

terrace, and the south - the recreational area, lying below the escarpment where the palace rises. Exactly the palace as the dominant assumption catches the observer's attention and sets this boundary. The representative part contains a large oval driveway with clusters of trees, including already mentioned oak tree. It is designed such a way that, with the gentle curve of the access road, the palace appears in a changing perspective and exposure. The decorative elements of the composition are clones and loose clusters of plants arranged freely on the periphery of the lawns. In the vicinity of the palace and the orangery, flower beds are planted and in the distant parts of the garden woody and mixed logs. Behind the southern façade of the palace begins the lower terrace



purposed for walks, with a free composition of paths, with the area falling to the extensive ground floor. The latter is an indispensable part of the landscape garden and consists of a pond with an island and a canal and the river bed of Mleczka, which is the boundary of the foundation.

The garden's architectural style was enriched by the romantic look of the mound and the water mill on the island. For her garden, Magdalena Morska gathered a rich and varied collection of domestic and foreign trees and shrubs, that were a part of only a few large collections of the era when she lived. The selection of plants indicates the distinct preference of flowers and flowering shrubs: azaleas, roses and woody peony. Despite the losses suffered by the garden in the post-war period, many of the monumental trees have survived and among them very old oak trees, and in front of the palace one of the most magnificent platoon planes, the conservatory of the American tulip. In recent years, during the revitalization of the garden, new collections of flowering shrubs and perennials and flower beds were erected around the palace.

## Turnišče Park, Ptuj

The complex consists of a manor with a park, a pond, which is supplied by Studenčnica and meadows in the northern part. The areas of the Turnišče park are mainly flat, which in the 17th century influenced the establishment of a homogeneous symmetrical park design, with a long central park axis on both sides of the castle, which ended in an open landscape. In the first half of the 19th century, the formally designed park was abandoned, and transformed it into an English style landscape. Outlines of the English design concept can still be recognized in the park today. So today the park design is simpler and informal : it is formed by plantations of trees and bushes, grassy clearings and walking paths that do not form any known plan and have no symmetry. The paths are sinusoidal.



The sharp border between the park and the forest, which in the 17th and 18th centuries was indicated by a walled ditch in the north and protected the Baroque design from the deer and the cattle, were removed in the 19th century. The park is still strongly connected with the pond or small lake and the forest from the north side. The Turnišče castle is located on the right bank of the Drava river, about three kilometres southeast of the centre of Ptuj on the Zagreb Road 84. The Ptuj-Videm road near Ptuj-Leskovec runs in proximity, surrounded by a park with trees and pond. In the eastern part of the castle complex, it is surrounded by the settlement Turnišče, on the east small houses with fields and the river Drava, in the north the park is touching the industrial zone, while the agricultural land is south of the castle. The castle complex belongs to the municipality of Ptuj and belongs to one of the eight communities of the Municipality of Ptuj, to community of Breg - Turnišče.

### History of the park

The manor was originally created as a manor house by Hungarians in 1091. In 1255 It was inherited by the Ptuj's family. After the death of Friderik Ptujski, in 1441, the estate passed into the hands of his sister Anna, countess Schauenberg. In the 16th century, the court was owned by Szekeley's and their inheritors, which sold the Turnišče manor to Davido pl. Indungspeurg, in 1592. In the archival materials, which describe the areas, the pond near the castle is mentioned. There was no description of the garden or the landscape. It is likely that during this time, the area around the castle



Turnišče was used for more economic purposes - vegetable garden, orchard and wildlife area. Before 1626, the estate came into the hands of Herbestein's relatives, and in 1650 it was bought by Johann Vajkart Vetter, count von der Lilie, who donated the estate to his daughter, Katarina Suzani, countess Breuer. In 1676, the countess Suzana E. Thurn acquired the Turnišče, who, together with her husband Johann Maximilian, count Thurn-Valsassim, built the present building and found the land with the acquisition of new properties. The castle got its representative

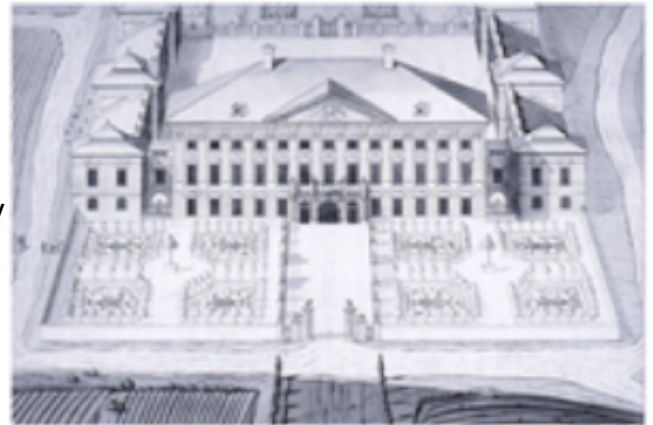


function, and within this, the baroque park was also built. The property was sold it in the year 1729 to the baron Anselm pl. Fleischmann, and then the ownership changed suddenly over the years. In 1884 the estate was taken over by Baron Warren-Lippit. In 1885, Lippit built a stud farm, which worked lively and successfully until his death in 1938.. The nobility remained until 1940 when the last owners withdrew after the outbreak of the second world war in Austria. In 1941, German military aviation dropped some bombs on a pond and a stud farm, but they didn't do major material damages. Only the part of the wall in the stud farm was destroyed. From 1948 to 1965, the Turnišče area was one of the largest stud farms in post-war Yugoslavia. The success of the stud farm was known in the homeland and in other European countries.

Between 1953 and 1980 it was a nationalized and transformed into an agricultural and livestock school. When the school was moved into the city, the building has lost its function and began to decay. In the spring of 1987, it was captured by a fire that cremated the roof, roofing and top part of the ceilings. In the same year, the Institute for Monument Protection Maribor started the reconstruction. The castle and the surrounding area with all the decaying objects are in a poor condition. Residents live in the part of the castle and belonging buildings, but the buildings are rarely renovated. Most are abandoned and decayed.

## The park nowadays

After World War II, maintenance funds were greatly reduced, resulting in a lack of proper maintenance. Changes in use and management have strongly negatively affected the vegetative and built elements in the park. Some changes are irreversible, others can be mitigated or properly reinstalled back. In the park, many trees have disappeared in recent years. A children's playground was added, the pond has expanded. In 1951, the park was protected due to beautiful and strong trees and beautiful bushes, which are distributed in groups and individually in lawns. Access to the park is open and unprotected. The fence is damaged. By the watercourse turniška Studenčnica, the park is almost impassable. The bushes are growing uncontrollably. The trails are now abandoned and blurred, the fence is damaged and partially removed. Trees are not properly maintained. Today the complex is divided into two parts. To the left of the Zagrebška road, which leads past the granary is an area owned by the Municipality of Ptuj, and the right part is owned by the Ministry of education, science and sport. In the past, they have heavily encroached in the right area where the buildings are now dedicated to the Biotechnical School Ptuj. Although the old cadastre showed a rather different picture on this site, all trees are removed.



The cultural, architectural, landscape, artistic and historical values of the complex have been severely curtailed due to years of inadequate use and neglect. Problems are mainly the interventions in the area by the inhabitants who, in addition to their homes, built up extensions, covered terraces, auxiliary economic facilities, etc. In front of residential buildings, the inhabitants arranged gardens, which give the impression of disorder and negligence of the complex. The use of the municipality and the school centre also indicates that the protection guidelines are not respected. The sports playground is unsuitably placed in the area of former parts and, with its appearance, does not respect the artistic elements of the design. The layout of the greenhouses makes it impossible to experience the sense of axial design in the south-eastern part of the park, whose are relatively preserved. Around the economic buildings, a wire fence is installed, which prevents access to the south-western part of the park. The fence restricts movement along the area of the monument, the essence of which is its accessibility and public function. Accessibility is also restricted in the manor area, which is closed to the public for security reasons. In order to



prevent vandalism, a part of the tract was arranged for a non-profit flat for the guardians of the castle, which did not prove to be positive for the preservation of the artistic values of the castle. The choice of facade colours on residential buildings, which are part of the monument and self-sown monumental characteristic, also does not contribute to this. The construction of the window openings spoils the legibility of the architectural elements of the castle. Some of the conservation works proved to be bad, when in the summer of 2013 50 years old walls collapsed due to poor quality construction. Large parking spaces in front of the school building and elsewhere show that the driving ban with motor vehicles is unconsidered. The proximity of the motorway does not comply with the guidelines for the protection of the influential area, which determines the protection of areas and views in the wider surroundings, on which objects would be placed which with its size, shape and function could have a negative impact on the protected elements of the monument. The road overpass and the motorway junction in the vicinity are disturbing spatial dominants in a distinctly flat plane, which should be removed with a visual barrier from the complex. Because of the dense undergrowth terrain the area of the pond and Turnišče meadows is barely passable; because of the lack of flow, the pond is eutrophic.

## Biodiversity features

Fauna and flora are very diverse in Turnišče Park and in the surrounding forest. However, due to lack of resources, an accurate inventory of which flora and fauna are present has never been done. Only a list of trees in the park was made. However, since they are aware of its great value, this part is protected as a typical humid lowland area. The protected species in the area are:

Trees and Shrubs:

- English yew (*Taxus baccata*)
- Common holly (*Ilex aquifolium*)

Animals:

- Tawny owl (*Strix aluco*)



## Services offered by the park

The park is open to all visitors free of charge (no guided tours). Currently, there are only some short-term educational workshops and theatre performances in the park. In the future, when the park will be set up, it should also be open to all visitors free of charge, without guided tours. The Turnišče complex shows a great potential for the education of youth and adults in the fields of agriculture, horticulture, environment, catering and tourism. It could be used for the needs of tourism, recreation, public cultural and other events, horticultural diversity and any other activities.

Turnišče complex is a high-quality natural and cultural monument, which, despite the existing condition with certain interventions and appropriate content renovation, can be included in the tourist renovation of the Ptuj or wider Slovene territory. The park is open to all visitors free of charge (no guided tours). Currently, there are only some short-term educational workshops and theatre performances in the park. In the future, when the park will be set up, it should also be open to all visitors free of charge, without guided tours. The Turnišče complex shows a great potential for the education of youth and adults in the fields of agriculture, horticulture,

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## Other parks and gardens in the surrounding area

### Park manor Dornava

Before the ownership of the Attems family, there was a hunting court, as seen in Vischer's copper carvings around the year 1681, surrounded by a wall, with a large orchard ("tree garden") in it, whose details are not known. After the property of the Countess Herberstein was purchased by the counts of Sauerries in 1666, large building renovations followed before 1708, and changes in the concept of gardening were also made. Garden has been completely walled and mainly economic nature with typical ways of cultivating crops, flowers, fruit and ornamental trees, with quite large trees in the vicinity of the manor and the arrangement of elements in the renaissance tradition. That the garden existed before Attems, speaks also the legacy inventory of the counts Sauers, who mention the garden shed and tools. Already around 1715, twelve dwarfs were present as garden ornaments.



The second and most important period lasts from 1739, when Attems family becomes the owner, until the second half of the 19th century when they sold the property. During this time, the Baroque part was designed and settled according to the French model in its full size and perfection of forms. Later, a few changes were made in the park, although the basic composition scheme of the Baroque period remained intact. A lot of flowering fashion seasonal flowers and flowers in pots were added to the flower bed restoration of Neptune's garden. They planted individual fruit trees, magnolias, stem roses and a series of horse-chestnut trees (*Aesculus hippocastanum*). Among the major changes was the planting of the chestnut tree avenue along the main path to the "orange garden".

After the manor and the park changed the owner, the last changes in the garden and in the planting of the English park was made. The last major work in the park was most likely carried out during the ownership of the Pongratz family, which owned the property until second World war. Line fields in the front of the garden were deepened and the symmetrical depths of the lawn

surfaces in the area of the former sandy courtyard were completely arranged. Gardner Varga took into account garden tradition when he was arranging the garden during wars. As an educated expert and great fan of plants, he certainly added fashionable ornamental plants but did not encroach on the original garden composition. What was happening at that time with the collection of citrus fruit is unknown, some were preserved until the second World war.

Most of the property in the Dornava region came after the war in the management of the Dornava agricultural land, and to a large extent, ownership has not yet been determined. In the castle building, they first settled a home for disabled people in the 1950s, which in 1963, withdrew to the institution of dr. Marjan Borštnar for raising children with mental disorders. The Dornava castle has been empty since September 2002, when after fifty years, the last group of boarders from the Institute dr. Marijana Borštnarja has moved out.

In Styria, the land of manors and castles, the manor in Dornava represents an important piece of the mosaic that presents the image of the country. At the manor from the middle of the 18th century, an extensive park design was designed in the manner of the gardens in Baroque Europe. According to the design of the building as well as by the dimensions and design of the park, the Dornava is the peak of this kind of formation of this time in our country. The former park design is by its dimensions and design expression the only one and unique in our country because it means peak of the garden and architectural specialties in our country. In some elements, it can be compared with similar parks across Europe. In Slovenia, there is not such an extensive garden design. The garden in Dornava represents the peak of garden design in the baroque in our area and is a typical representative of the mature baroque in the wider area.

## Sunny park Dominican monastery

There is very little archive data on the park. Some data can be found only in the truncated documentation of the Dominican monastery and through archaeological finds.

Part of this wall is still preserved today. It is visible on the south side, where there is an escarp (a fortified wall intended for the defence of the building) towards the Drava River, while the remains of a defence tower remain at the west end. At the western end, there was



once a defensive trench, and from there, there were smaller doors from the city. The romantic sun park in Ptuj, as we call it in Ptuj, is located in front of the monastery on its terrace above the river Drava, with a beautiful view of the southern part of the town, Dravsko field, all the way to Haloz, Donačka Gora, Boča and Pohorja. It is a valuable green and undeveloped addition to the monastery on its eastern side, which is quite unexplored. In some sources, it is also evident that there are still in the ground tombs of the gentlemen's of Ptuj, but there is no money to dig out all and study everything. In general, the expert public devoted more attention to the monastery and the monastery church, which is understandable. Nevertheless, from this literature, we can obtain an approximate picture of what it was like and what kind of development it had neglected but wonderful part of the old town of Ptuj.

## Castle park Ravno polje

While there is a lot written about the town of Ravno field itself, we can only guess about the appearance and the changing of the garden itself or the park, on the basis of photographs. On older photographs, the design of the park is visible, but here also question arises about reality of the condition in the photographs. In many cases, it is known that the situation from older photographs was not real to the one on the ground because in some cases things were drawn as

they wanted to be, but not as they were in reality. We can certainly say that the current state of both the castle and its surroundings, where the park should be, is completely decayed and neglected.

## Castle park of Borl

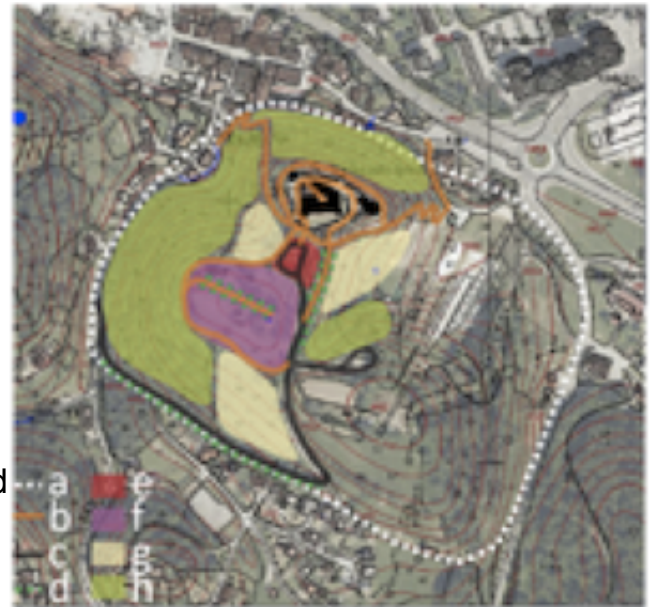
According to historical sources, the beginnings of its creation should have been in the 12th and 13th centuries. Through the years the owners of the castle exchanged and took care of the castle until 1981 when the gate to the castle has closed. There is little known about the Castle park of Borl. Due to the lack of space, the garden was designed at the foot of the hill. Alongside the centrally located pavilion, square sections were geometrically arranged. Inside they were ornamented, the outside is probably intended for growing vegetables and herbs. The garden was walled, and four decorated portals were opened there. The castle connected the two-sided avenue with the garden. Only individual trees are preserved. The baroque composition disappeared. Under the castle, there are only the remains of a former garden or park. The park, like the castle, is not maintained and is decaying.





## Historical Castle Park, Velenje

The area surrounding the Velenje castle includes forests, orchards and park arrangements in the immediate vicinity of the city. City of Velenje is the 6th biggest Slovenian city and is centre of the Municipality of Velenje (MOV) with approx. 34.000 habitants. Velenje lies between Ljubljana and Maribor, the two largest Slovenian cities. After the Second World War, it quickly developed from a small settlement under the Velenje castle hill to the "socialist miracle" of modern urbanism and architecture - into a modern settlement for miners. It became a city in the 1950s. The new centre of the town was formally opened on 20 September 1959. Because of its rapid development and expansion after World War II, Velenje today includes several formerly independent settlements.



Velenje was first mentioned as a market in the 13th century, when the castle was created also. It is first mentioned in 1270. Today it is completely renovated being one of the most beautiful castles in Slovenia. The Velenje castle lies on the southern edge of the Šaleška valley, at the top of the hill, which rises just above the valley floor. Below the Velenje Castle there is the main intersection of the traffic routes in Šaleška valley, from there the roads lead towards Celje, Slovenj Gradec and Šoštanj. The Šalek valley was regarded to as a "valley of castles", as there are more castles to be found on a small spot than anywhere else in Lower Styria. Only the Velenje castle (a building) is a proclaimed monument, but park isn't. The park is protected because it lays within the influential area of the castle as a cultural monument.

The Lidar Scene of the Surface reveals that the castle hill is actually a hill with three peaks - the castle is located on the northern tip, just above the valley floor, on the south-western summit there is a promenade of wild chestnuts trees, and on the south-east peak there are slopes of ski jumps and fields - this space is not perceived any more as a part of the castle complex. Footpaths to the castle run from the west and east sides, and the access path for vehicles from the south, also adjoined with the chestnuts-alleys. The former park of Velenje castle was situated in the immediate vicinity of a castle, on a flat plane in between the hills, which will be our pilot site of renovation and for testing the developed tools. From the end of the 1980s, there is a parking space on that flat surface.

## History of the park

The landscape around the Velenje castle developed in several stages: it was originally completely submitted to defence purposes, so the castle hill was deforested. To the south of the castle, orchards, fields and vineyards were planted, while agricultural buildings were erected at the Majerhof under the castle hill. In the middle of the 19th century parts of the castle's surroundings were arranged as a park, characterized by the use of poplars. Before 1892, the parterial part of the park was arranged according to the model of the city park in Graz and the wider area according to the principles of the English park. At the end of the 20th century part of the park was turned into the parking lot. The genesis of this landscape can be traced through old cartographic

displays and depictions.

The castle was founded by the lords of Kunšperk in the 13th century. The castle-nucleus is placed on the top of a rocky hill and even today the walls leaning directly on the rock can be seen. In addition to the excellent location, there was also water in the rock beneath the castle. With additions & extensions over time, the castle expanded, the inner arcade courtyard and walls with defence towers were formed. Today the castle has predominantly Renaissance appearance.



The oldest representation of the landscape is Vischer's depiction of the Velenje castle on the map of Styria from 1678. The Velenje castle is shown among other castles in the Šaleška valley. On the map, the castle is depicted from the south side, on a steep bare hill (on some other hills there is a forest), accompanied with a vine sign. These information tell us something about the landscape during that time.

The image of Velenje in Vischer's Topography of Styria in 1681 is important because it shows that on the castle hill there were only a few trees on the west side, a few shrubs on the northeast side, while the eastern hill-edge was completely deforested. At the time of its creation and in the first centuries of the castle, there were no trees on the hill due to defence reasons, enabling complete control of the surrounding area.

When there was a danger a conflict could have occurred, the castle lords additionally cleaned the hill of the trees. There is a report from the year 1600, during the dispute between the Catholic bishop Hren and the Protestant owner of the Velenje castle, Herič, regarding the use of the church in Velenje: Herič, in preparation for an armed conflict, cut all the trees around the castle. He wrote to bishop he had done this "ad prospectum" (due to the view) and not to make it easier to shoot ...



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Vischer published another representation of the Velenje castle - upper right. In this depiction, the castle hill is without a single tree, and the steep, cracked rocky base is visible. On the depiction, the western part of the hill is drawn much more steeply than the eastern part. In the extreme left part of the image there is a grassy slope with lower trees that seems to be planted in rare rows - an orchard - while on the top of the slopes there is a wooden fence and there are some bigger trees behind it - perhaps a tree-alee? On the other side of the fence there must be the access-path to the castle. The arrangement, as it is (except for the fence), is practically still preserved.

From the 18th century there is a very unusual depiction of the Velenje castle. Although the topographical references create the impression of a real landscape, this is a fictional representation from the collection of the German diplomat Moll. Nevertheless, the depiction proves that in the 18th century there was a notion that the hill under the castle building "must" be naked - like an island in the forest. It can be concluded the first level of the landscape arrangement of the castle surroundings was primarily subordinate to the defence, and the castle hill was more or less bare until the 1930s.

Access to the castle was originally from the area of the economic centre of the property (Majerhof) north-east of the castle hill. This was the shortest connection between the administrative / defence and economic part of the estate, achieving the most gentle path to the castle. It was in use until the construction of a ski-jumping centre near the castle, which was built over this route. The current access to the castle is therefore non-authentic in the lower part.

On the first Austrian military map from the second half of the 18th century there are two buildings on the south side of the castle to the left and to the right on the accessible path, but we do not



know their purpose. On the south side there was a forest. On the cadastral map in 1825 these mysterious buildings disappeared.



1775



1825



Current state

In the central part orchards

and vineyards, meadows and fields are shown. The vineyards were on the eastern slope of the hill above the road. On the topographic map two water objects are marked: one on the top of the hill (a water reservoir?) and the other on the slope (a spring/well). A part of the wider "utilitarian landscape" connected to the castle was also a castle pond in which fish were grown, and in the winter ice was cut there to be stored. So: at least until the first quarter of the 19th century there were no park arrangements in the Velenje castle area, but only utilitarian rural landscape (vineyards, fields, meadows, forests).

Only in the middle of the 19th century, "non use-oriented" plants and landscape arrangements began to appear around the castle. To the right of the main entrance of the castle, as early as 1857, there was a glass-house, most probably intended for wintering exotic plants from the southern areas, being the must of the elite gardens in those times. The glass-house was a small building leaning against the castle walls on the south side, receiving a lot of sunshine through a glazed front wall. It can be concluded on Velenje castle there was at least a small collection of exotic plants being placed in the garden in the summer. On postcards from a little later time palms and agaves can be recognized.

Knight Gadolla reports that in 1829 the castle buildings, especially their roofs, were close to collapse. The owner Edvard Trigler (1832-1851) began with a thorough restoration of walls and roofs, which was continued by the next castle-owner Hubert Count d'Harnoncourt-Unverzagt (1851-1858). The family tradition tells he has spend so much money on the restoration of the castle he had to sell it.



In front of the entrance to the castle there was a large sink (a), probably intended for livestock. Next to it was a border or a support wall made of interwoven branches (b). At the edge of the path there was a wall

at the top of the slope, the pillar had a roof and a sphere at the top (c). To the left of the entrance there was a walled portal (d) in the wall of an enclosure (garden?), with wooden fence (s).

On the detail of the depiction of the Velenje castle from Reichert's suite there is a small building (b) in front of the entrance tower: perhaps built above the outer well? There is also a very high and narrow tree (a) - it can almost be nothing but a poplar. Topographer Janisch wrote in 1885 there was a beautiful view from the castle hill, the castle walls were overgrown with ivy, to the west of the castle there should be an underground corridor, on the south side, outside the castle, there is a 55 meter deep well, there are beautiful parks behind the garden on the south side of the castle... So the first stage of the park arrangement can be set at least in the middle of the 19th century.

Towards the end of the 19th century (before 1892) a park was arranged as an extremely consciously aesthetical form of the landscape. A few years later (1898) a park in the Topolšica spa was also arranged, showing a lot of common motifs with the Velenje castle park:

- relatively narrow paths in the non-orthogonal, apparently random geometry
- central circle motif
- various ornamental trees, planted predominantly in informal distribution
- orchard in the immediate vicinity of the park.



Given the distinct similarity of the two park arrangements, we can conclude they had the same model, the town park in Graz. Family von Adamovich, who introduced many innovations in the field of agriculture into local environment, helped in the education of children, etc. has - in the spirit of the modern trend of living in the fresh air - arranged its own park and opened it for everyone. This general accessibility was very progressive and by no means self-evident: the large estate of the nearby villa Ritter / Novi Šalek / Herberstein was fenced all around.



Bianca countess Mensdorff, widow von Adamovich, born Countess Wickenburg arranged the park. She lived in the castle until 1900, when she moved to Vila Bianca under the castle, formally handing over the estate to the son Karl (II.) and his wife Gisela on 1. 1. 1896. Countess Bianca came from the Wickenburg family: her father grounded Bad Gleichenberg and her mother arranged the park there.

In 1892 a description of the park at the castle Velenje was published in the Celje newspaper, stressing a beautiful, English-style maintained park, which has many quiet, cold corners for rest and is due to the goodness and kindness of the countess accessible to everyone. As the hills are covered with conifers all around, the air is fragrant, making the castle park one of the most pleasant areas for living, which can be easily achieved through a shadow path.

Obviously maintenance of all parts of the park was not easy: after a few years the fountain was abandoned and the exotic plants were no longer brought to the park. In general, park arrangement with strong peripheral planting (which creates the solid green frame around the park) somewhat resembles the "hortus conclusus" - a closed idealized medieval garden. About the events in this park, the stories have been preserved in the folk memory, especially from the time of the last owner of the castle, the Count Coronini, who is supposed to be hosting nude party's in the park.

Above the outside well, the wind pump was installed for some time. Until the last renovation of the castle, within the castle building vegetation was more present than today: the outer main entrance, the entrance to the courtyard and the yard walls were overgrown, the trees grew in front of the chapel.

## The park nowadays

After the second world war, there were apartments arranged in the castle, and later the Museum of the Slovenian mines (1957). The former garden beds near the main entrance were replaced by a covered roof for the presentation of the mining supports and machines.



Other alterations in the post-world-war-II in the area around the Velenje castle were:

- the area of the park was used for the driveway and the parking lot with a grass "patch" in the middle
- polygon for ski-jumping was erected in the orchard area and across the primary access to the castle, changing the skyline of the castle hill radically
- a parking place was arranged near the ski-jumping polygon
- old trees were replaced locally
- transformer station, public lighting, electric cabinets etc. were installed.
- the wood around the castle wasn't cut down any more, so the majority of the building was covered.



The overgrowth of the castle is a consequence of political - socialist spatial management: in the times immediately after the Second World War, castles were perceived as extremely negative witnesses of past "unfair" social regimes, doomed to be erased out of space - and overgrowing with the forest equals erasing the building from a visible presence in the environment. The castle was a disturbing element in the background of the new city, which, with its modern architecture and urbanism, was considered "a socialist miracle". This perception of the castle (as something negative) is completely contrary to the perception of the castle since its construction until the Second World War: the castle was a key point in the landscape, it was literally its starting point.



## Biodiversity features

The area around the castle is divided into forest areas, orchards and the free park with chestnuts avenues. The park is famous as a nesting place of owls, as there are some old hollow trees to be found.

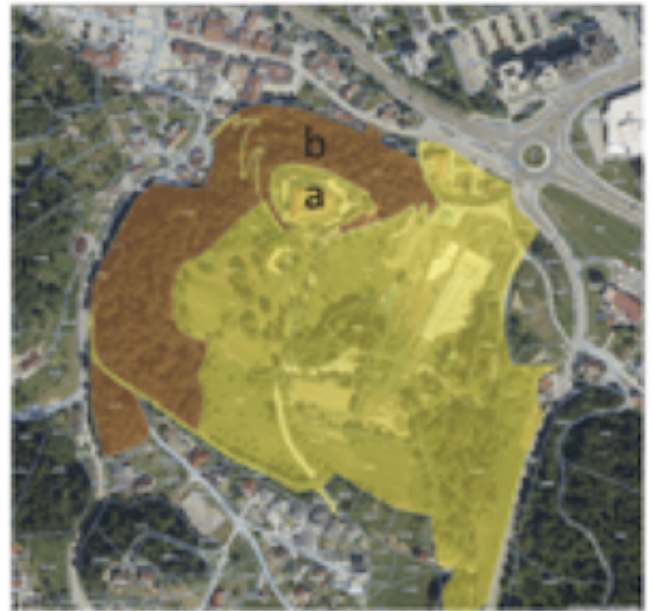
The plant species of the castle park were professionally documented in the publication The Manor Parks of the Šalek Valley – translated plan below.

## Services offered by the park

Park around Velenje castle belongs to the Municipality of Velenje, but management of the area has been assigned to the Velenje Museum. They are taking care for the castle and the area around it in close cooperation with Velenje Municipality. Since the green area is not fenced, local

residents use the area around the castle and trees avenue as a walking and running space, spending some time in nature. The area is often visited by tourists, since the view over the town from the castle is really nice.

Most of the time the flat surface is used as a parking area for cars of employees and visitors, but occasionally the place is used for some cultural events, such as Dnevi mladih in kulture (Youth and culture days), medieval days. The Velenje castle with surroundings is included in The Dragons castle trail around Velenje and because of that reason and the educational programs provided by the Museum, school and preschool children often visit this area. Everything is free of charge, except of the entrance fee of the castle museum.



The ownership of the area:

- Velenje Municipality
- Fund for Agricultural Land and Forests of the Republic of Slovenia, Slovenian State Forests

## Typology of visitors

Main target groups are local residents, general public and young people (kindergarten, primary school students, students).

The indicative number of visitors in year 2017 (without visitors of guest shows) is 32,500.

in year 2016 number of visitors was 27,633.



## Educational activities, materials and tools

The park is generally perceived as an integral part of the Velenje Castle, which is often simply equated with the Velenje Museum. Guided tours in the open area of the castle are connected with pedagogical programs for elementary schools presenting the life in the castle: the participants walk around the castle and get familiar with the external arrangement: castle ditch, defence walls...

## The dragon's castle trail around Velenje

The Velenje castle is one of the stations on The Dragon's Castle Trail Around Velenje and an educational board is placed in front of the entrance to the castle. There is a stamp on the board, to be printed into the booklet of the participants. Children in kindergartens and lower grades of elementary schools are included in The Dragon's Castle Trail.

The Medieval Day: In the castle and in the park a traditional Medieval Day takes place, with performers, creating a piece of the former castle atmosphere.

Study circle The Manor parks of the Šalek Valley at the University of III. life span Velenje

Within the circle, the members under the mentorship of Nataša Dolejši and the professional guidance of Barbara Pajk were acquainted with the parks and a publication was created.



## Publications presenting the park

Specifically about the park:

- Barbara Pajk, Nataša Dolejši et al., Graščinski parki Šaleške doline (The Manor Parks of the Šalek Valley), 2002.

Different data about the castle and adjacent areas:

- Gadolla, Franz: Prispevki k topografiji in zgodovini nekaterih gradov in dvorcev v celjskem okrožju. Kritično presojeno in preiskano, 1847. V: Šaleški gradovi viteza Gadolle, Knjižnica Velenje, Velenje 2015.
- Hudales, Jože, Marjan Marinšek: Velenjski grad in njegove zbirke. Kulturni center Ivan Napotnik, Velenje, 1984.
- Janisch, Josef Andreas: Topographisch-statistisches Lexikon von Steiermark, mit historischen Notizen und Anmerkungen, Graz, Leykam, 1885.
- Mihelak, Vinko: Velenje – stoletje na razglednicah. Mestna občina Velenje, Velenje 2009.
- Orožen, Ignaz: Das Bisthum und die Dioezese lavant., V. Das Dekanat Schallthal. Graz 1884.
- Piano, Saša: Ureditveni načrt Grajski hrib, II. Faza, Zavod za urbanizem Velenje, Skupščina občine Velenje, 1990.
- Poles, Rok, Marjana Gajner Korošec, Nika Lalek: Sakralna dediščina Šaleške doline. Založništvo Pozoj, Velenje 1998.
- Poles, Rok, Špela: Villa Bianca, Zgodba o ponovnem rojstvu vile. Berivka, Velenje, 2011.
- Ravnikar, Tone: Grad Velenje, Skica usode stavbe in njenih prebivalcev. Zbirka muzejski kolaž, Kulturni center Ivana Napotnika, Velenje 2002.
- <https://www.youtube.com/watch?v=0n45Ci7oBZo>

## Exploitation plans over the next 3 to 5 years

LEVEL of the DETAIL / GRAPHICS – info board and routers:

- additional guidance boards for pedestrians and drivers
- advertising boards for the Velenje Museum / Velenje castle with a park as a whole along the roads into the city
- denotation table for the castle as a cultural monument, as required by the Rules on the Marking of Stationary Cultural Monuments (UL RS 57/2011)
- explanatory boards of individual landscape areas / architectural parts: well, moat, entrance tower and portal, interiors, arcaded yard, bridge, ...

LEVEL OF A BUILDING DETAIL AND MINOR CONSTRUCTION DEVICES - Physical



interventions in the landscape / building tissue must be carefully considered, as it is necessary to provide constant urgent access and delivery to the castle.



- reconstruction of the park including the reconstruction of the staircase fence to the right of the entrance to the castle (plaster, balls at the top of the pillars) - if the current parking lot is abolished, it is necessary to reconstruct the urgent route around the park
- reconstruction of an informal park on the hill (re-arrangement of paths)
- removal of part of the forest in the northern and eastern part of the castle hill to achieve greater visibility of the castle in a wider area
- reconstruction of the castle glass-house to the east of the entrance
- reconstruction of permanent planting in front of the castle chapel
- reconstruction / arrangement of the above-ground part of the outer castle well: a stone/concrete ring above the well or a building with a metal heel
- the denotation of the castle ice-house - a modern minimalist architectural intervention
- restoration of the spatial dominant/eye-catcher at the end of the chestnut tree promenade on the top of the hill (former water reservoir / pool)
- regulation of the parking lot (technically and in design)
- replacement of inappropriate fences in the castle for a technically appropriate fence; additional fences, where needed - in dangerous areas
- reconstruction of the upper part of the ice-house near the Villa Bianca (at the beginning of the footpath to the castle)
- renovation of the western pedestrian access to the castle, including the link to the Ljubljanska Road
- designation of tree species in the vicinity of the castle - ornamental and fruit trees
- re-establishment of permanent greenery in the castle yard and on selected outer walls of the castle
- removal of the parts of the preserved portal of Hotel Rak (presentation in the garden of the Villa Bianca?)
- replacement of a variety of heterogeneous urban equipment (benches, waste-bins) for minimalistic modern urban equipment (removing plastic from the environment, raising the visual ambition of equipment)
- arranging parking lots for bicycles
- construction of a sculpture in the memory of Countess Bianca.
- additional elements to increase the attractiveness of the area for children - thematic playground - "castle activities".

**EXTENSIVE CONSTRUCTION WORKS** - in case of conceptual changes in the castle building/Velenje Museum:

- parts of the service-areas (toilets) or exhibition functions of the Museum could be transferred to the newly acquired areas underground - either in the castle or under the park. Previous archaeological & geological research needed. It would be possible to arrange new sanitary facilities, a modern museum reception and museum shop underground...
- improving the accessibility of people with disabilities and people who have walking difficulties – changes of pavements, rails, handles...

**RESEARCH MISSIONS:**

- excavations to determine the state of preservation of the pool and other elements of the park
- geophysics of the park to find out possible remains of older arrangements
- geological survey of the same area



- monitoring and inventory of animal species in the area

## EVENTS / ACTIVITIES:

- concerts
- fairs
- medieval day
- movement activities (walks - Velenje castle is a point on The Dragon's castle trail around Velenje, riding, sport climbing along the castle walls, mountaineering - the Velenje castle is the last point on The Šalek Mountain Route around the valley)
- relaxation activities (sitting, relaxing in nature, a carriage-ride)
- wedding in the castle park



## Other parks and gardens in the surrounding area

### Park around the Gorica manor

The Gorica manor is situated on a hill on the eastern edge of the Šaleška Valley and the Velenje town.

#### HISTORICAL CHARACTERISTICS:

It is first mentioned in 1542 as an ancillary building of the Ekenstein castle, situated on the rocky hill-top above it. In 1634, the castle was already ruined and the seat of the estate was transferred to Gorica. As its name (Gorica = vineyard) states, it was a part of a distinctive wine-growing area, which was particularly evident in the area from Gorica to Vinska Gora (gorica = small vineyard / small mountain, gora = a large vineyard / mountain) – the vineyards are evident on depictions of the building from the 17th century.



The original landscape arrangement of the area surrounding the manor was rural-utilitarian: the fence separated the forest from an empty courtyard, with a fountain in the middle and service buildings along the edge. Vischer depicted Gorica twice, the second graphics is more posh: he replaced the wooden plot with a roofed masonry fence and a wooden fountain, from which the water was to be dragged, with a decorated column with a constant water-flow - undoubtedly a luxury acquisition.

On the depiction of 1830, the hill under the mansion is bare, with only a few trees on it. The building lacks the renaissance decoration from previous depictions. The service buildings are on a plain below the manor, in the valley and along the hill slopes are extensive fields. In the newspapers we follow the advertisements of the tree nursery, operating on the estate (Gut Eggenstein) of Josef Anton Sackl: they offered hundreds of fruit seedlings, for high-and low-growth and for pots, offered over 200 varieties of apple trees, Calville, Rosen, Rombour, monochrome, red, gray and golden Rheinettes, Peppings, Spitz and Platt-apples, table pears, different varieties of the plums as well as wild chestnut trees and poplars for alleys.

In 1863 Count Cavriani bought Gorica manor and transformed it into a historical villa. There was a

park on the hill: the access road is surrounded by a fruit tree alley, along the service buildings there is a row of poplars, along the slopes the stairs rise to the villa. In 1891, 1895 summer apartments for tourists were offered in the manor.



Before the Second World War, the mansion was owned by Irma Ježovnik from Arja vas. People still remember that at that time parts of the estate were: a hayrack, a stable, a space for carriages, a fence for horses, a fountain, a cross, an ice-cellar, cellar and a glass-house. The park, which today is only limited to the top of the hill, descended further down the slope with avenues and hedgerows, in the valley there was a pond.

After the II. world war the manor was used for the apartments for workers, now it is closed due to decay. The northern and eastern slopes below the castle were occupied by gardeners. The service buildings are removed, the park is not maintained. In the 1970s the valley below the castle was urbanized with one-family houses and apartment blocks: in the Gorica local community there are over 5000 people.

#### ARTISTIC FEATURES:

The park arrangement is based on tall trees, above all the chestnut avenue along the driveway to the manor and the large elm (*Ulmus glabra*) in the middle of the yard, around which the path turns. The location of the manor on the hill and the tree-alleys create a typical contour/skyline, dominating the lower residential areas.



#### DIFFERENCES AND CORRELATIONS WITH THE PARK OF THE VELENJE CASTLE:

The similarities between the two parks are mostly chestnut-trees avenues. In general, both parks were created in the middle of the 19th century and were characterized by poplars while at the beginning of the 20th century they planted chestnuts. Gorica did not have such a well-developed park with geometric pathways as the Velenje castle, the routes were laid out organically, only where needed. Both parks were neglected after the Second World War, when both – the castle and the manor - were used for apartments of the working class. There is no forest in the area of Gorica today, but it is to be found around the Velenje castle.

### Garden at the Šalek castle

The Šalek castle stands on a high rocky ridge above the eastern edge of the Šalek Valley, above the settlement Šalek, now integral part of Velenje-town.

#### HISTORICAL CHARACTERISTICS:

The Šalek castle was built by the knights of Šalek in the first half of the 12th century. The Šalek castle was one of only four castles in the Šalek Valley, which succeeded in transforming themselves into more comfortable Renaissance settlements from the strictly military fortresses of the Middle Ages. Other castles were abandoned, and the seats of the estates were moved to more comfortable new mansions. The castle was burnt in the years 1676 and 1770, then it was abandoned.

Vischer's map (1678) shows the design of a castle with two towers (residential and defence) and an intermediate courtyard. Castle hill is bare due to defence reasons.



The depiction in the Vicher's Topography (1681) shows the linear sequencing of the space: the access to the castle is along the slope from the right, flanked with a tree-avenue. Then comes the garden, fenced with a wooden fence. The path goes through the yard between the ancillary buildings, followed by the bridge over the castle ditch, leading through the defensive walls and the main portal to the castle yard - in the core of the castle. This dense sequence of spatial units, escalating from an open landscape through outer gardens and yards to the castle itself, was largely conditioned by natural features: on a narrow ridge it was virtually impossible to organise the access otherwise. However, the tree-avenue and garden were an addition not necessary for the survival of the castle: at least the avenue is a not-just-utilitarian form, creating an aesthetic experience of space/arrival.

The trees in the avenue were most probably cultivated = fruit trees, what can be deduced from the spherical shape of the crown; Uncultivated trees on the slope left are drawn differently, less unified. These are completely consciously chosen trees, deliberately planted in equal distances, with unified shape. There are no other trees on the wide slopes below the castle Šalek and the ruins of Ekenstein. The slopes were completely deforested for the defence reasons even in the 17th century, enhancing the contrast with the tree-avenue along the access path.

Later depictions, when the castle is already ruined, prove the castle hill to be deforested until the 1930s; on the southern slopes an orchard was arranged and there was a field on the terrace on the northern slope. The rest of the landscape and landscape elements are no longer evident. The original access sequence was changed to a private yard, restraining the public access (for cars) to the vicinity of the castle. A new footpath/staircase to the castle, paved with wood, with galvanized tube fences / handles is arranged. Within the presented ruins, the open areas are covered with grass, the paths are sandy, the fence has an aggressive appeal. Apart from the waste bins in the area there is no other urban equipment.

## ARTISTIC FEATURES:

The artistic and functional quality of the former landscape arrangement was the original access to the castle: it was a cosy path, completely different from today's utilitarian access. It was conceived in such a way that it began in a completely bare landscape, and then many more and more complex scenery appeared, consisting of trees, buildings, yards, dark narrow passages, entry through the gates, views and vistas, various slopes and the direction of the path, arranged to increase the experience of space and culminated with arrival into the walled castle yard and then into the castle's rooms. This was also the psychological preparation of the visitor (= intimidation) before meeting with the castle lord - the expression of his special status. All of this today, on the steep stairs just below the castle, we are no longer experiencing.



## DIFFERENCES AND CORRELATIONS WITH THE PARK OF THE VELENJE CASTLE:

The basic difference is already in size: the Velenje castle park is extensive, the tree-avenue and the garden at Šalek are small. The Velenje castle park was built in the 19th century while the landscape-arrangement in Šalek is still based on medieval defence principles, although artistic

elements (avenue) are added. There is little left from the spatial arrangement in Šalek: the route and some ruins of the buildings, and new buildings are built in the area of the former.





## Accessibility conditions

This section focuses on landscape accessibility of the HICAPS historical parks before starting the project. The analysis has been developed to collect and organise existing knowledge according to a broad definition of the concept of “accessibility”, which is related to the potential of the parks to meet the different needs of a wide range of users and visitors, including children, sportsmen, elderly, people with motor difficulties, poor vision capacity or other disadvantages.

Within this context, accessibility has been related to seven conceptual areas:

1. Location in the territorial area: how the park can be reached, e.g.
  - By public transport, as indicated by the presence of railway stations, bus stops, or airports nearby the park
  - By car- as indicated by the presence of highway and parking areas in the vicinity
  - By foot and / or bike – e.g. pedestrian paths or cycle lanes available to reach the park
2. Usability of the park: how the geomorphologic characteristics of the park limit its usability, e.g. due to:
  - Characteristics of the ground
  - Seasonal limitation
  - Hardly accessible sections
3. Viability of the park: how the viability is organised and articulated, e.g. if there are:
  - Signal system to help visitors and Orientation maps
  - Didactic panels, toponomastical signs
  - Multiple entrances / gates
  - Trails to facilitate access by users with motor difficulties, disadvantages (e.g. paved paths for wheelchairs, paths for low vision, sensory paths, etc.).
4. Facilities for visitors: how the park is equipped to make the visitors' experience easier / more pleasant, e.g. presence of:
  - Benches and rest areas or other arrangements
  - Special equipments designed for people with motor difficulties (e.g. handrails, supports, benches and other artifacts for those who have trouble walking?)
  - Bars, kiosk, restaurants, etc.
  - Toilets.
5. Facilities for specific activities, such as sports and and children games
  - Jogging trails
  - Playgrounds
  - Other equipment
6. Specific activities for disadvantaged people, e.g. if the park organises activities for people with specific needs, such as:
  - Walks for seniors
  - Activities for visually impaired people

- Horticultural therapy activities, etc.
7. Specific activities which foresee a real interaction with plants, e.g.
- Flowerbeds,
  - Small grooves
  - Élaners, edges.

For each selected park, a brief overview of its original accessibility characteristics is presented, with the objective to identify the initial situation, good practices and areas of improvement, as well as to highlight the key directions to be followed to improve the fruition and the accessibility of the selected parks.

The analysed parks are:

- [Park of the Castle of Gornja Bedekovčina, Croatia](#)
- [Walk Lane of Josip Juraj Strossmayer, Varaždin, Croatia](#)
- [Linear Park of the Este Walls, Ferrara, Italy](#)
- [Villa Ghigi Park, Bologna, Italy](#)
- [Wieniec Park and Palace, Kujawsko-Pomorskie Voivodeship, Poland](#)
- [Łańcut Park, Rzeszow, Poland](#)
- [Park of Castle Turnišče, Ptuj, Slovenia](#)
- [Historical Castle Park, Velenje, Slovenia](#)

## Accessibility conditions: Park of the Castle of Gornja Bedekovčina

The park is located on a small hill in the vicinity of the castle of Gornja Bedekovcina, a 10 minutes' walk distance from the city centre. The vicinity to the city centre makes access to the park favourable and easy, due to the many different transport modes. This is a good precondition for further valorisation and plans in terms of visitors heritage tourism. In the vicinity of the park there is possibility to leave the car but there aren't dedicated parking places. The park can be reached by foot, through the alley from the city centre, and also by bike although currently there are no specifically designated bike lanes or facilities to leave your bike in the park.



The park is easily accessible. Because it is situated at a small hill/slope it might be harder to access in the winter months when there is heavy snowfall.

- There are two entrances to the park, but only one is considered to be the main entrance.
- Currently, the park's viability is not sufficiently organized and articulated: there is no signal system to help the visitors, nor informative signposts, orientation maps nor didactic and information panels.
- There are no suitable trails for users with motor difficulties or routes for users with disadvantages, nor paths for low vision.
- The park is not equipped with any type of facilities, but for some benches which are in bad condition.
- There are no bars or restaurants nor refreshment areas; no toilets are available in the park.
- The park is not equipped with any sport facility and jogging trails nor facilities for children.
- There are not facilities, equipment nor specific activities for disadvantaged people.
- No activities are implemented with real interaction with plants.

## Accessibility conditions: Walk Lane of Josip Juraj Strossmayer, Varaždin

The Walk lane of Josip Juraj Strossmayer is located in the pedestrian area of the Varaždin historical core, with bus Terminal available at short distance. There are cycle lanes to reach it and two parking areas in the vicinity, with in total about 115 parking spaces, of which only one parking place reserved for the disabled person.



- The Walk lane of Josip Juraj Strossmayer is defined by two geomorphologic characteristics:
  - The wall surrounding the castle and making barrier between the castle and the surrounding buildings.
  - The flat part around the castle that connects the castle and city centre.
- Lane in both part is covered with layer of fine gravel.
- There are several entrances to the park.
- There are 2 interpretative maps with photos of the walkway and a short historical review of the development of the fort, the moat and later the park, with information available on Croatian, English and German language. There are also warning signs for the risk of broken branches.
- There are no specific routes for users with disadvantages but it is possible to use the existing paths. For users with wheelchairs there are some difficulties to move because of the gravel structure of the path which is not compressed enough and the paths on the wall are too steep. The paths on the wall are also not suitable for low vision because there is the risk of falling down the wall.
- There are some old benches beside the info table and on the wall but they are insufficient.
- The lane is not equipped with bars, restaurants, refreshment areas, kiosks and other similar facilities. Several bars are available in the vicinity outside the park.
- The lane is not equipped with sport facilities and jogging trails.
- There are no facilities for children and no facilities for disadvantaged people.
- The area does not have toilets. The nearest toilets are inside the museum and is for visitors of the museum only. These toilets are in the basement of the building and not suitable for people with special needs.
- More services are available during the Špancirfest - the music festival that takes place every year, since 19 years ago, in August and September. During the festival part of the park is equipped with stands for gastronomy and stage for live music. During the Špancirfest in one part of the lane there are dedicated spaces for children with different types of games, as well as some facilities, such as chemical toilets (not suitable for disadvantaged people).
- The park does not carry out specific activities for disadvantaged people, nor activities with real interaction with plants.



## Accessibility conditions: Linear Park of the Este Walls, Ferrara

The city park of the Walls of Ferrara develops in a circular way surrounding the historical city, and constitutes the system of connection between the centre, the suburbs and the natural environment. You can easily reach it from the various stops of the bus lines coming from the railway station. For those arriving by car there are numerous parking lots near the sixteenth-century Palazzina dei Bagni Ducali, the Torrione del Bastione di San Lorenzo and along all the ramparts, in the former Mof area of via Darsena, in the Area Kennedy-Ex Pisa and Piazza Travaglio.



The park is part of the cycle-tourism route that follows the entire perimeter of the walls. The park stands as a large green frame of one of the greenest cities in the country, and then a monument of rare grandeur and charm. Recreational activity mainly concerns the classical walk or race along the city walls, as well as dedicated recreational activities such as festivals, amusement parks and events, so all points of the route are accessible and well organized.

- The presence of slopes and jumps in altitude does not affect the accessibility of the park, as there are many routes both at the foot of the walls and at the top.
- The ancient walls, being an integrated environmental, cultural and infrastructural system, have numerous entrances located in the points corresponding to the connections with the city centre, such as gates, ramparts, squares, parking lots.
- The road network is organised on two levels, extending for almost ten kilometres all around the city.
- The signs along the route of the ancient walls are supplemented by a map showing the periods of construction of the walls. Educational and information panels are located in key points to document the species of fauna and flora present there.
- The walkways are a short city trail suitable for all ages and do not present any difficulties. The route is mainly for the exclusive use of cyclists and pedestrians and is also safe for children. In several sections the bottom is not asphalted but is generally compact.
- Those who travel by bicycle can easily cross the entire perimeter of the Walls, while those who visit on foot can choose one or more of the sections in which the itinerary is divided.
- Parking and resting places can be found almost everywhere thanks to benches along the entire pedestrian cycle route.
- The equipped areas are evenly distributed.
- Visitors can access the 9 km route on foot or by bike, either on the embankment or in the valley just below.
- Disadvantaged people can have access to the ramps at multiple points, which are properly built to ensure accessibility.
- In the green area in front of the House of Angels, sport equipments have been installed, with the objective to training main muscle areas (hip muscles, pectoral muscles), improving cardiovascular endurance (crushing with pedals, "cross") and stretching trained muscles.
- Activities are carried out to explore the plant and animal biodiversity of the walls and sub-walls with schools and families, with a collection of materials and photographs that are examined in the educational laboratories of the Museo Civico di Storia Naturale di Ferrara (Natural Sciences History Museum). In a special area of the northern urban park, near the

Walls, there are didactic laboratories of archaeology-archaeo-zoology, on the alimentary uses of our ancestors.

## Accessibility conditions: Villa Ghigi Park, Bologna

The Park is located in the first hills of Bologna, about one kilometre from the historic centre. It is easily reachable by public transport, but also by foot, bicycle and car. The park is also easy to reach by public and private transport from the main Bologna railway station, the bus station, the airport and the motorway junctions.

The park is equipped with about thirty free parking lots, which are located near the entrance along Gaibola street (not served by bus lines). Close to the two entrances along via San Mamolo, parking is difficult, being the street rather narrow and equipped with a very limited number of parking places.



- The park is accessible through three entrances: the main one on Via San Mamolo is located over a group of buildings constructed about fifty years ago behind the old entrance gate to the Ghigi family; that on Via Martucci, the least frequented entrance, can be reached by continuing a little further along Via San Mamolo; the third entrance is at the other end of the park, along Via di Gaibola.
- A large part of the park is spreading along the hillside, with the exception of some limited flat areas near Villa Ghigi and Palazzino (the Foundation's headquarters).
- The park is equipped with a main access road, partly asphalt and partly dirt, accessible only by authorized vehicles
- The road network includes dirt tracks and paths crossing all the areas of the park (with the exception of a fenced area that houses twenty beeches and other species of trees both spontaneous and exotic, reserved exclusively for guided tours as well as educational and research activities).
- As far as signage is concerned, at the entrances to the park there are two oval panels: a park presentation and a panel presenting the rules of behaviour to be respected by visitors. There are no orientation maps, educational panels and signs indicating the place names.
- The main access road to the park is sometimes quite steep, with a gradient of around 10%. Accessing the park from the high entrance along via di Gaibola, visitors can follow a dirt road that does not have particular slopes and reaches Villa Ghigi in about ten minutes, remaining always at the same altitude. As for the access to wooded areas located in different parts of the park, the paths are narrow and sometimes uneven, not recommended for people with limited mobility. There are no specific routes dedicated to users in disadvantaged situations.
- In the park there are rest areas in various places, often easily reachable, equipped with benches with backrest and tables with benches without backrests to facilitate breaks, rest and picnics. At different points with particular gradients there are wooden and dirt floor steps, often flanked by wooden handrails, to facilitate the ascent and descent. There are no pieces of furniture specially designed for people with limited mobility.
- The park has a refreshment point in the Guardian's House, located next to Villa Ghigi. The refreshment point, which offers snacks and drinks with a special focus on local products, was opened for the first time and temporarily from June to August 2017 and will reopen permanently in spring 2018, once the renovation of the building is completed
- For decades the park has been equipped with the Vita Parcours, a gymnastic route divided into 15 stations and starts in the first hairpin bend that you meet up from the entrance of via San Mamolo.
- The route installed by the Municipality of Bologna in 1977 was the first of its kind to be

included in a public green area in Bologna and Emilia-Romagna. Since then, it offers visitors the opportunity to combine pleasant walks with moments of physical exercise in a relaxing environment, surrounded by green hills.

- In the park there are also a couple of sofas, structures made of natural material and designed to welcome children and families in the context of specific projects that take place mainly in the forest. The vegetable sofa is a space made up of branches kept in circular form thanks to coupled poles of chestnut trees. It is a secluded outdoor classroom, immersed in the woods, where children and adults sit to be gathered and carry out group activities (discussions, songs, readings, observations of natural materials).
- The area is currently equipped with toilets only inside the Palazzino, where there are three bathrooms used by Foundation staff and users of its activities. One of the bathrooms is suitable for people with disabilities. Bathrooms are not available to park visitors. In the Guardian's House, however, during the summertime, a toilet has been opened on the ground floor, at disposal of the public. In the ongoing renovation a bathroom is planned, always on the ground floor, which can also be used by people with disabilities.
- Since 2010, the Foundation has been proposing and implementing, in collaboration with other subjects active in the territory, projects aimed at disadvantaged people who investigate the interaction with nature, integrating environmental and youth skills. Since 2015, the Foundation has also organized and coordinated, in collaboration with the Agriverde and CSAPSA cooperative, a training course (accredited by the Regional Health Service) in horticultural therapy and modules for in-depth study on specific topics that intertwine with this theme.
- In the park there is a vegetable garden, the Garden of Becco, which for years has been the preferred site of horticultural therapy projects. The goal for the user, in this specific case, is to increase knowledge and increase the autonomy and self-confidence, with the vegetable garden becoming a workshop of experimentation with nature in which to observe, discover, acquire skills and share experiences.
- More generally speaking, the Villa Ghigi Park represents a great resource in terms of horticultural therapy and one can also imagine experiences that go beyond the garden as to make the process of care more active and effective, consolidating a new and original function of the park.





## Accessibility conditions: Wieniec Park and Palace

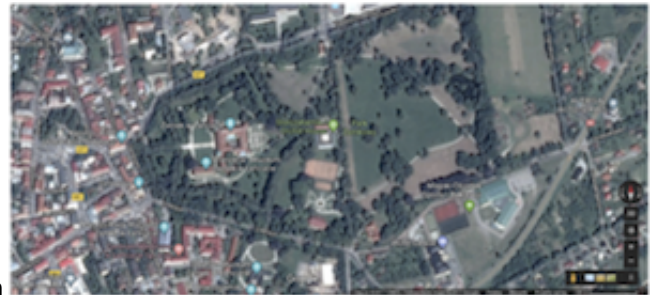
Wieniec park and palace complex is located in the Wieniec village, in the south-eastern part of Kujawsko-Pomorskie Voivodeship, in close vicinity to A1 highway (1 km). Closer bus station in Brześć Kujawski is 6 km far and railway station in Włocławek at 11 km. The nearest airport is situated in Bydgoszcz (100 km). The area of park and palace complex is closed for visitors at the moment. There are no parking places nearby, but they are foreseen in development plans.



- The complex can be reached by the so called "red" cycling route, connecting Włocławek and Wikaryjskie Lake (20 km). There are some hiking trails and cycling routes leading to or passing through Włocławek.
- There are no significant limitation to the park usability due to geomorphologic characteristics. Relative heights do not exceed 5 meters (culmination point is in the area of the main building). In the southern part of the area there is a gentle slope falling towards south-east direction. No hardly accessible sections were observed.
- There are two main entrances to the property: representative gate and guard house in the southern part, at Parkowa Street (the entrance is not intended for visitors, because it has no connection with parking); the second entrance is located in north-east part of the park, in a dirt road (Jodłowa Street). This entrance communicates with car and bus parking.
- According to the Regional Heritage Monuments Protection Office in Toruń opinion (dated 23rd March 2017), the area is (...) "inaccessible for visitors and supervised. The historic buildings are not preserved against weather conditions, they are not maintained and heated. The present way of maintenance of the complex and lack of restoration works, exposes the object to significant depreciation".
- Therefore, the park viability is quite limited, no signal system nor specific routes for people with disadvantages in the complex. Being the complex closed to visitors, there are no facilities (bars, toilets) of any kind, no activities nor trails for people with motor difficulties, no equipment for sports nor children.

## Accessibility conditions: Łańcut Park

The historic park of the Lubomirski and Potocki families is located in the centre of Łańcut in the Podkarpackie Voivodeship. The whole complex is situated on a small hill and includes an internal garden, an external park and a small marina. Established in the spirit of the English landscape park with a walking path system, the park is not accessible by public transport. There is a bus station nearby, and the train station is about 1.5 km away.



The main part of the park together with the Castle lies on a small hill in relation to the surrounding park, and it does not constitute a uniform surface. With all five bastions, larger or smaller elevations are observed. Seven gates lead to the castle park, open to visitors from dawn to dusk throughout the year.

- At the main intersections in the park there are information boards with a park map and main exhibits marked out. Each person buying a ticket for exhibitions receives a brochure with a situation plan of the historic park, where the location of interesting tree species is additionally marked. All permanent and temporary exhibitions in buildings have been adapted to be visited by tourists with varying degrees of disability. There are no services fully accessible and allowing the full exploration of the park.
- The external park retains a more "wild" character - especially in the western part (around the pond with lilies). The paths are in a worse condition, partly also beaten (earthy) - passable for prams and children's bikes, but not comfortable.
- About 160 pieces of benches were installed, mainly in the internal park. There are no special devices for the disabled people.
- In the summer there is a café located near the Orchid House. There are no sports facilities and specially equipped paths for sport.
- There are four toilets located in the Castle available for tourists and all of them are available also for disabled people.
- There are no activities for disadvantaged people. The staff of the Museum Education Department conduct classes and lessons on park vegetation and history. This offer is addressed mainly to students of Primary Schools.



## Accessibility conditions: Park of Castle Turnišče

Park Castle Turnišče lies on Zagrebška Street, which connects City Ptuj to settlement Videm. It is only 2,8 km far from city centre. The park is quite well accessible by car and local bus. A bus stop is located next to the park. North of the mansion runs railway with station Hajdina, (1 km away).

In the park area are some parking spaces, but mainly they are organised in area outside the castle park.



- Bicycle roads and walk paths are poorly developed, therefore the park not easily accessible by foot or bicycle.
- Castle Park Turnišče is located on plane of Drava's field, a tectonic depression that occurred because of drafting in Pliocene era. Average altitude is 220 m.
- Approach to the park area today is difficult. There is only one undisturbed (main) entrance to the park – on southwest side. There are also two abandoned paths.
- Signal system for visitors in park is not established. Park does not have orientation maps or didactic panels. There is one information sign about pond in Park Turnišče.
- The park is equipped with benches, children playground and playground for handball.
- In the park there are no facilities such as bars, restaurants, refreshment areas, nor toilets.
- Different activities are being carried out for revitalization of the park and castle Turnišče, such as: theatre plays, cleaning actions, water games for children in summer, camps, picnics.
- No specific arrangements, equipments nor activities are being implemented specifically addressing disadvantaged people.
- Conservatory plan has specified certain actions for the plants preservation. It is planned to prepare an landscape architecture plan.

## Accessibility conditions: Historical Castle Park, Velenje

The castle park is located in the immediate vicinity of the Velenje castle, south of the Velenje city, on the castle hill, about 55 m above the floor of the Šalek valley. Footpath access is by foot on the eastern and western sides of the castle hill. The eastern road is paved, with stairways, and the west road is only solidified. Access by bike and cars is by road from the south side of the castle hill. There is no parking for bicycles.

The park is easily accessible by public transports: bus stop is directly under the hill on the north side; Velenje bus station is 700 meters away; the railway station is about 1 km away.



There is no airport in Velenje, but you can fly with different airlines to Ljubljana Jože Pučnik international airport and continue your journey with other means of transport. Near the park there are car parking at the end of the access road to the castle. Parking spaces are not marked, parking for the disabled is not marked.

- The castle hill is actually a hill with three peaks - the castle is located on the northern tip, just above the valley floor, on the south-western summit there is a promenade of wild chestnuts trees, and on the south-east peak there are slopes of ski jumps and fields.
- Different seasons have no significant impact on accessibility to the park, as this main access way and the eastern footpath are solidified. In the rain and snow, the western footpath to the castle and footpaths along the park get slippery, and puddles and mud can appear in the parking lot.
- The park is not fenced. Entrances to the park are from all accessible routes.
- The directional system along the road to the castle is arranged. The individual parts of the landscape arrangement around the castle are clearly visible: forest, orchards, park. Although the park is relatively small, it is difficult for the visitor to get an idea of the whole area of the park and the possible paths that can be passed (around the castle, around the top of the hill to the south of the castle), as there are no orientation maps, didactic panels, information signs, etc. at the entrances and parking areas.
- There are no specific routes for users with motor difficulties. Most of the park and the castle is not accessible to them. Problem is the consolidation of sand and water-trails in the middle of the paths, making them impossible to drive with trolleys. The former pavement of the inner courtyard with pebbles was replaced with stone slabs, which improved the usability of the area
- There are benches in the park, but are not designed and maintained well. There are no artefacts for those, having trouble walking
- In the park there are no facilities: no bars, restaurants, refreshment areas; nor sport and children facilities.
- The park has no toilets. During the opening hours of the Velenje Museum it is possible to use the toilets in the castle. Those toilets are not suitable for people with special needs.
- There are no specific activities for disadvantaged people taking place in the park, nor activities based on real interaction with plants, as the park is based on large trees.





## Improving landscape accessibility

This section provides some key example how the different partners of the HICAPS project have developed tools and models for improving accessibility of historical parks to people with special needs, as well as increasing their fruition in a broader sense to other categories of audience who are not currently used to visit these green areas.

The improvement of physical access for disabled people in the context of historical environment is a challenging effort: building the space without boundaries with minimum alteration to the historic structures, often means careful balancing between new interventions on one side and conservation and preservation policies on the other. The design process should be conducted with conservationists, heritage architects, accessibility experts, as well as people with different disabilities and their organizations.

The proposed recommendations and tools are organised according to the institutions that have proposed them. It must be underlined that, following the general objectives of the HICAPS project, some partners have identified practical tools addressed to people with disabilities, while others reported tools targeting other categories of users, with the general goal to increase fruition of historical parks and garden.

- [Signposts with Braille letters, wooden handrail on one side of the stairway and benches](#) (Municipality of Bedekovčina)
- [Design of new paths in historical park supporting people with reduced mobility](#) (Municipality of Varaždin)
- [Action Trail "Mens Sana in Corpore Sano"](#) (Municipality of Ferrara)
- [On tiptoes under the big cedar](#) (Villa Ghigi Foundation)
- [Botanic trail for blind and visually impaired](#) (Kujawsko-Pomorskie Voivodeship)
- [Experimental garden / sensory garden](#) (Rzeszow Regional Development Agency)
- [Park accessible for physically disabled people](#) (Rzeszow Regional Development Agency)
- [Boards with Braille writing](#) (Scientific research centre Bistra Ptuj)
- [Info tables and Tactile map](#) (Municipality of Velenje), with an annex on: [Disability Awareness Training Session](#)
- [Equine-assisted therapy](#) (Faculty of Architecture of the University of Ljubljana, that also guided the general reflection about the theme of
- [Requirements for Landscape Accessibility for All](#) within the HICAPS project:



## Municipality of Bedekovčina: Signposts with Braille letters, wooden handrail on one side of the stairway and benches

Unfortunately, due to the location of the park, there are no suitable trails for users with motor difficulties or routes for users with disadvantages. There are no paths for low vision, sensory path, etc.

To increase the accessibility of park for users with disabilities the plan is to install the signposts with the braille letters also and install wooden handrail on one side of the stairway. Also, through the project, 10 new benches will be installed to ensure rest areas for visitors and make visitors experience of the park easier.



The goal of setting up a tool to increase the accessibility of the park is to ensure a safe and comfortable stay for all persons with disabilities disadvantages but also for their families and all visitors.

The target beneficiaries include:

- people with motor difficulties, blind people and their families
- the citizens of the Municipality of Bedekovčina
- all the visitors.

The revitalization process of historical park around the Castle of Gornja Bedekovčina will include also a small infrastructure interventions: signposts with the braille letters installation, wooden handrail on one side of the stairway installation and benches installation. The whole Landscape Accessibility Tool will be made of environmentally friendly material, probably wood.



The revitalization process of historical park around the Caste of Gornja Bedekovčina will include also a small infrastructure interventions: signposts with Braille letters installation, wooden handrail on one side of the stairway installation and benches installation.



## Municipality of Varaždin: Design of new paths in historical park supporting people with reduced mobility

Main elements of construction and reconstruction of proposed historical park at the entrance of the Stari grad old city are flower borders (beds) and network of paths. Paths are the basic form element of park design. Therefore, their function to be safe and comfort for users with reduced mobility (but also for all other visitors: citizens and tourist) and to contribute to their health when walking on them, is main goal of implementing new materials for their construction. Also, it is important for paths to fit with the use of local materials in natural and historical look of the park. Firm surface is basic advantage for implementation this kind of new construction, with easily available local stone material like on existing paths, connected with an organic-mineral binder called 'Stabilizer' in a stable watertight surface. This innovative solution for construction of park paths is perfect for family walks with baby cart and sightseeing, organized tourist groups, and all other visitors especially those with reduced mobility in wheelchair and other personal aids.

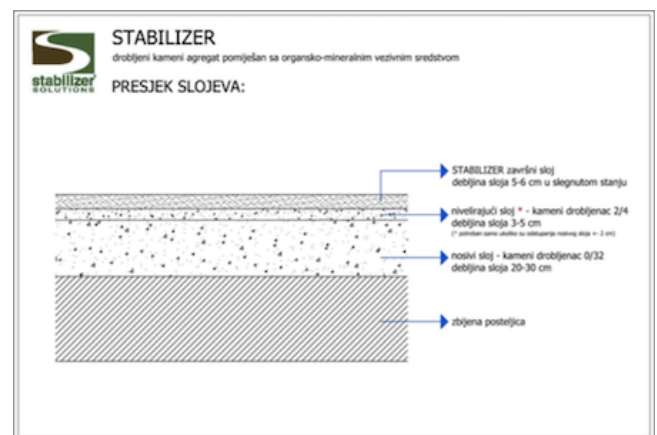
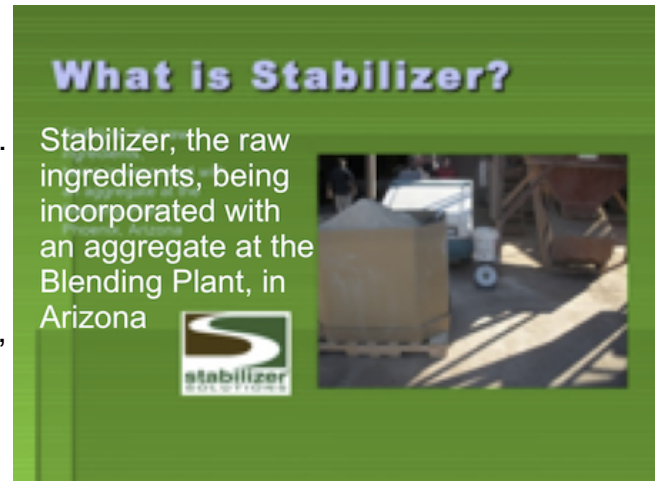
Target beneficiaries include:

- People with reduced mobility in wheelchair and other personal aids for easier movement.
- Parents with baby cart.
- Little kids with small bicycles.

Supply and installation of the materials for path construction according to project documentation and billboards: planned material is local stone aggregate 0-8 as on existing paths, connected in firm surface in layer of maximum 5 cm with material called 'Stabilizer' and water. Pework includes excavation of existing trails and soil under new planned trails, flow and stabilization of the foundation layer, and building the final layer with 'stabilizer'.

Footpath from the binding material is embedded in a detailed master plan defining the directions and surfaces of the main paths and sidewalks that make up the pedestrian communication network in the park. The pathways are a construction in the area involving the use of heavy machinery for excavating and installing stone materials for the supporting and finishing layer of the track and curb side. Materials are local stone aggregate 0-8 as on existing paths, connected in firm surface in layer of maximum 5 cm with material called 'Stabilizer' and water.

More information can be found on <http://www.stabilizersolutions.com>



# STABILIZER

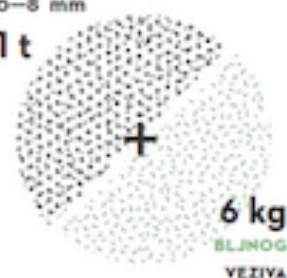
JE DVOKOMPONENTNI PROIZVOD, KOJI ISPUNJIVA ZAHTJEVE NAČELA ZELENE GRADNJE, TE PODIJE SVJEST O ALTERNATIVI ASFALTNIM I BETONSKIM ZAVRŠNIM SLOJEVIMA ZA KORIŠTENJE NA PJEŠAČKIM I BICIKLISTIČKIM STAZAMA, PARKIRALIŠTIMA, PROTUPOŽARNIM PUTEVIMA I DR.

HORTING SISAK D.O.O. / KRALJA TOMISLAVA 26, 44000, SISAK / horting-sisak@horting.hr

SASTAV

AGREGAT  
0-8 mm

1 t



6 kg  
BLJNOG  
VEZIJA

DOBAVA AGREGATA  
IZ KAMENOLOMA



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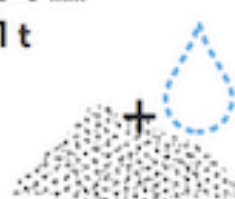
ZELENA GRADNJA PO  
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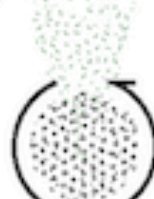
AGREGAT  
0-8 mm

1 t



VODA  
20 L

POSTEPENO UMIJEŠATI  
VEZIJO



U OMJERU  
6 kg/1t

DODATI VODU RADI  
TRANSPORTA



U OMJERU  
20 L/1t

UGRADNJA



STABILIZER



800-2000 kg



SLOJEVI

pješačke i biciklističke staze

završni sloj 5 cm

nosivi sloj 30 cm



vozne površine

80-100 MN/m<sup>2</sup>

završni sloj 6 cm

nosivi sloj 30 cm



agregat

završni sloj agregat 0-8mm

nosivi sloj agregat 0-25mm







## Municipality of Ferrara: Action Trail "Mens Sana in Corpore Sano"

The Este walls are one of the most important tourist attractions of Ferrara. They are a favourite destination for tourist guides. More and more these cultural itineraries are open to people who like sport activities (jogging and biking) and now some bicycle tours are offered all along the whole walls' circular route.

Even if the original target beneficiaries of these services were mostly tourists and visitors, many initiatives are also very popular with the citizens and the schools, providing them with the opportunity to merge physical activities with a better fruition of the many cultural opportunities present along the city walls.



There are many guided tours by bike. Following the ancient bicycle traditions of Ferrara, the bikes are always present in the streets of the city: the distances are short and the historic centre is free from cars. Cyclists can move easily through cycle paths, in the large area with limited traffic that includes all the main monuments and along the picturesque path on the green embankment of the ancient Este walls. Several types of bicycles are offered: from the convenient city bike to man or woman to a sportier bike with the gearbox. Children's bikes are also available, as well as many accessories - such as front and rear seats to allow the use of the bicycle to people of all ages. Many bicycles are also equipped with a basket that can hold bags or backpacks, making the sightseeing tour less tiring. The rental also includes the delivery of safety chains to protect the bike in case of stop.

Many opportunities for jogging and running along the Este Walls are also available to citizens and tourists wishing to train themselves in a cultural landscape environment. The 9 km of walls embrace the historic centre of Ferrara and can be covered on foot discovering the turrets, gunboats, doors and passages that witness the different defensive techniques developed over the centuries. Immersed in the green of trees and meadows, the Walls today constitute a huge garden, a place of rest and meeting for the inhabitants of the city. Several competitions are also organised all over the year, e.g. Ten-miles, Four-miles, Half-mile-for-children, 5:30am, all of them proposing routes along an evocative urban trail, which extends along the walls of Ferrara and the most interesting places of the city.

On May 1st, the foot tour of the walls is also organised. This event, that was the first race on the walls of Ferrara and still involves many families, proposes a non-competitive walking, flanked by a more challenging one to be done with the Nordic Walking technique on the distance of twelve kilometres. Finally, the Este walls are also equipped with tools for motor activities, allowing Free Gym at Open Air and promoting physical activity for quality aging.

No special infrastructure is necessary to implement the tool, since basic materials and opportunities for bike



renting already exist. The added value offered by Ferrara comes from the cultural opportunities offered by the linear park of the Este walls, that is hosting many of the most important cultural containers of the city. They are aggregation spaces for different typologies of target public and, while carrying out their core activities, bring thousands of people to the walls every year. Some of them are:

- TEATRO OFF - A cultural association that manages a theatre, designed to be a reference point for the community and offering children, teenagers and adults several courses and workshops for theatre, dance and art. It also offers weekly shows open to all, with special discounts for students and teachers;
- MUSIJAM - Artistic association that aims to spread the musical culture as a possibility for growth, personal expression and intercultural exchange, open to public of all the ages;
- Sonika - It is the largest and most accessible rehearsal and recording studio in the Ferrara area. It also offers "extra services", such as the processing of Intellectual Property Rights practices, the creation of photo books, music videos, supply of gadgets;
- JAZZ CLUB – Winner of the Jazzit Awards as the "Best jazz club of Italy" and declared "Great Jazz Venue" by the American magazine Downbeat. The prestigious stage of the Torrione hosts many of the key protagonists of the national and international jazz community.
- Terraviva – This association promotes biodynamic agriculture, Waldorf pedagogy (based on artistic and manual activities), consumer protection in food, art and environment. They welcome both children and adults, involving them in summer camps and manual activities, such as painting or carded wool, carpentry and sculpture;
- GARDEN OF THE CAPINERE – The garden is a host for animals arriving from the territories surrounding Ferrara. It also has an Educational Centre, fully accessible to people with disabilities, providing information and suggestions to visitors who are fond of local wildlife.

## Villa Ghigi Foundation: On tiptoes under the big cedar

Among the most significant trees in the park, the large Himalayan cedar (*Cedrus deodara*) that stands out in front of the Villa Ghigi building is one of the most relevant specimens, for its historical value, location, shape and the large dimension. The tree was planted in 1874 on the occasion of the purchase of the property by the last private owners, the Ghigi family, and today it is the last of three similar specimens, two of which disappeared many years ago.



Today the plant, struck by lightning thirty years ago and then without its top, is in precarious vegetative and phytosanitary conditions, as evidenced by the instrumental investigations (VTA, tomography) performed by the experts monitoring the trees of the park. One of the reasons for this precarious state is due to the many people visiting the area of relevance and excess of foot traffic that has made the soil very compact, resulting in asphyxiation and reduction of activity of the plant roots.

To protect the great cedar and guarantee its future accessibility without risking to compromise it, a series of interventions have been planned. They involve a special care of the tree and the creation of a building to avoid the damage caused by foot traffic around the area. The alternative solution would have been to close access around the plant, delimiting its area with a fence. The proposed option was considered more appropriate to give the possibility to the park visitors and school children to continue approaching the plant and enjoy its shade and welcoming embrace.

In particular, a timetable of planned works has been prepared: these activities will be carried out by expert staff under the technical direction of the organisation responsible for monitoring the park's trees according to the following programme:



- Mycorrhization of the soil in the area of the root system of the tree, through specific products that can improve the performance of the tree. These interventions, already started in 2015 and continued in 2016, inject useful substances into the soil through the use of mycorrhizal injectors, so stimulating the recovery of the root activity and the vegetative conditions of the plant;
- Decompaction of the ground under the tree and subsequent exposure of the roots by the air-spade method, an innovative system consisting in the use of a compressed-air lance able to remove the first layer of soil by exposing the roots and highlighting the presence of any pathologies;
- Supply of a new substrate with characteristics suitable for favouring the root activity and the vegetative growth of the tree (agricultural land mixed with inert draining material);
- Creation of a wooden platform to be laid on the ground under the tree, slightly raised from the ground level, intended for visitor to stop and resistant to their foot traffic. This will facilitate the respiration processes of the root system and allow rain to filter into the ground below.



- Communication of planned and realized interventions and installation of a panel to inform visitors.

The target groups are:

- All the visitors of the park who like to stop in the area in front of the Villa Ghigi and in particular under the crown of the great cedar;
- Classes of children visiting the park (primary school from 7 to 11 years old, secondary school from 11 to 14 years old), who often use the large cedar as a meeting place, for resting or for special occasions (special ritual moments are held under the shade of the tree, such as the circle of presentation, the circle of readings, games, etc.);
- Groups visiting the park, which reach the plateau near the large cedar where one of the most beautiful and appreciated views of the city of Bologna opens up.

Here the detailed plan of activities necessary to start the work programme.

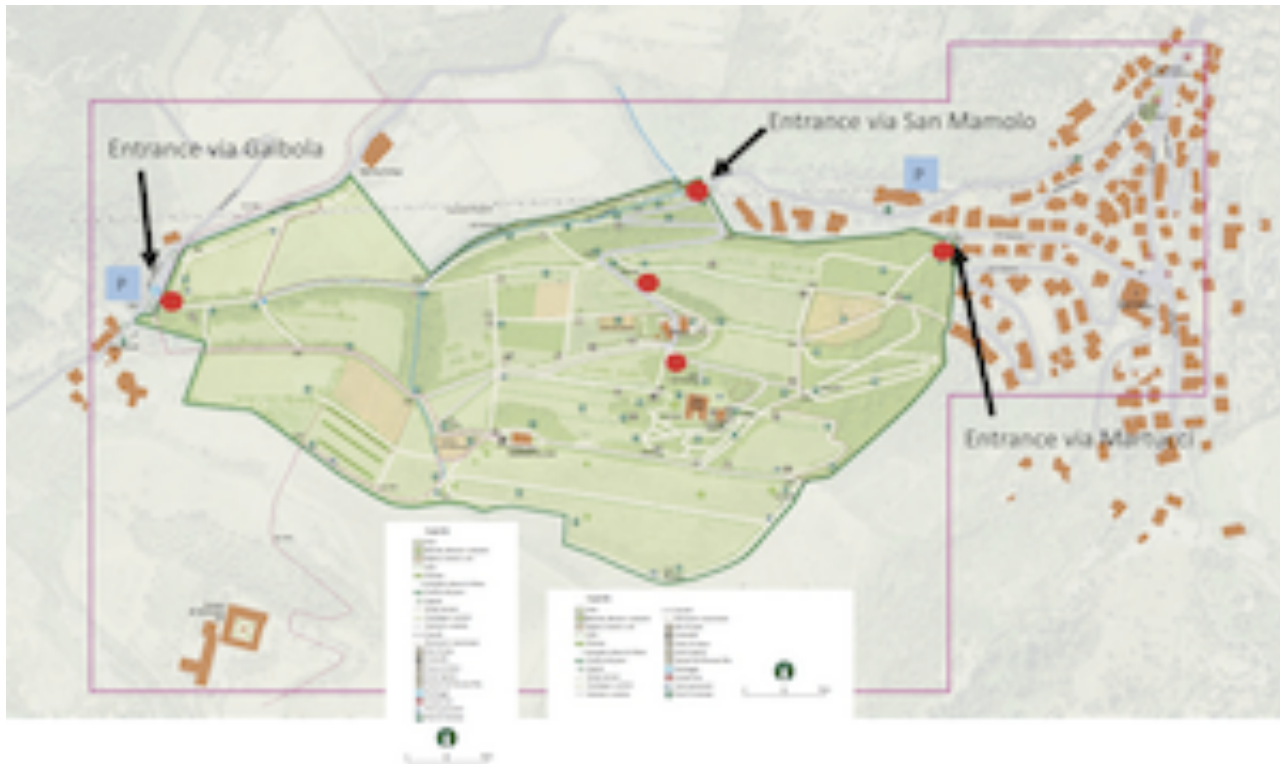
- Intervention for the soil mycorrhization. As previously mentioned, a first intervention was carried out in autumn 2016 and in the autumn of 2018 a similar one is foreseen. The work consists in the execution of a preliminary series of perforations in the ground, in the area where the root system of the tree is located, limited to the flat sector (which stands on about half of the total surface). By means of an electric drill we proceed as to obtain holes of a length of about 40-50 cm, able to accommodate the injector pole (surface treated: about 100 square meters, density of the holes: 3-4 per square metre). Then a specific equipment injects products based on mycorrhizae, i.e. a mixture of fungi that come in symbiosis with the roots of the plant and stimulate their activity, increasing the absorption of water and mineral salts.
- Decompaction of the ground under the tree using the air-spade method. It consists in the use of a compressed-air lance able to remove the first layer of soil (for an average thickness of 30-40 cm), and to clean the root system, therein verifying the presence of possible pathologies. It is an innovative method, non-invasive and therefore not harmful to the root system that will not suffer any trauma. The operation will involve some parts of the plant limited to the flat sector.
- New substrate supply. The intervention involves the supply and distribution of a specially prepared substrate in the area affected by the decompaction of the soil, composed of a mixture of good soil partly recovered on the mixed soil and draining inert material (sand, gravel, wood elements, etc.).
- Realization of a wooden platform to be placed on the ground under the tree, slightly raised above the level of the countryside, intended for visitors to stop. The presence of the platform, which will be put in place using wooden slats of appropriate size supported by a substructure of wooden elements, will be able to promote the respiration processes of the plant root and allow rain to filter in the ground below. The artefact must fit in the context so as not to compromise the peculiar characteristics of the place, which is extremely delicate given its central location in the park, the high attendance and the proximity of the historic





building of the villa. In this sense, the particular shape of the plant, whose branches touch the ground, will help to mask the presence of the artefact that from the plateau of the villa will be scarcely visible. The semi-circular platform with a surface area of about 80-90 square meters will use high quality materials that last over time, paying attention to the choice of its components (screws, hooks, etc.) and to guarantee the safety for future visitors.

- Communication of the intervention and installation of a descriptive panel near the tree. Being one of the most popular trees in the park, it is very important to give adequate communication of the interventions planned for its care. The information can be given either occasionally (through the daily dialogue that the Foundation's staff have with the park's visitors) and in the context of meetings and public events of different nature dedicated to citizenship, both through the Foundation's website. Furthermore, it is planned to create a descriptive panel, to be placed near the large cedar, describing in a simple way the actions dedicated to the tree for its protection in order to engage and empower the visitors.





## Kujawsko-Pomorskie Voivodeship: Botanic trail for blind and visually impaired

The aim of this unique botanic trail is to know the richness of plants world by blind and visually impaired people. The trail enables direct contact with many flora species, including trees, bushes, flowers through the senses other than sight, for example touch, smell and even taste. The whole route can even be 300 meters long and should be planned on the flat area. There are special railings installed along the trail with characteristics about each plant placed in Braille on metal or plastic plates.

Target beneficiaries are blind and visually impaired people.



Apart from serving its specialist purposes, the trail may also serve the widely-understood natural education. The conceptual project was developed by mgr inż. Karol Dąbrowski, a former head of LPKiW „Myślęcinek” Botanical Garden and a landscape architect. He was inspired by his visit to the Botanical Garden of Padua, where he has seen plants with inscriptions written in braille.

Plants were described in the autumn and winter of 1998. The project provided for planting of nearly 200 species. When the texts were ready, they were sent to the Polish Association of the Blind in Warsaw to print special plaques to be mounted on railings.

The ability to recognize plants is a combination of knowledge about their characteristic features such as a structure, foliage, shape, buds, flowers, fruit and smell. As part of practical classes conducted for blind children on the trail, it is significant that a teacher should specify the most important features of plants in a given period of vegetation. Thus, it is possible to gain multi-directional knowledge about plants through:

- The touch, e.g.
  - comparison of the character of needles of coniferous trees,
  - comparison of leaves of deciduous trees,
  - differentiation of the structure of grass, herbaceous plant and shrub shoots,
  - comparison of shapes of buds,
  - comparison of the structure of trees and shrubs.
- The smell:
  - comparison of smell of various species of coniferous trees,
  - comparison of the smell of blooming plants etc.,
  - class scenarios will be useful for the classes.

The trail is 300 m long and bends mildly on a grass area. A desired visiting direction is marked on a railing made of a stainless pipe mounted at the height of 90 cm. On the pipe there are plaques with descriptions of plants in braille. A demonstrated plant is found directly



at the plaque. As many as 105 taxons of plants were planted directly into the ground. These include plants growing higher than 1 m, which ensures free contact with the same. Herbaceous, dwarf and seasonal plants will be demonstrated on tables. They include about 100 species. The order of plants demonstrated on the trail complies with Adolf Engler system of plant classification.

The selection of plants on the trail for the blind was based on the following criteria:

- High resistance of plants to touch, excluding stinging plants, dangerous prickly plants and strong poisonous plants
- Plants distinguished by their structure, shape and surface of leaves and fruit and typical smell
- Plants planted by species with foliage in their entire structure

As regards numerous trees, the selection included species with umbrella-like shapes and low set crowns such as the horse chestnut, American tulip tree, London plane tree, species with hanging branches such as the Pendula weeping European larch, Pendula Scots elm etc. Numerous climbing plants stretching on trellises and pergolas. Some of the plants are planted in flower pots, placed on tables and stored in a greenhouse and presented only during the season. Vegetable plants are also widely presented. Additionally, there are containers with cones, fruit and branches of some plants.

Have a look at the virtual walk: <http://www.myslecinek.pl/content/ogrod-botaniczny>



## Rzeszow Regional Development Agency: Experimental garden / sensory garden

Loss of sight, eye disease and limited mobility significantly cause limits for people with the opportunity to take pleasure in gardening. The creators of the Sensory Garden in Bolestarszyce appealed to the other senses of man: touch and smell, thanks to which one can also enjoy the contact with nature.

Plants that are planted in the garden have been selected due to the attractive scent qualities, allowing you to "explore" the garden using the smell sense. They have mostly been planted at a correct height that allows them to be touched without the need to bend down. The appropriate height of plantings for people using wheelchairs has also been considered. The selection of plants in terms of fragrance at the same time created a specialist garden in terms of their fragrance. The second type of planting are plants selected in terms of their tactile attractiveness. They are characterized by the appropriate size and shape variety.



The garden area has also been adapted for people using wheelchairs and with limited mobility: wide alleys with appropriate surface were created, facilitating independent movement (non-slip surfaces). There also have been placed a number of benches allowing frequent rest while visiting the garden. As a rule, benches are located in the vicinity of the most interesting plant areas. From the website of the arboretum you can also download mp3 files with the description of each plant from this garden. Text files are also available.

Target beneficiaries are blind and visually impaired people, people using wheelchairs and with limited mobility, elderly people with visual problems and reduced mobility.

An external tool for effective implementation of the above-mentioned tool is an information campaign providing information about the existing garden, addressed primarily to people with sight and movement impairments and to the elderly. The garden itself has been designed so that it is possible to visit it without taking earlier actions. It runs a network of information boards allowing for independent sightseeing. Descriptions of individual plants have been placed on information boards, the size and graphic design that is dedicated primarily to people with visual problems. For blind people, tables written in Braille and placed at the appropriate height and in places easily accessible from garden paths were designated. The garden has been designed to be able to conduct educational activities in it, and their subject matters and course largely depends on the conduct of the host.



Interview with participants about their use of herbs in daily nutrition are also planned. We refer to their ideas about the shapes of individual plants and the use of their proper parts, as well as their taste and smell. Then we are looking for the right plants in the garden.

The collected material can be checked using three senses: smell, touch and taste. We pay attention to the dependence between aroma and taste. Then we confront their imaginations with



available herbal material. We check the fragrances and structure of plants that we get spices of. We compare odour and taste sensations (not all people receive the same smell as well as taste). At the end, we carry out a competition of recognizing herbs by their smell, shape or taste.

This activity is aimed at making the participants aware of the fact that they associate with plants every day using them for many purposes. It should also stimulate curiosity about the origin of plants and the composition of flavours used in the daily diet.





## Rzeszow Regional Development Agency: Park accessible for physically disabled people

The park surrounding the manor in Wiśniowa was most probably built in the 16th century, then at the turn of the 18th / 19th century it was thoroughly redesigned as a geometric garden. Described in K. Buczkowski's book "Z ogrodów stylowych w Polsce", it contains traces of three garden assumptions: the first, Polish, which formed long avenues of linden and oaks, the second in the French style with hornbeam aisles and the third in the English style. Kazimierz Mycielski also mentions how beautifully the park used to be in the "History of the House in Wiśniowa." Unfortunately, only small remains of small architecture have survived to our times:



benches and stone tables (currently stored in the palace), extremely charming, especially the autumn avenues hornbeam and rare valuable specimens: limes and oaks - nature monuments, as well as partially preserved fence and rebuilt in 1972 entrance gate. Along with the construction of the mansion, the park was also re-composed. The rows of hornbeam axes of the original axial foundation were preserved, the lime alder on embankments and old trees, whereas a long avenue of hornbeam and a driveway from the south were added from the north. Behind the avenue, in addition to the northern border of the garden at the beginning of the 20th century, a Neo-Romanesque burial chapel was erected.

The garden, cut with smooth lines of roads and paths, had large clusters of trees at the eastern and western border as well as in the middle part. From the west the boundary of the garden was a stream feeding a rectangular pond located at the height of the manor. Today, no longer existing, but its trace is clear in the field.

The tree stand is dominated by domestic species of deciduous trees: hornbeam, finely and broadleaf lime, pedunculate oak. In the composition of the garden, avenues and rows of trees and arbours were formed from them. Two tulip trees from the first half of the twentieth century survive from the trees of the alien origin in front of the garden façade. The park also has more than 200-year-old oaks recognized as natural monuments. To this day, two hornbeam avenues have been preserved: old and new, the second of which has 360 trees planted in a compact lane. The park in Wiśniowa was famous for its landscape values and



exceptional light, which is why it was a painting en plein air, min. for Józef Mehoffer, Józef Czapski, Jan and Hanna Cybis and Tytus Czyżewski. The nineteenth century design of the park, however, did not assume that it would be adapted to the needs of people with disabilities. Therefore, due to terrain conditions (slope, terrain, narrow alleys). it was not available for people with physical disabilities. One of the priorities of the revitalization carried out in the years 2007-2013 was the adaptation of the park layout for the needs of people with limited mobility, including wheelchair users.

Target beneficiaries are people with reduced mobility, including people in wheelchairs.

Revitalization along with the adaptation of the area for the disabled was preceded by research and a properly conducted query. A construction company specializing in earthworks was hired to adapt the area to the movement of people with limited mobility, including wheelchair users. Information activities are carried out on a large scale. A special folder - map can be downloaded from the website of the court, as well as purchased on the spot. From the site <http://ogrody.podkarpackie.travel>, i.e. the Carpathian Route of Gardens and Historical Houses, you can download two audiobooks dedicated to the park and the manor in Wiśniowa.



In order to implement the above-mentioned tool, it is familiarized with the original assumption of the park. The plan of alleys and paths was followed. Where possible, earthworks were carried out and alleys were carried out in this way, it was easier to move on wheelchairs (for example, the rapid depressions were levelled, the route was sprinkled to gently descend to the bottom). The alleys have been extended so that they can move around freely and change wheelchairs. Elevated curbs were used. Pavement of paths has been hardened so that they do not get lost during rain and thaw. Alleys located closest to the manor are paved with paving stones. Coppices were removed, which obscured the landscape values of the park and those that were directly on the paths. In the park there is a dense network of benches for resting. Traffic of any vehicles, including bicycles on paths, was also prohibited in order to ensure the safety of wheelchair users. Aisle lighting has been installed. Due to the needs of people with physical disabilities, a terrace with a ramp for wheelchairs was designed in front of the garden facade of the palace. Parking spaces for the disabled are located nearby. The scrub area was levelled, adjusting its slope to the possibility of overcoming it in a wheelchair, and then a playground was designed there, a wooden gazebo and a separate place for a barbecue or bonfire.



## Scientific research centre Bistra Ptuj: Boards with Braille writing

Less visible problems are those of people with visual and hearing impairments, among which we assign the blind, the partially sighted, the deaf and the hard-of-hearing. Problems of people with visual and hearing impairments can most frequently be solved by great adaptability of the tourist workers and certain technical aids. These are often problems dealt with by the elderly who present a big market share of accessible tourism.



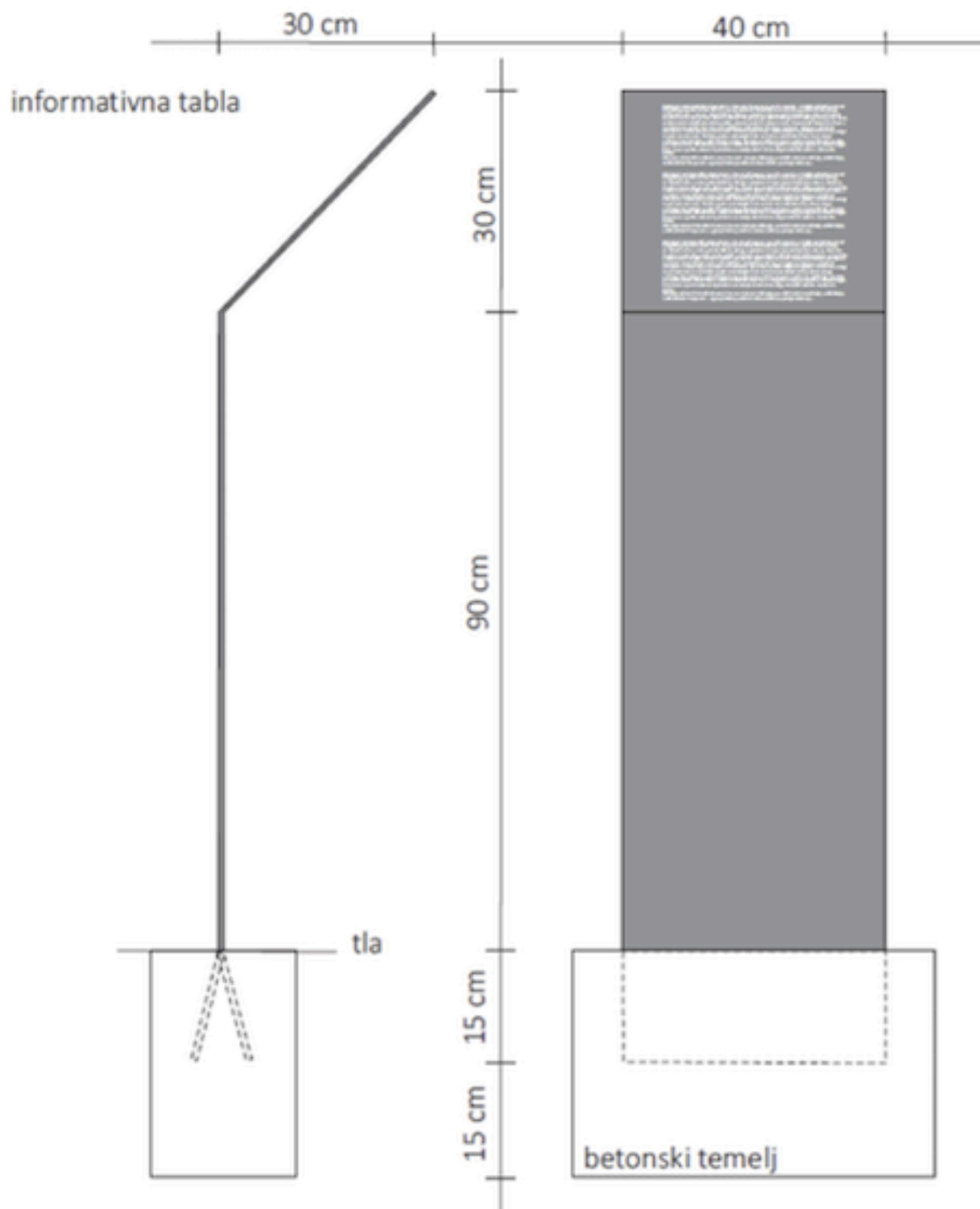
In that content, we would like to implement tool for people with visual and hearing impairments - boards with brail writing. On benches or sign tables we will adjust boards, which will describe important informations about park Turnišče. Those boards will also be guides for people with disabilities through castle park.

Target beneficiaries are people with disabilities, people with visual and hearing impairments.

The new path will be at least 1,80 m wide for people on wheelchairs. For people with visual impairments we will place board with Brail writing. The board will present all information about historical and natural facts in castle park Turnišče. There will also be tactical map, which will give the whole perspective of castle park Turnišče for people with visual impairments. New path will be at least 1,80 m wide for people on wheelchairs. Path will be firm, durable and slip resistant, locked with wooden curb stone.

For people with visual impairments we will place board with Brail writing. The board will present all information about historical and natural facts in castle park Turnišče. There will also be tactical map. The wooden curb stones will be a little higher on right side and will serve as tactical guidance for blind and visual impairment throughout the path. Boards will be about 1,2 m high, bended in 0,9 m at 45°. That incline is suitable for reading content. Width of board will be different – appropriate to the content.





## Municipality of Velenje: Info tables and Tactile map

Many times, people with no difficulties don't even think and see that something might be a problem for people with specific problems and handicaps. Therefore, my recommendation is to think/implement some of the general knowledge provided from experts from the field, when preparing materials or establishing the route.

### Info tables:



- Fonts - Use sans serif fonts. 'Sans serif' fonts do not have additional flourishes on letters. Examples of plain, easy to read 'sans serif' fonts are: Arial, Verdana, Tahoma. Font size should be a minimum of 14 point or more. Use bold to highlight and avoid underlining (can make words run together).
- Layout of text - Text should be left justified with a ragged right edge. Use ample space between sentences and paragraphs to break up text. Use bullets or numbers rather than continuous text. Do not begin sentences at the end of a line.
- Presenting information - Text should be black on a white or yellow background. Cream should also be considered/offered as an option. Avoid putting text over background graphics.
- Colour contrast – is very important. The greater the contrast between colours the better.

### Tactile map/tactile guide

- Tactile models of the ground planes of Velenje and the Velenje castle, which make it possible to feel the growth of the city and numerous reconstructions of the Velenje Castle under your fingers. Tactile guide through museum collections.
- Idea: Production of tactile map of historical park, artefact from the park,...implemented somewhere in the park and tested.



Target beneficiaries are people with visual impairments and blindness. Can be useful for all or at least not disturbing for people without visual impairments. Tactile models are usually also interesting for younger generations.

The tool has been designed by an external expert, following the technical specifications provided by the Municipality of Velenje: e.g. dimensions of the box (height, length, width), material to be used for tactile map (resistant to human acid and weather effects) in the area identified by the Municipality of Velenje.

When we talk about landscape accessibility, we can have in mind five types/categories of accessibility. Those categories are:

- Physical accessibility,
- Accessibility to knowledge & information,
- Economic accessibility (i.e. free services and paying for personalized services),

- Psycho-social accessibility (considering all learning typologies i.e. learning difficulties to intellectual people requiring specific in-depth info),
- Socio-cultural accessibility (at personal level anyone can benefit from cultural values – knowledge regardless of cultural, social, religious/ethnic background).

When preparing, thinking about our tools, would be wise to take all 5 types of accessibility in our consideration. Term “universal design” takes into consideration all of them. “Universal design” means the design of products, environments, programmes and services to be usable for all people, to the greatest extent possible, without the need for adaptation or specialized design.

Persons with disabilities need adjustments in the built environment to access and use (one of focus of HICAPS project that JS appreciate). Nevertheless, the studies show that accessible and adjusted environment benefits everyone, not only people with disabilities. This is indisputable fact - universal design benefits everyone.

Further information in annex: [Disability Awareness Training Session](#)



## Municipality of Velenje: Disability Awareness Training Session, by Sophie Weaver, Access Officer, Colchester and Ipswich Museum Service, UK

### Blindness and visual impairments

Many Approximately 1.1 million people are registered as blind or partially sighted. Every day over 100 people start to lose their sight in the UK. One in 12 of us will become blind or partially sighted by the age of 60. Approximately 1 in 7 people over 60 are blind or partially sighted. Approximately 18,000 blind people are regular Braille users.

When assisting someone who has a visual impairment:

- Identify yourself clearly and introduce anyone else who is present. Try to indicate where people are placed. Identify yourself each time you meet someone with a visual impairment until they get to know you well enough to recognise your voice.
- If you are guiding someone with a visual impairment, allow them to hold your arm, rather than you holding theirs. This allows the individual to be in control.
- Mention steps or other obstacles as they occur. Indicate whether steps are going up or down.
- When opening doors, say whether you are opening them towards you or away from you, and on which side, either left or right.
- Stand still whilst you are speaking to someone with a visual impairment. Someone with limited vision may find it difficult to maintain eye contact if you are moving around.
- Tell a person with a visual impairment when you are leaving the room or moving away from them, so they don't continue to speak to you after you have left.
- If you have to leave someone with a visual impairment in unfamiliar surroundings after you have been guiding them, make sure they are standing in a safe area, eg not behind a door, or at the top of stairs. try to ensure they have a physical point of contact, eg next to a chair or table.
- When offering a seat, first place the person's hand on the back or arm of the chair so they are aware of the position of it.

### Describing objects

When describing an object to someone who is blind or visually impaired, it is important to be as descriptive as possible and pay attention to details. This will help give a clearer picture of an object. If the object is behind glass and cannot be touched it is especially important to describe in as much detail as possible.

As well as saying what the object is, its history and purpose, the following details should be described:

- Size - be as precise as possible, not simply whether it is large or small. Try and give dimensions.
- Shape – describing the shape and edges can be useful. i.e round, square, oblong, circular. Think about contours, whether it has smooth rounded edges, very straight edges, jagged edges or points.
- Colour – describe the intensity or shade of the colour. i.e pale, dark, vibrant, pastel.
- Texture – Describe the material the object is made of. i.e metal, wood, fabric, cloth.



## Presenting or providing information

Information in alternative formats is important. Information can be provided in the following ways:

- Large print – a minimum of 14 point and preferably 16-18 is recommended.
- Braille – Braille is a system that uses raised dots on paper to represent letters and words. Not all people who are blind can read Braille.
- Audio tape – Putting information onto audio tape is useful for blind and visually impaired people, especially for those who cannot read Braille.
- When recording information it is important that it is given clearly. Clarity of speech is vital.
- Descriptions of items should have the kind of detail given above for describing objects.

## When producing information, bear in mind the following

### Fonts

- Use sans serif fonts. 'Sans serif' fonts do not have additional flourishes on letters. Examples of plain, easy to read 'sans serif' fonts are: Arial, Verdana, Tahoma
- Font size should be a minimum of 14 point or more.
- Use bold to highlight.
- Avoid underlining – it can make words run together.

### Layout of text

- Text should be left justified with a ragged right edge
- Use ample space between sentences and paragraphs to break up text
- Use bullets or numbers rather than continuous text
- Do not begin sentences at the end of a line.

### Presenting information

- Text should be black on a white or yellow background. Cream should also be considered/offered as an option.
- Avoid putting text over background graphics. It is difficult to read.

Colour contrast is very important. Always consider the following:

- The greater the contrast between colours the better.
- For displays in general, light colours should contrast against dark ones.
- Edges of displays cases should contrast clearly with the floor.
- When using dark colour for text, make sure the background is light.

## Deafness and hearing impairments

There are over 9 million deaf and hard of hearing people in the UK. Approximately 2 million people have hearing aids, but only 1.4 million use them regularly. There are 250,000 British Sign Language (BSL) users. Approximately 70,000 deaf people use British Sign Language as their first language.

Hearing aids help but do not solve hearing impairment. They do not give normal hearing. As they amplify sounds, noisy environments can become quite confusing and stressful. Hearing aid users still require clear speech and communication. People who are hard of hearing, and also profoundly deaf people, often use a system of lipreading and lipspeaking.

British Sign Language (BSL) is a visual representation of the spoken word. It uses hand signs, and non-manual features - facial expressions and body language to communicate words and phrases. BSL is not a direct translation of the spoken English word and so is a language in its own right. It is the fourth language of the UK after English, Gaelic and Welsh. For deaf people who have BSL as their first language, written English can be complicated to read and understand.

The following sentences show the differences:

- |                                 |                        |
|---------------------------------|------------------------|
| • What's your name?             | Name what?             |
| • Where do you live?            | Live where?            |
| • Do you drive?                 | Drive can?             |
| • What's your favourite colour? | Colour favourite what? |

## Lipreading and Lipspeaking

Lipreading is reading the visual information of the spoken word. This includes how the lips, tongue and jaw move, as well as other facial expressions. When someone is speaking their facial movements, gestures and body language give us clues to help us follow what they are saying. Many hard-of-hearing people find lipreading helps them to understand more of a conversation.

If you are talking to a person who is lip reading:

- Make sure you are in front of the person and look directly at them.
- Always face the light and avoid being in shadow or in front of a window.
- Avoid background noise.
- Speak clearly, with a normal rhythm of speech.
- Do not shout or over-emphasise speech as this will make lip reading more difficult.
- Use gestures and body language to reinforce what you are saying.
- Ensure your face is well lit and not in shadow or silhouetted by a bright window.
- Keep hands, papers, cups of drink, etc away from your face while you are speaking.
- Only one person should speak at a time.
- If an interpreter is present, always speak directly to the person who is hearing impaired and not the interpreter.

## Wheelchair users and mobility impairments

Although when thinking of physical disability most people think of a wheelchair only approximately 5% of people with a disability are wheelchair users. A physical disability can affect any part of the body. Mobility, dexterity, balance, co-ordination and even speech can be affected. Physical access is not just about ramps and lifts. Getting around a space and the ease of use of facilities is just as important.

Assisting someone who is a wheelchair user

- When talking to a wheelchair user try and put yourself at their eye level.
- Talk directly to the wheelchair user, not automatically the person that is with them. Similarly, do not ignore the person with them either!
- Do not lean on a person's wheelchair. It is part of their personal space.
- Do not always assume a wheelchair user needs assistance. Ask first.
- When pushing a wheelchair in an area that is not level, remember to put the brakes on when standing still.

Making displays more accessible. When making displays more accessible to wheelchair users,

and many others, consideration should be given to the following:

- No items should be displayed too high or too low to the floor. A height of between 700 – 1500 mm from floor level is recommended.
- Labels should be displayed upright or at an angle, for easier viewing.
- Signage – should be 1400–1700mm above floor level
- Space between displays – min 900mm
- Main/escape routes – 1500mm
- Turning points – 1500x1800mm
- Desk cases: - max. 800mm from floor level, with 400mm overhang and 800mm clear space underneath for leg room
- Height of labels: - 750-2000mm (or 1200-1500mm for detailed text)
- Interactive displays – max 800mm from floor level
- AV presentation areas – W900 x L1400mm
- Telephone handsets (wall/desk mounted) – 1000-1200mm above floor level.

#### Assisting someone with a mobility impairment

- Do not assume someone with a mobility impairment needs assistance. Ask first.
- Allow time for the person to move around the space. Sometimes they may take longer to do so.
- Ensure there is adequate seating to allow someone to rest at various intervals.
- If someone uses a walking frame, do not lean on it. It is part of their personal space.
- If you are giving a guiding arm to someone, allow them to take the lead and walk at their pace.
- If someone has a speech impairment allow them to finish what they are saying. Do not jump in or finish sentences for them.

## Faculty of Architecture of the University of Ljubljana: Equine-assisted therapy

This Accessibility of landscape when mental disabilities, physical handicaps, behavioural problems, autism etc. Come into question is not an easy task. However, there is a very successful model that has been put into practice at Prestranek Castle in Slovenia.

Equine-assisted therapy is a therapeutic riding or horse therapy adapted to an individual rider and his or her problems and has its own objective. It is comprehensive: in terms of physical as well as psychological and social fields. Riding improves posture and balance, and relaxes muscles. It strengthens the sense of symmetry, enhances mobility and improves coordination. The proper posture is also a precondition for the proper movement of shoulder girdle and arms, pelvis and legs, the development of proper breathing and speaking.



This therapy helps the riders to learn how to cooperate and solve their problems, follow the instructions. Taking care of and riding the horse – all this requires physical skills, trust, cooperation, expressing the emotions, communication, responsibility. A horse can thus be an excellent member of a therapeutic team in developing working habits, overcoming personal fears, strengthening the feelings of self-confidence and trust in one's abilities. It helps to stimulate the rider's healthy responses and to transfer them in everyday life. The activity is adapted according to the rider's ability of concentration, physical capacity and motivation.

The horse is in such case thus the agent that creates a special condition for the disabled person and consequently makes it possible for the special visitor to access landscape in a meaningful way. Including horse therapy into activities of gardens or parks is naturally not applicable to all contexts since such an activity demands particular conditions (designing stables etc.). However, it is a tool that deals with the demanding task of accessibility for mental disabilities.



The therapy is recommended for persons with mental disabilities, minor physical handicaps, behavioural problems, social issues, learning difficulties, autism and autism spectrum disorders, sensory disturbances, hyperactive persons, blind and partially-sighted, deaf and hard of hearing, etc.

Equine-assisted therapy is appropriate as an accessibility tool for contexts in which horse-back riding was present as a part of the activities of the estate's history.

To start thinking about this tool several specialists have to be involved: psychologists, equine specialists, animal specialist, social science specialists, landscape architects etc. To create such an environment is a complex task that intertwines several disciplines in a challenging way.

In order to implement the described tool in the context of historical environment you first have to take into consideration the physical aspects of such tool. Chosen historical landscaped



environment has to have a tradition of horse activities on the estate (the same can be applied for any other animal-based therapy).

Specific facilities to house the horses (paddocks, fenced arenas, pastures, storages and many more) has to be present on the estate or should be organised nearby. There should also be facilities for workers and visitors (offices, toilets, wardrobes etc.) which must be adapted for people with disabilities. The terrain should be hardened to endure the activities of the programme.



Equine-assisted therapy is designed as a complementary and highly flexible therapy. In order to ensure its success, specialists with specific set of skills and knowledge must be employed. Because of the adaptation of the programme to the specific needs of its users, collaboration between specialists from medical and social fields is a necessity.

Equine-assisted therapy has been used by medical professionals such as occupational therapists, physical therapists, speech language pathologists, psychologists, social workers, and recreational therapist:

[https://en.wikipedia.org/wiki/Equine-assisted\\_therapy](https://en.wikipedia.org/wiki/Equine-assisted_therapy)

An Equine Therapy placement with Projects Abroad is perfect for those with an interest in horses and an enthusiasm to work with vulnerable people and those with disabilities:

<http://www.oneworld365.org/company/projects-abroad/equine-therapy-volunteer-projects-abroad>



Specific exercises: Equine Therapy - Jacob Crites, 7, throws a ball into a bucket while participating in equine therapy at Giant City Stables. (Photo by Russell Bailey):

<https://news.siu.edu/2016/12/120916cjm16173.php>

Group therapy - It is a powerful and effective therapeutic approach that has an incredible impact on individuals, youth, families, and groups. EAP addresses a variety of mental health and human development needs including behavioural issues, attention deficit disorder, PTSD, substance abuse, eating disorders, depression, anxiety, relationship problems and communication needs:

<http://www.limerickhorseriding.com/425730069>



## Requirements for Landscape Accessibility for All

The general space requirements described below are set on basic technical information focused on people with different disabilities – from limited mobility to blind, deaf and hearing impairment. Those values are recommendations and should be applied in accordance with national rules and legislation for each specific country!

### Parking

#### TECHNICAL INFORMATION:

- Bay + accessibility zone (for driver or ramp / transfer hoist): 120 cm + 240 cm (+120 cm - width) x 550 cm – 600 cm (length)

#### ELEMENTS:

- Bay
- Upright sign – international symbol of accessibility
- Graphic signs on the ground

#### MATERIALS:

- Firm, durable and slip-resistant
- Blind / visual impairment access: corduroy-type tactile paving (hazard warning) between footpath and road

#### COMMENTS:

- Walking distance: from parking bay to park entrance - max. 25m or: located adjacent to the main site/park entrance; organized set down area; mini-bus
- Safe transfer: dished kerbs, level approach routes, adequate lighting, sound
- Clearly marked the accessible route to the park

### Setting Points (set down / pick up point)

#### TECHNICAL INFORMATION:

- Cover bay + benches
- The same level as entrance of the park or no stepper then 1:12. Switch and socket outlets should clearly indicate whether they are on or off.
- Tactile buttons: embossed; operational with the use of one hand; located min 50cm from a corner

#### ELEMENTS:

- Bay
- Cover
- Benches
- Sign

- Tactile button

#### MATERIALS:

- Firm, durable and slip-resistant
- Blind / visual impairment access: corduroy-type tactile paving (hazard warning) between footpath and road

#### COMMENTS:

- Set-down/pick up points: should be positioned as close as possible to the main entrances and should be clearly identified; used for public transport for people with limited mobility; short transfer from park entrance to parking area
- Online Accessibility guide for the historical park

## Entrances

#### TECHNICAL INFORMATION:

- Entry road: min 120 cm (width), clear signing
- 1 cm max 2 cm gap between floor surfaces
- Platform lifts
- Ramps (temporal): 150 cm (width) + 180 x 180 cm landing on top and bottom min. 90 cm
- Steps: 30 – 45 cm (depth) / 15cm (high) / 150 – 200 cm (length) (min. 120 cm)
- Handrails: 30 cm extending beyond the ramp or stairs, 70 – 90 cm bottom / 100 – 130 cm top from the floor
- Entrance door: min 100 - 120 cm, 150 cm for one wheelchair + person alongside, 180 x 180 cm of manoeuvring space before entrance with weather protection, automatic door-opening devices, door handle 90 - 100 cm from the floor

#### ELEMENTS:

- Entry road
- Platform
- Lifts
- Ramps
- Steps
- Handrails
- Doors

#### MATERIALS:

- Firm, durable and slip-resistant
- Provide audible and visual notification of the floor level and notice of opening/closing doors and important points

#### COMMENTS:

- Well-designed ramps, steps and handrails should respect the existing ambience of the park / building and use existing ground slopes and planting
- Platform lifts incorporated within an existing structure
- Alternative entrance should be available for all, and not exclusive to visitors with limited mobility.

## Accessibility / Circulation

### TECHNICAL INFORMATION:

- Information map: optional routes, pathway, surfacing, width, gradients, cross slopes, locations of bench/picnic facilities and accessible toilets or events.
- Signs and walkways, with a clear headroom height of 230 cm

### ELEMENTS:

- Paths
- Entrances
- Stairs
- Ramps
- Lifts (platform lift, passenger lift)
- Signs
- Vegetation

### MATERIALS:

- Clearly defined logical routes:
- Surface: level, smooth and slip-resistant, no obstacles located within the circulation route.
- Tracking route: signing flush surface with no breaks or joins to pathways and ramps
- Use of colour contrasts and textural changes
- Planting defining routes or identifying hazards through scent and colour

### COMMENTS:

- Accessible route: from the entry/car parking area to various locations and facilities should be clearly signposted at the appropriate levels
- Provide tracking route independently used by a wheelchair user
- Provide hearing and visual communication points
- Provide enhancement system for people with a hearing/visual impairment: Loop or infra-red hearing systems, Captioned performance and speech-to-text, Audio Described Events
- Access to changes of level within a historic building or site must be managed sensitively and keeping the historic fabric
- All of the major routes to the entertainment, food, and services areas, should be linked with a level
- Alternative solutions: (impossible to provide access due to special historic features of site) Audio visual presentation, Viewing points, Reconstructions, Virtual representative tours, mock-ups, etc.

## Paths

### TECHNICAL INFORMATION:

- Passing of the Users:
- 120 cm for one wheelchair
- 150 cm for one wheelchair + person alongside
- 200 cm for two-wheel chair in opposite directions
- 1 cm max. 2 cm gap between floor surfaces
- 7,5 cm kerb edge

### MATERIALS:



- Path surface: level, regular, smooth and slip-resistant, hard (brick, stone,) keeping with the colour and texture of the site
- Tactile surface: (blind and visual impairment), red blister-type (for controlled crossings), buff, yellow or grey blister-type (for uncontrolled crossings), corduroy type (for hazard warning)
- Kerb-edge: white
- Colour not cause reflection or glare
- Avoid large repeat floor patterns
- Provide audible and visual notification of the floor level and notice of important points

#### COMMENTS:

- Provide seats for long and sloping
- Circulation route must be kept clear with no obstacles located within – without any shop displays, bins, seats...

## Ramps

#### TECHNICAL INFORMATION:

- 150 cm (width) + 180 x 180 cm landing on top and bottom, min. 90 cm
- Inclination: 6m and more length: max 1:15 - max 6,5%, less then 6m length, 1:13 – 7% or 1:12 -9% (by reconstructions)
- Drainage 1:50 cross-fall
- Edge protection: 15cm (high)
- Handrail: on both sides, - extending 30 cm beyond the ramp, high 90 – 100 cm
- Lighting: from the side, max 200 lux

#### MATERIALS:

- Non-slip
- Tactile surface: (Vision impairment) The approach to the ramp should be highlighted by the use of colour contrast, tone and texture change
- Provide audible notification of the floor level

#### COMMENTS:

- Alternative to ramp: - Elevator min 80 cm (width) + acoustic switchboard with sounds = <200 cm or Special not-enclosed platform lift >200 cm 110x140 cm – door 90cm, Provide 1800 x 1800mm clear space in front of lift on each landing, Lift call button should be between 900 – 1100 mm.
- Provide audible and visual notification of the floor level and notice of door opening/closing

## Stairs

#### TECHNICAL INFORMATION:

- 30 – 45 cm (depth) / 15cm (high) / 150 – 200 cm (length) (min 120 cm)
- 1 cm max. 2 cm gap between floor surfaces = < 5 stairs: fence on side, landing 150 - 180 cm
- Handrail: on both sides, extending 30 cm beyond the ramp, fence in between when the stairs are 400cm length, high 90-100 cm
- Lighting: from the side 200 lux

#### MATERIALS:

- Non-slip
- Tactile surfaces: corduroy tactile warning on top and at bottom of the staircase running across full width of steps.
- Nosing integral with the step, distinguishable in colour and tone, used on the front face and the top of each step so as to be visible while ascending or descending.
- Step edges in contrast with the rest of the surface
- Provide adequate lighting. Avoid confusing shadows.

## Handrails / Fences

### TECHNICAL INFORMATION:

- Guard rails: - 110 cm viewing points
- Round or oval profile: round handrails 32 – 45 mm, oval handrails 38 mm (depth) / 50 mm (width)
- Wall-mounted handrail: 60 – 75 mm distance from the wall, 12 m between the bars, 90 - 100 cm high

### MATERIALS:

- Wood and nylon-sleeved handrail profile
- Steel tubing with smooth finish with no sharp edges

## Information Points

### TECHNICAL INFORMATION:

- The variety of formats: all written documents, information on email or audiotape, accessible websites, audio description services, touch facilities - a facility for exchanging written notes, verbatim speech-to-text transcription service, induction loop systems, including portable loop systems, sign interpretation (on request), information displayed on a computer screen, text phones, telephone amplifiers, minicom, inductive couplers, lip speaking interpretation, fax machine, text facility
- Pre-visit information: online brochure, webpage, audio,..

### MATERIALS:

- Use of colour contrasts
- Braille
- Large or clear print

### COMMENTS:

- An Accessibility Guide to the event: printed version and online version
- Content: Pre-event ticket sales, including information on concessionary pricing, Choice of seating areas and tickets prices, Travelling to the event, Set-down and pick-up areas, Accessible entrances, Parking facilities, Services map, Accessible routes, Accessible toilets, Accessible services, Departing from the event, Contact telephone numbers and emails for queries and for on-site support staff and services.
- The information given should include specifics on the level of access provisions throughout the visiting experience and any areas where access is not possible for people with different impairments

## Bench, Seating / Resting areas

### TECHNICAL INFORMATION:

- Position of seats should be min. 60 cm from the line of movement
- Seats: 45 - 48 cm (high), back and arm rests min. 45,5 cm (high), space between seats 90 cm width, 140 cm depth

### MATERIALS:

- Firm and stable, durable, smooth and slip resistant (wood, steel)
- Use of colour contrasts and textural changes

### COMMENTS:

- 25 m distance between them
- Indicating signage
- Resting areas should be adjacent to accessible routes with access

## Picnic Area

### TECHNICAL INFORMATION:

- Seat/Bench: 45 - 48 cm (high), back and arm rests min. 45,5 cm (high)
- Tables: 75 - 80 cm with 70 cm clearance beneath / 80 cm width / 48 cm depth, Cantilevered table legs

### MATERIALS:

- Firm and stable, durable, clear, smooth and slip-resistant

### COMMENTS:

- 180 cm accessibility zone of around all sides of the table/benches unit
- Picnic benches should be adjacent to accessible routes with access

## Storage Lockers

### TECHNICAL INFORMATION:

- 30 cm (width) x 60 cm (depth)
- Seated: from the side 66,5-106 cm, from the front 75 cm bottom -125 cm, from the top of the floor + 90x140cm of clear area around
- Between the storage lines: 180 cm, min.120 cm, corridor, frontal or side access

### MATERIALS:

- Use of colour contrasts and textural changes

### COMMENTS:

- Provide seating adjacent to the lockers (people with restricted mobility)

## Playgrounds

### TECHNICAL INFORMATION:

- Availability in high: (seated in wheelchair) 50 – 91 cm (3–4 year-olds), 46 – 101 cm for (5–8 year-olds), 40 – 111,5 cm (9-12 year-olds)

### ELEMENTS:

- Supported swing seats with harnesses
- Circulation routes -labyrinths
- Wide protected slides
- Basket hoops, - Sand and water tables

### MATERIALS:

- Surfaces: soft (to limit injury from falls), but firm and stable (for a wheelchair user or person using a walking aid), sand, water

### COMMENTS:

- Min. access zone to move around any playground structure: 90 cm (width).
- Various options of swinging, climbing, rocking, sliding and balancing as well as sensory activities.
- <http://www.dessa.ie>

## Stages

### TECHNICAL INFORMATION:

- Access routes: min 120 cm (width)
- Dimensions for a wheelchair space: 90 cm (width)

### MATERIALS:

- Staggered seating
- Acoustic and audio systems should be provided

### COMMENTS:

- Entry point to accessible seating should be located away from stairs / raked floor.
- Wheelchair accessible seating on all levels and vantage points.
- Provided a seating space for the person with disability and limited mobility + at least one personal assistant
- provided interrupted view

## Toilets

### TECHNICAL INFORMATION:



- Ground floor 3,50 m<sup>2</sup> (shorter side = <160 cm)
- 80 cm between basin and toilet
- Hanging basin 80 - 85 cm (high) and 20 cm away from the wall

#### MATERIALS:

- Toilet
- Wall hanger
- Hanging basin
- Tilting mirror
- Hanger for clothes
- Emergency calling device

#### COMMENTS:

- Durable, slip-resistant



## Plant diversity and their value

This section presents an overview of the HICAPS parks, from the point of view of their plant component, showing a series of in-depth analyzes investigating the characteristics of the green heritage, its value and its specific function, in relation to the following themes:

- the presence of secular and monumental ornamental trees, isolated or in rows, belonging both to exotic ornamental species and to native species, and the dendrometric characteristics of the most valuable specimens, with a deepening linked to any trees that testify to certain phases, or moments, of the history of the park;
- the conservation state of the green areas, especially of monumental trees, and any critical issues related to tree species, in relation to the changed climatic conditions of the last decades;
- a description of the environmental context in which the parks are inserted, and the relationships among landscape, flora and fauna presences, with an in-depth analysis of any harmful animal species that can damage and condition the management of the park;
- the presence in the parks or close to it of courses and ponds of natural and artificial origin, and their landscape and environmental implications (typical vegetation and fauna);
- the presence in the parks of a rural plant component, linked to the previous productive and utilitarian use of parks;
- the existence of traditions and culinary curiosities related to the arboreal, shrub and herbaceous species present in the parks or in the immediate surroundings and any customs still alive;
- the existence of medical and therapeutic traditions and curiosities related to the arboreal, shrub and herbaceous species present in the parks or in the immediate surroundings and any customs still alive;
- the management aspects of the green areas in terms of the type of interventions carried out, existence of management plans, subjects involved in the maintenance (also environmentalist or voluntary associations), existence of good management promoting biodiversity.

First of all, the [role and significance of green areas in historical parks](#) is presented, together with a comparative picture of some typical plant species present in the HICAPS parks.

Then a summary analysis of the main characteristics is presented for the following parks:

- [Park of the Castle of Gornja Bedekovčina, Croatia](#)
- [Walk Lane of Josip Juraj Strossmayer, Varaždin, Croatia](#)
- [Linear Park of the Este Walls, Ferrara, Italy](#)
- [Villa Ghigi Park, Bologna, Italy](#)
- [Wieniec Park and Palace, Kujawsko-Pomorskie Voivodeship, Poland](#)
- [Łańcut Park, Rzeszow, Poland](#)
- [Park of Castle Turnišče, Ptuj, Slovenia](#)
- [Historical Castle Park Velenje, Slovenia](#)

## Role and significance of green areas in historical parks

The plant component is the main structural and identifying element of every green area, whether it is a park, a garden or another space. The plant material is a fragile and delicate component, much more perishable than the architectural and furnishing elements. Trees, shrubs and herbaceous plants, in fact, are subject to their life cycles and to the natural processes that lead them to aging and death, with the consequent need for periodic renewal of plants. In the case of historical parks, the plant component takes on a very special role and meaning. This is because the green component can offer an unusual reading of their evolution over time, thanks to the composition and arrangement of trees, shrubs and flowering plants in characteristic designs and structures, traces of the plant kits of the past, to the present plants and in particular to the oldest and often age-old tree specimens that represent the added value of each historical park for the historical-testimonial role they play.



Therefore, the monumental trees of the HICAPS parks deserve special attention for their protection, preserve their presence for as long as possible and enhance their original and exclusive nature of witnesses of the history of the park. The analysis must be interpreted in this sense, highlighting how the parks preserve, in a different but always significant way, age-old and monumental tree species linked to certain historical phases or to specific individual episodes. Sometimes there are native trees belonging to species that recall the original plant landscapes of those territories: the oaks (*Quercus pubescens*) of the Park Villa Ghigi, the oaks (*Quercus petraea*) of the park of the castle of Bedekovčina, the oaks (*Quercus robur*) of the park of Varaždin, and again, the hundred years old hornbeams of the park of the castle of Łańcut, the ash and beech trees of the Turnišče Park of Ptuj, the various species of lime tree present in all the considered parks. More often, however, exotic tree species prevail, introduced in Europe in past centuries for their ornamental value and used to adorn the parks, highlight the social prestige of the owners, follow the fashion that brought in the old continent plants unusual from the newly discovered and colonized worlds. Among these, there are many widespread evergreen conifers such as *Thuja gigantea*, *T. occidentalis*, *Picea conica*, *P. pungens* 'Glauca', *Tsuga canadensis*, *Chamecyparis lawsoniana*, *Cephalotaxus drupacea*, *Calocedrus decurrens*, *Cedrus* spp., able to create compact and spectacular compositions, or also striking conifers such as *Taxodium distichum*, a species native to the humid areas of North America that has been introduced in the park of Varaždin in memory of water once present in the moat of the ancient fort. Also spectacular are the plant architectures of ornamental species with deciduous leaves, among which plantain (worthy of note is the *Platanus hybrida* of the linear park of Ferrara), beech with red leaf (*Fagus sylvatica* 'Purpurea'), like the specimen that grows isolated in the Turnišče Park of Ptuj or the long boulevard in Łańcut park, and horse chestnut (*Aesculus hippocastanum*), whose spectacular blooms still underline today ancient avenues of access to historic houses.

The conservation and management of monumental trees, therefore, represents a strategic theme for the project, directly related to the substitution of trees that have reached the end of the life cycle or in any case going to be cut. The new plant introductions within a historical park, in fact, should take into account, as well as historical-landscape assessments, also environmental, agronomic and technical criteria. Next to the traditional ornamental specimens that can be re-proposed to preserve the historical green outfit, in certain situations it would be advisable also include some indigenous species that are able to adapt better to the environmental conditions of

the area. At the same time, especially where the climate is undergoing significant changes towards warmer and drier conditions, as in Bologna and Ferrara, some Mediterranean species or from other geographical origins may also be considered. In this context, the new plant introductions could also include real "floristic novelties", that is to say unusual species and botanical curiosities that can underline the timeliness of the interventions and contribute to enrich the tree heritage and the biodiversity of the parks.



Another issue proposed by the analysis concerns the new role of historical parks, especially those located in urban and peri-urban contexts. Besides their traditional ornamental and historical-landscape value, these parks are now able to perform an important ecological and environmental function, thanks to their vegetal masses that, in addition to the healthiness of the environment, also foster the protection and increase the plant and animal biodiversity. A notable example in this sense is the park of the Este walls of Ferrara, which has become a strategic element of the city's ecological network. It should be emphasized that, although to a different extent, the parks of the HICAPS partnerships today are surrounded by urban areas that has profoundly changed the original contexts, and their connections with the surrounding open areas of rural or natural origin are scarce or absent. In some cases, however, the lack of maintenance of some sectors is causing a gradual process of re-naturalization, with the appearance of new plant species and animals (sometimes even intrusive and harmful) and new environments, strangers to the original plant compositions, but certainly of great interest. This is the case, for example, of the parks of Varaždin, Ptuj, Velenje and Villa Ghigi, where more or less extensive plant formations have grown spontaneously in recent decades. In this framework, in those parks where the current re-naturalization processes do not compromise valuable plant pre-existing historical settings, it can be important follow this trend and welcome, next to the ornamental sectors, new green species able to integrate the overall design. This can be a motivated way to interpret and partly redesign the historical parks of the 21st century and to actualize some decisions and management actions, according to new models and perspectives (always keeping in mind the principles of conservation that must guide the protection of historical parks).

Closely related to this theme, then, are also the management aspects of historic parks, which today appears to be a priority to ensure their future. In the HICAPS parks, emerges the need to ensure their continuous care by qualified personnel, through maintenance interventions based on knowledge of the heritage and their state of preservation. Management plans must set clear objectives, shared and sustainable also from an economic point of view, projected in the medium-long term. Few parks are in this optimal condition and some even struggle to guarantee even the minimal interventions necessary for their conservation. It follows that the lack of economic resources and the inevitable reduction or absence of maintenance and care of the green, expressed by many partners, risk flattening and distorting the wealth and the past qualities of the places and obscuring their identity. Finding solutions to ensure adequate care of these green areas, starting from their plant heritage, and optimizing the resources available is certainly another major challenge expressed by the HICAPS project.



Finally, the function of the vegetable component of a historical park can today be interpreted also from a socio-educational point of view, considering the innate attraction and psychophysical well-being coming from contact with nature. A monumental tree at the entrance of a castle, like the old



linden in the park of Velenje, looking as an ancient guardian, a centenary fruit tree, remembering the customs, traditions and knowledge of the past, like the old patriarchs of the Villa Ghigi Park, the centuries-old Ginkgo biloba of the Łańcut park, among the first examples of this exotic species introduced in Europe in the 18th century, represent fascinating and exciting experiences that offer the opportunity to tell more direct and engaging the history of a place, the tastes and fashions of the past, the botanical and stylistic choices changed over the centuries, the culture and the art of the gardens, the value and significance of the preservation of a historical place. Looking closely at plant architecture of the past can also represent an opportunity to reflect on current events and the environmental dynamics of our time, on the maintenance of a green area, on the concept of biodiversity, on indigenous and exotic plants, on the relationship between man and nature, on the importance of the care and good governance of one's own territory as well as of the entire planet. In this sense, the green heritage of historic parks in its multifaceted variety and diversity can be a valuable ally for engaging the visitors of these green areas through guided walks, cultural events or recreational moments (as long as they are not invasive and impactful). This is a concrete way to revitalize these places, encourage visits by citizens, families, students and tourists, and emphasize the public interest that the historic parks play. Today we are called to preserve and pass them on to future generations: these objectives are the basis of the HICAPS project.

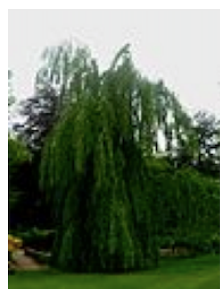
Some typical plant species present in the HICAPS parks:



*Aesculus hippocastanum*,  
present in the parks of Bedekovčina, Ferrara, Villa Ghigi, Kujawsko-Pomorskie, Rzeszów, Velenje



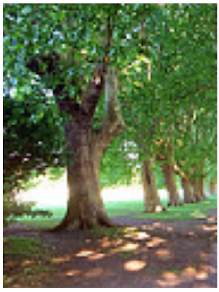
*Carpinus betulus*,  
present in the parks of Varaždin, Ferrara, Kujawsko-Pomorskie, Rzeszów, Velenje



*Fagus sylvatica*,  
present in the parks of Bedekovčina, Ferrara, Villa Ghigi, Kujawsko-Pomorskie, Rzeszów, Ptuj, Velenje



*Fraxinus* spp.,  
present in the parks of Bedekovčina, Ferrara, Villa Ghigi, Kujawsko-Pomorskie, Rzeszów, Ptuj



*Platanus hybrida*,  
present in the parks of Ferrara, Velenje



*Quercus robur*,  
present in the parks of Bedekovčina, Varaždin, Villa Ghigi, Kujawsko-Pomorskie,  
Velenje



*Taxodium distichum*,  
present in the parks of Varaždin



*Tilia cordata*,  
present in the parks of Bedekovčina, Varaždin, Ferrara, Villa Ghigi, Kujawsko-Pomorskie, Rzeszów, Ptuj, Velenje



*Ulmus minor*,  
present in the parks of Bedekovčina, Ferrara, Villa Ghigi, Ptuj

## Plants in the Park of the Castle of Gornja Bedekovčina

The park is located on a hill near the village of Bedekovčina, in view of the Krapina valley, in a peri-urban environment in contact with the surrounding open environment. The park was built in the mid-eighteenth century as a green area of the castle-baroque residence of Bedekovčina. Currently the castle, well preserved and maintained, is home to a public structure that deals with problematic young women. The surface is equal to 6.5 ha.



Starting from a probable baroque plant in the park, a landscape style design was added in the nineteenth century, also including three lakes, of which today remains the smallest without water, together with an orangery still present with sectors cultivated with vegetables and flowers. At the end of the nineteenth century there were important changes in the park layout, including a new driveway with horse chestnuts to access the castle, still in use, and the construction of a pavilion, a bowling alley and a tennis court, no more present nowadays. Despite being protected since 1965, the park is neglected and, due to poor maintenance, some parts have turned into a forest with trees and shrubs typical of local indigenous vegetation (but also invasive species such as *Robinia pseudoacacia*).

The oldest trees in the park are some oaks (*Quercus petraea*). Drought and violent storms are causing problems on older trees and spruce specimens. No autochthonous or exotic plant species have been reported to have an impact on the park's vegetation (with the exception of the aforementioned *Robinia pseudoacacia*). An inventory of the trees in the park was written in 2011 indicating the most relevant and urgent interventions to be carried out, but there is not a specific plan to monitor and care for valuable trees.

The entire park is managed by the Foster home for female youth and by a public institution (for the preservation of cultural heritage of Krapina zagorje county). The part of the park that will be restored thanks to the HICAPS project is now managed by the Municipality of Bedekovčina. In the park there are no regular maintenance operations (cutting and pruning of trees, substitutions of trees, mowing of lawns) but only occasional and extraordinary works such as the securing of damaged trees.

There are no traditions related to the use of plants for food or therapeutic purposes.

## Plants in the Walk Lane of Josip Juraj Strossmayer

Today, the existing vegetation in the environment of the Old Town proves that after original planting, supplementary planting of plant material continued. With such overwhelming and spontaneous self-restraint, there was a physiological confusion of the Renaissance ramparts and the stoning of the Old Town. Original form of romantic-natural styling style was completely lost. By analyzing the current arrangement of green areas in the historical complex of the Old Town, which includes earlier spontaneously planted tree specimens - original concept of park design and subsequent free placement on the ramparts and elsewhere with the spontaneous spread of vegetation in the last 60 years, the diversity and somewhat pervasive appearance today's green environment of the Old Town.



In the area closer to the fortress is predominantly the coniferous, while in the peripheral parts of the monumental complex there are a deciduous plants. Of the individual, solitary specimens, an old specimen of lime between the former grain and the building of today's Historical Institute should be mentioned. That category also includes two pieces of old limes next to the former grain. Behind the lime worthy of the future comes oak (*Quercus robur*). One smaller group of three exceptionally old specimens of oak round the corner of the embankment with a former gravel. Particularly worthy of mention is the sample of stupor oak (*Quercus robur Fastigiata*) along the north-western tower. Following are two pieces of old planks that are located at the foot of the earth's ramparts behind the old barn.

From the existing coniferous trees and shrubs it is important to emphasize: *Parotia persica*, *Calocedrus decurrens*, *Cephalotaxus drupacea*, *Chamaecyparis lawsoniana*, Low pines (*Juniperus horizontalis*, *Juniperus media* etc.), *Juniperus virginiana*, European larch (*Larix europea*), coniferous spruce (*Picea conica*), Spruce (*Picea excelsa*), Blue Spruce (*Picea pungens Glauca*), Himalayan pine (*Pinus excelsa*), Black pine (*Pinus nigra*), Pine (*Pinus silvestris*), American pine (*Pinus strobus*) *Pseudotsuga taxifolia*. In particular, we point out a lots of *Taxus bacata* formed in larger groups, and individual specimens of yew (*Taxus bacata Fastigiata*) and thorax (*Thuja gigantha* and *Thuja occidentalis*), and a wonderful group of wet taxodens (*Taxodium distichum*), planted directly by the fortress as a reminder of the former water the surface in the loopholes.



In the area closer to the Old Town, predominantly in the existing picture is the conifer, whereas in the peripheral parts of the monumental complex are predominantly deciduous trees. Of deciduous trees, it is important to emphasize the lime (*Tilia parvifolia*), both in terms of the past and the present as well as in relation to the future generations. First of all, the lime forms a strong tree lined with *Ulica Stanka Vraza* and *Ulica Vladimira Nazora*, which in the present picture indicates a good green frame for the monumental complex of the Old Town.



There are several more significant tree lines around the park or are located at the entrance to the park - tree-lined poplar, ornamental cherry, lime trees, tree-lined forces. Some of them are in poor health, and need to be replaced or professionally cut by individual trees in order to maintain the typical stylistic characteristics of the ancient historical period. Realizing the assumptions of planning to achieve the integrity of the atmosphere along with the cultural dimension contributes to the general educational value as well as to the tourist.

- Tree lined lime tree - *Tilia cordata*: the lime is relatively good, the trees are 10-12 m in height, the diameter of the trunk 60-100 cm.
- Tree lined poplar - *Populus nigra* Italyca: in the last few years, old poplars have been replaced by young trees, trees are 6-8 m in height, tree diameters 40-60 cm.
- Tree lines decorative cherry - *Prunus* sp.: cherries are in relatively good condition, they are 6-8 m in height, 40-60 cm in diameter.
- Tree lined *Forsythia intermedia*: they are in relatively good condition, height 4-6 m, bushy breeding.

From the existing plan sources it can be seen the original composition of the garden and its affiliation to the medieval Renaissance styling style. The look of the original garden points to two elements: a semicircular path and a cross-shaped path, which served as the proposed solution for this part of the Old Town's environmental setting. This basic scheme is accompanied by additional vegetation: coniferous conically-shaped buxus, while the two free fields in the central part include: a spherically-shape buxus framed by a floral plantation from the historical period, such as a very grateful begonia, because it sprouts almost the entire vegetation period and the typical is for floral gifts from the historical period.

As an example of the trees that point to the historical periods of the park, it is particularly worth highlighting a beautiful group of wetland taxodies that were produced directly beside the fortress as a reminder of the former water surface in dugouts. Also a significant role in the park space are groups of black pines at the corners of renaissance ramparts, lime (*Tilia parviflora*) in the central part of the park and a group of shrubs that were in fashion at a certain historical period. There are also significant groups of yews (*Taxus baccata*), and individual specimens of *Picea conica*, plum yew (*Cephalotaxus drupacea*), Stoned oak (*Quercus robur* Fastigiata). By analyzing the current arrangement of green areas in the historical context of the Old Town, which includes earlier spontaneously planted solitaire trees, there is diversity and a somewhat pervasive look of the present-day environment of the Old Town.



In the park area most of the plant species of indigenous species are in this area. Primarily, there are numerous examples of limes, yews, poplars, pines, birches, hornbeams, which are spread throughout the park. Significant specimens are 10-15 m in height, with a 40-60 cm trunk diameter, and some of the older specimens have a disrupted health condition, and it will be necessary to do the bending of individual branches or removing the entire trees. There are no exotic plant species in the park area, which would have a significant impact on the horticultural landscape of the park.

In the recent period, inventory of trees and the overview of tree condition in the entire park area was done. Biotic and abiotic factors had a significant impact and weakened individual trees, which became more susceptible to plant disease and pests. The analysis covered over 230 plants in the area of the Old Town. In general, the health status of plants in the field of research is satisfactory, but individual trees in the field of research, which primarily refer to old trees, are in poor health and reduced vitality and pose a potential hazard to the users. Such potentially dangerous trees due to static disruption, due to the presence of rot, are exposed to the breaking of branches and entire trees during extreme weather conditions. It is proposed that after the removal of the trees, new

plant plants be planted, which are identical, preferably native plant species, which are well tolerated by the urban environment in which they are located.

ABBy arranging a medieval garden in the yard of the Old Town, an extraordinary experience of the historical atmosphere will be realized in the way that is solved and performed in the best European examples, which will be complemented by two outstanding historical values of Varaždin as well as all over Croatia: Old Town and its Renaissance ramparts.

The Walk Lane of J.J. Strossmayer is not included in larger natural areas and there are no animal species affecting the management of the park and its surrounding areas. Near the park i.e. the Walk Lane of J.J. Strossmayer there are no rivers, streams or water areas of natural and artificial origin. According to our knowledge in the Walk Lane of J.J. Strossmayer there is no presence of trees, shrubs and plants connected to the agricultural traditions of the territorial areas in which the lane is inserted. According to our knowledge there are no culinary traditions and curiosities related to the lane since there are no trees, shrubs and plants connected to the agricultural traditions. According to our knowledge there are no therapeutic traditions and curiosities related to the lane since there are no trees, shrubs and plants connected to the agricultural traditions.



The city Council of the City of Varaždin entrusted the environmental maintenance work of the Old Town to a municipal utility company engaged in horticultural activity. A more detailed analysis of the arrangement of green areas in the historical complex of the Old Town that blends previously spontaneously planted tree specimens, the concept of park planning and additional planting on the ramparts and elsewhere with the spontaneous spread of vegetation over time shows the diversity, heterogeneity and somewhat murky look of today's green environment of the Old Town. In the period 1996-2005 studies and analyzes of the state, inventories and proposals for revitalization of the environment have been made so since then the maintenance and operation of the green area in the Old Town has been in compliance with the prescribed guidelines. The works of the oak and shaping of trees and shrubs are carried out and the annual planting of seasonal flowering plants in a styled garden.

Substitute planting of shrubs and shrubs is also carried out in accordance with the prescribed revitalization proposals of the park, successively and, if necessary, in order to replace diseased or dried plants. There is a concern that a new self-restraint would not happen, or that the historical complex would be cleansed of the inclination. After removing the existing bush or tree, it is planting new substitute seedlings. The annual maintenance works include mowing and lawn mowing, annual restoration and upgrading of walking paths, maintenance and refurbishment of communal equipment (seating compartments, tables, garbage bins).



For a long period of time, the final object will be the complete cultural object of the highest historical value and in the part related to garden culture and art. In this sense, this task goes beyond the local Varaždin's frameworks and becomes a component of the Croatian and European cultural future. Environmental maintenance works of the Old Town are conducted by a municipal utility company engaged in horticultural activity. The maintenance and operation of the green area in the Old Town has been in compliance with the studies and analyzes of the state, inventories and proposals for revitalization of the environment made in the period from 1996 till 2005.

## Plants in the Linear Park of the Este Walls

The linear park (including trees) is protected by Legislative Decree 42/2004: Code of Cultural Heritage and Landscape, and in particular by its art.136 (Buildings and areas of remarkable public interest).

Inside the park, in Viale Alfonso d'Este 1, there is a monumental tree defined as such by the L.R. n. 10 of 14/1/2013, and included in the list of monumental trees of the Municipality of Ferrara (decision of the Municipal Council PG2015-67452 on 30/06/2015). It is a plane (*Platanus hybrida*) 24 meters high, with the trunk circumference of 470 cm and a crown of 22 meters in diameter. There are also 5 tree-lined avenues whose position and context justifies to be mentioned here, since they represent botanical emergencies of the area and for this reason have been included in the list of monumental trees of the Municipality of Ferrara.



In the park there are some embankments hosting relevant rows of trees mainly divided as follows:

- in the section of Via Bacchelli (Rampari di Belvedere): 1 double row of lime trees (*Tilia cordata*), 600 meters long, with 181 specimens, probably 60 years old, in good state even though they have in some cases dry elements, with an average height of 17 meters; a double row of plane trees (*Platanus hybrida*) with a length of 652 meters composed of about 181 specimens, probably 60 years old, with an average height of 18 meters in a good state of vegetation and poor dryness;
- in the section of Via Gramicia (Rampari di Belfiore): 1 double row of hackberries (*Celtis australis*) 820 meters long, formed by 221 specimens in good state, with an average height of 18 meters, probably 60 years old;
- in the section of Via Belvedere: 1 double row of plane trees (*Platanus hybrida*) 550 meters long, in good state, with few dry elements composed of 119 specimens of average height of 17 meters, probably 50 years old; a double row of lime trees (*Tilia cordata*), 190 meters long, composed of 67 specimens of 17 meters, probably 60 years old, in good state and with a medium evidence of dryness.

The linear park along the walls of Ferrara is continuously maintained and enhanced, with pedestrian and cycle paths, which extends both on the embankments and in the valley below. The embankments are occupied by long avenues with double line of lime trees, hackberries and above all plane trees. Moreover, in the "sottomura" there are vast tree-lined meadows, with native and exotic tree species, including white hornbeams, elms, linden trees, mulberry, hackberries, horse chestnuts, American maples, bald cypresses, paulonias and ginkgo. In some cases we observe valuable specimens, such as the two large black poplars that exceed 20 meters in height at the Montagnone Park. Here we see an ancient plane tree that reaches 25 meters, characterized by a trunk circumference of almost 5 meters and a dense expanded foliage with a diameter of 23 meters. This tree is very important, because it reminds us that this area was equipped in the nineteenth century, following the example of the boulevards in Paris, with a wide road for carriages and enchanting "public walks" immersed in the vegetation.

The lime trees (*Tilia cordata*) have an average height of 17 meters, with some specimens with an average circumference between 145 cm and 164 cm. The plane trees (*Platanus hybrid*) have an average height of 17 meters with an average circumference of 133 cm. The hackberries (*Celtis australis*) have an average height of 18 meters with an average circumference of 188. There are also invasive exotic species, as well as some hybrid species in particular poplars and maples introduced for ornamental purposes, which at the moment do not appear to create major problems. In detail, the



invasive tree species are: *Ailanthus altissima*, *Broussonetia papyrifera*, *Gleditsia triacanthos*, *Robinia pseudoacacia*, as well as *Maclura pomifera* and *Paulownia tomentosa* which begin to expand spontaneously.

Trees can be attacked by various pathogens, such as insects, bacteria and fungi, that are responsible for the decomposition of wood. The maintenance of trees is entrusted by Ferrara Tua, providing the maintenance service to all the municipal green area. An annual plan, shared with the Municipal Administration of Ferrara, lists the species to be subjected to pruning and cutting, after investigation of instrumental stability called VTA (Visual Tree Assessment).

The objective of this investigation is to define the potential risks for the trees, by assigning them a predefined risk class as well as defining the most suitable conservation and safety operations and preparing an appropriate action plan. Some important trees may also be subjected to ultrasonic tomography, to evaluate the true internal width of the tears. The VTA method allows the identification of risk through the recognition of external symptoms. A tree that has suffered traumas (atmospheric events, pathologies, incorrect maintenance interventions) is subject to intense growth processes in order to restore its optimal balance structure. Through visual analysis, i.e. verifying the foliage, the presence of parts of dry wood, cords, fungal bodies, wounds or other symptoms, it is possible to diagnose its state of health and plan the requested interventions. This analysis in some cases is accompanied by more in-depth checks, based on instrumental measurements obtained with specific equipment for the assessment of the trees.



The nearest park is the north urban-agricultural park. It extends over 1200 hectares and reaches the Po river embankment to the north; it is bordered to the west by Via Canapa and the Bologna-Padua railway line and to the east by Via dei Calzolari. It occupies the territory of the Barco, the ancient hunting reserve of the Este family, annexed to the Delight of Belfiore, located within the walls. A bike path runs along the east side, adjacent to Via dei Calzolari, and allows you to reach by bike the bank of the Po. This large area creates a connection with the Natura 2000 site IT4060016 of the Po River. It is separated from the walls by a wide and very busy road. During peak hours (around 8 am and from 5 to 7 pm), there are long queues of cars particularly on very cold and bad weather days. Next to this road runs a medium-sized canal, about 9 meters wide and 1.4 km long, connected to the Ferrara irrigation system.



The park includes: a portion closer to the walls, freely accessible by the public, called "Parco Bassani" in honour of the famous writer, with meadows, hedges, trees and bushes, cycle paths and ponds fed by the system of drainage-irrigation channels; the grounds of the Centro Universitario Sportivo which host sports facilities (swimming pools, gyms, restaurant, guesthouse building) with an 18-hole golf course; an area hosting a social centre for elderly people; the former waste disposal site in the city of Ferrara, now covered with land and largely re-naturalized, using native and exotic species (for example, the butterfly bush (*Buddleja* sp.) is present); a former waste incineration plant inactive for about 10 years; the Ferrara wastewater treatment plant. The rest of the park is occupied by conventional farmland (cereals, orchards, recently pawlonia) and scattered houses partly intended for commercial activities, such as cottages and dog training centres, including the buildings that house the kennel and the cattery municipalities managed by volunteers.

In the north-west area, there is a sugar mill disused since few years ago. Close to it are still present the embanked tanks that were used for decanting the materials derived from the processing of beets, which, according to the current regulatory plan of Ferrara, could be still reused. Among the agricultural land, about 23 hectares were planted in 2003 with native arboreal specimens by a private foundation that also owns the local institute of high school for agricultural training, the Istituto F.lli Navarra. In the area there are maples, ash trees, oaks, walnuts, hornbeam and alders. However, these are trees expected to be cut after a cycle of about 20 years. A small spontaneous grove of 0.6 hectares of



surface with elms (*Ulmus* sp.) surrounds a ruin that has long been a military area. An ancient ditch (Fossa Lavezzola) runs near the northern border, included as a secondary ecological corridor in the provincial ecological network of Ferrara. Harmful animals are mainly living close to freshwater area. There are grey crows (*Corvus cornix*), jays (*Garrulus glandarius*). Sometimes the jays, among the birds, create some problems, while the number of pigeons (*Columba livia*) has largely decreased in the last years.

The linear park does not include well defined water streams. In case of heavy rains, water stagnations occur in the grassy depression of the outer valley, thus determining the high humidity conditions favouring hygrophilous herbaceous plants. The valley, however, is periodically cut so that there is no development of reeds. In the urban parkland of the north urban park there are several ditches and canals as well as some maceri, typical artificial ponds made since the Middle Ages for the textile processing of hemp (*Cannabis sativa*). A couple of new ones have been built in recent years by the owners of farmhouses.

The old ponds have been surveyed through inspections carried out by the Museum of Natural History of Ferrara between 2004 and 2008. Two of them were reassessed in 2015. They are a breeding ground for toads (*Bufo bufo*), a species protected by the regional legislation. In the ditches, some plant species of high conservation interest had been identified in that period, in particular water chestnuts (*Trapa natans*) and water gentian (*Nymphoides peltata*). These species have now disappeared from those habitats. Among the causes of these disappearances we can certainly hypothesize the action of introduced exotic species nutrias (*Myocastor coypus*), red prawns (*Procambarus clarkia*), herbivore carps (*Ctenopharyngodon idella*), common carps (*Ciprinus carpio*) herbivore or omnivore, voracious and prolific that also threaten sediments. At least for *Nymphoides peltata*, the disappearance is certainly in relation with the excavation work and reshaping of the canal in which they were located.

In the Fossa Lavezzola there is a fairly good development of reed beds (*Phragmites australis*) with other hygrophilous plants such as *Iris pseudacorus*, *Carex* spp., *Sparganium erectum* etc. We observe also the presence of the exotic *Reynoutria japonica*. The bank has a slightly sinuous course: the mowing along its banks, it is not known whether by chance or by precise will, is carried out in a manner quite respectful of ecological prescriptions. Especially in winter, some birds species of conservation interest - such as *Alcedo atthis* - find refuge and feeding in the moat. Throughout the year there are several species of herons and mallards. Other exotic species with great ecological impact are *Silurus glanis*, voracious predator of Vertebrates, *Trachemys scripta* and *Lithobates catesbeianus*, also impacting both on aquatic species and on terrestrial species nesting near the water. It is emphasized that about 75% of the fish species found in the fresh waters of Ferrara are of exotic provenance.

A research run by the Museum of Natural History of Ferrara in 2004 used the Dithteri Sirfidi as indicators of the state of conservation of biodiversity according to the protocol Syrph the Net and took into consideration two locations within the urban park. Individually, the conservation status turned out to be rather poor, with values less than 50% of the Sirfid species expected for well-structured urban parks. Particularly suffering were the species with larvae that develop in aquatic plants: the degree of eutrophication of the water of the canals favours the phytoplankton and makes the water opaque, by preventing the engraftment of submerged leaves.



The linear park is not too far from the Po di Volano, one of the two rivers that were at the origin of the city. In some places, the distance between the walls and the river is only 100 meters. In the Ferrara's waterway network, one of the richest points of aquatic vegetation with various species of conservation interest (*Ceratophyllum demersum*, *Potamogeton nodosus*, *Potamogeton crispus*, *Trapa natans*, *Salvinia natans*, *Spirodela polirhyza*, *Nymphoides peltata*, *Lemna* spp.), various bird and dragonflies species have been spotted (*Anax imperator*, *Sympetrum fonscolombii*, *Ischnura elegans*, *Erythromma viridulum*, *Crocothemis erythraea*, *Ortethrum cancellatum*). This area will soon be subject to extensive changes, aimed at restoring the full navigability of the Volano river: it will therefore be a way to reconcile actions for infrastructure and biodiversity conservation.

Even if not strictly in the perimeter of the linear park, the Terraviva area has been used for increasing environmental actions and promote biodiversity, adopting biological techniques. According to the will of the managers of this site, the production aspect is secondary to the objective of raising awareness on biodiversity issues. Here you can find fruit trees, and - since 2016 - a lawn maintained at *Phacelia tanacetifolia* to support pollinators.

Some culinary traditions and curiosities related to the tree, shrub and herbaceous species are still alive:

- *Morus alba* (mulberry): young leaves, before flowering, blanched and used for rolls like vine leaves; alternatively, cut into strips in salads. Fruits eaten as such or processed into syrups, fruit in syrup, jam and jelly. The plant is still very used, especially the fruits that are actively harvested both by locals and new migrants coming from Eastern countries. The young branches are used in basketry.
- *Plantago lanceolata* (plantain): young leaves eaten raw at the end of winter, especially the jets attached to the root, with a pleasant taste of porcini mushroom. Older leaves consumed cooked in soups and soups, to which they give a hint of mushroom, or sautéed in a pan; the stem can also be consumed, depriving it of the outermost layer. Seeds pulverized and added to flour in bread making or to prepare rustic desserts.
- *Sambucus nigra* (elderberry): the flowers are used fresh or dried to flavour sweet and savoury dishes or to prepare the elderberry syrup. The fresh flowers are fried and served with salt or sugar. Fully dried berries are used to obtain drinks or cooked and sieved for jams, jellies or syrups. Elder wood is also used for preparing musical instruments, because its hollow inside, or as a handle for tools, since it is particularly light but elastic.
- *Taraxacum officinale* (dandelion): young leaves, before flowering, are eaten in salads. Leaves after flowering are consumed blanched or sautéed. Flowers are added to salads and eaten raw. Roasted roots are used as a substitute for coffee.
- *Typha angustifolia* (mazzasorda): young spring plants are cooked as asparagus. Pollen is collected and used in bread making. Raw or cooked roots are eaten as a potato or reduced to powder and used as a thickener in soups and purees. The culinary tradition linked to the mazzasorda is disappearing.
- *Ulmus minor* (elm): its samaras are used raw in salads or lightly cooked.

Major efforts are done trying to keep the trees alive for as long as possible, to bring them into maturity, so promoting biodiversity. However, it will be necessary to tackle the problem of stability of the trees trying to keep them standing anyway as long as possible. This can be done, for example, by containing the foliage when they risk being too vulnerable to wind, or even realizing support systems for dying trees and, in the case it is impossible to avoid killing, find a way to leave dead wood posts on the ground explaining to citizens that it is not negligence, but a strategy to support biodiversity. The park is so extensive and present on all sides of the city, to make it truly a very important junction in the system of ecological connections of the territory.



Cracks between the bricks of the walls are a refuge for many small protected animals such as *Podarcis muralis* and *P. Sicula*. When necessary, restoration techniques compatible with the presence of these animals should be applied or compensation strategies should be applied. There are some areas where exotic invasive plants are taking over, for example along the east edge of the valley (via Caldirolo) and

on the south walls (Kennedy Parking, via Baluardi). Since the situation is under control, these plants are expected to be replaced with native specimens.

It is necessary to give a little more space to the shrubby plants favouring those species that are quite rare in Ferrara such as *Viburnum* spp., *Euonymus europaeus*, *Paliurus spina-christi*. It is also possible to favour some rare autochthonous climbing species such as *Clematis viticella* and some herbaceous species (among other things with beautiful blooms) that can take advantage of the temporary humidity conditions such as *Silene flos-cuculi*, also not frequent in the Ferrara plain but already mentioned in the Walls. The presence of animals for whom there are few information, such as the Chiroptera and *Apus apus* and the many insects such as the saproxylic species, and the possibility of inserting suitable shelters and habitats should be also evaluated.

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## Plants in the Villa Ghigi Park

The park hosts there are some examples of trees, concentrated in particular in the garden around Villa Ghigi, which do not fully possess the character of monumentality but still represent important elements that characterize the ornamental component of the green area. The following are the main tree specimens and their dendrometric characteristics:

Place	Scientific Name	Diameter (cm) / Height (m)
Garden of Villa	<i>Cedrus deodara</i>	145 15
Garden of Villa	<i>Taxus baccata</i>	60 12
Garden of Villa	<i>Pinus pinea</i>	71 20
Garden of Villa	<i>Cupressus sempervirens</i>	69 19
Garden of Villa	<i>Cupressus sempervirens</i>	62 21
Garden of Villa	<i>Photinia serratifolia</i>	43 11
Fenced wood	<i>Calocedrus decurrens</i>	106 23
Fontane river	<i>Juglans nigra</i>	100 20



In the garden behind the villa there is a long row of old lime trees (*Tilia cordata*) that flanks the main path; altogether it is about twenty specimens, with the characteristic "candlestick" pruning, with an average trunk diameter of 50 cm and an average height of 15 m.

Just outside the boundaries of the park, along the road that climbs from Via San Mamolo, there is a double row of old horse chestnuts (*Aesculus hippocastanum*) that once marked the access road to the estate of the Ghigi family starting from the historic gate; altogether there are 8 specimens, dating back to the first half of the twentieth century, with an average trunk diameter of 60 cm and an average height of 12 m.

The period of planting some of the park's arboreal specimens leads back to certain historical phases of the park. of some trees the dating is approximate, while for others it is almost certain, based on interviews released in recent years by some elderly former settlers of the Ghigi estate. The presence of oaks (*Quercus pubescens*) is already documented in the cadastral descriptions of the late eighteenth century (Catasto Boncompagni, 1792), as witnessed by the centuries-old specimens still present along the road or at the eastern border of the park.

In the garden of the villa, the large specimen of Himalayan cedar (*Cedrus deodara*) that stands in front of the building's façade was planted by Callisto Ghigi, Alessandro's father, on the occasion of the acquisition of the property (1874). A specimen of oak (*Quercus pubescens*), along the main road close to the Becco, was planted by Callisto Ghigi in 1875 in memory of the birth of his son



Alexander. Some old specimens of ornamental exotic species are attributable to the former estate by the Ghigi family (Callisto and Alessandro). These include a cryptomeria (*Cryptomeria japonica*), a short row of *Ginkgo biloba* along the Fontane stream and, in the fenced forest, a beech wood (*Fagus sylvatica*) and the exotic evergreens (*Calocedrus decurrens*, *Thuja gigantea*).

In the first period of public management of the park (in the 19'70s), a reforestation started with native broadleaves along the river Fontane and in the eastern sector of the park, with a grove of white poplars just down the parking along Via Gaibola, a short row of American khaki (*Diospyros virginiana*) along one of the park's walking paths, which also houses a double row of khaki (*Diospyros kaki*).

The park has several relevant



autochthonous tree species, especially oaks, isolated or in row, even if few of them are monumental. The main presences and dendrometric characteristics are listed in the following table:

Place	Scientific Name	Diameter (cm) / Height (m)	
Garden of Villa	<i>Quercus pubescens</i>	161	23
Garden of Villa	<i>Quercus pubescens</i>	134	18
Garden of Villa	<i>Quercus pubescens</i>	102	17
Garden of Villa	<i>Acer campestre</i>	80	17
Garden of Villa	<i>Ulmus minor</i>	80	19
Close to Becco	<i>Quercus pubescens</i>	121	19
Along the street	<i>Quercus pubescens</i>	127	15

Specimen 3 is the most significant of a row of downy oaks that marks a stretch of the border road of the villa's ornamental garden. It is made up of a total of 9 specimens with an average trunk diameter of about one meter. It should be noted that other specimens of downy oaks grow in the wooded areas of the park (about ten plants with an average diameter around the meter).

In the last few years, several trees in the park, belonging to native, exotic and fruiting species, are showing clear signs of vegetative and phytosanitary suffering and problems. Since 2004, when the Villa Ghigi Foundation has taken over the management of the park, several old specimens at the end of their vegetative cycle have dried up. Among these we note some downy oaks (*Quercus pubescens*), a group of beeches (*Fagus sylvatica*), several horse chestnuts (*Aesculus hippocastanum*), a specimen of giant thuja (*Thuja plicata*), one of evergreen magnolia (*Magnolia*

grandiflora) and one of Colorado fir (*Picea pungens*). A second specimen of Colorado fir is currently in precarious conditions, as well as an old libocedron (*Calocedrus decurrens*).

The many investigations performed, show that the causes of desiccation are due to a combination of concurrent factors, including specific pathogens, but also to the changed local climatic conditions (in particular the low rainfall during the year and the consequent long periods of drought). The desiccations in the park have also threatened fruit plants, both young and mature, especially of the family Rosaceae as wild plums (*Prunus cerasifera*), sweet cherry (*Prunus avium*), sour cherry (*Prunus cerasus*). Some signs of suffering and desiccation have been recorded also between specimens of walnut (*Juglans regia*) and elm (*Ulmus minor*). The annual management plan of the park provides for monitoring and instrumental checks of the most significant and ancient trees, performed by specialized technicians, which are based on the VTA (Visual Tree Assessment) method.



Despite the proximity to the historic centre of Bologna, the park is inserted in a hilly area, characterized by a high degree of naturalness and biodiversity, where large areas once cultivated or uncultivated for decades are now covered by dense shrubs and young woods, due to the gradual process of re-colonization by spontaneous vegetation. There are native species typical of the hilly vegetation; among the trees there are ashes, elms, maples, cherry trees, downy oaks and oaks, while among the shrubs: hawthorn, blackthorn, dogwood, wild rose, often dominated by climbing plants, like *vitalba* and ivy. In the wider context of the Bolognese hill, in addition to the Protected Landscape of the Hills of San Luca, where the park is included, a few kilometres from the Villa Ghigi Park stand out two areas that are also part of the protected areas system of the Emilia-Romagna region. They are part of the Natura 2000 Network (Gessi Bolognesi Regional Park and Calanchi dell'Abbadessa, Contrafforte Pliocenico Natural Reserve).



In the park, especially in the marginal sectors, there are some interesting situations common to the inselva areas surrounding it. These environments offer shelter and nourishment to a rich wildlife that habitually frequents the park, with the presence of species that people could not imagine until a few decades ago: large mammals (ungulate as roe deer and wild boar, fox, yew), squirrel, dormouse. The sporadic appearance of the wolf is also to be underlined, with some predation episodes that have been recorded within the green area (some wolf families now live permanently in the hills surrounding the park and in particular in the Regional Park Gessi Bolognesi and Calanchi dell'Abbadessa). There are micromammals, many species of birds, reptiles like green lizard, slow worm, lizards, snake, etc.



Regarding the relationship between the green area and the local fauna, some criticalities related to the damage caused by the presence of individual species have been identified. Wild boar in the meadows (with lifting of the turf and gradual disappearance of many plant species, including rare bulbous like wild tulips), damage from roe deer (feeding on buds of trees as well as mature grapes and causing the barking of branches and young trunks), damage from crows (rummaging in trash cans, looking for food and pouring to the ground a large part of objects).



The Fontane stream, which marks the northern boundary of the park for a while, is a small tributary of the Aposa river and collects the waters of the homonymous valley on whose northern side the park develops. Probably the name of the river relates to the wealth of springs that characterized the slope, many of which are dry today. It was once also called "al fos dla pulverira" due to the presence of a powder keg destroyed in the post-war period. The terminal stretch of the river, which is a tributary of the Aposa, was buried in the 1950s and 1960s, a period to which many of these interventions on watercourses in Bologna date back.

In the first years of public management of the park, the river was affected by foul-smelling discharges from one of the neighbouring properties, which had compromised the quality of the water and caused the disappearance of many species of the typical local fauna. Currently there is a similar problem of discharges of domestic water of unknown nature arising from another neighbouring property (works have started to upgrade the water purification system). It should be noted that in the past the presence of newts has been reported in an old water collection tank close to the Becco. In 2008, a small artificial reservoir was realized by the Foundation for educational purposes, but also to increase the biodiversity of the park. It hosts several typical aquatic plants (water celery, sedges, rushes, yellow irises, etc.), as well as frogs, toads, dragonflies and other aquatic insects. In the old baths of the Palazzino (a converted old drinker and washhouse), the Apennine ulcer (*Bombina pachypus*), a rare endangered amphibian introduced in agreement with the Foundation, has been present for years, as part of a repopulation project in the Apennine territory of Bologna. The Villa Ghigi unit is among those that have given the best results, with specimens that come back every year for reproduction.

The park preserves many elements that can be traced back to the ancient agricultural estate and the rural component is one of the main matrices that characterizes its landscape and vegetation. Currently, out of about 100 recorded wood species (arboreal and shrubby), 23 species are fruit-bearing. In the past, the abundance of fruit trees of different varieties was one of the main sources of income for the farms of the estate, as the entire foothills behind Bologna until the mid-twentieth century was the main source of fruit and vegetables supply for the city. Today in the park there are still some hundreds of fruit trees, among which there are many old specimens belonging to rare and endangered typical cultivars of the Bolognese hill. Among these, remarkable for their majesty and beauty during the flowering period, a double row of pear trees (*Pyrus communis*), a row of almond trees (*Prunus dulcis*) and several rows of wild plums (*Prunus cerasifera*) can be underlined.



The following are some of the most characteristic cultivars belonging to the main fruiting species.

- Pear tree: Francesina, Molinaccio, Ruggine, Curato, Spadona, Zuccherina, Volpina
- Apple tree: Abbondanza, Lavina, Roman Rose.

- Fig tree: Goccia d'oro, Gentile, Verdecchio.
- Mediterranean medlar (azerole): Red, Small yellow, Big yellow.
- Cherry tree: Mora di Vignola, Cornetta, Durone

In 2010 a new plant was also built, the Frutteto del Palazzino, which collects a collection of about thirty fruit trees (with different apple, pear, olive, apricot, plum, biricoccolo plum, pomegranate, fig and quince varieties) and of about ten specimens of vine obtained from centuries-old specimens present in the Emilia-Romagna Region.

The park still preserves vineyards and rows of productive vines, which the Foundation has entrusted in management to two expert winemakers. Among the typical vines of the Bolognese area, we can mention wine grapes such as Negrettino, Moscato, Albana, Trebbiano, Sangiovese and Lambrusco (for the latter still survive three plants dating back to 1929 and restored in 2017); among the table grapes appear Sasl  (or Chasselas), Angela and Paradisa.

Finally, in the park there are some trees that can be traced back to the past rural:



- a short row of white mulberries (*Morus alba*) reminds the traditional silkworm breeding in the Emilian countryside, an activity for which Bologna was famous in the last centuries throughout Europe;
- several examples of ash (*Fraxinus* spp.), whose branches were used as poles for the vineyards.
- several specimens of willows (*Salix alba* and *S. alba* var. *vitellina*), whose flexible branches were used as laces for the vine and various basketry works. For this last activity, once very practiced, also hazel (*Corylus avellana*), vitalba (*Clematis vitalba*) and common reed (*Arundo donax*) were used. For some years the Fondazione Villa Ghigi has been organizing basketry laboratories with the collaboration of a young basket maker specializing in this ancient profession. It should be noted that the common cane was also used for the chairs and its stalks were used as a support for vines and climbing vegetables (tomatoes and beans) and even today it is widely used in the Becco vegetable garden.

There are many culinary traditions and curiosities related to the park and the surrounding area, some still practiced by the elderly settlers of the former estate (one of them still lives in the Becco area inside the park, another just across the border of the green area, others near Bologna). These people represent a precious historical memory and the Foundation often involves them in information and educational activities, as they are able to transmit the memory of the customs, traditions and knowledge of the peasants of the past. Their presence is important because it establishes connections among different generations and helps to reflect on very topical issues (today recognized as "good sustainability practices"), such as the importance of care and territorial governance, respect for nature and natural cycles, the seasonal nature of food, the fight against food waste, etc.



Among the activities related to the conservation and transformation of fruit, still alive is the preparation of jams, Bolognese mustards and quince, which are the basis of many traditional dishes of the local cuisine. In this regard, in the summer of 2017 the Foundation, in collaboration with a local processing laboratory, started the production of small quantities of jams (choosing among the most characteristic fruit of the park as wild plums, pears, quince apples) with results very



satisfying. For the next year it is planned to start a small production of jams for sale both in the park and in particular places of the city, under the brand name Villa Ghigi (the income generated will be used to improve the park maintenance). Furthermore, it was common to preserve the fruit as syrup: this procedure mainly concerned cherries and, in particular, black cherries. As far as table grapes, in the past it was customary to wither the clusters of certain varieties such as Angela and Paradisa on racks, and consume them during the winter time. The preparation of baskets as Christmas gift boxes was one of the most profitable activities for the settlers of the former estate, and still today they prepare these baskets to respect the tradition

We must also mention the custom to pick up some herbs from the fields and fields to prepare fresh salad ("misticanza" or "armisdanza") or enrich pies. Some of these herbs still grow in the park and the Foundation, as part of the activities for the public, organizes walks dedicated to the recognition of the main wild herbs. Among these, the nettle deserves a special mention, still harvested because it is one of the classic ingredients for colouring green the "sfoglia" and creating the classic "lasagna verde alla bolognese".



Among the culinary curiosities of the past, coming from the stories of the elderly settlers of the former estate, there are some habits that have now disappeared, such as: to preserve dried tomatoes in the granary during the winter months; to preserve the cornelian cherries (*Cornus mas*), the so-called "cornelian olives", in brine and prepare a liqueur with walnuts harvested on the St. John's Day (the so-called "nocino") or another liqueur made from the maceration of the leaves of giant Thuja (called "Tubal"). The latter was very appreciated by Alessandro Ghigi, who offered it to his frequent guests, inviting them to guess what was it done with. Among the many "farmyard animals" bred in the past in the farms of the former estate, near the Becco still survives a small colony of Romagna pigeons, a breed selected and described by Alessandro Ghigi, which still has specific characteristics; the Romagna pigeon is registered in the regional list of endangered breeds.

In the past, but even today, the plantain leaf (*Plantago* spp.) has been used as an antiseptic against the bites of mosquitoes and other insects, as well as against skin reactions caused by the nettle.



The park is managed by the Fondazione Villa Ghigi on the basis of an agreement with the Municipality of Bologna, with the operational support of a specialized social cooperative. Every year a management plan is drawn up, defining an articulated series of interventions, both ordinary and for special improvement. The latter ones are aimed at the preservation, restoration and enhancement of the peculiar characteristics of the park, as well as at delivering educational and information activities and initiatives for citizenship, organized by the Foundation.

The main ordinary maintenance interventions concern the hygienic protection service, the mowing of meadows and slopes, the pruning of the hedges along the road system, the ordinary maintenance of roads, paths, the hydrographical network and the furnishings. Improvement measures, on the other hand, vary from year to year and generally concern the reorganization of sections of roads and paths network, the improvement of water regulation, the consolidation of slopes subject to landslides, the insertion of new furnishings similar to the existing ones, new planting of trees and bushes, the care and maintenance of particular or highly frequented areas (such as those around the Palazzino and Villa Ghigi buildings, the Becco vegetable garden, the

Palazzino Orchard, the green area at the entrance of via di Gaibola, etc.), specific interventions in wooded areas and on single or row trees, visual and instrumental appraisals (VTA) on valuable arboreal specimens, fruit trees pruning, support to interventions related to school and extracurricular educational activities, the snow and ice service in some sections of pedestrian traffic. The management of the park participates in the Voluntary Ecological Guards (GEV) that perform on behalf a supervisory service concentrated mainly on weekends and in the period from spring to autumn.

Management of the green area respects the principles and techniques of the biological method, as defined by the Bio Habitat Regulations: (<http://www.bio-habitat.com/home/home.asp>) and the European Regulations. 2092/91 IFOAM. The social cooperative that performs the interventions in the park has specific skills, since it cultivates fruit and vegetables in his own land with organic methods (ICEA certification). The maintenance of the park and all the operations that take place have the objective of safeguarding and favouring the biodiversity of the green area, compatibly with the need to guarantee citizens a correct and safe use.

The mowing of meadows and slopes is performed selectively according to the different use of the areas, the calendar of flowerings and the presence of rare or protected flora species. In rotation, non-mown areas are maintained to ensure the dissemination of the plants, favour wild pollinators and allow the refuge of the wild microfauna. In past years, in a grassy sector of the park, grazing has been experimented with a small flock of sheep in collaboration with a local pastor (activity ceased due to the transfer of the shepherd). This type of practice, already in use in other public green spaces in Italy but above all abroad, represents a model of management of a grassland that is both ecological and economic and has certainly enriched the park with an original and picturesque note; as soon as the conditions allow it again, it is thought to replicate the experience, which also has a strong educational interest.



The resulting vegetable resulting from felling and pruning of trees is released on site, placed in stacks or subjected to chipping, to preserve and increase the supply of organic matter in the soil and encourage the maintenance of its fertility. Periodically, naturalistic furnishings such as artificial nests and feeders are set up and introduced into the park to favour the presence of birds (including insectivorous birdlife), wild bats and pollinators.

With regard to rescue irrigation, which exclusively concern the new plants of trees and shrubs, in order to limit the consumption of the water network, the water of a well-cistern was inside the Palazzino also used experimentally. In recent years this practice has not been possible anymore, because the water level of the well has dropped, due to the poor rains.

Lastly, the phytosanitary defence through specific products is limited only to cases of real necessity, after careful assessment of the situation, and concerns only recently planted fruit trees belonging to rare species and for which it is difficult to find cultivars. The treatments are performed manually and using only the products allowed by the internal regulations.





## Plants in the Wieniec Park and Palace

In the front part, you may see single monumental trees such as the red beech, European larch, oak, red horse-chestnut, blue spruce, northern white-cedar, Sawara cypress and Canadian hemlock. At the back of the palace there is a neglected and overgrown park with numerous wild trees such as the black locust, Scots elm, maple tree and ash tree – the park resembles the oak-hornbeam forest.



The key ornamental tree components are the horse-chestnut tree, Norway spruce, small-leaved linden and large-leaved linden, London plane tree, the common ash and Norway maple. The stand of trees includes species with natural monument parameters – about 130 years old: the London plane tree, the common ash, the horse-chestnut tree, English yew, common oak, large-leaved linden, Norway spruce and red beech.

The tree component typical of the territory are the Scots elm, the European white elm, Norway maple, sycamore maple, common ash, small-leaved linden and large-leaved linden.

The complex of palace and park in Wieniec is located in the Wielkopolsko-Kujawska Plains. The climate is characterized by low rainfall, which can cause periodical water shortages. Winters can be mild with little or short-term snow covers. The areas abound in fertile soils such as black earths and lessive soils. The condition of the stand of trees is good. The area is used for agricultural purposes and there are no forms of natural environment protection there, in the vicinity within 12 km there is the area of Natura 2000 PLH040037 Słone Łąki in the Zgłowiączka Valley; in the vicinity within 13 km there is the area of Natura 2000 PLH040039 Włocławska Vistula Valley. The Zgłowiączka River flows south from the park – about 150 m away

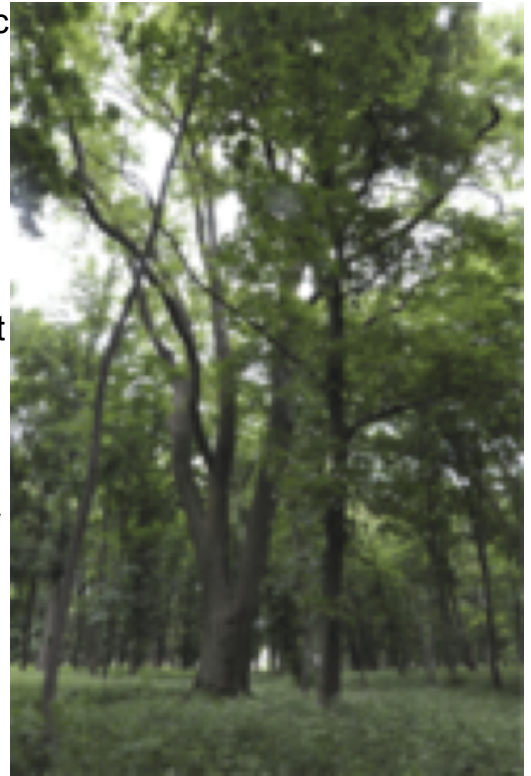


The Easter eggs – so-called kraszanki (eggs painted in one colour without any patterns) were boiled brown in, among others, oak bark. In the Kujawy region it was a custom to go around with a 'gaik-maik'. When a symbol of winter was drowned, the whole procession came back with a branch of a pine or spruce decorated with ribbons, glittering elements and paper flowers. The branch referred to as a 'gaik-maik' was carried by a girl dressed in white with a flower wreath on her head. The procession accompanied by music visited all huts in the village, exchanged wishes and sang songs.

Linden flower infusions are valued for their diaphoretic properties and they improve dermal breathing. Infusion baths not only have diaphoretic effects, but also enable us to relax, regenerate our skin and help decrease cramps. Additionally, linden has anti-inflammatory, protective, disinfecting, expectorant, mucous coating and calming properties and stimulate gastric secretions. It also soothes sore throat and coughing and protects mucous membrane of the alimentary tract. In treatment of diarrhoea, indigestion and poisoning, medicinal charcoal obtained from the linden timber is used. The linden infusion can also be used externally in the form of compresses in case of conjunctivitis and blepharitis as well as for swellings and dark shades under eyes. Rinsing of

skin with the infusion soothes irritated skin, cares for your skin, makes it flexible, decreases seborrhoea and blocks skin exfoliation.

In Europe, they thought that the ash tree had a large therapeutic power and was used to treat hernia in babies. Some also think that the ash leaves were used as a successful antidote to a viper bite. Applied on the affected body part, the leaves were to block the poison. The leaves were also taken orally. Additionally, the ash leaves are thought to have anti-diuretic properties. They are taken orally and applied externally in the form of an infusion made of a bunch of leaves boiled in one litre of water. On the other hand, the ash bark was used in treatment of absence of menstruation. Traditionally, the bark and leaves were used as herbaceous means against diarrhoea. A substance contained in the root and leaves increases excretion of uric acid and it has been proved in rheumatic diseases such as rheumatoid arthritis and osteoarthritis. Moreover, the remedy was used for treatment of ear diseases and warts. Chemical substances found in the ash tree help wounds to heal and decrease swellings. The bark is used in treatment of fever and has astringent properties.



The spruce oil is used in treatment (owing to its cholepoietic properties and stimulation of gastric secretions). It stimulates secretion of the bile and removes parasites from bile ducts or intestines. The common spruce in the form of oil can also be used in case of nerve pains and muscle and joint pains (also in rheumatic diseases). A broth made of shoots can be used in case of upper and lower respiratory tract disorders.

Infusions made of horse-chestnut flowers or leaves have spasmolytic, anti-inflammatory, antibacterial and calm constipating effects on the alimentary tract. Compresses with the use of infusions or broths made of bark, flowers or leaves improve blood circulation in the skin, accelerate absorption of hematomas, decrease swellings and prevent varicose veins. The oak barks has anti-inflammatory, antibacterial, astringent and disinfecting properties. It is used for skin with lesions and for problems with the alimentary tract. The oak bark helps in inflammatory conditions of the skin and mucous membrane – for stomatitis, pharyngitis and in case of minor damage, frostbites or mild burns. A broth of the oak bark is also used externally in treatment of haemorrhoids.

After the end of the Second World War, the Palace of the Kronenberg family was converted into a tuberculosis hospital. Until 2006 the palace house the Tuberculosis and Lung Diseases Ward of the Provincial Hospital in Wloclawek. For nearly a year the palace and park complex in Wieniec has been managed by the Kujawsko-Pomorski Impresaryjny Teatr Muzyczny [Musical Theatre] in Torun. The management board of the province would like a new cultural institution, namely the Kujawsko-Pomorskie Centrum Muzyki in the Wieniec Palace to be housed there. The documentation will relate to modernisation of the palace building and old manor building, complete development of the entire lot and restore and renovate the historic fence with its main gate.



## Plants in the Łańcut Park

In the historic park in Łańcut, deciduous trees predominate mostly in native species, but we also find alien species from various habitats and planted at the turn of the 18th and 10th centuries. One of the oldest introduced trees is a maple plane planted at the end of the 18th century with a circumference of about 800 cm and a height of about 30 m. Other interesting species planted in this period that should be mentioned are - purple beech, purple (circumference of about 500 cm, height about 30 m), ginkgo biloba (circumference about



400 cm, height 30 m) - it is probably the oldest specimen of ginkgo in Poland. From this period also linden avenues that surround the internal garden in the form of a five-pointed star. The oldest of these trees come from 1772. Up to now, about 20% of the oldest ones have survived. The oldest native is a bunch of lindens and hornbeams over 300 years old. From the beginning of The nineteenth century comes from the maple tree growing near the Romantic Castle in the amount of 3 pieces with circumferences of about 450 cm and height of about 24 m. From the 30s of the nineteenth century, the tree stand surrounded by the historic Ujeżdżalnia. They are - an American tulip tree with a trunk circumference of about 400 cm and height of 26 m, a purple beech remix (circumference of 430 cm and height of 26 m), clusters of plane trees (circumference of 650 cm, height 28 m).

From monumental trees should be mentioned:

- Maple clusters - 5 pieces with circumferences 450 - 800 cm.
- Ginkgo biloba L – a specimen formed from the fusion of two or three trunks with a circumference of 400 cm.
- Common buzzwort purple - 3 pcs. - Circuitry with trunks from 400 - 500 cm.
- American tulips
- Alley composed of purple beech trees planted at the beginning of Twentieth century - in the amount of a dozen or so items (circumferences of trunks, area 300 cm and height of approx. 26 m)

At the beginning of the 18th century, several specimens of linden trees and hornbeams growing from the northern side of the Castle come from. II half of the eighteenth and early the nineteenth century is the time when the castle loses its defensive function and is transformed into a palace. With the palace, after partial levelling the garden arises. From this period comes a linden avenue surrounding the garden around the Castle, ginkgo biloba, maple plane, purple beech, purple maple leaf. Odessa - growing in the internal garden. From this period also come the oldest trees growing near the Romantic Castle (clusters of maple and common hornbeam) and riding arena (American tulip, purple beech, purple chestnut, chestnut tree white). The end of the nineteenth and early twentieth century is the extension of the park's assumption in the eastern direction. The attached area was designed in the spirit of the English landscape park. From that time comes the unique in the country avenue planted with purple beech trees, a group of pedunculate oaks called, red oaks, common beeches, chestnut trees.

Among the native species should be mentioned:

- Common beech - growing in the eastern (landscape) part - trunk circumferences about 400 cm, height about 26 m

- Pedunculate oaks - trunk circumferences 300-400 cm, height approx. 24 m
- Common groves - tree trunks, approx. 300 cm circuit, 24 m high
- Haughty ashes - circumferences about 350 cm and more, height about 30 m.
- Poplar gray - circumference about 400 cm, height about 30 m

Invasive species is an autochthonous species with significant expansiveness, which spreads naturally or with human participation and is a threat to the fauna and flora of the ecosystem, competing with indigenous species for an ecological niche, and also contributing to the extinction of local species. In the park, there are rather no invasive species of exotic plants that have a significant impact. However, in the park you can find valuable, old, monumental species of exotic plants:



- deciduous trees
  - Ginkgo biloba
  - American tulip
  - Liriodendron tulipifera
  - London plane
  - Platanus x hispanica "Acerifolia"
  - Crimean lip
  - Tilia "Euchlora"
  - Chestnut tree
  - Aesculus hippocastanum
  - Maple ashore Odessa
  - Acer negundo "Odessanum"
- coniferous trees
  - Canadian pine tree
  - Tsuga canadensis
  - Spruce prickly Picea pungens "Glauca"
  - Spring pine
  - Pinus strobus
- shrubs
  - Narrow-leaved olives
  - Elaeagnus angustifolia
  - Magnolia Soulange
  - 
  - Magnolia x soulangeana
  - Japanese Magnolia
  - Magnolia kobus
  - Purple magnolia
  - Magnolia liliiflora "Nigra"

In recent years, chestnut crumblers have made large damages to the health of white chestnuts, causing chestnut leaves to die and fall, sometimes even in July. The next problem are very strong winds occurring this year, causing many damage and excursions of the weakest specimens of trees (especially the oldest and largest ones). In order to prevent breaks and exits of trees, systematic reviews of the historic stand are carried out and care treatments are carried out aimed at the correction of crowns and improvement of tree statics.

The historic park in Łańcut is not included in any natural area. Due to its historical character, it is under conservation protection. Existing animal species do not affect the management of the park. The park has no natural watercourses, and is even far away from them. In the landscape part there is an artificially created small pond with an island and a concrete bottom. It does not have a constant inflow of water and is supplied with rainwater from the drainage of the existing moat wall.

Due to the lack of constant flow it is stagnant water. In the pond grow various water plants including. water lilies, sticks, urea, rips and others. The fauna should include various species of fish (including the largest group of fish) and wild ducks. The area occupied by the park is located in the city centre and is not associated with agricultural traditions

There is no culinary tradition. The curiosities associated with trees should be attached at the beginning of the twentieth century, and the already existing, grove with pedunculate oaks called "tan". There was a tradition in Łańcut and the surrounding area, so that the young people who were getting married would plant two oaks to protect their love and faithfulness. There are no therapeutic traditions connected with vegetation in the park.

All activities related to the maintenance and care of the park are taken care of by the Park Conservation Department, composed of the Manager, 2 brigadiers and staff in an amount of about 20 people. The main tasks of the Department include ongoing care consisting in maintaining the existing lawns, rebates and flower beds, as well as trees and shrubs at the appropriate level. In recent years, intensive work has been carried out related to the revalorization of the historic park and restoration of its appearance from the 1930s. These works were supported by the National Fund for Environmental Protection and Water Management in Warsaw and the Provincial Fund for Environmental Protection and Water Management in Rzeszów. The funds obtained from these Institutions contributed to the carrying out of caring work in the park stand, the purchase and planting of trees, shrubs and perennials, as well as the purchase of park care equipment.

In the historic premise of the park, the overarching goal is to maintain the historical compositional layout and use of such plant species and varieties to maximize the original state (the period adopted as the most important and the most valuable historical). Biodiversity is not a primary objective in this type of assumptions, therefore, no such practices are introduced.

Some more information available at:

- <https://www.zamek-lancut.pl/pl/ZamekDzisiaj/Plan>
- <https://www.zamek-lancut.pl/pl/ZamekDzisiaj/Park>
- <https://www.zamek-lancut.pl/pl/ZamekDzisiaj/Zlotuptaka>
- <https://www.zamek-lancut.pl/pl/ZamekDzisiaj>
- [http://www.mdk-lancut.pl/asp/pliki/2016.09.05\\_PAT\\_informator/informator\\_lancut\\_3.pdf](http://www.mdk-lancut.pl/asp/pliki/2016.09.05_PAT_informator/informator_lancut_3.pdf)
- <https://www.zielonyogrodek.pl/lancut-wizyta-w-ogrodzie-pryzamkowym>
- <http://atlasrezydencji.pl/lancut-zamek-lubomirskich/>

## Plants in the Park of Castle Turnišče

HICAPS Park in Ptuj will be settled in park area around Castle of Turnišče, which has more than 600 trees and more than 30 sorts of shrubbery. In time and space there are few tree assemblies that are special: (1) in central part of park we can find monumental old individual trees, (2) foothills of central part are also filled with old trees, (3) throughout park we can find younger trees, some of own growth some were planted. Key specimen in Castle park Turnišče:



Species	Height (meters)	Trunk circumference (cm)
Oak age	20	724
Maple leaf plane	20	548
Red leaf beech	20	538
Lime	15-20	505
Oak age	20	504
Maple leaf plane	20	497
Maple leaf plane	15-20	485
European ash	20	393
European beech	20	368
Oak age	15-20	363
Red oak	20	358
Elm	20	355

Throughout the history of Castle Park Turnišče the park had two lined tree line that led towards castle. Later they added a tree line behind the castle as well, but it soon was reorganised into English type of park. Tree line towards castle was formulated of different tree species. Mentioned tree line in late 19th century disappears from maps and use. Today we can find some fragments of what used to be tree line. There are two old ash trees that was once part of an historical ash tree line towards castle:

- 2 European ashes, with circumference of: 247 cm, and 283 cm, height over 20 meters

Castle Park Turnišče has few very impressive trees, which outstands for its developed structure – wide trunk diameter, reached high and width of treetop. With more than seven meters of trunk diameter stands out a huge oak tree. It is predicted that mentioned tree originates from late 18th century. Tree is settled in south part of park. Important trees are also two poplar trees, which stand at the south-west entrance. They are remaining from tree line which led towards castle until late 19th century. Detailed analysis showed that Castle Park Turnišče has 23 trees, which could be valued as tree nature value, mainly because of their trunk diameter.



One of major specialities of Castle Park Turnišče is a very large nature grow area for common snowdrop. Snowdrops are among protected species in Slovenia, they are also protected under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora).

Castle Park Turnišče is settled on Drava plain field. Through park flows stream Studenčnica, who's numerous sources caused a formation of a pond in park. Park lies on 223 m altitude. The area has a moderate continental climate. Park area is relatively resistant to time to time climate changes. Drought is not a very significant problem because of the stream Studenčnica in the park. Hard winters are in park area very rare, mild winters do not dramatically affect the trees and shrubbery. In year 2016 the Municipality of Ptuj ordered a preparation of an Arboristic plan for Castle Park Turnišče. The plan itemized every tree in park and offered suggestions on how to handle with the individual tree.

Castle Park Turnišče has status of different insurances at Institute of the Republic of Slovenia for Nature Conservation (ZRSVN): Turnišče, Castle surroundings (ID 1126), Turnišče stream, nature value (ID 7056), Natura 2000, Drava (ID 5000011) and Drava, ecologically important area (ID 41500). Insurances are made because of its flora, fauna and landscape properties. The management of the park is not affected by wild animal species.

Through park runs stream Studenčnica, who's numerous

sources causes a formation of a pond in park. Stream Studenčnica is of natural origin. It runs on right sight of river Drava. Once the stream had very clean and bright water. Today the stream has a muddled ground, flora and fauna are destroyed, its water is troubled. In Castle Park Turnišče is very large natures grow area for common snowdrop. Park has 63 trees with trunk diameter over 250 cm, mainly from the category old trees.

Park area neighbours at his east and south side to agricultural area. Trees in Castle Park Turnišče are part of larger forest that spreads north of Castle Park. Therefore tree species in Castle Park are similar to species in forest. Further components of connection to the agricultural traditions are not present.

Culinary traditions related to the tree, shrub and herbaceous are not present. The area of Castle Park Turnišče is not known for its therapeutic traditions.

Castle and Castle Park Turnišče are managed by Municipality of Ptuj, who is also the owner. Two buildings are inhabited by residents. Part of Turnišče park area is managed by Biotechnical school Ptuj. They take care of east part of park area, and are responsible for maintenance of trees and lawn in Castle Park Turnišče. Main maintenance works are carried out by external workers that



are hired by Municipality of Ptuj.

Arboristic plan, from 2016, shows specified list of trees in Central Park Ptuj. Same plan also includes suggestions, how to work with trees and shrubbery, and how to handle with new planting. Preposition has been made to prepare a landscape architecture plan. Mentioned plan should evaluate most suitable species, places and instruction about managing the plant diversity in Castle Park Turnišče. Landscape architecture plan should also specified urban equipment.



In later years park and castle Turnišče are not being managed properly. Big steps towards protection and promotion of biodiversity are yet to be made. Conservatory plan, made in 2016, gives clear message about bad management of castle and of surrounding park. Conservatory plan and arboristic plan gives specific instructions how to approach towards protection of biodiversity in Castle Park Turnišče.

## Plants in the Historical Castle Park Velenje

Velenje Castle park does include monumental specimens and they are located at different positions in the park. Through the years it is obvious, that only the most resistant plants still exist in the park, in the past they all were part of them homogeneous and harmonic castle park. This few still existing plants are very important part of the cultural and environmental heritage and important link with the past, the present and the future of the castle park. Their value is also important for future park renovations, to reach the final effect as close as possible to the characteristics of its original state. The first example is right at the front of the castle entrance, next to the hanging bridge.



Large leaf lime tree (*Tilia platyphyllos*) is a more than 15 m high tree, with the trunk girth of 346 cm at 1m above ground, and the diameter of 109 cm at the same level. This tree is a castle guard, what makes it a plant of special value.

The second example is in the south part of the castle park, under the castle walls. *Chamaecyparis lawsoniana*, known as Lawson cypress is a rare conifer with such vitality and condition in our area. The tree is more than 15 m high, with the trunk girth 372 cm above ground and the diameter of 118 cm at the same level.



The third example is also in the south part of the castle park, under the castle walls. *Chamaecyparis lawsoniana*, known as Lawson cypress with incredible shape and tree structure. The tree is more than 15 m high, with the trunk girth of 290 cm at 1m above ground and the diameter 93 cm at level.



The fourth example is a solitary tree, located also in south part of the castle park. *Platanus x hispanica*, known as plane tree, having a very interesting bark texture. The tree is a approx. 15 m high, with the trunk girth of 280 cm at 1m above ground and the diameter of 89 cm at same height level.



The fifth example is reminder of an alley also located in the south part of the castle park. Aesculus



hippocastanum known as Horse Chestnut. The tree is more than 15 m high, with the trunk girth of 346 cm at 1m above ground and the diameter of 110 cm at same level.

The sixth example is lime tree at the same level as the castle entrance. Large leaf lime tree (*Tilia platyphyllos*) which is more than 15 m high, with the trunk girth of 290 cm at 1m above ground and diameter of 93 cm at the same level.



Velenje Castle park does include tree lines with monumental features , though not as individual trees. We will present the horse chestnut alley. When driving up to the castle we enter the tree avenue of old the horse Chestnuts (*Aesculus hippocastanum*). A further example is also the alley of horse chestnuts (*Aesculus hippocastanum*) not far from the castle entrance.





Both chestnut avenues are no longer complete or connected, though they originally were. The answer is equal to the question No.5. The approximate height of trees is 10 to 15 metres with the trunk girth between 200 and 346 cm at 1m above ground and their diameters between 65 and 110 cm at the same level. As in the past the chestnut avenues were complete, it is now part of the future plan to restore them to their original state.



Another interesting tree group is a semi-circle circle of *Carpinus betulus*, commonly known as the European or common hornbeam. Approximate height of trees is 10 m with the trunk girth between 160 and 200 cm at 1m above ground and diameter between 51 and 64 cm at the same level. The semi- circular tree formation is unique for our area and was probably meant as a place of rest for a park strollers.



The end of 19th and the beginning of 20th century is the period with which the previously mentioned trees can be connected and can be seen as the witnesses of that part of the castle history. Unfortunately no trees older than that exist today. Beside the trees and shrubs which are still growing there are also other groups of plants on the meadows inside and outside the castle walls. The castle toilets with the direct outlets on the outside castle walls were responsible in the past for the heterogeneous plant diversity around the castle.

Perennials or herbs below were used as well for culinary as also for medicinal purposes:

- *Fragaria vesca*, commonly called wild strawberry
- *Glechoma hederacea*, commonly known as ground-ivy
- *Symphytum officinale*, known as comfrey
- *Achillea millefolium*, commonly known as yarrow or common yarrow
- *Urtica dioica*, often called common nettle
- *Pimpinella anisum*, also called aniseed
- *Verbascum phlomoides* with common name mullein
- *Allium carinatum*, or witch's garlic
- Some trees and shrubs on the castle hill were and are still used for culinary and medicinal purposes:
- *Robinia pseudoacacia*, commonly known in its native territory as black locust
- *Sambucus nigra*, known as elder, elderberry or black elder
- *Cornus mas*, known as Cornelian cherry or European cornel
- *Rubus fruticosus*, known as blackberry

We can assume that especially the plants above, still found on the meadows close to the castle are witnesses, that their ancestors were important part of the castle life far back in the past.

We can find some indigenous species typical for our territory, which are part of the castle park or the forest on the castle hill, e.g. *Picea abies* known as a Norway spruce is present as well in the castle park as also in the forest on the castle hill.

The tree is more than 15m high, with the trunk girth of 308 cm at 1m above the ground and the diameter 98.10 cm at the same level.



*Fagus Sylvatica* known as a common beech is present as a part of the forest on the castle hill and in the close surroundings.

The tree is approx. 15 m high, with the trunk girth of 180 cm at 1m above the ground and the diameter of 57 cm at same level.



*Ulmus glabra* is present as well in the castle park as also in the forest on the castle hill.

Tree is more than 15 meters high, with the trunk girth of 180 cm at 1m above the ground and diameter of 58 cm at the same level.





*Quercus robur*, commonly known as common oak is present as a part of the forest on the castle hill.

The tree is more than 15 m high, with the trunk girth of 300 cm at 1m above the ground and the diameter of 95.54 cm at the same level.



*Acer platanoides* commonly known as a maple is present as a part of the forest at the edge of the castle hill.

The tree is more than 15 m high, with the trunk girth of 160 cm at 1m above the ground and the diameter of 51 cm at the same level.



In the past 20 years, we also have witnessed a lot of changes and deviations of weather in connection with the climate change. Droughty summers brought problems to Horse Chestnut trees, especially those on both sides of the avenue, connecting the old town with the castle. In this case the trees have access with only with half of their roots as the avenue ascends up to the castle and this makes the situation only worse. We have been said witnesses of the avenue weakening in the past few years. We are trying to find the solution by comparing the past state , when the road was made of macadam with the present asphalt road. We are afraid that solution will not be an easy or a cheap one. We think that our hopes to stabilize the tree avenue are more than realistic. Drought is a problem also for conifers, but at the moment situation is stabilized.



In February 2014 the combination of sleet and a long period of frost, damaged almost 90 % of castle trees. As consequence to the broken branches and other damages the trees were massively attacked by different pests causing additional damage which then resulted in felling quite a number of trees. In the past 3 years, we have managed to solve some of the problems, although irreparable damage has remained. The castle park still shows the wounds which we must hell in the near future. In 2017 a lot of trees were damaged by strong wind. There is a threat for vegetation 2018 to. That is why we are trying to introduce the continuous monitoring of all the trees in the castle park as in the present we are still confronted with unexpected phenomena. In

2010, cadastral register of trees and shrubs was implemented for reason of monitoring and Velenje municipality is responsible for all the necessary activities. Separate from the castle park, monitoring of the phytosanitary and static conditions of the castle hill forest is conducted by the National Forest Institute of Slovenia.



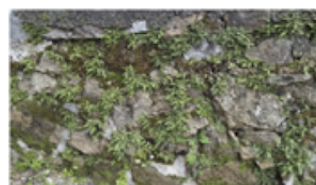
The historical castle park is part of the Šaleska valley area. At its northern side the Castle park is connected with the town through the castle hill forest, while on all other sides it borders on the rural or natural areas.

The result is migration of flora and fauna to the areas of castle hill forest and other parts of the castle park, but that does not cause any problems and does not affect the management and maintenance of the castle park. On the contrary, the presence of different species of birds, squirrels, sometimes deer and foxes, adds to the value of the park.

Migration of flora is also interesting, especially in the castle hill forest and along the castle walls. In the forest, we have noticed at the past 10 years the presence of: *Cyclamen persicum*, the Persian wild cyclamen.



On the castle walls we can find beautiful *Asplenium trichomanes* commonly known as maidenhair spleenwort.



That is also added value, but with monitoring we need to supervise any possible enlargement of some species to keep them at the level when the architecture (castle walls) will not be damaged.





In the past (more than 50 years ago) a fish pond was also a part of the castle park. The only important source of water was a well with rain water in the castle courtyard and another one inside the castle (see photos below). Outside the castle there is a now abandoned well with spring of ground water.



The castle park is on a hill, surrounded by the river Paka, the stream Trebuša and some other water sources. Not far away there are also the lakes Velenje. Water quality in all water sources is extremely good, nevertheless we cannot claim that this water sources are directly affecting the castle park. The well with rain water in the castle courtyard and one inside the castle could still be used as the water supply of the castle.

Outside the castle, there is an abandoned well with water source from the ground.

The closest river to the castle is the Paka. Then there are the stream Trebuša, lake Velenje and some other water sources nearby. Water quality in all the water sources is extremely good, but we cannot claim that this water sources are directly affecting or have influence to flora and fauna the castle park.



Inside the castle walls and in the castle park, we can find a lot of connections to the agricultural traditions, especially as the main policy in the period of the empress Maria Theresia was self – sufficiency.

As a result, a fruit garden was planted as a part of a castle park. Low maintenance care did not cause many problems in the past, ignoring violent atmospheric events and so still a lot of fruit trees grow here today. In the past years some renovation works have been carried out. In the fruit garden we can find old apple, cherry, pear and walnut species , what helps to save traditional, old and resistant species.



Inside the castle walls we can also find some plum trees and grape vines. All this plants are still present in the castle park area. They were planted with care and following all the rules of landscape design and architecture.

A lot of renovation works in fruit garden are planned for future as a proof of importance to save traditional, old and resistant species.



Culinary traditions and curiosities related to the tree, shrub and herbaceous species are still present today and they are very much alive in everyday life of the people in Šaleška valley. Because of strong relation to tradition, trees, shrubs and herbaceous species are still present in and around the park.

Like spices or additives to food following herbs , perennials, shrubs and trees are still used. *Glechoma hederacea* commonly known as ground-ivy is used for potato soup.



*Urtica dioica*, often called common nettle is used as early spring vegetable (in cooking).



*Pimpinella anisum*, also called aniseed was used in many cooked dishes and pickles.





*Allium carinatum* or witch's garlic is used for soups and spreads.



*Taraxacum officinale* called common dandelion is used as early spring salad.



*Achillea millefolium*, commonly known as yarrow or common yarrow in the past was used for chicken and turkey feed (young leaves mixed with hardboiled eggs).



*Fragaria vesca*, commonly called wild strawberry is a still cherished wild fruit.



Trees and shrubs on the castle hill are also witnesses of culinary tradition and medicinal use. *Robinia pseudoacacia*, commonly known in its native territory as black locust. Deep fried flowers are eaten as main dish (served with lettuce) and they are important source of honey.



*Sambucus nigra* is known as elder, elderberry, black elder. Deep fried flowers are eaten as main dish served with lettuce or compote.



*Cornus mas* known as Cornelian cherry or European cornel. Fruits are used for jam and syrup.





*Rubus fruticosus* known as a blackberry. Fruits are used for jam and syrup.



*Corylus avellana* known as a hazel. Nuts are important ingredients for many sweet dishes, chocolate, etc..



Therapeutic traditions and curiosities related to the tree, shrub and herbaceous species are also present and very much alive in everyday life of people in Šaleška valley.

- *Urtica dioica*, often called common nettle is widely used for healing (tea, lotion, etc).
- Seeds of *Pimpinella anisum*, also called aniseed are used against cramps especially with children.
- *Taraxacum officinale* called common dandelion is used for syrup as cough protection.
- *Achillea millefolium*, commonly known as yarrow or common yarrow is a very important medicinal herb (tea, etc.).
- *Symphytum officinale* it is known as comfrey is a very important medicinal herb (ointment, etc.).
- *Verbascum phlomoides* with common name mullein is a very precious medicinal herb (tea, etc.).



- *Pulmonaria officinalis*, commonly known as lungwort is very precious medicinal

herb(respiratory and lung problems).



- Chelidonium majus, commonly known as greater celandine is also a medicinal herb. It is still used as wart prevention.



Trees and shrubs at castle hill are still used for culinary and medical purposes. Sambucus nigra also known as elder, elderberry, black elder. Flowers and fruits are used for syrup and as herbal tea and it is widely appreciated as fever protection. Cornus mas known as Cornelian cherry or European cornel. Branches with flowers play an important role in Easter tradition.

Maintenance is divided into that of the castle park, carried out by castle staff and that of the castle hill forest, where the local department of National Forestry Institute of Slovenia takes care of the monitoring and maintenance. The castle park needs periodic grass cutting, with special attention to castle meadows, as all the plants need to reach the level of ripeness. Low level grass maintenance approach in the past proved positive, because many species were so successfully saved. I have already indicated that monitoring of trees and shrubs should be done with the help of the cadastral register, but maintenance approach is usually realized when problems arise.



Last year, the new management of the castle took new approach to the castle park maintenance, starting monitoring the plant condition, planning renovations, new plantations and other measures, taking into account the castle history as well as the rules of the landscape design, castle architecture and present and future castle(museum) activities. Some renovation works are already in progress and some planned for the first half of the year 2018. For years, local environmental associations have been involved in some projects and in the future they will be chosen again, but with great care, taking into account the nature of a specific project.



In the past the maintenance approach, although not so sufficient as it should have been, was nevertheless a key factor for preservation and protection of herbs indigenous plants. Sadly the same cannot be said for ornamental plants, especially for trees and shrubs. At this moment castle park is at its turning point, which cause for immediate action.

In the last three years the new management have recognized the importance of biodiversity in the castle park the importance of preserving the existing plants, as well as planning the new layout and a complete restoration. Importance of the story and vision which includes plants, is a base for versatile castle activities in the future.





## Educational outdoor trail tools

This section describes the educational outdoor trail tools proposed for being implemented in the HICAPS parks. It is intended to be a model and a good practice to any other historical garden of the Central Europe area interested in taking benefits of the work done by the project partners.

It presents the most interesting tools that are being used for implementing an outdoor trail in the HICAPS parks, according to the different types of audiences (citizens, tourists, schools, scholars, people with special needs, etc.) and fields addressed by the project (history, natural sciences, fauna, accessibility, etc.).

The overall goal of this relevant effort consists of increasing the knowledge among public sector institutions, politicians as well as the general public about the importance of accessibility to cultural landscape. The experience developed through this transnational cooperation is made available to support the development of active strategies to improve the educational potential present in historical gardens, empower the visitors with new knowledge and improve the quality of their life.

The proposed training tools to be used for Educational Outdoor Trail includes the following list, organised by the institution that proposed it. You can see that each partner that is managing one historical park has proposed and is going to implement at least one training tool in its pilot action, while the University of Ljubljana and Mala Filozofija have proposed some “horizontal” tools, that can be applied in any context.

- Municipality of Bedekovčina: [Quiz Path](#)
- Municipality of Varaždin: [Interactive application for walk lane J.J Strossmayer](#)
- Municipality of Ferrara: [Action Trail for Developing Motor Skills](#), [Interactive guide to plants](#), [Biodiversity in the Park](#)
- Villa Ghigi Foundation: [The world of spontaneous grasses](#)
- Kujawsko-Pomorskie Voivodeship: [The field classes scenarios in the landscape parks](#)
- Rzeszow Regional Developm. [Agency: Nature and educational path at the Maria Konopnicka Museum in Żarnowiec](#), [Dendrological and educational path](#)
- Scientific research centre Bistra Ptuj: [The world made by small springs](#)
- Municipality of Velenje: [The Dragon's Castle Trail Around Velenje](#)
- University of Ljubljana: [Learning by doing with volunteers](#)
- Mala Filozofija: [A Smart Park](#), [Book Crossing](#), [Curious path](#), [Labyrinth](#), [Psychomotor path – therapy and relaxation](#), [Recycling corner](#), [Riddle corner](#), [Riddle path](#), [Sensory Rope Trail](#), [Social games corner](#), [Who am I?](#), [Write your own story](#)

We can organise the tools according to three main themes: the history of the park, the biodiversity and the natural sciences elements typical of the park, and their tools for general culture, health, wellness and entertainment.

	History of the park	Biodiversity, Natural sciences	Health, Wellness, Entertainment
Quiz Path	X	X	
Interactive application for walk lane J.J Strossmayer	X	X	
Action Trail for Developing Motor Skills			X



Interactive guide to plants		X	
Biodiversity in the Park		X	
The world of spontaneous grasses		X	
The field classes scenarios in the landscape parks	X	X	
Nature and educational path at the Maria Konopnicka Museum in Żarnowiec		X	
Dendrological and educational path		X	
The world made by small springs	X	X	
The Dragon's Castle Trail Around Velenje	X	X	
Learning by doing with volunteers	X	X	
A Smart Park	X	X	
Book Crossing			X
Curious path		X	X
Labyrinth			X
Psychomotor path – therapy and relaxation			X
Recycling corner			X
Riddle corner			X
Riddle path	X	X	X
Sensory Rope Trail			X
Social games corner			X
Who am I?		X	X
Write your own story			X

We can also analyse the list of training tools according to the target beneficiaries. Together with children (divided in the age groups, namely 0-6, 7-11 and 12-15), youngsters, adults, generic citizens and tourists, some tools also specifically target people with special needs (blind, disabled people), scholars, and people with a specific interest (e.g. geocachers). The following table present the distribution so obtained: please consider that the “special needs” section includes only the tools with a specific focus on this category, even if most of the tools can be easily applied also to people with several forms of disabilities.

	Children 0-6	Children 7-11	Children 11-15	Youngsters	Adults	Tourists	Special Needs	Scholars	Specific interest
Quiz Path		X	X	X	X	X			
Interactive application for walk lane J.J Strossmayer		X	X	X	X	X			
Action Trail for Developing Motor Skills	X	X			X	X			
Interactive guide to plants		X	X	X	X	X			
Biodiversity in the Park			X	X	X			X	X
The world of spontaneous grasses		X	X	X	X				
The field classes scenarios in the landscape parks		X	X	X	X				
Nature and educational path at the Maria Konopnicka Museum in Żarnowiec		X	X	X	X	X			
Dendrological and educational path		X	X	X	X	X			
The world made by small springs		X	X	X	X	X			
The Dragon's Castle Trail Around Velenje	X	X	X	X	X	X			X
Learning by doing with volunteers		X	X	X	X	X		X	
A Smart Park	X	X	X	X	X	X			
Book Crossing	X	X	X	X	X	X			
Curious path	X								
Labyrinth	X	X	X	X	X	X			
Psychomotor path - therapy and relaxation	X	X			X		X		
Recycling corner		X	X		X	X			
Riddle corner		X	X		X	X			
Riddle path		X	X		X	X			
Sensory Rope Trail	X	X			X		X		
Social games corner	X	X	X	X	X	X			
Who am I?		X	X	X	X				
Write your own story	X	X	X	X	X	X			

It is evident how this set of tools well responds to the general and specific objectives of HICAPS, is well balance among the expected target beneficiaries, and covers all the key themes planned by the project.

In the following chapters, the tools are presented in detail, describing the general idea and purpose of the tool, focusing on the preparatory works and activities, listing the materials necessary for their successful implementation and documenting in annex all the necessary instructions and additional information useful for those who intend to apply them in their own park or garden.

## Educational outdoor trail tools: Quiz Path

Quiz path is educational path for all generations, especially for children. The idea of quiz path is to make possible for general public to learn about history and biodiversity of park in an interesting way. Path is made of several boards. Each board is made of small rotating parts. On one side of the small part are questions about history and biodiversity of the park and on the other side are the answers. For each answer one gets certain point so people can compete with each other. In that way people will learn about the park and have fun at the same time.

### Target beneficiaries

Primary school (from 7 to 15 years old). Adults and general population.

### Materials and initial preparatory activities necessary to effectively implement the tool

For preparation of this tool it is necessary to make a database with information about history and biodiversity of park and use this information for preparing questions and answers that will be used for Quiz path.

### Detailed description how to implement the tool

For preparation of this tool it is necessary to make a database with information about history and biodiversity of park and use this information for preparing questions and answers that will be used for Quiz path.





## Educational outdoor trail tools: Interactive application for walk lane J.J Strossmayer

Instructive boards with interesting information on the plant species in park (existing valuable plants and new plants planned by the landscape project) and interactive point for mobile App that would provide citizens of the City of Varaždin and tourists with information about the promenade itself (who was Josip Juraj Strossmayer, how and when the ramparts, plant and animal species were present on the promenade, interesting things about them and similar content for identifying plant and other data about plant use and Slavic and Christian mythology on the trees and perennials in Croatia. Application should be simple to update and specially to use.

### Target beneficiaries

All visitors in the park; Children from 7-11 years old, Children from 12-15 years old, Youngsters, Citizens (Adults), Tourists.

### Materials and initial preparatory activities necessary to effectively implement the tool

Instructive boards with interesting information on the plant species in park (existing valuable plants and new plants planned by the landscape project) - Instructive boards should contain information about existing valuable plants or plants that will be planted and their characteristics such as - are they rare species, do they have any medical use, are they use as spice in kitchen and similar. The instructive boards should be made from eco environmental friendly materials, and their shape must fit in present environment.

Interactive point for mobile App - For preparation of this tool it is necessary to create mobile application. This mobile application should offer on the start frame two options - information about History of the park and information about its biodiversity. For information about biodiversity it is necessary to make a database with information about every bio species that are present or it will be planted (information that will be on the Instructive boards but in a larger coverage).

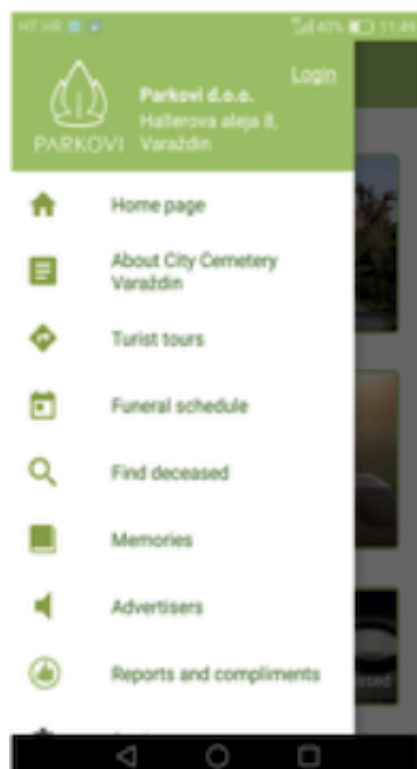
### Detailed description how to implement the tool

Application needs to be downloaded and the tool is ready to use.

Interactive application for walk lane J.J Strossmayer should be programme similar like application that is already used for Varaždin Cemetery. This existing application can be used as a model or concept for our new application, that contain information about our walk lane and plant and animal species that are present on it.

Here is an example of the layout of the menu that we like to use in our application:







## Educational outdoor trail tools: Action Trail for Developing Motor Skills

This tool has been firstly developed by the University of Tampere, in different green areas within the City of Tampere, in Finland. It is based on the Recommendations for physical activity in early childhood, published by the Ministry of Education and Culture in Finland, and the United Nations Convention on the Rights of the Child. The recommendations also include guidelines on physical activity for a child, the roles of the physical, psychological and social environments, and the planning and implementation of guided physical exercise as part of early childhood education. The objective of this tool is to promote the development of fundamental movement skills in early childhood and to provide educators with various examples and ideas for different ways of exercising and developing fundamental movement skills.

Every child has a natural attitude to be physically active. Physical activity is a prerequisite for a child's normal growth and development, as well as for health and ability to function. Through play and motion, children learn new things and simultaneously practice and develop their motor skills. Also, the development of learning capacities, social skills and self-esteem are connected to physical activity. A physically active way of life starts to develop in early childhood, and an active childhood predicts a physically active adulthood. Physical activity should be a natural part of a child's everyday life both at home and in early childhood education. The early years are the most significant for developing motor skills. The central basic movement skills such as walking, running, jumping, throwing, kicking and catching should be learned before the age of seven. The development of motor skills is a prerequisite for a child to later independently cope in various situations in life. The automatization of motor skills requires thousands and thousands of repetitions for the same movement model.

### Target beneficiaries

Pre-primary and Primary school children (from 3 to 9 years old). Parents and children. Citizens.

### Materials and initial preparatory activities necessary to effectively implement the tool

The Action Trail proposed includes 25 games, divided into five areas of learning, each with levels of difficulty. The children's age and level of development should be considered when planning and implementing the tasks. The tasks can be put on a map of the park(s) involved, to help educators and parents to run them in areas better designed for their objective.

Many games do not ask for any specific material, sometimes the educators are requested to prepare themselves some materials to be used for playing. The following items are requested for some of the proposed games:

- A dice with different letters on the sides, corresponding letters to be put on the wall;
- A wheel of fortune with eight sectors;
- A game board with a map of Europe, a dice and pawns
- Some baskets, playing cards, a , sticky tape, pens and paper
- Musical Instruments, an audio player and recorder, a camera or a tablet
- White pieces of cloth or paper to be used as a canvas
- Bingo grids.

### Detailed description how to implement the tool

The games are organised in five areas: a) the World of Languages; b) Forms of Expression; c) Our Community and I; d) Can You Hear the Difference? e) Growing, Moving and Developing. A certain number of points are associated to each task, according to the level of difficulty of the task (4 levels per area), so that the tasks with the lowest number of points (10 points) can be completed quickly and easily by children, and the more complex tasks (50 points) require a lot of planning and documentation.

At least one task from each area should be completed, and – if possible, the children's performance must include tasks from all levels of difficulty. The game is successful if the child collects a minimum of 200 points. There is no predefined route to be followed: you take the one that you like towards the finish line.

The full description is presented in the attached document.

The methodological background and the full description of each game [are provided in the attached Annex 1.](#)

The fundamental movement skills are detailed in the table below, divided into three types of basic skills (Table 1). These different skills can be developed by using and changing different motion factors, which are directions, space, time, strength and level (Table 2). This part also includes a few scientific articles on developing fundamental movement skills.

Table 1: Fundamental movement skills (Gallahue, D. L. & Donnelly, F. C. 2003. Developmental physical education for all children. Champaign, IL: Human Kinetics)

Stability Skills	Loco-motor Skills	Manipulative Skills
bending	walking	throwing
stretching	running	catching
twisting	jumping	kicking
turning	hopping	trapping
bending	skipping	striking
inverted supports	galloping	volleying
body rolling	sliding	bouncing
landing, stopping	leaping	ball rolling
dodging	climbing	punting
balancing		

Table 2: Motion factors (Kokljuschkin, M. & Pulli, E. 1995. Liiku ja kehity. Helsinki: Nuorten keskus)

Directions	forward - backward - sideward rightward – leftward
Space	a large or small area to play or act motions with relation to space: curved motion, large motion
Time	slower – faster slowing down – speeding up sudden movement – steady movement
Strength	strongly – lightly decreasing strength – increasing strength tension – relaxation
Level	upper level (on the balls of the feet, hand movements above the chest), mid-level (movement between the knees and the chest), lower level (lying down, crawling flat or on all fours)

upward – downward  
handling equipment high – low





## Educational outdoor trail tools: Action Trail for Developing Motor Skills

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Every child has a natural attitude to be physically active. Physical activity is a prerequisite for a child's normal growth and development, as well as for health and ability to function. Through play and motion, children learn new things and simultaneously practice and develop their motor skills. Also, the development of learning capacities, social skills and self-esteem are connected to physical activity. A physically active way of life starts to develop in early childhood, and an active childhood predicts a physically active adulthood. Physical activity should be a natural part of a child's everyday life both at home and in early childhood education. The early years are the most significant for developing motor skills. The central basic movement skills such as walking, running, jumping, throwing, kicking and catching should be learned before the age of seven. The development of motor skills is a prerequisite for a child to later independently cope in various situations in life. The automatization of motor skills requires thousands and thousands of repetitions for the same movement model.

### Target beneficiaries

Pre-primary and Primary school children (from 3 to 9 years old). Parents and children. Citizens.

### Materials and initial preparatory activities necessary to effectively implement the tool

The Action Trail proposed includes 25 games, divided into five areas of learning, each with levels of difficulty. The children's age and level of development should be considered when planning and implementing the tasks. The tasks can be put on a map of the park(s) involved, to help educators and parents to run them in areas better designed for their objective.

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- A game board with a map of Europe, a dice and pawns
- Some baskets, playing cards, a , sticky tape, pens and paper
- Musical Instruments, an audio player and recorder, a camera or a tablet
- White pieces of cloth or paper to be used as a canvas
- Bingo grids.

### Detailed description how to implement the tool

The games are organised in five areas: a) the World of Languages; b) Forms of Expression; c) Our Community and I; d) Can You Hear the Difference? e) Growing, Moving and Developing. A certain number of points are associated to each task, according to the level of difficulty of the task (4 levels per area), so that the tasks with the lowest number of points (10 points) can be completed quickly and easily by children, and the more complex tasks (50 points) require a lot of planning and documentation.

At least one task from each area should be completed, and – if possible, the children's performance must include tasks from all levels of difficulty. The game is successful if the child collects a minimum of 200 points. There is no predefined route to be followed: you take the one that you like towards the finish line.

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turning	hopping	trapping
bending	skipping	striking
inverted supports	galloping	volleying
body rolling	sliding	bouncing
landing, stopping	leaping	ball rolling
dodging	climbing	punting
balancing		

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Level	upper level (on the balls of the feet, hand movements above the chest), mid-level (movement between the knees and the chest), lower level (lying down, crawling flat or on all fours)

upward – downward  
handling equipment high – low



## Educational outdoor trail tools: Interactive guide to plants

In the Barco district of Ferrara, not too far from the Este Walls, in December 2015 the small park dedicated to Claudio Abbado, who defined himself as a gardener dedicated to music, was born. The Bosco Abbado, 80 m long and 26 m wide, is composed of two identical linear modules: a rich vegetation belt capable of translating environmental quality into the urban environment of a small “forest”, with the aim of guaranteeing biodiversity in a small space. The project aimed to have the most of the planting density, with the objective to insert as many species as possible. The presence of fruit trees together with traditional trees and shrubs provides a wide association of species.

The interactive guide to the trees and shrubs of Bosco Abbado, easily extendable to the whole Este Wall area, has been created in collaboration with the Dryades project of the Department of Life Sciences of the University of Trieste. It aims to enhance the forest by creating tools for easy consultation and bring citizens closer to the urban forest. Above all it wants to provide pupils and teachers with a tool that allows them to use the city green areas as real outdoor laboratories, in which they can carry out educational activities centred on the identification of plants.

### Target beneficiaries

Primary and secondary school children. Parents and children. Citizens.

### Materials and initial preparatory activities necessary to effectively implement the tool

The interactive guide is accessible from a single-user interface, where the user is asked to choose several times between a couple of options, until she/he gets the name of the plant /shrub. The system is organised in this way:

- At each step, user is requested to choose between two options.
- To choose an option, she/he has to click the corresponding button (to simplify the model, the illustrations of the options refer to the plant characters in a general sense, and do not necessarily reproduce the organism to be identified).
- It is always possible to 'go back', by clicking the 'back' key, or to start over from the beginning by clicking the 'restart from top' key.
- After selecting an option, the number of remaining species is presented to the user: by clicking on it she/he can get the complete list.
- When the number of remaining species is less than 16, an additional key allows to show an illustrated information, including photographs of the remaining species.
- When the final species arrives, a page is displayed with its Latin and Italian name, its family and a digital photograph.
- The user can access several photographs of that species, by clicking the corresponding button.
- A series of digital photos appears. To enlarge a photo, the user has to click on it. By clicking the lower right corner, it is possible to further enlarge the photo.

### Detailed description how to implement the tool

Here an example how the system works. Look at the plant in front of you and provide the correct option



First key:



Needle-like leaves,

or



Not needle-like leaves

Second key: If the user selects the “Not needle-like leaves” option, the following information is shown:  
42 records left



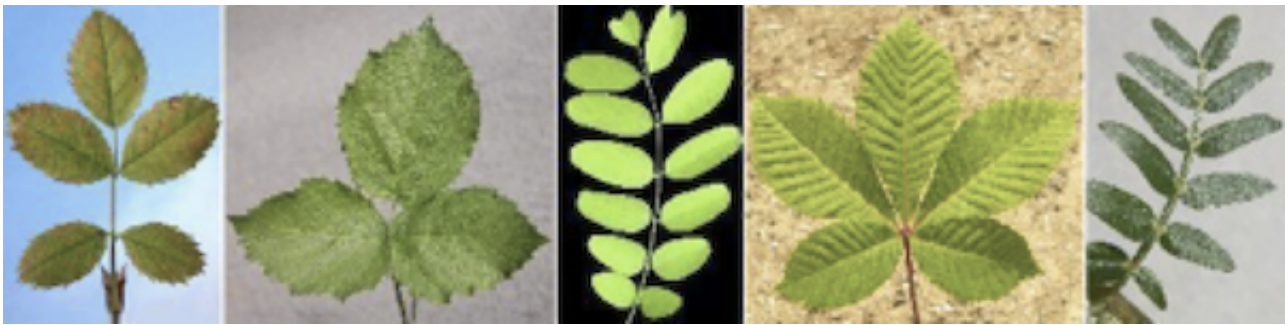
Opposite leaves,

or



Not opposite leaves

Third key: If the user selects the “Opposite leaves” option, the following information is shown:  
12 records left



Composite leaves,

or



Non-composite leaves

Fourth key: If the user selects the “Composite leaves” option, the following information is shown:  
6 records left



Plant with climbing or twisting stems,

or



Trees or shrubs

Fifth key: If the user selects the “Plant with climbing or twisting stems” option, the resulting plant is fully presented:

*Clematis vitalba* L.

Family: Ranunculaceae

Italian names: Cincinis, Clematide vitalba, Viorna, Vitalba

The vitalba is a vine with European distribution present in all regions of Italy, from sea level up to the mountain thermophile beech forests...

At the moment the system can be accessed only at the URL:  
[http://dbiodbs.units.it/carso/chiavi\\_pub21?sc=669](http://dbiodbs.units.it/carso/chiavi_pub21?sc=669) (in Italian language).





## Educational outdoor trail tools: Biodiversity in the Park

This tool concerns the use of the Syrphoidea and Carabidae insects as indicators of biodiversity. It is targeting more operators who take care of the park, however it has a high potential to be used as a demonstrator for the whole citizens, making them aware about the relevance of biodiversity in the city. In fact, the urban park plays important ecological functions, such as climate mitigation, including support for biodiversity. The intent of the Municipality of Ferrara is to set a survey to assess the capacity of an urban park in supporting the indigenous biodiversity, using the two groups of insects mentioned above as bioindicators. These groups meet the fundamental requirements required to be valid bioindicators of biodiversity:



- information on biology and biogeography must be abundant and easily available;
- distribution of the upper taxa (e.g. families) must be wide, covering a large range of habitats;
- lower taxa must be specialized and sensitive to habitat changes;
- identification of taxa must be simple and the name of the taxa must be well established;
- sampling techniques must be effective and easily standardized, sampling and labelling must be expensive in money and time;
- it should be related to those of other taxa: good economic interest

### Target beneficiaries

Secondary school pupils and teachers. Parents and children. Citizens. Scholars. Park management staff. This tool is mainly interesting for people taking care of the park – the park management operators, as well as the managing institution - however it has a high demonstrative value for the citizens and can be used as a method to bring students closer to the use of bioindicators.

### Materials and initial preparatory activities necessary to effectively implement the tool

Guides useful for the identification of Diptera Syrphoidea and Coleoptera Carabidae existing in the region, based on bibliographic references. Collecting information about the ways Carabidae species are used to feed themselves, and identification of the habitats present in the park's ecosystem.

The tool can be used in a simplified version in which only the presence of ecologically demanding species is analysed, looking at some specific feature that can be directly detected on the collected insects, without using more detailed references and databases.

An important reference material is: Van Veen M.P., 2004. Hoverflies of North-west Europe. Identification keys to the Syrphidae. KNNV Publishing, The Netherlands.

### Detailed description how to implement the tool

The tool should include the following steps:

- Regional lists of Diptera Syrphoidea and Coleoptera Carabidae based on bibliographic references;
- Reference to existing guides useful for the identification of the Syrphidae and Carabidae species in the region;
- Samples of Syrphoidea and Carabidae;
- Analysis of materials using stereomicroscopes; counting of the Carabidae with reduced or absent wings; preparation of captured specimens and identification of the related species with the help of the guides;
- Tracking information on the feeding of Carabidae species;
- Identifying habitats present in the park's ecosystem;
- Defining the list of species expected for the park's ecosystem using the Syrph the Net database;
- Calculating the ratio between the number of species actually found and the expected ones. Make considerations on the species found but not expected, once the migratory species are excluded;
- Applying the Index of Natural Value with the Carabidae by summing the percentages of species and individuals with reduced or no functional wings, percentages of species and individuals with specialized feed and the index of evenness;
- Comparing and discussing the results obtained with the two indices;
- Identifying actions to increase biodiversity of the park, compatibly with their public use;
- Giving directions for the simplified application of the tool.

The Diptera Syrphoidea are very widespread flies. Some species are sometimes mistaken for bees or wasps, as the group often adopts the so-called "Batesian mimicry": the animal, which is completely harmless, takes colour, form and behaviour similar to those of dangerous species, to defend against predators. The Syrphidae are however flies, that is they have only one pair of wings, while bees and wasps are Hymenoptera Aculeati, that is they have two pairs of wings and they are equipped with a sting able to inject a poison. The use of Syrphoidea as bioindicators is based on the Syrph the Net method (StN), developed by M.C.D. Speight, E. Castella, P. Obdrlik and S.G. Ball. The method uses a database that collects about 800 known species in Europe and, for each of them, lists the preferential macro and micro habitats.

The bioindicator capacity of the Syrphidae is not present in the adult animal, but in their larvae. In fact, while all the adult feed on nectar and pollen for which they fly on the flowers (the Syrphidae are good pollinators), the larvae of the different species, of



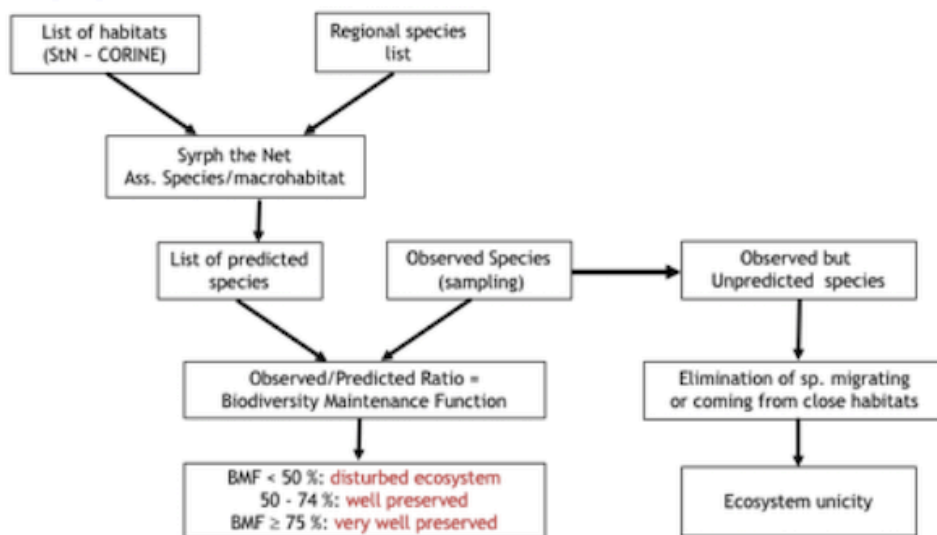
vermiform aspect, are born from eggs deposited in many different places. They larvae are therefore able to exploit the thousand facets of the ecosystem and describe the state of conservation. This larval diversity is "transferred" on the adult individuals, that are the object of the sampling.

The sampling takes place with the "Malaise trap", an instrument passively collecting adult insects that fly between patches of vegetation. Being passive, sampling is much more objective than it would be with active collections by entomologists, as the active collections are inevitably influenced by the ability of the collector and, perhaps unconsciously, by his/her preferences: consequently, the collections with Malaise traps are standardisable.

When using the Syrphoidea as bioindicators, we must first rebuild, thanks to bibliographic references or on the basis of direct collections, the list of species present in the region of interest (e.g. the eastern Po Valley). Then, we list the habitats present in the area subject to sampling (e.g., in the case of the Ferrara's walls, they can be hedges, ditches, mowed lawns, well-drained meadows, wet meadows, depending on where exactly the trap will be placed), defining them through the CORINE codes: the CORINE codes correspond to the Syrph the Net database. It is also possible to define a correspondence with the Natura 2000 and EUNIS codes. Having defined the regional list of species and the habitats present, the database supports you in generating a list of expected species. This list will be compared with the species collected through the sampling with Malaise: if less than 50% of the expected species are harvested, the habitats will be poorly conserved, between 51% and 75% we will have a good conservation status, over 75% we will have an excellent state of conservation. With the StN method, it is possible to identify exactly which components of the habitat are suffering, since it is applicable at the microhabitat level (for example, it allows to evaluate the health status of roots, the foliage of trees, etc.) and to simulate the effects on biodiversity of any changes made to the ecosystem (for example, by adding or removing a hedge or a pond).



## Syrph the Net rationale



The principles on which the Syrph the Net method is based

The Coleoptera Carabidae include 40.000 species in the world, 10,000 in the Palearctic region, about 1.300 in Italy and 500 in the Emilia-Romagna region. Like the Syrphoidea, they are well-studied insects, relatively easy to capture, many of the species are large, some have fascinating colours and shapes. Often scholars who decide to devote themselves to entomology starts from these animals and develop specific skills.

Also, in the use of Coleoptera Carabidae as indicators it is necessary to adopt a standardisable sampling technique, poorly depending on subjective factors. The appropriate technique is that of falling traps: a standard-sized container (12 cm depth, 9 cm diameter upper), with smooth walls, is inserted into the ground, so that its mouthpiece is "flush with the surrounding soil surface". Above the container is added a cover slightly raised from the ground that protects the trap from debris and excessive rain but does not prevent the passage of insects. The trap is emptied approximately every two to three weeks. At each collection site, at least 6 replication traps are placed at a distance of about 6 meters from each other. Sampling can continue for a few months continuously, from spring to autumn, or even to winter, depending on the latitude.



Like all Coleoptera, the Carabidae have two pairs of wings: the first pair (elytra) is rigid, it is not functional to fly but serves to protect the second pair of wings, which is membranous and is what actually serves to fly. The development of functional wings is not identical in all species: there are indeed Carabidae with well-developed functional wings and species with functional wings so small that they are almost absent. There are also species that, in certain ecosystems, have individuals with well-developed wings and in others have reduced wings and are called "dimorphic". Wing development is linked to the possibility of escaping the perturbations of the environment and the ability to recolonise an environment after a disturbing event. Animals with well-developed functional wings can escape effectively in the event of systemic disturbance, for example when a tree is cut or fires, and can then quickly re-colonize the environment as soon as the situation returns favourable. Hence, in the disturbed ecosystems there is a prevalence of species and of macrotheres. On the contrary, species with reduced functional wings are not able to escape from the disturbance and quickly re-colonize so that their presence characterizes the most stable environments, like certain primary forests. The greater the presence of species and individuals brachitteri, the less the ecosystem is disturbed. Given the wing variability described above, the degree of wing development must be examined directly on the individuals collected.



Another biological characteristic that is considered in the use of Carabidae as bioindicators is the type of food: all are basically carnivores, however even in this case there are generalist species, which adapt to eating plant seeds, other small insects, etc., and others that are very selective and do not adapt to what is available. As for wing development, the most demanding species from the food point of view characterize the presence and number of individuals of the most stable environments, which guarantee over time the presence of the particular food resources needed.

Carabidae with specialized feeding and generalist: the first has very strong jaws (Brandmayr et al., 2005).

In the use of Carabidae as bioindicators the biological characteristics are combined for the calculation of the INV index "Index of Natural Value" proposed by the working group of Prof. Pietro Brandmayr (2005). The low values (e.g. <20) characterises very disturbed and high environments, and high values (e.g. > 40) the stable ones. The importance of Coleoptera Carabidae as bioindicators is highly recognized at European level, and is useful to systematize the knowledge on the biology of the various species by gathering them in a database that can be consulted for free online. The database published on the [www.carabids.org](http://www.carabids.org) website contains detailed information on the biology of about 10.000 species, in the ecological macro-region in which Europe is located. The consultation of a bibliography linked to the local fauna can help to solve doubts when the biology and ecology of the individual species deviates from what is reported in the database.



More information at:

- Brandmayr P., Zetto T., Pizzolotto R., 2005: I Coleotteri Carabidi per la valutazione ambientale e la conservazione della biodiversità. Manuale operativo. APAT, 34: 240 pp. <http://www.isprambiente.gov.it/contentfiles/00003400/3478-mlg34-2005.pdf>
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- Corazza C. & Fabbri R., 2017 - Analisi ecologica delle comunità Carabidologiche (Coleoptera Carabidae) nei maceri del Ferrarese. Quaderni del Museo Civico di Storia Naturale di Ferrara, 5: 101-111
- Martin C.D. Speight, Emmanuel Castella, Jean-Pierre Sarthou & Cédric Vanappelghem eds., 2014. Species accounts of European Syrphidae (Diptera). SYRPH THE NET: THE DATABASE OF EUROPEAN SYRPHIDAE (DIPTERA) Volume 78 and following issues. <http://www.biodiversityireland.ie/wordpress/wp-content/uploads/StN-Species-Accounts-2014.pdf>
- Van Veen M.P., 2004. Hoverflies of North-west Europe. Identification keys to the Syrphidae. KNNV Publishing, The Netherlands, 254 pp. [https://www.researchgate.net/publication/281063692\\_Hoverflies\\_of\\_Northwest\\_Europe\\_identification\\_keys\\_to\\_the\\_Syrphidae](https://www.researchgate.net/publication/281063692_Hoverflies_of_Northwest_Europe_identification_keys_to_the_Syrphidae)
- <http://www.carabids.org>
- <https://sites.google.com/site/mikesinsectkeys/Home/keys-to-coleoptera/carabidae>
- <http://www.markgtelfer.co.uk/beetles/carabidae-ground-beetles/>





## Educational outdoor trail tools: The world of spontaneous grasses

At the end of the winter, many blooms of numerous herbaceous plants begin to appear in the meadows. Usually there are several dozens of different species, most of which belong to a few and often well identifiable botanical families.

Starting from the observation of the spontaneous grasses, it may be interesting to start a methodical observation of the plants. The objective of this tool must be mainly to turn the attention of the participants to the fascinating, and often little known, world of herbs, trying to put order in the great richness and variety that even a small lawn is able to offer.

The study of a lawn must be addressed to grasp the biological richness of this environment, its evolution and the relationships between animal and plant species. It is then necessary to increase our knowledge of some herbs and to be able to get to their classification. The determination of a species, i.e. the attribution of the common and also the scientific name, is not necessarily the fundamental objective, but is an effective way to motivate the participants to make precise observations, identifying criteria to establish any affinity and compare the hypotheses formulated with texts and images from the manuals.

### Target beneficiaries

Primary school (from 7 to 11 years old). Secondary school (from 11 to 14 years old). Parents and children. Citizens.

### Materials and initial preparatory activities necessary to effectively implement the tool

For this activity, the necessary materials are: magnifying glasses and linen testers, notebooks, paper or digital manuals for the identification of the analytical keys, cameras or tablets, a white sheet (where the different samples collected can be set down) and of course the plant material collected during the outdoor excursion.

Regarding the collection of plant material, if it is necessary to provide precise information to the participants in the activity (e.g. pay attention to take complete samples of plants including roots; focus on flowering plants; take only few samples), on the other side it is also necessary to satisfy their curiosity and questions, to keep alive their interest and involvement in the activity.

As an example of the herbs that can be found at the beginning of spring, it is possible to recognize the yellow flowers of dandelion (*Taraxacum officinale*), the white petals of daisy (*Bellis perennis*), the shiny and golden petals of buttercup (*Ranunculus* spp) or the mouth-shaped petals of nettle (*Lamium* spp). As summer approaches, these flowers disappear, leaving room for grasses (poaceae) and other flowers typical in summer.



## Detailed description how to implement the tool

Participants are divided into groups with specific tasks: collection of plants, annotation of plant characteristics, drawings and photos. The different tasks are identified according to the abilities of participants; however, the tasks should be changed as much as possible so that everyone can run different activities.

Once the sample is collected, the observation should focus on the different organs (leaves, stems, flowers, fruits), trying to involve all the senses. After an initial careful observation, it is possible to draw up a first list of the characteristics of each plant, trying to arrive, as the botanists do, to a classification of the plant through its characteristics. Careful observation and identification of the characteristics of the plants allows to group them according to common elements and similarities and then, comparing what has been observed with the suggestions offered by the appropriate identification keys. In this way it is possible to get to the name of the botanical family and sometimes also of the genus and of the species.

If participants are secondary school pupils or adults, the activity can be carried out with the help of simple artefacts (rods or wooden frames) to have a real phytosociological survey (distribution and type of plants).

This activity helps developing a careful and methodical observation on the field, aimed to: i) follow the development of some species of plants observing them from the flower to the fruit; ii) create a collection (herbarium) of the plants collected and identified; iii) set a calendar of the flowerings of the lawn, reflecting on their shapes and colours, and planning, if appropriate, an enrichment of the green area in which you work; iv) observe the interactions between plants and some animal species, first of all, but not only, the pollinating insects.

The study of the lawn triggers an effective acquisition of skills transversal to different disciplines. During this activity, the expert or teacher must pay attention to the presence of rare and protected species, which obviously must be preserved and not collected, as well as noted and photographed.



## Educational outdoor trail tools: The field classes scenarios in the landscape parks

The field classes scenarios consist of set of methods for different age groups in selected topic areas. A teacher can freely prepare activities by choosing and modifying available methods, adjusting the scenario according to age and interest of students, expected purposes and external conditions (weather, landscape) of conducted lessons. The classes can be divided into few stages e.g. during longer bus trips as well as walks in the nearest surroundings. Sometimes the preserved areas can limit the scope of activities, so it should be foreseen accordingly in the scenario.

The aim of field classes is to know the natural and cultural richness of particular region, especially paying attention on objects and natural assets within the landscape parks. Moreover, it is practical guideline for teachers in conducting outdoor lessons and increasing attractiveness of school field trips. The scenarios were prepared based on the general education programme.



### Target beneficiaries

Primary and secondary school teachers and students.

### Materials and initial preparatory activities necessary to effectively implement the tool

Scenarios provide ready materials to be used at any time for classroom activities. The method of teaching and learning integrated content can help children better understanding themselves and their environment, increasing the overall perception of the world and the understanding of the relationships taking place in it. For achieving this goal, teachers and students must experiment, explore, search for new solutions and, above all, support themselves at work. The role of teachers is to organize situations that favour guessing, wandering, circling around the topic; facilitate reflection, questions, debate, enthusiasm, fascination, joy, sadness and fears and support children self-assessment of themselves.

Classes developing outdoor activities fully meet the expectations of modern education. These activities are beneficial for triggering positive emotions in children and young people. These tasks, often run in a playful way, involve positive reinforcement and readiness to perform more and more difficult manual and theoretical activities. This means including school trips in educational actions, since they create the conditions for learning unknown things and for confronting knowledge and skills acquired at school with the surrounding world. The proposed outdoor lessons are an opportunity to travel, and let participants know and explore the world with all their senses. The knowledge and skills acquired by the students during the trip are later used in other lessons.



### Detailed description how to implement the tool

Each scenario has a detailed description, guidelines for classroom activities and information about the location where the class should be held (in a classroom or outdoor).

## 1. Indoor activities

Age group: high school students

Purpose: to get students acquainted with the system of protection of natural environment in Poland as based on the example of protected areas of the Kujawsko-Pomorskie Region.

The student will:

- list at least six forms of protection of natural environment and provide examples;
- distinguish between forms of protection, describe differences and similarities between them;
- use an Internet map ([GeoSerwis.gdos.gov.pl](http://GeoSerwis.gdos.gov.pl)) and analyse location and measurements of various forms of areas of natural environment protection;
- give examples of many environment protection forms;
- understand the need to create different natural environment protection forms;
- develop emotional bonds with the natural environment close to him/her;
- develop his/her interests in natural environment.



Means: E.g., a wall map of forms of natural environment protection in Poland, fragments of the act on environmental protection, a map of the province, small cards and magnets (or Post-it notes) to mark protected areas on the map.

Duration: 1 class hour

Place: E.g., a classroom with computer for students or an interactive map with access to Internet.

## 2. Outdoor activities:

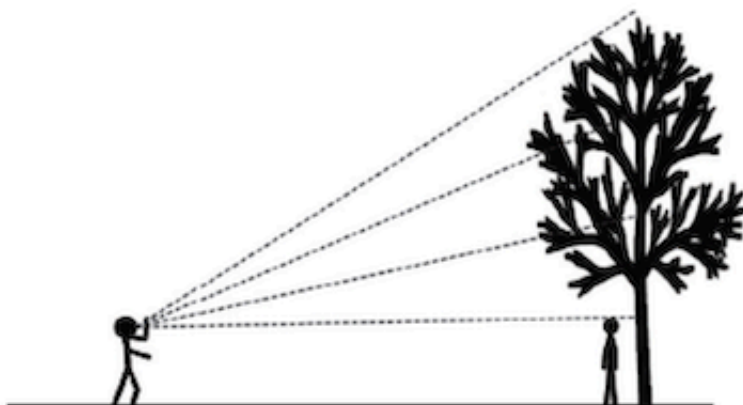
Example of a lesson:

- The most important element of this exercise is to create interest in the world of tiny creatures and plants under our feet, for which often we do not realize how rich their life goes on. Divide students into groups of 4-5 people. Each group receives paper and pencils for notes, and a string about 10 meters long, on which 5-10 knots have been formed at equal distances. Students spread the string in a straight line on the ground. The task of children is to look closely at the ground within a radius of about 20 cm from each node and make observations. What animals they do notice, what plants, if there is anything unusual, what the soil looked like. After viewing the areas around all the knots, compare all the observations done.
- Freeze frame (memory camera): Divide students into couples. One child covers the eyes of the second (put a bandage on them) and drive him/her to an interesting object. Then the first child removes the bandage for some seconds, to let the second child register a view of the object in his/her memory. The child's eyes should be close enough to let all additional elements do not distract him/her. Then the two children changes their role. At the end, images from the "camera" are transformed into pictures in the paper.

Examples of tasks included in the scenarios:

- c. Wysokość korzystając z metody przedstawionej na schemacie poniżej:

Jedna osoba o znanym wzroście staje przy drzewie. Druga staje w odległości kilkunastu metrów i trzyma w wyciągniętej dłoni ołówek lub patyk. Patrząc jednym okiem zaznacza na nim wysokość osoby stojącej przy drzewie. Następnie stojąc w tym samym miejscu odmierza tą samą wysokość na drzewie. Ilość odcinków pomnożona przez wzrost osoby stojącej przy drzewie, daje wysokość drzewa.



2. Zbierzcie materiał przyrodniczy: liście, gałązki, owoce z drzewa. Pamiętajcie przy tym, żeby nie niszczyć drzewa, możecie zebrać tylko to co znajdziecie na ziemi.

Następnie narysuj kontury drzewa i przyklej do rysunku zebrane elementy (liście na koronie, korę na pniu itd.)



## Educational outdoor trail tools: Nature and educational path at the Maria Konopnicka Museum in Żarnowiec

On the path running through the entire park area, 40 stands for the most interesting plant specimens were designated. Each of them was appropriately described on the information board next to him. In addition to plants, interesting natural phenomena have also been distinguished, such as a sandstone outcrop or a pond fed by a stream. The elements related to Maria Konopnicka were also not forgotten. On the route there is a mound - at which the writer gave one of his speeches on the occasion of his 25th anniversary, a bust of a writer from 1988, a Suwałki boulder - set for the poet's 150th birthday and medallion - designed for the 90th anniversary of the writer's offer. The aim of visiting the nature and educational path is to familiarize the participant with both native and strangers (including exotic) plant species and a reminder of important dates from the writer's life.



### Target beneficiaries

Pupils, students and adults.

### Materials and initial preparatory activities necessary to effectively implement the tool

In order to implement the above-mentioned operation, the Museum developed in 2004 a special folder containing a map of the natural and educational path along with a description of all 40 posts, unfortunately not available anymore. The stands were also marked by a special network of information boards, extending the messages contained in the folder. Particular attention was paid to the origin of individual trees and the history of their acclimatization. Sites related to the life story of the poet were also marked. There were also designed boards showing the entire park layout. The same materials are available on the website.

To carry out this activity, it would be necessary to equip the participants with materials about the museum and to focus their attention on reading the information boards.

### Detailed description how to implement the tool

You can conduct at least 2 types of activities using materials developed by the museum. The first one is for expanding knowledge about plants. We talk with participants about the species of plants that they think are native Polish plants. We discuss their shape. Then, during the walk in the park, the participants have to find the species they indicated. We confront their knowledge with information provided by information boards. If the participants mistakenly embed a given species, we are looking for an answer, which was the reason for it - most often it is the former adaptation of the plant. Thanks to this, participants acquire





knowledge not only from the field of natural science but also from history.

The second action is to indicate the features of a typical landscape park based on the above-mentioned materials. Participants discuss the assumptions of landscape gardens known to them, the speaker systematizes their knowledge and emphasizes the most important elements of the nineteenth century garden assumptions. Next, participants are tasked with finding the elements of the assumption discussed above and documenting them through drawings or photos. At the end of the walk the participants show their works, the delegate sums up their activities, and then together they create a "garden of dreams" composed, however using typical elements of the nineteenth century landscape garden.

In particular, the participants cast their votes for the elements of the nineteenth century landscape presented to them. The leader chooses 5 or 10 elements that have gained the most votes. Next, the participants put them on the map, without following the principles of creating a 19th-century garden, just using their own creativity. This is a group work that requires cooperation and imagination.

A natural path was also designed based on the existing, most interesting plant positions (including centuries-old trees, such as plane tree, tulip tree, cork tree, ginkgo, white dogwood, sweet viburnum, Siberian karagana, Chinese juniper, goldcap), respectively describing and marking them. The path also uses the existing original compositional elements of the nineteenth-century landscape garden (pond with a small island, mound or geological phenomenon "sandstone outcrop" and contemporary designed places of memory of Maria Konopnicka, which, however, fit into the nineteenth century picture of the park. with each other by means of a coherent route, described in the folder and marked in the park by means of low information boards, both the folder and the park itself contain maps presenting the park assumption, which facilitates moving around it. These materials are also available on the museum website, at the URL: <http://www.muzeumzarnowiec.pl>.



The Maria Konopnicka Museum in Żarnowiec is located in the manor house along with the park surrounding it, which Maria Konopnicka received from the nation on the occasion of the 25th anniversary of writing work. The park was founded at the beginning of the 19th century. At the end of the 19th century, it gained its current character of a landscape park. As a landscape park, it is characterized by the diversity of tree species (about 40), shrubs (about 30), vascular plants (about 170). The park is also distinguished by its rich old-growth trees and rare dendrological specimens such as plane trees, tulip trees, bark beetles and ginkgo trees or shrubs: white dogwood, sweet viburnum, Siberian kargana and Chinese juniper). In the park there are also souvenirs related to the life of Maria Konopnicka. However, despite such dendrological richness, the park was often visited without due attention and its

compositional and natural values were underestimated. This resulted most often from inability (ignorance) to recognize the stand and lower vegetation, and thus also to assess their value. In order to change this state of affairs in 2004, the Museum has developed a nature and educational path that approximates the park's values and the life story of Maria Konopnicka.

This action is aimed at restoring the park and its collection of plants to the right place and making it local. It also extends knowledge in the field of dendrology and history of gardens, as well as brings new news about the life of Maria Konopnicka.



## Educational outdoor trail tools: Dendrological and educational path

The path was marked out in the park in Jureczkowa. Among the richness of the species of trees and birds found here, 8 most valuable were selected, at which information boards were placed. The messages presented on them do not only concern botanical or ornithological knowledge, but also convey cultural messages: they tell about the beliefs and legends associated with the discussed species. There is also a table on the role of bees in nature as well as in history. The path starts with the marked-out car park and ends with a camping place. There are benches and litter bins along the entire length of the path.



The first stop is devoted to two species of coniferous trees, the native common yew and the Douglas-fir (litter) originating from western North America. This is, in addition to the sequoias, the fastest growing and the highest tree in climate zone. In its homeland it can reach even more than 100 m in height, while in Polish conditions maximum 45 m. The specimen growing on the path route is 32 m high and 300 cm in circumference. At the next stop we get to know two native species of lime tree. Both of them during flowering secrete a large amount of nectar and are eagerly visited by bees. On the third stop we find out which species of birds live in the hollows in the old trees growing here. These include flycatchers, starlings and cants. Then we get to know two species of poplars - white and black, which in this park reach successively heights of 25 and 23 m. At the end of the tour, almost 300-year-old pedunculate oak grows, reaching 30 m high and 470 cm trunk perimeter. The last stop informs us about the North American pine tree, two of which grow in this park and reach a height of 26 and 29 m.

### Target beneficiaries

Children and adults.

### Materials and initial preparatory activities necessary to effectively implement the tool

An information campaign, carried out by local press and using social media, is necessary to implement the above-mentioned tools. A lot of information can be obtained from the Landscape Parks Complex in Przemyśl, which carries out numerous information activities. In 2002, the Complex of Landscape Parks in Przemyśl published a richly illustrated 32-page folder devoted to the dendrological and educational path "Trees of the manor park in Jureczkowa", which can be purchased at information points and at the headquarters of Landscape Parks Complexes in Przemyśl.



### Detailed description how to implement the tool

This path was established in a neglected park. Plates / information points designed on its route were located under the most valuable dendrological specimens and in the place of existence of

the most interesting ornithological species. In the park itself, there are 23 monumental trees, including 3 Douglas -fir, 3 sessional oaks, white chestnut, 4 Turkish hazel, 4 broad-leaved limes, 4 European larches, spring pine, white poplar and aspen poplar. The path creators used the natural richness of the park's establishment; however, the botanical information was extended by information about the symbolism, beliefs and legends associated with a given tree. Likewise, a description of ornithological species such as flycatcher , Blue Tit, European starling, woodpecker, blackbird, robin, finch, lesser spotted eagle, owl and tawny owl. At the beginning of the path, a parking lot was located, while at the end, a special camping space was designated with a designated fire pit and a large network of benches to serve as a resting place. This place was located at the point of the route, where one of the few in Poland, table plantations, also known as dinner plantings or a woody gazebo have survived. These are circular plantings, in Poland most often lindens (here small-leaved and broad-leaved lime), in which the tables were placed and used for feasting and resting in the open air. While designing the path, the existing alley network was used, thus restoring the original state of the park. In order to diversify the walk, attention was paid to the diversity of areas through which the path runs. Participants should be equipped with dendrological tables, presenting selected specimens of trees and images of birds. You can also equip them with audio recordings of bird sounds. The task of the participants is to recognize the appropriate species of trees and birds and to perform their drawings. Dendrological tables can be adapted in terms of seasons, instructing them to recognize trees by leaves or fruits. You can also create a mini-herbarium from the collected materials.



The park was founded in the 19th century on a rectangular plan. The access road with a bridge over the River Wiar and an earth platform with remains of fortifications - ramparts and earth bastions, as well as beautiful old trees have survived from previous assumptions. In the southern part of the park, there remain dikes, overgrown ponds and a water channel. The nineteenth century park layout was characterized by a great diversity of dendrological specimens, often imported from other continents. Over the years, the original shape has become blurred. He also lost his meaning to the local community. Once considered one of the most interesting dendrological parks in the Podkarpacie region, it has now fallen into oblivion. The dendrological diversity of the goods here is also the wealth of the ornithological world. Visitors to the park, due to the lack of professional knowledge, were not able to properly assess the values of the trees planted here, to recognize the species of birds that live there, or to read the traces of the assumption itself. In 2002 The Complex of Landscape Parks in Przemyśl set out a dendrological and educational path in the area of the former park.





## Educational outdoor trail tools: The world made by small springs

Educational outdoor trail will be led on historical path in Castle park Turnišče. Castle park had few paths, that were developed during park use. Parks reorganisations caused some paths to be abandoned, some paths were newly formed. But one path remains more visual – path from NW entrance to the park, leading towards castle, than circles towards west and ends again in NW entrance to the park.

One part of path goes on the edge between park and stream Studenčnica. There are several small springs of stream which are the source of all flora and fauna life.

On that path we would like to establish educational trail, thematically focused on zoological and botanical flora species. We will present castle park Turnišče as natural treasure of national importance for zoological, botanical – flora species.

### Target beneficiaries

General public, pupils, students

### Materials and initial preparatory activities necessary to effectively implement the tool

In order to implement the educational tool, we will develop a special folder containing the map and detailed description of 25 spots on the trail. In front of trees there will be boards with informations and also one large board at the beginning of the path with map of the whole educational outdoor trail.

Also QR codes will be implemented and therefore suitable website with necessary informations. Developed materials will be focused on target groups – two kind of folder will be developed – one for educational purposes one for tourists.

### Detailed description how to implement the tool

EOTT will be implemented through printed folders. Regarding different target groups, there will be two types of folders – one for educational purposes, one for tourist and everyday visits. Every folder will have to its purpose appropriate content. For educational purposes the content will be more specific – historical and natural facts will be detailly described, content will be more voluminous.

Important material for implementation are boards, that will provide basic information about each tree. Information will be in Slovene and English language. On first, large, board there will also be information for visible disabled people in Brail writing. In this way we will provide the whole insight of the path for visual disabled people.

The EOTT will be presented to science and history teachers in Ptuj's high and elementary schools. They could organise science days in park Turnišče





## Educational outdoor trail tools: The Dragon's Castle Trail Around Velenje

For the purpose of conceptualising and rounding up of natural and cultural tourist endowments in Velenje and Šaleška dolina valley an artificial legend of Pozoj – the lake dragon was born. Within the CUSTODES project (Central Europe programme) Municipality of Velenje implemented successful story named The Dragon's Castle Trail around Velenje. Visitors of the trail are learning about cultural historical remaining's and legends related with them.

The Lake Dragon(Pozoj) is a mythological creature. This means it never really existed, but people used to be convinced it did. At the edge of the Šalek Valley, pieces of coal were found sticking out of the ground. Coal was once called "dragon's blood" – and where there is dragon's blood, there had to be a dragon. It was believed that a dragon hatches from a red egg laid

by a seven-year-old cock. The egg would sink into a subterranean lake in the mountain where the dragon grew, and it then pecked its way into the open through the mountain rock.



"The revitalized legend of Lake Dragon" was use as basis for development of pilot actions, which can be treated as a tool to teach younger generations about their local legacy. The pilot action includes two separate measures: informatization of selected castles and establishment of so-called castle route and implementation of geocaching activities on the castle route and lakes of Velenje. The trail connects five sights on the circular trail. These are five castles: Velenje Castle, the castles of Šalek, Ekenštajn and Turn, and the site of sunken Škale, which used to be the heart of the Šalek Valley.

With time to spare, other points of interest can be seen along the way (shown on the map at the beginning of the guide). The trail can be covered on foot and, for the most part, by bicycle. The trail starts and finishes at Villa Bianca. There is a Tourist Information Centre (TIC) where you can pick up a card for collecting stamps. You will find these on the information board at each site. The stamps need to be rubbed with a pencil. If you manage to visit all five sights, you can collect five stamps. With card with all the stamps at TIC and you'll get a gift – a dragon sticker that fits into the frame at the end of the guide. The dragon accompanies us from castle to castle, which is why the trail is called the Dragon's Castle Trail around Velenje. The trail is unmarked but easy to follow with the help of the guide map and descriptions of the route. You can choose paper or electronic guide (you need a smartphone with Android platform). It is not challenging and is designed as a trip of several hours for children in the company of an adult. It follows roads and safe paths except from Šalek Castle to Ekenštajn. The wood path on the crest just before the ruin of Ekenštajn is quite steep. This part of the route is marked as a hiking trail called "Šaleška planinska pot". Implementation of Geocaching (outdoor activity game): Geocaching is organised and implemented as a treasure hunt on the castle route or trail of Pozoj dragon. Custom made Geocoins (with image of Pozoj and CUSTODES logo) provided as collectible objects for the geo-hunters as well as "travel bugs", which objective was to visit all other geocaching locations established within the CUSTODES project.



## Target beneficiaries

- young families, kids and youth
- kindergartens
- castle tourists
- outdoor activities enthusiasts - geocachers

## Materials and initial preparatory activities necessary to effectively implement the tool

To implement such tool, you need to hire an expert with knowledge on the theme (if you don't have it inside of your organisation) to prepare materials, designer to "convert and present" all materials in friendly and interesting way regarding the target groups and then to implement it on the spots.

Information materials on spot: on the selected castles and on the route information tables, providing brief history and description of the castles.

Paper guidebook and trail card.

Geocoin, content with hints and GPS.

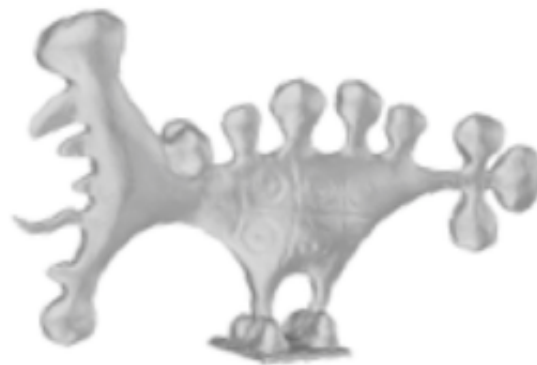


## Detailed description how to implement the tool

When everything is developed and implemented, you just need to pick up a card for collecting stamps. You do not need no additional expert, you just follow the card map and education of yourself can start. Ideally, the trip should be made in the warmer months (from March to November), with hiking equipment.

Geocaching: to download app and then the hunt can begin.

The Lake Dragon (Pozoj) is a mythological creature. This means it never really existed, but people used to be convinced it did. At the edge of the Šalek Valley, pieces of coal were found sticking out of the ground. Coal was once called "dragon's blood" – and where there is dragon's blood, there had to be a dragon. It was believed that a dragon hatches from a red egg laid by a seven-year-old cock. The egg would sink into a subterranean lake in the mountain where the dragon grew, and it then pecked its way into the open through the mountain rock.



## "The revitalized legend of lake dragon"

Thousands and thousands of years ago, a small and clean lake, exuberant of life and natural beauty, existed in Šaleška dolina valley. This lake has been home to a friendly lake dragon Pozoj, who swam to the surface at nights, eating the fern and never harming anyone. And then the lake began to dry up. The home of Pozoj became endangered and suddenly he had no place to live in. Pozoj thought, that the lake is disappearing because of people living and farming in the vicinity of the lake. He got more and more violent and started to attack farmers who found refuge in surrounding hills. People lived there in simple farmhouses such as Kavčnikova domačija in place called Zavodnje, which is the only intact farmhouse left from that period and it is nowadays altered to a museum.

As said before, Pozoj had no problems with destroying simple farmhouses. After destroying them all, Pozoj unleashed his fury against fortified mansions and castles, owned by rich aristocracy.

Pozoj managed to ruin many of the castles in Šaleška dolina valley, once known as the valley of castles. Fortunately, the Velenje castle was too well fortified and it could not be destroyed by Pozoj. Massive building of Velenje castle is still watching over the valley.

The lake dried out completely and living in the valley became unbearable for Pozoj for his skin hardened to a stone. He escaped to the hills and had slipped through a crack in Smrekovec mountain undergrounds. Pozoj settled down in a vast underground lake. But the water was too cold for him there so he started to gather coal under the Šaleška dolina valley and burn it to heat up the water. Hot water came to the surface in a place called Topolšica and a thermal spa resort had been built on that spot. Pozoj remained underground for centuries and he slowly got forgotten by the local people.

At the end of the 18th century a strange looking and fragile black stone was discovered by the peasants in Velenje. Scholars explained to the locals that this black matter is actually a coal. Then the coalmining industry begun in Velenje. Miners had built a vertical shaft to the coal deposits. One night Pozoj found that shaft and escaped through it to the surface. After he came up to the surface he found out, that the environment was totally polluted by the mining industry. Frustrated about the situation, Pozoj went back underground. At the end of the 20th century miners woke up Pozoj once again. He came up to the surface and he was positively surprised about the clean and friendly environment that awaited him. Pozoj joyfully plunged into the lake where he lives today, peaceful again in company of carps, bleaks and other fish.

Written by Dr. Emil Šterbenk, translated by Marko Govek

This legend and its elements will be included to corporate identity of promotional materials of local tourist products. The Pozoj story was very well accepted in local community and tourist service providers, who are already providing services connected to the story – for example the Pozoj cake from a local restaurant:

## The Dragon's Castle Train around Velenje

The trail connects about five sights on the circular trail.

These are five castles: Velenje Castle, the castles of Šalek, Ekenštajn and Turn, and the site of sunken Škale which used to be the heart of the Šalek Valley. With time to spare, other points of interest can be seen along the way (shown on the map at the beginning of the guide). The trail can be covered on foot and, for the most part, by bicycle. The trail starts and finishes at Villa Bianca. There is a Tourist Information Centre (TIC), where you can pick up a card for collecting stamps. You will find these on the information board at each sight. The stamps need to be rubbed with a pencil. If you manage to see all five sights you can collect five stamps. With card with all the stamps at TIC and you'll get a gift – a dragon sticker that fits into the frame at the end of the guide. The dragon accompanies us from castle to castle, which is why the trail is called the Dragon's Castle Trail around Velenje. The trail is unmarked but easy to follow with the help of the guide map and descriptions of the route. You can chose paper or electronic guide (you need a smartphone with Android platform). It is not challenging and is designed as a trip of several hours for children in the company of an adult. It follows roads and safe paths except from Šalek Castle to Ekenštajn. The wood path on the crest just before the ruin of Ekenštajn is quite steep. This part of the route is marked as a hiking trail called "Šaleška planinska pot".

Ideally, the trip should be made in the warmer months (from March to November), with hiking equipment.

Paper or electronic guide is small enough to fit into a pocket or rucksack. The guide includes an exact layout of the trail, basic information about each sight, what is worthwhile seeing, the folk tradition (not all of it always true), ther points of interest along the way.







## Welcome the Geocacher

Hello Geocacher!

Pozoj - the lake dragon is a mythological creature, which comes from the red egg, nested by the seven-years old cock. That egg submerges to the underground lake in the middle of the mountain, where Pozoj grows and finally comes out during the severe storm when he pecks out through the mountain rocks. On the Pozoj castle trail around Velenje you will discover five attractions. These are four castles: Velenje castle, Šalek castle, ruins of castle Ekenštajn, a Castle Turn and the area of sunken village Šalek (formerly Center of Šalek Valley). The route can be walked in its entirety and /or cycled for the most part. The Pozoj castle route and challenge can be overcome in one day or you can overcome it in more stages.



The coordinates of final cache are to be assembled from parts of the coordinates from caches in the following order: 1- Velenje Castle, 2- Šalek Castle, 3- Castle Ekenštajn, 4- Castle Turn!

At the final location, you will find the Pozoj geocoin, with a specific mission: it has to visit, all his "friends" that he got to know during the implementation of project CUSTODES ([www.custodes-project.net](http://www.custodes-project.net)). These are mythical creatures or fictional characters, leading you through tourist attractions in the regions that were involved in the project CUSTODES.

Pozoj geocoin should visit (not necessarily in that order):

- Azzurrina (Italy). Azzurrina is the girl ghost from the castle Montebello, which is included in the Italian fantasy castle path: Fantastic castles. Pozoj will meet Azzurrina in geocaches in the region of Emilia Romagna, where he must visit the castle of San Leo, Montefiore and Montebello and Verruchio, where you can visit famous archaeological park of Villanovian

culture.

- Rosta (Czech Republic). Rosta is small boy with special powers - he's a genuine timetraveller. He is named after the great Moravian king Rostislav. Rosta is travelling in time ranging from Great Moravian Kingdom from 9th. century to the present day. Pozoj can meet Rosta in medieval Slavic village Mikulčice. Rosta frequently visits 18th century Baroque castle Milotice. In the 19th century Rosta visits Skansen museum in Strážnice. In the 21 century, however Pozoj meets Rosta in Hodonin, which is the economic centre and the largest city in the Region.
- Young Chopin (Poland). Young Chopin spent his youth in Poland. Kujawsko-Pomorskie region has always been close to his heart. Pozoj meets a young Chopin in Szafarnia, where Chopin played his first concert. Pozoj can find a Young Chopin in the Golub-Dobrzyń in the Castle of Teutonic Knights. Chopin also loves gingerbread cookies, which are the speciality in the city of Torun. A special place in Chopin's life was a Kłóbka, where he met his muse, Maria Wodzińska in Kłóbka one can find also a unique ethnographic museum.





## Educational outdoor trail tools: Learning by doing with volunteers

Heritage education is an essential aspect of heritage-related volunteering. Its range of activities are very diverse from restoring a heritage site like historical parks, gardens and cultural landscapes and to learn about different disciplines as well as processes like archaeology, documentation and revitalisation of abandoned heritage sites and natural heritage preservation. The participants gain essential knowledge in handicrafts as well as more specific knowledge in traditional techniques. The volunteering projects are usually complemented by lectures and guided visits that grant volunteers insight into the heritage site's history, as well as specific historical, natural and cultural aspects of the geographical region. The educational part of the project will inform the participants about the background of the project, provide knowledge about historical gardens and park architecture, traditional gardening and other related topics and will include lectures and guided tours as well as excursion to related heritage sites.



### Target beneficiaries

- craftspeople,
- field-specific professionals,
- diverse international mix of participants, with their various cultural backgrounds and own country-specific knowledge about heritage, permits a complex and interesting exchange of experiences, approaches and ideas. Their knowledge could share with ability of wider target groups of mix generations:
- primary and secondary school,
- students,
- parents and children,
- citizen.

### Materials and initial preparatory activities necessary to effectively implement the tool

The material you need are: Notebooks, computers, tablets, cameras, maintaining tools needed for special technique for conservation and restoring practices, ...

### Detailed description how to implement the tool

The approach of the educational tool is to instructing volunteers on conservation and restoration practices and techniques, as well as providing training courses in handicrafts, projects for students, volunteer camps and other activities with the intent to educate the participants and to raise awareness in the field of cultural and natural heritage.





Participants are divided in groups with different tasks according to their abilities:

- Restoring a system of historical elements in the parks – searching for remains of the original elements which disappeared, restored them and rebuild them...
- Maintenance parks and gardens with the only manual working - cutting long-grass meadows on slopes, cutting various specious of plants, cleaning the parks, ...
- Traditional gardening - Fruit, vegetables and flower gardens: identifying and documenting plants and through the research processes discovering and learning about their botanical families and medical contribution as well and nutrition characteristics and process of planting and growth
- Restoring the formative elements of the parks and gardens like ruinous of dry-stone walls as important habitat for rare insects and invasive plants. Restorations should be very carefully done - by documentation of the element (wall), collection the fallen down material (stone), restorations and integration of the original material, providing new habitat for the insects...



The work on site and all activities will be guided by experienced craftspeople or other field-specific professionals, specialist of different fields as additional part of the theoretical knowledge.

The participatory system of learning and spreading theoretical heritage knowledge in practise between different groups of volunteers as well as specialist, craftsman, general public and young generations is methodologically very important. With establishing the complex system of knowledge exchange and interdisciplinary approach we could enrich the learning process of the education institutions from indoor to outdoor classrooms. This could become important educational tool for younger generation to be aware of importance of the heritage in their maintaining for the future.



## Educational outdoor trail tools: A Smart Park

A Smart Park is a name for a virtually-guided nature walk through the park. It is a new and creative way to learn about and interact with our immediate surroundings. It implies a link between the physical and the digital in a very user friendly and user applicable way. It is excellent educational and learning tool.

What is QR code and how it works? Quick Response codes, commonly known as QR codes are a type of barcodes that can be scanned by smartphones to access different digital information about the item to which they are attached to. So, all the visitor to the park needs to do is download a QR reader (QR scanning app) onto his smartphone and scan the code through the app. The QR codes will instantly connect the visitor to numerous interesting information and informative materials about the park. It can connect a person to a particular website, it can offer a video, or it can bring up some other kind of digital content.



### Target beneficiaries

All ages.

### Materials and initial preparatory activities necessary to effectively implement the tool

For implementing this kind of activity there is a need for assistance from an expert who will create required database with information that will be presented through the application.

When the tool is put into use, the visitor will need to download the application and scan the QR Codes which will be placed around the park.

### Detailed description how to implement the tool

The idea is to have all around the park different stops, that have installed plaques with QR codes. The number of stops/codes is optional. It all depends on the number of information you want to share and on who your target audience is (one part of the QR codes will target children and other will target adults). Information intended for children should be more interactive in nature, and make the experience more playful, fun and entertaining. Ones, directed towards adults, can be more informative in character.

Information shared through the QR code can present facts about the park's history, information about its flora and fauna. For example, it can provide info about the parks history in general or it can point out an interesting fact about a particular feature in the park. For instance, it can allow us to see old photographs, pictures, drawings and maps of the park showing how the place we are standing on looked like in the past. Also, it can allow us to gain access to other kind of park maps, like different trail maps. Codes are also very useful in providing valuable information about the plant and animals species that live in the park. Using QR code we can find out about their life habits and their habitats in the park. For example, we can walk along the nature trail and scan different QR codes that are placed on signs. Thanks to them we will learn about the trail itself and different animal and plant species that live in that particular area.

QR codes can also be used in numerous educational contents that are intended for the children. Not only that they can be used to illustrate information in a fun way, but they can also be used for learning through interactive games, like for example “Scavenger hunt” (a game where participants need to complete all the tasks or gather all the items from the list). Activity guide of the game consisting of a map and a set of useful hints is provided through QR codes. The usage of QR code is indeed of a broad spectrum and provides a great opportunity to enhance the quality of visit to the park. It allows people to interact with and experience parks in a whole new way.

Check the following links to see an example of good practice using QR code to present UK Cardiff Bute Parks rich history:

- <https://www.walesonline.co.uk/news/wales-news/cardiffs-bute-park-gets-new-4020860>
- <http://beqrioustracker.com/bute-park-shares-rich-history-with-qr-code/>
- <http://bute-park.com/main-attractions/qr-code-trail/>

Check some more info on benefits of using QR codes as educational tool in nature:

- <https://nationalband.com/how-to-use-a-qr-code-for-educational-walking-trails/>
- <http://beqrioustracker.com/go-for-a-nature-walk-with-qr-codes/>
- <https://barcode.com/20110831662/qr-codes-helping-us-get-back-to-nature.html>
- <http://www.qrcodepress.com/treecaching-qr-codes-encourage-children-discover-nature/8529509/>

The photo is downloaded from the following site:

- <https://www.walesonline.co.uk/news/wales-news/cardiffs-bute-park-gets-new-4020860>



## Educational outdoor trail tools: Book Crossing

BookCrossing is a world movement that is based on the idea of leaving a book in a public place to be picked up and read by others, who then do the same. Based on the principle of free exchange, this movement has proven that creativity and enthusiasm can make reading more popular.

To create a BookCrossing corner in the park, you can simply leave the books on the bench or under the tree. But if you wish to be creative and protect the books from weather conditions, you will need the library house. The idea is that a library house is fixed in one place (preferably near the bench) and anyone can bring a book, place it in the library house and take some other book from the free library.

In this way, old books would be "recycled" and visitors can be motivated to spend more time in the park, reading the books.

### Target beneficiaries

All ages.

### Materials and initial preparatory activities necessary to effectively implement the tool

The library houses can be built from different materials (e.g. wooden boards, furniture leftovers like shelves or cabinets, plexiglass...) and can have various shapes and sizes. It is all up to your imagination.

For ideas, tips and detailed descriptions on how to build library houses follow the link <https://littlefreelibrary.org/build/>.

### Detailed description how to implement the tool

Determine a place in the park where you want to create BookCrossing corner. Decide whether you wish to leave books out in the open (e.g. in plastic bags) or you want to build a library house. Once you have done that, simply put the books in the area. It would be a good idea to put a sign so the visitors know that this is the area where they can take and leave the book for free.

If you wish to know where the books can "travel" see the link <https://www.bookcrossing.com/> and find out how the books can be labelled and tracked.

The photo is downloaded from the following site:

- <https://ezadar.rtl.hr/ostalo/galerije/2635793/gradjanska-akcija-sfinga-prostor-za-druzenje/?slika=1348865>





## Educational outdoor trail tools: Curious path

Curious Path is made of different elements that can be added, adjusted, subducted or combined in one long trail. It starts easy, and as one moves through it, it slowly builds up with more challenging tasks that embrace holistic elements through practical experience of the park (fine motor skills, physically activity, cognitive and creative thinking).

### Target beneficiaries

Children (from 4 to 6 years old) with kindergarten teachers and parents.

### Materials and initial preparatory activities necessary to effectively implement the tool

Specify the location in the park where you want to place Curious path. Decide which species of trees you want to include in you path.

#### First element:

Once you have determined the tree species you can take a picture of a tree (leaves, cortex, flowers) or you can paint it or draw it. Next step is to create a puzzle. If you wish, you can hire a graphic designer or you can do it yourself. If you wish to do it yourself follow the link <https://www.wikihow.com/Make-a-Puzzle>. Use the materials that are durable to weather conditions.

#### Second element: Ladder

You can buy a ladder for children in stores or online shops. If you wish to do it yourself follow the link <https://www.youtube.com/watch?v=QelhxBFsxKk>

#### Third element: Booklet

If you wish, you can hire a graphic designer or you can do it yourself. If you wish to do it yourself you will need: printer, plasticizer and thin rope or metal ring. To do it simply print the animal pictures and plasticize them. Drill a hole in each plasticized picture and connect them with rope or metal ring.

#### Fourth element: Imitation

For the final element print the explanation of what they need to do. Again, you need printer and plasticizer.

Since this is a trail for small children they will be accompanied by adults. For each element you can write explanations that adults will read to the children.

### Detailed description how to implement the tool

Following description is an idea how your Curious path could look like. You can always adjust the elements or add a new one.

#### First element: Puzzled Tree

At the beginning of the path there is a billboard with painted tree that can be found in the park (apple, pine, oak tree....). Each picture of the tree should emphasise elements of that tree e.g. leaves, cortex, flowers. These elements should be emphasised in colour and shape as each tree



will have a missing part - puzzle that needs to be filled in a proper place in order to get a whole picture of the tree.

Next to the billboard (hanging from the tree, placed in the basket...) there will be mixed pieces of missing puzzle (one leaf, flower and cortex). Children need to take pieces of the puzzle and place it in the matching empty spot of the picture in billboard. Once they place the missing puzzles in the right spot, they will have the entire picture of the tree.

Second element: Ladder

In the second part of the path short ladders (made of rope and wood) are going to be placed on the tree (if possible on a tree from puzzle). At the top of the ladder, children can find the fruit from puzzle tree.

Third element: Booklet

Going along the path, the third element is a booklet with pictures of different animals. Based on the previous two elements children need to guess which animals lives in the park. For example, if the puzzle is an oak tree and at the top of the ladder, an acorn is placed, the animal can be a squirrel.

Forth element: Imitation

In the final part of the path, children need to imitate the movements of the animal they have discovered.

Make sure that every part of path is safe and adapted for small children!!!



## Educational outdoor trail tools: Labyrinth

The Labyrinths and labyrinthine symbols are known from the Neolithic Age in different regions such as modern-day Turkey, Ireland, Greece, and India among others.

The idea of a labyrinth in the park is to have quiet place where you can contemplate with your personal thoughts and connect with nature. You enter it with one question and think about it while walking through the labyrinth. The goal is to find the answer by the time you get to do exit. You cannot get lost in it as there is only one path that leads you from the entrance to the exit.

### Target beneficiaries

All ages.

### Materials and initial preparatory activities necessary to effectively implement the tool

For instructions on how to make a labyrinth follow the link <https://labyrinthociety.org/make-a-labyrinth>.

### Detailed description how to implement the tool

Labyrinths can also be educational and can have themes that are related with national or world mythology and culture. For example, in Slavic mythology, Vesna was a goddess of the Spring. The etymology of her name is connected to the old Indian word - vas - meaning to be clear, bright, light. Each year Vesna replaces evil goddess Morana (goddess of winter and death) and brings green fields, blossoming, beautiful weather, more suitable for life and work. The labyrinth can be dedicated to her and the personal question could be related to new start, awakening.

This is just one example of a various topics that the labyrinth can be dedicated to. Options are truly endless and it all depend on one's imagination and creativity.

If you wish to have educational labyrinth you can put info panels with interesting stories of your choice.

To find out more about the labyrinths in history follow the link <https://www.ancient.eu/Labyrinth/>.

## Educational outdoor trail tools: Psychomotor path – therapy and relaxation

Connection of human kind to nature is unbreakable bond which in the modern world is not as present as it used to be. Walking barefoot is an experience that is usually associated with summertime and beach, and rarely presents something more. Tactile sensation is very important part in the early stages of the brain development, and by walking barefoot the connection happens between the brain cells, thus facilitating the development of brain.



The psychomotor path is a tool that gives an opportunity for children and adults to walk on many different surfaces barefoot. Path is constructed in square with box-shaped space filled with different natural materials. The idea is to change surfaces one by one while walking on the path. These spaces have graduate change from one material to another one. Walking on this path gives sensation of connection to nature, feeling of relaxation and comfort. This path gives a chance to experience different surfaces even in urban places where those might not be available.

### Target beneficiaries

Young children older than 2 years (mostly beneficial for those born premature) (therapeutic purpose) and general population (relaxation purpose).

### Materials and initial preparatory activities necessary to effectively implement the tool

For the construction of this path following materials are required:

- Wooden planks with sufficient depth to hold material filling the box shape.
- Screws or nails
- Wood paint
- Materials for this path are the ones available in nature such as grass, small rocks, sand, gravel, forest materials (fallen leaves) etc. It is possible to add other available materials, such as artificial grass, mud and others.



### Detailed description how to implement the tool

Specify the location in the park where you want to place the path. Keep in mind that the surface, on which you are going to place the path, needs to be flat. Decide how many different materials you want to use to fill the wooden boxes. The number of different materials will determine the number of boxes that you need to assemble. Choose any dimensions of the boxes that you like. When you know the number and dimensions of the boxes, sketch the path in square shape form.

The idea of square shape is to have continues path in which visitors can walk in a “circle” as many times as they like.

Assemble boxes using wooden planks and screws/nails. Attach one box to another according to your sketch. For the safety reasons, make sure the screws/nails do not come out of planks. Once you have assembled the path it needs to be painted in order to protect the wood from weather conditions. It is a good idea to give the children to paint and decorate the path. When the paint has dried, fill the boxes with chosen materials (e.g. first box sand, second grass...) and you path is ready for use.

Keep in mind that some of the natural materials like leaves and grass, are decomposing. If the mentioned materials are used the path needs to be maintained regularly.



## Educational outdoor trail tools: Recycling corner

The idea of a “Recycling corner” is to have a place in the park for children where they can be creative and make things out of different materials. This place would not only encourage children to be creative but also to raise awareness about the importance of waste separation and recycling.

The “Recycling corner” contains boxes, with different materials plastic bottles, cardboard, caps, fabric...), and necessary tools (scissors, glue, rope, sticky tape) for crafting. The idea is that children create practical things that are useful e.g. bookmarks, pencil holders, bird feeders...

You can place a booklet with pictures and basic instructions on how to make mentioned things, leaving the space for their ideas and creativity.



### Target beneficiaries

Children (from 7-14 years old) and parents.

### Materials and initial preparatory activities necessary to effectively implement the tool

For this activity, the necessary materials are:

- Boxes for storing different materials
- Necessary tools for crafting like: scissors, glue, rope, sticky tape, etc.
- Recycling materials like: plastic bottles, cardboard, caps, fabric, boards, etc.
- Booklet with pictures and basic instructions on how to make mentioned things



Needed materials and tools are optional. Options are truly numerous.

### Detailed description how to implement the tool

There is an endless number of possibilities when it comes to making objects out of recycled materials. This is an excellent example of how already used materials can be the basis for creating a lot of different and creative things.

Children use their imagination and creativity, but also develop their thinking skills, and fine motor function by using their hands when making the items. More importantly, this place not only encourages children to be creative but also to raise their awareness about the importance of waste separation and recycling. Showing the children how to recycle and reuse different materials we teach them a valuable lesson that they are going to hopefully apply later in life.



“Recycling corner” is conceived as place (part of the park) that contains boxes, with different materials like plastic bottles, cardboard, caps, fabric, boards, etc.), and necessary tools (scissors, glue, rope, sticky tape, etc.) for crafting. The idea is that children create practical things that are useful e.g. bookmarkers, pencil holders, bird feeder, or anything else that comes to one’s mind. Options are indeed numerous.

You can place a booklet with pictures and basic instructions on how to make mentioned things, leaving the space for children’s ideas and creativity.

It is a good idea to connect this corner with the “Social games corner” by providing the users with the necessary materials to create different social games and adding the instructions on how to do it in the booklet.

The photoes have been downloaded from the following site:

- <https://ezadar.rtl.hr/ostalo/galerije/2635793/gradjanska-akcija-sfinga-prostor-za-druzenje/?slika=1348835>
- <https://ezadar.rtl.hr/ostalo/galerije/2635793/gradjanska-akcija-sfinga-prostor-za-druzenje/?slika=1348831>
- <https://ezadar.rtl.hr/ostalo/galerije/2635793/gradjanska-akcija-sfinga-prostor-za-druzenje/?slika=1348869>

## Educational outdoor trail tools: Riddle corner

Riddle corner is conceived as interactive content where children have a task to find and solve all the hidden riddles. On the site there is a map that helps children to find and locate the hidden riddles. Beside the map there is also a separate sheet with the correct answers of all the riddles. After finding all the riddles, and answering them, you go back to the beginning and compare your answers with those on the sheet.



### Target beneficiaries

Children (from 7-14 years old) and parents.

### Materials and initial preparatory activities necessary to effectively implement the tool

For this activity, the necessary materials are:

- A map of a particular part of the park that shows the location of the hidden riddles
- A sheet with the correct answers to all the riddles
- Plastic bags or plasticizer (to protect riddles and a sheet from weather conditions)
- Written riddles
- Small boxes where riddles are placed
- A piece of paper and a pen for noting the answers

All mentioned items should be written on a paper that is plastic-protected, on a cloth or any other kind of material that is more resistant to atmospheric conditions.

### Detailed description how to implement the tool

The idea is to have in one place located a riddle map and a sheet with the correct answers to all asked riddles. More precise, there should be a map of a particular part of the park that shows children the location of the hidden riddles. Their task is to take the map and try to find the locations with all the hidden riddles. When they find each one they should try to guess the correct answers. They can write an answer on a piece of paper, or make any kind of other note that will help them remember what their answer was. After finding and answering all the riddles, the idea is to go back to the beginning and compare the answers with those on a sheet that offers the correct answers. All mentioned items like a map, sheet and riddles should be written on a paper that is plastic-protected (with a plastic bags or plasticizer). They can also be written on a cloth or any other kind of material that is more resistant to atmospheric conditions. Also, the riddles that are hidden can be placed in a small boxes, or something similar.

Solving riddles in the park is a good way for a child to bond with parents and/or with his peers. It helps to improve child's social skills since it is easier for him/her to express himself/herself in a pleasant and relaxed environment such as the park. Riddles are placed in a way that they go around the particular part of the park. Finding interesting locations to hide the riddles is a really good way to make a person get to know the space within which he is moving.

The topics of riddles can be indeed various as well as the number of the riddles. They can refer to topics such as history or maybe they can be about the flora or fauna. They can refer to different objects or to different phenomena. The topics are optional and it all depends on ideas, imagination and creativity of the person who sets them up. Also, one should think about the level of difficulty when choosing riddles. It all depends on the child's age for which they are intended. It is a good idea to keep them short and simple, and also easy to read and understand.

The main idea is that, thanks to the map that leads you around the park and places where hidden riddles are located, person/child familiarizes himself with the space of the park.

Inspiration on how to create the riddle map you can find on the internet in numerous videos and tutorials that show how to make a treasure map. The following link is one of the examples:

- <https://www.wikihow.com/Make-a-Treasure-Map>

There are many websites that offer a number of interesting riddles, including answers to them. For example:

- <https://icebreakerideas.com/riddles-for-kids/>

There are many reasons why riddles are beneficial for children. To see some, visit the link:

- <http://goodriddlesnow.com/posts/view/six-benefits-of-riddles-for-children>

The photo is downloaded from the following site:

- <https://pixabay.com/en/treasure-map-navigation-map-1850653/>

Riddle solving favourably affects the child's development in many different areas. Riddles are a good tool to help sharpen one's mind. They make a person think about the problem from many different angles.

Solving riddles provides children with the opportunity to learn as they improve their thinking ability, creativity, logic, comprehension, and also imagination. Riddles are a fun way of learning. They help develop children's critical thinking and problem-solving skills.





## Educational outdoor trail tools: Riddle path

The Do you remember treasure hunting? If you do, then you know that treasure hunt consists of riddles.

Riddles are well known, fun way for brain exercise and learning for all generations, especially for children. By solving riddles children have the opportunity to develop or improve thinking ability, creativity, problem solving and critical thinking skills. The idea of riddle path is to combine brain exercise with physical activity in nature.

### Target beneficiaries

Children (from 11 to 14 years old). Parents. Citizens.

### Materials and initial preparatory activities necessary to effectively implement the tool

For this path you will need:

- paper and pen
- camera or mobile phone (for taking picture of the location in the park)
- printer (if the clues are pictures or if you wish to print riddles)
- scissors
- plastic bags or plasticizer (to protect riddles and clues from weather conditions)
- tape, rope... (if you wish to put your riddles and clues on tree, under the bench...)

For detailed description of preparatory activities follow the link

<https://www.instructables.com/id/HOW-TO-PLAN-A-FUN-TREASURE-HUNT/>.

### Detailed description how to implement the tool

Below mentioned description is an idea how your Riddle path can look like. You can always use your imagination and creativity and assemble your own path.

Riddle path starts with the riddle hunting map on which are marked spots where clues and riddles are placed along the path. This map can be fixed or mobile. If the map is mobile children can take it with them and if it is fixed they can take a picture with a mobile phone.

As they follow the map they need to find the first clue. First clue (e.g. picture of a monument) is a hint for the second location marked on the map. Each clue comes with a riddle that children need to solve (e.g. "This is a type of animal of which Nutkin was a male, they climb trees and collect nuts and they have a bushy tail"). The solution of each riddle can be connected with park's animals or plant species, well known facts from history or legends, geology...

When children find the first clue and solve the first riddle, they need to write the answer on a piece of paper or on the mobile phone and move on to the next one.

At the end of a path they need to find a "hidden treasure" (marked on the map with an X). The "hidden treasure" are riddles (from the path) with the solutions. When they find the treasure, they can compare their written answers with the correct ones and see how many they have guessed. You can look for riddles online or you can have fun and create your own (for creating your own riddle follow the link

<http://www.readwritethink.org/files/resources/interactives/riddle/WriteYourOwnRiddle.pdf>.

For additional ideas about treasure hunt follow the link

<http://www.mykidsadventures.com/treasure-hunt-kids-guide/>.



## Educational outdoor trail tools: Sensory Rope Trail

Sensory Rope Trail consists of at about 150-meter-long rope that extends through the different kinds of terrain with different kinds of natural obstacles. The idea is that without using the sense of sight person (one or more) has to move along the full length of the rope, from the beginning to the end, passing various obstacles. So, without using eyes and without letting go of the rope he/she must use all the other senses to complete the determined route.

Along the route there should be at least 2 or 3 helpers who should be available to assist should the participant need any kind of help along the way.

This kind of activity gives the children and adults the opportunity to learn how to receive and process stimuli from our surroundings in a different way than we are used to, thus making it completely new and exciting experience. Also, it builds participants self-confidence, allows him/her to achieve better focus and enhances one's imagination.

### Target beneficiaries

Young children in the presence of parents and all other group age.

### Materials and initial preparatory activities necessary to effectively implement the tool

To carry out this activity, the necessary materials are:

- Rope that is slightly longer than 150 m because of the need to secure it at the beginning and the end of the track/trail, so that the rope is safe along the whole path.
- 75 – 50 wooden logs about 1,5-meter long. Height of the part that is placed above the ground should be about 1 meter.
- Metal rings that go into the wooden logs. Number of rings is optional depending on number of the logs and depends on the way in which the rope is secured around every log (1 or 2 rings required).
- Different kinds of natural obstacles along the way, e.g.: tree, roots, stones, boulders, trees, bushes, different kind of grass of different sizes, or any other kind of changes in terrain. There is a possibility to use other natural obstacles if the ones on a terrain are insufficient or we want to make the path more difficult, e.g.: pinecones who was not indigenous for that area, stones and pebbles that we cannot find in the area, etc.
- It is necessary to equip the participant with blindfold thus focusing his/her attention only to the rope that they are holding on to.

Also, it is necessary to have 2 or 3 helpers along the route. Their assignment is to assist should the participant need any kind of help.

### Detailed description how to implement the tool

The rope that extends through the different kinds of terrain should be longer than 150 m because of the need to secure it at the beginning and the end of the trail in order to make the path secure and safe. The path itself is 150 m long, but the rope that is being used needs to be longer as mentioned.

After deciding where the track will extend to, every 2-3 meters a wooden log should be put into the ground. The rope is then pulled through the holes in the upper part of the log or through the metal rings that are attached to the log and secured.

If it is not possible to acquire wooden logs or they cannot be set up, it is possible to secure the rope around different trees or any other barriers in the park. Of course, it all depends on the terrain on which the trail is placed.

After setting up the rope and securing it, the participants (one or more) are blindfolded and lead to the start of a rope that finds its way through the everchanging terrain. The goal is to have different kinds of natural obstacles along the way. For example: tree roots, stones, boulders, trees, bushes, different kind

of grass of different sizes, or any other kind of changes in terrain. In one part there is even a possibility to have a missing section of rope. Little by little, without using eyes and without letting go of the rope participants walk slowly feeling their way to the end of the rope.

Along the route there are at least 2 or 3 helpers who have the assignment to assist should the participant need any kind of help especially in more challenging parts of the route. Also, they are in charge of monitoring the participants comfort level along the way.

The task is achieved after the person successfully passes all 150 meters of the rope.

Example of Arthur's Pass Outdoor Education: Activity specific information about sensory trail in Arthur's Pass:

- [http://www.apoec.org.nz/uploads/9/9/6/4/99640756/sensory\\_trail\\_safety\\_management\\_package.pdf](http://www.apoec.org.nz/uploads/9/9/6/4/99640756/sensory_trail_safety_management_package.pdf)

Example of rope installation as the final element for the sensory trail:

- <https://www.youtube.com/watch?v=Vak0p3BOWvY>

For some inspirational photos and videos on how to use sensory rope trail check the following links:

- <https://www.sebright.hackney.sch.uk/year6/residential-2017-day-4>
- <http://pville2014.blogspot.com/2014/10/sensory-trailpost-coming-soon.html>
- <http://www.hampsteadprim.camden.sch.uk/announcements/the-sensory-trail/>
- <http://www.apoec.org.nz/activities--programme.html>

Along the path, a person is confronted with a variety of different situations, thanks to which he is perfecting and checking his/her motor skills.

This activity requires skilfulness, observation, memory, and imagination.

When children are concerned, this is a good way to develop child psychosomatic functions, meaning development of mental and physical abilities. It develops a sense of self-confidence, as well as the physical work of hands and feet.

Sensory Rope Trail encourages a child to develop persistence, determination, patience. It also helps in developing perception using all the other senses except the sense of sight.

Make sure that every part of the trail is safe and adapted for all participants, especially for small children.



## Educational outdoor trail tools: Social games corner

A corner for social games is conceived as a place for interaction and socializing in nature by making and/or playing different games that are placed around the “corner”.

The idea is to have a variety of social games that children can play in the foreseen area of the park. Also, this corner can easily be connected with the “Recycling corner” in a way that children can make the games from recyclable materials according to the instruction in the “Recycling corner”, and later place them in the “Social games corner”, and play the games that they originally made by themselves.



### Target beneficiaries

All ages.

### Materials and initial preparatory activities necessary to effectively implement the tool

To carry out this activity, it is necessary to equip this corner of the park with different social games.

If the games are made in the park, required materials for the activity are the same as the ones in the “Recycling corner” considering that the games are crafted in that corner and later placed in the “Social games corner” for further use. (For more detailed description on required materials see educational tool “Recycling corner” section 4.)



### Detailed description how to implement the tool

As mentioned above, the idea is to have a variety of social games that children can play in the foreseen area of the park. Some games can be brought and left in the park so that all visitors can use them (mostly children) or visitors can bring the games with them when they come to the park. Significantly is that you can easily connect this corner with the “Recycling corner”. The idea is to put the instructions and pictures in a booklet that is located in the “Recycling corner” on how to make some games and provide the materials that can be used for creating them.

There is an endless number of possibilities when it comes to making social games from recycled materials. This is an excellent example of how affordable and accessible materials are sufficient for making quality game, and not to mention the benefits of using one's imagination, developing thinking skills, and also fine motor function of the hands when making numerous items.

Games can be sculptured in stone, on chump of wood, on wood panels or something similar. For example, you can easily make games like chess, mill, lady, a game of "school" made of movable panels, twister painted in grass with eco-friendly and easy-to-wash colours, etc. The idea is to make all the elements out of natural and recyclable materials that are easily assembled and disassembled without damaging the environment. In a word, they are removable and they do not disturb the natural environment of the park.

Games that are made in the “Recycling corner” are later placed in the “Social games corner” for further use. It is good idea to have the corners located next to each other.

The photo is downloaded from the following site:



- <https://ezadar.rtl.hr/ostalo/galerije/2635793/gradjanska-akcija-sfinga-prostor-za-druzenje/?slika=1348845>

The photo is downloaded from the following site:

- <https://ezadar.rtl.hr/ostalo/galerije/2635793/gradjanska-akcija-sfinga-prostor-za-druzenje/?slika=1348841>



## Educational outdoor trail tools: Who am I?

The main objective of this activity is raising awareness on wildlife. It is activity that directly connects children with nature in a way that allows them to use both their bodies and minds. It builds confidence and provides a sense of security because it teaches children to be aware of their surroundings and the animals that live there.

“Who am I” is a path that consists of several routes which contain different animal tracks that need to be followed in order to discover the animal who made them. By following this path, children, not only have the opportunity to experience nature and become aware of their immediate surroundings but they also have the opportunity to learn how to make their own conclusions and decisions based on the evidence. It gives them a chance to use critical thinking skills and scientific research methods.

### Target beneficiaries

Primary school (from 7 to 11 years old). Parents and children.

### Materials and initial preparatory activities necessary to effectively implement the tool

Specify the location in the park where you want to place animal footprint trails. Look for the locations where you can hide animal footprints. Preferably location that have trees, rocks, bushes...

Decide how many animal footprint trails you want to create.

Choose the species of animals and look up for their footprints (photographs, drawings). If possible, choose the animal species that actually live in park.

Create a sketch of info board on a computer. The sketch needs to contain picture of animal footprints (e.g. see picture below) and detailed instructions explaining the task. For example:

- In this quest you will follow the track and search for the animal that left the footprints.
- Choose one type of footprints from the picture that you wish to follow and remember the mark next to them.
- Take a look around you and find the same mark. This is your starting point of tracking.
- Next to your mark you will find the first set of footprints.
- Follow the same footprints along the trail and at the end try to find your animal.
- If your animal has the same mark that you remembered at the beginning you have found the right animal.
- Keep your eyes wide open, footprints can be anywhere.

Prepare separately: picture of each animal; mark that is next to each footprint; each set of footprints, from picture that you used in sketch.

Decide how many pairs of footprints, for each animal, you wish to place along the trail. Print out the pictures, marks, sketch and each set of footprints. You will need only one copy of each animal picture, mark and sketch. The number of printed set of footprints is based on your decision.

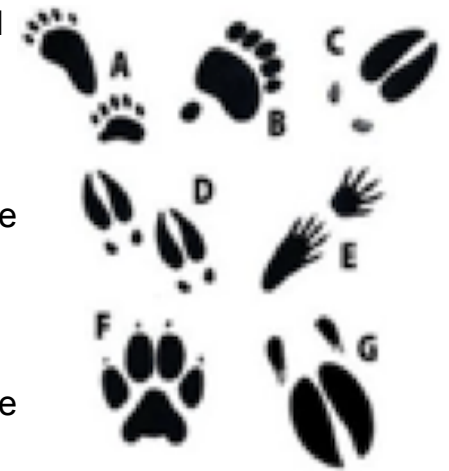
Once you did all the preparations, go to park location and assemble your pilot trail with the printed copies. Ask you family, neighbours, friends with children to test the trails. Gather their feedback and if needed change and improve your pilot.

When you are satisfied with the pilot trails you can start looking for the materials from which your trails will be made. You can find in stores or online shops statue of animals, animal footprint

molds... Also, you can talk to graphic designer about the printing of needed materials. He/she can give you advice which materials are the most suitable.

## Detailed description how to implement the tool

At the beginning of the path there is info panel with pictures of animal footprints that live in the park (duck, deer, squirrel, rabbit, crow...). The pictures are accompanied by the instructions explaining the task that children are required to do and with the input about the location of first mark that they need to find in their immediate surroundings in order to start the quest. You can use official markings that indicate the correct path on mountain or forest trails. This is a good way for children to learn to recognize the markings that are used in other nature trails.



The first step is to determine from the info panel the route that you are going to follow. Mark each footprint, on info panel, with specific mark, letter or number. The number of routes depends on the number of different footprints (e.g. along the first route the rabbit footprints will be placed, along second squirrels...). Each set of footprints should be placed in a way that they can be followed but you still need to look for them. For example, first rabbit footprints can be found directly on the path and they are directed left. Left pointed direction will lead to second footprints that are behind the rock directed straight...

If you wish to set more complicated task you can, at one point, crossroad the different routes and put in the same place several different animal footprints. In this crossroad children will have to figure out how to continue to follow their trail (e.g. at the crossroad each set of animal footprints point out in different direction).

At the end of each rout children will have to look carefully and find the hidden animal they were tracking. The animal (e.g. statue, picture) can be hidden on a tree, in the bush, on the grass... Place on the picture, statue the specific mark, letter or number that matches the markings of the footprints on info panel. For example, a child looks at the info panel and decides that he/she wants to track rabbit's footprints that are marked with the letter A. He/she follows the trail and at the end finds a rabbit picture/statue that has a letter A on it. In this way the child will know that he/she found the correct animal.



## Educational outdoor trail tools: Write your own story

Write your own story is designed as an interactive space where the visitors can write their own personal stories on the stones. It is conceived in a way that little stones are placed in one “corner”/part of the park and the idea is to write your own story, and to also read those already written and left by other people. If there is a connection between the park (maybe some kind of legend about the park) and the theme/topic of the stories, parks story can be written on one and hidden among other stones, so that the visitors also have the task of finding it and read it.



If writing a text is overwhelming especially for the youngest children, they can express themselves by drawing a picture on a stone instead of writing a text. This activity is very interesting for children in the sense that it provides the possibility of different literary and visual expressions, using non-standard media, making the activity more interesting. Also, it helps develop tactile sensation and fine motor function of the hands.

### Target beneficiaries

All ages.

### Materials and initial preparatory activities necessary to effectively implement the tool

For this activity, the necessary materials are:

- Small stones (pebbles), no less than 5 centimetres in diameter. The size of the area where the stones will be located is optional, and the amount of stones that will be placed there also depends on that.
- Small brush for cleaning the surface of the stone.
- Small cloth for cleaning the surface of the stone.
- Paintbrushes.
- Pens and markers.
- Painting colours/dyes (water colours, tempera, acrylic colour, etc.). Acrylic colours are most durable of all mentioned. When they dry they remain durable, so it is better to use acrylic colours if the stones are exhibit in the open like in the park or a garden.
- Bowls/ containers for storing and storing the material and water if needed).

### Detailed description how to implement the tool

Writing or painting on a stone is not a costly activity. It is not necessary to spend a lot of money in order to acquire all necessary materials. Materials can also be provided by asking people/community to donate.

Idea is to place little stones/pebbles in one part of the park (a few square meters is enough). It is good to have it hedged so that the stones would not be scattered around the park, but all located in one place. All necessary materials needed for writing or painting stories on a stone are provided in the same place. The way of storing the materials and keeping it safe from atmospheric

conditions is optional depending on the selected part of the park.

As a person begins a search for the appropriate stone he/she wants to write his/her story on he already starts to have fun. Stones are an inexhaustible source of materials, and they can be of various shapes, colours and textures making them very interesting media to write/paint on. After finding a suitable stone if it is dirty it needs to be cleaned (using brush and cloth) and prepared for writing/painting. This is part where one's creativity comes to expression. This type of activity is very creative way of expressing oneself and requires using one's imagination.



The subject of the stories can be various, e.g.: love (family, friendly or any other kind of love), friendship, life, dreams, wishes, messages, wise thoughts and sayings, etc.). The subject can also be connected with some story about the park as mentioned above. The topic of stories with a short explanation of the task in hand can be shown on the table located in the part of the park where the stones are located.

After finding the words that inspire him/her, using all available materials (pens, markers, paintbrushes, water colours, tempera, acrylic colour, etc.), person needs write it or paint it (if it is a child) on a selected stone. Each stone is a small artwork that remains in the park as a message for other visitors to see, the same way that others visitors left us to find their stories.

To find some more ideas about Storytelling with Stones check the following links:

- <https://artfulparent.com/story-stones-ideas-storytelling-rocks/>
- <http://room5teacher.blogspot.com/2012/07/monday-made-it-rocking-resources-and.html>
- <https://www.apartmenttherapy.com/story-stones-a-great-storytelling-tool-194245>

The photoes have been downloaded from the following sites:

- <https://ezadar.rtl.hr/ostalo/galerije/2635793/gradjanska-akcija-sfinga-prostor-za-druzenje/?slika=1348821>
- <https://pixabay.com/en/stone-labeled-font-painted-693671/>

The meaning of the sentence on the stone is: "The right moment to be happy is now" (Rainer Kaune)



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## [HICAPS - Historical Castle Parks](#)

coordinated by the Municipality of Velenje

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