EUROPAN
AUSTRIA
X SLOVENIA

E17 Living Cities

CELJE

The promise of inhospitable lands

EUROPAN 17 - Celje

Site representatives:

- Monika Tominšek, architect, adviser to The Mayor,
- Alenka Cizej, architect, urbanist, head of Department for spatial planning, traffic, and environmental protection of City Municipality of Celje,
- Simon Koražija, architect, coordinator at Department for spatial planning, traffic, and environmental protection

Preparation by:

- Blaž Babnik Romaniuk, Obrat d.o.o.,
- Urška Cvikl, Obrat d.o.o.,
- assist. Danica Sretenović

Pollution and environment expert group:

- doc. dr. Cvetka Ribarič Lasnik, director of IOP Institute for environment and space
- dr. Darko Drev, IZS authorised engineer in the field of technology, member of the City Council and the Committee for the environment, spatial planning and utility at the Municipality of Celje
- doc. dr. Domen Leštan, University professor at the Faculty for Biotechnology, Department of Agronomy, Chair of Soil and Environmental Science

We also like to thank dr. Tone Kregar, dr. Marija Počivavšek, Jure Zupanc, Jože Bovhan and Stane - Cinkarna worker and Gaberje's inhabitant.

MESTNA OBČINA CELJE

EUROPAN AUSTRIA X SLOVENIA

obrat.

← *Cover photo © Amadeja Smrekar*

Welcome from Europan

Dear architects, urbanists and landscape architects!

It is our great pleasure to welcome you to the international ideas competition that focuses on the topic of Caring as a new paradigm for designing our built environment.

We are living in a critical moment in history where the climate emergency, pandemics, and and other global challenges have highlighted the vulnerability of our living world. The theme of Caring goes to the heart of what it means to be a planner in the 21st century. It challenges us to think beyond the physical and consider the social, environmental and cultural implications of our designs. It asks us to be responsible and sensitive to the environment, the communities we serve and the future generations who will inhabit our cities and landscapes.

In this Europan round, we are delighted to be partnering with Slovenia for the first time! Together we have assembled an exciting potpourri of four sites: Vienna, Graz and Lochau in Austria and Celje in Slovenia. All four places bring to the table challenges on different scales that are looking for holistic and caring solutions.

In Lochau we find the shores of Lake Constance, a piece of land that is open to the public, free of charge and very popular. The community is looking for an inclusive and caring approach so that the fragile nature remains relevant and is interwoven with an active publicness in which everyone can participate.

Graz asks for strategies in an existing peri-urban environment where a regional infrastructure hub is planned. This will create an opportunity for a mindset shift towards active mobility.

Vienna is facing growth and is asking for a master plan for 4,500 homes. This master plan must set new standards for a livable habitat for all beings, especially in the wake of global warming, which will affect Vienna above average.

Celje has a long time challenge of dealing with a heavily polluted site that has a strategic importance for the development of the city as a whole. The task is to envisage a robust solution that is viable in sense of addressing the pollution and visionary in sense of long-term develoomen of the city.

As young professionals, you have a unique perspective and an opportunity to shape the future of our planet. Your ideas, enthusiasm and willingness to think outside the box can inspire and transform the way we design our built environment. This competition is a platform for you to showcase your talents, collaborate with other disciplines for a broad range of perspectives, and make a meaningful contribution to the global conversation about the future of our planet.

Push the boundaries of what is possible and challenge conventional design thinking. We encourage you to approach this competition with an open mind, a spirit of curiosity and a commitment to excellence. Be bold, be creative and above all, be caring.

We wish you all inspiration and persistence in tackling this creative challenges and we're looking forward to seeing your innovative proposals and working with you after the competition.

Kind regards,
the team of Europan Austria x Slovenia
Iris Kaltenegger & Hannah Nusser
Blaž Babnik Romaniuk & Urška Cvikl

General information

Site Representatives / Actors Involved
Monika Tominšek, architect, adviser to the mayor

Team Representative
Architect, urbanist, landscape architect

Expected skills with regards to the site´s issues and characteristics
Teams are encouraged to form collaborations between architects, landscape architects and urban planners, as well as experts from different natural science disciplines and environmental engineering

Communication
Communication after the announcement of results on the European website

Jury - 1st stage evaluation: Local commission
with the participation of the site representatives

- Monika Tominšek, architect, adviser to The Mayor
  substitute: Manja Berginc, architect, deputy head of Department for spatial planning, traffic, and environmental protection
- Alenka Cizej, architect, urbanist, head of Department for spatial planning, traffic, and environmental protection of City Municipality of Celje
  substitute: Tadej Kozar, landscape architect, advisor at Department for spatial planning, traffic, and environmental protection
- Matija Kovač, architect, The Mayor of City Municipality of Celje
  substitute: Simon Koražija, architect, coordinator at Department for spatial planning, traffic, and environmental protection
- Denis Rovan, architect, licenced architect at Navor d.o.o.
- Miran Gajšek, architect, urbanist, Head of Department of spatial planning of City Municipality of Ljubljana
- Member of the international Jury
- Member of the international Jury

Jury - 2nd stage evaluation: International jury

- Regula Lüscher (CH), urbanist, former Senate Building Director and State Secretary for Urban Development in Berlin
- Gerd Pichler (AT), spatial planner, Head of ARE Development
- Cristina Gamboa (ES), architect, principal of Lacol Barcelona
- Alessandro delli Ponti (IT), architect and urbanist, principal of kh studio
- Anna Popelka (AT), architect, principal of PPAG
- Joanna Gibbons (UK), landscape architect, principal of J & L Gibbons
- Gašper Medvešek (SLO), architect, assistant professor at Faculty of Architecture Ljubljana
- Angelika Fitz (AT), curator and author, Director of the Architekturzentrum Wien

Substitutes:
Radostina Radulova Stahmer (DE), architect, principal of STUDIOD3R
Theresa Krenn (AT), architect, principal of studioederkrenn

Prize selection
Ranked selection: with Winner (€12.000), Runner-up (€6.000) and Special Mention (no reward)
Equal Selection: maximum 3 Runners-up without any hierarchy of reward (€6.000 each)

Post-competition intermediate procedure
Presentation of the rewarded teams to the site representatives, followed by a discussion/workshop.

Jury

Cristina Gamboa (ES), architect, principal of Lacol Barcelona
© Lacol

Anna Popelka (AT), architect, principal of PPAG, former EUROPAN winner
© Erik-Jan Ouwerkerk (Aedes)

Gašper Medvešek (SLO), architect, assistant professor Faculty of Architecture in Ljubljana
© Damjan-Švarc

Theresa Krenn (AT), architect, principal of studioederkrenn, former EUROPAN winner; Substitute

Regula Lüscher (CH), urbanist, former Senate Building Director and State Secretary for Urban Development in Berlin
© Inge Zimmermann

Alessandro delli Ponti (IT), architect and urbanist, principal of kh studio, former EUROPAN winner
© Marco Egizi, 3industries

Joanna Gibbons (UK), landscape architect, principal of J&L Gibbons
© J&L Gibbons

Gerd Pichler (AT), spatial planner, Head of ARE Development
© ARE

Angelika Fitz (AT), curator and author, Director of the Architekturzentrum Wien
© Katharina Gossow

Radostina Radulova-Stahmer (DE), architect, co-founder of STUDIO-D3R and former EUROPAN winner; Substitute
© Julian Martit

Important dates

Questions & Answers / Update of Material
Please see and check the forum online >>www.europan-europe.eu<<

03 May 2023 **National opening event**
7pm, Architecture centre Vienna, Museumsquartier
Meet the site partners, interactive Austrian opening event

11 May 2023 **Site visit**
start 11:00
Livestream link: announcement on website >>www.europan.at<<
and instagram europan_austria
Meeting point: Teharska cesta 1, 3000 Celje, in front of the Historical Archives Celje / Zgodovinski arhiv Celje
Registration: Please confirm your participation via email to office@europan.at (name, number of participants, mobile number)

30 July 2023 **Deadline for entering submission**
23:59 (Paris Local time)

04 December 2023 **Announcement of results**
on the European and national EUROPAN website

March 2024 **National award ceremony**
will be announced online >>www.europan.at<<

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Zinc is all around us. In our bodies, our wallets, bathrooms, houses, soil, vegetables and more. We can‘t live without it. Zinc moves to live organisms from mines and fields, factories and farms, shops and con-struction sites – and along the way it is processed and applied, which in turn also reshapes the dynamics of biotops. More often than not this causes irreparable damage. In these times of environmental crises, we are engaged with anthropocentric actions of the past as much as we are with the regenerative future. Let us retrace zinc‘s impact and confront the heritage of damage.

Content

I Introduction

Welcome from the City
Dear architects, landscape architects and urbanists!

The Europan 17 competition comes at an important turning point for the city of Celje, with the particularly current and intriguing theme of Living Cities /2. The location we are offering represents a near-insurmountable challenge: lush, green, and on the edge of the old city, but also uncommonly polluted and with no certain future. It invites entrants to explore thoughtful, innovative, and robust ideas for the development of this remarkable site.

Humankind today faces many crises, from the environmental to the social and demographic – and we must address these crises with more responsible, holistic, and inclusive solutions, especially through spatial planning as the basis for the development of any city. The questions this year's Europan opens up are universal, and securing progressive solutions is also key to the evolution of Celje as the thriving, innovative, and green capital of the region.

The challenge is as follows: formulate ideas on how existing facilities and infrastructure can be seen and employed as a starting point for the further development of this part of the city, and as key to the larger strategic importance of Celje. How to tackle the massive pollution that has burdened the city for decades? How to reverse negative demographic trends and attract young, educated people back to the city; and what kind of industries should we develop to attract new investors?

The development of our city will inextricably hinge on the spatial and economic decisions that we make today, decisions that are embodied in the evolution of this site between the present and the future, with a specific view to its burdensome past. We want these decisions to address the coexistence of and interrelationship between all of the components of the living world, and thus mandate a radical shift in the way we think about and imagine the future of our city.
We invite you to demonstrate how thoughtful, comprehensive and visionary spatial strategies can serve as an example of how to turn a disadvantaged city into a role model for the rest of the region.

Good luck to all!
Matija Kovač, The Mayor of City Municipality of Celje

Commission for winning team

The variety of possible outcomes makes it impossible to define the commission in detail. The client hopes that the selected proposals will make it possible to proceed with the development of the site. To the best of the client's ability and intentions, and in accordance with the proposal of the winning entry, the client seeks to commission:

- further development, refinement, and detailing of all or part of the proposed plan and pro-gramme strategy,
- design development of the first development phase as proposed by the winning team and ap-proved by the client,
- preparation of the design (masterplan level of detail) and technical studies for a detailed spatial planning act (legal requirement before further development and construction can proceed).

yellow line indicates project site © Alja Cestnik

II Relation to E17 topic

THINK TABULA NON-RASA!

The theme of Europan 17 Living Cities 2: Reimagining architectures by caring for inhabited milieus is perfectly suited to the chosen location of Celje, while at the same time it offers a different reading of the theme that is not obvious at first glance. Caring for inhabited environments suggests caring for habitats, individual species, even customs, heritage and communities that are already established but perhaps threatened. Although the Stara Cinkarna (Old zinc smelting plant) site contains all of these, much of the concern must be directed elsewhere – to care for the environment and society beyond and far from the site. The site is so polluted that it is itself a source of air and water pollution (emission site) that affects the living environment of people and animals, as well as protected natural habitats. Concern for the environment and life on and off the site relates both to development (building, paving, landscaping) and also, or even primarily, to the actual physical interventions on the site itself.

Care and diligence

Pollutants at the site are transported to the wider environment by a variety of mechanisms. Without human intervention at the site the spread of contaminants depends on natural conditions and is usually slow. Interventions on the site, such as excavation for a construction pit, driving over the ground, removal of vegetation, can significantly accelerate the contamination of the wider environment and greatly increase the risk to life on the site itself. For this reason, care can also be thought of as carefulness, meaning that the kind of interventions a site undergoes is as important as what is built there. Carefulness therefore includes all measures that limit the spread of contaminants during each individual intervention, as well as measures that limit the transfer of contaminants to the site environment as a whole.
Care also means learning from mistakes and developing a different mindset, both in planning and in other activities such as production and living. Carefulness in land development means that we consider the full impact of all our activities on all aspects of the living environment. At the Stara Cinkarna site, care and carefulness will have to be the main guiding principles for the development of the land, and here this mentality has the potential to be fully realised.

Knowledge of the conditions

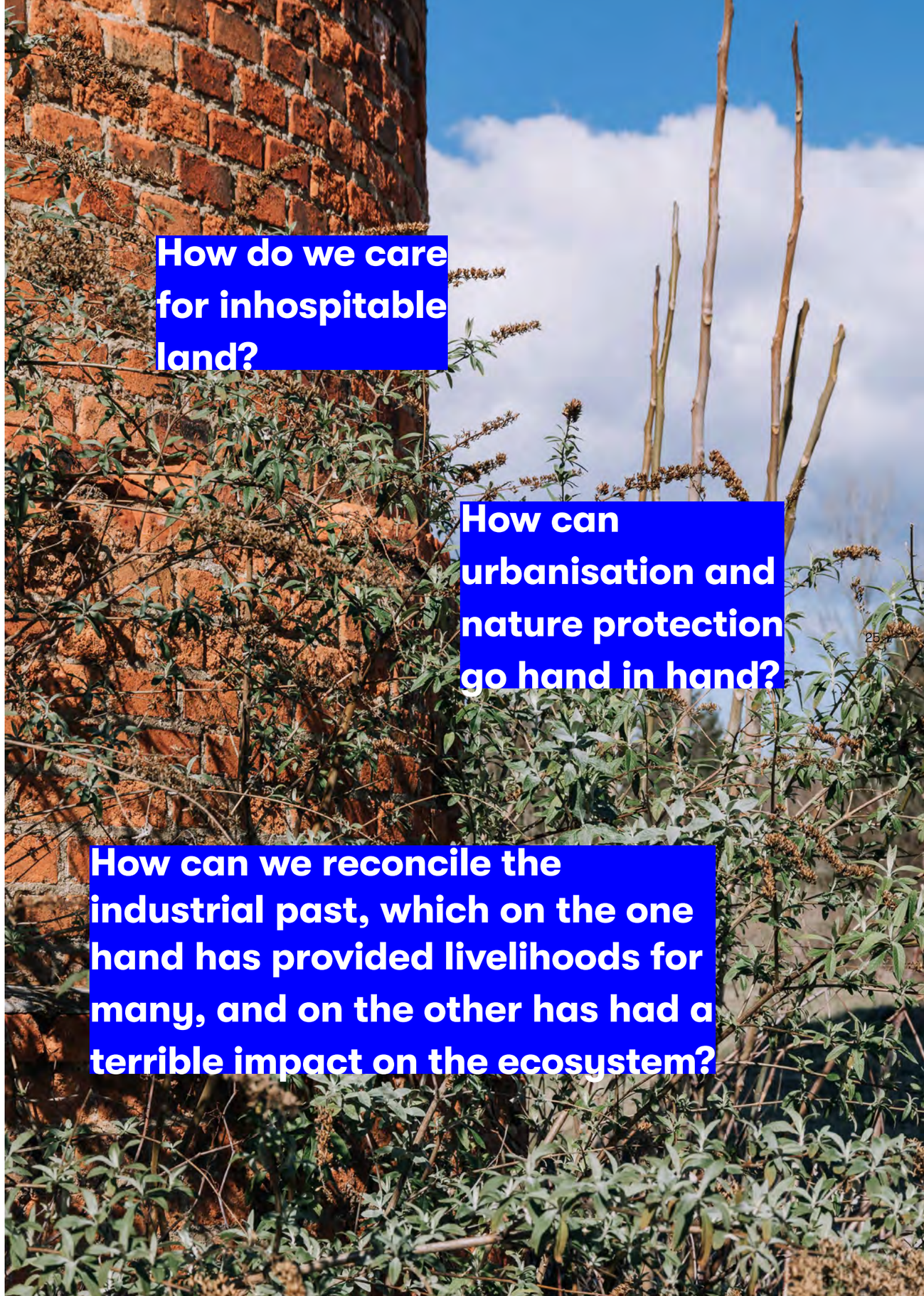
In addition to carefulness, interventions on the site require a comprehensive understanding of the past (why the site is so polluted), the present state of the site (how it is polluted) and the changes brought about by climate change (how weather patterns affect the spread of pollutants). Care and carefulness also imply the mindfulness of others. The legacy of spatial change, the complexity of ecosystems and mass flows, and the mechanisms that drive them add to the complexity and therefore require an interdisciplinary approach to spatial planning. Concern over intervening in living milieus also creates concern related to the planning process itself, which seeks to understand and respect the complexity, indeterminacy, and incompleteness of such processes, and to involve a wide range of disciplines, users, and stakeholders.

Dynamism and stability

Development of the site will have to meet the requirements of stabilisation and immobilisation; and of limiting the spread of pollutants and the dynamics of environmental, residential, and urban processes. The scale of the challenge of dealing with a contaminated site has led to stagnation in the development of the site, but this has not stopped the environmental, physical, and chemical processes on the site. In the thirty years since industrial production wound up, the site has become grown-over and built-over in some places, while contaminants have migrated into the wider environment. The dynamics of the ongoing natural processes contrast with the slow and only partial urbanisation of the site. In order to develop the site, these processes need to change or even be reversed. Familiar environmental processes, material metabolisms, and water flows can only be a starting point, not an end-goal, because human intervention in the environment is so decisive that natural and urban processes and flows need to be rethought to create new dynamics and stability. How and when this can be done in the context of care for all involved constitutes the main question of this competition.

interplay of criteria and themes

The task of developing a site is inseparable, even legally, from the care and concern for the inhabited milieu, just as the simultaneous development of two scales, the large and the regional, and two issues, the environment and urbanisation, are inseparable. Pollution management and intervention concern both the regional scale (as the Voglajna can transport pollutants into protected habitats) and the purely micro scale, in terms of the impact on those carrying out the interventions and on the habitat as a whole at the time of the intervention. At the same time, the way in which the site is urbanised (programmes, density, networks, etc.) will have an impact on both the city itself and the region due to its central location in the established urban fabric and on the heart of the region.
The complexity of the site and its environmental and social strategicity mean that the effects of spatial change will affect life in the city, the established ecosystems, and the functioning of the city both as a whole and as the centre of the region. Indeed, every single intervention will affect the people, animals, and plants on the site and beyond. Care and carefulness around the intervention is therefore the only possible guide in establishing healthy, resilient inhabited millieus, in spite of the many threats the site now faces.



III The city in its context

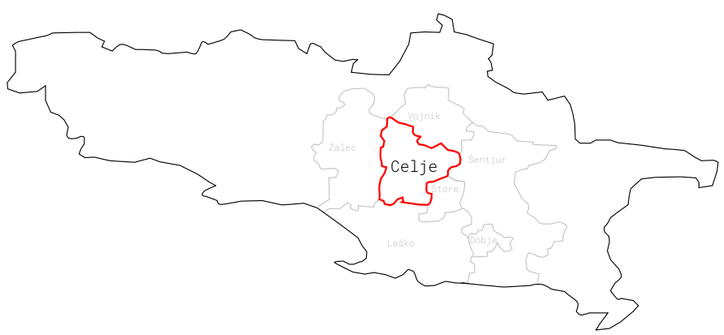
© Amadeja Smrekar

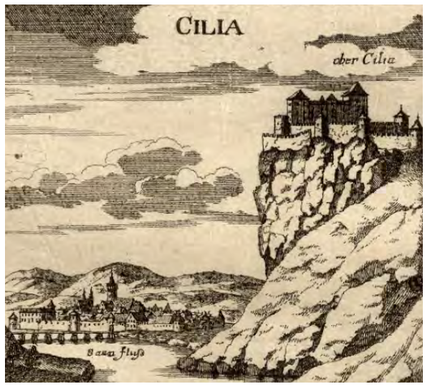
Celje
3000 years of history. What's next?

Regional context

Celje is the seat of the Municipality of Celje and covers an area of 94.9 km². With a population of 48,679 (source: SURS, 2022), it is the fifth largest municipality in Slovenia and is located in the Lower Savinja Valley, or Celje Basin, at an altitude of 241 m. The city plays an important geographical and historical role in Slovenia, as it lies at the crossroads of the Xth and Vth transport corridors. It is only half an hour from the major cities of Ljubljana and Maribor, and an hour from the major European centres of Graz, Trieste, and Zagreb.

It is the largest city in the Savinja region and an important economic, administrative, educational, cultural, health, tourism, sports, and transport centre.
The municipality of Celje is home to several courts of regional and national importance (district, regional, labour, higher, and administrative), a regional chamber of commerce, museums, theatres, and several public institutions of importance to this region of Slovenia. These include the headquarters of the Celje administrative unit, the regional geodetic administration, the DARS company for motorways in the Republic of Slovenia, the Water Directorate of the Republic of Slovenia, several inspection services and more. Another important institution is the Regional General Hospital in Celje, which serves a population of 180,000–280,000 people and employs 2,110 people (2021).





View of the castle and the town © Digitalized document, Moravksa Zemska Knihova, author Vischer, G. M, Topographia Ducatus Stiriae, 1628-1696

Cadastral map, 1825 ©Zgodovinski arhiv Celje

Cadastral map, 1915 ©Zgodovinski arhiv Celje

Historic context

The natural conditions at the confluence of the Savinja and Hudinja rivers allowed the first urban settlement, called Keleia, to develop in the area of present-day Celje as early as the Iron Age and later in the Celtic Age. Keleia became one of the most important craft and trade centres in Celtic Noricum in the 1st and 2nd centuries BC. The importance of Keleia's favourable location on the navigable Savinja river and the Amber Road was recognised early on by the Romans, who annexed the highly autonomous kingdom of Noricum. In 45 A.D. Keleia was granted city rights and received the Latin name Municipium Claudium Celeia. Records show that ancient Celeia was a rich, cosmopolitan, and densely populated city, also known as Troia Secunda – the ‚second Troy'. Celeia was close to the eastern border of the Empire, where nomadic tribes began to invade, and the city was destroyed in 475.

It remained devastated and uninhabited for some time, so early medieval Celje developed very slowly compared to other Slovenian towns. By the 13th century it was already a civil settlement, and in the following two centuries it played one

Shield of Ulrik II
©Wikimedia Commons

of the most important roles in Central Europe. The Lords of Sanneck from the Savinja Valley were responsible for the town‘s renewed success. After gaining the Count‘s title, they increased their wealth and influence enormously during their short reign and left an indelible mark on the development of the city. Celje flourished the most in the 14th and 15th centuries. Once Celje has been granted the status of a city and received full municipal rights, the construction of the city walls began on the orders of Count Frederick II. The assassination of Ulrik II in 1465 ended the rise of the Counts of Celje. Without succession and due to a hereditary treaty with the Habsburgs, the Habsburgs took over the possession of Celje. The three yellow stars are a symbol of this important part of Celje‘s history and are shown on the city‘s coat of arms.

After that, Celje continued to develop as a centre of trade, crafts, and administration under Habsburg rule, and in 1473 the city walls and the fortress moat were built. Rapid economic development and the need to connect the port of Trieste with the centre of Austria led to the opening of the „Southern Railway“ in 1846, which ran from Graz to Celje. This was the first time a train ran on Slovenian soil. Gradually, industrial development followed, and Celje experienced a boom in the 1860s and 1870s.

Urban context

The city took on its current shape and dimensions between 1955 and 1985. The town plan was adopted in 1968 and set ambitious and challenging goals for the town‘s development. It provided for the expansion of the city to the north and west, while the areas to the east of the northern entrance to the city (Mariborska cesta) were to be used for industry. The old town centre would be preserved and renovated, while a new town centre would be built to the north of it.

Today, Celje is home to more than three quarters of the total population of the municipality, consisting of a dense residential area on the plain at the confluence of the Savinja, Voglajna, Hudinja, and Ložnice rivers, and an industrial area in the eastern part. In the north, it touches a hilly area that has been heavily urbanised, unlike the southern part of Celje, which includes the northern part of the Posavje hills, which, due to its steeper slopes, has not been heavily urbanised and remains predominantly forested.

With the expansion of trade after Slovenia‘s independence, some of the degraded industrial areas were filled in by the construction of large shopping centres. Today, commercial and business activity is concentrated north of the town centre along the Mariborska cesta corridor and to the east in the vicinity of the competition area. The Celje Showground (Celjski sejem) is also located along Mariborska cesta and is best known for its annual business fair event, which has attracted more than 1.5 million visitors over the past ten years.

Digital surface model © Atlas voda, DRSV

Economic context

For most of the 20th century, metallurgy was the most important industry in the city, which was also known for its textile industry. The largest company, Cinkarna Celje, was founded in 1873 as a zinc smelting plant and later became the most important manufacturer in Slovenia. The Emo factory, which produced enamelled crockery, was also known in the wider Yugoslav region, while other well-known companies included Aero Celje and Zlatarna Celje.
After the war, several construction companies were established to meet the needs of Celje and the surrounding areas, such as Beton, Graditelj, Stavbenik, Savinjgrad, and the craft company Cementnine, which later merged into the joint construction company Ingrad. After the introduction of the Jugomont prefabrication system, the company developed its own approaches to fast and efficient construction, such as its own open skeleton system of prefabricated building and Outindor pull-out panelling for residential construction.

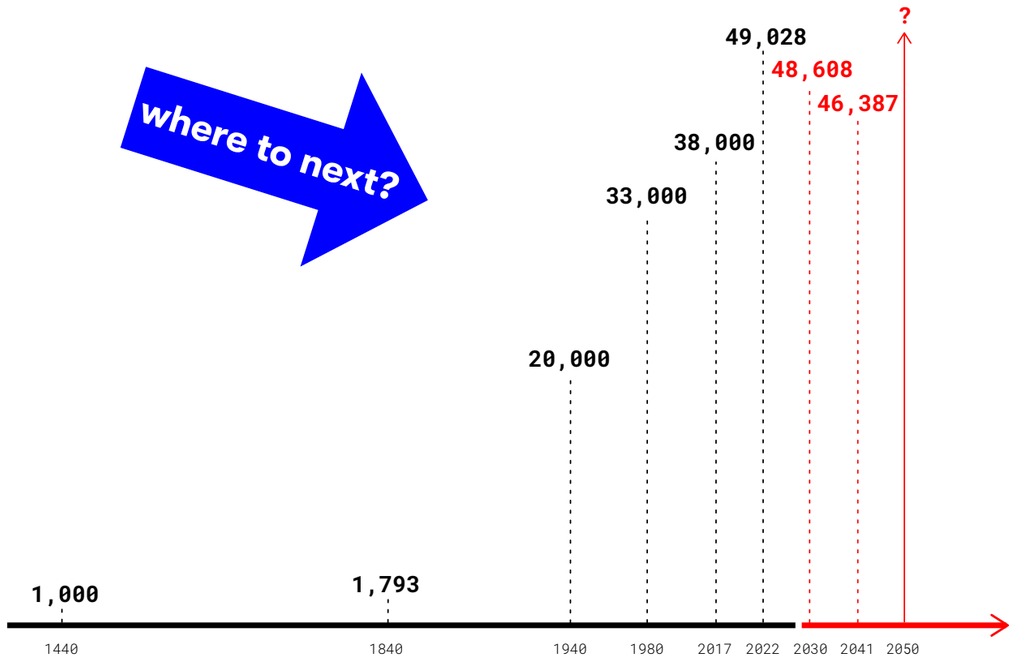
Celje's economy underwent a process of transition and economic restructuring after independence, gradually transforming from an industrial town to a service-based economy with the addition of tourism and logistics services. Most of the large manufactures have disappeared, and the importance of manufacturing and labour-intensive processing industries, especially metal, electrical, and textile has declined. A number of smaller and more flexible companies have emerged on their foundations, also focusing on new activities. Some of the larger companies are Cetis, which prints official documents, packaging, and toll stickers; Etol, a flavouring and fruit syrup factory on the other side of the motorway in Škofja vas; Celjske mesnine, one of the largest and best-known producers of meat products in Slovenia; and Tuš Holding, which owns a network of supermarkets and shops across the country and is also based in Celje. Tertiary and quaternary activities have thus become the driving force of economic development, while at the same time the rest of the manufacturing sector has been restructured into modern production activities using modern and more environmentally friendly technology.

One of the most important activities of the city is the trade fair industry, which has been part of Celje's commercial life since 1967. Today, the tradition of trade fairs in Celje is continued by the Celjski sejem company, which has 65,000 m2 of exhibition space and 9 event halls at the Celje Showground.
Celje is thus an employment centre for the population of the city and the whole region. In 2020, the employment rate in the municipality of Celje was 66.3, with 33.96% of the working age population working within the municipality and the remaining 45% migrating daily to 155 municipalities across Slovenia. Most of the daily migration is directed towards the capital Ljubljana and nearby Žalec.

Social context

The large push of post-war industrialisation and the development of tertiary activities gave Celje an even more pronounced urban character, with the municipality experiencing a population growth of 73% between 1948 and 2002. The concentration of jobs in the city centre after the war led to a rapid growth of residential areas in Celje itself and in the suburban centres; but with the break-up of Yugoslavia and higher unemployment, the city saw the outbound-migration of inhabitants, mainly to the surrounding municipalities, which offered more favourable conditions for individual housing. The low population growth, the migration (of the adult population) from abroad and the general social situation have had an impact on the demographic profile of the population, where the number of people aged 65 and over is increasing in the municipality of Celje, in line with the overall trend in Slovenia and across Europe.

A simulation of the urban development of the municipality of Celje has been carried out, based on which it is assumed that the demographic picture of natural growth will continue to deteriorate. The dominating factor behind the future demographic development will be the ageing of the population, with an expected increase of up to 39% of the population over 65 years of age.



IV Strategic site

Could the site be a connector for the surrounding parts of the city?

What does a lively urban space look like without housing?

Strategic site

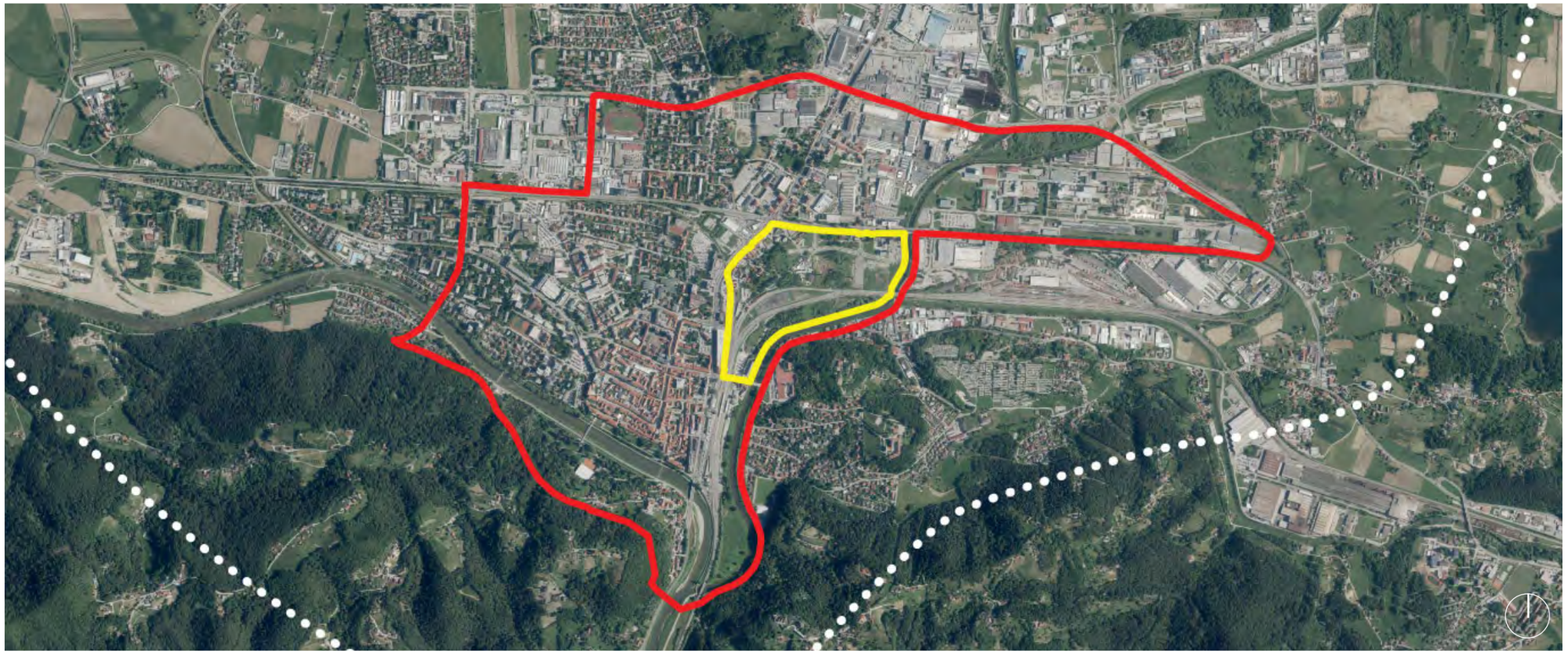
The strategic area covers an area of approximately 350 hectares. It includes the historical centre of Celje, residential areas, part of the industrial zone where the new Zinc smelting plant (Cinkarna) is included, commercial zone and recreational areas along the Savinja and the confluence of the rivers. Throughout history, the location of the city at the confluence of the Savinja and the Savinja foothills has had a decisive influence on the development of the city, both as a protective factor and as an obstacle to expansion.

The network

Celje is located just off the A1 Maribor - Ljubljana motorway, with three motorway junctions leading into the city. The Celje-Centre connection is the busiest. This is due to the fact that the city's main roads run north-south (Mariborska cesta) and east-west (Kidričeva cesta and the western bypass) and are the only roadways conveying transit traffic. As a result, all transit traffic passes through the city centre, further increasing the noise and pollution burden on the city centre, and Mariborska cesta further divides the city centre into two parts – the old city centre and the new commercial and business district. The creation of an eastern bypass, which would cross the eastern part of the competition area, could serve to relieve Mariborska cesta of some of its transit traffic.

While the municipality's transport network is well developed and ensures the fluidity of local traffic, the conditions for other sustainable forms of mobility are less favourable, in particular the connection between the centre and the surrounding areas, from the centre to the larger residential areas, between the neighbourhoods themselves, and so on. The city has taken an important step with the establishment of the local city bus CELEBUS and the public electric bicycle rental service KolesCE.

Celje is also one of the most important railway junctions, as it is located on the Zidani Most - Šentilj railway line, which at the same time diverts railway traffic to the western and easternmost parts of the Savinja region. In Zidani Most, the line connects with the Ljubljana-Dobova line.



Territory site (white line), reflection site (red line), project site (yellow line) © GURS

Natural resources

Celje has one of the largest watersheds in Slovenia, with the Ložnica and its tributaries the Pirešica, Sušnica and Koprivnica, and the Voglajna and Hudinja flowing into the Savinja from the left.

Throughout its history, Celje has struggled with floods caused by the Savinja and its tributaries. After a major flood in 1876, the middle section of the river was regulated, which had a negative impact on Celje due to the strong acceleration of the river's stream. After the regulation, the city was flooded several times after 1888. Some of the worst floods occurred in 1901, 1933 and 1954, the latter being the most severe. After these floods, the people of Celje began to work intensively on the regulation of the river. The course of the Savinja was shifted about 300 metres to the west, and all its tributaries, including the Voglajna and the Hudinja, were also regulated. In spite of the successful regulation, Celje has been affected by floods on several occasions since 1990.

The largest park area is the City Park, which is protected as a cultural monument and extends into the City Forest to the west. The left bank of the Savinja River, adjacent to the old town centre, has been developed as a park with a promenade linking the eastern and western parts of the town. Other large parks include the Golovec area, the Sotočje Park, the Gaberje Park, a part of the Sončni Park, the Teharje Memorial Park, etc.

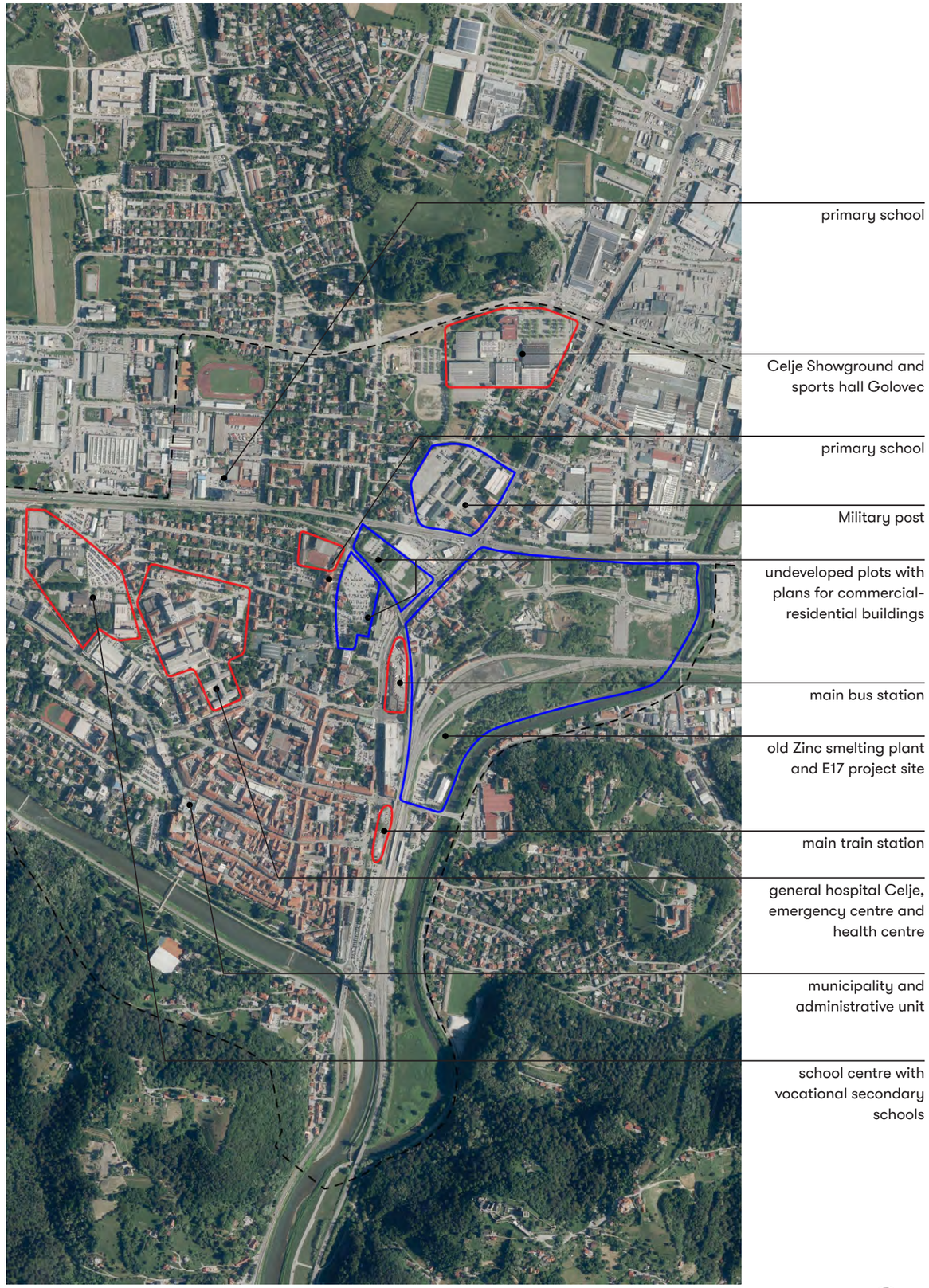
Relevance in context

The strategic area covers several programme blocks that are important for the functioning of the city (health, education, sport, administration), but also includes strategic areas of the city that are important for the further development of the city.

→ see image on the right

important programme areas

strategic areas of the city



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V Project site

How can the site be connected to the city centre, which is divided by a river and a railway?

How can you build intensively without disturbing the ground?

Can an urban plan address both immediate development and long-term strategies?

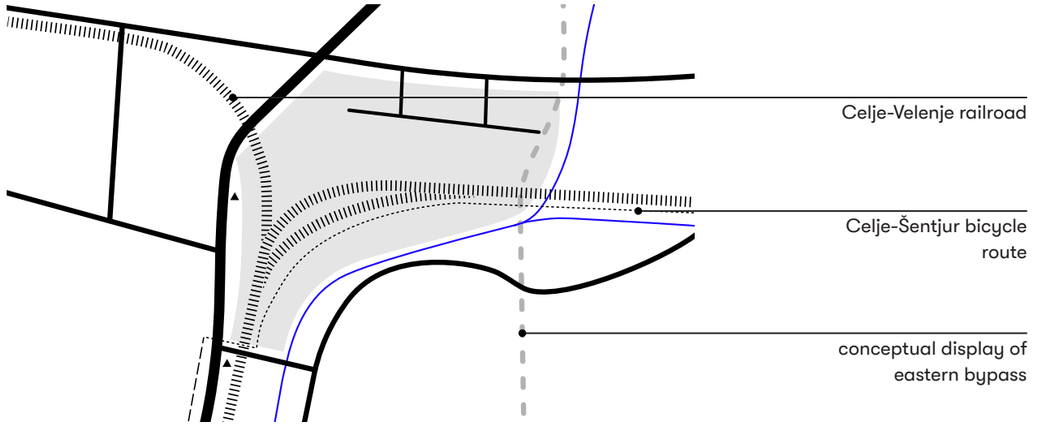
The setting
troubled past, bright future

The project area covers around 31 ha and consists of several parts. The main part of the area is the site of the former zinc smelting plant (Cinkarna), which has left a significant environmental legacy. Most of the former industrial area has been demolished, with only the public landscaping company's warehouse and the car paint shop in the centre of the site still active. Municipalities own most of the undeveloped land. The most prominent remnants of the old zinc smelting plant are the three chimneys, which are protected as a cultural monument and, despite the site's degradation and inaccessibility are a daily reminder of the past visible from various parts of the city.

The eastern part of the site has been developed as part of the Tehnopolis - Celje Technology Park development project. The aim was to create an environment with high development potential, including technology companies, development institutions, technology centres, and knowledge centres from Slovenia, Europe, and beyond. Today, the buildings are mainly used for administrative and business activities. Tehnopolis was created as part of the urban development of the Stara cinkarna area. A public design competition in 2002 served as the basis for the design. Due to new findings on soil remediation methods, expected complications due to the heterogeneity of contamination and the lack of some data, the design of the whole project is no longer feasible today and should therefore not act as a guide for the design of competition solutions.

Voglajna river © Amadeja Smrekar

The built-up area along the north-western edge of Mariborska cesta dates from the second half of the 19th century and the first half of the 20th century, and most of the buildings are listed as heritage; an air-raid shelter with an interesting conical shape from the Second World War is one such building.



The part above the railway line is accessible by car from Kidričeva and Mariborska streets, while the southern part by the river is currently accessible from Cinkarniška cesta, through the underpass under the railway or from the car park next to the Historical Archive in the south of the project area.

In the green belt on the right bank of the Voglajna River, a new cycling path project is planned and has been partially implemented, which will be part of the National Cycle Route. It will be 11 km long and will connect Celje, Štore, and Šentjur. The route starts at the railway underpass on Teharska Street, then proceeds along the banks of the Voglajna River, crosses the Hudinja River at its confluence via an already constructed cycle bridge, and continues onwards towards Štore.

Despite the outstanding qualities of the site, it has remained degraded since the collapse of the old zinc smelting plant (Cinkarna) and is waiting for a new opportunity and a fresh look back at the challenges posed by the past. It is also the most important development site in the city centre and has the potential to shape Celje's future with a new vision.

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© Alja Cestnik

public company Zelenice's warehouse

Hudinja river

new Cinkarna

Tehnopolis

chimneys

spare track in case of damage

test site for a soil stabilization method

underpass

main bus station

Historical Archives Celje

main railway station

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© Amadeja Smrekar

Industrial heritage
from farmland to postcard

19th Century and period between wars

The Municipality of Celje established the City's Beautification Association in 1871 in the hopes of developing a well-known tourist centre, but accelerated industrialization puled the city in the diametrically opposite direction. Cinkarna (Zinc smelting plant) was built in 1873 by the Austrian state to boost the economic power of the German population in the predominantly Slovenian area. Already in its first year of production, people began to complain about the heavy emissions of sulphur dioxide. More than 20 industrial complexes were built between the wars, pushing the city towards the north-east, alongside the Voglajna river. Yet, the pollution was largely associated with the five prominent chimneys of the Cinkarna complex.

The industrial settlement on the Gaberje agricultural land on the outskirts of Celje caused a shift in the ethnic and class demographics, where the bourgeoisie was gradually joined by the working class coming to the city from the surrounding rural areas. What was predominantly culturally German territory after WWI and especially WWII was transformed into a predominantly Slovenian/Yugoslavian city. Like most of Celje's industry, Cinkarna remained well preserved despite the war, with much of its production serving the needs of the German military.

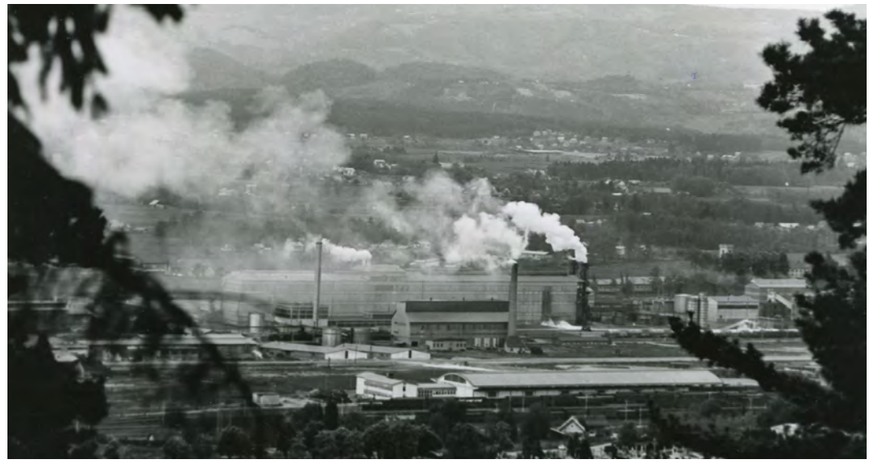
20th Century

After the Second World War, the working class became (at least formally) the politically strongest social group, which came with the country's new social and economic system, nationalization of the country's industry, and the introduction of self-management. Slovenian society gradually changed from an agrarian one to an industrial one, where industry acted as an agent of emancipation, gradually directing the growth of the city by diversifying the social milieu, introducing collective pastimes, sports and cultural programmes, encouraging self-organization, developing social housing and the public edifice. In this sense, the urbanization of Celje is closely interconnected with the development of industry there. Which is why industry stood at the forefront of progress and development, and was met with genuine public enthusiasm, which was clearly communicated in the paroles and iconography of the time. Industry was not solely a workplace but self-managed and publicly owned infrastructure, empowering the working class with tangible rights and contributing to the betterment of society. Ecological concerns, however, did not come into focus until the end of 1970s, when health and environmental concerns came to a critical head and civil initiatives petitioned and ran campaigns against Cinkarna's production and planned developments.

The collateral damage, the result of extractive and ecologically inadequate industrial development, made Celje one of the most polluted and unhealthy cities, which in turn triggered the gradual ecological regeneration that came with the 1980s and simultaneously marked the beginning of the end of Celje's traditional heavy industry. The severe economic crisis that followed was felt most heavily in the industrial working environments: with the collapse of Celje's industry and the turn of the century, the number of workers in the area decreased significantly. In the face of widespread unemployment, the iconic working neighbourhood of Gaberje became a kind of ghetto.

21th Century

In time, Gaberje underwent a fundamental change, from industrial working-class city outskirts to speculative ground for shopping malls, consumer culture, and business districts. In 2002, a national competition for the Cinkarna site envisioned dense urbanization: the Technopolis project included a technology park, a centre for environmental and energy engineering, an international financial centre, a European centre for development in the Western Balkans, a centre for a new culture of living, a student campus, and a multicultural centre for Southeastern Europe. Planning and speculation proved entirely inadequate due to the contamination of the site. Today, part of the site serves as a parking lot, and part as a disposal site for the biowaste for the Zelenice Company, while it also even hosts the occasional "*svinjski sejem*" flea market.



View of the smelting plant © Muzej novejše zgodovine Celje

Eco heritage
from a postcard to the hazard / a point of no return

Post-antropocen landscape

The site's current landscape morphology is the result of severe anthropocentric activities which, over the course of the last century, acted as a geological force and transformed the area from agricultural land to a hazardous landfill, all the while accumulating layers of industrial waste over the topsoil. The territory is now unevenly overgrown by various pioneering and invasive species (most notably Japanese knotweed and *buddleja davidii*) and is heterogeneously contaminated. To some extent, signs of past mechanical activities are seen in current growth patterns, where the lack of vegetation coincides with the deepest landfill scheme in the north-eastern area between the Voglajna and Hudinja channels. Conversely, the succession reaches its most complex stage at the southern border, across the railway and along the Voglajna riverbanks, where industry has left the least signs of its impact.

Slovenian post-socialist context: urban ground and feral ecologies

With the shift in the socio-political context from socialism to an open market economy, it became common practice that state-owned land was transformed into privately-owned property. As a result, some prominent cityscapes that had previously accommodated industry or military applications were reproposed, left abandoned, or remained never finished construction sites. The lack of human intervention allowed pioneering species to initiate the regeneration of degenerated urban ground by improving its climatic resilience (topsoil production, temperature regulation, rainwater retention, new common spaces). Cinkarna abandoned its old production facilities in 1973, while the land was transferred to the Municipality in 1995 and the complex was finally demolished in 2005. During this period the territory alternated between stages of succession and mechanical human impact, as seen in the entirely overgrown territory, the entirely flat orange-coloured soil, the crater landfill, etc.).

The urban regeneration produced by spontaneous succession is commonly overseen by planning policies - regulations namely replace self-sustained biodiversity with monocultures. However Cinkarna territory's spontaneous succession is two-sided: the spread of contamination from absorptive plants into the surrounding environment is yet to be investigated, while the lack of fertile soil presents a challenge for any eco-remediation that would lead to the creation of a complex ecosystem. However, building climate resilient cities means developing urban ecologies as the primary condition for any further urbanisation.

Wildlife stepping stone

The territory of the old Cinkarna Celje is currently one of the most polluted tracts of land in Slovenia. Long-term, diverse, and highly-harmful pollution brought about a drastic decline in the tract's biodiversity and degraded living conditions. However, no territory is an island, and each function acts as an ecological corridor. Just like roads, rivers, and railways they support the movement of wildlife transiting between larger habitat hubs (e.g. forests) across the city. The Cinkarna territory, situated between the northern and southern hills of Celje and surrounded by two water channels, with river flow in the direction of the Savinja valley represents an important stepping stone for wildlife transition. For this reason, Cinkarna's current (lack of) biodiversity impacts both the biophysical environment of the immediate Celje urban area and the wider region. The site's importance in terms of wildlife transition becomes even more apparent when we take into consideration the fact that Celje is surrounded with agricultural – thus monocultural – areas.

Cinkarna position between northern and western hills presents stepping stone for the wild-life transition.

↓ Cinkarna Landscape manipulation timeline

1870, Gaberje outskirts © Muzej novejše zgodovine Celje

1875, Cinkarna initiated industry development © Muzej novejše zgodovine Celje

Voglajna river marshes © Muzej novejše zgodovine Celje

Waste disposal site from the roasting of sulfites for the production of sulfuric acid © MNZC

2005, Destruction of the complex spreaded asbestos from rooftops, © MNZC

Succesion was occasionally cleaned up, © MNZC

2009, After the demolition - landfill, © RTV documentary, 2009

Green infrastructure spreding from hills over the Cinkarna site, © MNZC

2023, Curent disposal of biowaste and soil at the site, © Amadeja Smrekar

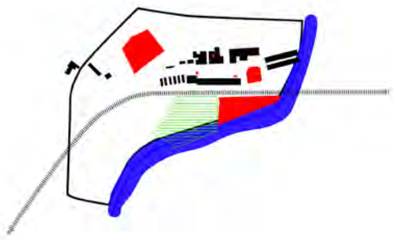
Ecological regeneration / Production of top-soil

Special consideration has to be taken while working on the re-greening/biodiversity proposal, as wildlife could simultaneously spread the contamination, and/or mitigate the effects of the fragmentation of green areas, regulate air and water quality, and create a microclimate. The proposal on biodiversity regeneration of the area largely depends on the manipulation of the landfill, stabilization of the contamination, and the steps required to produce a new layer of topsoil able to host tall trees.

Existing vegetation/ List of species → see list on the right

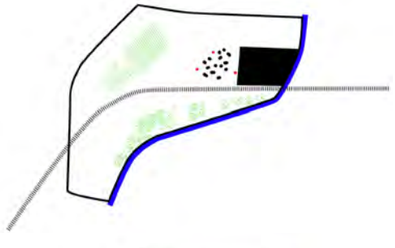
Data was collected in the early stages of succession caused by the disturbances in the environment (deposition of construction waste, slag, and waste soil). A larger number of tree species can be found along the railway, where anthropogenic influences have been less frequent and intensive. All of the selected plots are dominated by annuals (invasive, ruderal species) and tall stems (knotted grasses, sedges, invasives) – plant communities that grow in the area and best adapted to the stress of the pollution. The study has not confirmed the impact of heavy metal content on plants and plant communities.

19th century



- *waster deposition areas "ash"*
- *field*
- *Cinkarna complex*
- *Voglajna river marshes*
- *railroad*

2005, after demolition



- *crater landfill*
- *unknown waste disposal*
- *chimneys*
- *Gaberje neighbourhood greens*
- *forest*

21st century

- *invasive and pioneering species*
- *Zelenice biowaste and soil*
- *forest*
- *Gaberje neighbourhood greens*
- *see Soil surface catalogue, p. 59*
- *erosion of soil into rivers*
- *parking*

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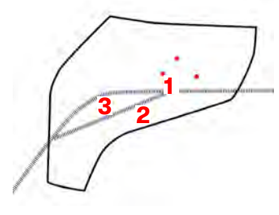
scientific name of the species	*slovenian name of the species*	*CSR affiliation*	*life form*
↓1			
Aegopodium podagraria	navadna regačica	-	He
Agropyron repens	plazeča pirnica	-	Ge
Ailanthus altissima	veliki pajesen	-	Fa
Ambrosia artemisiifolia	pelinolistna ambrozija	-	Te
Anthemis cotula	smrdljiva pasja kamilica	R	Te
Arctium lappa	navadni repinec	CR	He
Armoracia rusticana	navadni hren	C/CR	Ge
Artemisia vulgaris	navadni pelin	C/CR	He/Ha
Betula pendula	navadna breza	-	Fa
Buddleja davidii	davidova budleja	-	Fa
Calamagrostis epigejos	navadna šašuljica	-	He
Carex hirta	dlakavi šaš	CR/CSR	He
Carex sp.	šaš	-	Ge/He
Chenopodium album	bela metlika	R/CR	Te
Cichorium intybus	navadni potrošnik	CSR	He
Conyza canadensis	kanadska hudoletnica	R/CR	Te
Daucus carota	navadno korenje	SR/CSR	Te
Equisetum arvense	njivska preslica	CR	Ge
Erigeron annuus	enoletna suholetnica	-	Te
Eupatorium cannabinum	konjska griva	C/CSR	He
Fallopia japonica	japonski dresnik	C	Ge
Galium mollugo	navadna lakota	C/CSR	He
Geranium robertianum	smrdljička	R/CSR	Te
Glechoma hederacea	brščljanasta grenkuljica	CSR	He
Helianthus tuberosus	laška repa, topinambur	-	Ge
Helianthus tuberosus	laška repa, topinambur	-	Ge
Lactuca serriola	pripotna ločika	-	Te/He
Lactuca serriola	pripotna ločika	-	Te/He
Leontodon hispidus	navadni otavčič	S/CSR	He
Linaria vulgaris	navadna mandronščica	CR	He/Ge
Medicago lupulina	hmeljna meteljka	R/SR	Te/He
Medicago sp.	meteljka	-	-
Melilotus alba	bela medena detelja	-	He
Oxalis fontana	toga zajčja deteljica	-	Te/He
Picris hieracioides	navadna skrka	R/CSR	He
Plantago lanceolata	ozkolistni trpotec	CSR	He
Ranunculus repens	ripeča zlatica	CR	He
Reseda lutea	rumeni katanec	SR/CSR	He
Robinia pseudacacia	navadna robinija	-	Fa
Rubus caesius	sinje zelena robida	SC	Ha
Salix caprea	iva	-	Fa
Sambucus nigra	črni bezeg	C	Fa
Silene vulgaris	navadna pokalica	CSR	Ha
Solidago canadensis	kanadska zlata rozga	C	He
Trifolium pratense	črna detelja	CSR	He
Trifolium repens	plazeča detelja	CR/CSR	He
Tussilago farfara	navadni lapuh	CR	Ge
Verbascum densiflorum	navadni lučnik	-	He
Verbena officinalis	navadni sporiš	CSR	Te/He
Veronica chamaedrys	vrednikov jetičnik	CSR	He
↓2			
Acer negundo	amerikanski javor	-	Fa
Acer platanoides	ostrolistni javor	SC	Fa
Ailanthus altissima	veliki pajesen	-	Fa
Alnus glutinosa	črna jelša	SC	Fa
Artemisia vulgaris	navadni pelin	C/CR	He/Ha
Betula pendula	navadna breza	-	Fa
Brachypodium sylvaticum	gozdna glota	S/SC	He
Calamagrostis epigejos	navadna šašuljica	C/SC	He
Carex acuta	ostri šaš	C/SC	He
Carex hirta	dlakavi šaš	C/CSC	He
Carex sp.	šaš	-	Ge/He
Carpinus betulus	navadni beli gaber	SC	Fa
Clematis vitalba	navadni srobot	SC	Fa
Cornus sanguinea	rdeči dren	SC	Fa
Crepis biennis	dvoletni dimek	R/CSR	He
Dryopteris filix-mas	navadna glistovnica	SC/CSR	He
Epipactis helleborine	širokolistna močvirnica	S	Ge
Equisetum palustre	močvirska preslica	CR/CSR	Ge
Fallopia japonica	japonski dresnik	C	Ge
Humulus lupulus	navadni hmelj	C	He
Knautia drymeia	ogrsko grabljišče	-	He
Phragmites australis	navadni trst	C	Ge/Hi
Picea abies	navadna smreka	-	Fa
Pinus sylvestris	rdeči bor	-	Fa
Poa trivialis	navadna latovka	CR/CSR	He
Populus nigra	črni topol	-	Fa
Populus tremula	trepetlika	SC	Fa
Robinia pseudacacia	navadna robinija	-	Fa
Rubus caesius	sinje zelena robida	SC	Ha
Rubus fruticosus	prava robida	SC	Ha
Salix caprea	iva	-	Fa
Solidago canadensis	kanadska zlata rozga	C	He
Solidago gigantea	orjaška zlata rozga	C	He
Tilia cordata	lipovec	-	Fa
Valeriana officinalis	zdravilna špajka	CSR	He
Vicia sp.	grašica	-	Te/He
Vitis sp.	trta	-	Fa
↓3			
Acer negundo	amerikanski javor	-	Fa
Achillea collina	hribski rman	-	He
Ambrosia artemisiifolia	pelinolistna ambrozija	-	Te
Anthemis cotula	smrdljiva pasja kamilica	R	Te
Artemisia vulgaris	navadni pelin	C/CR	He/Ha
Betula pendula	navadna breza	-	Fa
Calamagrostis epigejos	navadna šašuljica	C/SC	He
Calystegia sepium	navadni plotni slak	C/CR	Ge
Carex hirta	srhkodlakavi šaš	C/CSR	He
Carex sp.	šaš	-	Ge/He
Centaurea jacea	navadni glavinec	-	He
Chenopodium rubrum	rdeča metlika	R/CR	Te
Cichorium intybus	potrošnik	CSR	He
Cirsium arvense	njivski osat	C	He
Clematis vitalba	navadni srobot	SC	Fa
Convolvulus arvensis	njivski slak	CR	Ge
Echinochloa crus-galli	navadna kostreba	-	Te
Echium vulgare	gadovec	R/CSR	Te/He
Equisetum arvense	njivska preslica	CR	Ge
Erigeron annuus	enoletna suholetnica	-	Te
Eupatorium cannabinum	konjska griva	C/CSR	He
Euphorbia sp.	mleček	-	Te/He
Euphorbia sp.	mleček	-	Te/He
Galium mollugo	navadna lakota	C/CSR	He
Humulus lupulus	navadni hmelj	C	He
Hypericum perforatum	šentjanževka	CR/CSR	He
Impatiens parviflora	drobnocvetna nedotika	CR	Te
Lactuca serriola	pripotna ločika	-	Te/He
Leontodon hispidus	navadni jajčar	S/CSR	He
Lepidium virginicum	virginijska draguša	-	Te
Linaria vulgaris	navadna madronščica	CR	He/Ge
Lotus corniculatus	navadna nakota	S/CSR	He
Lythrum salicaria	navadna krvenka	C/CSR	He
Medicago lupulina	hmeljna meteljka	R/SR	Te/He
Melilotus albus	bela medena detelja	CR	He
Melilotus officinalis	navadna medena detelja	CR	Te/He
Mentha longifolia	dolgolistna meta	-	He
Panicum capilare	lasasto proso	-	Te
Parthenocissus quinquefolia	navadna vinika	C/SC	Fa
Pastinaca sativa	navadni rebrinec	CR	He
Picea abies	navadna smreka	-	Fa
Picris hieracioides	navadna skrka	R/CSR	He
Plantago lanceolata	ozkolistni trpotec	CSR	He
Poa trivialis	navadna latovka	CR/CSR	He
Polygonum persicaria	breskova dresen	-	Te
Populus tremula	trepetlika	SC	Fa
Potentilla reptans	plazeči petoprstnik	CR/CSR	He
Salix caprea	iva	-	Fa
Saponaria officinali	navadna milnica	CR	He
Setaria pumila	sivozeleni muhvič	-	Te
Silene latifolia	beli slizek	-	Te/He
Solidago canadensis	kanadska zlata rozga	C	He
Tanacetum vulgare	navadni vratič	C/CR	He
Trifolium pratense	travniška detelja	CSR	Te/He
Trifolium repens	plazeča detelja	CR/CSR	He
Verbascum blattaria	grozdasti lučnik	-	He
Verbena officinalis	navadni sporiš	CSR	Te/He
Vicia sepium	grašica	C/CSR	He
Viola arvensis	njivska vijolica	R	Te



Source: Lukman, T. 2014. Analiza flore, vegetacije in vsebnosti kovin na izbranih ploskvah degradiranega območja stare cinkarne Celje: diplomsko delo [na spletu]. Ljubljana: Univerza v Ljubljani. [Dostopano 6. marec 2023]. Pridobljeno s: https://repozitorij.uni-lj.si/IzpisGradiva.php?lang=slv&id=115543

Soil ecosystem

Soil degradation defines internal changes in the soil that occur as a result of external mechanical forces and internal physico-chemical changes. In Celje, we distinguish between two types of soil contamination: by diffuse air pollution – soil in the urban areas (green areas, playgrounds, gardens) and suburban areas (agricultural land and gardens), by point pollution – soil in the Cinkarna area and various landfills. Celje is also one of only two Slovenian cities that has no urban garden strategy.

The ecosystem of the Cinkarna soil has been deteriorating continuously over the centuries. During WWII the subterrain was perforated, as the Fascists dug tunnels maintain their hold on the occupied industry. Following the demolition of the complex in 2005, the use of the site was not regulated, the surface was reshaped by field work, the remains of demolished buildings were left untreated, piles of soil of unknown origin remained, and the ground lacked any distinct soil horizons.

While the majority of the damage to the soil ecosystem is the result of the disposal of industrial waste, such as slag (by-product of smelting, welding, and other metallurgical and combustion processes from impurities in the metals or ores being treated), the demolition of the complex served to further spread significant amounts of asbestos throughout the environment (the complex was covered by salonite roof panels). The riverbank continuously erodes into the water with the flow of the Hudinja. Historical maps also show that industrial waste (“ash”) was used to construct the left riverbank of the Voglajna.

Deposition of bio-waste on Celje green spaces / spontaneous compost

As of March 2023, the public company Zelenice, responsible for the maintenance of the city’s green spaces, uses the area between chimneys to store bio-waste collected from the wider region. This landscape storage scheme consists of soil from other locations, plant litter, cut conifers, etc. The cups of deposed conifers reach up to 4 m in height. When asked about the potential of such bio-waste to form a new bio-layer at the location, Zelenice’s general manager replied that the majority of the trees are eaten by bark beetles – thus, such biomass may not be suitable for regeneration of the area’s topsoil.

How can we reconcile the industrial past, which on the one hand has provided livelihoods for many and on the other has had a terrible impact on the ecosystem?

2023, Curent disposal of biowaste and soil at the site, © Amadeja Smrekar

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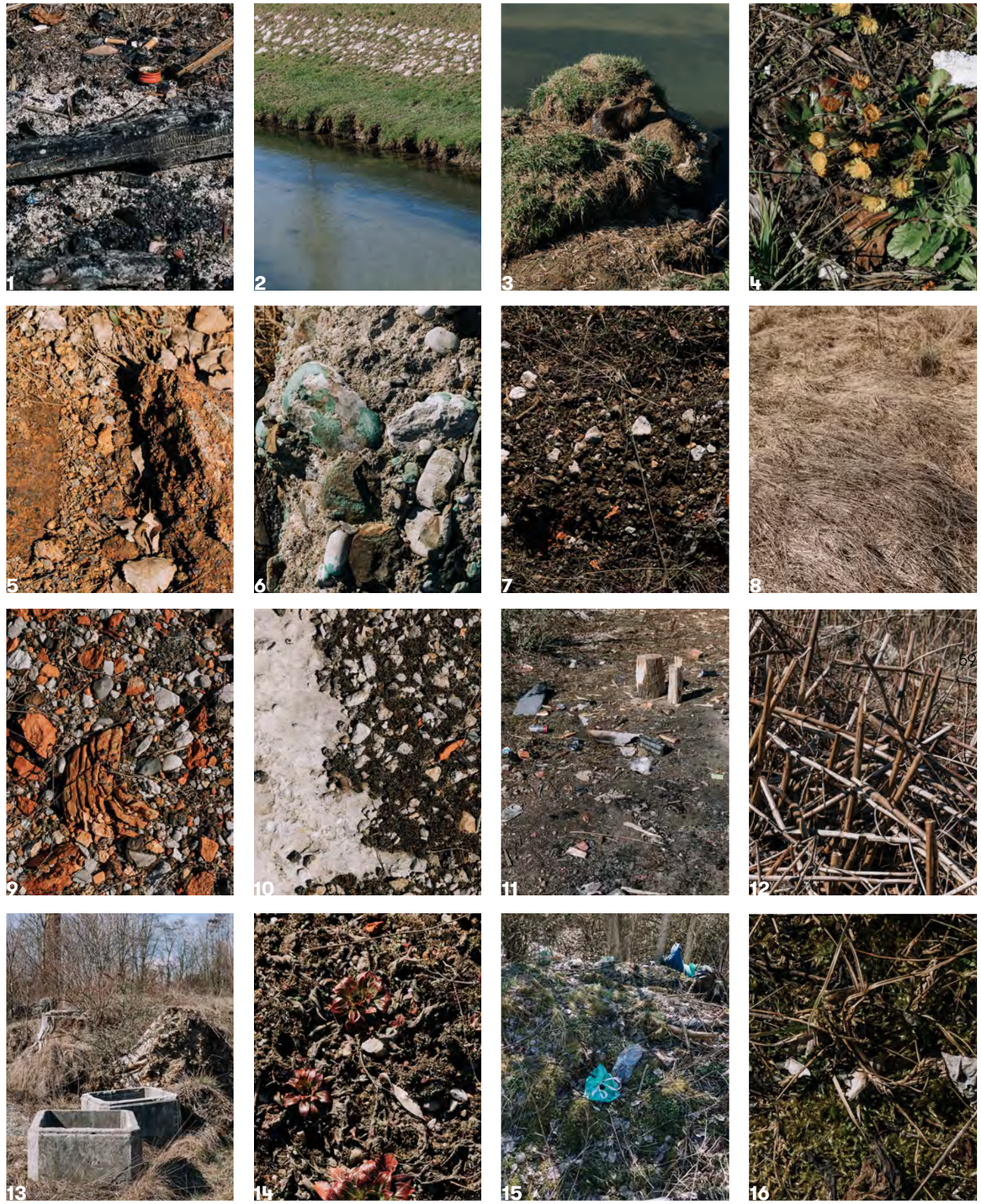
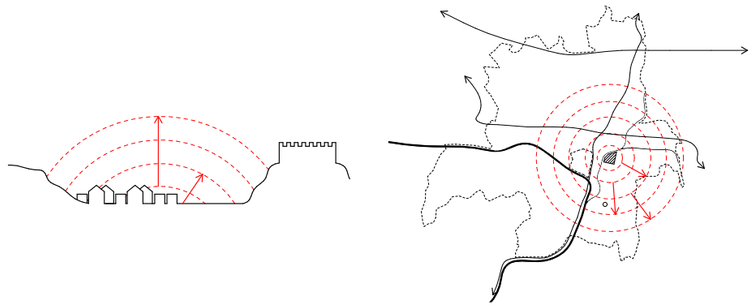
↓ Soil surface catalogue



Cinkarna surface, the spots where highest amounts of waste were accumulated over the time © Amadeja Smrekar

Pollution



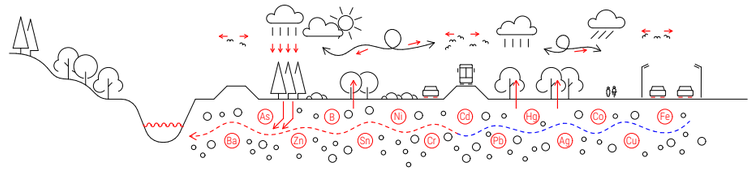
The mobility of contaminants

The source

The contamination originates in large part from the metallurgical and chemical industrial processes connected with the zinc smelting plant on the site for some 120 years. The processes involve hazardous inorganic and organic substances, while at the same time new hazardous substances are generated as a result of these processes. Throughout this period, the waste generated during production (mineral roasting waste, ash, embers, dust, waste paint, waste solvents, waste plastics, etc.) has not been managed systematically and has been partly or temporarily disposed of mainly in or near the production yard that lies within the area of the present competition zone. Most of the waste was taken to industrial landfills in the wider Bukovžlak and Žepina area. The contamination at the Stara Cinkarna is so severe that it exceeds the levels permitted for inert waste. As a result, the site itself has become a source of emissions.

Characteristics

The main characteristic of the contamination of the site, which has a significant impact on the remediation options, is the heterogeneity in the intensity and nature of the contaminants and the low bioavailability of the contaminants. In addition, no representative data on pollution and associated risks are yet available – the amount of pollutants in the soil does is not equivalent to the degree of risk of adverse effects on the ecosystem. For example, some parts of the site are extremely contaminated with tar, others with heavy metals and others with neither. The contamination is heterogeneous and very deep (from the surface to a depth of 10 m), as the site is effectively an un-remediated industrial landfill. However, this does not mean that the risk to the ecosystem is equally high, as heavy metals are often bound in compounds that are difficult or inaccessible to plants and animals, or more difficult to dissolve due to the alkalinity of the soil. A large proportion of the pollutants are likely to be in a form that is not water soluble under normal conditions, and thus does not enter the food chain. This is particularly the case for heavy metals (Zn, Pb, Cd, As, Cu, etc.).
The groundwater flowing north-south beneath the site is also heavily contaminated with heavy metals (zinc and cadmium), but also with organic pollutants. Some boreholes show significant mineral oil contamination. Groundwater as high as 2 m below the surface further influences the leaching of contaminants into the surrounding watercourses.



The paths of pollution dispersial

Polutants

> organic polutants

The main organic pollutants are mineral oils, chlorinated solvents, AOX compounds and tars. These are mainly remnants of the former tar pits. In general, contamination from organic compounds is low, but point source contamination by tar and bitumen (tar pits) is expected to be high. Contamination from mineral oil and bitumen residues decreases over time as they undergo gradual biochemical degradation; decomposition is faster if exposed to oxygen.

> anorganic polutants

The site is almost exclusively contaminated by heavy metals:

- low to moderate contamination: cobalt (Co), chromium (Cr), mercury (Hg), molybdenum (Mo), nickel (Ni),
- highly elevated: arsenic (As), barium (Ba) and copper (Cu),
- extremely high levels: cadmium (Cd), lead (Pb) and zinc (Zn).

The presence of heavy metals is more pronounced in the deeper layers and in the underlying clay. Their levels are also more than 100 times higher than permitted. There is not adequate data available to show how much of the heavy metals are in a bioavailable form. However, it is assumed that the values are significantly lower than those found by analysis of contaminated soil.
Pollutants of inorganic origin can also include some other inorganic compounds from former production (sulphates, phosphates, nitrates, cyanides, etc.).

> macro polutants

The remains of former buildings, shafts, pits, pipes, and barrels of hazardous waste are still on the site under a thin layer of soil, and their eventual removal will be a challenge as they are polluted as well.

Risks

If no action is taken, contamination at the site will spread in a continuous but limited manner, mainly by leaching, dusting, and biomass transfer. There are also natural biochemical degradation processes of various pollutants (mainly organic). In the case of inorganic pollutants (mainly heavy metals), there is a partial leaching of the heavy metals into the water, thus reducing soil pollution. This, in turn, increases the pollution of groundwater and the nearby Hudinja River. However, this process is not particularly intense. The risk increases with the disturbance of soil at the site, e.g. from construction, and increases with windy weather, prolonged rain or snow, and higher temperatures. The potential movement of contaminated material represents a significantly higher risk at the excavation site, on the road to the landfill, and at the landfill and its wider surroundings.

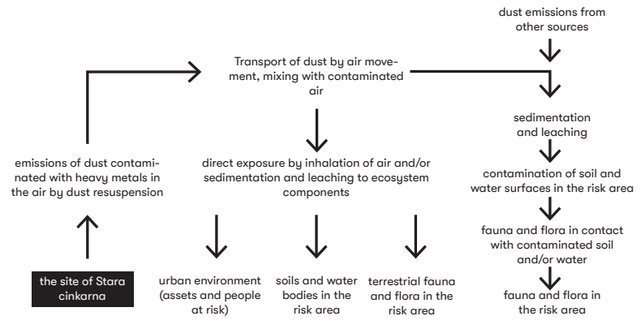
Contamination affects changes in habitat quality, reproductive and survival capacity, and in the population dynamics of plant species. The spread of contaminants through the food chain and the air also transfers the effects to humans, who are more likely to suffer from conditions such as respiratory diseases, cancers, and developmental disorders.

→ see images on the right

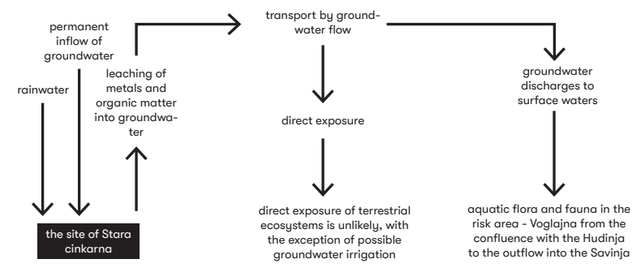
Management of the contaminated environment

Regardless of the nature and intensity of the contamination, it is important to consider the intended use of the site, or more specifically, the changes in the use of the site that will affect the biocenosis of the site, when managing the contamination. If the site is to enhance the resilience of the biocenosis, the role of pollutants is of great importance, as they prevent the dynamic functional system from unfolding. It is equally important to consider pollution if the space is used for human or animal food production, as pollutants will enter the food chain. If the biocenosis or the role of the area in the food chain is reduced, the impact of pollution is also reassessed. Reducing the extent of the biocoenosis is not a desirable consequence of spatial development, especially in terms of sustainable development, but it can nevertheless contribute to the way in which pollutants are managed or to reducing their impact in the wider area.

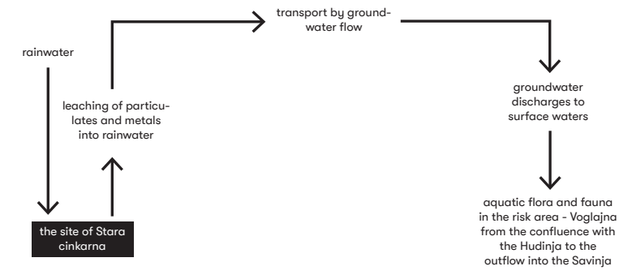
↓ *Exposure of ecosystems to dust particles emitted into the air in the area of the old zinc plant*



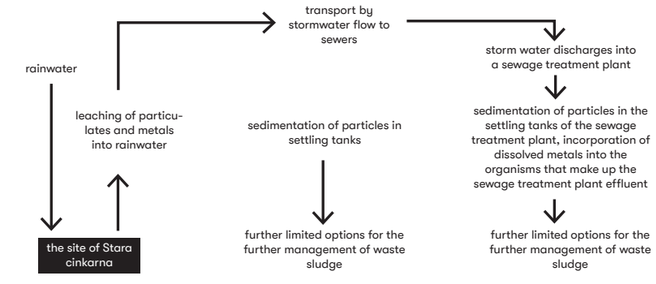
↓ *Exposure to substances leaching into the groundwater at the old zinc plant site*



↓ *Exposure to substances leaching into surface water at the site of the old zinc plant*



↓ *Risk related to exposure to substances flushed down the drains at the old zinc plant site*



Source: Zavod za zdravstveno varstvo Celje. 2007. Strokovne podlage za sanacijo območja stare cinkarne: Ocena okoljskega tveganja. Poročilo 121-21302-51/07-UA. Celje, ZZV Celje

Main principles of spatial impact

Spatial pollution is a description of the (negative) impact on the ecosystem in that space. Like space, pollution has three dimensions, and time must be added as a fourth dimension. At the competition site, pollution is both horizontal, i.e. soil, water, and surface pollution, and vertical (from the air, through the uptake of dust and biomass, to the deeper layers of soil and groundwater).
Pollution is neither homogeneous nor static, but diverse and dynamic, constantly changing and subject to processes of dispersion at different rates. The dynamics of pollution include accumulation and dispersion (and hence dilution) and decomposition in the biocoenosis of non-hazardous matter. From the point of view of land use, the distribution of pollution and its modification is important in addition to the intensity of pollution and thus its threat to the biocoenosis. The spread or movement of pollution can be broadly divided into slow and fast. Slow movement includes the movement of contaminants from the soil to groundwater and watercourses, and the movement of contaminants from the soil to biomass and on to animals. Rapid movement involves the movement of contaminants through air and water as a result of soil disturbance, burning, and surface leaching into watercourses.

Spreading agents are both natural and human. Natural agents of dispersion include precipitation, wind, evaporation, plants, and animals; human agents include land disturbance, which causes dispersion by spraying, facilitates the infiltration of precipitation into groundwater, and the run-off of rainwater from roofs and paved surfaces.

The interventions proposed by the competition teams, whether intensive or minimal, will have an impact on the dynamics of the spread of pollutants. The primary objective is to prevent or limit the spread of pollutants, their transfer to the biocenosis, and the bioavailability of pollutants and, where possible, their transformation into environmentally friendly elements or compounds.

Basic principles of land use approach

Any land-use intervention in an area contaminated by heavy metals and other non-biodegradable pollutants is a „relocation“, either in space (to a hazardous waste landfill or for treatment) or in time (stabilising the pollutants and thus postponing the pollution problem for future generations).
The circumstances that determine possible pollution management measures are administrative and cost-related:

- The approach to pollution must be approved as appropriate by government institutions. This means that the measures must be verified and tested in terms of „best practice“. A number of such approved measures are included in the Strategic Action Plan for the Functional Urban Area of the Municipality of Celje.
- Disposal of the contaminated soil in a hazardous waste landfill is not possible, as no such landfill has yet been established in the Republic of Slovenia. Furthermore, any excavation and relocation of the soil would pose a high risk of rapid spread of contamination.
- Removal and processing of contaminated soil (in-situ or relocated) is also not possible, as there is no facility capable of processing such quantities of soil. In addition, there is still a risk of contamination during the transfer process.

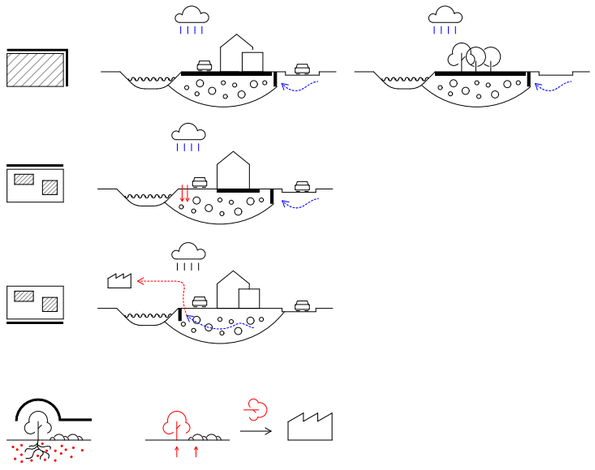
Of the possible remediation options for the site, the most reliable is to stabilise the contaminants and prevent their release into the environment. In addition to this approach, there are others that are not currently viable solutions given the circumstances, resources, and time available. Nevertheless, we encourage competition teams to consider and include alternative remediation approaches, but these should be proven, feasible at the scale of the site or the phasing of site development, and financially sustainable in relation to land use.

Stabilisation or immobilisation of contaminants

The stabilisation methods listed below are not mutually exclusive - they can be combined, used on different parts of the site, and complemented.

<u>Methods included in the Greenersites Strategic Action Plan</u>
The Strategic Action Plan for the Functional Urban Area of the Municipality of Celje has identified three effective stabilisation methods, which are also recognised as appropriate by spatial planning authorities at the national level.

- The method of immobilisation of pollutants by mixing contaminated soil with suitable additives, which by chemical and physical mechanisms transform hazardous elements into low-mobility, low-solubility, and non-toxic chemical species, thus preventing the transfer of heavy metals into the environment. Suitable additives are hydraulically active minerals that form new mineral phases on contact with water, leading to the formation of a bonded matrix suitable for immobilisation. Such a composite is produced in layers (in situ or ex situ), over which an insulating layer (approx. 1 m) is placed to prevent the composite from freezing. Such a composite is suitable for embankment construction.
- Cold recycling is a bituminous cement stabilisation process over which an asphalt layer is laid and landscaped. This creates an impermeable containment barrier of approximately 35 cm. The impermeable barrier prevents pollutants from settling and being washed by rainwater into groundwater and watercourses. The remediated areas can be used as road surfaces or as green areas (separated from the soil by a liner and a barrier). This method does not require excavation and movement of soil.



Spatial location of some pollution control management: retaining walls, surface sealing, vegetative cover, groundwater extraction and phytoextraction.

- The substrate method of metal retention prevents the passage of contaminants by greening the environment. The contaminated soil is covered with an active substrate (compost, mineral soil, and zeolite minerals that bind heavy metals). A geotextile is placed under the substrate to prevent mixing of the soil. This substrate is fertile and binds heavy metals, preventing their transfer to plant life. This makes it possible to create green areas (for lower-risk uses such as car parks, roadside greenery, etc.).

- Method of incorporating natural ion exchangers (zeolite, bentonite, etc.) into contaminated soil. By mixing such materials into contaminated soil the heavy metals leached into the water would be chemically bound by the natural ion exchangers. In this way, groundwater and surface water would not be contaminated with heavy metal ions. These materials are similar to clays and would therefore have no long-term environmental impact.

All of these methods prevent the spread of pollutants through dust, physical contact, and leaching. However, none of these methods prevents the leaching of pollutants in cases of changing groundwater levels or flooding.

- Limiting the leaching of contaminants due to changes in groundwater levels is possible by preventing groundwater from reaching the contaminated soil. This can be achieved on the basis of groundwater flow data. It is envisaged that this could be achieved at the site by installing barriers along the northern edge of the site. This measure should be complemented by limiting the leaching of heavy metals and other pollutants from rainwater infiltration.

- Preventing the spread of pollutants is also possible through phytostabilisation, using plants that can thrive in contaminated soils and that do not accumulate heavy metals and other pollutants above ground. Pollutants are thus stabilised in the root zone. Plant cover also reduces the effect of rainfall on the leaching of contaminated soil into groundwater.

- Effective measures can also include intensive urbanisation of the area (high building density), which at the same time makes the development financially viable, minimises land disturbance, and collects rainwater before it can leach pollutants into the wider environment. Unbuilt parts of the site will be ecologically rehabilitated through a long-term, step-by-step process.

Removal of contaminants

The extent of contamination on a site, both on the surface and at depth, presents a major obstacle to an effective, timely, and cost-effective method of remediation or relocation. In addition, relocation is extremely complex due to the risk of spreading contamination during excavation, transport, and unloading. For these reasons, development solutions based on contaminant removal are not recommended.

Contaminant removal methods that reduce the risk of contamination during the disposal process itself include the collection of contaminated groundwater and its treatment by various technological processes. Such a method requires the installation of traps to restrict the flow of groundwater and the pumping of groundwater to the surface for treatment.

Removal of contaminants (to a limited depth in the soil) is also possible by phytoaccumulation/phytoextraction and the removal of biomass that has accumulated heavy metals. This involves the use of plants that are so-called hyperaccumulators (of heavy metals) and various methods to enhance absorption. The method can also be combined with the use of transgenic plants, which can be engineered to absorb specific pollutants. The speed of such a method can be an important constraint on the development of the area. This method is not suitable for the Stara Cinkarna site due to the large area, the heterogeneity of the contamination, and the slow speed of the processes involved.
Pollutant removal methods include reducing the bioavailability of pollutants or reducing the effects of pollution on and through the ecosystem without removing the pollutants by changing the composition of the soil through the addition of biochar, minerals, fertiliser, and plant ash.

Partial removal of contaminants will be necessary during construction, as a minimum of land disturbance will be required. The water that would wash away these areas of disturbance, as well as rainwater from the saline areas will need to be treated for contaminants and the contaminants will gradually be removed. One possible solution is treatment with zeolite, which is replaced as it is used up, and to continue the treatment process with a plant-based solutions.

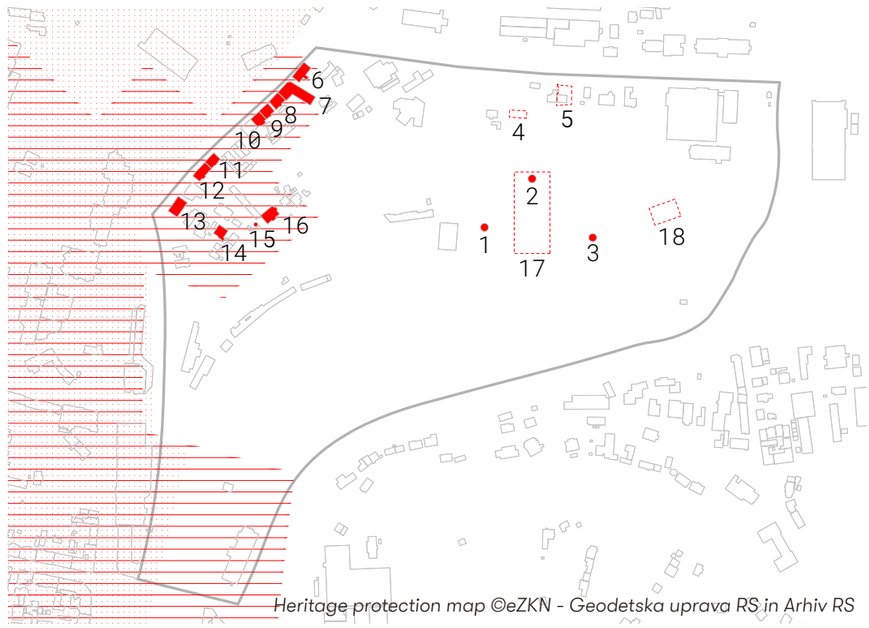
Cultural heritage

Today, the city's rich history and its continued settlement represent exceptional cultural heritage, one protected by various levels of protection. The site has a mixture of heritage types, from medieval town to chimney stacks, and periods ranging from the Middle Ages to the 19th century, from early industrialisation to recent remnants of the 20th century.

The site is almost contiguous with the historic city centre, which has the highest level of protection, so the zone of influence of the monument extends westwards into the site itself. On the western edge, several 19th-century housing schemes as well as a bomb shelter for the smelting plant's management are protected, while on the northern edge an example of a worker's dwelling is protected. In the centre of the site, three chimneys are protected which, apart from the pollution, are the only remnants of the industry that was once so present on the site.

In the context of developing competitive proposals it is crucial to develop an attitude towards the heritage, especially the industrial heritage, that the chimneys represent. One side of public opinion maintains that technical heritage should not be preserved, because it represents only the negative aspects of industrialisation – pollution and damage to human health. In this time of environmental crises, a critical attitude towards the past and industry is all the more important. Erasing the history of industrialisation, which has a direct impact on climate change today, may not be the best way to promote awareness and the importance of caring for the environment.

The challenge is therefore not only how to preserve the heritage, but how to integrate it into the development of the site and ensure that it retains a testimonial dimension that is still relevant today. It will also be a challenge to preserve the technical heritage left over from past processes and which is itself polluted.



Heritage protection map ©eZKN - Geodetska uprava RS in Arhiv RS

heritage protected buildings
demolished heritage protected buildings
monument area - historic city
impact area of monument

List of cultural heritage:
← see image on the left

1 - *Chimney I of the old Zinc smelting plant - a massive factory chimney from the time of the factory's foundation in the second half of the 19th century. (polygonal in the lower part, round in the reconstructed part)*
2 - *Chimney by the Zinc Plant rolling mill - built in 1886-1888 for the needs of the rolling mill, entirely polygonal in section*
3 - *Chimney II at the Galvanising Plant - factory chimney, built in the first half of the 20th century, entirely circular in profile*
4 - *House at 31 Tovarniška Street - a ground-floor building built after the First World War, an example of a singlefamily workers' house with a preserved garden*
5 - *House Tovarniška 12 and 14 - ground-floor semi-detached building built in the early 20th century, built for workers' housing*
6 - *House Mariborska 44 - a two-storey building, former inn, butcher's shop, built during the turn from the 19th to the 20th century.*
7 - *Sokol (communal) House - built in 1908 and today retains its original function*
8 - *House Mariborska 40 - A two-storey building with a basement, built during the turn from the 19th to the 20th century.*
9 - *House Mariborska 38 - A two-storey building with a basement, the façade has rich architectural articulation, built in 1900*
10 - *House Mariborska 32 - One and a half storey building with rich architectural articulation, built around 1900*
11 - *Hiša Mariborska 18 - A basement two-storey building, built at the end of the 19th century.*
12 - *Hiša Mariborska 14 - A basement two-storey building with a richly articulated exterior, built at the end of the 19th century.*
13 - *Hiša Mariborska 10 - A basement two-storey building with rich architectural articulation, built in 1895*
14 - *Villa Cinkarniška pot 4 - a two-storey attic building built in the second half of the 19th century with a square floor plan, the garden is not preserved.*
15 - *Air-raid shelter - Two-storey small dug-in shelter, type of the so-called Winkel bunker of conical shape. Built during World War II.*
16 - *Villa Cinkarniška pot 12 - Two-storey building dating from the late 19th century, with a richly articulated exterior, the garden is not preserved.*
17 - *Steam tandem engine, built in 1905*
18 - *Factory hall with small chimney, built after 1873. example of early industrial architecture in Slovenia.*

VI Task + Submission

© Amadeja Smrekar

THE TASK

The burdens of past activities on the site hinder the free development of the site or require special attention related to the way development is carried out, thus limiting the use of tested, existing solutions. On the other hand, the Municipality of Celje is in the process of adopting a Spatial Planning Act, which will significantly expand possible development options and thus offer more hope in the face of the challenges posed by pollution.

In addition, there is no specific development target for the site, but development options and the role of the site in the wider development of the city are still being explored. This was one of the motivations behind the Europan competition for the site – the immense complexity of the task; but at the same time represents an openness to creativity and a bold approach on the path to the sustainable development of the site.

The site is one of the most strategic in the city centre. With its excellent accessibility, central location, good insolation and infrastructure facilities, the development of the site is open to both intensive urbanisation and to the taking on of a prominent role in the city's green space – or a mix of both. In envisaging the development of the site, it is important to decide what role the site plays in the development potential of the city and how it can be developed in phases according to said role.

Development of the Municipality of Celje

The possible development scenarios for Celje are rough orientations that are not mutually exclusive but complementary. Depending on the strategy, the role of the competitive area must be defined, or vice versa, where the possible development scenario can be seen as a consequence of the strategically developed location of the Stara Cinkarna.
The three scenarios for the development of the City of Celje are as follows:

- Celje as the centre of the Savinjska region, strengthening the city as the administrative, cultural, transport, and market centre of the region;

- Celje as a business centre with a focus on Industry 4.0, which means that the city is a business, employment, education, and innovation centre for the wider area;

- Celje as a multimodal centre at the national level and as the centre of the Savinjska region, taking advantage of the city's location at the crossroads of the international European road and rail network axes between east and west and between north and south.

One route may take precedence over another, but all are possible and can complement each other. The competition area as a strategic development point will be influenced in various ways – or it can be seen as the development point that can contribute most to the development of one of the scenarios. The generalised interdependences between the scenarios and the development characteristics of the site, which do not represent the only possibilities, are shown below. They should be used as a guide to help choose the appropriate programs, mobility, intensity, and type of urbanisation, as well as how to deal with pollution.

Challenges and issues

Development of the site can only be effected by finding solutions to the site's individual challenges and issues and integrating them into a robust urban and architectural design. The latter must take into account both the spatial and temporal components of the incremental development of a large and strategically important site. Among the key challenges and issues, we highlight the following:

- Addressing the pollution issue in a clear and viable way (feasible and best practice solutions) to limit the spread of pollution so that the site is no longer a source of pollution. Possible measures are presented in the chapter on pollution, but alternative proposals are also desirable, provided they are effective in the short and medium term.

- The strategy for the pollution stabilization of the site should not cause future damage to the environment – in the sense that solving one problem accelerates the others. Contemporary cities request eco-regeneration on more than one level, contamination being the most detrimental, followed by the air quality, heat islands, fragmentation of green areas, extensive pavement, lack of fertile topsoil, etc. Proposals should introduce the best conditions for biodiversity and climate resilience, considering heterogeneous ground composition across the area and the volume of soil requested for the vertical vegetation to grow.

- How can existing built elements (buildings, roads, and infrastructure) be preserved, complemented, and/or programmatically modified and used as a starting point for further development?

- How can the site be integrated into the developed mobility network at its edges, linking it to the city and the region?

- How can the development of the site be phased, taking into account interventions that can be made tomorrow, in ten years' time, and well into the future?

- How intensively should the area be developed (density, height, built-up area, infrastructure provision), what kind of typology should be applied, and how to introduce new typologies in line with the proposed programme?

- How to integrate existing green spaces that have been established despite very unfavourable conditions, and create new habitats? How can „nature", which can pose a danger to humans and animals due to the absorption of heavy metals in the natural environment, be valued and included? Could new typologies of green spaces emerge?

- What kind of attitude should be adopted towards technical heritage, which is collectively considered a negative factor owing to its impact on human health and environmental pollution? How to deal with heritage which, like the greenery on the site, is heavily polluted?

Intended objectives of the solutions

The competition brief for the development of the site is challenging but open both in terms of program and urbanism, requiring an in-depth, careful, and creative approach. The client is looking to receive progressive and feasible solutions that can be developed into different variations, urban design plans, and ultimately constructed buildings and spaces. Despite their openness to different solutions and approaches, it is expected that successful proposals will find:

- a comprehensive and unified solution that addresses, at least in part, both the pollution problem and the opportunity to urbanise the site,

- programmatic synergies with existing neighbourhood programmes and programmes that are consistent with the city's development strategies,

- achievable stages of development, where each stage of development is conceived as complete but open to further development, provided that it can also be adapted to the ever changing social and economic contexts,

- equal consideration of the ecological and urban characteristics of the site,

- a way of reintegrating the site into the city, which pollution has torn out of the urban space and collective consciousness.

	programs	funding	approaches	pollution management	time frame	goals	effects
strategy #1	protection and rescue centre congress center Tehnopolis park multimodal hub modern fair e-bus hub	predominantly public	development and rehabilitation of the whole (attracting investment) development of anchorages (infrastructure, partial rehabilitation) + adventitious development	retaining wall and surface sealing recommendation from the Greenersites project removal	fast 1 - 5 years moderate 5 - 10 years	connecting the site to the city to vacate other (strategic) sites exploiting the logistical value of the site as a strategic transport location	**MULTIMODAL HUB AT NATIONAL LEVEL** **CENTRE OF SAVINJA REGION**
strategy #2	industry 4.0 congress center sport facilities Tehnopolis park multimodal hub modern fair e-bus hub heritage presentation	public and private	development and rehabilitation of the whole (attracting investment) development of anchorages (infrastructure, partial rehabilitation) + adventitious development intensive development with one strategic partner/ programme	retaining wall and surface sealing recommendation from the Greenersites project	fast 1 - 5 years moderate 5 - 10 years	connecting the site to the city to vacate other (strategic) sites adding jobs, reversal of the trend of job migration	**BUSINESS CENTRE (INDUSTRY 4.0)**
strategy #3	industry 4.0 cultural/ event hall sport facilities Tehnopolis modern fair orthodox church	public and private	progressive development with continuous dialogue with citizens/ participants development of existing buildings (infrastructure, partial rehabilitation) + adventitious development	removal of waste recommendation from the Greenersites project	fast 1 - 5 years moderate 5 - 10 years	adding jobs, reversal of the trend of job migration exploiting the logistical value of the site as a strategic transport location	**CENTRE OF SAVINJA REGION**

EUROPAN AUSTRIA X SLOVENIA

Programmes

Programmes that could be located on the site and create conditions for the development of activities that would lead Celje to the desired development paths include the following:

- congress centre for a variety of smaller congress events, which would complement and use the existing tourist infrastructure,
- modern fair exhibition space as a continuation of the already established fair activities of the Celje Fair at the Celje Showground, with an emphasis on year-round operation,
- programme that would continue the Tehnopolis concept (technology park, innovative business activities, offices, and educational activities),
- bus hub for electric buses with a service area and charging point,
- protection and rescue centre for the needs of the City of Celje,
- new industrial buildings (new typologies) for Industry 4.0, which are sustainable and carbon neutral,
- intermodal hub at the intersection of bus, rail, road, cycling, and pedestrian networks with programmes that create synergies with dense mobility flows,
- park and presentation medium for technical heritage as a memory, a reminder, and a glimpse of the future of environmental management,
- park as part of the city's network of green spaces,
- cultural and event hall for large events, concerts, and nightlife (in synergy with the congress centre),
- orthodox church with a small cultural centre for worshippers that would serve as a regional religious centre for the Orthodox denomination,
- sports halls for professional and amateur sports (especially team sports – handball, basketball, futsal, etc.).

The programmes listed represent an (incomplete) set of programmes that can and should be placed on the site, but the concept of the proposal as a whole will determine which programmes will be implemented in view of the development strategy, what synergies will be created between them, and how they will be spatially sited and designed.

DELIVERABLES

IMPORTANT: The following list of documents is a proposal by EUROPAN Austria X Slove-nia; your submission documents need to comply with point 4.4 “Items to submit” of the EUROPAN 17 rules, available online.

All plans, sections and elevations should be provided with a scale bar. Diagrams and con-cept drawings should correspond to the necessary scale of information and do not have to be to any particular scale. The detail of the drawings and illustrations should thoroughly express and match the focus of the concept.

Strategic site
1:5000 or more overall site plan (urban scale) explaining how the site is:

- connected to the wider traffic layout and the urban structure of the area,
- part of a wider system of green areas of the city,
- areas that are built over.

Project site
1:2000 masterplan of the whole Project Site

- layout of the urban development showing distribution of building masses in terms of significant characteristics such as heights, accesses, orientations and the layout of urban-, public- and green space, pollution addressing management, paved (sealed) and green areas (parks and permeable sufaces)...
- public space, showing connectivity and porosity,
- phasing of the development of the area,
- sections of the whole area.

1:500 ground floor plan
The first phase of development of the site should be eleborated in ground floor plan, that shows access’, closed/transparent faced, public space... In this scale also other plans can be shown if it’s deemed necessary for the proposal (e.g. new typologies).

Sketches and diagrams explaining the type of connection, use-mix, distribution of uses with a special focus on ground-level-uses, connectivity within the site / specific character of the spaces (atmosphere, program, uses, rhythms day & night), phasing / each individual phase or plot can act autonomously but is part of one development

3D drawings / visualizations
At least 2 perspectives that illustrate the design solution.

Tables of numbers & graphic overview
A basic spreadsheet should be produced showing major urban indicators, such as density (FAR), distribution of total ground floor area GFA and gross floor area. If possible, the indicators should be clear for each phase and as for the whole.

VII Legal framework

Disclaimer: As the rules are subject to change at the time of publication of this document, please refer to the European website for the full and updated rules for EUROPAN17:
https://www.europan-europe.eu/en/session/europan-17/rules/

ADMINISTRATION OF THE JURY AT THE AUSTRIAN LEVEL

In accordance with the requirements of EUROPAN Europe, the judging will be carried out in two stages. Minor deviations from the international regulations within the procedure are described below.

Technical Commission
A nationally designated technical committee determines the technical conformity of each project submitted

1st stage evaluation: Local level commission
Based on the experience of positive influence on further project implementation, local experts are involved in the decision-making process of the 1st stage evaluation at the level of each site: the seven-member commission is composed of
• two members of the International Jury for the 2nd and final evaluation,
• two national experts in architecture, urbanism or landscape with knowledge of the local context, and
• three site representatives.
In accordance with the international EUROPAN guidelines, the Commission appoints one of the two international members as chairperson and agrees on the evaluation procedure.
The jury then decides which projects do not comply with the rules and whether or not to disqualify them. The remaining projects will be evaluated according to their conceptual content and degree of innovation in relation to the EUROPAN 17 theme. As a result, the Commission will select 25% (or at least 5) of the projects submitted for final evaluation.

2nd stage evaluation: International Jury
The International Jury, appointed by EUROPAN Austria in cooperation with Slovenia and approved by EUROPAN Europe, is composed of eight members:
• two experts of the urban order, representing the client‘s point of view,
• five experts in the field of urbanism, architecture and landscapew, and
• an eminent professional (in a field related to the theme).

By appointing two of the four international experts to the local Comission, the transfer of information between the 1st and 2nd stage is guaranteed.

The jury examines the shortlisted projects and selects the winners, runners-up, and special mentions according to the assessment criteria formulated by EUROPAN Europe (see the international competition description). The international jury has access to all entries and can vote to include projects that were not part of the pre-selection.
Each country‘s budget includes the equivalent of one winner and one runner-up per site. Each project will be judged on its own merits and the jury may award the prizes as a ranked or equal selection or decide not to award all the prizes. In this case, the reasons have to be published. The jury may select projects for a special mention. These projects are recognised by the jury as presenting innovative ideas or insights, but are not sufficiently suitable for the site. The authors of such projects will not receive any reward.
The decisions of the jury are final, in compliance with the rules of EUROPAN Europe.

VIII Sources

Main sources for the brief were discussions with the municipality, members of the pollution and environment expert group and dr. Tone Kregar, dr. Marija Počivavšek, Jure Zupanc, Jože Bovhan, Stane - Cinkarna worker and Gaberje's inhabitant, all public available resources and all listed below:

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