Eisenerz Münichtal

trAILs - Alpine Industrial Landscapes Transformation

Project Studies in the Winterterm 2019/20
Chair of Landscape Architecture and Industrial Landscape
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Technische Universität München

trAILs
Interreg Alpine Space

Content:

Eisenerz Munichtal

Project studies on the trAILs pilot-site in Eisenerz

Once known as the mining cradle of Austria, the region of Eastern Upper Styria has long lost its economic and financial power. The impact on some of the municipalities has been huge. One still struggling with the structural change of the region is the City of Eisenerz which is facing heavy demographic problems and thus, has turned into Austria`s oldest city. Dealing not only with a shrinking population but also with financial problems it finds itself in a vicious circle that is hard to break. In the northern part of the city, the former Münichtal blast furnace site - with most of its buildings abandoned - ekes out its existence and is waiting for a fresh start into a new future.

The Münichtal site (approx. 150.000sqm) is located in the north of the City of Eisenerz where the iron ore from the Erzberg mine, which today is a regional landmark, was processed. At an altitude of approximately 730 meters, the site is located in the narrow valley between densely forested mountains that reach an altitude of over 2000 meters. The most characteristic topographic element on the site itself is the slag heap in the northern part which is currently being removed and used for road construction. The soil contamination of the slag heap with tar is partially extremely high.

The first iron blast furnace was built in 1899/1900, followed by a second blast furnace (1911), the gas power station (1920) and the adjacent relay station (1923). The growing number of miners required the construction of the “Münichtalsiedlung” (1939-1945) just north of the site. After WWII, the plant was shut-down immediately. With the blasting of the furnace chimneys in the 1970s, the site lost its major landmarks and only the old production halls remained. Until the 1980s, it served as the central workshop for the Erzberg mine. During the following two decades, some production companies added buildings but shut-down shortly after, leaving only a scrap metal recycling company still operating today. The quality of the existing buildings varies. The old gas power station is of historical value while the newer factory halls have a certain monetary value. Most of the „Münichtalsiedlung“ was sold to a private investor in 2015 who is converting it into a tourist resort with currently 75 refurbished apartments, aiming at 1000 beds eventually.

Nowadays most of the buildings of the former blast furnace site are abandoned

trAILs

Alpine Industrial Landscapes Transformation

The decline of traditional heavy and manufacturing industry is occurring nowadays even in peripheral and less urbanized regions, such as the Alps. Here, in the so-called “green heart of Europe”, this process is leaving behind impressive former productive landscapes of relevant size and complexity: Alpine Industrial Landscapes (AILs). The potential value of AILs in terms of sustainable development is strongly connected to Alpine-wide ecological, economical and social key challenges, such as the regeneration or improvement of blue and green infrastructures, the reactivation or upgrade of regional economies and the promotion of local identity and cultural heritage. However, at the present only few AILs have been reused and transformed for these purposes, mostly those located in proximity or within large Alpine cities and urban agglomerations, where good accessibility and a rather developed socio-economic environment have allowed so. The majority of AILs are indeed to be found in small municipalities and economically marginal contexts, burdened by financial, technical and planning limitations.

The project trAILs - Alpine Industrial Landscapes Transformation, initiated in 2017 by the Chair of Landscape Architecture and Industrial Landscapes of the Technical University of Munich and officially approved by the Interreg Alpine Space Committee in April 2018, aims to generate significant knowledge about AILs and to develop and test sustainable transformation strategies applicabile and replicable in the whole Alpine space.

To achieve these objectives, the project builds on a strongly multidisciplinary and transnational partnership combining proved expertise in the fields of landscape architecture and environmental sciences (Technical University of Munich, University of Ljubljana), spatial planning (Polytechnic University of Milan, Vienna University of Technology) and socio-economic sciences (University of Verona) with regional and local Alpine

The transnational partnership of trAILs around the Alps

communities represented by regional development agencies in Austria (VESTE/Styria), Italy (LAMORO/Piedmont), France (CAUE84/PACA) and Slovenia (BSC KRANJ/Gorenjska).

The foreseen activities are structured around four work packages. The first one (Map AILs) deals with the implementation of an AILs database starting from the data available in the project pilot regions and the subsequent development of an interactive GIS web-based platform to visualize the current situation across the whole Alpine Space. The second and third work packages (Assess AILs and TestAILs) are based on the project pilot sites (Eisenerz/AT, Borgo San Dalmazzo/IT, L'Argentière-la-Bessée/La-Roche-de-Rame/FR, Tržič/SLO) and focus respectively on the comprehensive and multi-criteria assessment of AILs actual conditions and the development of a test-design procedure for AILs transformation. Test-design, in particular, represents a core activity of the whole project, since it will bring together project partners, regional stakeholders, experts and international observers in a participatory planning process taking place on-site through a workshop format of several days. The last work package (Manage AILs) will transfer the generated knowledge to end-users through the establishment of an AILs knowledge exchange, information and decision support platform as well as the publication of a methodology handbook and a learning module for advisory and training activities.

With this approach, the project will support local and regional stakeholders in the complex process of sustainable AILs transformation, providing them with clear strategic planning tools for the future as well as with hands-on experiences. Several institutions have already expressed their interest in the project activities and outputs, and thus joined the project as observers. Among them, the Regional Authorities of Bavaria, Lombardy, Piedmont, Auvergne Rhône-Alpes and Provence-Alpes-Côte d'Azur, the Slovenian Ministry of Spatial Planning and Environment, Alpine-wide organizations such as the Permanent Secretariat of the Alpine Convention and CIPRA International, and the universities of Graz, Zürich, Bergamo, Grenoble and Lugano.

During the excursion in fall 2019 students and teachers of the design studio had the chance to visit the site

Marcello Modica
Prof. Dr. Udo Weilacher

The project is founded within the EU-Interreg Alpine Space Programme (Priority 3 - Liveable Alpine Space, Specific objective 1 - Sustainably valorize Alpine Space cultural and natural heritage) with 2.187.400,30 Euro and will last until April 2021.

More information, news and events can be found on the project website: https://www.alpine-space.eu/projects/trails

Background analysis

INFRASTRUCTURE, ECONOMIC AND SOCIAL SITUATION

Mining has a long history in the western part of Eastern Styria, also called the Styrian Iron Route, that goes back 1300 years. The Erzberg mountain in Eisenerz with its open-cast iron ore mine is one of its historic remains and a regional landmark today. Over the centuries the mining has led to a prospering steel industry in the whole region with voestalpine being the leading steel company that currently counts 10.000 employees in the region and 50.000 worldwide. Further, the steel industry has specialised in the production of microchips. Tourism which is considered „low key“ is offering mountain & nature experiences as well as industrial tourism promoting industrial monuments such as the blast furnace museum Radwerk IV and the Erzbergbahn. Leoben, the capital of Styria, has not only achieved to turn into a young and vibrant city, but also is home to the 500-year-old Gösser brewery and the Mining University of Leoben which is one of the leading universities in the international ranking.

Location of the industrial conversion landscape in the Styria region in North Austria.

The site is located betwenn Lake Leopoldstein and the city of Eisenerz. The Erzberg with its open-cast iron ore mine, which is still in use, borders the city of Eisenerz in the north. Therefore the city is an important link between the iron ore mine and the brownfield site.

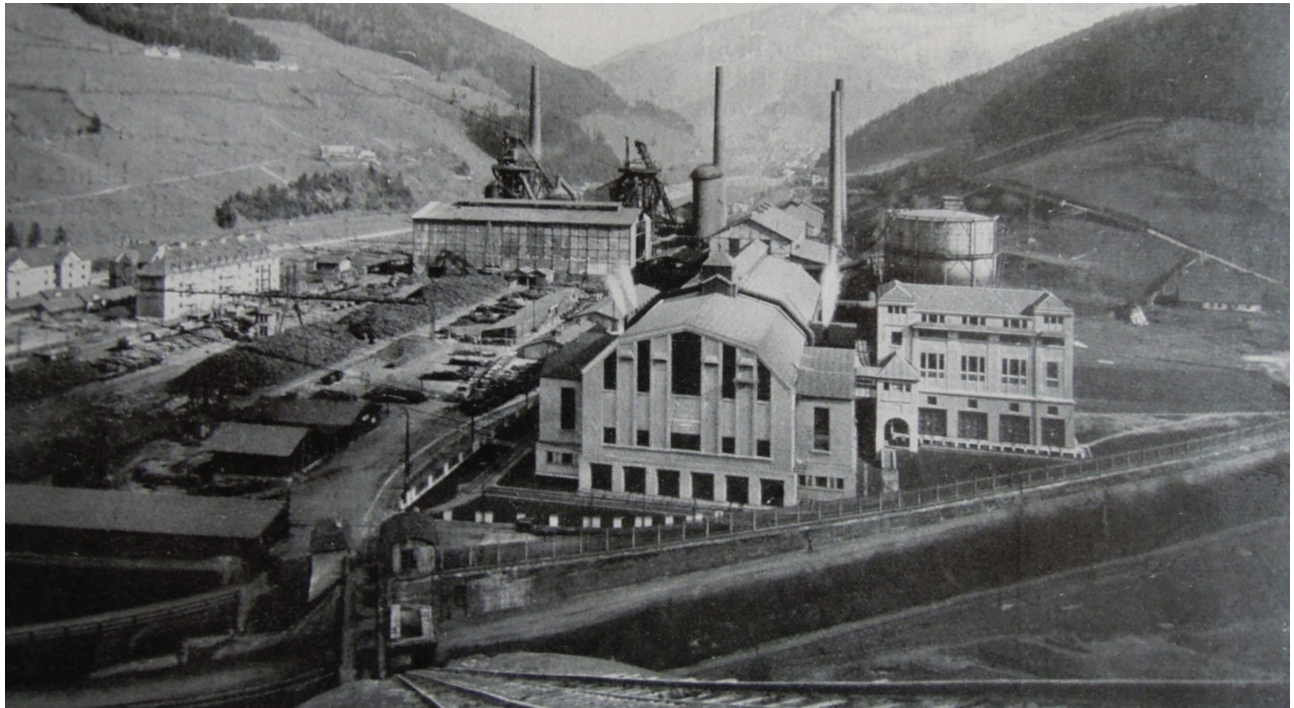
Leoben is a major railway hub in the region. From there, Eisenerz can be reached either by bus or in 30 minutes by car via the B115. Road conditions in winter, however, can be difficult. Especially the Präbichl pass is regularly closed for heavy transport in times of strong snowfall, in case of avalanches even for all traffic.
Spatially, the region can be divided into two zones, the main settlement area in the Mur-Mürz-Valley that also shows a stable population compared to the rest of the region where settlements are very sparse and dispersed and record a rapid population decrease. Eisenerz is Austria‘s oldest city with its population having shrinked from 13.500 in the 1950s to 4000 inhabitants today. As a result, the municipality is facing heavy financial problems. Many buildings have been abandoned. Therefore, the objective is a controlled downsizing of the city and finding new uses for vacant buildings, as suggested in the „re-design Eisenerz“ concept. The region of Eastern Upper Styria has four strategic goals for the future: further developing the industrial-commercial core competence; developing the central area and make the centers attractive; bringing sustainable value to the region’s natural and cultural resources; managing demographic change.

NATURAL CONDITIONS AND LANDSCAPE

The Styrian Iron Route can be roughly divided into the following zones: the urban core zone along the river Mur; the rural valleys (gentle Alpine landscape with agriculture and extensive tourism); steep mountain ranges (Erzberg and Hochschwab) and the rugged gorges of the “Eisenwurzen”.

Apart from the Erzberg, the region offers rugged summit trails in the Eisenerzer Alps and the Hochschwab and gentle nature in the valleys. It shows a high proportion of forest areas (over 75%) while grassland is predominating in agricultural areas. Compared to the permanent settlement area of all of Styria (30%), the percentage in the region is very low (15%).
The climate is cold and temperate. Long winters with much snow lead to rough conditions in the peripherical mountain valleys. Natural hazards are a growing problem: flooding, landslides and avalanches often lead to road closures or destructions. Climate change is a major concern as in all alpine regions, temperatures rise a lot faster than in non-alpine areas.

The former Munichtal blast furnace site around 1930 within the panorama of the Alps

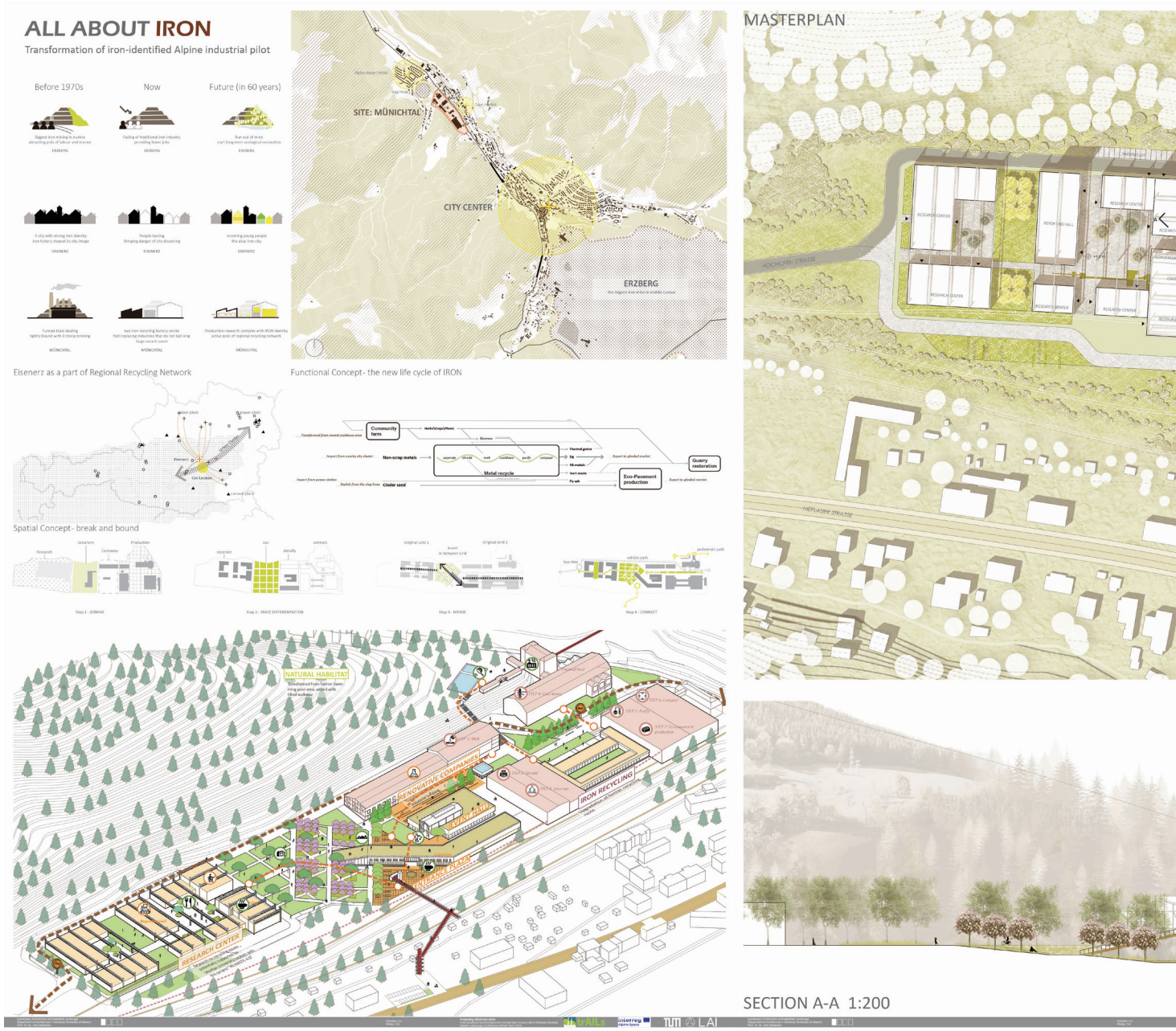


The Erzberg with its still active open-cast iron ore mine

ALL ABOUT IRON

Xiaoxiao Liu, Wenjia Dai

As the biggest iron mine in middle Europe, Erzberg had been the driving force of labor and money here for centuries. The iron-related activity shaped the image of Eisenerz and it has become the inner proud of citizens there. Our project site Munichtal was originally an ironworks site with direct railway connection to Erzberg, dealing with iron mines excavated there.
But after 1950s, due to fading of traditional iron industry Erzberg was not able to offer so many jobs, people leaving makes Eisenerz the oldest city in Austria. Low tax revenue brings danger of dissolving the municipality. Accordingly, the ironwork at Munichtal was shut down. New income industries come and go,
Our site has lost its role as attractor of people and money the same as Erzberg mine.
Will this dangerous situation become the end of Eisenerz? We believe that only by bringing more jobs and creating a vital environment to attract new residence is the key to solve its demographical problem. After analyzing the site's problems and potential, we believe the well-functioning metal recycling industry on the site is the key to future development. Industrial upgrading of the metal recycling plant, the introduction of university recycling research institutions and related recycling enterprises would be carried out to achieve the effect of combining production, commerce and research. On the one hand, it maximizes the use of existing resources, and on the other hand, it reverses the city image of Eisenerz by complementing the image of iron industry.
In general, Munichtal will become a productionresearch complex with its iron identity be kept and more importantly, be refreshed. In the past when people mention Eisenerz they would come up with impressions like heavy work. In the future, when people mention Eisenerz, it is still about iron, but it would be about vitality, intelligence and sustainability.



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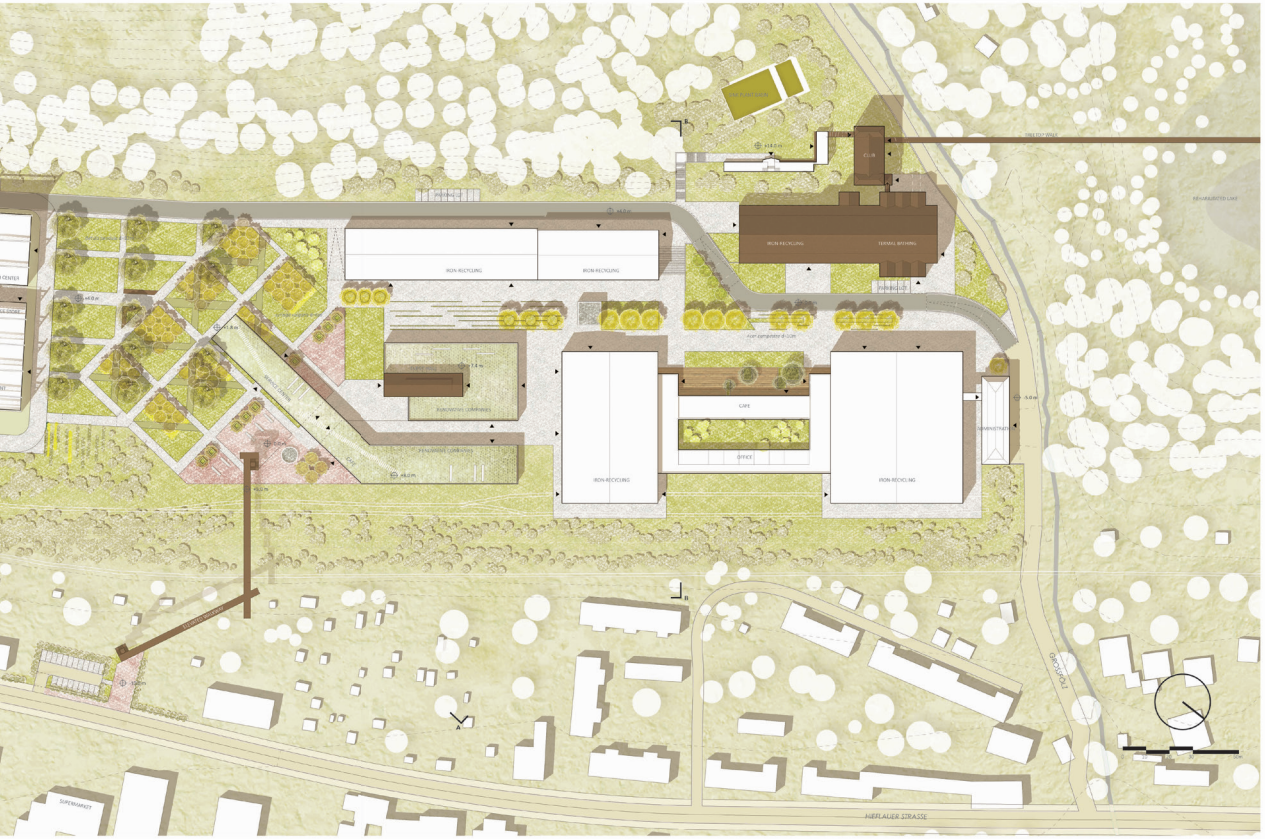
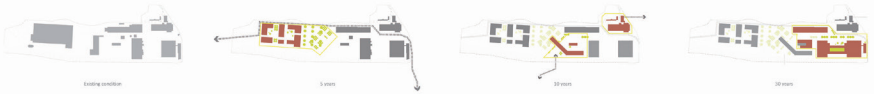


CONSTRUCTION PHASE



SECTION B-B 1:200

The well-functioning metal recycling industry on the site is the key of the concept for future development. Munichtal will become a productionresearch complex with its iron identity be kept and more importantly, be refreshed.

The design implements industrial upgrading of the metal recycling plant, the introduction of university recycling research institutions and related recycling enterprises to achieve the effect of combining production, commerce and research.

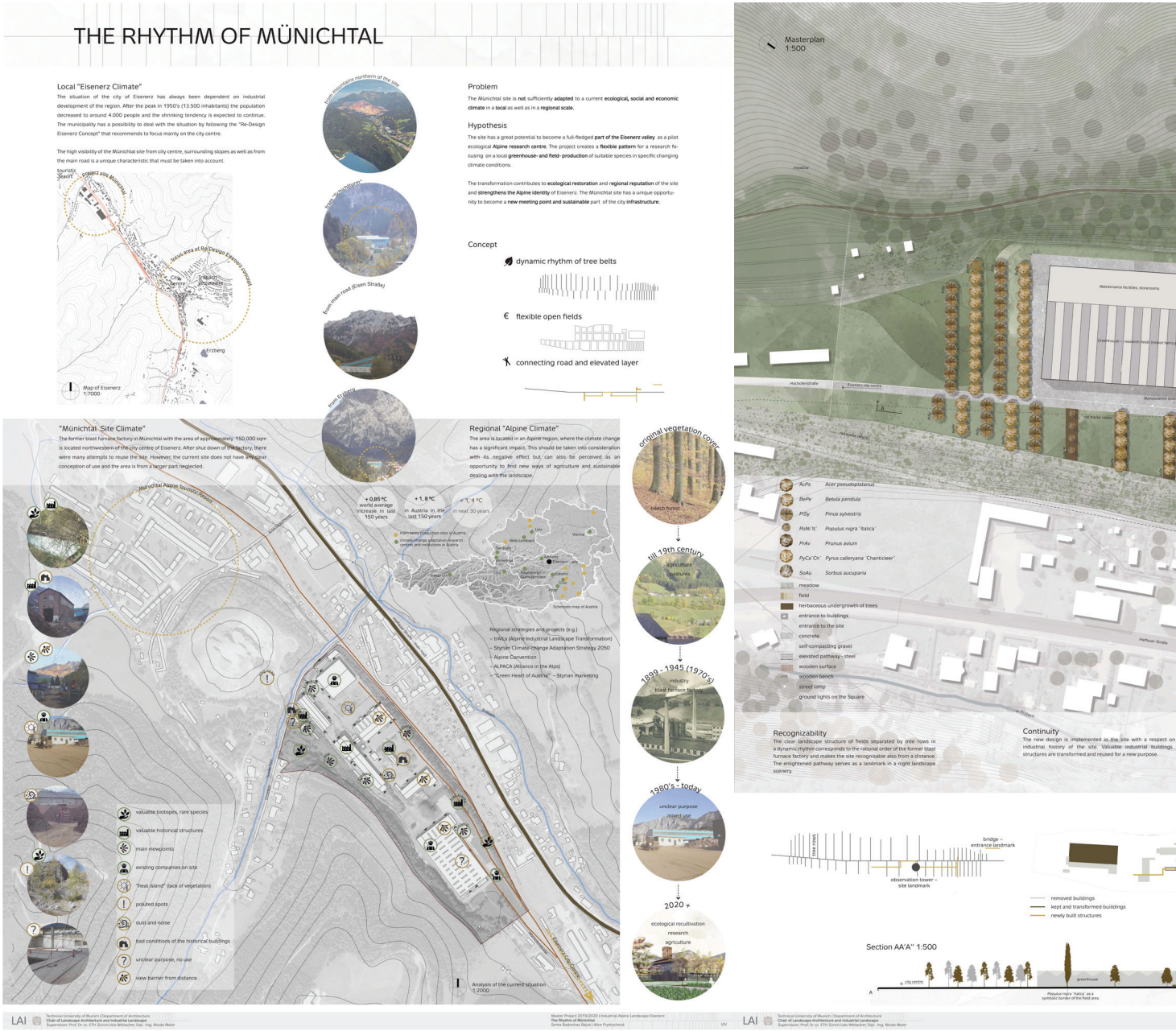
N

original scale 1:1000

THE RHYTHM OF MÜNICHTAL

Senta Badovinac Bajuk, Alice Frydrychová

The Münichtal site is dealing with heavy economic, demographic and ecological problems leading to the current unclear and chaotic situation that needs to be solved. The Rhythm of Münichtal reacts to actual conditions and proposes a new purpose and design of the site that gives the place an opportunity to become a sustainable part of the city.
According to the analysis and demands of the local stakeholders, the aim is to create a flexible pattern of trees interchanged with fields and meadows that is a basis for the pilot Alpine research centre. The project offers specific qualities that briefly characterize the authors´ approach to the site. “Recognisability” reacts to the fact that the site is highly visible from the city centre and other sites and the design creates a new landscape pattern that is understandable and harmonically and suits in the surrounding landscape at the same time. “Continuity” represents the fact that the design respects historical qualities, removes barriers and non-valuable structures and creates new structures that enhance the quality of space Moreover, it invites the public to enliven the site. Crucial factor of the design is the “Flexibility” that ensure the functioning of the space in various future conditions and enables different future scenarios of the site. The infrastructural solution represented by the term “Continuity” reacts to the location of the site that will become a part of the direct connection between the city centre and Münichtal touristic resort. The site offers new programmes in fields “agriculture and research”, as well as “education and recreation”. The planted species are chosen according to the specific conditions of the site and the valuable biotopes are kept almost untouched. The transformation is proposed to realise in phases so that the site could through the continual input become a new meeting point and sustainable part of the Eisenerz valley.
“The Rhythm of Münichtal” is one of the possible transformation concepts for the former blast furnace factory and serves as an inspiration and new perspective for the inhabitants of Eisenerz as well as for other sites dealing with similar problems.



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Flexibility

The advantage of the design lies in its adaptability to various future conditions. The basic grid creates fields that can be used for agricultural production or as extensive meadows (pastures) according to the actual availability of human, capital and ecological resources.

Research & Agriculture

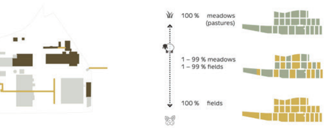
The predicted rapid climate change works in favour of a profitable outdoor berry production. In actual conditions, the outside area serve for an experimental agricultural fields and the safe profit is created in a greenhouse and eventually by livestock farming.
The research centre offers new job opportunities, creates a widespread reputation and improves the regional cooperation.

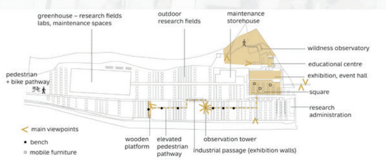
Education & Recreation

The educational centre supports a spread of knowledge gained through the research and climate change responsibility of the general public. The multifunctional hall is open to any kind of cultural event with the focus on interactive presentation of the research.
The elevated pathway with belonging viewpoints offers the visitors to look at the landscape from a new perspective.

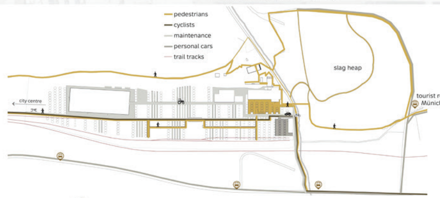
Connection

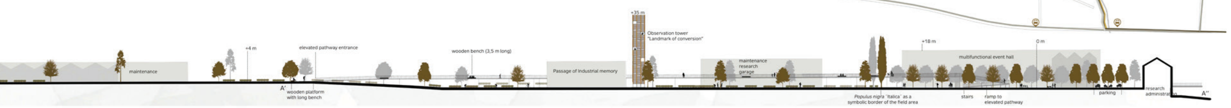
The cycling and pedestrian pathway creates the backbone of the site and a direct connection between the city centre and Münichtal touristic resort. The elevated pathway for pedestrians intersects the new observation tower and the "Passage of Industrial Memory".
The pathway in the former swimming pool area is connected to the existing one in the forest. The maintenance infrastructure is maximally separated from pedestrian pathways.



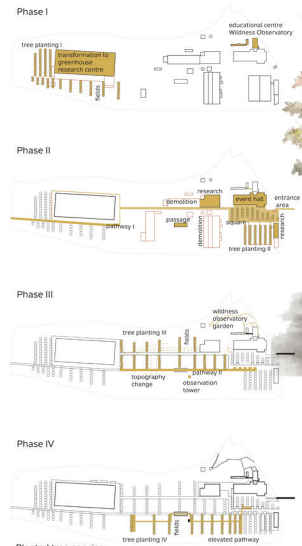


greenhouse – research fields
labs, maintenance spaces
outdoor research fields
maintenance storehouse
wildness observatory
educational centre
exhibition, event hall
square
research administration
pedestrian + bike pathway
main viewpoints
bench
mobile furniture
wooden platform
elevated pedestrian pathway
observation tower
industrial passage (exhibition walls)

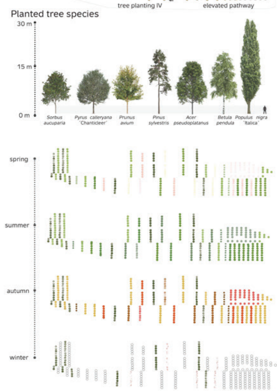




maintenance
+4 m
elevated pathway entrance
A'
wooden platform with long bench
wooden bench (3,5 m long)
Passage of Industrial memory
Observation tower "Landmark of conversion"
maintenance research garage
Populus nigra 'Italica' as a symbolic border of the field area
+18 m
multifunctional event hall
0 m
stairs
ramp to elevated pathway
parking
research administration
A''



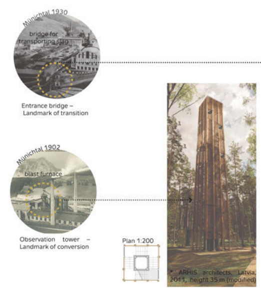
Phase I
tree planting I
transformation to greenhouse research centre
fields
educational centre
Wildness Observatory
Phase II
research
demolition
event hall
entrance area
pathway I
passage
square
tree planting II
Phase III
wildness observatory garden
tree planting III
fields
topography change
pathway II
observation tower
Phase IV
tree planting IV
fields
elevated pathway




View on fields and elevated pathway going through the "Passage of Industrial Memory"

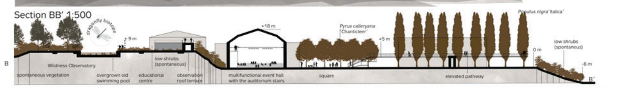

View on the square in front of the multifunctional event hall with a mobile urban furniture


View on the entrance area with the new bridge for pedestrians



Entrance bridge – Landmark of transition

Observation tower – Landmark of conversion



Section BB' 1:500
Wildness Observatory
spontaneous vegetation
overgrown old swimming pool
low shrubs (spontaneous)
educational centre
observation roof terrace
multifunctional event hall with the auditorium stairs
square
Pyrus calleryana 'Chanticleer'
Populus nigra 'Italica'
elevated pathway
+18 m
+5 m
low shrubs (spontaneous)
B
B'

Master Project 2019/2020 | Industrial Alpine Landscape Eisenerz
The Rhythm of Münichtal
Senta Badovinac Bajuk | Alice Frydrychová

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Master Project 2019/2020 | Industrial Alpine Landscape Eisenerz
The Rhythm of Münichtal
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Through the design, which proposes a transformation in phases, the site could become a new meeting point and sustainable part of the Eisenerz valley.

The planted species are chosen according to the specific conditions of the site and the valuable biotopes are kept almost untouched.

The design implements a new landscape pattern that is understandable and harmonically and suits in the surrounding landscape at the same time. The site offers new programmes in fields “agriculture and research”, as well as “education and recreation”.

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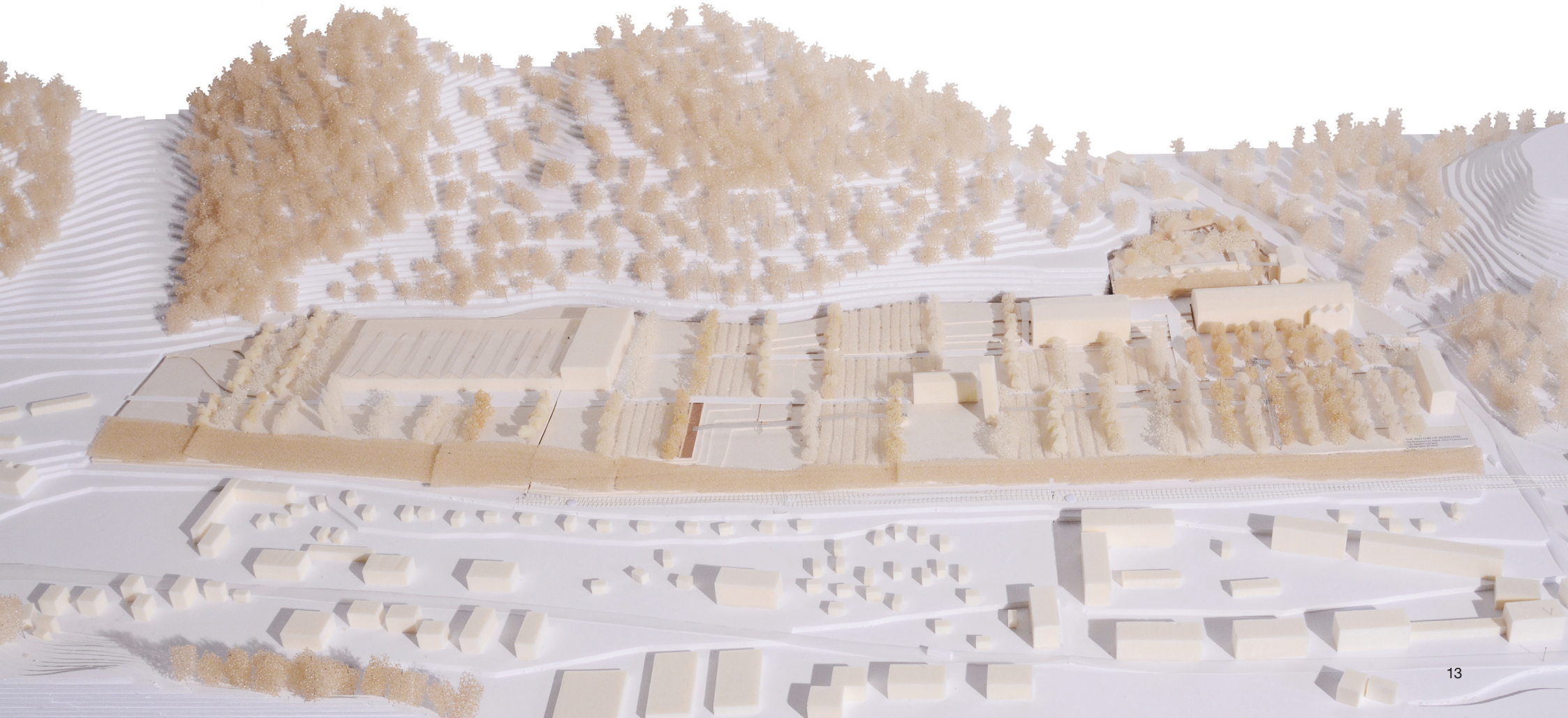
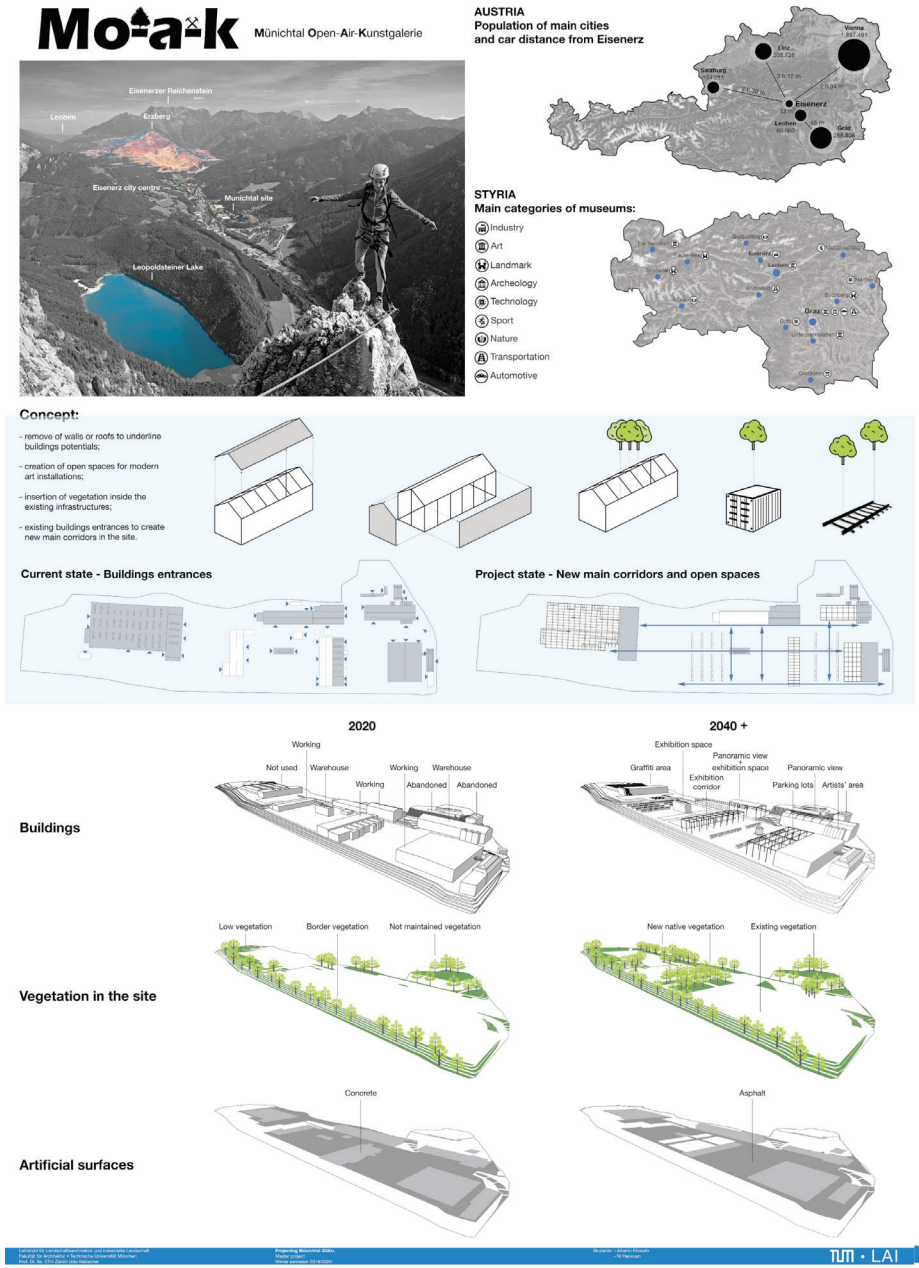
original scale 1:1000

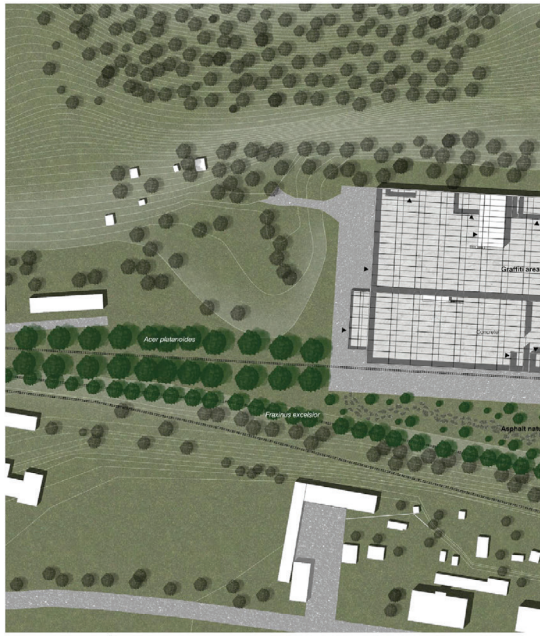


MO-A-K

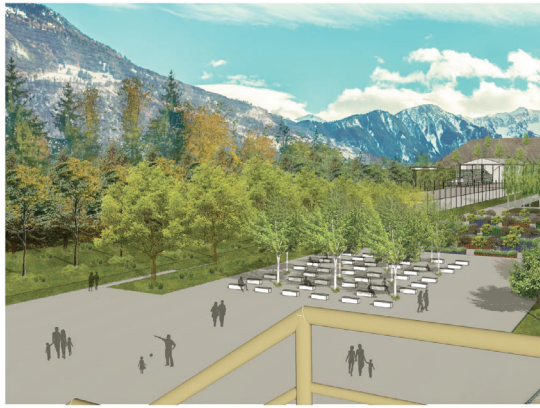
Alberto Filosofo, Ni Haoxuan

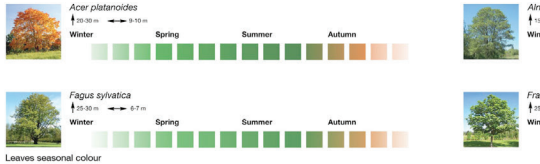
The influence of industry in the economic, social and spatial transformation of the Alps through the last two centuries has been revolutionary to the brownfield project site in the district Münichtal. The functional link established, at least at the beginning, between industry, production of hydroelectric energy and railways has been a major driving force for the modern development in several alpine areas. The Erzberg, boasting its open-cast iron ore mine, is still one of the most important economic spots of the state and a landmark for the valley. After the depression of the traditional industry in the later 20th century, nowadays the economy of this region relies on highly specialized steel and microchip processing, besides tourism. The economic gravity of Eisenerz and surrounding areas has especially been shifted to industrial tourism with new proposed activities such as the Erzberg tours or the blast furnace museum in Vordernberg. However, the city is still facing a shrinking population and economic transformation, connected with daily touristic visits and lack of new job opportunities.
The project site went through the shutdown of the blast furnaces and the creation of metal recycling companies that still use some vacant buildings. Nowadays, the area lacks a spatial organized system due to the different usage of the buildings throughout the industrial process and the variety of stakeholders inside the area. Zooming out to the whole municipality, resources to improve tourism, industry, education and local service are planned to be implemented among the city centre and three districts, including Münichtal, according to the development program Redesign Eisenerz.
The project site will play the role of an open-air art gallery in the future, helping to foster the tourism, and on the other hand, helping with the increase of flora and biodiversity inside the designed area. In this case, the plan will not only help with the development of the economy, but it will also find a brand-new identity for the site. Sustainability, ecology, inhabitants' lifestyle, landscape values are also taken into comprehensive consideration in the design of Eisenerz future.





Masterplan, scale 1:500





Leaves seasonal colour

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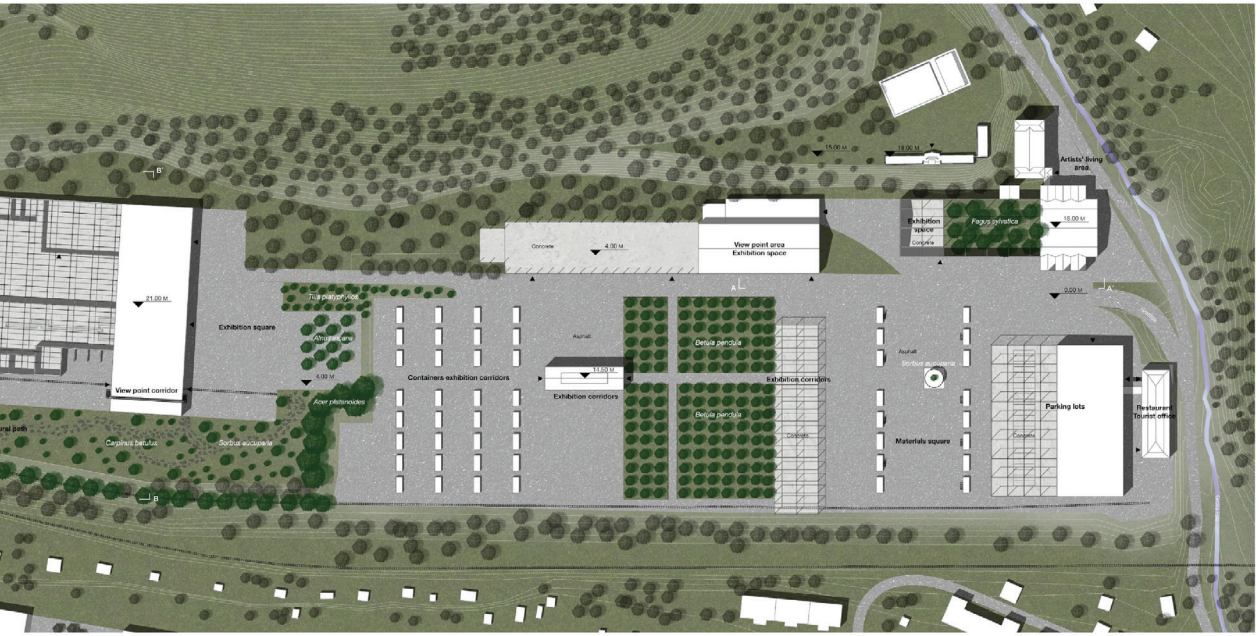

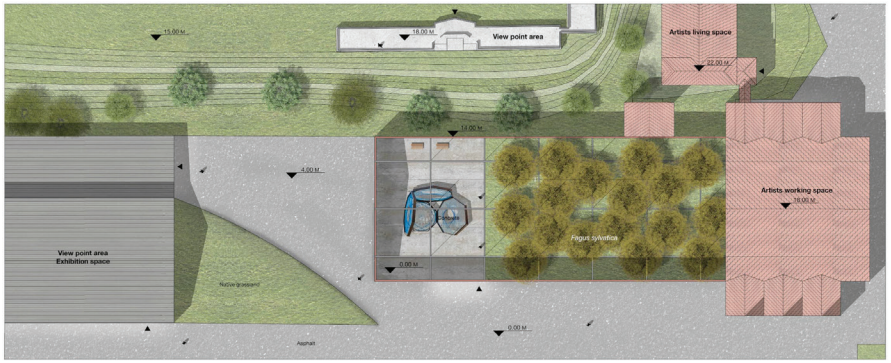

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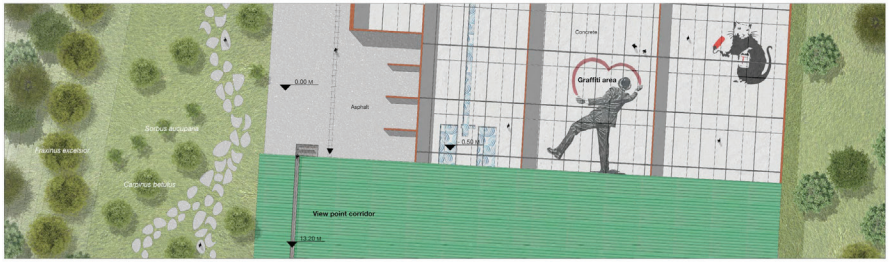
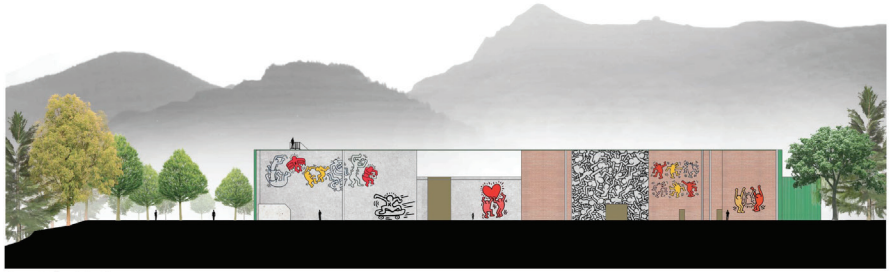
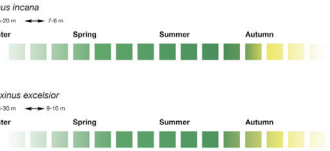
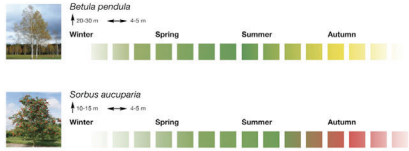
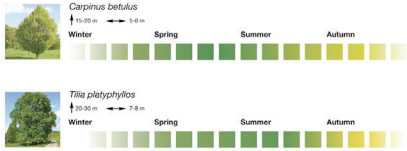




Section B-B′, scale 1:200





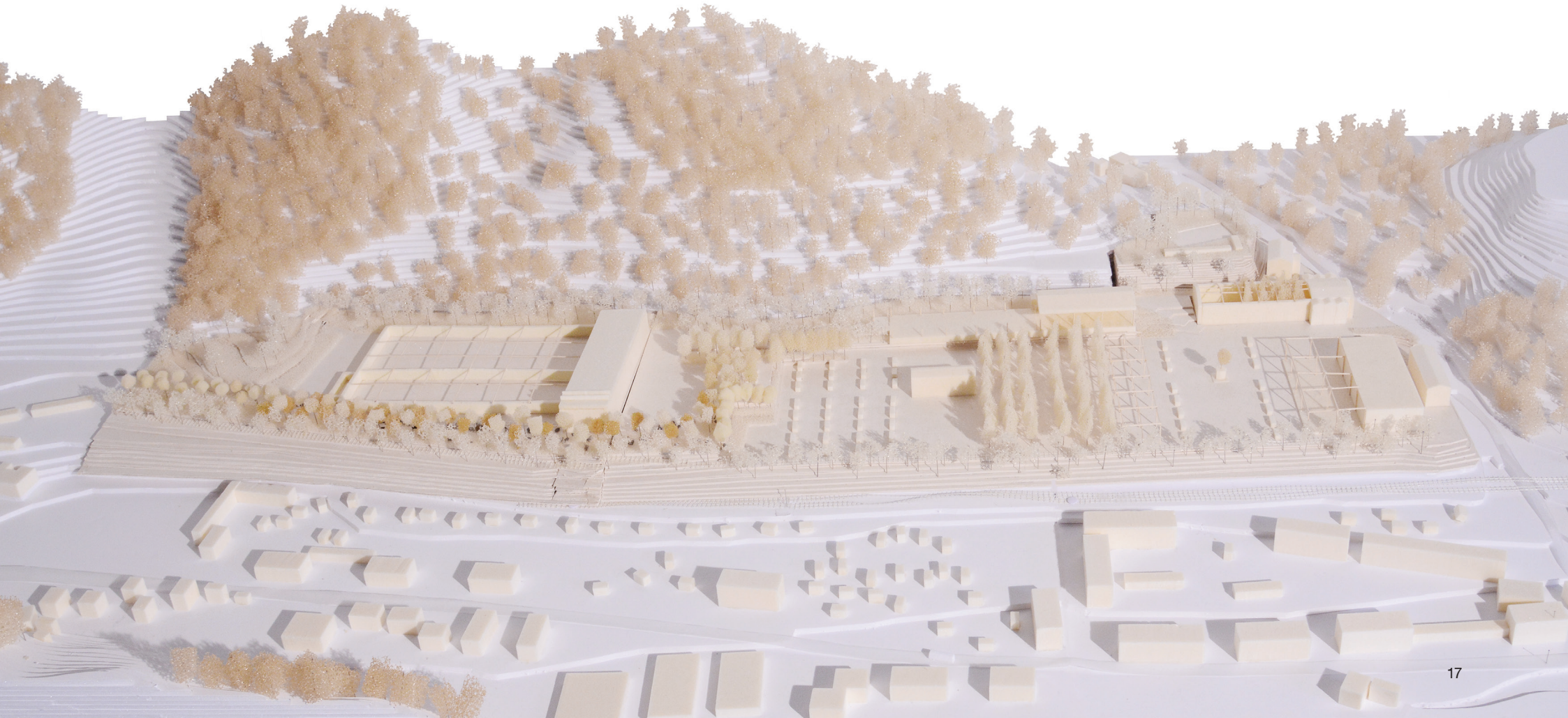


(Above and left) The open-air art gallery, which the design proposes as the core element of the transformation, will not only help with the development of the economy, but it will also find a brand-new identity for the site.

The design implements an open-air art gallery on the site in the future, helping to foster the tourism, and on the other hand, helping with the increase of flora and biodiversity inside the designed area.

N

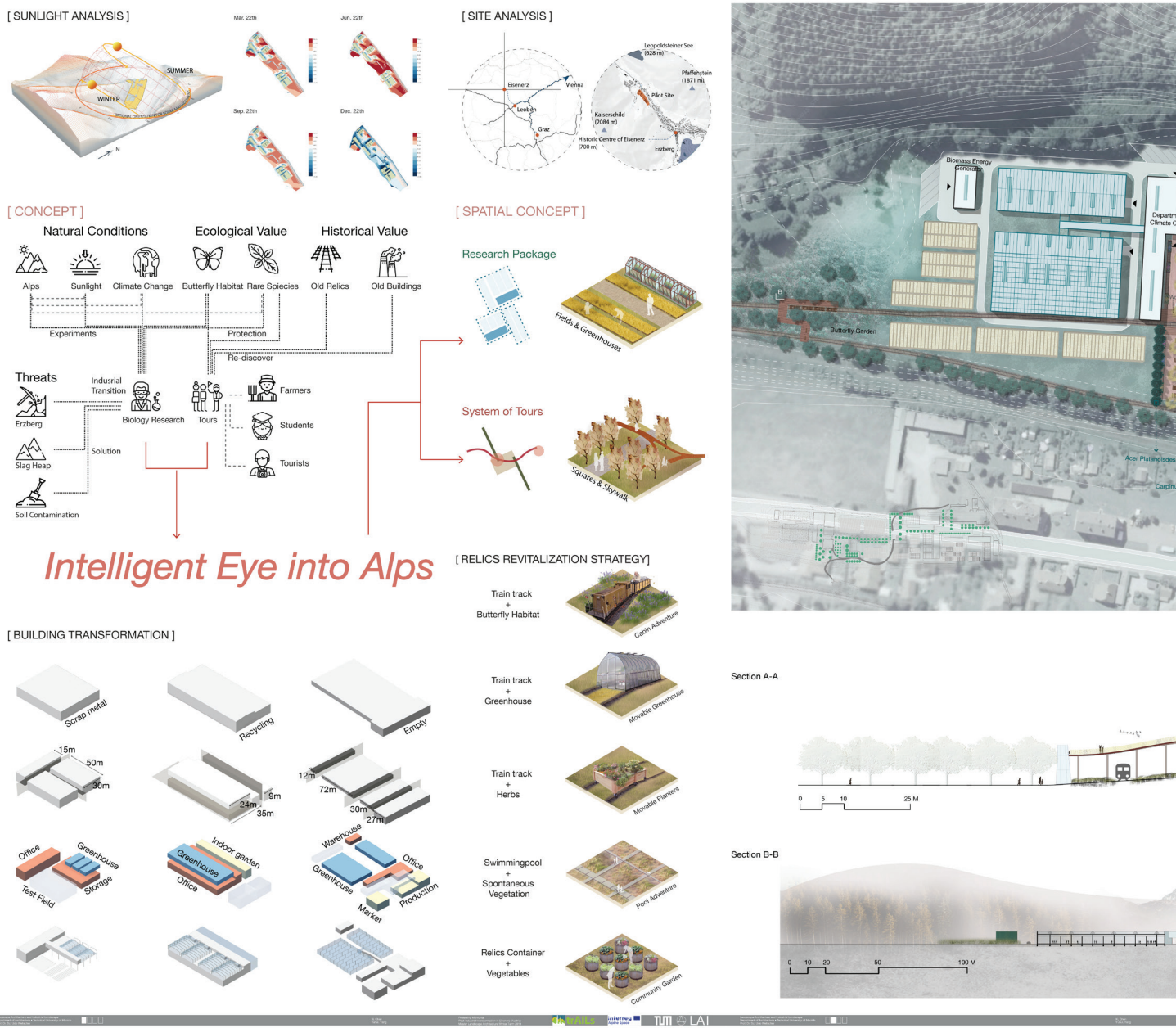
original scale 1:1000



INTELLIGENT EYE INTO ALPS

Xi Chen, Yuhui Yang

Eisenerz, part of the Styrian Iron Route, has a long history of having mining as its main industry. In recent decades, the continuous loss of population, the transformation of industry, the constant weakness of its identity and the financial problems of Eisenerz have made this town like many other towns in the context of globalization face the problem of where its bright future.
The site, located in the north of the city of Eisenerz, was the location of the old iron blast furnaces – with most of its buildings abandoned now.
By using spatial strategies to create a specific atmosphere to provide or limit certain functions to address the economic, social and ecological aspects of the town, we transform the site into a hub for research and growing vegetation in order to tackle climate change in the Alps, featuring a winding skywalk, an exhibition museum, a terraced garden, and a workshop.
The diversity of these carried out programs will act together as a catalyst to activate the surrounding neighborhoods and encourage more people to come and learn about the vegetation on site, as well as promote progress in biological research.



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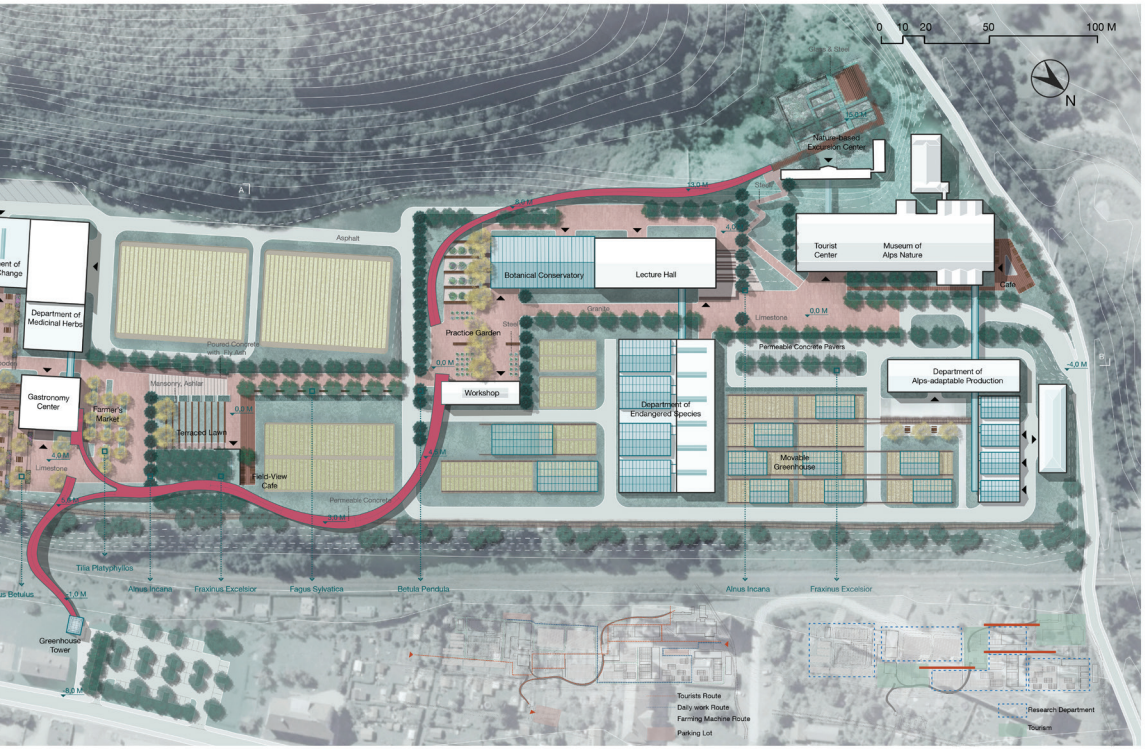
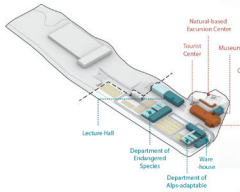


[PHASING]

Phase 1 0-5 Years

Implant Research Institute

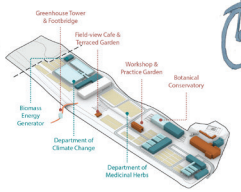
Reuse Historic Buildings for near-by Community



Phase 2 5-10 Years

Develop Different Research Departments

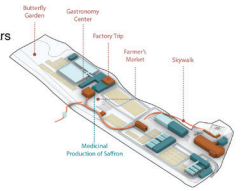
Add New Entrance & Recreation for all Target Groups

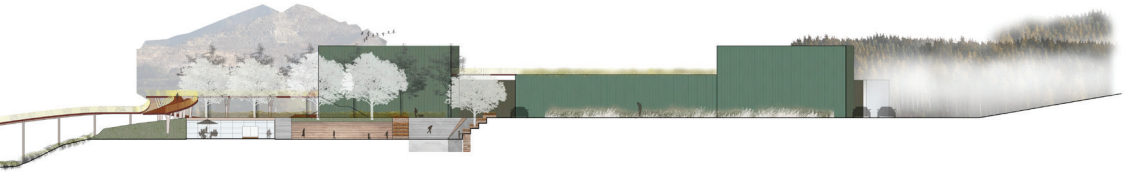


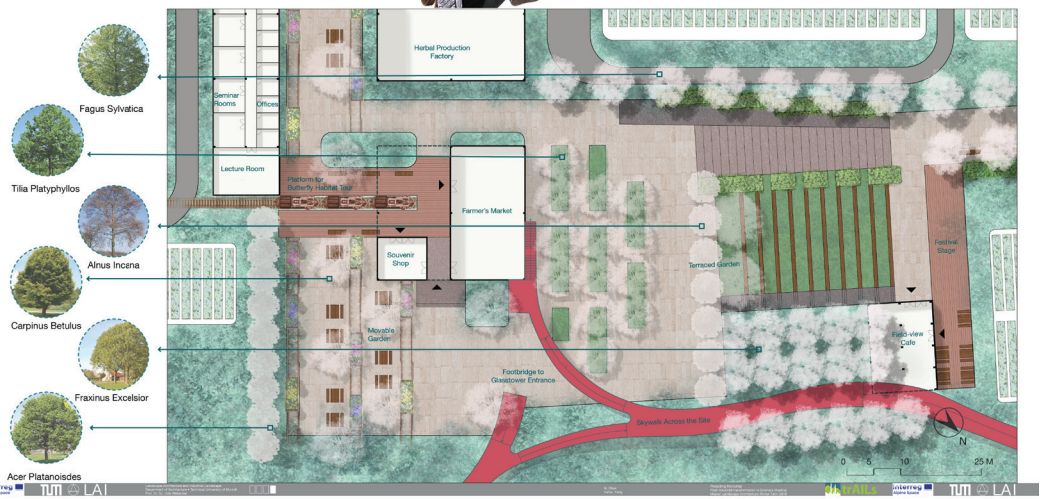
Phase 3 10-20 Years

Bring Research Result into Tourism Products

Complete Recreation System with Skywalk







Within the concept the diversity of the different programs act together as a catalyst to activate the surrounding neighborhoods and encourage more people to come and learn about the vegetation on site.

The design implements the transformation of the site into a hub for research and growing vegetation in order to tackle climate change in the Alps, featuring a winding skywalk, an exhibition museum, a terraced garden, and a workshop.

N

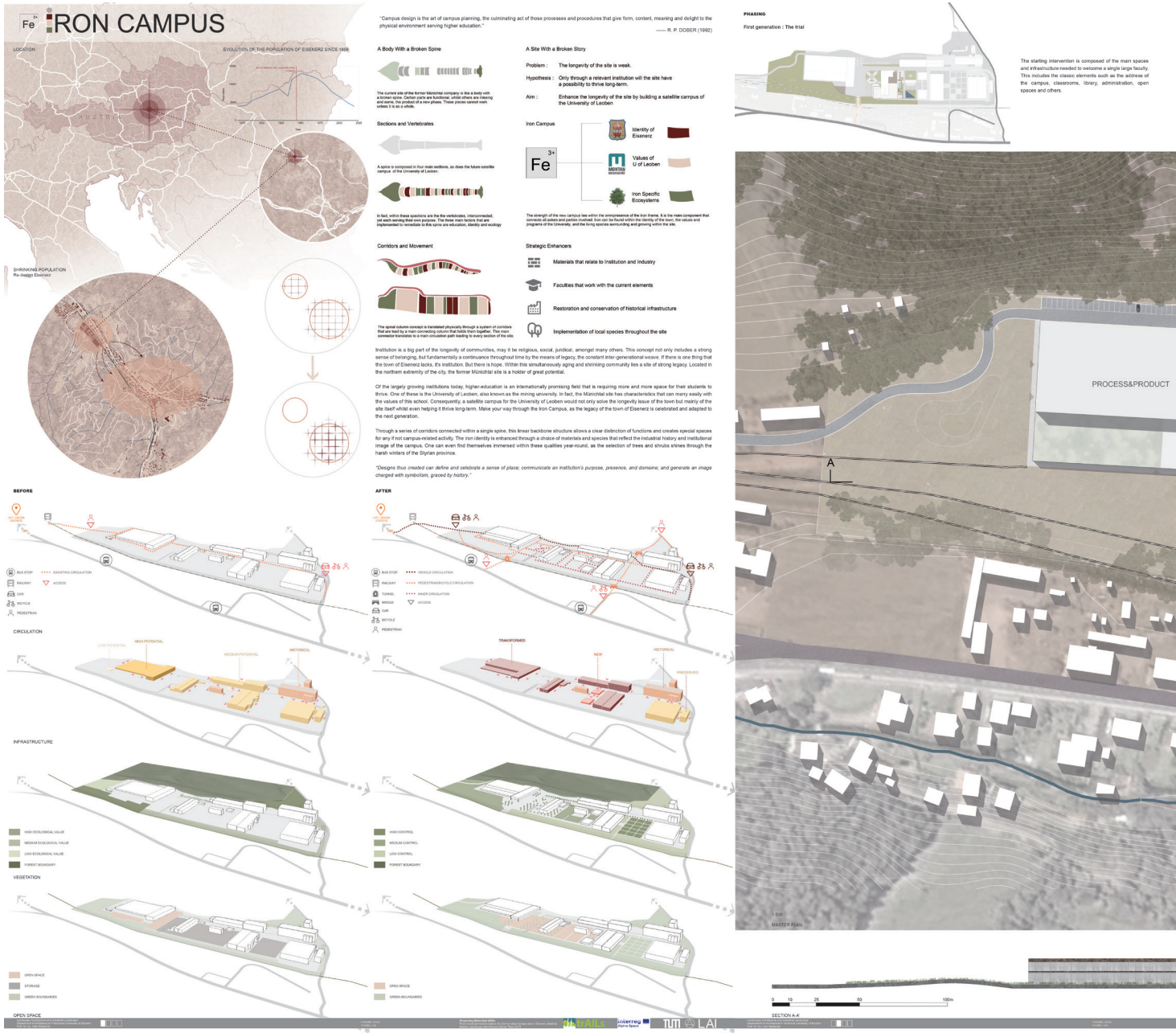
original scale 1:1000

IRON CAMPUS

Yuqing Cai, Carling Sioui

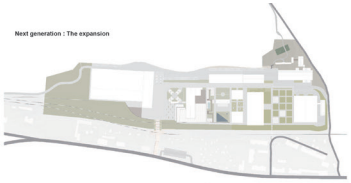
Institution is a big part of the longevity of communities, may it be religious, social, juridical, amongst many others. This concept not only includes a strong sense of belonging, but fundamentally a continuance throughout time by the means of legacy, the constant inter-generational weave. If there is one thing that the town of Eisenerz lacks, it's institution. But there is hope. Within this simultaneously aging and shrinking community lies a site of strong legacy. Located in the northern extremity of the city, the former Münichtal site is a holder of great potential.

Of the largely growing institutions today, higher-education is an internationally promising field that is requiring more and more space for their students to thrive. One of these is the University of Leoben, also known as the mining university. In fact, the Münichtal site has characteristics that can marry easily with the values of this school. Consequently, a satellite campus for the University of Leoben would not only solve the longevity issue of the town but mainly of the site itself whilst even helping it thrive long-term. Make your way through the Iron Campus, as the legacy of the town of Eisenerz is celebrated and adapted to the next generation.



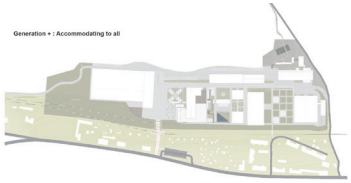
4 presentation panels (original scale DIN A0)

Next generation : The expansion



In this second phase, there is the incoming of two more faculties. Therefore, more infrastructure and space is needed to preserve the sense of place and even enhance it. With extra students, comes extra budget for services such as a gym and experimental gardens.

Generation + : Accommodating to all



The final phase assumes that there is now a large number of students and faculty that would be in need of housing, seeing as the campus will have grown substantially over the years. Thus, the currently abandoned residential area adjacent to the site would make a perfect place for them to develop such a project.

PERSPECTIVE | View of the look-out tower "Inspired by Oerlikon Park in Zürich

PERSPECTIVE | View from the main entrance

SECTION B-B'

SECTION C-C'

YEAR-ROUND IMMERSIVE EXPERIENCE

SPRING SUMMER FALL WINTER

(Above) The sustainable transformation of the site into a campus revive the site iteself.

(Below) At the same time the revived site becomes valuable for the society of Eisenerz itself by giving the town a new modern relevance and serving as a new hub of the city.

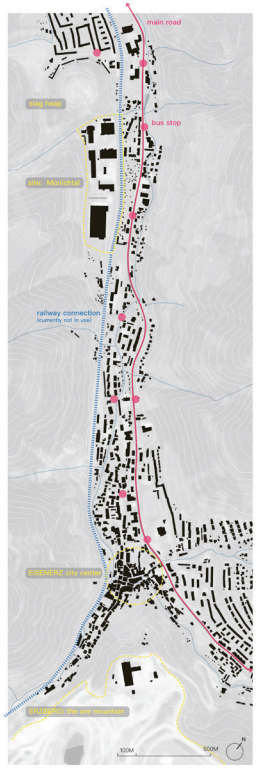
The design implements a transformation of the site into a satellite of the University of Leoben as an institution of higher education to revive the strong and old legacy of the society of Eisenerz through the connection of tradition and innovation.

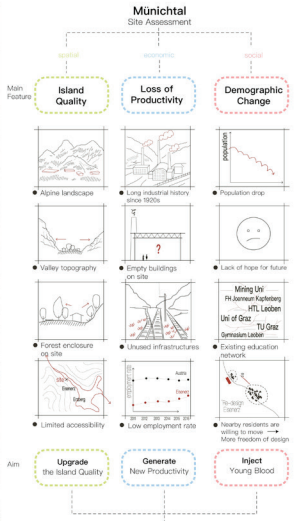
N

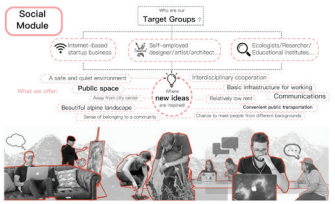
original scale 1:1000

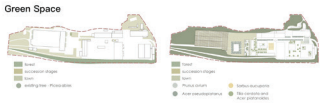
INCUBATOR VALLEY

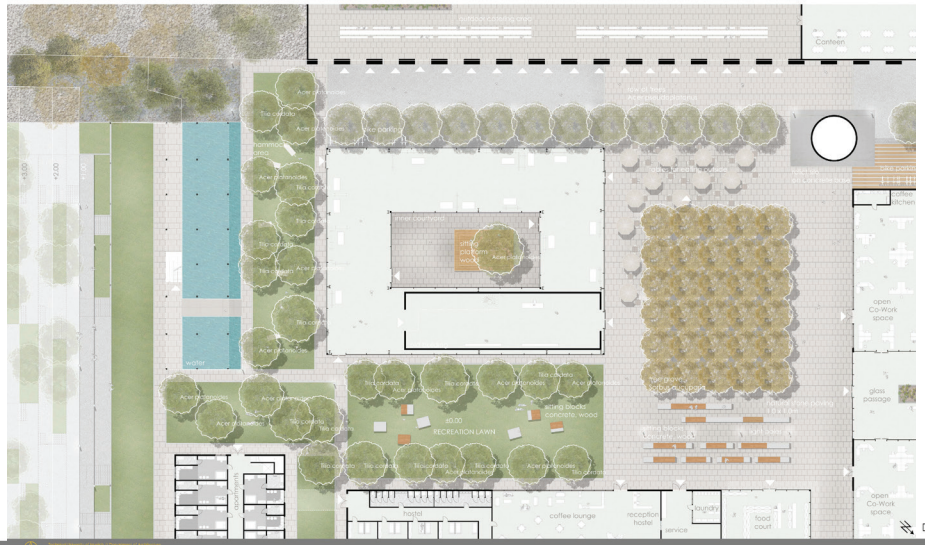
Carina Brandl, Arda Cosan, Ke Sun

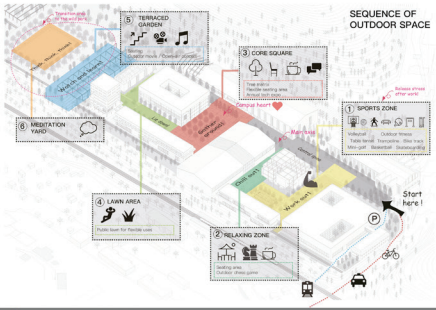


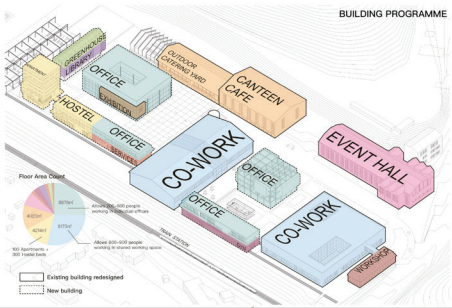






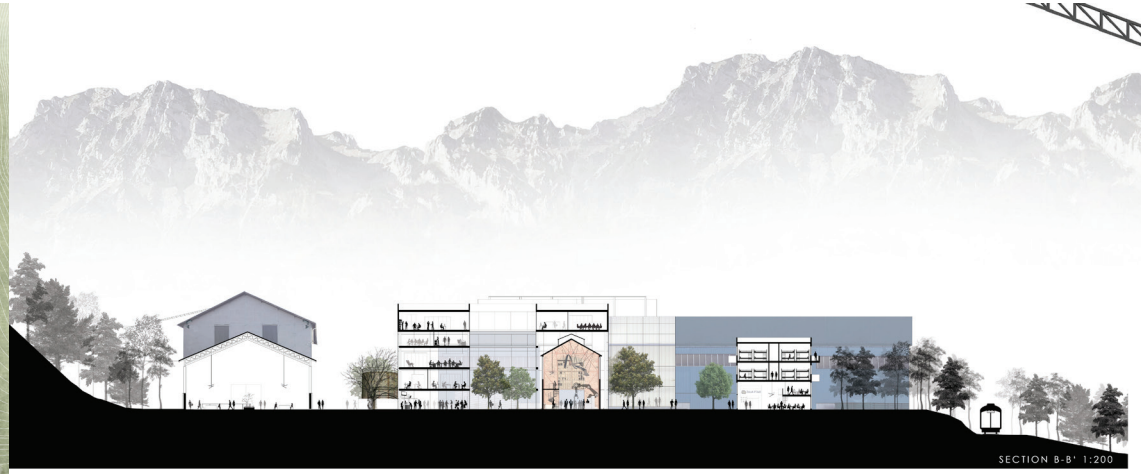


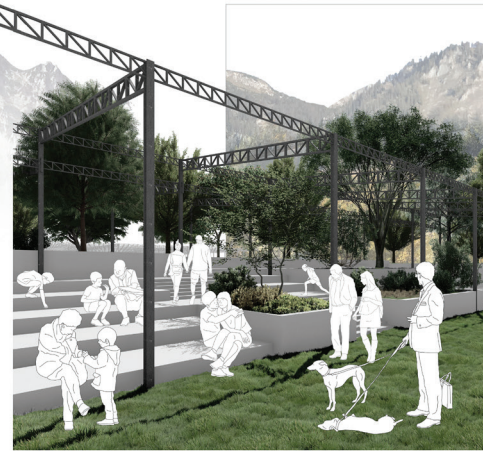




5 presentation panels (original scale DIN A0)

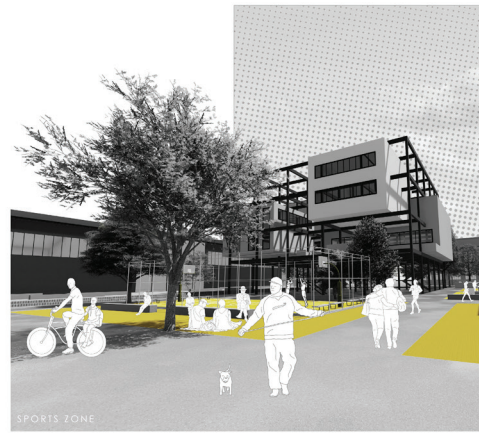
MASTERPLAN 1:500

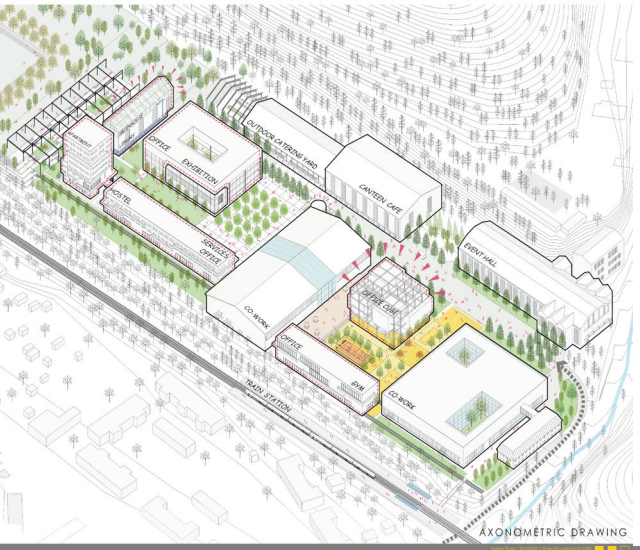

SECTION B-B' 1:200



Terraced gardens establish the transition from highly used workspace area to the wilderness that is now overtaking the broken asphalt surfaces. The big building with its facades teared down and the surfaces made ready for natural invasion, the spaces are aimed to become a part of the forest surrounding. The structures are also left in situ for potential future developments.

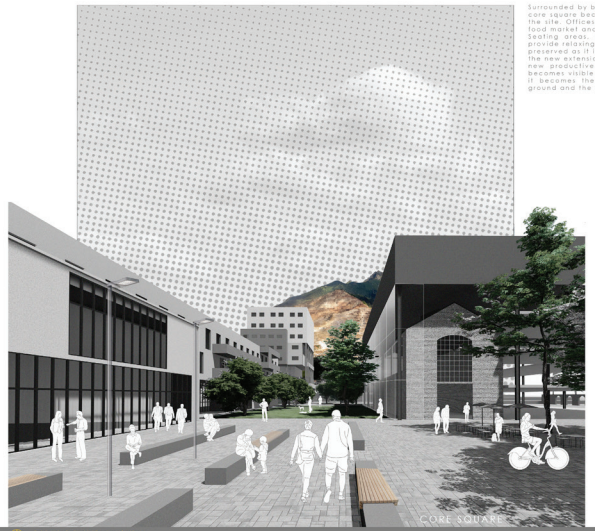
The grounds that surround the office cube become areas for varying sports activities. It aims to bring together the workspaces with sports fields, acknowledging the role of ‚active-relaxing' on the enhancement of work efficiency. The office cube, as the central element, forms a versatile structural system that can be easily adjusted according to the number of offices that are required for newly developing firms, and which qualities these workspaces should have.

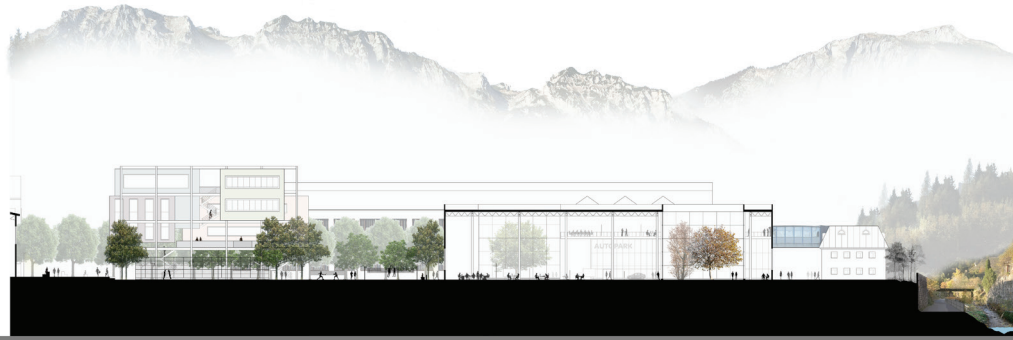

SPORTS ZONE



AXONOMETRIC DRAWING

Surrounded by buildings with a wide spectrum of programming, the core square becomes an area of meeting and the public center of the site. Offices, co-work spaces, tech-exhibition spaces, cafes, a food market and an hostel define the edges of the outdoor space. Seating areas, both on the paved square and the lawn areas, provide relaxing zones to the workers and visitors. The old building, preserved as it is, becomes the main attraction of the square. With the new extension building sitting on top, the contrast between the new productive identity of the site and the industrial heritage becomes visible. The refined glass facades cover the building and it becomes the entrance to both the tech-expo space on the ground and the offices above.


CORE SQUARE

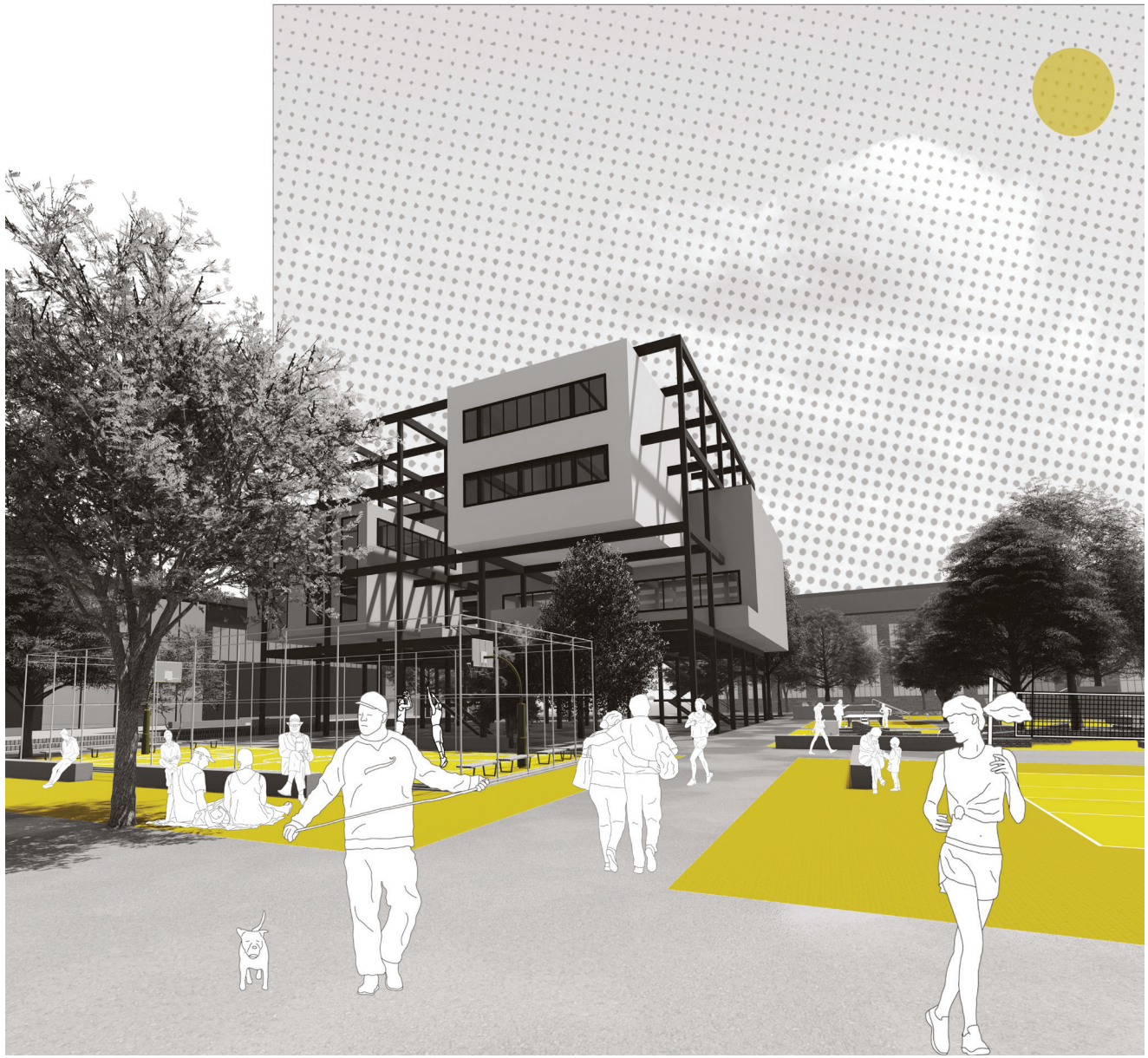


INCUBATOR VALLEY

Carina Brandl, Arda Cosan, Ke Sun

The city of Eisenerz is located in the region of Upper Styria East in Austria. Once known as 'cradle of Austria's industrialization', Eisenerz has a long history of mining and steel industry. However, the decline of traditional heavy and manufacturing industry is happening nowadays not only in metropols but also in the peripheral and less urbanized regions such as Eisenerz. It is confronted with economic and social problems such as low employment rate and shrinking population. These issues are forcing Eisenerz to make the necessary structural change. In the northern part of the city, there is a former blast furnace site named 'Münichtal', located in a serene alpine valley surrounded by mountains. It was used for processing the iron ore from the Erzberg mine since the 1920's. Over the years, some plants were shut down and now the site is only partly used by recycling factories. The transformation of this post-industrial site is in demand.

In this Master design studio 'Projecting Münichtal 2020+', we developed a project responding to the social, economic and ecological aspects of the region. Based on the result of our comprehensive assessments of the region and the site, 'Münichtal' has a typical island quality and it is facing problems such as loss of productivity and demographic change. Our design aimed to upgrade its island quality and generate new productivity by injecting young blood. In general, we designed a co-working campus that has the potential to attract nearby self-employers, small businesses and start-ups to settle and rent small workspaces in shared areas. Half of the site is returned to wilderness whereas the other half forms heavily-used workspaces, offices and grounds for various public activities. A new 'Münichtal' with a transformed proactive identity arises from its former industrial characteristic, which becomes a space for the inspiration of new ideas.



The co-working campus offers flexible and adaptable sequence of buildings and open spaces for multifunctional activities of different user groups.

The design implements a co-working campus that serves as an innovative site for young entrepreneurs and local businesses which share the space and in this way enter a process of constantly transforming the site.

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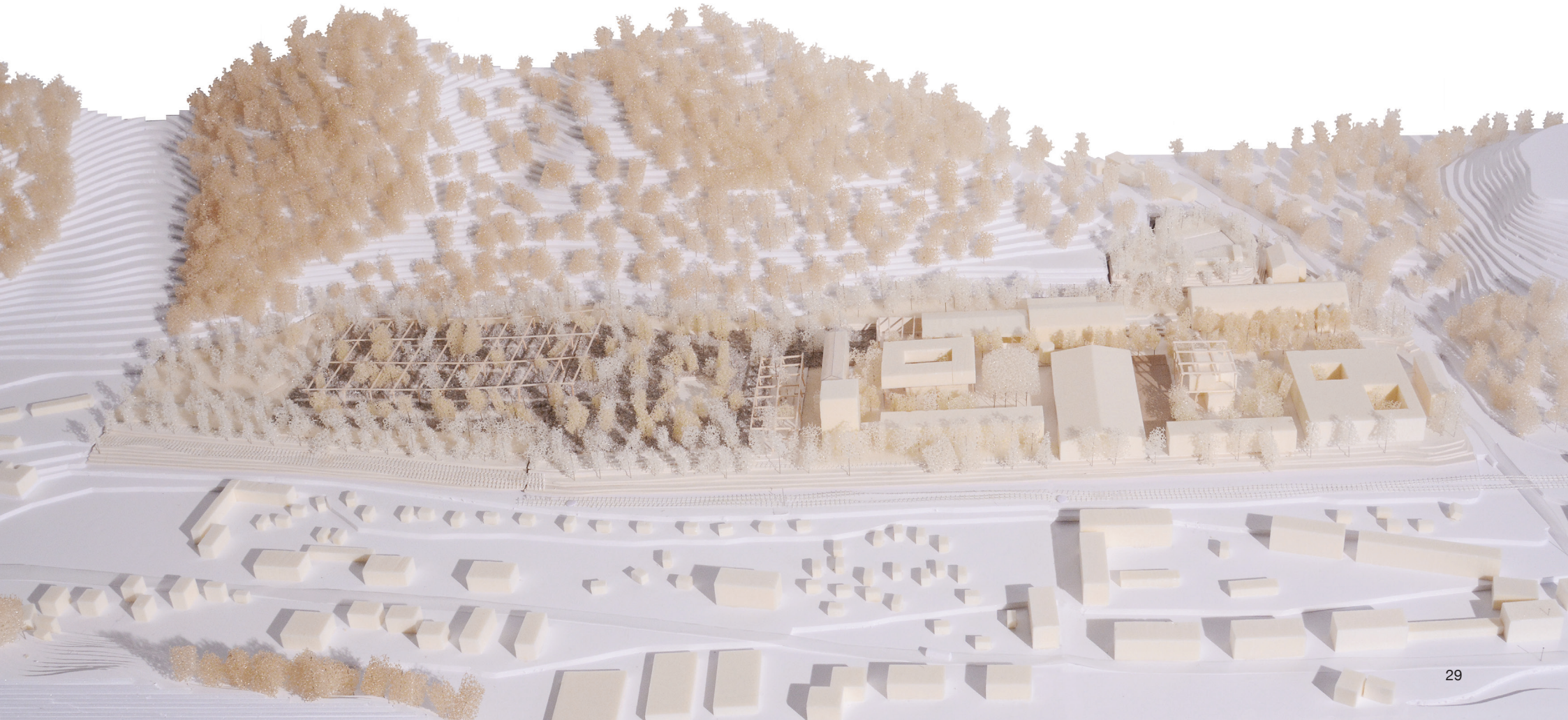
original scale 1:1000



Findings and Prospect

by Carling Sioui

The students would like to present their many thanks to the numerous stakeholders that took the time to offer their support in the project. This includes the municipality of Eisenerz, VA Erzberg, the current companies on the site and many presenters and guides whom all gave valuable insight with a multitude of information and perspectives that highly contributed to the clarity and direction of the project.
The site itself, along with its context held many complexities which brought stimulating challenges into the project. Not only did the plant play a role in the history of the town, but it is now home to rare, beautiful ecosystems that resulted from its unique placement and evolution. Moreover, its slight isolation, due to distance from the city center and placement on an elevated platform, traversed by a functioning railroad, shares its part in the complexity of the subject.
A multitude of strategies and tools were taken on to find sustainable solutions for the future of the site. A founding contributor was the immersive visit to the town of Eisenerz. This consisted of joined on-site analytical effort, group workshops and discussions at the alpine resort, as well as preliminary diagnosis with the mayor and other important guest critics at the municipality. These activities, in addition to visits of the landmarks, city center and guided Erzberg tour, allowed the students to take in the essence that is Eisenerz and establish a clear and enriched base for the continuation. A last aspect that helped put things into perspective throughout the development, was the collection of inter-disciplinary experts whom each had their own take on the analysis of the town and its situation.
After months of creative work, the students presented visions that branched into a healthy variety of directions, ranging from production landscapes in regard to the existing industries including iron and agroforestry, to education and start-up campuses that build and encourage the minds of tomorrow, or even cultural landscapes focused on art and touristic stimulus. These interpretive solutions provide an insight into the quality and potential of this valuable site, which will feed discussions regarding the future of alpine industrial sites along with the people and environments connected to them.

Final presentation at the TU Munich
guest critic: Teresa Galí-Izard, ETH Zurich

The design studio of the TU Munich with teacher and students from the design studio on the site.
from left to right: Dipl.-Ing. Nicole Meier, Alice Frydrychová, Carina Brandl, Alberto Filosofo, Arda Cosan, Carling Sioui, Yuhui Yang, Xi Chen, Ni Haoxuan, Yuqing Cai, Xiaoxiao Liu, Wenjia Dai.

Sources

Umweltbundesamt (2012); Altablagerung „Schlackenhalde Münichtal“, p. 1
Styrian Iron Route (VESTE) (2018): Interreg Alpine Space trAILs, Pilot profile Styrian Iron Route pp. 5, 7, 10, 12-14, 19, 22-24, 27-30.

Image Credits

P. 1, Former factory building, Foto: Nicole Meier
P. 3, Design Studio visits the site in fall 2019, Foto: Nicole Meier
P. 4, (bottom, left) Map of the disctricts of the region Steiermark, Foto: https://www.firmendb.de/grafik/karten/bundeslaender/bezirke-steiermark.png
P. 4, (right) Aerial picture Eisenerz, from: Google Maps https://www.google.com/maps/place/Eisenerz,+%C3%96sterreich/@47.6229542,14.8735483,39780m/data=!3m1!1e3!4m5!3m4!1s0x4771ec4c72f13a89:0x13c43f2a8599ae00!8m2!3d47.5424344!4d14.8883337
P. 5, (bottom, left) The former Munichtal blast furnace site around 1930, from: https://schlotforum.wordpress.com/2009/04/07/st-eisenerzmunichthal-hochofen-und-schlackenberg-1940/#jp-carousel-6854
P. 5 (bottom, right) The Erzberg with its still active open-cast iron ore mine, from: trAILs, https://www.alpine-space.eu/projects/trails/en/pilots-results/pilots/eisenerz-steiermark
P. 30, (bottom, left) Guest Critic Teresa Galí-Izard during final presentation, Foto: Martin Augenstein
P. 30, (bottom, middle) Design Studio during final presentation, Foto: Martin Augenstein
P. 30, (bottom, left) Guest Critic Teresa Galí-Izard and Professor Udo Weilacher during final presentation, Foto: Martin Augenstein
P. 31, Design Studio with teacher and students, Foto: Martin Augenstein
P. 33, A former factory building within the panorama of the Alps, Foto: Carling Sioui
Cover and backside, The former blast furnace site today, Foto: Gerfried Tiffner

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trAILs

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Steirische Eisenstraße