BORDERLAND | PERIPHERIES]

FROM DEAD END TO NEW BEGINNING



BORDERLAND PERIPHERIES FROM DEAD END - TO NEW BEGINNING

FACING THE CHALLENGES OF A RURAL PERIPHERY ON THE BORDER BETWEEN AUSTRIA AND CZECHIA

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ABSTRACT

It's been 34 years ago now since the iron curtain has parted the European continent and its inhabitants in an East and a West. The analysed area for the following thesis on the border between northern Austria and southern Czechia gives a case example of a region, that is still suffering from an era, where one sky-direction has been erased from people's everyday living and thinking – leaving the border areas as a dead end for either country. Gmünd (AT) and České Velenice (CZ) are today the only neighbouring cities, that remain on the border between Czechia and Austria, raising their potential in terms of future cross-border initiatives. Although some transnational projects have already been started in the past, they never met a fertile ground to continue the idea.

A new development within both cities across the border, which promotes an interactive everyday environment, could help to raise the quality and attractiveness of the cities themselves, but also showcase the diversity that comes with opening up to a neighbour that has been neglected. Therefore, the idea is to strengthen the cities resilience by working across the border, using a currently parting line as a key asset for an upcoming and thriving environment of the future. Taking existing ideas and structures of communal value and weaving them immediately within the city fabric, should give an example of how a sustainable and flourishing life could also look like in the current borderland peripheries. A special focus in the project is directed to the social sustainability of the site – creating spaces to encounter and collaborate to eventually overcome the hostile ground of the border and pave the way to life where aversion is replaced by plurality.

A new sustainable and resilient city, from living on borders to living across borders. From dead end - to new beginning.

GUIDING QUESTIONS

How should peripheral areas develop in the future, what supporting features do they need to thrive?

What role does a country border play in regional development and what challenges need to be faced/overcome? How could the border be used as a supporting factor?

Are there any strategies that promote the cross-border contact and support the development of the peripheral regions at the same time?

KEY WORDS

periphery, cross-border initiatives, social sustainability, rural development

BACKGROUND

Ever since I've started studying, it has challenged me that Urban Designers, Architects or Landscape Architects are mainly focussing on creating greater visions for metropolitan areas, while smaller rural cities are often neglected.

The following thesis is the outcome of a long desire to devote my time to the challenges of shrinking cities in a peripheral context. As a person who grew up on the countryside, I've experienced and still very much value the qualities of living in a rural region. During my studies of Sustainable Urban Design, I got introduced to a lot of inspiring people as well as a rich toolbox to rethink our ways of living. I see my final project as an attempt of using cultural techniques I've acquired throughout my study life, translating them into a rural context, which I haven't been working with so far. It is the idea of taking the approach of Sustainable Urban Design further, to also reach out to the less urban context, which I perceive as very relevant and necessary.

ACKNOWLEDGEMENTS

During the journey of studying Sustainable Urban Design at Lund University which has now come to an end with this thesis, I want to share my gratitude with certain people.

First of all, I want to direct a special thanks to my supervisor Andreas, who has been a great guide not only throughout this thesis semester, but also previous courses. Taking thoughts and visions with just a few lines on sketching paper to a lively and communicating environment is a skill that I deeply admire and want to take with me.

Furthermore, all conversations and lectures with Peter have filled my master's degree with great passion and inspiration, which I am thankful for. Also, to the rest of the SUDes family I want to say thank you, for having great discussions and sharing ideas and experiences from all over the world. Finally, I also want to direct gratitude to my family for supporting me and making this experience possible for me in the first place.

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DEFINING

BORDERLAND PERIPHERIES AND THEIR RELATION TO URBAN DESIGN

DEFINING BORDERS | PERIPHERIES

The dynamic of people moving into cities is a trend that can be observed. globally. By the year 2050 statistical prognosis are expecting more than two thirds (68%) of the population to be living in cities by then, whereas the rural population is expected to decrease¹. As Urban Designers, one of the major dynamics we're focusing on is the rapid urbanization that is ongoing all over the world. However, while there is a major influx towards gravitative urban centres, the parallel phenomenon of peripheralization takes place inevitably - a trend that often receives less attention². In order to ensure sustainable growth following the UN Sustainable Development Goals, both the influx of cities and metropolises as well as the decline in rural population need to be considered as a parallel trend in the work of urban designers. We create visions for cities, trying to find solutions of sustainable development and qualitative living standards in often limited space, while rural areas, often characterized by weaker and less dense infrastructure experience a decline in population and thus have fewer resources to keep up with the demands of contemporary challenges.

PERIPHERIES - A QUESTION OF SUSTAINABILITY

There are many ways to describe the term "periphery", depending on the context it is used, and the factors considered. In a summary of many different studies, it can be concluded in the dimensions of being distant with a lack of accessibility and connectivity, suffering from deprivation, being dependent on surrounding denser structures, however differing in the extent of their peripheral character³. A periphery presupposes a centre and, conversely, the development of a spatial centre simultaneously leads to the emergence of a surrounding periphery. Furthermore, it's not only physical relations and characteristics that form a periphery, but also the stigmatisation that follows the term on how we perceive the life in rural or peripheral areas⁴. Very often rural peripheries carry the impression of being behind in development, carrying conservative ideologies, a slow pace of life, but also being idyllic and close to nature. The given centre-periphery conflict also leads to a polarisation of the centre, attracting people, economic activity and infrastructural development and thus even increasing its gravitational force⁵.

Rural areas are often connected to being located in the periphery of a nearby centre, however, they can also encompass local centres that hold a wider range of opportunities and better connectivity to surrounding nodes. Therefore, for the peripheral rural areas, mobility is a key factor for participation in the everyday life⁶.

On a wider perspective across countries, peripheral rural areas share a dynamic of population decrease as well as outmigration of particular groups of people - mainly due to educational as well as employment reasons. The outcome is a high proportion of retired people and a great lack of younger generations as well as skilled workers in the rural periphery. This dynamic is expected to be continued in the following years, while at the same time, especially higher educated people together with their families are drawn to the peri-urban scape surrounding bigger cities. Although costs of ground are generally lower than the ones located closer to urban cores, weak infrastructure. longer distances between nodes but also a lack of skilled workers affect the economy of peripheral regions⁷. The interlinkage between municipal funds



--- SDG 11

Make cities and human settlements inclusive, safe, resilient and sustainable

fig 1.1: SDG 11 (United Nations, 2023)

¹ United Nations, World Urbanization Prospects, 1.

² Weck and Beißwenger, 'Coping with Peripheralization'.

³ Keim-Klärner et al., Analyzing Social Disadvantage in Rural Peripheries in Czechia and Eastern Germany Conceptual Model and Study Design.

⁴ Weck and Beißwenger, 'Coping with Peripheralization'.

⁵ Pociūtė-Sereikienė and Kriaučiūnas, 'The Development of Rural Peripheral Areas in Lithuania', 501.

⁶ Keim-Klärner et al., Analyzing Social Disadvantage in Rural Peripheries in Czechia and Eastern Germany Conceptual Model and Study Design.

⁷ Piorr and PLUREL (Project), Peri-Urbanisation in Europe, 44–46.

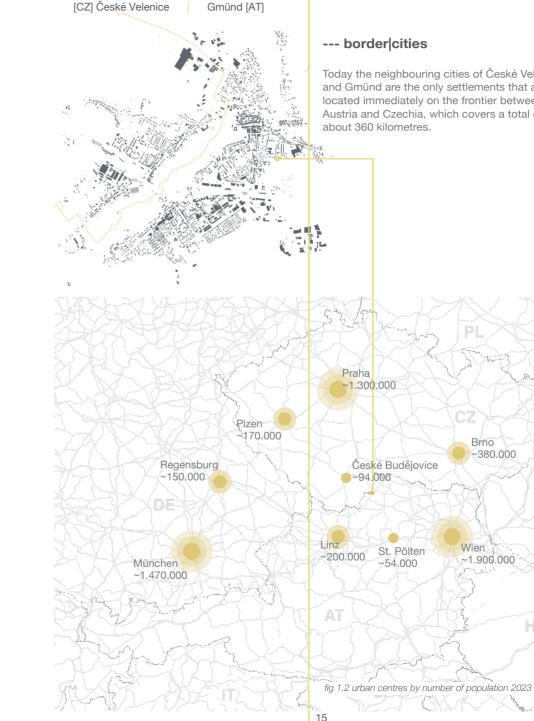
and inhabitants of cities is another factor, pressuring the development of rural peripheral areas that suffer from depopulation as well as over-aging. As structural density is weak and scattered, car dependency is furthermore something that is connected to the current peripheral rural lifestyle, naturally given by larger distances between amenities. This matter is even stronger in monocentric regions, while polycentricity is in theory often used to argument towards lesser car usage. The proximity and abundance of greater natural areas and unique cultural heritage and traditions together with agricultural productivity, however, could be seen as profits of peripheral rural areas⁸.

These listed challenges already guide towards the question of how sustainable development can be enacted in regions with fewer means but also how we will envision life to change in the context outside greater centres and what steps need to be taken in order to achieve the global agree on common goals.

SITE SELECTION

As a site treated for the purpose of this thesis, two cities that meet on the border between Czechia and Austria, České Velenice and Gmünd respectively, have been chosen.

Locating the analysed site within a greater scale, they can be received as the midpoint between the two countries capitals - Prague (CZ) and Vienna (AT). In a way the regional surroundings of Gmünd and České Velenice can be described peripheries, that suffer from a weak structural density as well as from the distance to surrounding urban gravitative centres. The border drawing the end of both countries adds another factor that is influencing the regional life, considering that it was a dead and concealed end for both countries for more than four decades only 34 years ago. Although the border on site mainly exists as a mental construct today, together with relicts of customs buildings and an accumulation of road signs, life and direct communication across borders remains passive and limited (excluding countable crossborder institutions). These two countries are interesting to compare, because on the one hand they shared a common ground in history but on the other hand have experienced radical shifts in regime



--- border cities

Today the neighbouring cities of České Velenice and Gmünd are the only settlements that are located immediately on the frontier between Austria and Czechia, which covers a total of about 360 kilometres.

Brno

Wien

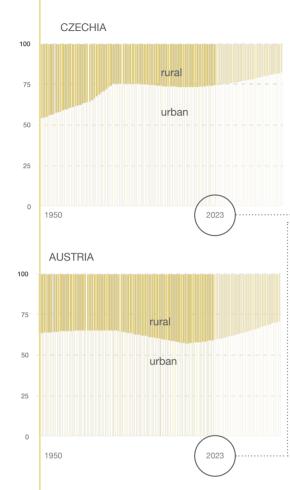
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5-53

~380.000

Piorr and PLUREL (Project), 44-87.

14



especially during the 20th century despite their immediate geographical propinquity. Since both Czechia and Austria are part of the European Union today, a lot of similar frameworks and development strategies apply for either country providing a common base for cooperation and future development.

Both Austria and Czechia follow the trend of rising urbanisation, while the relative share of the rural population is shrinking. Since every country has its own definition of cities, international comparisons may be conflicting, however, the overall trends paint a similar picture. While the rural population in Austria in 2023 lies at around 41%, in Czechia this number is much lower at around 25.8%. Among other areas, the rural border regions of either country have been suffering from the characteristics of a periphery, especially since most cities there have been shrinking over the past years and decades, as described later on.

trend of rising urbanisation in both countries

Due to historical and other reasons, Gmünd and České Velenice are the only border cities that exist between the two countries today. Although they might be received as one united city on the map, the patterns of their everyday life clearly draw a different picture. Their orientation and focus are directed to their countries inside, despite the cold border being open and passable without barriers for decades now. The site has been chosen not only because it lies within a peripheral region, but also because of its interesting location on a currently rather passive country border.

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Although the country border might not be the only reason for the peripheral character of the bespoken region, it could become an important driver for the strengthening of the settlement structures around it – guiding a greater region towards resilience and sustainable development by utilizing the advantages of cross-border cooperation. Also, since the two cities České Velenice and Gmünd are today the only cities on the frontier, they could become the initiative starting point of living and thinking across borders.

fig 1.3: Population development Austria and Czechia rural and urban share in %, 1950-2050 (United Nations, World Urbanization Prospects 2018)

--- rural population

As the statistical numbers illustrate, there's a rising share of urban population within both Austria and Czechia. According to the numbers of the UN, this trend is expected to be continued in the upcoming years, while the relative share of the rural population is expected to decrease.

AIM AND METHOD

The overall thesis goal is to find answers for sustainable development in rural peripheral regions where structures are weaker and limited, putting an even greater pressure in regard to action towards future pressures and challenges. The location of the chosen site adds another layer for design challenges through the currently passive country border, which is clearly adding up to its character as peripheral region either side of the border.

The vision is to help a settlement towards a development that promotes autonomy to counteract the dependency on bigger surrounding centres in order to raise the value and everyday life of the cities for a greater perspective across country borders. A new vision for a neglected area opening up for a rewritten storytelling of life in a rural peripheral context but also towards a sky-direction that seems to have been forgotten. With the case example of the design of the cities České Velenice (CZ) and Gmünd (AT) not only the bespoken cities should gain value but a lighthouse example for a wider region should be set - opening up new paths for future sustainable development. Since they are the only cities at the border between Czechia and Austria, they

carry a special importance in terms of a development proposal that aims towards a thinking and living across borders.

"[...] can we envision a form of urbanization in which households and communities that choose to remain rooted in less densely settled or remote zones will enjoy access to viable public infrastructures, sustainable livelihoods and some measure of political control over the basic conditions shaping their everyday lives? Perhaps the agency of design in the world's non-city spaces is precisely to facilitate the imagination and production of these and many other alter-urbanizations."

Neil Brenner, Critique on Urbanisation: selected essays, P. 221

The following work is based on a combination of:



UNDERSTANDING THE DEVELOPMENT OF

THE DEVELOPMENT OF A BORDERLAND PERIPHERY

UNDERSTANDING BORDERS | PERIPHERIES

The term "border" holds a dual nature. By drawing a border, a space is divided into an in-side and an out-side - an us and them. The definition of the word border is mainly used to relate to geographical territories as a line, an area or a volume that differentiates one country from another⁹. Cleary defined borders between political territories only began in the modern era, simultaneously the delamination to the surroundings grew with cultural, political, and economic growth and the focus was on the inside of territories¹⁰. Almost all borders worldwide were drawn by Europeans¹¹ while barely any on them were peacefully settled upon.

Borders can define an end of something but could also be seen as a new beginning. In the context of cultural landscapes, seeing and living a country border as the terminal of a country, the appearance of surrounding peripheries and neglected areas is inevitable. Despite the implementation of institutions promoting cross-border interaction and governance, within those the European Union could be seen as a wide-ranging initiative, the terminal state of a countries' border is still the prevailing character ¹².

BACKGROUND OF EUROPEAN BORDERS

Comparing Europe to other continents, it becomes evident that regional structures have always been smaller in scale and more dissected. The diverse geographic character of the continent plays a major role in this dynamic, considering the rivers, mountain ranges, lakes, valleys, and oceanic shores that are shaping Europe today. These features are a key factor for the organic growth of Europe's first settlements and its patchwork of different languages and cultures. Especially the Danube valley and its topographical characteristics can be easily translated into the smaller scale nation states it comprises¹³.

With the rise and fall of many major empires together with various smaller settlements, Europe has experienced a vibrant development in borders throughout its history.

Although human settlements in Europe go back quite far in history, its current borders (especially the ones in central Europe) are comparatively young. They mostly draw the outcome of political performance of

the previous 100-150 years rather than cultural or ideological units. Concerning the border between Czechia and Austria. the fall of the Austro-Hungarian Empire in 1918, the take-over from Nazi-Germany and the Second World War, the expansion and fall of the socialist state, the separation of Czechia and Slovakia as well as the accession to the European Union (Austria in 1995 and Czechia in 2004) have been events within a 100-year period, that have reshaped both countries in a vibrant way. Not only have the country borders been redrawn multiple times but also various ideologies - both uniting and separating - were spread across the countries over time, influencing the mental aspect of the border as well.

Border /ˈbɔː.dər/

= a line that has been agreed to divide one country from another.

Cambridge Dictionary

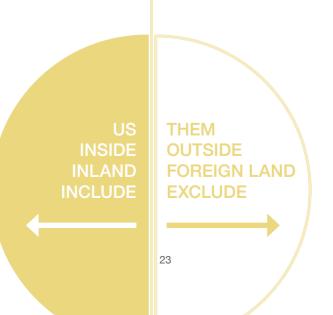
⁹ Boettger, Schwellenräume, 46.

¹⁰ Perzi et al., Nachbarn, 123.

¹¹ Demandt, Grenzen.

¹² Eker et al., Grensland, 15.

¹³ Marshall, Die Macht der Geographie, 100–103.



CZECH AND AUSTRIAN BORDER DEVELOPMENT 20TH CENTURY

After the end of World War 1 and with that the fall of the Austro-Hungarian Empire, the newly formed Czechoslovakia reclaimed its original border to northern Austria, which already dates back to that of the former Bohemian Empire¹⁴. This border followed mainly environmental characteristics (e.g., rivers). After the new definition of borders was completed in 1919, life in these regions started to stabilise again and at this time cross border interaction was not unusual. Only with the great depression, riots and polarization, the border between Czechoslovakia and Austria started to break further apart¹⁵.

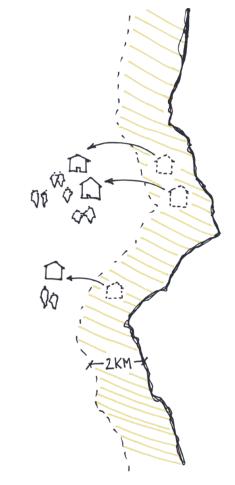
While the border structures were shifted and embattled during the time of the Second World War, in 1945 the Austrian and Czech border was brought to its initial state before 1938 and both countries entered the state of independent republics. The years that followed the end of that war were characterized by an atmosphere of upheaval and constant change, especially within the border regions. The expulsion of Austrian and German people, that used to inhabit Czech property – so called "Sudetendeutsche" (Eng. Sudeten Germans) – from the newly formed Czechoslovakia back to the Austrian country is one occurrence that highlighted the consolidation of the border but also left its mark on people's minds.

After the communist regime was established in Czechoslovakia in 1948. thousands of inhabitants were moved from the border regions to the inside, while simultaneously politicians started a wave of resettlement in before vacant buildings - a kind of swap of the border regions population. The new inhabitants barely had any relation to the history of that area, which therefore led to these communities to be a fertile ground for communist propaganda. In 1949 passing from Czechoslovakia to Austria was prohibited completely. On the Austrian side of the border the social circumstances after the war were quite the opposite. The from the communist bloc to Austria expelled inhabitants (Sudeten Germans) had no accommodation or place to work there and since the Austrian government did not bank upon those people to stay in Austria, they were reliant on personal contacts to satisfy their basic needs at the beginning. After a while, many of them were again expelled to the American occupied territory in Germany¹⁶.

Over time, more and more border crossings between the two countries were closed and the relationship between them worsened even more, resulting in the erection of the iron curtain during autumn 1952, a five-meter-wide constellation of barb wire and electric fences. Guard towers and wire fences started to become the character of the border regions fabric¹⁷. Simultaneously to the erection of defence structures, on the Czechoslovakian side many buildings close to the border were demolished and people were resettled to the inside of the country, to develop a two kilometre wide prohibited military buffer, also described as death zone. Therefore, over a hundred villages on the Czechoslovakian territory were destroyed. On the Austrian side border controls increased, landscape photography was forbidden as well as leaving your village in night-time during the occupancy from 1945-55. This led to a wave of population efflux and decrease in tourism. A formerly communicating border was turned into a defined end of a country but also a system (communism meeting capitalism) and almost all strings to the history of the Czechoslovakian population got cut. In the following years, the border developed into an even more hostile state. The fences got equipped with high voltage current, mine fields were planted, headlights were set to only name a few. However, the border controls were harsher and more extreme on the newly formed communist bloc than on the Austrian side. Many attempts of escape ended in death or imprisoning. In total it

--- death zone

The erection of the iron curtain was accompanied by the installation of a 2km wide prohibited military zone along the sovjet border, also known as death zone.



¹⁴ Scharf, 'Die Festsetzung Der Nordgrenze'

¹⁵ Perzi et al., Nachbarn, 123.

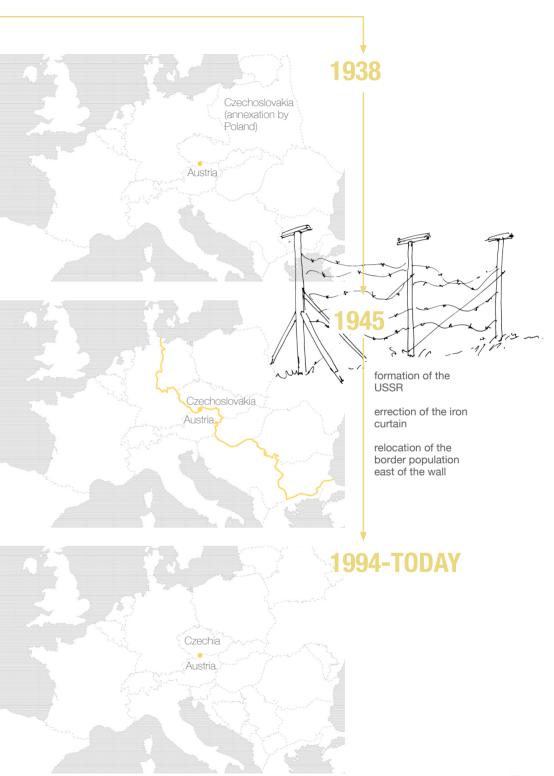
¹⁶ Perzi et al., 327–53.

¹⁷ Perzi, Der Eiserne Vorhang 1948-1989, Leben am und mit dem eisernen Vorhang. Die österreichisch-tschechoslowakische Grenze 1945-1989:107–16.

fig 2.1: Historical development of central european borders (Digital Atlas of European Historiography, n.d.) 1880 Austro-Hungarian Empire 1914 Austro-Hungarian Empire 1920 Czechoslovakia Austrias

fall of the Austro-Hungarian Empire

claiming of the Vitaraszko area of Czechoslovakia



is evident that at least 129 people died while the escape on the Czechoslovakian and Austrian border during the cold war¹⁸.

THE EXCEPTION: ČESKÉ VELENICE

An exception though was made with a city called České Velenice, which remained on the border to Austria, while surrounding cities have been moved. To understand this situation, a retrospective view in history is needed.

During the times of the Austro-Hungarian Empire, České Velenice was part of the outskirts of today's city of Gmünd in Austria and was named "Unterwielands" and "Böhmzeil" (the consolidation and renaming followed in the year 1922). Since it was the midway point of the train line that connects Vienna and Praque, they erected a repair facility for the trains in 1871 in today's city of České Velenice. While these two cities have been one during the monarchy, they got separated by the Saint-Germain treaty of 1919, which decided to use the river Lainsitz. that crossed that city, as a new border and claim everything across the river as Czechoslovakian territory (formerly known as Vitorazsko). Although the historical border of Bohemia and Moravia never passed the region where Gmünd and České Velenice are located today, with



the border discussions after the fall of the Austro-Hungarian Empire, the newly formed Czechoslovakia insisted on claiming this territory due to ethnographic and infrastructural reasons¹⁹. The repair facility is thus one of the main reasons why České Velenice remained its location in the later formed death zone during the cold war and is the only Czech city on the Austrian and Czech border today.

Since this city was comparatively young to the surrounding settlements and only half of its original population was left after the war (many people fled the city during the invasion in the Second World War and only a few returned), a strong sense of community or historical reference was lacking. For its political circumstances in that period, it became a fertile ground for communist propaganda and together with the prohibition of contact in-between the two states, the border between a formerly united region grew even more²⁰. Living next to the iron curtain was guite different on either side. After the period of occupancy of the Soviets, life on the Austrian side started to return to a similar state as before the Second World War. The population was more or less the same in a region which was characterized by smaller villages with mainly agricultural usage and smaller businesses. Due to the long occupancy modernization came rather late in this region of

¹⁸ Perzi et al., Nachbarn, 327–53.

¹⁹ Perzi et al., 127.

²⁰ Blaive, Le bloc de l'Est en question (Ceské Velenice, a Czech City on the Austrian Border: A National or Ideological frontier?).



Austria compared to others. Within the implementation of the communistic system in Czechoslovakia, living in this area was characterised by extreme shifts. Especially in border regions, which were and still are mainly characterized by agriculture, the collectivization of agriculture was encountered by resistance of many farmers²¹.

The fall of the iron curtain came fast and unexpectedly for most of the people. Within a short period of time the border between East and West was opened and almost free to pass. With Czechia acceding the Schengen area in 2007, the last barrier fell, finally introducing a border that can be crossed everywhere at any time without controls. After 1989, the general focus between former soviet countries and western Europe was on opening borders and inter-country cooperation, which was strengthened even more by the accession to the EU (especially as motor for economic interactions). Although there have been many efforts to strengthen cross-border cooperation since the development of the EU, there is a clear difference between the older member states interaction and those towards the eastern part of central Europe²². This general observation can also be translated into the relationship of České Velenice and Gmünd as well as their surrounding regions. According



²¹ Perzi et al., Nachbarn, 327–53.

²² Kolosov and Więckowski, 'Border Changes in Central and Eastern Europe: An Introduction'.

31

to observations on the border regions, there has been little to no change when it comes to the interaction between the people of either country²³.

People crossing the borders were rare at the beginning, but economical exchange took place between the two countries. Slowly also new partnerships and communications between cities and people of both sides developed. However, the iron curtain might have vanished physically but there still was a gap that remained mentally. Many cultural and social initiatives took place to bring people closer together, but they seemed to never have developed enough strength to last longer and create an intrinsic dynamic. Somehow people seem to have started with romanticizing a way back how circumstances were before the Second World War, but soon realized that a shared language was lost and realities of life were quite divergent. Soon the economical gap started to display on people's dynamics as well as the urban fabric of the border regions. During the 1990s almost all border crossings started to be equipped with big supermarkets, gas stations, brothels and casinos on the Czech side. Also, it became guite usual that Czech people would work in Austria, especially on the fields, constructions sites and in the gastronomy sector. At the same time many Austrian companies and/or factories were moving just across the border due to the



economic benefit, which weakened the already low economic status of northerm Austria and didn't counteract the negative population dynamic of the bespoken region²⁴.

Today many of those institutions that were erected right after the fall or the iron curtain are left as vacant remnants of a former time. ²³ Blaive, Le bloc de l'Est en question (Ceské Velenice, a Czech City on the Austrian Border: A National or Ideological frontier?).

²⁴ Perzi et al., Nachbarn, 327–53.

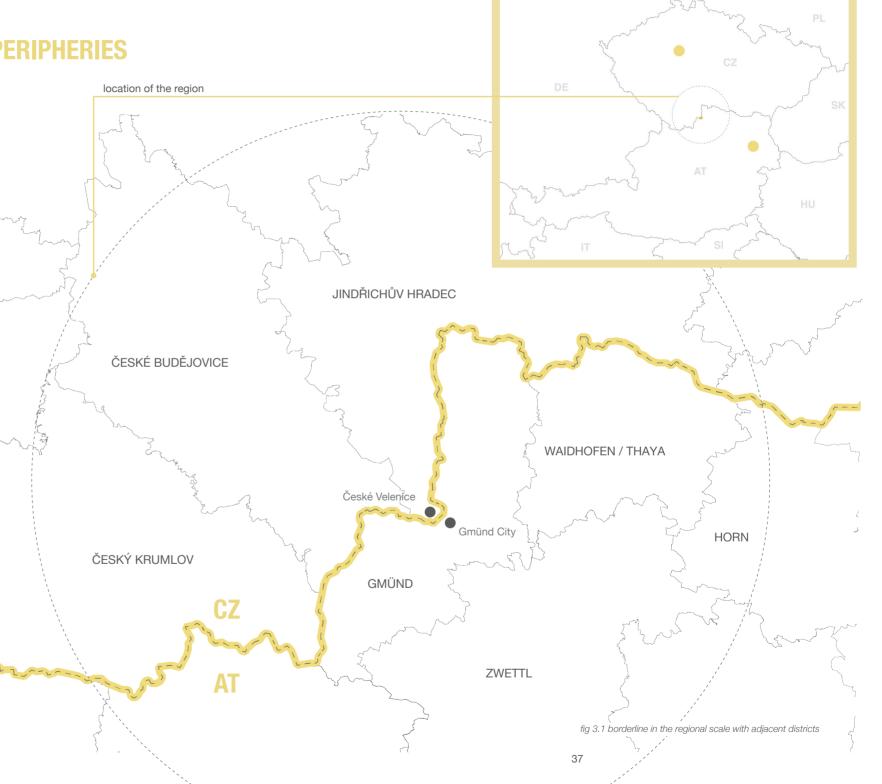
vacant arcade near Neu-Nagelberg, 2023

PERCEIVING

PERCEIVING BORDERS | PERIPHERIES

REGIONAL ANALYSIS - THE BORDER -

In the mere physical environment today, the borderline between Czechia and Austria is mainly visible through the border stones marking the terminal of each country. Only smaller features mark the differences, on the bigger picture however it is disappearing in woods, fields and waterways. While the physical environment is less indicative of the existence of a border, it is more a mental construct of alienation that becomes apparent, followed by language barriers and mistrust of what is neighbouring. Looking at the surrounding landscape - especially the cultural landscape - it becomes visible that the borderland forms more a three-dimensional volume rather than a simple line. Low structural density with weak interconnectivity, mainly concentrated towards the inside of either country is what is left after a four-decade long period of a sealed borderline.







--- the borderline

the pictures give an impression of the existing borderline between Czechia and Austria in the before outlined region. In the landscape it disappears in woods, fields and waterways, while only smaller changes in street patterns, materiality and language of signs mark the transition between countries.







--- the border is a volume, not a line

As the border region used to be part of the same empire, the built fabric is fairly similiar, making a clear distinction between countries almost impossible. What becomes evident however, is the peripheral character that both sides of the line share.

REGIONAL ANALYSIS - THE LIFE -

Portraying the volume that has been shaped around the border, certain patterns can be identified for either side of the line. In general, it can be summed up in the following characteristics:

weak infrastructural density

low population density and scattered settlements

overageing and shrinking societies

lack of functional diversity

However, the period of the cold war has not only affected the structure of the borderscape, but also left a great mark in people's minds until today. According to the Interreg report and the outcome of previous studies and initiatives, the biggest barriers of cooperation on people-to-people level is the language barrier as well as the mistrust of people within the two countries ranging up to 75% according to the questionnaire of the last Interreg period (2014-2020)²⁵.

²⁵ 'Cooperation Programme INTERREG Austria– Czechia 2021-2027'.

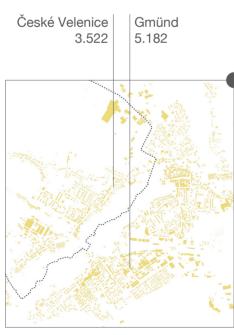


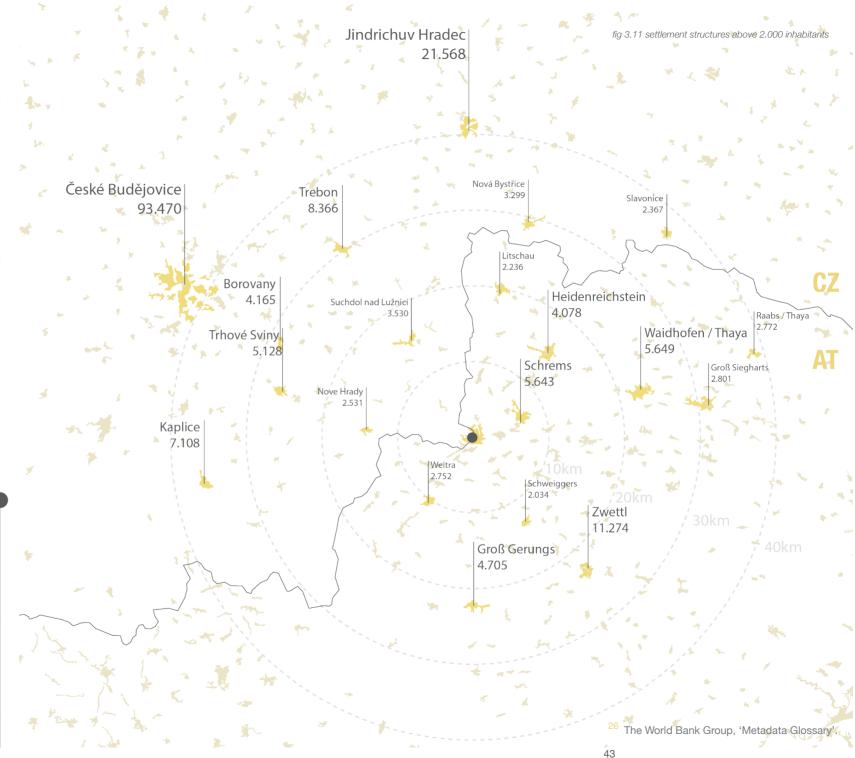






The map to the right depicts the settlement structures along the border region, where those above the count of 2000 inhabitants - which can be used to define a settlement as "urban"²⁶ - are highlighted. It becomes evident that - with closer proximity towards the border - settlements become smaller. while the greater cities and metropolises are directed towards each country's inside.Due to its size within the regional context, Gmünd carries an importance especially in terms of the availability of social infrastructure for its neighbouring settlements - both in Austria as well as in Czechia. An example of this is the hospital in Gmünd, which operates across the border and thus also represents a valuable support for the Czech border region in the context of healthcare.





Looking at the population numbers and the dynamics of the recent years, similar trends and tendencies appear in the analysed region. In general, the border regions on either side of the countries are characterised by a fairly low population density. This is particularly visible in the border districts Jindřichův Hradec and Gmünd, with densities around 47 inhabitants per km², while the bigger cities within that region are raising the numbers on the greater scale. The low density is furthermore affecting the social and economic structure and stability.

Districts of northern Lower-Austria are structurally weak and have a low employment density. Many people are commuting for jobs to surrounding bigger cities, underlining a clear dependency to stronger centres²⁷. This region is generally characterized by smaller businesses, with important bigger economical centres represented by Vienna and Linz. In comparison to the other districts, Gmünd offers a wider range of economic sectors and workplaces. It covers all income ranges from low-income (textile industry, trade and health care), medium-wage (e.g. food and wood industries, construction, transport and communications) such as high-wage (metal industry)²⁸.

The regions in Southern Bohemia located close to the border to Austria are mainly

characterized by agricultural use and are less populated compared to the regions towards the interior of the country. In Okres Jindřichův Hradec there's higher number of persons employed in the primary and secondary sectors; the district has a lower share of persons employed in service. On the bordering Okres of České Budějovice the tertiary sector is presented in a higher share, which can be explained through the influence of the main city of České Budějovice²⁹.

In the previous decade, the border municipalities both on the Czech and on Austrian side suffered from a decline in population as well as job opportunities, whereas closer to economic urban centres towards the inside of either country, these trends follow an opposite direction. The high share in elderly population represents an additional challenge affecting not only the economy of these regions³⁰ but also their social sustainability in general. The population numbers clearly show the



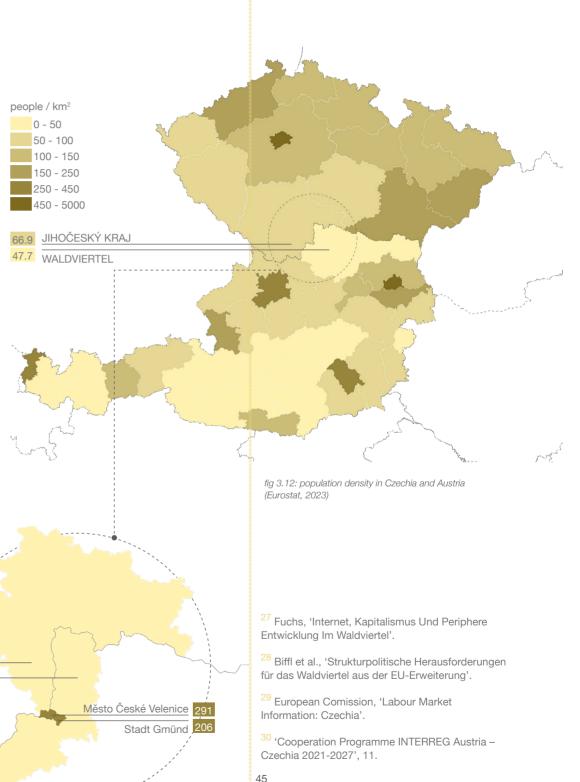






fig 3.13-3.18: age distribution (relative by age) and population numbers 1920-2022 (absolute) for selected districts (1&2) and cities (3) (Statistik Austria, 2022 & Czech Statistical Office, 2022)

shrinking and overageing of settlements within the border region, whereas only the district České Budějovice carries an opposite trend, which can be explained through its eponymous capital, which works as a gravitative urban centre for its surroundings. Especially natural

conditions, such as a low birth rate and a high proportion of elderly population, are influencing the negative population dynamics. Furthermore, it is mainly young people that are leaving the area from peripheral locations³¹.

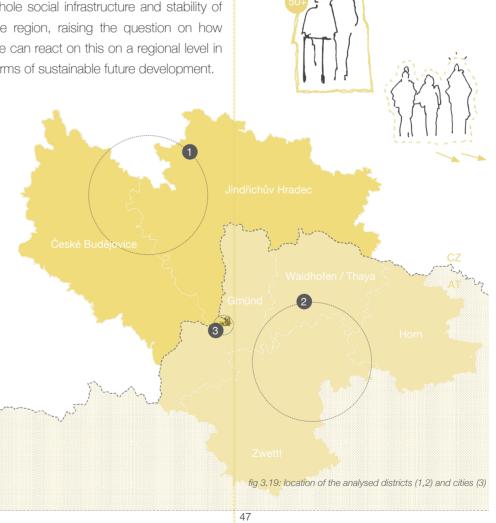
Although there is a slightly positive population influx in all districts, it's still not sufficient to outweigh the high death and low birth rate.

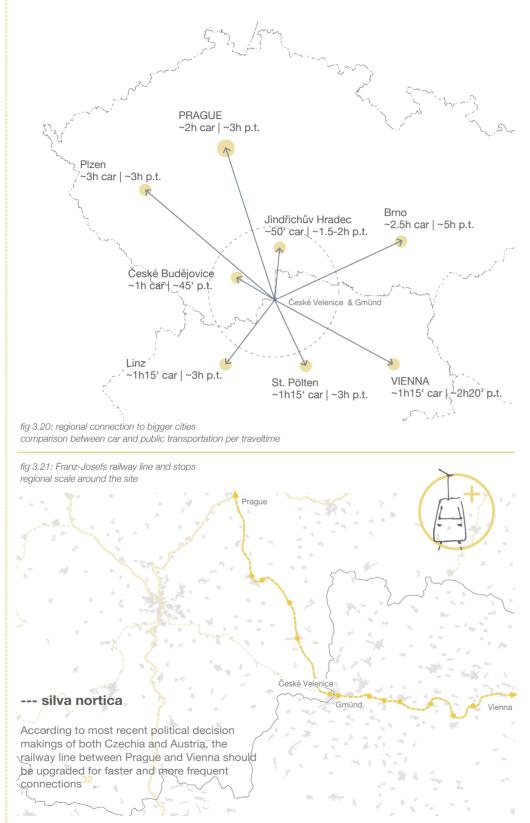
Considering these tendencies, a population turnover is to be expected in a few years, leading to a strong population decrease again if there will be no influx from other regions. This will then affect the whole social infrastructure and stability of the region, raising the question on how we can react on this on a regional level in terms of sustainable future development.

³¹ Gruber and Heintel, 'Das Waldviertel – die ewige Abwanderungsregion?'

--- overageing and shrinking

a great part of the border landscape is characterised by the social peripheral challenge of an old society, that is shrinking.

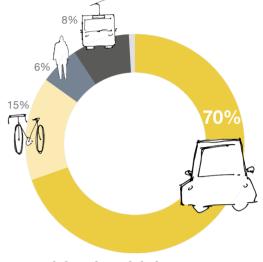




When it comes to the daily movement of people, characteristics of rural areas also appear in the analysed region. Both on the Czech and the Austrian side there's a high share in individual mobility as well as a low density in public transport. The distance between the cities is of course another factor influencing the movement, promoting the car as a dominant feature of a rural landscape.

Individual mobility use is ranging between 60-100% in the districts of České Budějovice and Jindřichův Hradec, with the highest numbers outside the bigger cities. Especially municipalities bordering Austria are characterized by a fairly low supply in public transport, although some of them would have the demand for it³³. In the peripheral areas of northern Austria within the bespoken region, the car usage rises to almost 70% and public transport is used in 10% of the travels – falling below whole Austrian average³⁴.

The railway line operating between Vienna and Prague works as an important infrastructural element for the greater region as well as the municipalities and cities that are located close to it. Since 2022 there's a direct connection between Vienna and Prague that runs 18 times a week with a total travel time of about five hours with plans of further improvement.



--- peripheral modal share

The pie chart displays numbers of the modal share across Austrian peripheral areas. Comparable data for Czechia could not be found, the assumption however remains that the dispersion is similar³⁵.

³² NÖN – Niederösterreichische Nachrichten,
 'FJ-Bahn: Mehr Verbindungen, Modernisierung & Zweites Gleis'.

³³ Ivan and Horák, 'Demand and Supply of Transport Connections for Commuting in the Czech Republic'.

³⁴ Bundesministerium für Verkehr, Innovation und Technologie, 'Österreich unterwegs 2013/2014.'

³⁵ Bundesministerium für Verkehr, Innovation und Technologie.

As mentioned in the introduction chapter. great natural areas and spaces are a characteristic, that often becomes apparent discussing peripheral rural areas. In the bespoken region the iron curtain that divided Europe in East and West led to two key effects on its immediate surrounding landscape. On the eastern side it became a prohibited zone due to military border controls and on the west side the landscape was unattractive for development and investment, since the communication was cut off from one side. The lack of human intervention for a period of over 40 years has turned this borderline space from northern to southern Europe into a valuable refuge for many species with an almost undisturbed natural development. After the fall of the iron curtain in 1989 and the opening of many borderscapes, this belt has been dissected and disappeared in some places, since physical actions were taken to improve the communication and development across the former Soviet Border.

However, already in an early stage, many organizations and politicians recognized the ecological value of this landscape and a lot of conservational initiatives have been implemented. Today the IUCN recognizes this so called "green belt" as an ecological backbone of incredible value for whole Europe, especially in In the portrayed region, the green belt is characterized by a large continuous forest that has turned into a refuge for many endangered species in central Europe, such as the Eurasian Lynx (lat. Lynx lynx) and the moose (lat. Alces alces). Some areas across the border regions between the northern part of Austria and Southern Bohemia in Czechia are even under conservation today (national park Thayatal/ Podyj; Třeboňsko)³⁸.

consideration of the biodiversity goals that

the European Union aims to achieve³⁶.

The analysed region is of great importance

due to its various protected sites within

the manyfold landscape as well as its

location within the European green belt.

This serves as a great base for species

protection but furthermore also plays a

key role in climate adaption measures, awareness programmes[®] or local tourism³⁷.

--- the central european green belt

The European green belt is an important eco-corridor throughout Europe. It is divided into four different zones defined through the landscape character. The bespoken region lies within the Central European green belt, characterised by mountainous ranges, wild riverscapes and deep forests among others³⁹

³⁶ Terry, Ullrich, and Riecken, The Green Belt of Europe, 3–9.

³⁷ 'Cooperation Programme INTERREG Austria – Czechia 2021-2027', 18.

³⁸ Terry, Ullrich, and Riecken, 53–54.

³⁹ European Green Belt Association e.V., 'European Green Belt'.

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APPET

AD MARTIN

REGIONAL ANALYSIS A SHORT SUMMARY

On regional scale the analysis in both countries overlaps with the challenges of peripheries in general as described in the introduction. The population dynamics - in exception of the city České Budějovice (CZ) – show a negative trend, which originates in a low share of the younger generations together with a low birth rate and a too weak influx rate to mitigate the shrinking. Furthermore, the weakness in social infrastructure leads to many people leaving the region, especially younger generations and skilled workers. The infrastructural network profits from its propinguity to the railway connecting Prague and Vienna, however the areas further away from that track are much depending on individual motor traffic for daily needs in consideration of the low density and widespread patterns. The natural environment of the area, particularly the one closer to the country border, encompasses unique features such as swamps, lakes, and forests. Its part in the ecological corridor known as the "green belt" that runs through Europe on the former iron curtain accounts for

a great value for the natural landscape and habitats for many species but also contributes to the touristic attractivity of the region.

However, despite some initiatives that go across the border - e.g. the bilingual hospital in Gmünd (AT) or the "culturebridge" in Fratres (AT) - in general it remains an incommunicative feature with few crossings that are barely connecting socially important structures. It is mainly smaller villages that showcase the terminal of a nation rather than a vibrant connection and communication across the border. With 75% of people distrusting their countries neighbour together with the prevailing language barrier, in terms of cross-border cooperation the Interreg programme review from 2014-2020 particularly underlines the importance of new people-to-people initiative sengaging the local population.

Thoughts on the needs for sustainable development on the border region:

Need of a story | vision for the region, particularly on the border

New ideas for network and structure

Integration to the natural surroundings

Development strategies across borders

Structures enabling autonomy to help counteract dependency



LOCAL ANALYSIS A PORTAIT OF TWO CITIES

The urban fabric of the cities České Velenice and Gmünd illustrate a development throughout a long period, where different ideologies have left a mark in the built structures. From growing as one united city initially to being parted for four decades, forms the picture of today a city that is two.



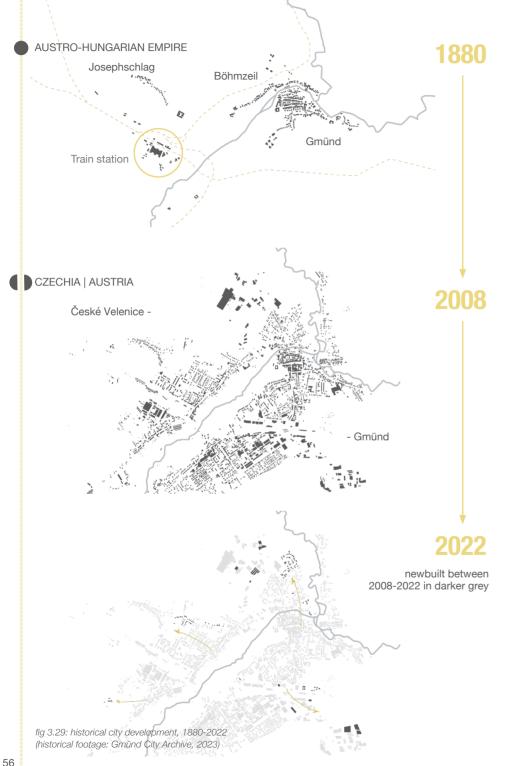












The growth of the city over time together with current developmental trends is displayed on the maps to the left. The medieval structure in the north of the city dates back to the 12th century, according to historical records. The first map to the left shows the city structure in 1180. Back then it was divided in three settlement structures – Gmünd, Böhmzeil and Josephschlag, all of which were part of the Austro-Hungarian Empire. The development of the Franz-Josephs-Track in 1869, that led to the development of a railway station within the site had a major influence of the further city development, as already mentioned in the previous chapter. With the erection of this train station also the development of today's city of České Velenice, which became part of the Czecho-Slovakian ground after the fall of the Austro-Hungarian Empire in 1919, started⁴⁰.

Looking at the development between 2008 and 2022, a trend of growth on the city fringe in monofunctional clusters becomes evident. The images to the right give an example to this, with the shopping mall along the bigger roads, mainly accessible through cars, or the growing single family house areas outside the central part of the cities.

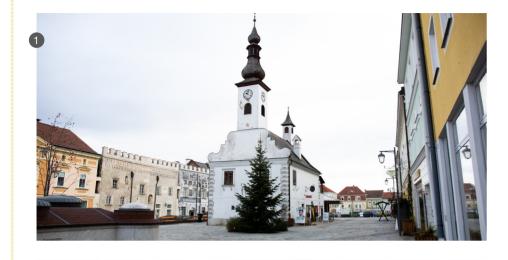




--- current development trend

The bottom map to the left illustrates the cities development between 2008 and 2022. It follows a trend of rather monofunctional clusters on the city fringes, as portrayed in the images above (single-family houses and mall, Gmünd)

⁴⁰ Dacho, 'Vergangenes Aus Gmünd'.



2





Within both cities, there are three areas, which can be considered as local cores - the city centre of Gmünd, the young central street in the south of Gmünd (called Gmünd Neustadt) and the chestnut avenue in České Velenice, which runs from the main road towards the train station. covering the main functional buildings. These areas cover the key functions of the everyday life within the cities, each in their own scale and pattern, responding to the neighbouring structures.

1 City centre, Gmünd

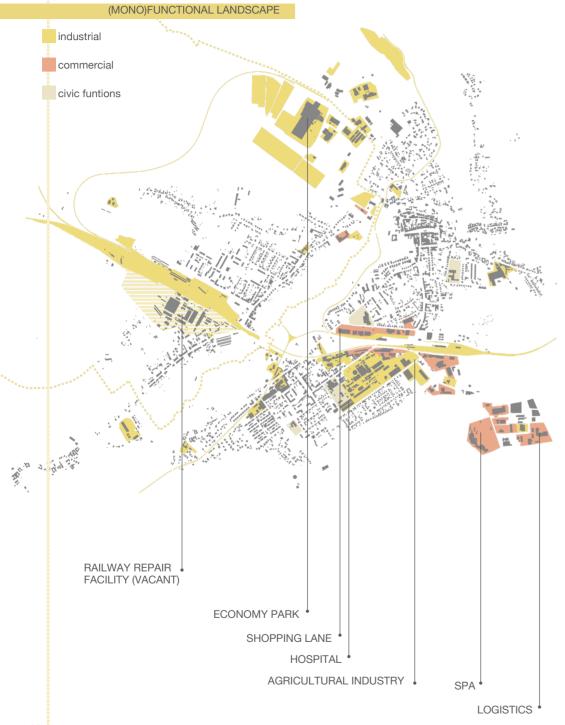
historical core, local stores and businesses, tourist attraction. restaurants. castle

2 Local centre, Gmünd Neustadt

local stores, restaurants and cafe's, pharmacies, museum

3 Chestnut avenue, České Velenice local stores, municipality, community centre, train station



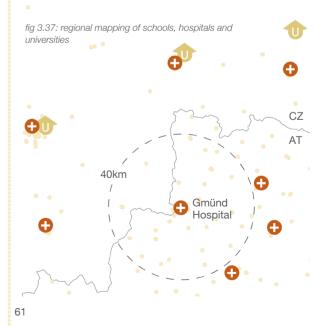


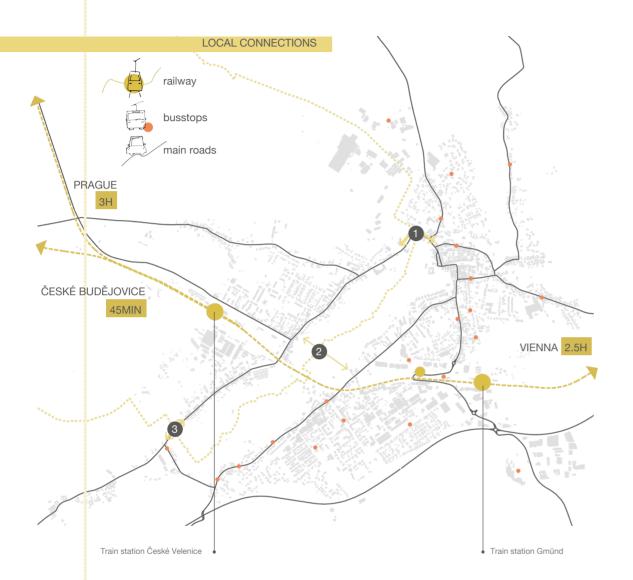
The map to the left illustrates the functions in the overall city structure, excluding active ground floor usage. The strong yellow colour marks the industrial areas, whereby the industrial park in the North and the agricultural industry along the railway line are among the largest of these. Within České Velenice, the dashed yellow area outlines the old railway repair facility, which is not in use anymore today and therefore an inner-city brownfield. The red areas cover commercial usage, following the major streets of the district. Within the city, a key commercial area is the shopping lane in the middle of Gmünd, which has grown over the past years and today encompasses many shops from bigger chains.

Comparing the social infrastructure between the cities, the analysis shows that the city of České Velenice has fewer monofunctional clusters, but rather more active ground floors along the central road, whereas in Gmünd there's a greater abundancy of merged commercial areas. Due to its size and functional landscape, the city of Gmünd plays an important role for work and education, but also other social infrastructure for its surrounding region - both on the Czech and the Austrian side. An example for that is the hospital within Gmünd, which operates across the border towards Czechia as well.

--- social infrastructure regionally

The mapping of important social infrastructure on the regional scale portraits the importance of the hospital in the city of Gmünd for the availability of health care not only within northern Austrian but also for the Czech border region.





As already mentioned in previous abstracts, the railway line operating between Prague and Vienna is a great infrastructural backbone for the bespoken border region, but also within the site. It connects the two cities directly to the bigger cities Vienna, Prague and České Budějovice. The planned initiative of upgrading the track and creating a higher frequency can furthermore be seen as highly important for the future city development. Concerning other modes of shared mobility there are existing bus lines within Gmünd connecting the regional surroundings. However, the commuting on the local scale remains car driven, since the bus lines operate in a low frequency, while in České Velenice a connection through busses is lacking at all. Most recently, initiatives to develop new bike tracks connecting to a wider region have been made in cooperation between the two cities. It speaks especially for enhancing the attractivity for local tourism.

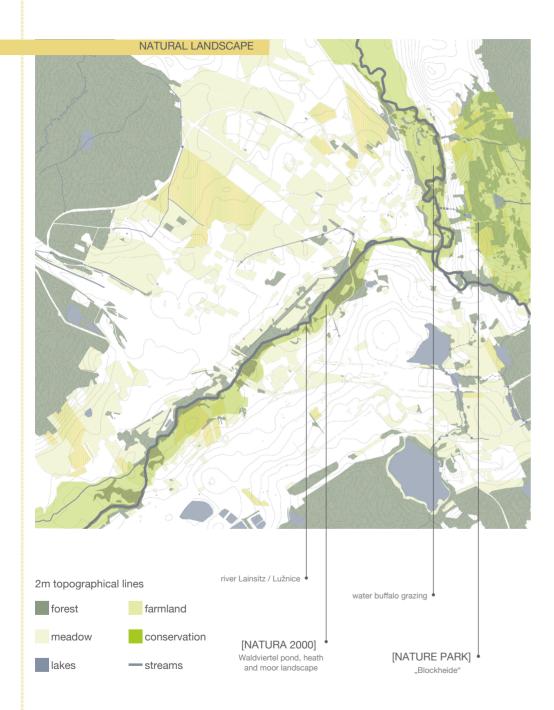
Within the two cities three border crossings are to be found, whereas one of them is only accessible by walking and biking through a narrow bridge crossing the central river. Impressions of these crossings are given in the three images to the right. In general, the movement patterns are mainly directed to the countries inside, which is also depicted in the map. Only the central pedestrian and bike bridge is allowing access to the landscape in the middle and inbetween the two cities' centre.







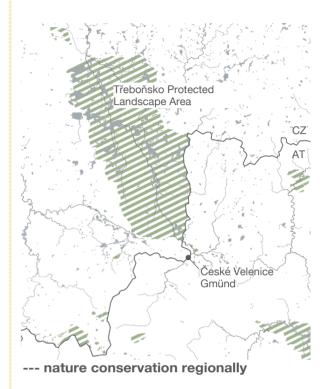
63



The two cities are embedded within a landscape characterised by forests, lakes and swamps. As mentioned in the regional analysis, the natural landscape within and around the site is part of the eco-corridor "green belt" that runs throughout Europe, what contributes greatly to its ecological significance. Central of the two cities, the river Lainsitz and its immediate surroundings are under conservation and claimed as a Natura 2000 area. Human activities in such areas are generally allowed, however there's a prohibition of deterioration.

It follows the FFH-directive of the EU, with a special focus on the following protected species among others⁴¹: freshwater pearl mussel (Margaritifera margaritifera), brook lamprey (Lampetra planeri), eurasian otter (Lutra lutra), wood lark (Lullula arborea), white stork (Ciconia ciconia), common kingfisher (Alcedo atthis).

Outside the central conservation area, there are two other unique landscape features surrounding the city. One is a nature park called "Blockheide", which developed into a regional attraction due to its unique boulder formations. The other on is along the river Lainsitz in the North of Gmünd, where water buffalos are grazing during summer, contributing to the local biodiversity by keeping the alluvial landscape free from scavenging.



The Třeboňsko Protected Landscape Area is characterised by multiple artificial fishponds, that play an important role in the Czech fishing industry but also it contribute to the naturality and biodiversity for a greater region⁴².

fig 3.43: regional mapping of rivers, lakes and protected landscape areas



fig 3.44: Natura2000 logo (European Commission, n.d.)

⁴¹ Amt der NÖ Landesregierung, 'Europaschutzgebiete "Waldviertler Teich-, Heide und Moorlandschaft" und "Waldviertel".

⁴² UNESCO, 'Trebon Basin Biosphere Reserve, Czech Republic'.

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The interaction between the social and the natural environment, however, remains quite passive on site. Paths following the central river are lacking, making the great landscape feature mostly inaccessible but also the surrounding forests and lakes are rather cut off the city's fabric.

Furthermore, according to the Water-Framework-Directive from the European Union the ecological status of the river Lainsitz on site is classified as moderate (ranking 3 out of 5, where 5 is worst). The reason for its condition is mainly caused by hydromorphological stress encompassing water household, continuity, and morphological conditions⁴³.

Overall, the natural features within and around both cities should be seen as a great asset, that contribute to the living conditions and quality of Gmünd and České Velenice but also in terms of local tourism and nature education. Especially when considering the challenges concerning climate change and species deprival, the value of natural areas is promoted even further but at the same time it calls for new ways of interaction with the environment we live in.





--- flood protection

Since the medieval core of Gmünd was built quite dense towards the river, flood protection measures where needed to protect the built environment, emphasised even further by the great flood in 2002 on site. The picture shows the current implementation of a 2m concrete wall that is being established along the river in central Gmünd, aiming to be finished in the following years.

⁴³ WISA, Wasser Informationssystem Austria, 'Gewässerbewirtschaftungsplan 2021'.

LOCAL ANALYSIS SUMMARY AND OUTLOOK

The two cities Gmünd (AT) and České Velenice (CZ) in comparison to other surrounding cities have a great basis for development due to their location at the railway line. Also, the central river Lainsitz together with surrounding forests and lakes creates a great naturality on local scale, however, the access to the river in particular could be improved as a natural public and recreational space. In terms of local life, there's three areas that could be described as a centre - the medieval city core of Gmünd, the central street in the newer district of Gmünd Neustadt (formerly Gmünd II) and the chestnut alley in České Velenice. Many commercial and industrial areas as well as the economic park in the North of the cities showcase the strategy of accumulating socially important structures on a smaller perimeter, leaving the rest of the cities with mainly residential character. The current trend of development is proceeding rather on the remaining parcels on the city fringe in an individualistic and monofunctional trend, while vacancies in the core start to increase (mainly due to lack of replacements in local businesses). The area of the former repair facility for trains in České Velenice, however, could support inner city development and densification

making the need of outer development redundant.

Gathering the analysed information and impressions together, ideas for future development of both cities should focus on the following collected points:

STRENGHTS

Railway line - connection to metropolises Natural assets within and surrounding the city Developed core structures, especially in Gmünd Availability of necessary functions

OPPORTUNITIES

Brownfield development within the cities	
Cross country cooperation	population decrease
Landscape as touristic attraction	Ageing population
Base for climate change adaption	Car dependency
Railway as driver for development	Residential sprawl and decay of the core

Need of mix and diversity in structures to support the social structure and network

> Interaction and integration within the landscape could be improved

Border crossings as well as the immediate situation could be enhanced

Streets could be enacted more as a social meeting place

New modes of mobility could be provided

WEAKNESSES

Low mixing of functions Weak structural communication High car usage Lack of active space in České Velenice

THREATS

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ACROSS THE BORDER REGIONAL SCALE

One of the key institutions working on cross-border interaction and cooperation between the bespoken countries is called Interreg Austria-Czechia, funded by the European Regional Development Fund. Their current project period runs from 2021-2027, with four key focal points in the following hierarchical order: Research & Innovation

Climate and Environment Climate change adaption Nature protection and biodiversity art installation between Slavonice (CZ) and Fratres (AT) "Wohin verschwinden die Grenzen?" "Kam mizi hranice?" (translation: whereto do borders disappear?)

Education, culture, and tourism Education and training Culture and tourism

INTERREG AT - CZ

Cross-border governance Legal and institutional cooperation People-to-people action for increased trust

fig 3.50: Interreg AT - CZ territory

ACROSS THE BORDER





ACCESS INDUSTRIAL PARK

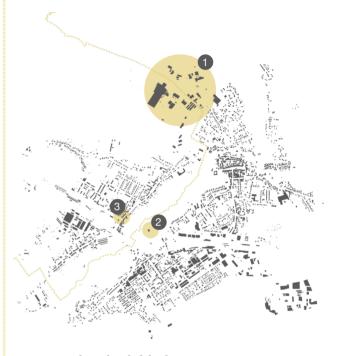
In the North of both cities, situated right at the country border, the access industrial park offers a business location, using the advantages of cross border cooperation. Furthermore, it encompasses a start-up centre, where meeting rooms and event locations are provided.

HEALTH ACROSS CLINIC

Health across is an initiative that encompasses all cross-border operations concerning healthcare of lower Austria. The institution in Gmünd close to the Czech border works as a stationary treatment centre, additionally to the hospital of Gmünd – operating on a regional scale both for Austria as well as Czechia.

FENIX COMMUNITY CENTRE

The community centre Fenix on the main street of České Velenice is operating since 2015 as a place to restrengthen the relationship and connecting between the neighbours of either side of the country. It offers a variety of cultural events and workshops for people of all ages, but also acts as information centre.



--- cross border initiatives

The marked locations highlight three existing cross-border initiatives on site, to give an example on the current state.

4

WORKING

TOWARDS SUSTAINABLE DEVELOPMENT SOLUTIONS FOR BORDERLAND PERIPHERIES

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SO WHY DESIGN?

When it comes to development, shrinking and over-aging regions with fewer means are at risk, especially in terms of social sustainability, and should therefore be a greater focal point for Sustainable Urban Design. For the chosen site, the passive country border comes as an additional challenge, with communication and interaction being already weak, it is amplifying the unattractive state of new development even more. Furthermore, mistrust at a country border is a hostile ground for social sustainability and must be acted upon right away. Since Gmünd and České Velenice are the only border city between Austria and Czechia, they carry an important role

concerning the future development of the border volume. Therefore, a new vision for future sustainable development is not only important to strengthen the existing cities but also to initiate a starting point for thinking and living across the border within the whole region. It should showcase, that there's way more to gain if we were to see the opportunities of sharing infrastructure, skills, and knowledge on what today a dividing line of two states is merely. The events of the past have led us to turn away from one sky direction, but the time has come to open up to our neighbours and see how we can manage the challenges of today together.

Defining and designing new grounds for a society living and thinking across country borders - guiding the way to a sustainable future development.



CHOICE OF PERIMETER

For the purpose of the design, a perimeter in the centre between the two cities was chosen. The aim was to find an area, where development on either side of the border is possible but also needed. The idea is to create a development orthogonal to the borderline, in order to facilitate living and thinking across the countries, rather than strengthening the already existing linear barrier. Furthermore, this particular perimeter can also be seen as an opportunity to create a missing link between the cities, using existing brownfields and underdeveloped areas, as well as utilising the proximity to the train stations. Since the political initiative is to enhance and strengthen this connecting feature between the country's capitals, it will play an important role in terms of future development of the city, but also the surrounding region.



location of the perimeter



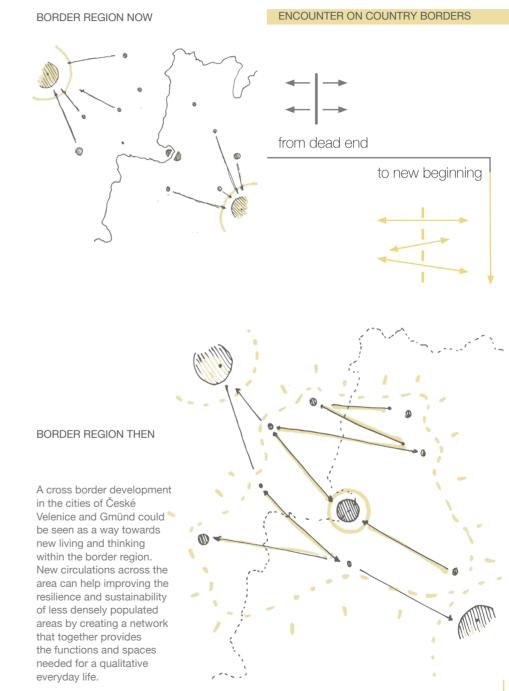
Health Across Clinic
 Gmünd Neustadt Centre

THE VISION

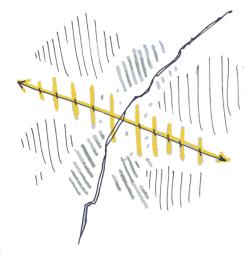
The vision of the following design is to define and design new grounds for a society across country borders, guiding the way towards sustainable development in a rural and peripheral context. The existing country border that runs through the designed site will be rethought from being a parting line between two entities into the three-dimensional space it shapes and the opportunities it creates for new ideas – from dead end to new beginning.

In order to counteract the dependency of gravitative centres, strengthening local values as well as the resilience of the cities is one of the highest goals. The design should offer a new story telling for the city that can simultaneously set an example for the surrounding rural structures as well. As it resulted from the analysis of the region, the border today remains as a mental construct that has also influenced the physical shape of its immediate surroundings. The design proposal should therefore react to that existing mental barrier, by creating an attractive holistic environment, offering new (cross-border) circulations with the ultimate goal that the line will disappear in the habits of an everyday living and thinking over time.

The ultimate goal is to set an example for a broader cross-country thinking and living, to create values of sharing which simultaneously help a peripheral and shrinking region towards new ways of sustainable development.



FIRST VISION SKETCH | PERIMETER



--- first thoughts

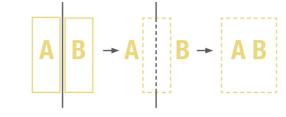
Creating an orthogonal development within a space, where development on both sides of the border is possible and needed to strengthen the cities within, but also to provoke a new circulation across the border.

WHAT IS THE PROPOSAL?

The design proposal is implemented in a perimeter that runs orthogonal to the country border, using current void spaces and brownfields along the railway. The core of the development works with parallel implementations. On the one side, the aim is to support the existing fabric of each city with completing the original patters to ensure a strengthened core on both sides, where discontinuity is currently found. On the other hand, the area – especially towards the inside of the perimeter - has an experimentational character. The vision is to claim the space as a shared ground, where the authorities from both cities collaborate and share the responsibility in terms of special regulations for housing and property price alignment, shared infrastructural systems (mobility, energy production, social services, etc.) and developmental tasks.

Concerning the people living in the perimeter, certain spaces will be dedicated for collaboration and shared interests. A primary objective is to create drivers for cross country collaboration to counteract the prevailing distrust between entities. With senseful cocreation comes a shared value that is supposed to echo out to the surrounding structures as well, guiding the way to new forms of living together. Around those so-called drivers, the designed structure should offer a continuous system of both cities with newly implemented structures supporting a sustainable way of living. Those should encompass new possibilities of shared mobility, energy production as well as mix used areas to bring the currently clustered social functions closer to the everyday life experience of both cities.

The experiment of municipal cooperation of the shared perimeter is undefined in terms of temporal duration, leaving an open end for however the further development might continue. It remains important for the design to react empathetic to existing structures and living patterns to ensure that the newly designed perimeter can work as a threshold for a new beginning without creating an additional border on site.



--- Threshold /tresh-hold/

= a level or point at which you start to experience something or something starts to happen or change (Cambridge dictionary)

= a state of inbetween-ness in borders, preparing for entering something new

RESPONSIBILITIES | OPPORTUNITIES WITHIN PERIMETER



inhabitants

An experimental zone of cross-border governance, sharing development authority and responsibility, enabling an equal threshold for working and living in the zone for people of either nationality - INTERREG Supporting institution in terms of financing and planning, local office for consultation and guidance

Spaces allowing for cooperation, possibilities for sharing responsibilities on a smaller scale, opportunities across age groups, attractive and inviting spaces for encounter

FOCAL AREAS:

The overall analysis in the previous chapter has already painted a brief picture of the existing conditions within the city. The following summary focuses particularly on the challenges within the perimeter, which will be included in the following design proposal.

České Velenice

- CHALLENGES: Lack of attractive features Disrupted city pattern Lack of shared mobility options
- OPPORTUNITIES: Brownfield development potential Train connection Surrounding environment Younger and slightly growing population

Borderline

CHALLENGES: Regulatory differences Distrust Language barrier Natural limitations

OPPORTUNITIES: Knowledge and skill sharing Population diversity Sharing infrastructure Lighthouse-effect

Gmünd

(+

- CHALLENGES: Overageing population Clustering of functions Start of single-family housing sprawl Flood risk
 - OPPORTUNITIES: Variety in workplaces and sectors Train connection Role for surrounding environment Touristic value



DESIGN PHILOSPHY

To fully understand the patterns of the following design, the key focal points of the design philosophy as well as limitations on site will be described briefly.

First of all, there were certain limitations on site, that needed to be taken into consideration for designing the physical environment. Among them the railway tracks - both the normal passenger rail as well as the narrow-gauge line, which operates during summer as a touristic attraction. Additionally, in the centre of the perimeter both the Natura2000 area, where deterioration is forbidden by law, but also the 100-year flood zone were taken into account.

Furthermore, the design is following the zoning plans of both cities, respecting the existing agricultural plots, and using almost only already dedicated building land for the new built environment. Since the overall aim of the design proposal is to loosen up the presence of the country border and working towards uniting the two cities together with their inhabitants, it was of great importance for the proposal not to appear as an additional barrier on the site, but to communicate with existing patterns and structures. Therefore, also the newly built environment should follow the given city image to ensure a continuous flow within the cities. This also refers to the appearance, materiality, arrangement, and scale of the new buildings. Empathetic design is the key philosophy. The goal is not to just densify the region to allow for higher population numbers, but to feed into the existing, thus strengthen and develop what is already existing.

working with already sealed surfaces and building land

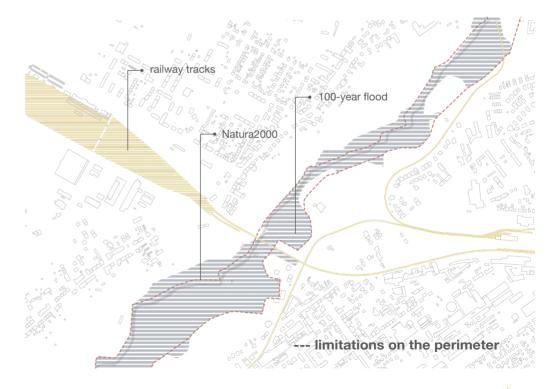
using local materials and species

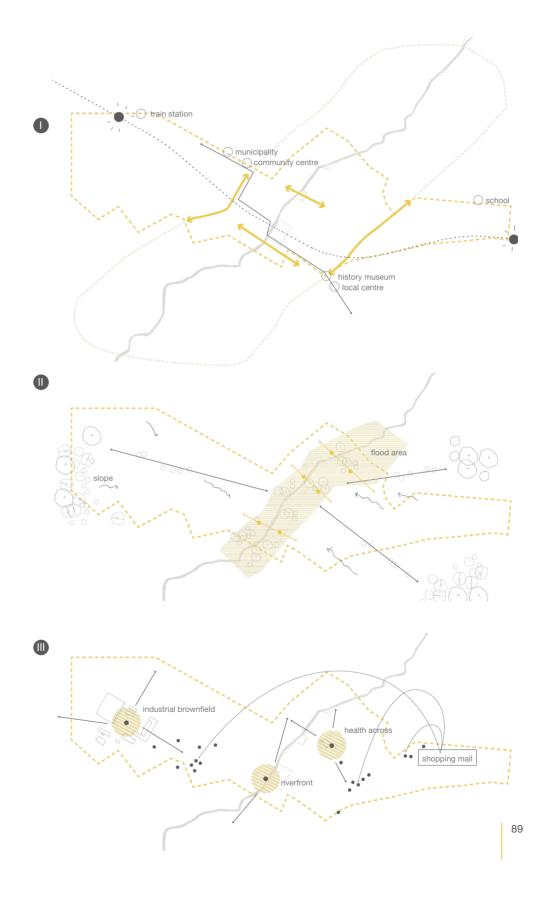
respecting spatial limitations

base the new to existingbuilt structures in height and structure



--- adaptation to local character





STRATEGIC APPROACH

I movement and flows

natural environment

built environment

creating new circularities

embrace importance of the train stations

adding new modes of transportation

strengthen continuity within the city

preservation, awareness

and education/recreation

fabric

habitats

landscape

spaces to encounter spaces to cocreate

groups of people

strengthen existing initiatives

diversify the functional landscape

create new circularities and flows between the

improve the communication between public

create better accessibility towards the river

embrace qualities of the Natura 2000 area and

create communicating structures across border

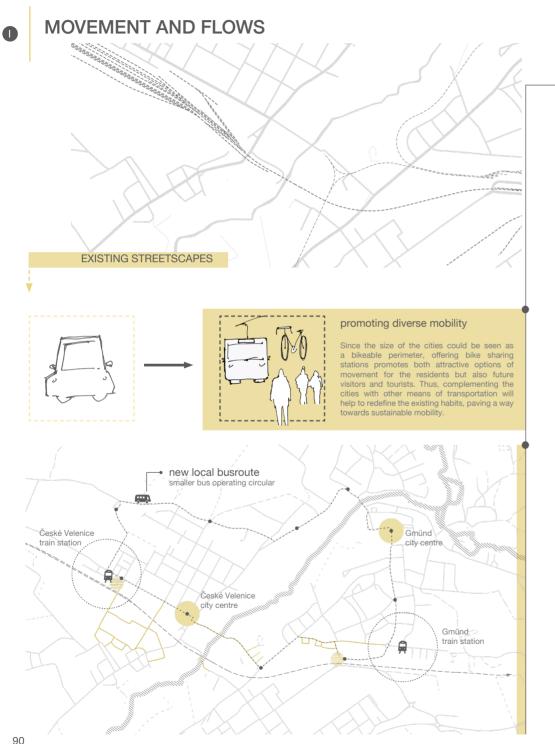
create attractive environments to attract different

implement flood protection measures

including recreational and educational

restore connections to the surrounding

Firstly, stabilising and strengthening the existing in terms of resilient and sustainable ways of living will be of big importance. The new design should offer a supporting character for either city, feeding into existing patterns instead of creating an additional border on site. Mixing functions on a walkable perimeter as well as offering structures for sustainable mobility and energy production will be essential elements of the design. Especially in the rural peripheral context, it's needed to implement features that support self-sufficiency of a city and/or region in order to counteract the existing dominance of gravitative urban centres. Attracting diverse social groups as well as implementing projects and spaces for common value creation across borders (country-, population- and nature/ human-) embrace a parallel layer that particularly aims for social sustainability. The surrounding and inside located natural areas are a great foundation for raising awareness and nature education among the population. Furthermore, the renaturalisation of certain areas, especially along the Natura2000 perimeter, as well as implementing elements for climate change adaption are needed to support sustainability, not only in the environmental perspective.



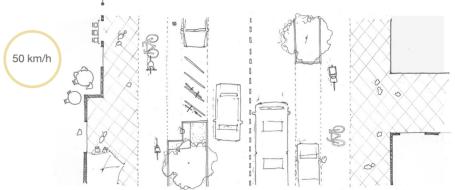


As mentioned in the analysis, the streetscapes as well as the functional environment are designed with the main focus of individual mobility, especially cars. This concerns both the regional context as well as the environment of the site. The aim of the newly proposed movement and flows is to strengthen new circularities within and between the cities. The train-stations – in consideration of future expansion plans – are being complemented by mobility hubs, to offer different modes of mobility, preferably shared. Furthermore, implementing a new cross-country bus route, which operates circular between the cities connecting important areas, will help a new flow but also support the newly idealised way of moving around. Toward the inside of the perimeter, a continuous pathway along both sides of the river should add to the lack of interaction along the border but also to the Natura2000 site they share in their midst.

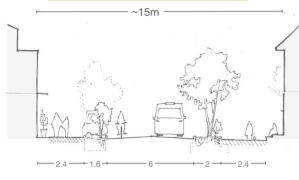


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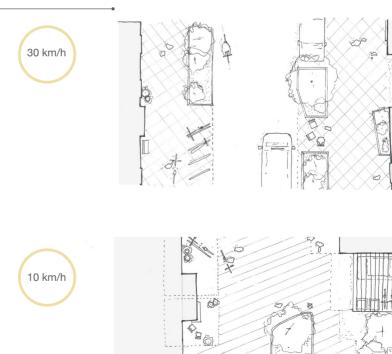
SECONDARY STREETS





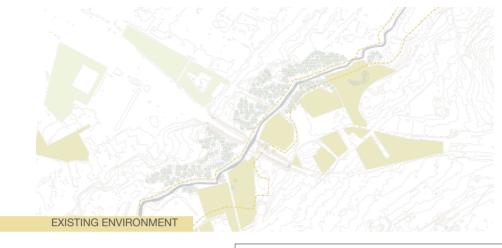
The new streetscapes are designed with the main focal point of promoting encounter between neighbours, but also for being safe and attractive.

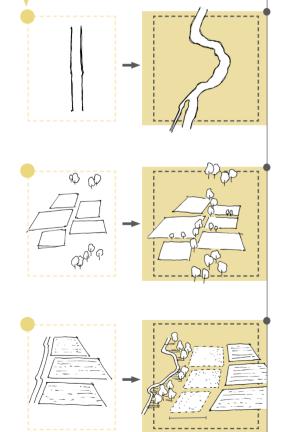
The three introduced street typologies showcase the new designed streets, where motorised traffic is allowed, though not the main focus. In terms of perceived connection between the cities, the pavement of the new designed streets is meant to continue in the same appearance on both sides of the border, but also the central avenue of České Velenice will be prolonged all the way to the local centre of Gmünd Neustadt, uniting the central features.





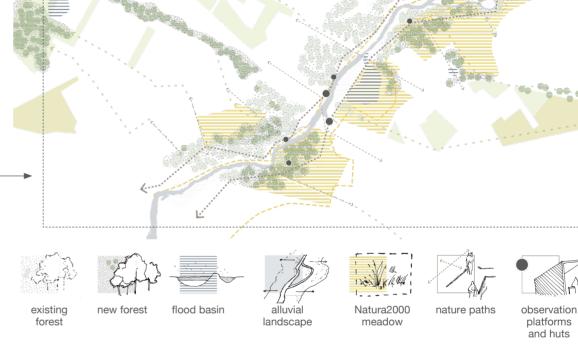
NATURAL ENVIRONMENT





Working with raising the quality as well as the naturality of the site has multiple layers and reasons. It speaks to the quality and abundance of habitats and species, protecting fragile biotopes but also reacts to the species extinction and climate change effects that we are currently facing globally. On the other hand, the natural environment can be seen as a key component of life in rural areas - an attractive feature for new residents and tourists, simultaneously promoting the well-being and raising awareness and attachment towards the spaces of the local residents.

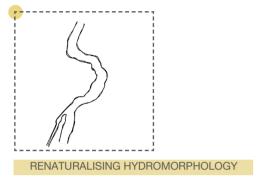
With the addition of pathways and observational stations and huts along the river, the centre of the perimeter will be transformed into an interactional landscape, rather than being the current addition to the existing borderline. Since

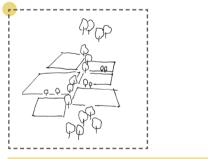


deterioration is prohibited in Natura2000 territories, the proposed design works with minimal interventions, especially in terms of the built landscape. The implementation of new flood basins in different locations of the perimeter should help buffer higher water levels further down the city. At the same time, they can lead to the development of swamplike biotopes, which are a characteristic landscape feature within the bespoken region. The newly proposed forests are adding to naturality of the site, but also create shade towards the river, which is currently lacking.

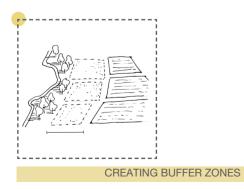
Overall, the central Natura2000 landscape will be the main driver of the design of the natural environment, which should further be supported by the built environment that is proposed within the perimeter.

RENATURALISATION INTERVENTIONS





IMPLEMENTING STEPPINGSTONES



As a response to the mediocre quality of the river due to the straightened river course, the proposal is to bring the morphology of the river back to a natural state, taking reference from further down the stream. This not only allows the emergence of riverine biotopes, but also helps mitigating the extreme effects of floods through broadened adjacent floodplains.

In order to support the migration of species but also the perceived connection to the surroundings, steppingstone biotopes are being implemented throughout the perimeter, creating a link between the natural landscapes within and outside the new designed ground. These features manifest themselves in simple roadside greenery, newly proposed parks as well as bioswales, depending on the location within the site.

On the perimeter, especially on the Austrian side of the border, most of the land up to the banks of the river Lainsitz is used for agriculture, which limits the natural alternation of the river floodplain but also eliminates habitats close to the river. Creating natural buffer zones will help to alleviate the effects on agriculture on the



--- river course reference

The appearance and flow of the river Lainsitz just North outside both cities were used as a reference for the changes in the hydromorphology, in order to preserve the naturality of the new design proposal.

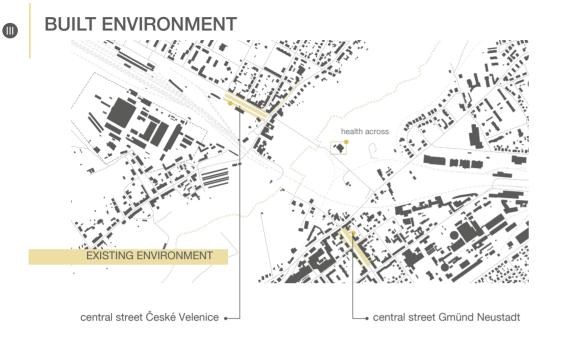
--- intermediate disturbance hypothesis

It's evident that there is a connection between an intermediate disturbance of habitats and their species diversity, also known as intermediate disturbance hypothesis. In the case of the newly claimed Natura2000, the proposal is to only mow the fields 2-3 times per year in order to keep the areas free from scalping and to support biodiversity⁴⁵.

protected area, but also allow shading of the river and increasing species diversity through more natural conditions. The proposal is to implement meadows, that are mowed three times a year, which is evidently supporting biodiversity (intermediate disturbance hypothesis, see sidenote) but also supported by the EU⁴⁴.

⁴⁴ European Commission. Directorate General for Environment., Bewirtschaftung von Agrarflächen in Natura-2000-Gebieten.

⁴⁵ Smith et al., Ökologie, 514.



Despite the importance of developing a qualitative infrastructure as well as a healthy natural environment, a special focus in the design process has been dedicated to the social sustainability of the cities for two main reasons: On the one hand, the continuing shrinking an overageing of the border society puts a great risk on the future stability of the social infrastructure and hampers a sustainable development in general. On the other hand, the passive life on both sides of the border, where transnational initiatives still haven't found a fertile ground, is a challenge that needs to be faced, considering the high share of distrust it is followed by. As the most

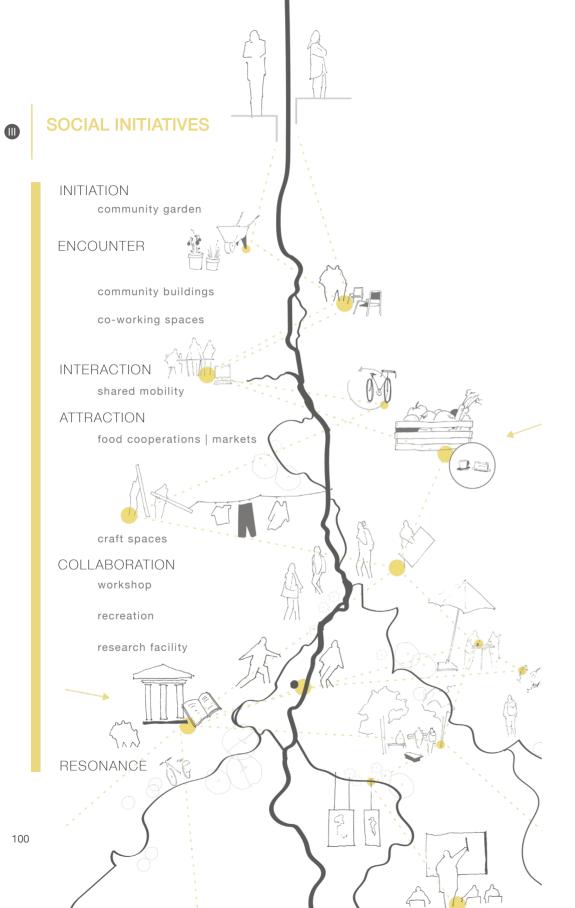
recent Interreg-report as well as other sources have claimed, there's a great need for cross-border initiatives which are not only promoted by the local governance but also find their appeal among the local population⁴⁶.

Already early on in the design process, the idea was to allow for spaces, where collaboration is promoted as a way to highlight a forgotten neighbour and to counter the prevailing distrust. Therefore, the key philosophy for the design of the social environment was to create an attractive and continuous public realm, which offers spaces to encounter and spaces to cocreate. The approach was



to work with existing initiatives on site, but to link them more closely to people's everyday lives in order to ensure a wider outreach of the cross-border thought. Furthermore, it was aimed to create both initiatives for the inhabitants as well as the governing institutions – as a symbol and to bring the people responsible for initiatives closer to the ones who are influenced by, ensuring good communication. Overall, the proposed design of the social environment should strengthen the existing cities on their own as well as their interconnectivity, but also include so called drivers, that aim for different target groups. Those encompass the existing elderly population, the desired and needed younger generation as well as the youngest part of our society, representing the future of the cities.

⁴⁶ Cizek, '"Die grenzüberschreitende Zusammenarbeit zwischen dem nördlichen Waldviertel und Südböhmen – Chancen für die Grenzstadt Gmünd"'; 'Cooperation Programme INTERREG Austria – Czechia 2021-2027'.



An environment that offers a diversity in ways of working and living should counteract the shrinking dynamic of the population by attracting a diversity of people from both sides of the country, particularly the younger generations. Together with a dynamic natural landscape, a close-knit community lifestyle should be seen as an attractive element of the rural lifestyle in the new proposal.

With the new design comes a variety of social initiatives, ranging from very small scale such as a community garden up to the regional scale with the implementation of an Interreg-office on site, working as a consultation centre for the whole border region.

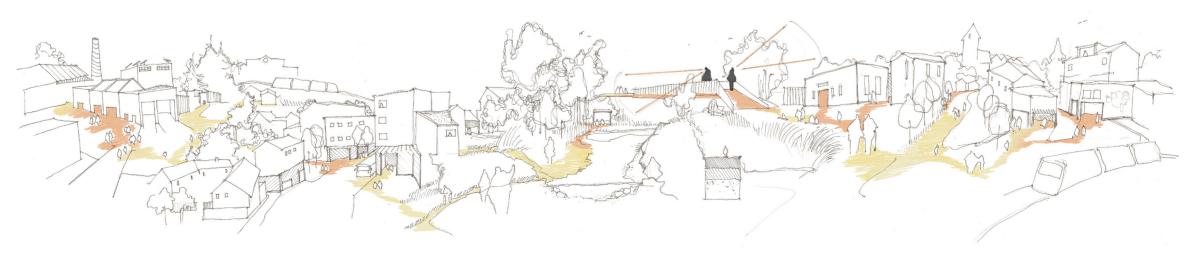
The planned initiatives should not only help to attract a currently lacking social group, younger generations and skilled workers respectively, but also enable the local border community to leave their footprint in the city, providing their share for the envisioned thriving border society.

DESIGNING NEW GROUNDS FOR A BORDERI ESS SOCIETY



FROM DEAD END TO NEW BEGINNING, FROM LIVING ON BORDERS TO LIVING ACROSS BORDERS.

Defining and designing new grounds for a society across country borders, guiding the way to a sustainable future development.





SPATIAL RELATIONS

SPACES TO ENCOUNTER

residential use

SPACES TO CO-CREATE

functional environment



SPATIAL RELATIONS





SPACES TO ENCOUNTER

impressions of the new neighborhood in Gmünd at the former mall.

The new design works as an orthogonal corridor from the entrance of the train station in České Velenice all the way to the local entry road of Gmünd. It encompasses spaces ranging from

intimate neighbourhoods with smaller spaces of encounter all the way to newly designed public spaces that offer spaces of collaboration.

SPACES TO CO-CREATE

impression of the new local square in České Velenice.

HISTORICAL RELATION

Although the main focus of the design proposal is to make the existing borderline more permeable and create a communicating environment across the line, it is still of importance to create spaces relating to the events of the past. Therefore, two existing installations

2 · · :

dedicated to historical reprocessing will be linked by a central memorial, where a leftover of the iron curtain is located today. This will be turned into a green podium that has been broken through orthogonally, as visualised on the scheme below.

historical walkway (existing)

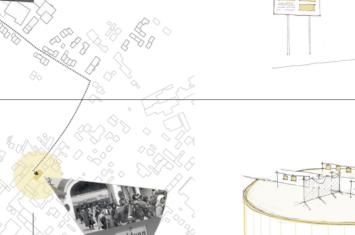
Along the chestnut avenue of České Velenice, information signs tell a chronological story of the city's history.

memorial podium (redesigned)

In the centre of the perimeter, existing remnants of the iron curtain will be put more into focus by creating a green podium, a moment of pause. Installed images on either side of the path - which do not require a verbal explanation should once more highlight the orthogonal breakthrough of the new design.

house of history (existing)

Right at the entry to the local centre of Gmünd Neustadt, the house of history is offering impressions and an informational background about the historical relation between the countries and the cities.







DETAIL DESIGN

As the main focus throughout the design process was dedicated to social sustainability, three new areas of the proposal were given special importance to support the idea of a resilient and communicative society. Each of them is answering to different challenges and focal groups, but also encompasses a distinct outreach in terms of local and regional significance.

They are portrayed in the order of their focal groups – starting from the existing society and reaching to the envisioned future of living and thinking across borders.



life on borders

CZENTRUM LEPŠ(CH)Í

life across borders

3 **NEW MIDDLE** life without borders











DETAIL DESIGN HEALTH ACROSS

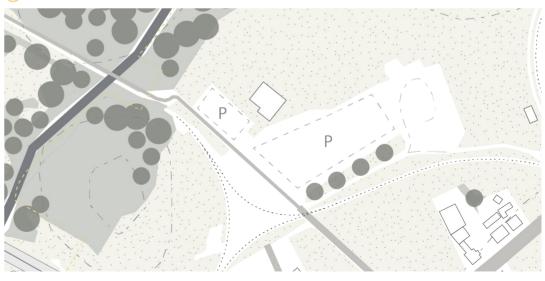
The design proposal for this area is an addition to the existing Health-Across clinic, feeding into its current structure, but widening the idea into a space that serves a multiplicity of atmospheres and realms to be appropriated. It should speak to the elderly part of the society that is currently living in the cities, those who grew up in an environment where the border was manifested both physically and mentally.

With the proposed design the existing clinic will be anchored towards the city fabric of Gmünd, and furthermore the proximity to the natural landscape towards the inside of the perimeter will be embraced for the purpose of recreation and support of well-being. Towards the streetscapes, in particular the existing bike lane next to the narrow-gauge line, the facades and spaces promote an interactional space between old and new, supported by a community garden, assisted housing as well as a community kitchen. Oriented towards the riverine landscape, the clinic will be enlarged through the addition of a small retreat centre – creating a semiprivate courtyard to the inside and a recreational garden to the outside of the plot. The prolonging of the built fabric towards the clinic should not only support the embedment of the clinic within the city, but also the continuous and inviting connection across the border towards the city centre of České Velenice.

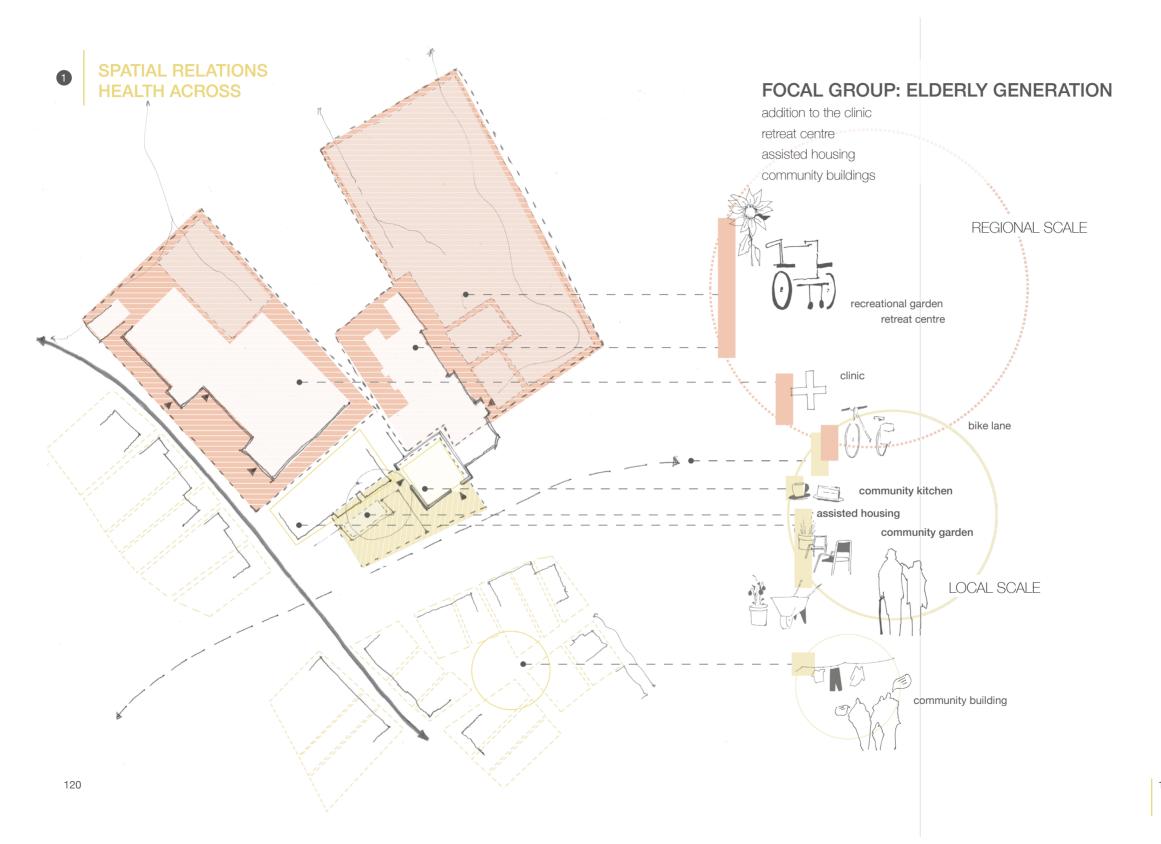




- + spaces for recreation
 + communal spaces
- + elderly care
- connection to city and nature









IMPRESSIONS HEALTH ACROSS



view outside assisted housing and community kitchen



path through the grove to the forest



DETAIL DESIGN CZENTRUM LEPŠ(CH)Í

The industrial brownfield in České Velenice that will be recycled into an attractive and vibrant centre of (co-)creation will serve as attraction speaking to the younger generation. It represents a proactive mind, were the generation, which grew up without the physical border, should set the start for a living and thinking across both countries.

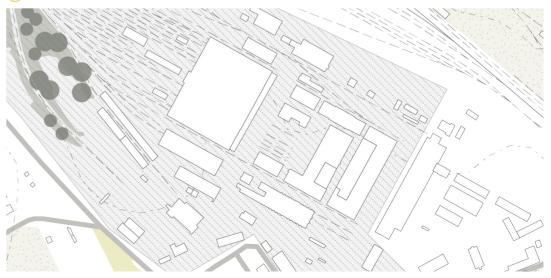
The proximity to the train station and the newly proposed mobility will enable the regional connection for attracting a user group, which is currently lacking appropriate spaces in the perimeter. Some of the existing industrial buildings will be recycled to purposes of an active centre, with the main focus on arts and crafts. The proposed design encompasses a faculty for arts and crafts, together with rental spaces, exhibition rooms, outdoor learning cabins as well as a workshop. The old train hall will be transformed into an indoor sport shall, with an active facade offering bars and restaurants. Furthermore, within the area there will be two buildings dedicated to the cross-country governance of the perimeter, where additionally an office for Interreg employees serves as a local and regional centre of information, consolidation and awareness creation.

The idea is to start the process with temporary events on site, to highlight the envisioned idea among the younger generations – especially students and skilled workers. With co-creation and interactive spaces, czentrum lepš(ch)í will be the driver for the emergence of a cross border society, revitalising the current overageing rural settlement.





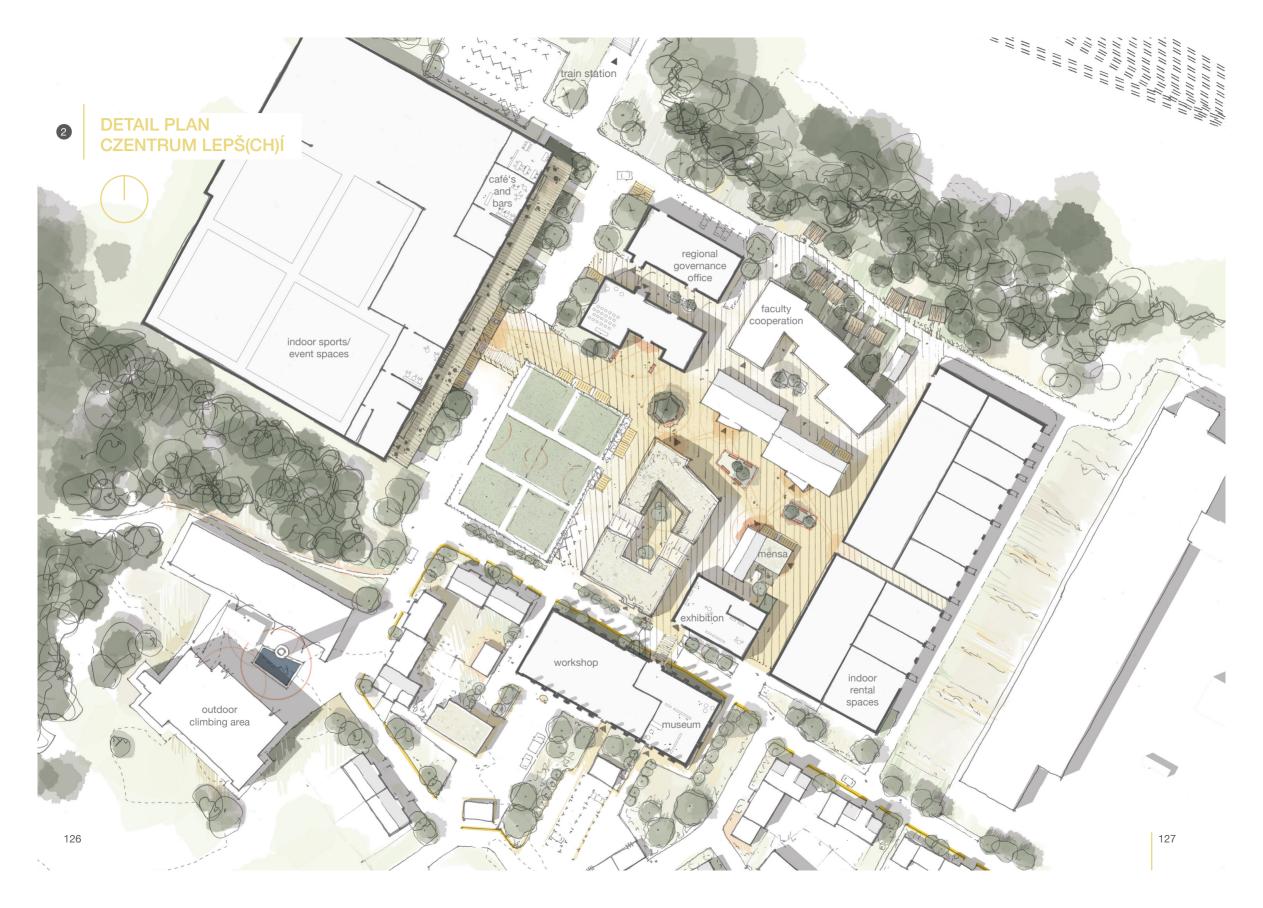
- spaces for co-creation
 attraction for youth and skilled workers
- event spaces
- recycling of industry

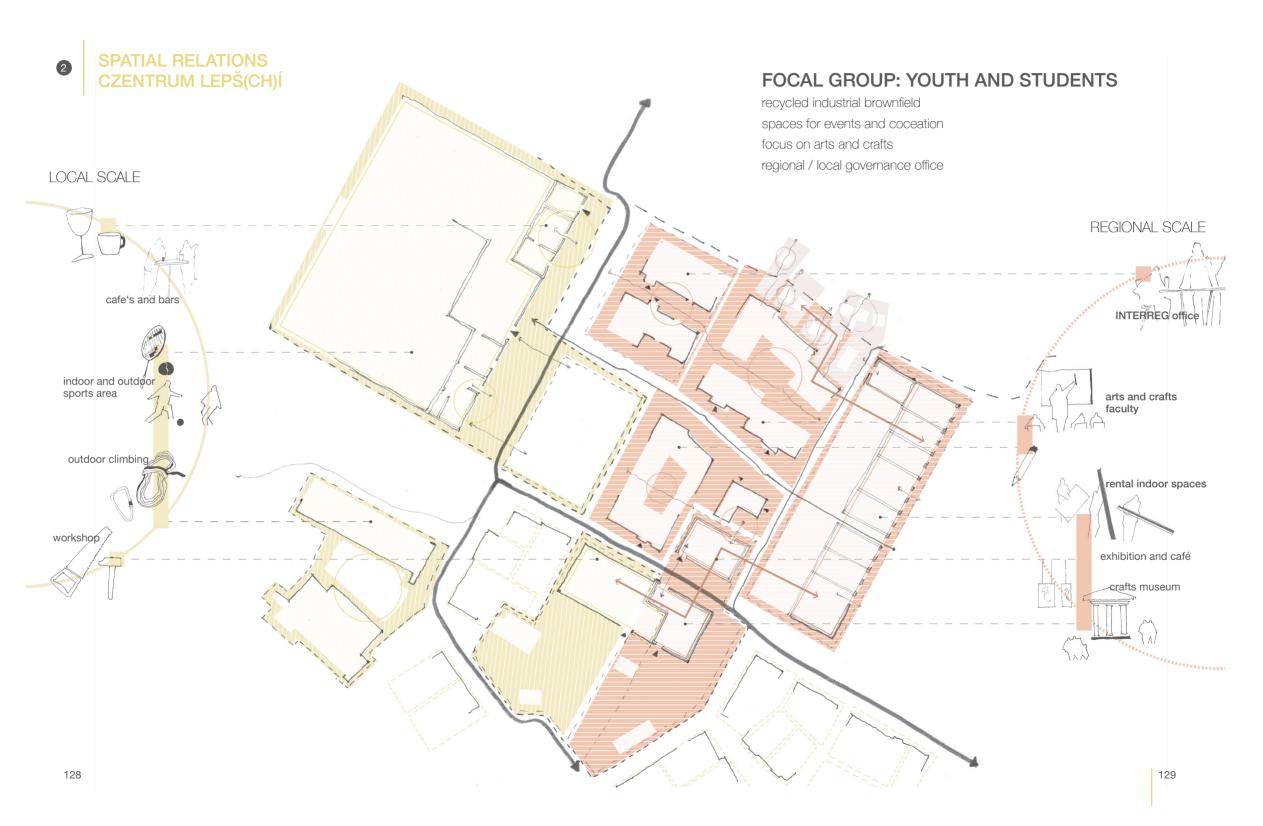


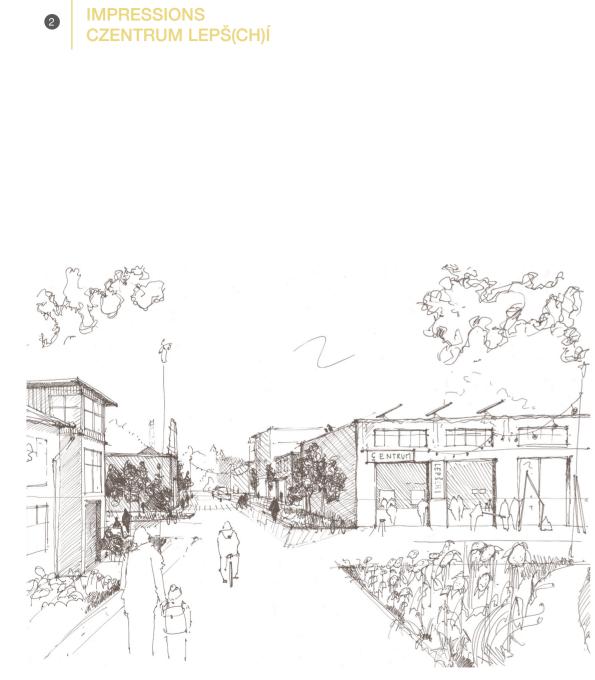
centrum (czech) zentrum (german) = centre

lepschi (german/austrian) lepší (czech)

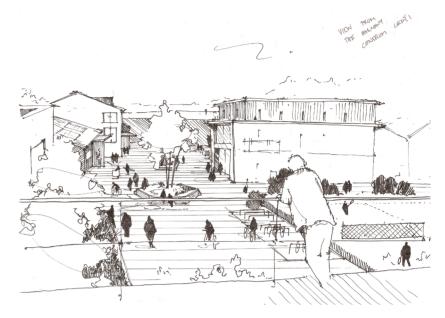
= enjoy oneself, have it better







view towards the southern entrance of czentrum lepš(ch)í



view on the new campus



outdoor learning cabins



DETAIL DESIGN NEW MIDDLE

Coming from proposed spaces for the generation that had their life on the border, to the ones that work actively across the border – the central area follows the vision of creating a space for the next generation to grow up without a border. One of the main features of this zoomed in area is therefore two kindergartens, which are located on both sides of the existing border, however sharing outdoor activity spaces across the parting line along the riverine landscape. As children are the future of the border society, they should experience a life, where the borderline is invisible, flourishing in a bilingual landscape, encountering their neighbour without prejudice. Ideally, this will have an effect on the parental generation, but also those people visiting the centre of the perimeter.

Additionally, the third detail area also portraits the new interaction with the landscape of the Natura2000 territory. Pathways and observational stations, together with an exhibition room in the old mill, will transform the borderline into an interactive landscape, where recreation, awareness creation and education are promoted.

The existing mill next to the river will be extended into a "house of nature", which serves as a local research office for the Natura2000 perimeter as well as an open-access exhibition room for nature-education. Where today only the railway crosses the border, an additional pedestrian bridge will be constructed on a lower level, which on the bigger scale is also the continuation of the city centres of České Velenice and Gmünd Neustadt - now connected through a newly planted avenue. Both the activation through the kindergartens as well as the outreaching natural landscape will support the gradual disappearance of the border.





spaces for interaction
sensibilisation to environment
new connections
restoring naturality

AXONOMETRY: NEW MIDDLE

3

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1

P

FOCAL GROUP: KIDS, PARENTAL GENERATION

kindergardens with shared outdoor areas interactional riverfront new bridge - city connection house of nature

Kindergarten České Velenice 1 Platform pavillion of interaction 2

House of Nature research and exhibition centre 3 Platform station of observation 4

Kindergarten Gmünd 5



IMPRESSIONS NEW MIDDLE

exhibition room in the house of nature

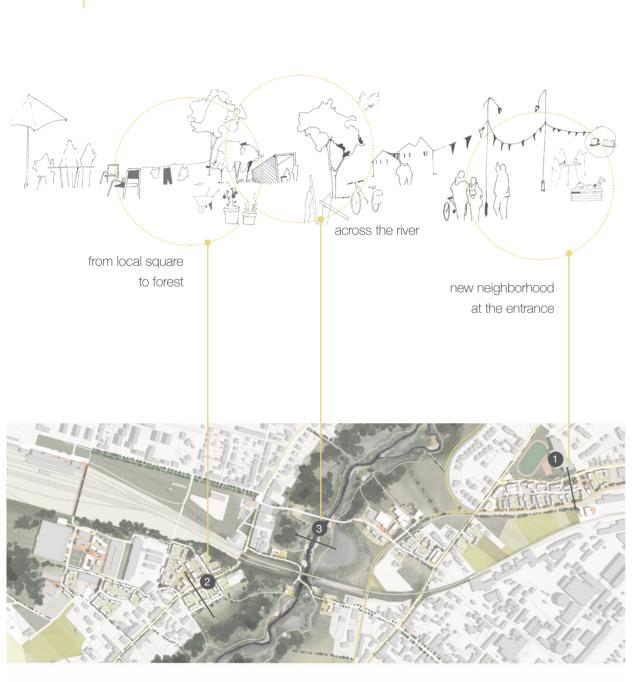




zoom in plan of the central design with marked perspectives



view towards the kindergarten in České Velenice

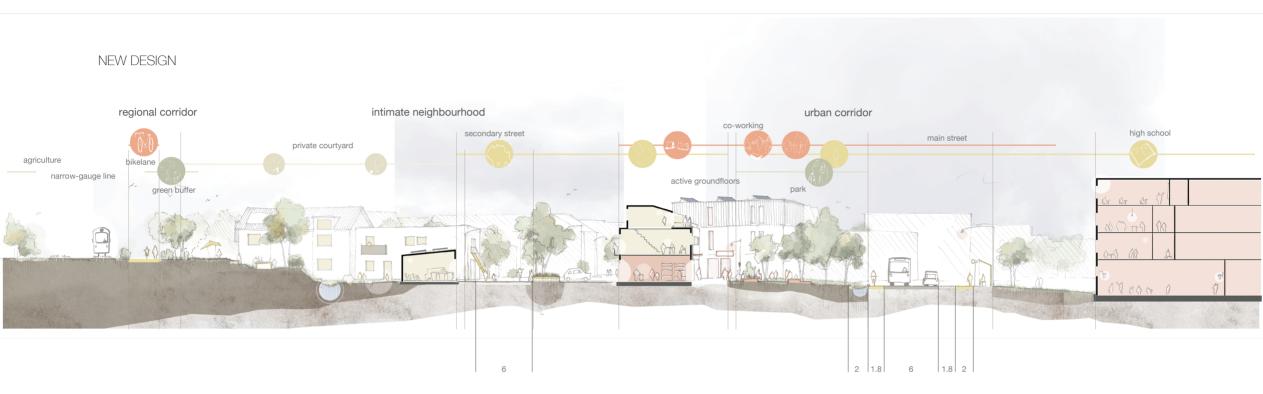


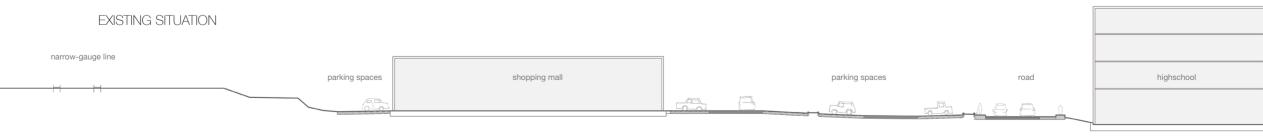
The following sections are chosen by locations, that should illustrate the diversity of environments that are created through the proposed design – ranging in character from a local core with an urban character up until a seemingly untouched landscape. They are meant to showcase the attractivity of rural landscape, how the idyllic idea of living in the green could be broadened to a lifestyle offering a place to stay for many different user groups.

By increasing the functional density and creating an aesthetic public realm, the site will be opened to many different ways of living – if only for short or for longer, if from east or from west. Particularly it should speak to a user group that is currently lacking within the wider scale, younger generations and skilled workers respectively, in order to encounter a trend of shrinking and overageing. Furthermore, the sections through the designed area outside the main social driver locations should add a focus on the structures of the new in-between. This relates to one of the key differences to all previous transnational initiatives, which have not found a fertile ground for continuation in the past, as explained in the introduction chapters. As earlier initiatives had been mostly placed without context or communication to its surroundings or been initiated by higher up institutions further to the countries inside, in the new design the cross-border thinking and living is directly involved in the cities and peoples every day. Strengthening the cities between themselves as well as their connection towards the social drivers, is perceived as equally important as the design of the drivers themselves.

SECTIONS

SECTION NEW NEIGHBORHOOD AT THE ENTRANCE





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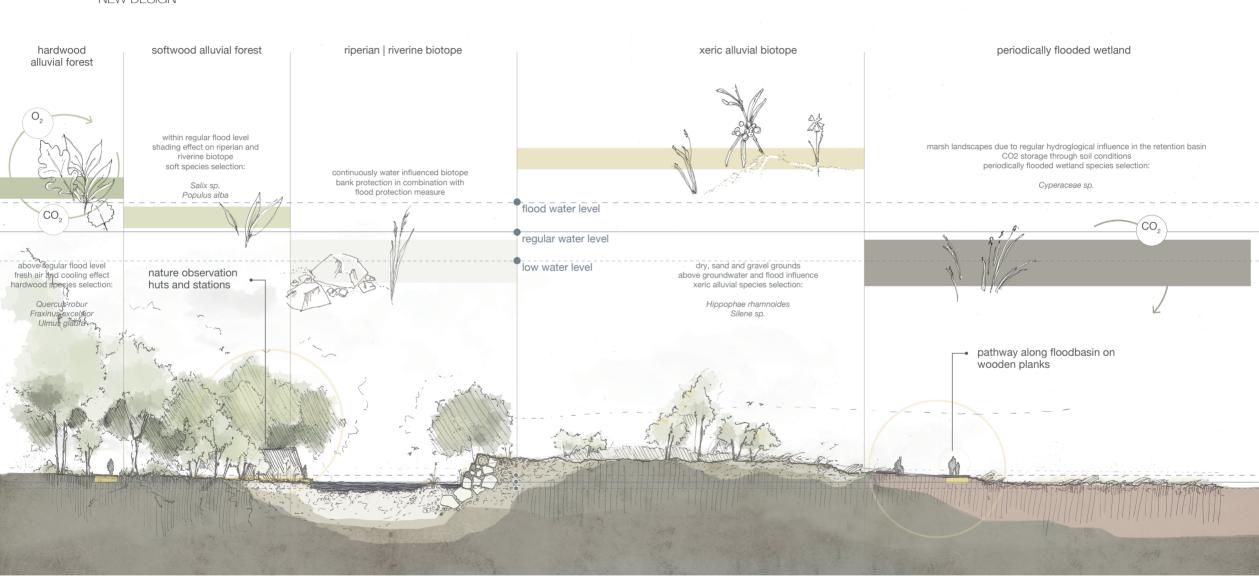
NEW DESIGN







NEW DESIGN



PROCESS OF DEVELOPMENT

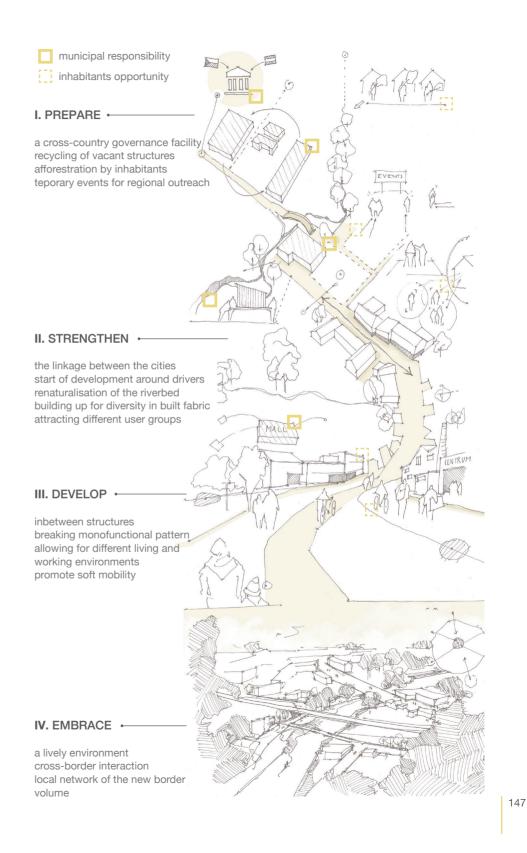
The presented design proposal portrays an ultimate potential of development within the cities, but of course needs to be considered as a longer process.

The first step would be to prepare the envisioned initiatives, which translates to responsibilities both for the municipalities as well as the inhabitants. In order to facilitate the experiment of crossborder governance, a space needs to be provided, where development authorities can gather and discuss - both the municipality as well as an Interreg consultation unit. Furthermore, in the first step also the recycling of the vacant structures of the industrial brownfield should take place. Once certain spaces can be opened to the public, the idea is to initiate temporary events for a regional outreach to younger generations. Since the proposal also withholds a great amount of new afforestation, every household should be part in planting a tree within the development zone, so there is something to be part of from the beginning on.

In the second phase, it is important to strengthen the linkage between the cities but also to start the development around the drivers. The new structures should encompass diversity in the built fabric to attract different user groups. Since the renaturalisation of the central landscape will be of longer duration, it will also be part of this earlier phase.

The next step would be to develop the in-between structures towards a sustainable and resilient city, breaking the monofunctional pattern to allow for different living and working environments, interlinked with streetscapes that promote the usage of diverse modes of mobility.

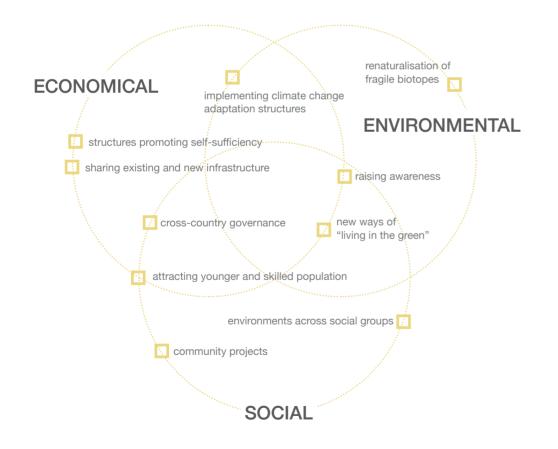
N. Once the overall structure is developed, the foundation is set to embrace a lively environment, where life is crossing a formerly parting line. Ultimately, a whole region will be living and thinking across the border - leaving aversion behind and entering plurality.



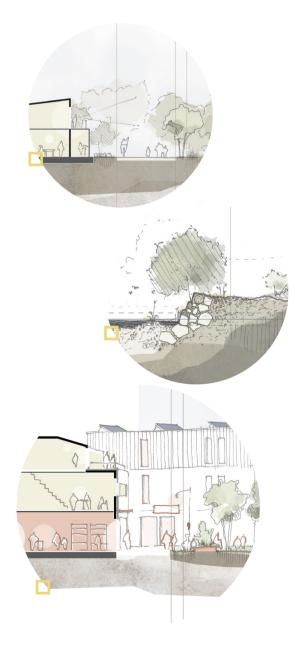
CONCLUDING REMARKS

PROJECT SUMMARY

To conclude the proposal, a relation to sustainability of the new design should showcase the multiple values there are to gain with the new development. Sustainability is commonly defined through three different columns, that have their own goals, are however ultimately interlinked. When it comes to the vision of the site, the strategies are following the categorisation of sustainability in the visualised selection:



The new design relates to sustainability in many different ways. Firstly, stabilising and strengthening the existing in terms of resilient and sustainable ways of living will be of big importance. Mixing functions on a walkable perimeter as well as offering structures for sustainable mobility and energy production will be essential elements of the design. Especially in the rural peripheral context, its needed to implement features that support self-sufficiency of a city and/or region in order to counteract the existing dominance of gravitative urban centres. Attracting diverse social groups as well as implementing projects and spaces for common value creation across borders (country-, population- and nature/ human-) embrace a parallel layer that particularly aims for social sustainability. The surrounding and inside located natural areas are a great foundation for raising awareness and nature education among the population. Furthermore, the renaturalisation of certain areas, especially along the Natura2000 perimeter, as well as implementing elements for climate change adaption are needed to support sustainability, not only in the environmental perspective.



CONCLUSION & REFLECTIONS

The given thesis clearly illustrates the need of a holistic development approach in an area that is suffering from both features of a periphery as well as a hostile and uncommunicating country border. As I see it, this project should portray the potential those two cities as well as the whole region carry, painting a picture of future possibilities. But it not only resembles a development of two smaller cities, it also connects to a global question of how we will and should encounter one another at a country border. This question is becoming more and more relevant and - as this project illustrates - also finds its relevance in the field of Sustainable Urban Design.

Many challenges I've stumbled upon throughout the analysis, such as the major distrust as well as the weight of the historical background have raised the question for me, if there is even a possibility to overcome the struggles with Urban Design alone. Furthermore, on the topic of cross-border governance in a similar context there were barely references to be found. Reflecting on it afterwards, I think that especially the approach of empathetically designing environments for an everyday life - which is a major focus in Urban Design - is what is needed in a rural context as the given. I furthermore think that there is a great need that we think the work in our field further to also reach out to smaller settlements, where means are limited to overcome and adapt to global challenges. Engaging with Gmünd and České Velenice has shown me that the tools we use in the context of Sustainable Urban Design are very much applicable in smaller cities as they are in bigger metropolitan areas.

The main focus was on designing an environment that gives people the opportunity to feel at home on either side of the country and mainly responding to the needs and challenges of the city. The need of initiatives that speak to the people and leave a physical footprint in the built environment, working in a more holistic approach than the currently individualistic initiatives was something that I saw as a responsibility for Urban Design in this context. Thinking about the implementation however, I reckon a participatory approach would be needed, including the local population in this longer lasting intention. As rural settlements are often characterized by smaller and close-knit communities, bigger development proposals need to

be even more empathetic compared to designs in bigger cities in my opinion. If there would have been more time, I would have put more focus on speaking to the local population, trying to get their impressions and experiences of life in these cities.

Starting this thesis, I had very little informational background about the region and its history, above all that Gmünd and České Velenice are the only neighboring cities on that border. Although I spent my whole childhood and youth near the border, I've encountered my own ignorance during this semester. I can relate to what I have stated through the researched analysis - growing up without one sky-direction, with very little knowledge of what is neighboring. The work during this semester has thus not only brought me closer to my home but also strengthened my motivation and passion, to continue the idea of working with Sustainable Urban Design outside greater urban cores, enlightening what tends to be overlooked.



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Google Maps: https://www.google.at/maps

Inspire Geoportal: https://inspire-geoportal.ec.europa.eu

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