Nordplus: Smart Shrinking as Development Approach for De-populating Regions around the Baltic Sea

Case study of Daugavpils, Latvia

May 2023

Hugo Huberts Puriņš, Reičela Adele Bišere,

Venla Heiskanen, Vili Mustonen,

Lynnee Jacks, Ela Keegan

Figure 1. Painting called "Daugavpils" by Mohamed Ibrahim Elmasry at the Rothko Museum.

"As we observe and participate in the ongoing development of living nature in its myriad shapes and forms, we reflect on the concepts of development and on our very ability to think."

"Humans are both creators and destroyers. They develop things and tear them down, they build and change, they steer and wreck. They are both conquerors and conquests, students and teachers."

- Daugavpils Mark Rothko Art Centre
The Rational Creature Collection Exhibition
(May, 2023)

Executive Summary

This report presents Daugavpils, Latvia as a case study in smart urban shrinkage. The study utilizes the heuristic model of urban shrinkage and aims to examine the causes, impacts, and responses to shrinking. Specifically, the report focuses on the reasons for the out-migration of young adults from the Daugavpils area and provides responses to it based on interviews and ethnographic observations conducted around the city. The report answers four guiding research aims: drivers of shrinkage, impacts of shrinking on young adults' lives, reasons behind the out-migration of young adults, and responses to the out-migration of young adults. Interviews were conducted using purposive sampling to provide the most relevant information. Analysis was carried out by using content analysis coding. The results revealed that there are not currently enough job opportunities for young people in the city, and not enough activities oriented towards young people. The report recommends addressing these issues by taking a bottom-up approach to development and implementing collaboration between existing organizations to improve opportunities and quality of life in the city.

Introduction

Throughout Europe, at least 40 percent of cities are being impacted by population loss. This phenomenon of urban shrinkage leads to struggles with infrastructure, housing, jobs and investment (Shrink Smart, 2009). This report looks specifically at Daugavpils, Latvia as a case study in smart urban shrinkage. In this report we utilize the heuristic model of urban shrinkage, which has been applied for analyzing urban shrinking in many European countries, for example Lithuania, Poland, Czech Republic, Ukraine, Romania and Germany (Haase et al. 2013). This model connects the main features of urban shrinkage, drivers of shrinkage, impacts of shrinkage and responses to shrinkage (Pociūtė-Sereikienė 2020). The aim is to examine shrinkage from a broad perspective by looking at the causes of shrinking, the impacts of shrinking in a given area and provide suggestions on how to best respond. This heuristic model emphasizes the path-dependent, context-sensitive, and location-bound nature of the urban shrinking process (Rink et al. 2010).

In the period until 1991, Daugvapils was a city of growth with rapid population growth. However, from the 1970s, in Western countries, the process of restructuring in industry to more complex industrial production based on automation and the development of the service sector began. Meanwhile, in Latvia, including Daugavpils, using a centrally planned economic system, until 1990 followed the policy of supporting heavy industry and its extensive growth, which meant a late start of restructuring since 1991. The beginning of the shrinking process in all the emerging democratic countries of Central and Eastern Europe is associated with the necessary

transformation and restructuring of society. It was after the openness of the former communist states in the early 1991s that normative values, the structural situation and the role of new political actors changed. The lifestyle and values of young people changed - in the nineties they began to travel, study and build a career, which influenced the decline in the birth rate and an increase in the emigration rate (Rink, Haase, Bernt et al. 2009).

In this report, we focus on the reasons for the out-migration of young adults (aged 16-30) from the Daugavpils area and responses to it. We focus on out-migration of young adults because the population decline can be seen as an indicator of shrinking (Grossmann 2013, 221) and the decline of young population, with the potential of long working careers and families, has the most crucial impact to the economy and demographic factors of the area (Wiechmann 2008). First, we will briefly examine historical and geopolitical reasons behind the shrinkage in Daugavpils area through literature. Second, we consider the impacts of shrinking in Daugavpils from the viewpoint of the out-migration of young population. Lastly, we map both implemented and possible responses to the out-migration of young adults.

The guiding research questions for this report are:

1. What are the drivers of the shrinkage in Daugavpils?
2. What are the impacts of shrinking on lives of young adults in Daugavpils?
    2.1. What are the reasons behind the out-migration of young adults?
3. What are the responses, both already implemented and possible ones, to the out-migration of young adults?

Urban shrinkage

"Urban shrinkage" is used as a common term referring to cities facing a significant loss of population (Dietzsch 2009, 16). According to Grossmann et al. (2013, 221), population loss can be seen as an indicator of urban shrinkage or as the "tip of the iceberg" with underlying complex aspects and causes of problems for urban development.

According to Martinez-Fernandez et al. (2012, 214), a "shrinking city" is an urban area that has experienced population loss, economic turndown, employment decline and social problems that are consequences of a structural crisis. The term "urban shrinkage" stresses that this is a multidimensional process with multidimensional effects on economics (eg. unemployment, disinvestment, tax deficits), demographic (eg. Aging, segregation), social (eg. negative cultural changes, increase of the extreme political views) and physical (eg. underuse of infrastructure, closure of institutions) aspects. Martinez-Fernandez et al. emphasize the role of these concepts as deepening the understanding of decline, which is usually understood as a simple linear process.

All in all, the shrinkage can be viewed as a multi-dimensional and process-based phenomenon that is also dependent on historical background of the area (Pociūtė-Sereikienė 2020).

The variety of drivers of shrinkage are usually related to economic decline, job-related out-migration, demographic change, or environmental disasters (Dietzsch 2009; Rink et al. 2010; Reckien and Martinez-Fernandez 2011; Haase et al. 2013). Wiechmann and Bontje (2015) also point out that the shrinkage drivers in the area are often a combination of two or more of these causes. The consequences of shrinkage can be defined as direct and indirect (Haase et al. 2013). Direct consequences influenced directly by depopulation can be, for example, underuse of infrastructure and housing vacancies. Haase (2014) defines indirect consequences as a combined product of feedback loops. As Pociūtė-Sereikienė (2020) points out, it can be complicated to identify which factor is the driver of the shrinking and which is the consequence of it. For example, the out-migration can be both a driver and the consequence, creating a cycle that enhances the shrinking. Localities cannot be viewed merely as static physical areas, but rather as dynamic entities with unique local characteristics that have developed over time. These distinct features, such as the entrepreneurial spirit, traditional forms of communication, local identity, and governance practices, are akin to institutional layers that shape the ability of a locality to respond to external influences. The combination of these local cultural and communication attributes is commonly referred to as "social capital" (Rocak 2016). When looking at a shrinking area these factors must be taken into account.

The response to shrinking is often related to plans of economic and population regrowth (Sousa and Pinho 2015). "Planning for shrinkage" can be seen as an alternative, and more realistic, way to respond to shrinkage. According to Sousa and Pinho (2015), shrinkage constitutes a crucial planning matter that cannot be analyzed or reckoned with conventional growth-based planning theories and practices. Several authors (eg. Sousa and Pinho, 2015; Jessen 2006) underline the need for a paradigm change: In addition to researchers, urban planners and policymakers should also challenge themselves to replace the old paradigm of growth and develop a new kind of thinking. According to Ahrens (2005) and Eraydin & Özatağan (2021), innovative and holistic solutions are needed to break the causal chain of shrinkage and manage structural shrinkage processes.

Drivers of shrinkage in Daugavpils

Daugavpils is a city located in southeastern Latvia, near the border with Lithuania, Belarus and Russia (Figure 2.). The area of the city is 72.48 km². Distance from the capital city Riga is 230 km. Daugavpils is situated on the banks of the Daugava River and is surrounded by rolling hills and forests, making it a unique and picturesque location. Due to its location, Daugavpils has historically been a melting pot of different cultures and ethnicities, with a significant Russian minority population (Figure 3.). A location near the borders of three other countries results in considerable geopolitical impacts (Land et al., 2022), and Daugavpils is also a major international railway junction. The Sustainable Development Strategy of Latvia until 2030 lists the unique values of Daugavpils: potential in the fields of entrepreneurship and education, multinational society and geographical location, and special role in promoting East-West cooperation (Saeima of the Republic of Latvia, 2012).
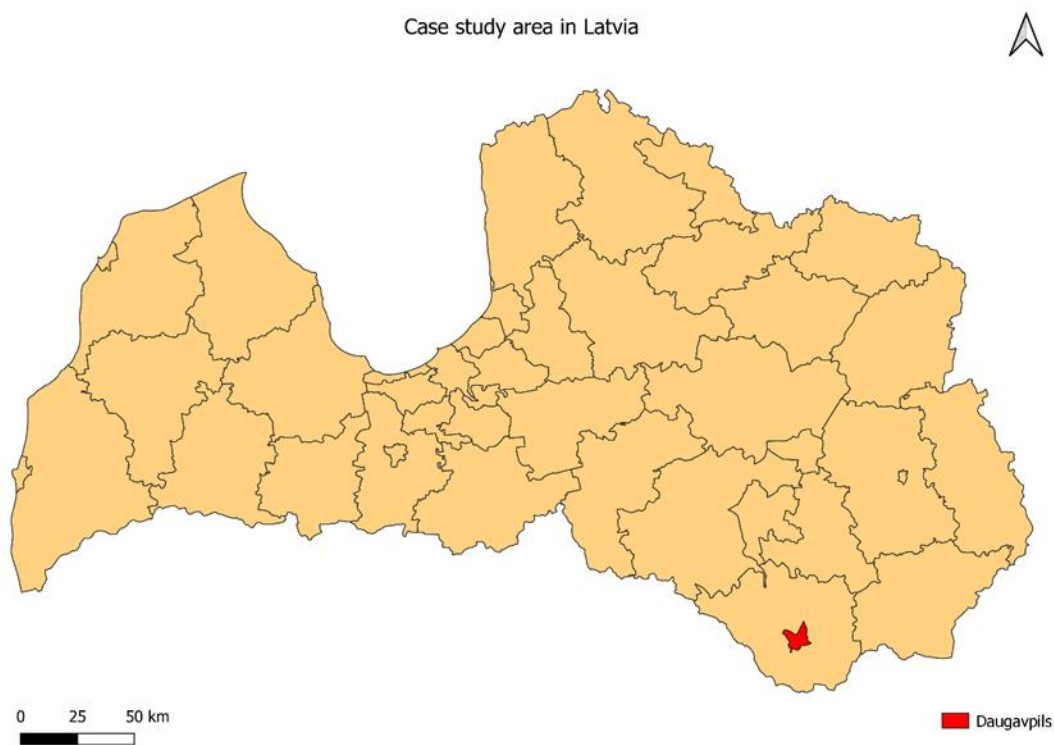

Figure 2. Case study area in Latvia (National Statistical Bureau of Latvia 2022).
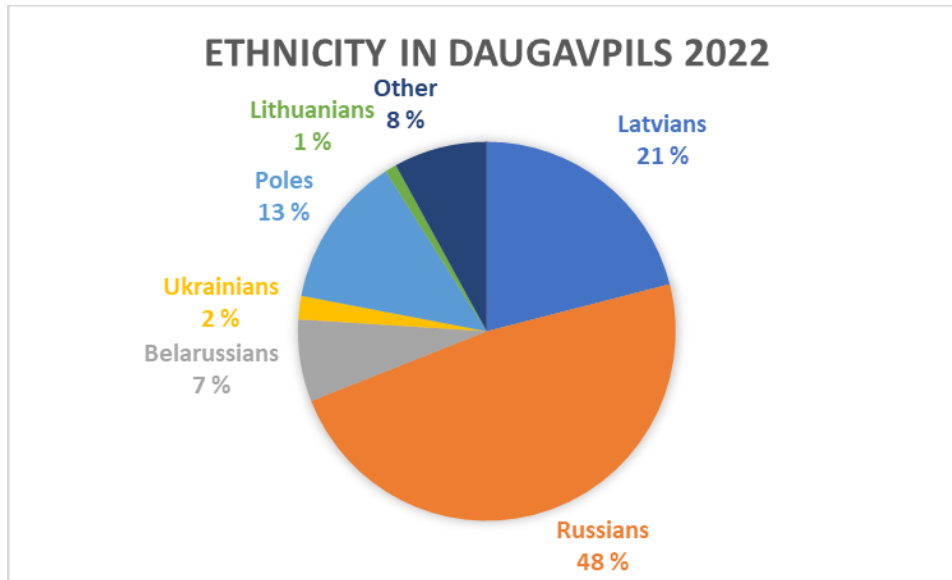
Figure 3. Ethnicity in Daugavpils in 2022 (National Statistical Bureau of Latvia 2022).

This history of Daugavpils dates to the 13th century when it was founded by German crusaders. The city was originally an important fortification site and trading settlement between Russia and Poland. In the 17th century, the city was conquered by Sweden, then Russia. Under Russian rule, the city was renamed Dvinsk and underwent significant urbanization, including the construction of new buildings and infrastructure. In the early 20th century, the city was renamed Daugavpils and became part of the newly formed country of Latvia (Daugavpils.lv, 2018).

During the Soviet period, a monocentric city system was formed in Latvia (Vanagas et al. 2002). Majority of the Latvia's population is still concentrated in the capital Riga and its suburbs, leaving the rest of the country sparsely populated (Figure 4.). In recent developments, Daugavpils has faced economic difficulties and social challenges after the collapse of the Soviet Union in 1991. The lack of an intermediate political and administrative level, along with many small municipalities, has further compounded this issue. Consequently, implementing EU spatial planning directives has become difficult, and political elites have not paid enough attention to addressing regional economic restructuring and spatial disparities (Lang et al. 2022). Especially for monocentric cities like Daugavpils, it was difficult to adapt to the market-led economy (Cinis et al. 2008). In many cities, the closure of industrial factories led to unemployment (Figure 5.) and extensive job-seeking emigration, which was the main reason for the wave depopulation (Figure 6.) in former Soviet cities after the collapse of the Soviet Union (Berzins, Zvidrins 2011).

In Soviet times, Daugavpils had large manufacturing units of which only a few are still working today (Daugavpils.lv, 2018). Since then, the city has been working towards revitalization, modernization, and attracting foreign investment. The city has implemented various projects, such

as the restoration of historical buildings, infrastructure improvements, and the creation of new public spaces. Additionally, the establishment of the Daugavpils University in 1993, the largest regional university, has contributed to the city's development as one of the city's three universities (Daugavpils.lv, 2018). Despite its multicultural history and unique cultural and linguistic traits, such as the Latgalian speaking Latvians and a significant population of native Russian speakers and East Slavic inhabitants, there are stigmatizing narratives of backwardness, self-segregation, and exclusion from national culture promoted by the national media and political elites. These narratives are sometimes linked to Latvia's economic structure that is associated with Soviet industrial heritage. At times, political discourse in the area uses metaphors of abandonment and forgetfulness to express grievances towards the national government and politicians (Lange et al. 2022).
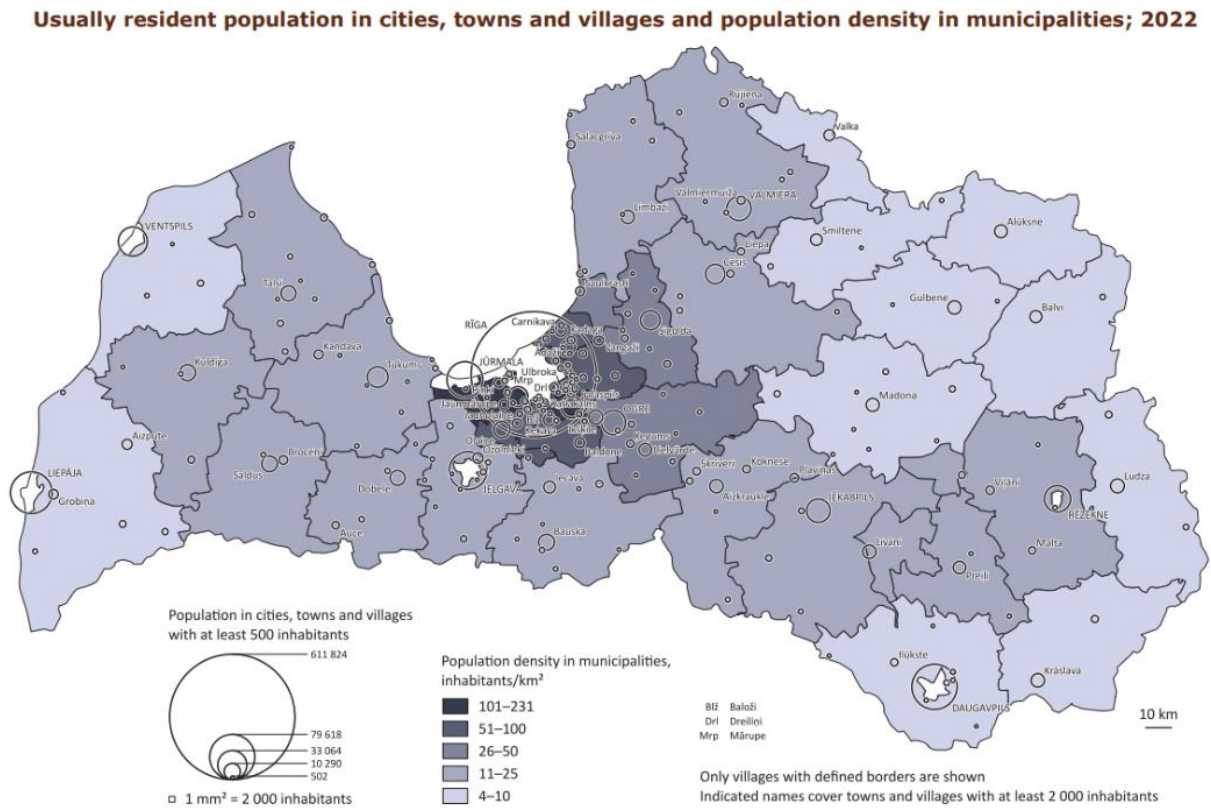
Figure 4.2 Usually resident population and population density in Latvia in 2022 (Central Statistical Bureau of Latvia 2023).
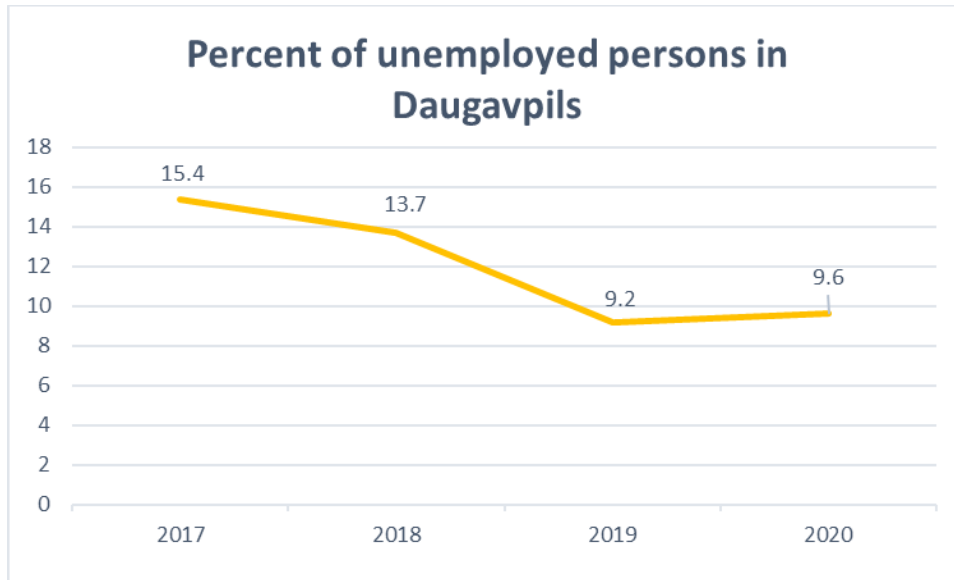
*Figure 53. The trend of share of unemployed population in Daugavpils from 2017 to 2020.
(National Statistical Bureau of Latvia 2022)*
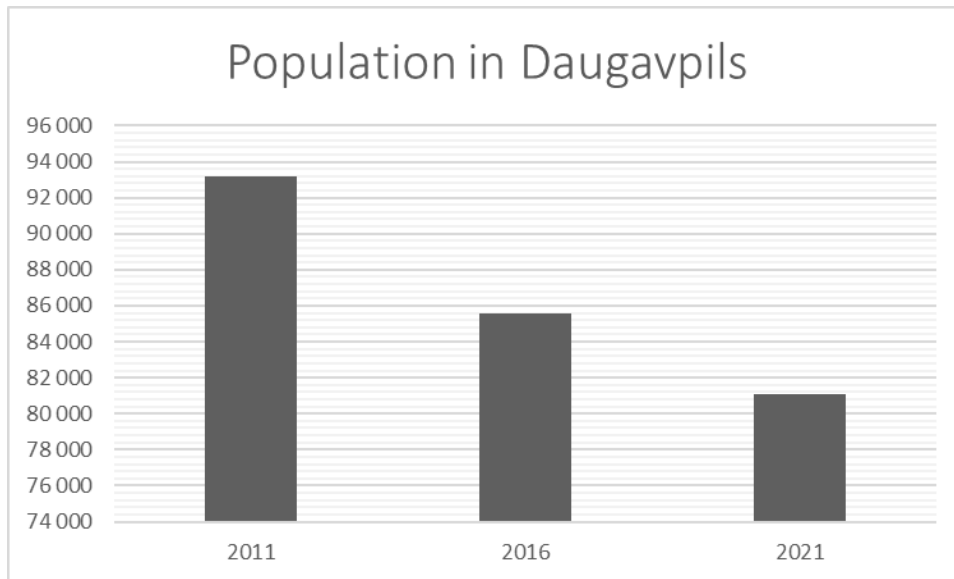
*Figure 6.4 Population in Daugavpils in 2011, 2016 and 2021. (National Statistical Bureau of
Latvia 2022).*

As part of their development strategy, Daugavpils is dedicated to becoming a cultural center. They currently host many international festivals including the biennial Mark Rothko Art Centre Symposium, and smaller events like the Ghetto Games (Daugavpils.lv, 2018).

Despite regional efforts towards growth and increased quality of life, trends show that population is steadily decreasing in Daugavpils, following suit with other parts of Latvia. From 2011 to the beginning of 2022, the population decreased by 13.4% (Central Statistics Bureau of Latvia. 2023). A visual representation can help understand the spatial distribution of the declining population (Figure 7.)
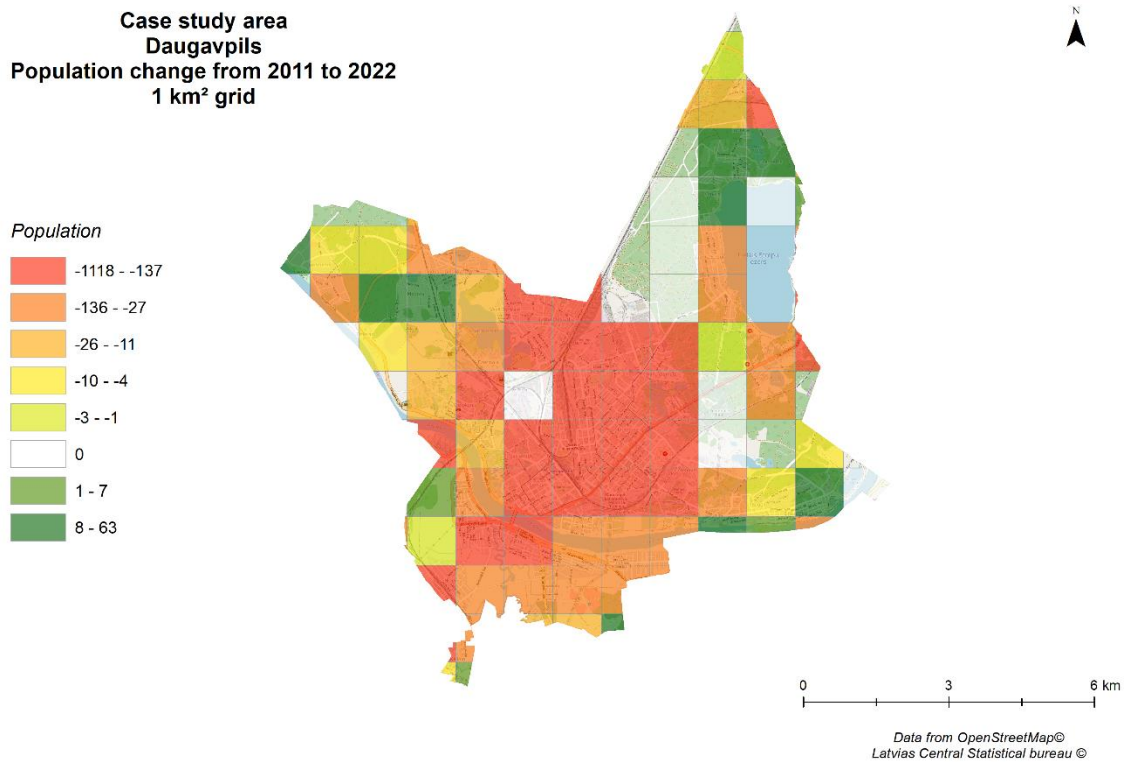
Figure 7. Population changes in the case study area of Daugavpils from 2011 to 2022.

According to 2021 data from Central Statistical Bureau, Daugavpils has 79 873 inhabitants. Of the ~80,000 residents, around 7,000 are students attending one of the six universities in Daugavpils (Daugavpils.lv, 2022), the largest of which is Daugavpils University, which currently enrolls over 2,200 students (Daugavpils University, 2021). While universities do not bring in enough students to classify Daugavpils as a 'University Town,' the student population does bear a significantly positive impact on the demographic makeup of the city. However, despite the relative success of the universities and the ongoing infrastructure development including public transport, urban green spaces and access to parks and trails – Daugavpils still faces challenges that contribute to population decline (Daugavpils.lv, 2018).

Data sources

The data was compiled by conducting interviews and observations and by participating in the events and usage of facilities for sport and recreation.

Interviews

Interviews were conducted over the course of four days using purposive sampling – a method in which settings and individuals are selected deliberately to provide the most relevant information (Maxwell, 1996). Due to time constraints, we identified the portion of the population which would provide the most relevant information about the experience of young adults in Daugavpils and searched out individuals with different experiences and positions based on data gained from previous interviews to create a more well-rounded dataset. Subjects were approached in various settings and to an extent were the result of convenience sampling (Ackoff, 1953), since many were the results of contacts given from previous interviews, or individually approached around the city.

A total of 24 interviews were conducted, bringing in perspectives from local entrepreneurs and students, as well as perspectives from an older generation who provided more context to the city's history and development. A list of all interviews can be viewed below in table 1.

Table 1. List of interviews conducted.

Historical Context	Pensioner (1 person)
Daugavpils Fortress	Fortress Guide (1 person)
	Rothko Centre Employees (2 persons)
Local Entrepreneurs	Cafe Owner/ Real Estate Entrepreneur (1 person)
	Boat Business Owner (1 person)
	Jewelry Maker (1 person)
Innovation Centre of Daugavpils	Educational Programme Coordinators (4 persons)
Local Employees	Shop Employee (1 person)
	Lampa Cafe Employees (2 persons)

	Ezītis Miglā Bartenders (2 persons)
Youth Experts	Social Worker (1 person)
	NGO Representative (1 person)
Students	University of Daugavpils Focus Group (6 persons)
	Student Phone Interview (1 person)

The group had no challenges to contact the interviewees, except for a representative from the University of Daugavpils: An email interview, appointed in advance, was sent to the representative but a response was not received. We encountered some language barriers, for example, in the case of innovative center representative interview. The personnel of the center had no English skills, so the group visited the center twice, second time with a Latvian speaking group member.

Interviews were mainly conversational in nature, following a semi-structured interview format (See appendix 1) in which interviewers asked questions about the specific experience of the individuals, building on data gained from previous interviews. For example, when a lack of jobs came up in the first interviews, this issue was posed in subsequent interviews to gain a bigger picture of the situation from multiple viewpoints.

Due to the limited time of the research project and the nature of the sampling methods used, all documentation of interview data was taken through notes (either on computer or by hand) during interviews. Notes and additional thoughts post-interview were also documented by using recorded voice-notes or written individually and later shared among the group.

The following section outlines the general order in which the introductions were made, short summaries of the interviews, and the process we followed in obtaining additional interviews based on the data gathered in initial conversations. A spatial distribution of the interviews can be seen in the figure below (Figure 8.).
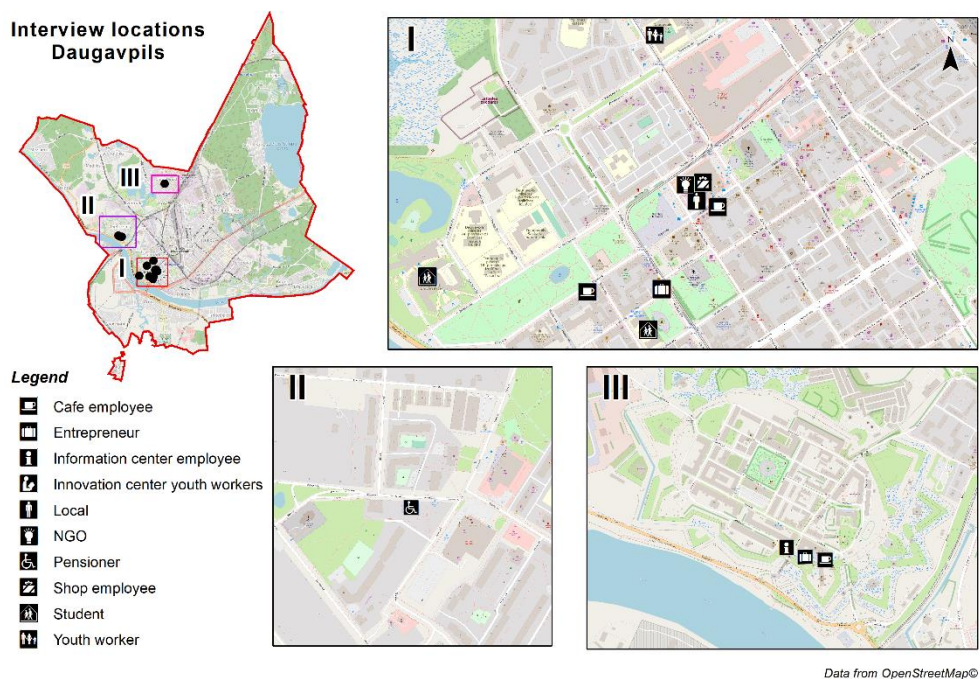
Figure 8. Interview locations in the case study area of Daugavpils city.

Historical Context – Interview with a Disabled Pensioner/ Former Government Employee

One of the first interviews scheduled was via a personal connection to a 67-year-old disabled pensioner who has a master's degree in pedagogy. She worked for a government agency for more than 20 years but had a hemorrhage in the brain 7 years ago, which left half of her body slightly paralyzed. She lives alone and orders things online for day-to-day life.

At a meeting in her home, we discussed the history of Daugavpils, including the great tradition of team and individual sports, and positive development trends like improvements to infrastructure, local parks, and the recent opening of a new tram line. Despite these improvements, she notes there is much work to be done, especially around infrastructure for disabled people. Currently, private landlords have no obligation to provide infrastructure that fits every person's needs, and the local government can't legally demand the landlords to change it. Due to this lack of empathy, she must plan her every move to see if she can get around and often feels that "She is stuck between two doors."

She also discussed the history of neighborhoods created for immigrants from Belarus and Russia, and the continued tension between Latvians and Russians due to entitlement and foreign influence.

14

In the brief history as she describes it, some parts of the city were created for immigrants from Belarus or Russia who were working in chemical industries. Most of these immigrants were given apartments by the state, favoring them over local workforces, which created a sense of entitlement for the people that came to Daugavpils from Russia or Belarus. This history led to fights between Latvians and Russians and in her words "**We have always felt treated like we are second class citizens.**"

Now, many local children and young people don't know Latvian or don't want to learn Latvian because of the teachers, who, in her words, "Don't have a passion for teaching." She thinks that more empathy and strictness with the language would be beneficial. Overall, a lot could also be done to improve the public image of Daugavpils, because currently people tend to look down upon people from the city.

She offered a few solutions to counter the trend of youth out-migration. First, if Daugavpils had more jobs, then more people would stay. Second, the university needs to be maintained and improved, because if it closes, the youth population in the city will die out.

This interview helped set context about the history of Daugavpils and the way it has developed over the past decades. While she notes there has already been a history of infrastructure improvement, there is always room to do more. Her insight helped guide the direction of the research and the questions we asked in subsequent interviews.

Building on this context, we formalized our research focus and questions around the population of young people in Daugavpils. With this in mind, we identified a need to interview many representatives of the young adult population including students and young business owners.

As newcomers to the city, we first wanted to explore the services and unique elements that make Daugavpils an attractive place to live, so we reached out to the Daugavpils Fortress to learn more about this cultural center and the surrounding neighborhoods. We called the information center for the fortress and scheduled an interview with a guide, who provided insight into the purpose of the Fortress and its impact on the development of Daugavpils.

Daugavpils Fortress (3 Interviews)

Daugavpils Fortress is an early 19th century military fortress that has been preserved and has recently been developed to host a series of cultural exhibits and events (Figure 9. and Figure 10.). The main goal of the Fortress is to educate Daugavpils residents and tourists about the history of the city, and to use the unique historical surroundings of the neighborhood for cultural and social events. A large portion of our interview and observation time was centered here, since it is a 'hub' for events and culture. In fact, our team attended a folk-metal concert at the Fortress later in the

evening, which was hosted free of charge to the community. We observed a wide range of age groups in attendance including young adults and families with young children.

Figure 95. Metal concert in the Fortress.

Figure 10.6 The concert facility in Fortress, funded with EU funds.

The Fortress promotes further interaction with the young adult population through their relations with Daugavpils University – in which students collaborate with the fortress team to put on various events, concerts, and exhibitions. The biology students also contribute to the Bat Center, where researchers are exploring the living patterns of bats in the fortress.

The guide continued to note that the Fortress also offers work opportunities for those interested, depending on the current initiatives. For example, he noted that recently there was an opening for a new exhibition which required new guides. The only problem was that there was a lack of knowledge of Latvian, which is a common problem for jobs being offered in Daugavpils. The jobs that are offered typically cannot be matched to those looking for work due to a lack of specific knowledge or experience. Additionally, he noted that there are more summer jobs available (like cleaning and maintenance) that do not require as much experience. This echoed a theme that came up in later interviews, in which we learned that jobs are easier to find in the summer season, leaving the winter season quieter and more difficult to attract new people to the city.

We returned to the Fortress later in the week to visit the Rothko Art Centre, where we interviewed two more employees. They shared that they collaborate with the University of Daugavpils and an NGO called "New East" to offer events, lectures, and educational programs for students and young people. Additionally, teenagers under 18 can apply for a summer job at the center, and the vacancies are often filled quickly due to high demand. The positions are most often filled by teens who are especially engaged in the work and who know all three languages – Latvian, English, and Russian.

All the Fortress and Art Centre employees agreed that despite the difficulties for young people to find work in Daugavpils, there are many enthusiastic and active young people in Daugavpils that take initiative to organize things they are passionate about like lectures, art, and concerts.

With this in mind, we went out in search of some of these individuals who are finding unique ways to get involved and make a living in Daugavpils. Walking the streets of the city center, we made observations and interviewed young people who were involved in various aspects of business and culture.

Local Entrepreneurs (3 interviews)

The first local entrepreneur we interviewed was a local cafe owner who was in his mid-thirties. He was originally from Daugavpils, and recently moved back from Riga with his wife to run a real estate business, along with the cafe, a food truck, and a camping area that operates in the summer. When asked about the out-migration of young adults, he echoed the conclusions of the Fortress Guide, that there are not enough jobs that match the experience of most young adults in the city. Since there are no factories in Daugavpils, he notes, many young adults move to Germany or to Poland in search of high paying factory jobs. He believes that if the right jobs existed in Daugavpils, these young people would move back.

However, he also notes that conditions are not necessarily good for entrepreneurship since commercial rent and utility costs are high and are often too much for small businesses like his who often only turn a profit in the summer months. Just as his cafe and camping business are seasonal,

so too are most events offered in the city. He wishes there were more activities like those offered year-round in Riga, and he notes that a lack of activities, especially in the wintertime, also contributes to this out-migration.

With a lack of jobs seemingly top-of-mind for young adults in Daugavpils, we sought out another opinion from a different type of local entrepreneur – a young woman we met at a flea market hosted at the Daugavpils Fortress (Figure 11. And Figure 12.). Like a large portion of the local population, she primarily speaks Russian, and was a bit shy speaking Latvian.

Figure 11. F7lea Market Located at the Fortress.

She attends this market and others each week to sell handmade jewelry. She has lived in Daugavpils for 10 years, and does not have any plans to leave, however there are significant improvements that would make living here easier and more attractive. She echoes the other interviewees in that young people are leaving because there is more money to be made in factories or construction work abroad. Lastly, she also would like to see more festivals and events, especially in the winter months, since they are mainly seasonal in the summer.

Figure 128. Handmade jewelry at the Fortress flea market.

Building on the insights of local entrepreneurs, we spoke with someone who first moved to Daugavpils to attend the university, then moved to Riga, and later back to Daugavpils in 2011. As a member of a slightly older generation with a family of his own (a Russian wife, and two daughters aged 7 and 17), his perspective gives a broader outlook on the development over the years, and a unique opinion and the current state of the city.

He owns a local boat business and attests to the growth of sports and water tourism, especially over the course of the years in Daugavpils. He also shared how in his opinion, Daugavpils has become a much safer city over the past 20 years and is an ideal size and location and therefore should be seen as a desirable city.

Despite what he likes about the city, he also provided us with a broader context of the city's issues which might contribute to underlying factors of out-migration. He emphasizes that there is currently a big impact from opposition parties that are popularizing the narrative of "viss slikti" or "it's all bad," which means that politically, there are negative attitudes towards the opportunities in Daugavpils as well the whole of Latvia. When young people hear this, it lowers the energy and the positive perspective of Daugavpils.

He also acknowledges that wages are lower in Daugavpils, and there is generally a lack of action to help re-emigrants that might want to come back. A lack of political action will only continue to lower the energy and attitudes around opportunities in the city – and contribute to the already low level of patriotism. If there is no action, he fears that the rest of the world will convince people in Daugavpils (and Latvia more generally) that they are not reaching their full potential by staying.

As a result, people in Daugavpils will not see the opportunities here and, and it will result in a more negative impact over time.

Innovation Centre of Daugavpils (4 Interviews)

After speaking with local entrepreneurs, we wanted to better understand what opportunities exist for people seeking out these kinds of opportunities. The last interviewee made an introduction to the Innovation Centre, where we spoke with four educational program coordinators.

According to the interviewees, the university is one of the main draws for bringing young people to Daugavpils – but in recent years it has lost its prestige, and its future is unsure due to the possibility of merging with the University of Latvia.

In terms of job opportunities for young people, they think Daugavpils has many to offer, but some complain about the lack of willingness to work hard and unrealistic salary expectations. However, young doctors are encouraged to apply for state grants to live and work in Daugavpils, which could be extended to other professions. Overall, they think work needs to be done to improve the public image of Daugavpils. They suggest improving infrastructure and note that a better connection with Riga could have a positive impact on improving mobility.

At this point in the data gathering process, we had assessed a few key themes:

- There are not enough job opportunities for young people in the city, especially ones that match the skills and experience of the young people.
- There are not enough activities oriented towards young people, especially in the winter.
- There seems to be a gap between the group of young people who go after opportunities, and the ones who see Daugavpils as a place without opportunity.

To build on these themes, we sought to interview more representatives of the youth population – specifically, young people working in the community, and youth experts who could give us insight into the needs of the young people who are not studying or working. As much of the information they shared echoed the first interview findings, short summaries of their interviews are listed below.

Daugavpils Local Employees (4 Interviews)

While walking through town, a group member spoke with a shop employee, who we learned is currently studying music in Daugavpils. He lives in the city with his family and sees it as a good place with future work possibilities. His friends also want to live in Daugavpils after graduation if there are job opportunities available.

Another group member interviewed two cafe employees at "Lampa," a popular event place in Daugavpils that organizes well-attended events such as concerts and poetry evenings. According to the employees, Daugavpils has everything a city needs and offers many activities and things to do. Alternatively, two bartenders at *Ezītis Miglā* expressed concerns about quality of life. Echoing interviews with entrepreneurs, they shared that there are opportunities in Daugavpils, but young people don't tend to use them because they create their own opportunities. They also expressed concerns about the outdated university system and think that it needs to be improved to keep more young people from leaving. As far as cost of living, one bartender works two jobs because her salary can't cover living expenses, and she noted that she believes some illegal activities are prevalent in Daugavpils for income generation.

Youth Experts (2 Interviews)

To better understand the group of young adults who do not seek out opportunities in Daugavpils, we met with the only social worker in the city. His interview provided important insight into the life of different groups of young people in the city.

As a social worker, he has four primary goals:

- Developing a strong team of youth workers and initiatives
- Creating a unified plan for all those working with youth
- Attracting European volunteers to Daugavpils
- Establishing a youth theater to improve soft skills and communication.

One of the biggest challenges he faces is the language barrier between Latvian and Russian, but he sees it as an opportunity to work on improving communication skills for young people. Another challenge is reaching young people effectively, but he plans to work on this through a hackathon and utilizing personal connections. The political background of young people's families can play a role in their involvement in events and ideas, but there is support from the municipality for European-oriented events. In his opinion, right now, Daugavpils would benefit from more public space for young people, more festivals throughout the year, and renovated buildings to improve living conditions.

To gain further insight into the opportunities for youth, we met with a representative from the NGO, "Cita Daugavpils." The NGO was established after Daugavpils applied to be the European culture capital – even though this title was not awarded, a group of people were excited by the ideas posed, so they continued working on them. The group is made up of representatives of fields such as culture, education, social etc. – all people interested in seeing Daugavpils continue to be developed.

The interviewee has been working with youth since 2001, and she works in consultation business related to participation and human resources. When she moved to Daugavpils three years ago, people were surprised and assumed it to be a close-minded region with few opportunities. She agrees with the general conclusion that Daugavpils has a poor public image, but in her words, "A lot is missing here, but we can turn it around and make a change."

To improve the situation, she emphasizes the need to promote a culture of participation and willingness to change, experiment, and try out new ideas. She mentioned a lack of soft skills, such as communication and creativity, as a hindrance to idea exchange and development. She suggests creating a proper youth center and teaching young adults how to be more creative with earning money, and also highlighted the importance of collaboration between local entrepreneurs and NGOs.

University of Daugavpils Students (7 Interviews)

Lastly, since the University of Daugavpils is central to young adult life in the city and a prominent topic in interviews, we identified a need to speak with a larger representation of the student population. We reached out to a contact at Daugavpils University to schedule a focus group with six\student representatives. We used a focus group approach for this portion of the research to stimulate a conversation between the students that would bring more depth to our insights, as they might bring up points that answer questions we otherwise might not have thought to ask.

We came in with questions based on all the learnings of previous interviews, and wanted to focus specifically on the key themes we had identified thus far:

- There are not enough job opportunities for young people in the city, especially ones that match the skills and experience of the young people.
- There are not enough activities oriented towards young people, especially in the winter.
- There seems to be a gap between the group of young people who go after opportunities, and the ones who see Daugavpils as a place without opportunity.

The full list of guiding questions for the focus group can be viewed in Appendix A.

Overall, the students are satisfied with living in Daugavpils – most moved here for school because it was cheaper than Riga, or offered programs that are not offered elsewhere (music and sports specifically). Out of the six, five plan to leave Daugavpils after finishing their studies, and one plans to stay because she has family in the city.

One timely factor affecting students specifically, is the consideration of whether the University will be merged with the University of Latvia. Students see both pros and cons but worry about the impact on students studying music and the lack of options for those who don't want to go to Riga.

The school is currently fighting against the merger and striving for quality to give students more opportunities to choose where to go.

As far as life in the city, they agree that job opportunities in Daugavpils are limited; however, a few of them note they would be willing to stay in the city if a high paying job in their field was available. Like many of the locals we interviewed, they echoed that the city lacks activities, especially in the winter. The activities they do participate in are generally of their own making and are limited to the university population. In their words, "Studying is basically the only thing to do, and if you don't have a group of friends or people to go with, then there is nothing to do at all."

The students also noted that the Russian language difference is another significant barrier to long term life in the city, as they feel there is a significant portion of the population that does not try to speak Latvian, and it deepens a divide between groups of young people in the city. In the same theme of lack of effort, they feel that the University, and the city by expansion does not try to attract new students. Furthermore, they do not make an effort to keep students interested in staying. Little effort is put into student activities or housing, which we experienced first-hand touring the dormitories which are currently shared with Ukrainian refugees. The students living there shared that while the accommodation is affordable at 45 Euros a month, there are numerous issues and improvements that need to be made to improve the quality of life (Figure 13.)

Figure 139. The group visiting a student dormitory.

As far as additional improvements to be made to life in Daugavpils, they note that the gym services are expensive and sometimes inaccessible, and the activities that used to exist before COVID (like

the cinema) have been shut down, leaving them with even fewer opportunities for socialization outside the university. Overall, it became clear that efforts should be made to improve the lives of students (and other young people by extension) through improving living conditions and offering additional activities aimed at young people in the city.

We held one additional phone interview with a student, who echoed the insights of the focus group, adding that she thinks it is vital for the university to stay in the region because it brings in so much life for the city. Otherwise, she thinks that everyone would move to Riga and the countryside would be abandoned – so it is important to continue offering opportunities for young people in Daugavpils.

Observation and autoethnographic participation

Between interviews, we walked nearly 50 km of the city, exploring the city center, parks, cultural centers, and different neighborhoods (Figure 14.). We chose several of these locations for ethnographic observations of the city. Observation as a research method added value to this study, because it allowed us to study the people, the city environment, and the way they interact (Baker, 2006). When conducting observations, we concentrated on phenomenon and characteristics either related to the livability of young people in the city (atmosphere, infrastructure) or to the young people themselves, and how they spend their time in the city.
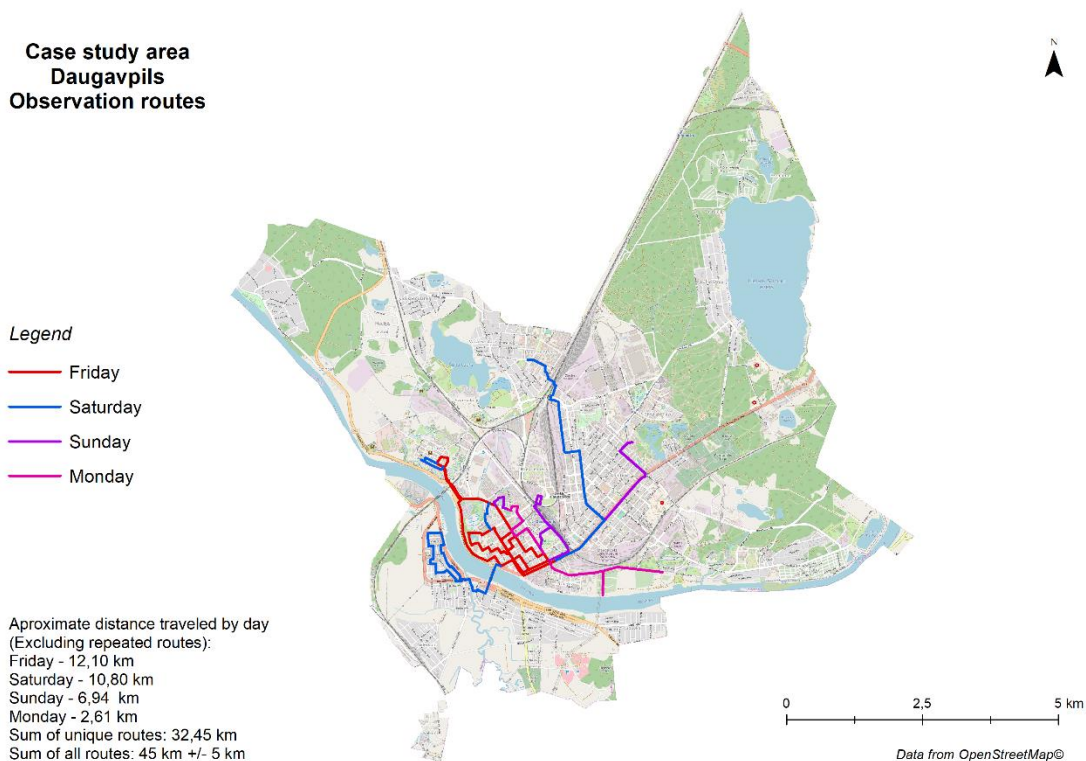
Figure 14. Case study area Daugavpils observation routes.

Public spaces in downtown

The group conducted observation in the downtown of Daugavpils constantly during the four days spent in the city. The group discovered clean, well-maintained streets and parks. In Daugavpils large central park, there was also a busy playground full of children and families (Figure 15.).

Figure 1510. Playground in the central park.

In the evening, teenagers hung around the parks and other downtown areas in small groups, sometimes playing music with portable speakers. In the streets and parking areas of downtown, we observed young men driving around in cars, seemingly without destination, playing loud music in the car with open windows. We also saw many motorcycles (Figure 16), and the audio-scape of city was filled with vehicle engines and loud bass music.

Figure 1611. Motorcyclist meeting in Vienības laukums-square in the centre of Daugavpils.

While cars and motorcycles were numerous in the downtown area, there was a notable lack of cyclists. Cycling facilities like bike lanes and bike parking spaces were scarce or did not exist. However, pedestrians were numerous, and pedestrian infrastructure was more advanced: pedestrian lanes and crossings, traffic lights and traffic dividers made walking in the downtown area relatively comfortable (Figure 17.). Additionally, drivers seemed respectful to pedestrians.

Possibilities for shopping seemed to be reasonably good, with options for international clothing stores, sports stores, flea markets and specialized shops all located in the downtown area. There also were a few trendy cafes in the downtown area, but with slightly higher prices compared to more traditional ones. Overall, food costs both in restaurants and shops were reasonable and average for this region.
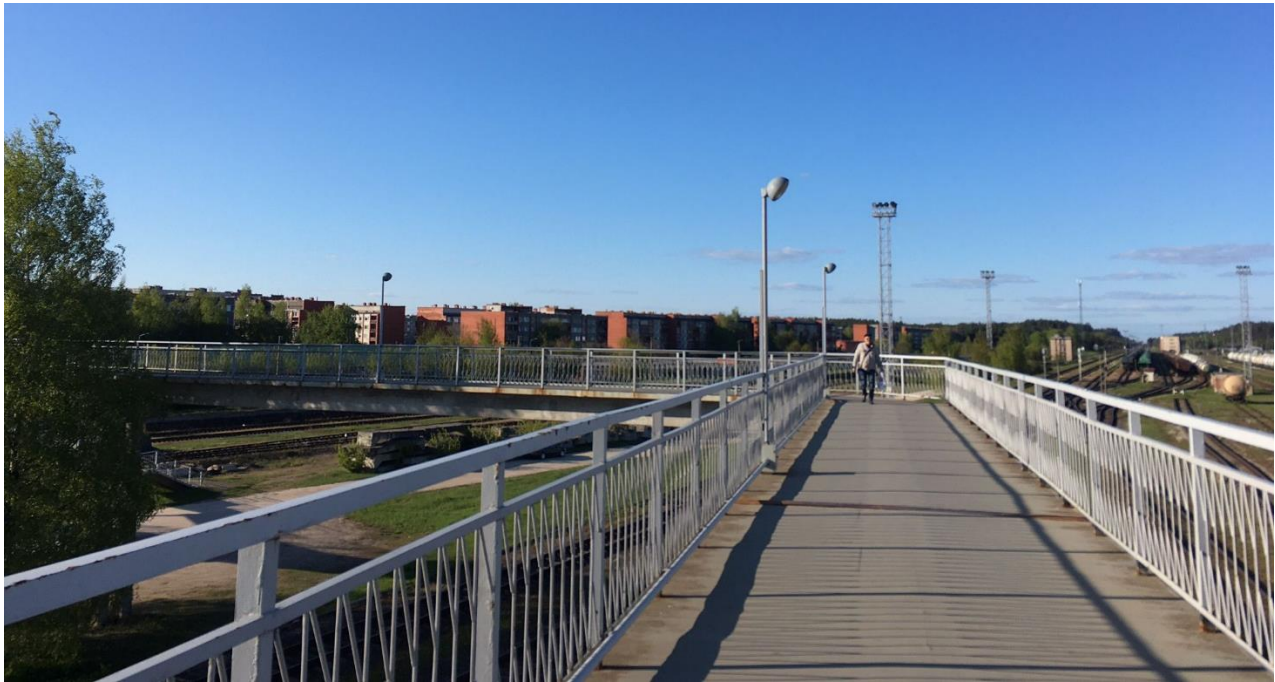
Figure 17₁₂. Pedestrian infrastructure in Daugavpils.

Outside of the Staņislavs Broks Daugavpils Music Secondary School we also observed an interactive music park which was free to the public including drums, xylophone, space drums, and other instruments (Figure 18). This small exhibit also included sheet music for simple and recognizable songs (Figure 19).

*Figure 18*13. *Interactive Music Park.*

*Figure 19*14. *Interactive Music Park.*

Apartment house areas and suburbs

The group conducted observation in apartment house areas in eastern part of the downtown and in neighborhood called Jaunā forštate. Most of the buildings in these areas were from the time of the Soviet Union. Withs several stories and multiple apartment buildings, this was one of the most populus places in Daugavpils (Figure 20.).

*Figure 20*15. *Apartment houses in Jaunā forštate.*

Observation in areas dominated by single-family houses in Grīva were conducted while running. This area is located on the other side of the Daugava River from downtown. These buildings are mainly from the Soviet Union period and roads in this suburban area are mainly gravel roads and only the main road running through the area had an asphalt surface. There were signs for bike

routes financed with the help of EU funding, but the actual bike lane didn't seem to exist – there were only lanes for cars (Figure 21.).

Figure 21₁₆. Bike route funded by EU in Grīva suburban area.

Public transport

Due to the group's frequent trips to the Daugavpils fortress (located in the North-West of the city), the main observation of public transport was of the local tram routes. However, through observation of posted bus and tram routes, we observed that the city appears well-connected internally (Figure 22.). There is also a decent connection with surrounding regions, including a daily train to Riga.

Figure 2217. A tram in Daugavpils.

Sport facilities

Daugavpils has a lot of sporting facilities such as swimming halls, gyms, football fields and other indoor facilities like tennis, basketball and fencing. Some of our group explored swimming halls and gyms in the city. Facilities for swimming are very good, including a multiple-track swimming pool and pool for the kids in addition to hot tubs. The swimming hall also includes a sauna area with both a traditional and Turkish sauna. Our group members went a couple times to the swimming hall and a notable observation was that there were mostly families and older people – no students and younger generation were observed during the time. One key factor might be that the price of swimming was surprisingly high, even for students. Even with the student discount price, 1-hour costs 7.5 euros. Additionally, according to our interviews some of the students thought it is too pricy for students.

There were also multiple different gyms in the center area, and our group was able to patron two of them. In the gym, the possibilities for weight training were good, even though the equipment

was old. The monthly price for students is around 40 euros per month, which is also quite high. Patrons of the gym varied between young teenagers to students and middle-aged people.

Some deteriorated sports facilities, for example for ball games, were also located in the downtown area alongside other newer and well-maintained ones (Figure 23.).

Figure 23[18]. A dilapidated basketball field in an apartment house area close to the downtown of Daugavpils.

During our observation walks around Daugavpils we also observed several community sports spaces including public and free bike tracks and skate parks. On the days we observed these spaces, they were being dominantly used by young people under the age of 20.

Figure 2419. Bike Park near the downtown area.

Music concerts

Despite being a city well known for its sport facilities and strong teams on a national level, Daugavpils has a wide range of culture events to offer. While doing the case study, we attended two different concerts. One was a metal folk band Varan Nord at the Daugavpils Fortress. The concert was held at 21.00 on the 5th of May. The concert was free to the public, and there were other activities such as a vehicle exhibition, interactive exhibit etc. Varan Nord is a local band from Daugavpils. They communicated with the audience in Latvian, Russian, English and Latgalian. Despite the specific genre, the event was well attended, there were many people at the exhibition and concert. As stated earlier, the concert was attended by quite a lot of young people as well as many families with young children.

Figure 25. Metal folk band Varan Nord concert at the Daugavpils Fortress. Picture source: Varang Nord Facebook page

The other concert that we attended was Latvian pop band "bet bet". They are doing their 30-year anniversary tour and their first concert was at Daugavpils Culture Palace. As they stated on the stage, this is their first time giving a performance in Daugavpils. The concert was mainly attended by people older than 40. Around 60% of the seats were sold out, and the audience was singing along with the songs. The overall atmosphere was uplifting. After the concert people lined up to buy CDs, books, and get autographs from the musicians.

Figure 26. BET BET concert ticket with the signatures.

Analysis

The analysis of interview data was carried out by using content analysis coding using MAXQDA software. Coding was conducted based on the groups' collective notes from each individual interview. We first identified codes relevant to our research questions which included: Pull Factors (positives), Challenges, Desired Changes, Drivers of Shrinkage, and Impacts of Shrinkage. Within the codes for the drivers and impacts of shrinkage we included subcodes for the social, political, and economic factors to provide us with more fine-grained analysis.

During this analysis we first created a word cloud to visualize the frequency of words from our interview notes which is visible below (Figure 27). In this visualization the size of the word represents its frequency within our analyzed interview notes. While this does highlight the importance of people, language, and motivation thought words such as young, work, Latvian, or opportunity – it is important to note that our questions were tailored to understand the implications of university students and their potential decrease in Daugavpils.

Figure 27₂₀. Word Cloud of Daugavpils interviews in the shape of Daugavpils.

With this in mind, we continued our analysis by creating a code map to analyze the relationship between our chosen codes. This is visible below in Figure 28.
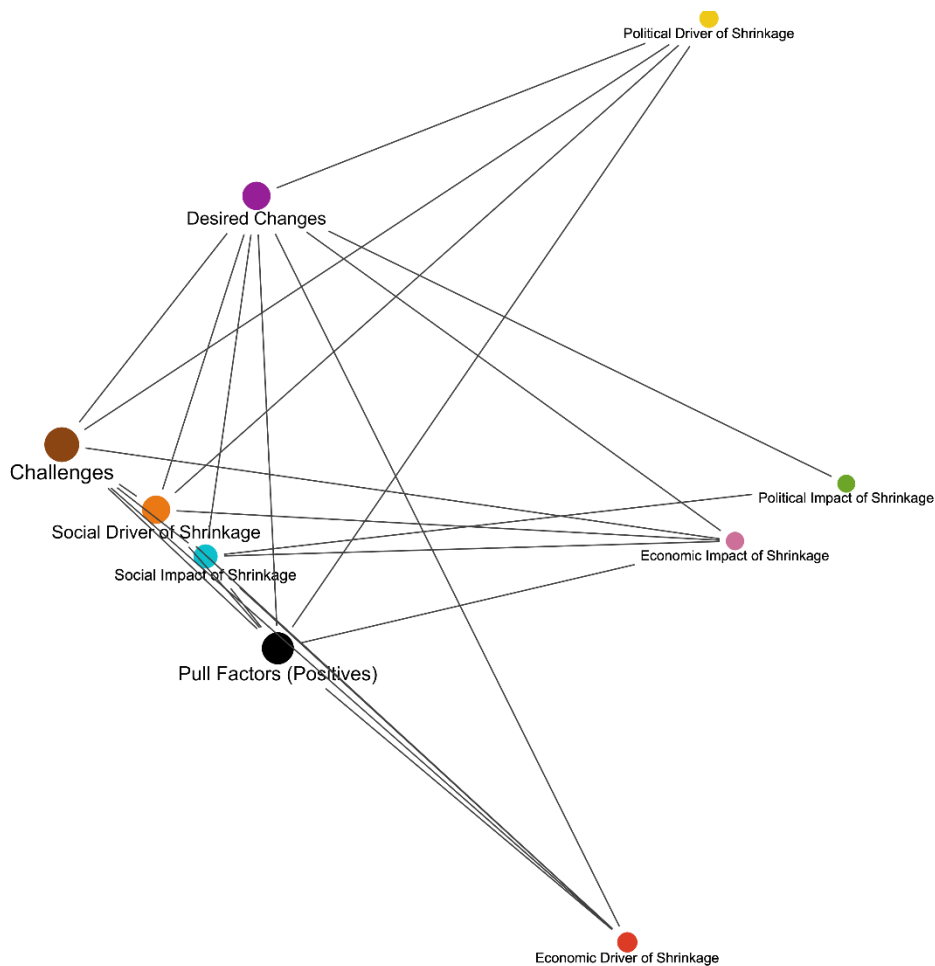
Figure 28₂₁. Code Map of Daugavpils interviews.

This code map highlights the strong connection and correlation between our codes on the challenges, desired changes, and pull factors (positives) in our interviews. These codes are of course more loosely tied to codes of economic drivers of shrinkage, economic impacts of shrinkage, political impacts of shrinkage, and political drivers of shrinkage. However, closely tied in between the triangle created between the three main codes (to the left of the diagram above) are the social drivers and impacts of shrinkage. We found it interesting to note that the coding for social drivers and impacts of shrinkage were more closely connected to the coding of desired changes, challenges, and pull factors (positives). Therefore, we analyzed the relationship between the social impacts using a code matrix browser which shows the frequency of social drivers and impacts codes within each interview (. This reveals that the codes are present within the same interviews in similar frequencies, which shows a strong connection between these factors.
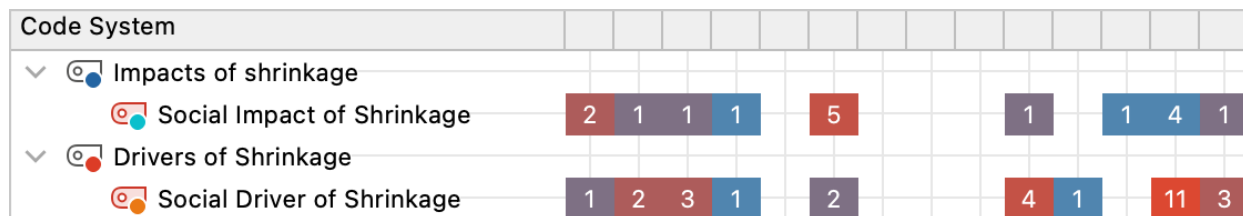
Code System										
∨ Impacts of shrinkage										
Social Impact of Shrinkage	2	1	1	1	5		1		1	4	1
∨ Drivers of Shrinkage										
Social Driver of Shrinkage	1	2	3	1	2			4	1	11	3

Figure 29. Code Matrix Browser comparing social impacts and social drivers of shrinkage in Daugavpils interviews

With these visualizations in mind, we identified the main pull factors (positives) currently established in Daugavpils which includes:

- Festivals and events such as Artišoks (young people's festival)
- NGOs and organizations such as Cita Daugavpils (local NGO) and New East
- Cafes and event spaces such as Ezitis Migla and Rothko Museum
- Team Sports including Basketball, Volleyball, Football, Hockey.
- Individual sports including short track, ice skating, swimming, boating, gym
- Availability for younger children in kindergarten, after-school activities such as art school "Saules skola", sports, events etc.
- Potential support to start new businesses including "Izgudrotāju festivāls", "Lauku atbalsta dienests" and innovation Centre
- Available jobs as teachers, sports coaches, and translators
- Opportunities for people who speak Russian, Latvian, and English
- Less competitive and financially draining academic opportunities (including those that aren't offered in Riga such as sports and music)
- Overall desire to have young, innovative, and motivated individuals in Daugavpils

As highlighted through this concise list, the positive factors do not only revolve around "the level of qualification or education of the population but also the quality and quantity of social interaction in the context of municipal non-governmental organizations (NGOs)" (Ostrovska et al., 2020). We continued our analysis by identifying the main challenges highlighted in interviews which included:

- Lack of "win-win," "long-term," and "environmental" thinking
- Lack of jobs and culture of participation which is influenced by language (Russian, Latvian, and English) and generational groups (challenges in self-expression including LGBTQIA+ community)
- Loss of the universities prestige and a slight disconnect between the institution and city
- Seasonal nature of businesses, tourism, and events
- Lack of disability inclusive infrastructure

Main challenges regarding to out-migration of young adults in Daugavpils are the lack of job opportunities and the lack of activities. Also, the divaricated ethnicity, conservative political atmosphere and social exclusion of certain youth groups were brought out in the interviews.

Regarding business possibilities, the seasonality and difficulty of finding reliable and skilled employees were identified as a challenge. Through discussion of the relationship and correlations between the strengths and challenges described by interviewees we identified the main desired changes including:

- Bringing back the cinema (with accessibility for Latvian, Russian, and English speakers)
- Improving young generations soft skills and creating a less conservative new generation that is not dismissive towards experimentation and change
- Improving public outdoor spaces and living conditions (including disability access) across the city for everyone
- Improving inner connectivity, collaboration, and communication between entrepreneurs, NGOs, language communities, and generations
- Diversifying the availability and types of part-time and full-time jobs

Overall, the community discussions did not reveal any pending responses for shrinkage and out-migration focusing on life quality and possibilities of young population. However, youth workers have identified a need to improve the livability of Daugavpils. Youth workers referred to the EU project to improve the life quality of the young population in the city and focus on group workshops related to the project. Discussions about reopening the youth center also emerged.

Desired responses and changes were similar between interviewees, and they seemed to have a clear conception of what should be improved to increase the livability of Daugavpils. Desired changes include single concrete improvements like reopening the cinema and improving the outdoor spaces. Surprisingly, interviewees highlighted the need for cultural, atmospheric and paradigm changes even more than infrastructure updates. Specifically, youth workers discussed the lack of communication and participation skills of young people and emphasized the importance of schools and youth work to improve these skills among the young population in Daugavpils. The need for a common paradigm change was also communicated: in Daugavpils, there is little to no culture of participation and involvement. Moving forward, the younger generation and stakeholders should be included in decision-making and development work.

Interpretations

While the overall narrative in Daugavpils is to create growth and attract more people to the city, our analysis of challenges and main pull factors highlight the need for motivated individuals to start projects. This is perhaps "the modern paradigm of regional development" which confirms that "one of the most important drivers of development is the individual" (Ostrovska et al., 2020). As highlighted by Ostrovska et al., "human capital and the development of technological infrastructure, creative workers are considered to be a key element of regional innovation" (2020). Daugavpils has a diverse array of cultural heritage, however as highlighted through our analysis, is missing a "well-developed institutional system supporting entrepreneurship" which means that few individuals with higher education are "taking creative positions" or engaging in "creative fields" (including tech industries and culture). As discussed earlier in the paper and visualized in the code map (Figure 28) and code matrix browser (Figure 29), these factors have a cyclical and highly connected nature in which it is difficult to identify what is the leading driver and impact of shrinkage (Ostrovska et al., 2020; Pociūtė-Sereikienė, 2020).

As conducted during the data analysis, many of the interviewees that play a very different role in the city emphasize the importance of the public image of Daugavpils. The public image of a place plays an important role in the perception of a city, feeling of attachment and the life quality of residents as well as attracting tourists and improving the city's economy (Ripoll and Gale, 2022). A more positive public image is one of the desired changes from the residents of Daugavpils. As many of them stated, there can be a lot of negative perception on Daugavpils from other places in Latvia. Therefore, it would be a crucial step for the municipality of Daugavpils to include the development of the city image in their strategic plans, since they have not done it (see Figure 30). Analyzing our observations of Daugavpils, we came to the same conclusion, that the public image of the city could be improved.
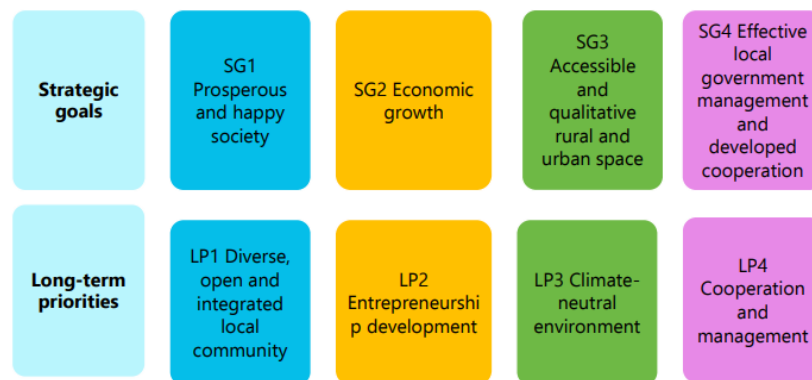

Figure 30₂₂. Strategic goals and long-term priorities of Daugavpils strategic plan ()

Authors of a smart shrinkage project called ReGrow Town, argue that "to shrink smart is about taking control" (2021). While Daugavpils overall is still striving for population growth and development as a method to fight shrinkage, this quote highlights an important consideration from our interviews. Overall, we observed a lack of pride among young individuals we interviewed towards the city of Daugavpils (including for example the bar tenders at Ezitis Migla and the university focus group). As outlined by Ostrovska et al., the best abilities needed to take advantage of future opportunities include: "the ability to identify strengths; (2) the ability to coordinate political actions and build critical mass; (3) the ability of any region to create a vision and implement a strategy" (2020). While building a smart strategy is important for Daugavpils, it is perhaps important to understand how the ongoing discourse is shaping the drivers and impacts of shrinkage. How does a lack of pride in the discourse surrounding Daugavpils impact young people's decision to stay or leave?

While "creating an attractive environment" through increasing aesthetic quality, availability and people-friendly urban spaces is an important aspect of a community's well-being for the purpose of this report, it is important to distinguish that this would be for the maintenance and development of the current population, not the attraction of a new population (Semjonova, 2015). As highlighted in our focus group interview with the University of Daugavpils students, the focus should not be on attracting more students, but about developing a better quality of life for those who are already there. In alignment with ideas presented in literature surrounding 'smart shrinkage': planning for the future of shrinking places should aim to guarantee "a certain quality of life that ensures the maintenance of [...]a pleasant place to live" (Panagopoulos, 2012, p. 277). The focus therefore should be on the implementation of measures for revitalization and maintenance of physical, socio-cultural, historical spaces that reinforce a community's sense of place and belonging (Rhodes & Russo, 2013).

The paradigm changes from growth-oriented thinking to smart shrinking, and from exclusive decision-making and development planning to inclusive and participatory one would brighten the future development of Daugavpils. Especially from the perspective of younger population, inclusive community would increase place attachment, belonging and youths feeling that they can affect their own life, environment, and possibilities. The paradigm change to smart shrinking would enable focus on creating connection between youth and other actors, like municipality and associations, to create truly inclusive community instead of unrealistic aspiration of growth. Simultaneously, the inclusive community is needed to successfully shrink smart.

Conclusions

Drivers for Daugavpils' shrinking might be explained by historical and geopolitical reasons that have inflicted political, economic, and demographic changes. The changes caused by the collapse of the Soviet Union can be seen as the underlying main factors for the shrinking development: the transition of Daugavpils from a planned to market-led economy caused factory closures, increased unemployment and massive job-seeking emigration in 1990s (Pociūtė-Sereikienė 2020). The recent development has largely been affected by geopolitical factors. The location near of the borders of Russia and Belarus has an impact to the attractivity of Daugavpils area. As Land et al. (2022) notes, Daugavpils and the whole Latgale area can be seen as an emblematic case, where the geographical and cultural border location, potentially an asset, has taken a position of weakness. The Russian invasion of Ukraine started in 2022 and has, presumably, increased the negative geopolitical impact of location near the Russian border.

The general process of shrinking in Daugavpils has caused changes typical for shrinking cities: demographic changes like population loss, aging, low birth rates and economic changes like increase of unemployment. The two major reasons detected in the study for out-migration of young people from Daugavpils are the lack of job opportunities and a lack of diversity in activities. Our results also show a strong connection between the challenges, desired changes and pull factors discussed by our interviewees. While this is not necessarily a surprising result, we believe that it highlights the social capital and cultural heritage that exists in Daugavpils today despite immense demographic changes and loss of Soviet era-industries (Rocak, 2016).

It seems that responses for out-migration of young adults have not been implemented in Daugavpils to the extent needed. However, some actors have identified the need to improve the livability of Daugavpils, especially for the young adult population. Additionally, plenty of desired responses and changes were brought up by the interviewees. These desired changes include both single concrete improvements and broader improvements related to culture, atmosphere and common paradigms in the city. In this study, we identified two major paradigm changes that would develop Daugavpils towards a desirable future: The change from growth-oriented thinking to smart shrinking and from exclusive decision-making and development planning to inclusive and participatory one. These two new paradigms should be practiced simultaneously since they enable one another.

Appendices

Appendix A

The core questions of interviews were:

1. Tell us about your life in Daugavpils.
2. Why do you think young people are moving out of Daugavpils?
3. How could these factors be improved?

The questions were added to/ expanded on based on the expertise of the individuals, and the direction the conversations took.

The guiding student focus group questions were:

1. Are you from here originally or have you moved here from another area? If you have moved here, what was the motivation? Did you plan to go somewhere else?
2. What do you like about living here? How do you have fun? What kind of hobbies do you have?
3. What could be improved about living here?
4. Do you plan to stay in Daugavpils once you have finished your studies? Why or why not?
5. Why do you think young adults are moving out of Daugavpils?
6. Have you heard about the university possibly closing or merging? Are there any efforts in place to stop it? How do you think its closing would impact the town? What do you think, are there any options to adjusting to avoid possible closing?
7. Is there equal share of Latvian and Russian speakers studying in the university? If not, what do you think is the reason?
8. What do you think about the quality of teaching here in Daugavpils university?
9. In previous interviews, people have told us that they perceive there to be two different groups of young people in Daugavpils - the ones who are taking opportunities and excited about living here, and a group that is much less involved in culture/society. Do you agree with this? Do you have any examples?
10. If yes, what are your perceptions? What could be done to bring these two groups closer together?
11. What has changed in the last 10 years?
12. Political atmosphere of Daugavpils - LGBTQIA+ violence?

References

Ackoff, R. L. (1953). The Design of Social Research, Chicago, University of Chicago Press.

Ahrens, G.-A. (2005) Demographic changes—consequences for the transportation sector, *Journal of Public Health*, 13(1), pp. 16–21.

Baker, L. (2006). Observation: A complex research method. Library trends, 55(1), 171-189.

Berzins, A., and P. Zvidrins. (2011). Depopulation in the Baltic States. *Lithuanian Journal Of Statistics* 50 (1): 39–48. doi:10.15388/LJS.2011.13931.

Central Statistics Bureau of Latvia. (2023). Statistics in Brief: Latvia 2023. Available: https://admin.stat.gov.lv/system/files/publication/2023-05/Nr_03_Latvija_Galvenie_statistikas_raditaji_2023_%2823_00%29_EN.pdf

Cinis, A., M. Drėmaitė, and M. Kalm. (2008). Perfect Presentations of Soviet Planned Space: Mono-Industrial Towns in the Soviet Baltic Republics in the 1950s–1980s. *Scandinavian Journal Of History* 33 (3): 226–246. doi:10.1080/03468750802079409.

Daugavpils.lv (2021). *Strategic documents*. Retrieved May 11, 2023, from https://www.daugavpils.lv/assets/upload/manager/AttistibasDepartaments/Dokumenti/Planosana/II_Strategiska_dala.pdf

Daugavpils.lv. (2018). *History*. Retrieved May 6, 2023, from https://www.daugavpils.lv/en/city/daugavpils/history

Daugavpils.lv. (2022). *Residents*. Retrieved May 6, 2023, from https://www.daugavpils.lv/en/city/daugavpils/residents

Daugavpils.lv. (2018). *City*. Retrieved May 6, 2023, from https://www.daugavpils.lv/en/city/daugavpils/city

Daugavpils.lv. (n.d.). *City*. Retrieved May 6, 2023, from https://www.daugavpils.lv/en/city/daugavpils/city

Daugavpils University. (2021). About University. Daugavpils University. Retrieved May 6, 2023, from https://du.lv/en/about-us/about-university/#:~:text=Over%202200%20students%20from%20different,scientific%20research%20of%20Daugavpils%20University

Dietzsch, I. (2009). Perceptions of Decline: Crisis, Shrinking and Disappearance as Narrative Schemas to Describe Social and Cultural Change. *Anuarul Institutului de Istorie "George Baritiu"* 7: 7–22.

Eraydin, A., & Özatağan, G. (2021). Pathways to a resilient future: A review of policy agendas and governance practices in shrinking cities. *Cities*, *115*, 103226.

Grossmann, K., M. Bernt, A. Haase, and V. Mykhnenko. (2013). Shrinking Cities: Notes for the Further Research Agenda. *Cities* 35: 221–225. doi:10.1016/j.cities.2013.07.007

Haase, A., M. Bernt, K. Grossmann, V. Mykhnenko, and D. Rink. (2013). Varieties of Shrinkage in European Cities. *European urban and Regional Studies* 23 (1): 86–102. doi:10.1177/0969776413481985.

Haase, A., D. Rink, K. Großmann, M. Bernt, and V. Mykhnenko. (2014). Conceptualizing Urban Shrinkage. *Environment and Planning* 45: 1519–1534. doi:10.1068/a46269.

Jessen, J. (2006) Urban renewal—a look back to the future. The importance of models in renewing urban planning, *German Journal of Urban Studies*, 45(1), pp. 1–17

Lang, T., Burneika D., Noorkoiv R., Plüschke-Altof B., Pociūtė-Sereikienė G. and Sechi G. (2022). Socio-spatial polarisation and policy response: Perspectives for regional development in the Baltic States. *European Urban and Regional Studies* 2022, Vol. 29(1) 21–44

Leetmaa, K., Kriszan A., Nuga M. and Burdack J. (2015). Strategies to Cope with Shrinkage in the Lower End of the Urban Hierarchy in Estonia and Central Germany. *European Planning Studies*, 23:1, 147-165

Martinez-Fernandez, C., I. Audirac, S. Fol, and E. Cunningham-Sabot. (2012). Shrinking Cities: Urban Challenges of Globalization. *International Journal Of Urban And Regional Research* 36 (2): 213–225. doi:10.1111/j.1468-2427.2011.01092.x

Maxwell, J. A. (1996). Qualitative Research Design: An Intractive Approach London, Applied Social Research Methods Series

Ostrovska, I., Rivza, B., Aleksejeva, L., & Kusina, B. (2020). Comparative analysis of smart development of territories: the example of Daugavpils and Ilūkste municipality. *Economic science for rural development 2020*, 181.

Panagopoulos, T., & Barreira, A. P. (2012). Shrinkage perceptions and smart growth strategies for the municipalities of Portugal. *Built Environment*, *38*(2), 276-292.

Pociūtė-Sereikienė, G. (2020): Urban shrinkage in the periphery of a post-communist country: the story of Šiauliai, *Journal of Baltic Studies*, DOI: 10.1080/01629778.2020.1831561

Reckien, D., and C. Martinez-Fernandez. (2011). Why Do Cities Shrink? *European Planning Studies 19 (*8): 1375–1397. doi:10.1080/09654313.2011.593333.

Rhodes, J., & Russo, J. (2013). Shrinking 'smart'?: Urban redevelopment and shrinkage in Youngstown, Ohio. *Urban Geography*, *34*(3), 305-326.

Rink D., Haase A., Bernt M., et.al. (2009). *Shrink Smart project*. retrieved 11.05.2023, from
https://www.ufz.de/export/data/400/39013_WP1_Paper_D1_D3_FINAL300909.pdf

Rink, D., A. Haase, M. Bernt, and K. Großmann. (2010). Addressing Urban Shrinkage Across
Europe – Challenges and Prospects Shrink Smart Research Brief No. 1. Helmholtz Centre for
Environmental Research – UFZ, Leipzig, On behalf of the Shrink Smart consortium, November
2010. http://www.ufz. de/export/data/400/39030_D9_Research_Brief_FINAL.pdf

Ripoll, L. and Gale, F. (2022). Sustainable city branding narratives: a critical appraisal of
processes and outcomes. *Journal of Place Management and Development.*

Ročak, M., Hospers, G. J., & Reverda, N. (2016). Searching for social sustainability: The case of
the shrinking city of Heerlen, The Netherlands. *Sustainability, 8*(4), 382.

Ruzha, O. (2017). Communication of Ethnic Groups in the Public Space: The Case of
Daugavpils.

Saeima of the Republic of Latvia. (2012). Latvija 2030. Sustainable Development Strategy of
Latvia until 2023. https://sdgtoolkit.org/wp-content/uploads/2017/02/Sustainable-Development-
Strategy-of-Latvia-until-2030.pdf

Semjonova, A., & Īle, U. (2015). Aesthetic Quality of the Gajok Community in Daugavpils.
LANDSCAPE ARCHITECTURE AND ART, 51.

Sílvia Sousa & Paulo Pinho (2015). Planning for Shrinkage: Paradox digm. *European Planning
Studies*, 23:1, 12-32, DOI: 10.1080/09654313.2013.820082

Wiechmann, T. (2008). Errors Expected — Aligning Urban Strategy with Demographic
Uncertainty in Shrinking Cities. *International Planning Studies, 13:4, 431-446*, DOI:
10.1080/13563470802519097

Wiechmann, T., and M. Bontje. (2015). Responding to Tough Times: Policy and Planning
Strategies in Shrinking Cities. *European Planning Studies* 23 (1): 1–11.
doi:10.1080/09654313.2013.820077.

Open data sources

Geospatial statistical data published on Official Statistics Portal of Latvia, Ethnicity, 10.5.2023:
https://geo.stat.gov.lv/stage2/#lang=en

Geospatial statistical data published on Official Statistics Portal of Latvia, Population by actual
place of residence, 10.5.2023: https://geo.stat.gov.lv/stage2/#lang=en

Geospatial statistical data published on Official Statistics Portal of Latvia, Share of unemployed persons, 10.5.2023: https://geo.stat.gov.lv/stage2/#lang=en