From trawling to travelling

Case study of Siglufjörður, Iceland

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Executive summary

This report looks at the town of Siglufjörður in northern Iceland through the lens of smart shrinkage. As many Icelandic towns faced population decline throughout the mid-20th century, shrinking has received increasing attention in recent decades. To understand the effect of population decline and the disappearance of vital industries, we carried out a field project, to see if Siglufjörður is affected by this trend in their regional development. We focus on how Siglufjörður stayed resilient and its adaptive capability through economic changes and the transformation of industries in the town. We carried out a qualitative approach with interviews, observations, and mapping processes. The results show that nowadays tourism plays an important role and the town has managed to create value from its cultural and historical heritage.

1. Introduction

After an era of industrial growth, places across the globe are increasingly experiencing population loss and shrinkage. As a result, challenges with infrastructure, employment, housing, and public services are increasing (Martinez et al., 2012). By the year 2050, approximately 40% of cities are expected to be shrinking globally (Zhai et al., 2022), reinforcing the idea that "Shrinking cities are here to stay" (Matyushkina, 2023, p.1). In Iceland, many coastal communities underwent rapid changes due to a profound shift in fisheries management and the introduction of the quota system in the year 1984 (Kokorsch & Benediktsson, 2018). Since then, the uneven development and outmigration have affected many communities along the Icelandic coastline, resulting in population decline.

This study will look specifically at the town of Siglufjörður located in the Tröllaskagi peninsula, Iceland. Siglufjörður, a town previously known as the "herring capital" prospered throughout the 20th century as the abundance of the herring stock brought both trade and people to the area. However, after the collapse of the herring stock the town suffered from population decline and lost many local residents to outmigration along with a large portion of the international activity (Westmont, 2021). With a population decline of nearly 30 % between the years 1998-2024, one may imagine that the community has endured a state of descent, where services have been lost, infrastructure has degraded, and social issues have risen. However, as one drives out of the tunnel Héðinsfjarðargöng, one is met by a resilient and vibrant community that has largely diverted from the dominant growth paradigm. Siglufjörður, with its cultural life, innovative industries, and hopeful residents shows that there are opportunities to be utilized in shrinking towns across the country. Thus, to understand the opportunities for rightsizing and resilience, this paper will discuss the implications for smart shrinkage in Siglufjörður by analyzing the residents' perceptions of the town's history, present, and future. Additionally, as tourism has had a significant role over the last decade (Westmont, 2021), this became one of the main focuses of the report.

As such we aim to answer the two research questions:

1. How has Siglufjörður stayed resilient and adapted through changes of the economic bust and boom to maintain its vitality?

2. How does tourism affect the development of Siglufjörður?

   A. How is place identity leveraged to create value?

2. Case Study: Siglufjörður

Siglufjörður is Iceland's northernmost town (Figure 1) and a historic fishing center whose prosperity has always been tied to the fishing industry. Originally a small shark fishing village in 1900, it rapidly grew into one of Iceland's largest towns and became the leading hub for herring fishing in the Atlantic. Despite the disappearance of herring, the town still reflects the significant influence of its herring fishing heritage. Siglufjörður, along with Ólafsfjörður, forms part of the Municipality Fjallabyggð, which was established through the merger of the two communities in 2006.

Siglufjörður is an area of spectacular natural beauty, with awe-inspiring mountains and fjords. It offers opportunities for outdoor activities and recreation, such as skiing, hiking, or golfing (Fjallabyggð, n.d.).

Figure 1: Map of the location of Siglufjörður

2.1 History of Siglufjörður

Siglufjörður emerged as the vibrant hub of the nation's herring industry. Since its establishment in 1903 by Norwegian pioneers, Siglufjörður embodied the dynamic energy akin to gold rush towns globally. The herring, often dubbed the "silver of the sea," sparked an atmosphere of anticipation and vitality, propelling Siglufjörður to the forefront of Iceland's maritime economy. As the herring industry flourished, Siglufjörður became a bustling center of activity. Its sheltered harbor attracted vessels from distant shores, particularly during adverse weather conditions (Eggertsson, 1996). Throughout the early 20th century, Siglufjörður throbbed with life. Its waterfront brimmed with pubs and dancehalls, where locals and visitors alike revealed in the infectious rhythms of music and dance. These gatherings epitomized the spirit of community and festivity that defined Siglufjörður during its herring heyday. After 1950, successive summers of meager herring catches cast a shadow over the town, leading to a gradual population decline. Despite brief herring fishing surges in the early 1960s, the summer of 1964 marked the end of an era as the herring vanished from Icelandic waters. The once-thriving industry, which had fueled Siglufjörður's prosperity, succumbed to overfishing, leaving behind a void that reverberated throughout the town. In the aftermath of the herring's disappearance, Siglufjörður underwent a period of transformation. The removal of old docks and herring stations reshaped its physical landscape, erasing tangible reminders of a bygone era (The Herring Era Museum of Iceland, n.d.).

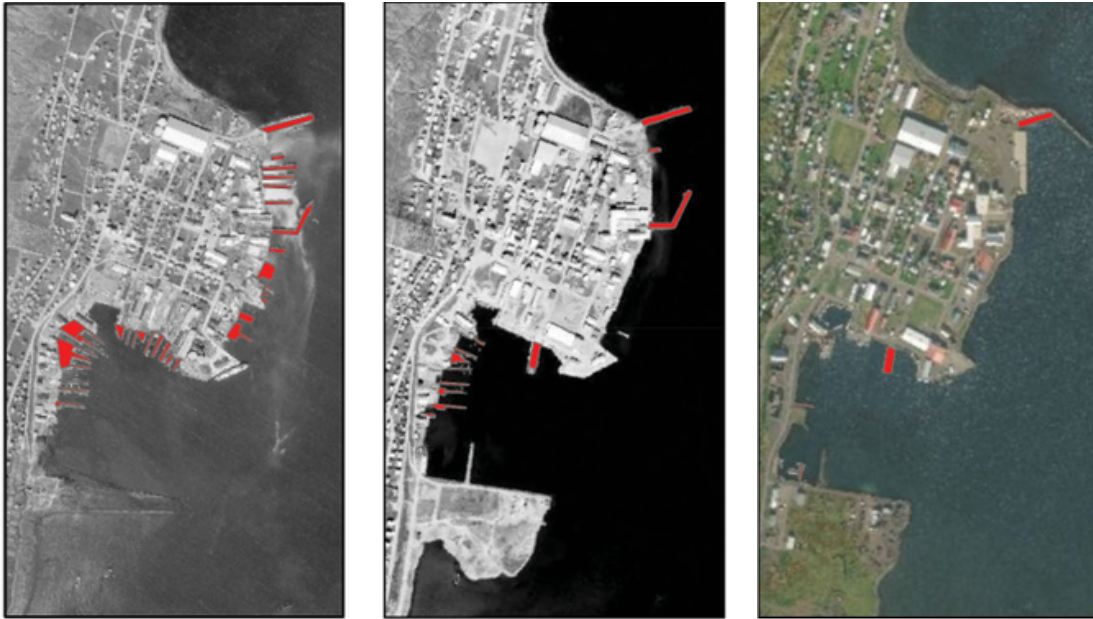1958   1986   2014

Figure 2: Aerial images of the piers by V. Camille Westmont, 2021 (edited). The maps show how the piers (marked in red) have changed over time. The decline of the piers is part of the erasure of the herring history.

2.2 Demographics

Siglufjörður reached its population peak between the late 1940s to 1960s alongside the boom in herring fishing. During this period, Siglufjörður was the 5th largest town in Iceland with a population counting over 3100 residents - mainly due to the arrival of numerous migrant workers. Simultaneously, the growth of the population led to the expansion of public services, culture, and other entertainment activities (Hovgaard et al., 2022). However, in the late 1960s "herring adventure" was over, simply due to overfishing and the collapse of the herring stock. Since then, depopulation has been persistent, and it is not until recent years that statistics show how the demographic situation has stabilized from 2011 (see Figure 3).

Rapid depopulation stopped at the same time, as the Héðinsfjarðargöng Tunnel opened in 2010. The opening of Héðinsfjarðargöng tunnel led to an explosion of international tourism and allowed for private investment in tourism infrastructure, especially in Siglufjörður (Bjarnason, 2021). Additionally, the tunnels strengthened the market for second homes and made it easier for owners to come and spend their time there (Huijbens, 2012).
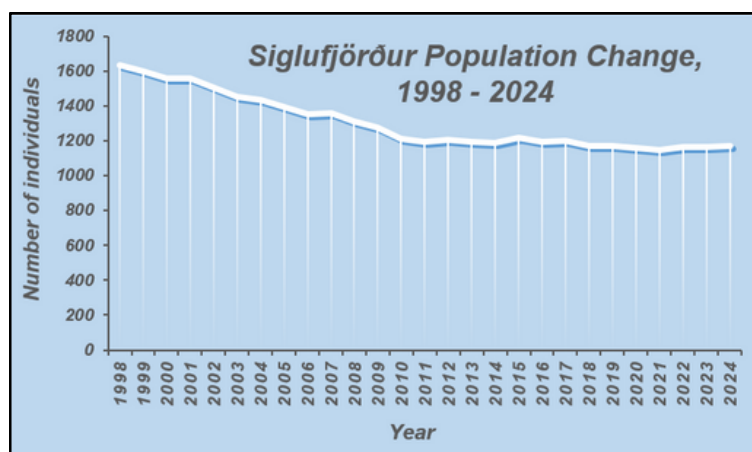

Figure 3: Siglufjörður population change between the years 1998-2024 (Statistics Iceland, 2024)
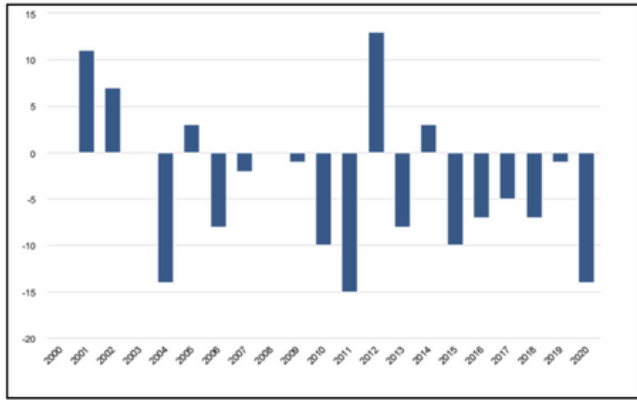
Figure 4: Fjallabyggð birth rate (Ingimundarson, 2022)

Figure 5: Population Pyramid of Siglufjörður 1998-2024 (Statistics Iceland, 2024)

Figure 4 indicates population decline as well. In 20 years, since the turn of the century, the birth surplus In Fjallabyggð municipality has been rather negative, which confirms that the main driver for population dynamics in this area is migrational processes, rather than natural population change.
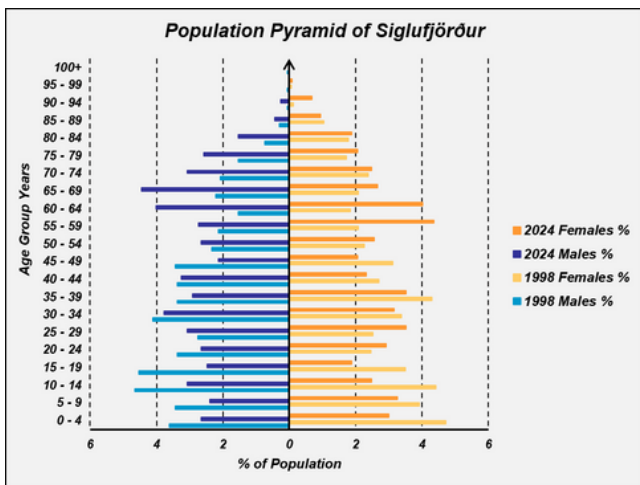
The Population Pyramid in Figure 5 indicates the composition change in population between 1998 and 2024 in the town Siglufjörður. As the population pyramid shows, for now, there is a gender balance in a town, possibly cause of new job development in different sectors, such as tourism, healthcare, education, or services. Additionally, the opening of the tunnel and the newly formed municipality might have contributed to the creation of a family-friendly community, suitable to all (Hovgaard et al., 2022).

The age group structure of the population shows that there was a significant decrease in the children and youth group (0 - 19), while the proportion increased in the older age groups (from 60 to 84) (see Figure 5).
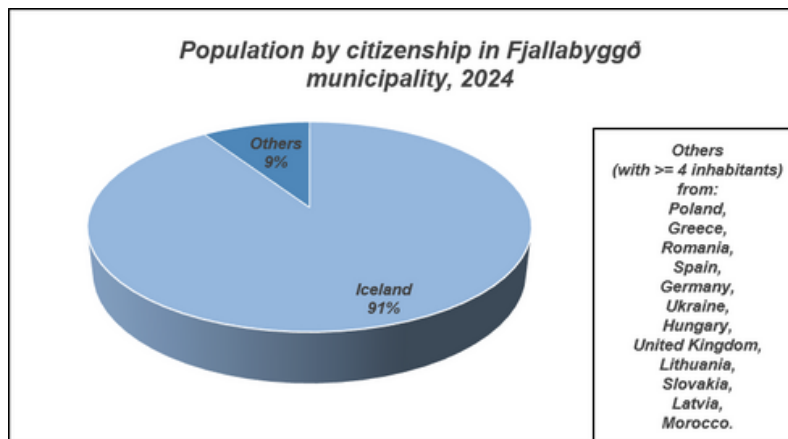

Figure 6: Chart of Population by citizenship in Fjallabyggð municipality for the year 2024 (Statistics Iceland, 2024)

Continuing with the socio-demographic profile, the graph of the population by citizenship (Figure 6) shows that the community of Fjallabyggð municipality is quite homogenous with 91% of residents holding Icelandic citizenship. On the other hand, the remaining 9 % compose a diverse group of individuals from all over the world, including New Zealand, Morocco, Ukraine, China, Venezuela etc. Of the foreign inhabitants residing in Fjallabyggð municipality, the highest number have Polish and Greek origins.
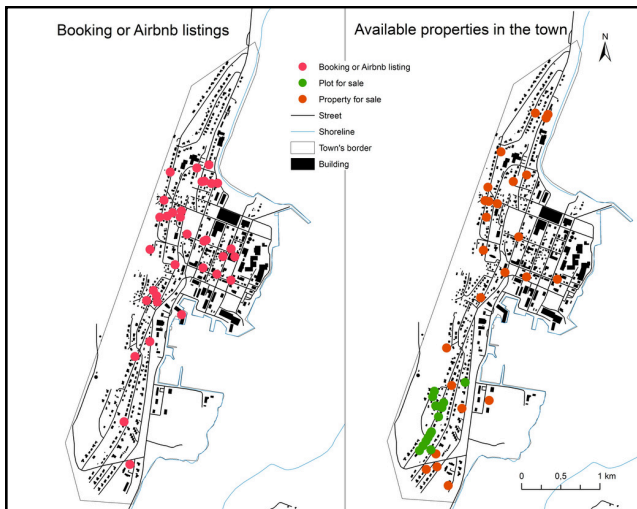
2.3 Housing in Siglufjörður

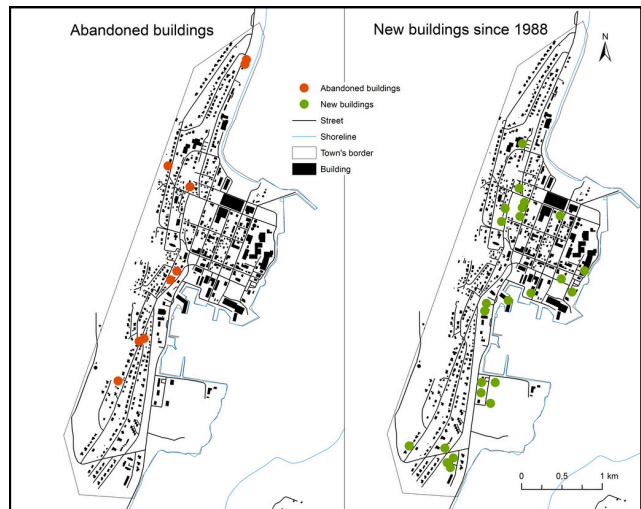*Figure 7: Map of available housing & Airbnb listings*

Figure 8: Abandoned & new buildings since 1988

Analyzing Airbnb and Booking offers alongside the real estate market, a noticeable pattern has emerged in the city's real estate and rental landscape (Figure 7). Short-term rental properties, especially those listed on platforms such as Airbnb and Booking, are mostly concentrated in the central part of the city, where many tourist attractions are located, including the Herring Museum and various art galleries. In contrast, properties and plots for sale are mainly located in the southern and northern periphery, further away from the city center. These peripheral areas, which do not have major tourist attractions, are mainly residential areas for local residents, providing a quieter suburban environment. This spatial distribution clearly shows the difference between the dynamic, tourist-oriented core of the city and the quiet, resident-oriented peripheries.

The city has a different layout of abandoned and newly built houses. Although there are relatively few abandoned houses, they are evenly scattered throughout the town, forming a discontinuous pattern in both central and peripheral areas (Figure 8). In contrast, new buildings are concentrated in clusters stretching from the center to the southern part of the city. Most of the new buildings are industrial, but there is a cluster of new apartment buildings being built in the town's center. There are also a couple of new private houses in the town's southern part.

2.4 Tourism

There are different explanations for why tourism expanded in the last 15 years. The financial crisis declined the value of the local residents, which made it more affordable for tourists to come to Iceland (Gil-Alana & Huijbens 2018). Additionally, the eruption of the volcano Eyjafjallajökull and the consequent disruption of air traffic across all of Europe created international attention. While eleven airlines were flying to and from Keflavík Airport during the summer of 2009, there were 30 airlines in 2018 (Sæþórsdóttir et. al. 2020). Tourists are time and space-wise unevenly spread around the country. Especially, in the area outside the capital, tourism has its peak during June to August. The most visited part is the capital area and the Southern part of the island, followed by the Northeast (Statistics Iceland, 2020). Since 2010, employment in the tourism industry has surged by 60%, this growth has been crucial for rural areas, which are experiencing declines in fishing and agriculture (Sæþórsdóttir & Hall 2019). Tourism growth has spurred significant infrastructure investments in airports, hotels, and restaurants. From 2015 to 2017, average investments reached USD 600,000 about 3.5 times higher than during 1990–2014. This led to a notable increase in new or expanded hotels, with hotel rooms rising by 4.7% in the capital area and 9.4% elsewhere in 2018. Between 2010 and 2018, accommodation revenues surged by 380 %. Iceland's main tourist attraction is its nature (Sæþórsdóttir et. al. 2020).

Although for many years Siglufjörður was known as the undisputed capital of herring fishing in Iceland, now tourism contributes a huge part of economic income for the town. These transformations can be seen in Figure 9, which shows how Fjallabyggð municipality gradually changed its economic structure from a fishing town to a more diverse service-based community (Hovgaard et al., 2022). The main changes can be seen between the years 2008 - 2018, which cover the period of the tunnel opening (leading to a boom in tourism) and the very beginning of the Covid-19 pandemic. Meanwhile, data from 2020 shows the impact of the pandemic decline on tourism and the increase in fishing & agric, manufacturing & food industries, and public sectors (Figure 9).
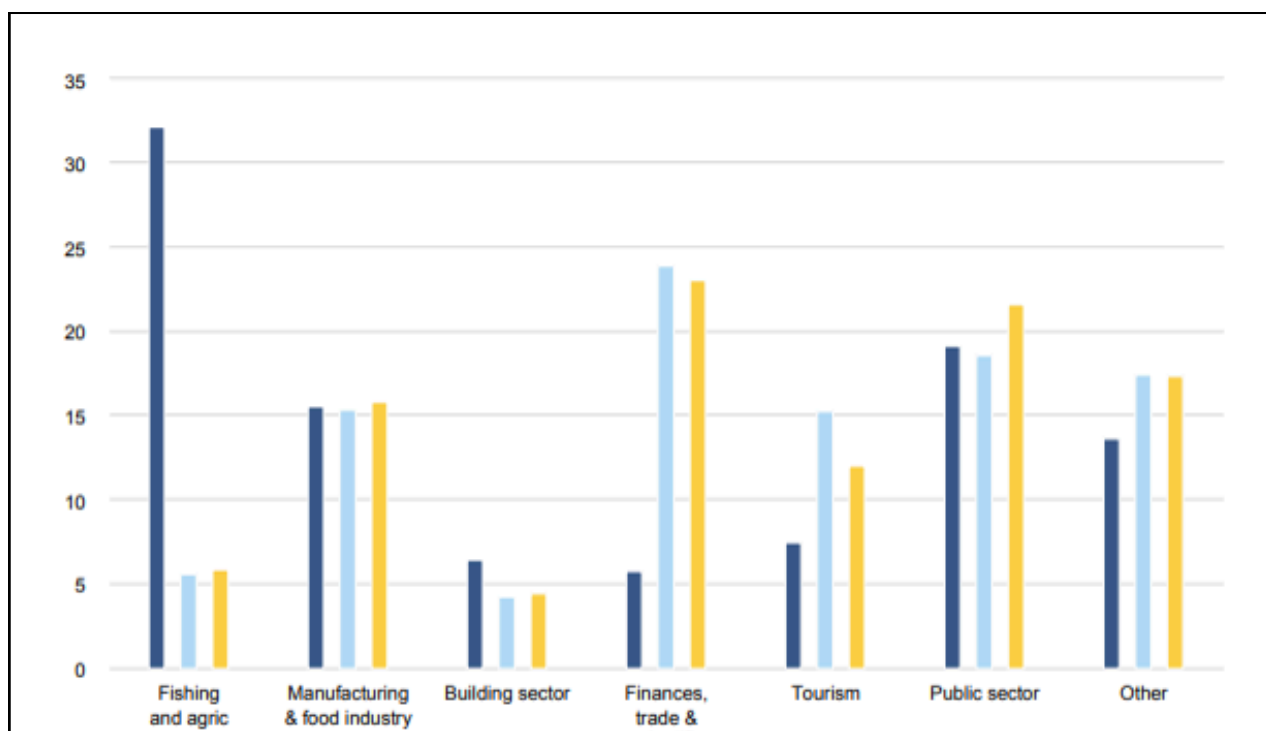

Figure 9: Economic Structure in Fjallabyggð municipality 2008 - 2020
(Icelandic Regional Development Institute & Statistics Iceland, 2020)

According to the results of the annual survey made by the Icelandic Tourist Board (2018), foreign tourist flows in Siglufjörður been growing gradually from 10.5 thousand tourists in 2004 up to 100 thousand in 2018 (Figure 10). It shows that tourism in Siglufjörður has expanded quite rapidly, especially after 2010 with the development of infrastructure and services (Guðmundsson, 2019). Since tourism is a seasonal phenomenon (Þórhallsdóttir et al., 2016), it can be seen that the peak season of tourists traveling to Siglufjörður is during the summer, from May until late September (Figure 8). On the other hand, ski tourism in Siglufjörður becoming a popular activity and destination for Icelandic tourists - that is one of the reasons, why tourist flows are growing for the winter season between 2016 - 2018. Tourist attractions in Siglufjörður are grouped in the center of the town, leading to a small spread of benefits from tourism (Figure 12, Appendix 1).

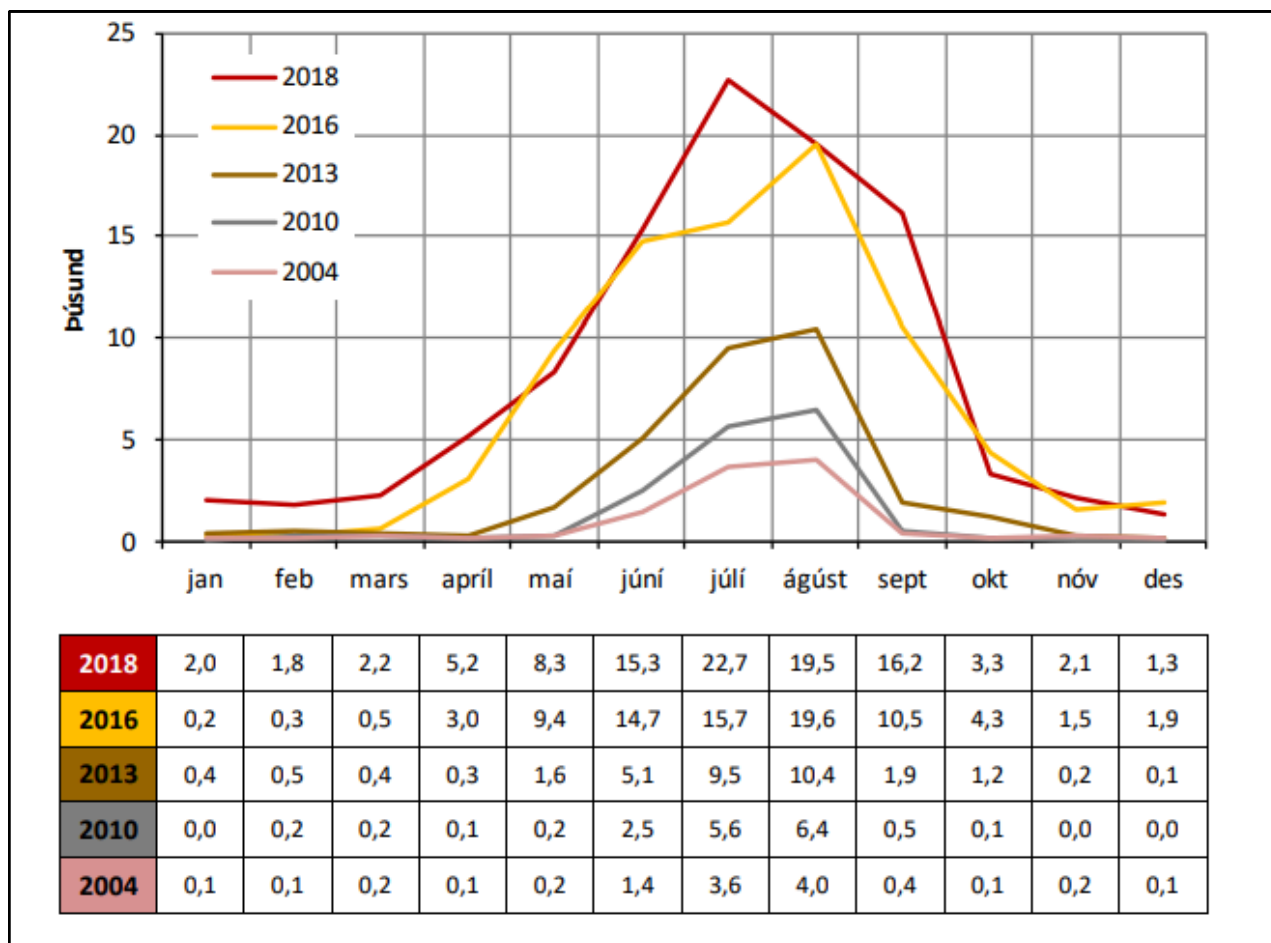|	jan	feb	mars	apríl	maí	júní	júlí	ágúst	sept	okt	nóv	des
2018	2,0	1,8	2,2	5,2	8,3	15,3	22,7	19,5	16,2	3,3	2,1	1,3
2016	0,2	0,3	0,5	3,0	9,4	14,7	15,7	19,6	10,5	4,3	1,5	1,9
2013	0,4	0,5	0,4	0,3	1,6	5,1	9,5	10,4	1,9	1,2	0,2	0,1
2010	0,0	0,2	0,2	0,1	0,2	2,5	5,6	6,4	0,5	0,1	0,0	0,0
2004	0,1	0,1	0,2	0,1	0,2	1,4	3,6	4,0	0,4	0,1	0,2	0,1

Figure 10: Foreign tourists in Siglufjörður in 2018, 2016, 2013, 2010 and 2004 by months (Guðmundsson, 2019)

3. Theoretical Concepts

3.1 Shrinkage

The concept of shrinkage is often referred to as a direct synonym for the experience of population decline or depopulation in an area. In accordance with Martines-Fernandez et al., (2012, 214), shrinking cities are often associated with economic decline, population loss, unemployment, and an increasingly aging population. Shrinkage is thus a multifaceted issue, concerning multiple dimensions, causes, and aspects. For instance, lacking infrastructure, negative changes to the population composition, and negative cultural changes therefore all fall under the concept of shrinkage. According to Sousa and Pinho (2013), shrinkage was first introduced by Rybczynski and Linneman (1996), who explained cities that have experienced a decline as "vertical cities". Such places are largely tainted by an industrial past, mass production and transportation, and high population density. Shrinkage is further explained to come as a result of lacking strategies for decline after a long period of industrial growth (Matyushkina, 2023). Thus, areas that have experienced heavy de-industrialization and loss of employment due to failing industries belong to some of the most vulnerable places (Leick & Lang, 2017). Furthermore, while shrinkage is often referred to in relation to cities (Martines-Fernandez, 2012), it is important to note that the decline stretches beyond the boundaries of urban areas. In fact, rural regions may be especially vulnerable due to urbanization, outmigration, and the inability to maintain regional competitiveness. As a result, such regions suffer from a lowered tax base, a decline in available services, deteriorating infrastructure, little innovative capacity, and a loss of vitality (Makkonen & Inkinen, 2023).

However, contrary to the negative connotation of the word "shrinkage" and its associated issues, scholars are increasingly recognizing shrinkage as a theory and strategy to implement slow growth and stabilization (Sousa & Pinho, 2013). The concept of "smart shrinkage" was developed in the early 2000s and emerged based on the belief that regions should look to alternative planning which does not emphasize the pursuit of growth. Instead, shrinking regions are encouraged to focus on ensuring the well-being of the existing population (Makkonen & Inkinen, 2023). Smart shrinkage therefore is a process where it is possible for a place to experience population decline while still maintaining a high quality of life (Hollander, 2010). Yet, opposition towards the shrinkage has resulted in challenges in establishing the concept. According to Makkonen & Inkinen (2023) and Makkonen et al., (2023), the idea of diverting from the dominant growth discourse remains "taboo" and highly stigmatized. Additionally, shrinkage does not follow homogenous patterns and is highly contextual, making planning challenging (Sousa & Pinho, 2013). Thus, the lack of a one-size-fits-all solution forces local governments to modify strategies to fit the local environment and conditions. Smart shrinkage strategies therefore need to be locally sensitive, using creativity, local resources, and the involvement of residents (Matyushkina, 2023).

Furthermore, not every shrinking town is the same. As such generalizations should be avoided, every town is a unique case with different aspects. The stories of the town are difficult to replicate because each one of them is deeply embedded in a rich history and culture (Atkinson 2019). There are different aspects that influence regional development. "Villages of favorable geographic conditions, i.e. situated close to large urban agglomerations, and having natural resource endowments have chances to become prosperous" (Li et. al. 2019, p.138).

Regrowth can be achieved in places close to metropolitan areas, if they have successfully managed to restructure their local economies, for example, to expand their tourism industry, counter-urbanization, or retirement (Nel et. al. 2019). But the main factor for a change in the region's development is the engagement of local people, including their capabilities and willingness to decide whether prosperity can be maintained or not (Li et. al. 2019). In addition, social capital is a significant factor. Places with a high density of combined bonding and bridging social capital, tend to be more participatory. Towns are able to "mobilize both internal and external resources to accomplish locally initiated change that benefits the wider community, and adapt to the changing circumstances" (Li et. al. 2019, p. 138). This skill will lead to maintaining interactions, which provide financial capital, which is useful for further development.

3.2 Migration

Migration is a special demographic process because it can change the size, distribution, and composition of a population. The impact of migration on national settlement systems is likely to increase as more countries complete the demographic transition and migration becomes a key factor in regional demographic change. The impact of internal migration on the population has been characterized by various indicators, the impact of which has changed over the years, especially during the COVID-19 pandemic. Modern societies are influenced by internal migration processes such as population dispersal, urbanization, and counter-urbanization. Population dispersal reflects the redistribution of populations in ways that are less in line with previously accepted paradigms, which assume a comprehensive organizational structure for demographic redistribution. For example, urbanization was considered a depressingly mainstream trend in population migration processes, but such a unidirectional, homogenous pattern is no longer relevant in most of Europe and North America, but the transition hasn't happened in Iceland yet, because of the strong population increase (Hugo 2017; Lichter, Brown 2011).

In Iceland, urbanization drives internal migration, with the capital being the main destination. However, northern Iceland shows a different trend. Rural residents are more likely to move within their region and less likely to move to the capital or other areas. This results in higher migration rates between rural North Iceland and Akureyri, balanced by lower rates to the capital and other regions. This pattern can lead to more dynamic migration, with people often returning to rural areas after time away (Bjarnason et al. 2021). Migration reasons vary based on the type of move and migrant characteristics. Local mobility is often linked to life cycle changes, while long-distance migration is typically job-related (White, Lidstrom 2019).

The COVID-19 pandemic significantly altered domestic migration patterns. Restrictions led to a 2.5-5% decrease in migration in countries like Spain and Germany, with cities experiencing net migration losses and rural areas seeing gains (Stawarz et al. 2022; González-Leonardo et al. 2022). Wealthier populations and those able to work remotely dominated migration. The key question now is whether these changes will persist post-pandemic (Perales, Bernard 2023; González-Leonardo et al. 2023).

3.2.1 Migration in the Context of Life-cycles

Migration patterns are closely linked to life-cycle stages, with age being a significant factor in mobility. Research has long shown a positive association between migration and age, as well as other socio-demographic factors such as income, education, and occupational status (Rees, Lomax 2019). The most consistent patterns are related to age: migration peaks among young adults, declines during middle age, and rises again in later years (Rogers and Castro 1981; Bernard et al. 2014).
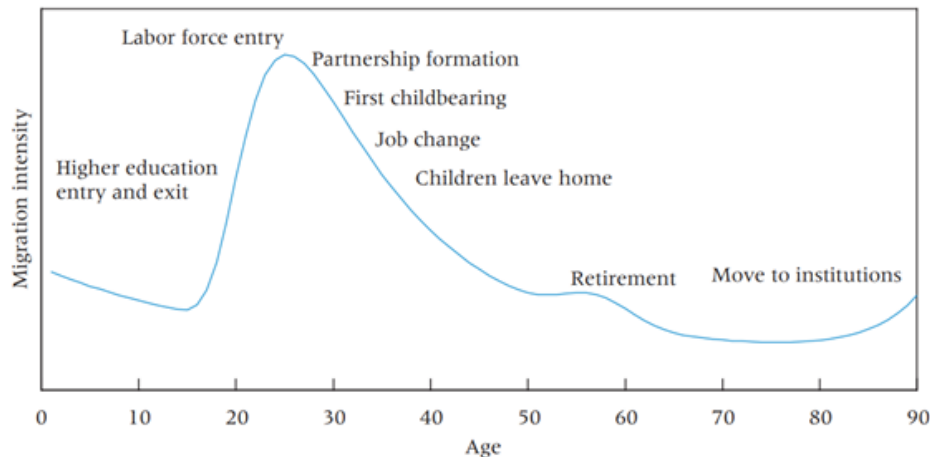

Figure 11: Graf of age profile of migration and key life-course transitions (Bernard et al. 2014)

Demographic studies now consider key life events over broader age ranges rather than rigid age-based stages (Wingens et al. 2011). Significant events like starting university, entering the workforce, forming a family, and retiring strongly influence migration decisions (White, Lidstrom 2019). Furthermore, young adults have the highest migration rates, driven by education and career opportunities. This propensity declines with age but can increase during family formation and around retirement (Katus 1998; Bernard et al. 2014). Childhood migrations are usually short-distance and parental decisions, while first independent migrations often involve leaving home for education or work (Tyrell, Kraftl 2015).

3.3 Housing & Second homes in Small Comminties

Research has shown that the impact of Airbnb on towns can be quite detrimental to rent and housing prices, regardless of the town's size (Benitez-Aurioles & Tussyadiah, 2020; Garcia-López et al., 2020). Airbnb guest houses disrupt not only the housing market by driving up prices but also affect the local community. These properties can displace local residents, replacing them with short-term visitors. If the concentration of Airbnb rentals becomes too high in any given area, the town may feel empty during low tourism seasons, putting local businesses under pressure (Barron et al. 2021). This effect is amplified in small towns due to the limited housing supply.

As a location becomes more attractive to tourists, there is an increase in investment aimed at capturing the economic benefits associated with tourism. This often results in more locals converting their homes into short-term rental properties and relocating elsewhere. Additionally, tourists who develop a deep appreciation for the area may choose to purchase second homes, further damaging the housing situation for locals (Garcia 2022; Bremser, Wüst 2021). Examining new housing developments, abandoned buildings, properties for sale, and the locations of short-term rentals is the most effective way to assess a town's housing situation and identify trends that could be detrimental to the local population (Han 2017; Benitez-Aurioles, Tussyadiah 2020; Barron et al. 2020).

3.4 Community Resilience in Iceland

While community resilience has been widely studied, no cohesive meaning has been developed. This is largely due to the term "community" and its ambiguous meaning depending on context (Kokorsch & Benediktsson, 2018). In line with Amundsen (2012, p.46) and Kokorsch and Benediktsson (2018) when assessing Icelandic villages a suitable definition of community resilience is "the ability of a community to cope and adjust to stresses caused by social, political, and environmental change and to engage community resources to overcome adversity and take advantage of opportunities in response to change". As Icelandic villages have a long history of dependency on natural resources, changes in fisheries management, governance, and overfishing have been the largest stressors and reasons for decline (Westmont, 2021). To overcome challenges with the centralization of fisheries, technological advancements, and shrinking communities, understanding the ways of adaptation is essential. Community resilience further implies that communities are learning from past disruptive events and aim to develop adaptive and transformative strategies (Sharifi, 2016). Resilience also offers new ideas on how reframing of rural development, and its adoption within policy discourses should also be treated carefully, especially when discussing resilience rhetoric in a social context with overtones of self-reliance (Kokorsch, 2022). In contrast to the rest of Europe and Nordic countries in the 1990s, they invented endogenous strategies in order to develop rural areas and reduce spatial differences. In Iceland, many places are still attempting to attract both new people and new ideas for sustainable socio-economic development (Kokorsch, 2022). Still, in many regions fisheries are still one of the most important industries, it seems that local people should recognize that the key to reducing regional differences and irregular spatial development is innovative tools and ideas (Kokorsch, 2022).

3.5 Adaptation

Adaptation can be described as a structural reorganization following a critical event that ultimately leads to the enhancement of a community or system's ability to cope with stress. A community´s ability to reduce its vulnerability to external events can therefore be understood as its adaptive capability (Kokorsch & Benediktsson, 2018). In accordance with Dodman and Mitlin (2011), adaptation is dependent on the local community´s skills, experience, networks, and local knowledge which enables them to develop strategies for dealing with abrupt events. For smaller resource-dependent communities, adaptation is essential to remain resilient through external and internal changes as services and infrastructure may already be in a vulnerable state. Especially in terms of shrinkage, researchers suggest developing a future vision and remaining open to reorganization (Ahonen & Savolainen, 2020).

Smart adaptation in municipalities involves more than just economic and population growth. While financial and population resources are crucial, municipalities can still thrive despite a declining population and economy. Municipal viability includes the ability to innovate and interact effectively. To adapt successfully, municipalities need to adopt new thinking and decision-making cultures, exploring new ways of organizing services and possibly abandoning old strategies (Zarecor et al. 2021; Ahonen, Savolainen, 2020).

The future vision of a shrinking municipality must be independent of growth, inspired by sustainable development, relationship with nature, tourism, history, tradition, and active local associations (Ahonen, Savolainen, 2020). The emphasis on digitalization and networking at local, national, and global levels can also play an important role in this adaptation process. This approach allows local authorities to make use of available resources and remain economically viable, even in the face of declining resources.

Population decline, often referred to as shrinkage, can create a vicious circle of declining regional vitality. However, some regions are able to adapt effectively and remain viable despite population decline, a concept known as 'smart shrinkage' (Makkonen, Inkinen 2023). Smart shrinkage involves adapting urban infrastructure to the needs of a declining population and ensuring a high quality of life for the remaining population, which includes maintaining happiness, health, and social engagement.

The resilience of communities, especially in regions such as Iceland, underlines the importance of coping with and adapting to social, political, and environmental change. Icelandic villages that depend on natural resources face significant challenges from changes in fishery governance, management, and overfishing (Kokorsch, Benediktsson, 2018). Developing adaptive and transformative strategies is important for these communities to overcome challenges, seize opportunities, and maintain their resilience (Sharifi, 2016).

The economy or population development does not only determine the vitality of the municipality, although the importance of financial, personnel, and population resources for the municipality cannot be denied. However, the municipality can find the capacity to develop its region even in situations of a declining population and a thinning economy. The vitality of the municipality is also much more than for example the ability to interact and create new things. In order to adapt, requires a new kind of thinking and a decision-making culture in municipalities, where we openly think about organizing services in new ways. One possible path to adapt could be found when abandoning old patterns. (Ahonen & Savolainen, 2020) A municipality adapting to shrinking should have a future vision independent of growth. Inspirations could be found in, for example, sustainable development, the relationship with nature, tourism, history, and traditions, and from local active people or active association/s. The multi-location location enabled by digitalization, networking locally, nationally, and even globally can be emphasized as a method of operation (Ahonen, Savolainen, 2020).

4. Methodology

To allow for the collection of in-depth data in the case study location, the study was built on a variety of methods including conducting unstructured interviews, collection of observations, analyzing statistics, and mapping.

4.1 Sampling

As the study aims to understand the perceptions of local residents, the sampling strategy included both purposive sampling and convenience sampling (Collis & Hussey, 2021). Thus, to gather as many perspectives as possible we reached out to local experts through email and calling as well as went to local events and hotspots in the town. As Siglufjörður is considered a town that has all the basic social infrastructure to execute interviews both inside and outside, the potential participants were asked whether they would want to walk around town or meet at a certain spot depending on their preference and the weather.

While walking interviews provide a better opportunity to engage with the place directly, weather in Iceland and Siglufjörður is often rainy and unpredictable so the opportunities for such interviews were affected negatively. To not pose any risks or burdens on the participants, agreements on time and place were adjusted according to their needs. In total we had 11 interviews with a length from 20 minutes to 2,5 h, all of them carried out from the 18 to 21 of May 2024. One of them was a walking interview and the rest were formal interviews in their spaces or around town.

Following Orb et al. (2000, p. 95) recommendations, we initiated the interviews with information on how the results are going to be published and that they are guaranteed full anonymity. Since the case study site is a small town, we do not provide information about our participants' jobs, positions, or any information that may indicate their identity.
We conducted an English-speaking project, which might have raised some skepticism among individuals who chose not to engage with us, as none of us are fluent in Icelandic. To avoid creating a barrier for participants, we decided not to record our interviews.

Mainly contact was made through the usage of three communal Facebook groups, through contacts provided by our teacher, or by just talking to people we met around town. Because we had a limited time frame and limited capacity, we could not reach out to as many participants as we would have ideally wished. Lastly, it is important to mention that our sample size is limited and may not represent the whole community of Siglufjörður.

4.2 Mapping

Mapping and data gathering are crucial for understanding spatial phenomena (Brown et al. 2017). In our study, we used ArcMap and ArcGIS Pro to illustrate the town's housing situation. To create the maps data was gathered by walking the streets to find abandoned properties, analyzing old aerial photos to identify buildings constructed after 1988, checking Airbnb and Booking listings and searching Icelandic property sale websites. These methods helped us create informative maps, offering valuable insights into the town's housing situation.

4.3 Observations

As the study was conducted based on an explorative approach, we intended to immerse ourselves in the context, aiming to avoid influencing the case study site (Collis & Hussey, 2021). By doing so, we were able to study the area and its different dimensions using the "five senses" of a researcher to extract as much as possible from the study site (Baker 2006; Ciesielska et. al. 2018).

The aim of partially participating is "to learn the norms, values, and rules of behavior, without being a burden for the group" (Ciesielska et. al. 2018, p.40). As this is matching our research purpose, we decided to choose this method. For example, we used this approach for attending the campaign of the presidential candidate. Additionally, we used direct observing by attending a confirmation (Ciesielska et. al. 2018). To capture and remember the places and environment photos were taken (See Appendix 1).

The picture of the local harbour and a view of the town

4.4 Interviews

Narrative analysis focuses on people's lived experiences and their perspectives as well as their inherent social constructions. The analysis of structure encompasses the language used, the order of events, and the narrative style. The content involves the participant's interpretation of the events, the issues raised, and the threads of the story (Henning et. al. 2020). This method was decided upon as the study aims to understand the different perspectives of the people living in the study location.

Interview data was collected throughout the course of four days and included participants from various different positions and views. Interviews were conducted in a predecided location or by walking around town with the participant. Additionally, the interviews were unstructured, allowing us to embrace the flow of the conversations and enable the participants to speak freely (Collis & Hussey, 2021).

Once the data was selected, a coding matrix was developed, and the data was scanned for the specific code item. We developed codes to represent the various potential issues, topics, and concepts that appeared in the data (see Appendix 2). The several codes form the basis for our analysis (Henning et. al. 2020).

There are different ways to develop a code, we are doing a mixture of inductive and deductive coding. The deductive strategy involves using external sources to develop codes that need to be validated as the data is read. In this process the concept is designed by the researchers, The inductive strategy includes active reading to develop codes from the data itself. That is a great opportunity to engage the voice of the participants. Once the coding is done, each text segment can be analyzed step by step (Henning et. al. 2020).

5. Results

5.1 Cultural Heritage

The first section of the results focuses on the history and cultural heritage of Siglufjörður and how it has become the town it is today. Through talking to local residents it became apparent that residents in Siglufjörður today are proud of the town's history. In the following section, we will describe the history of Siglufjörður from the viewpoint and opinions of the local people. We will highlight what the locals felt was important and bring out ideas not included in the existing literature.

Firstly, the findings show that as a result of the booming herring industry, Siglufjörður became a hotspot for international trade and an attractive place to live due to its many employment opportunities and leisure. Between the years 1900-1969, participants explained how the town was welcoming and bustling with large economic profits and young people moving there to work. Fishermen on the trawers in Siglufjörður would for instance earn more money in one fishing season than farmers did in 3 years. Thus, creating a rift between the highly beneficial fishing industry and the traditional farming activities. The international trade that came with the fishing industry further provided opportunities for residents to find spouses amongst the foreign workers and visitors. One person being interviewed described this as the mixing of nations and explained that it was important not only for finding a partner but also since people made lifelong connections with representatives of other countries. The acceptance of foreigners is a trait which have tainted the culture of the town and the international spirit is explained by participants to still be of great significance.

At the same time, a senior information explains how after the collapse of the herring stock, the town experienced a decline in population when half of the residents had left Siglufjörður. What remained of Siglufjörður then stood in vast contrast to its former bustling atmosphere. Residents who chose not to move away were left in a town without its previous services and people had to seek lower-paying jobs outside of the fishing industry. The result shows that individuals in Siglufjörður increasingly felt as if all opportunities had moved away from the town. At the same time, buildings that were left after the herring industry had to be demolished to limit environmental degradation and so, the town had to buy out the owners, causing the town large financial strains. In an attempt to forget the past and the negative consequences of the collapse of the herring industry, one participant explains how houses that were left empty were burned down.

In terms of the built environment, many of the participants highlight the beautiful surroundings in Siglufjörður and the appreciation for the old architecture. It is explained how this is largely the result of not having the finances in the 80s to invest and rebuild many of the buildings. Additionally, investment into the town after the collapse of the herring industry largely contributed to private investments, and thus, the physical characteristics of Siglufjörður are dictated by its new industries such as e.g. the tourism industry. The cultural heritage and history of the town are observed through both the built environment and are also evident in the stories, arts, and books available town.

At the turn of the 21st century, people in the town couldn't see a future for their families, renovations halted and many were left behind. Demolition of houses was on the agenda and a lot of the cultural heritage was under threat. It was not until local efforts convinced the town planners to instead invest the money intended for demolition in the local community and aid people in their pursuits to renovate their homes. One participant explained how the influx of private money along with local efforts to preserve the history of the town created a sense of pride in the past instead of wanting to forget it.

Today Siglufjörður has become a sort of hidden Mecca of tourism. Something that was mentioned by a couple of informants was that while the hugely profiting herring industry is gone, the tourists today are regarded as the new herring of Siglufjörður. Thus, the resident of Siglufjörður are now creating value out of their cultural heritage which is a complete change from the previous negative view.

5.2 Development & the rise of new industries

In recent decades the tourism industry has grown in Siglufjörður. This becomes not only evident in the statistical data but was also apparent when speaking to the interviewee participants and by walking through town. For instance, many explain how the new large hotel put Siglufjörður "back on the map". All the informants who participated expressed a positive attitude towards the luxury hotel and the local entrepreneurs who brought both the hotel and other businesses into the community. The positive attitude contributed to the fact that these activities brought money to the town in the form of salaries and investments, resulting in other people having the chance to develop their own small businesses (guest houses, bakeries, restaurants, etc). Further, as the fishing industry declined, local entrepreneurs sought out the idea of starting biotech companies in the town which now has become a large employer in the area.

The majority of the interview participants were positive about the current tourism, however one person felt that the tourist industry should be structured better. Yet once again, the participants mentioned that the investment into tourism came largely from private investments. Thus, participants experienced a feeling that the municipality was not doing enough to support the community. The local residents elaborate on the fact that services are mainly run by independent individuals, making goods and services vulnerable. Seasonality was further a common topic, where participants explained how the summer brings both activities and people to the town due to tourism. However, while the skiing season in Siglufjörður brings tourism as well, these seldomy spend their money in the town leading to services closing during the winter months.

Interestingly, increasing tourism led to people "cleaning up their backyard". This was partly due to the fact that the local entrepreneurs developed new tourism which created a feeling of rejuvenation. Participants thus largely expressed gratitude for the contributions made by the entrepreneurs to the town and they only have positive feedback about their work. However, as mentioned by one participant, "it is never too good when one person owns large parts of the town". The participants continued to refer to the fact that the local entrepreneur may have more say in communal decisions, a process that should occur on equal terms. On the other hand, by having a great influx of private investments, Siglufjörður is less dependent on the municipality and its neighboring town Olofsfjördur. Private ownership could also lead to local actors having more of a say in the development of the town.

Furthermore, participants elaborates on the fact that fishing still exist in the community with a smaller quota owned by local fishers and a few trawlers. The catch is mainly used in the local biotech company or is transported to Reykjavik or nearby markets. The innovative capacity have thus increased with the establishment of new industries. Some of the participant further elaborated on the fact that remote work has enabled them to move away from the urban area and allowed them to have a slower pace of life while working in a high-education job. Participants express that their hope is that remote work will continue to attract young and skilled workers to move to their community.

5.3 The significance of culture and community

Culture and community hold a significant role in Siglufjörður. This becomes evident through both observations and in the interviews with the participants. A majority of the participants explain that Siglufjörður has always been rich in culture due to its history and the international and creative spirit that shines through in arts and the natural and built environment. By attending art exhibitions and museums, it is clear how the history of the herring industry has tainted the town. However, the values can be found beyond the tangible place, and in a book about the town it is written how the "real value lies within the inhabitants and those who find themselves contributing to our society and it is truly inestimable value for a small community to welcome guests that have an impact on our daily life". In addition, many of the participants are individuals and families who have moved to the area or returned to their hometowns. When asked about what brought them back the participants referred to a feeling of home and connectedness. "This place has more time" and "I wanted to slow down my life" were also sentiments expressed by participants and something we generally observed while walking around the study site.

Culture is a big part of community life, with art installations and projects carried out through the years. Arts and culture are used to inform and embrace the history of the town. Another art gallery portrayed the Mountain Hóll, located in the center of the fjord and visible from the town. The avalanche protection wall was also presented in a painting, though it appears the locals do not pay much attention to it. This was a common theme, as none of the informants expressed any concern about avalanches. Participants explain that the community feels safe due to the protection wall which now has become an appreciated recreation area. One participant reflected on the idea that since Siglufjörður has not been hit by any severe avalanches in a very long town, residents do not feel particularly worried about it.

Participants also seem to be aware of the importance of being active in the community. They mention that "everything we do counts." Because there are so few people, it is important to be present and participate. It was explained how they feel that in a smaller place, people are more responsible for community events and their own identity and fate. Thus, many expressed a positive outlook on the future and hoped that more people would be attracted to the town thanks to the welcoming community. Additionally, the community feeling showed significance in why people decided to move back to the town. Many interviewees expressed that they missed the close-knit community while being away from the town to pursue education or better life opportunities. This sense of community was also a significant factor in their decision to return. An appreciation for the local lifestyle and community spirit was evident in the interviews. One resident proudly highlighted the town's communal lunch culture, saying, "We take lunch breaks together in our town's amazing restaurants."

Furthermore, Siglufjörður offers a safe haven for children and was multiple times explained as a great place to have a family. Children have excellent opportunities for free-time activities and can roam around town safely. The participants mentioned that Siglufjörður is a "safe space for kids to grow up," meaning there are little to no crimes, and the children can play outside without supervision since many of the families know each other, etc. Many families have moved to the town because there are free places in the kindergarten. The close-knit community of Siglufjörður offers a safe and family-friendly environment where children can thrive and participate in numerous communal activities, such as local football practice. Many interviewees expressed their trust in the community, describing Siglufjörður as a town full of empathy and people ready to help out. This perception of safety is also valued by outsiders, leading to an increase in families moving to Siglufjörður. As a result, there has been a need to expand the local kindergarten to accommodate the growing population.

6. Dicussion

Siglufjörður is an example of a community that has experienced varied economic and demographic fluctuations throughout its history. However, despite these challenges, Siglufjörður has shown remarkable resilience in the face of decline. The town began its success as a thriving herring industry during the first half of the 20th century and maintained prosperity until the 1960s. Due to overfishing, the herring industry collapsed which after a short while led to a rapid reduction in population. Life in Siglufjörður was relatively unchanged until the construction of the Héðinsfjörður motorway tunnel in 2010. This ambitious and expensive project connected Siglufjörður to Iceland's second-biggest city Akureyri and marked a pivotal turning point, catalyzing the inflow of tourists. Along with tourism came private investments and new economic opportunities for the locals. Today the tourists are considered as the new herring of Siglufjörður.

While tourism has established itself as a key component in the modern economy of Siglufjörður it has repercussions for the local residents in terms of seasonality and unavailability of housing. Due to it beautiful landscapes and close proximity to both Akureyri and the countryside, Siglufjörður has established itself as a "resort", where people increasingly buys second homes. In fact, ⅓ of the housing in Siglufjörður is not inhabited during the whole year. This creates a problem for individuals who intend to move there as housing is sparse which counteracts the attempt to create immigration. In addition, the population composition of Siglufjörður is uneven causing problems in the housing markets. It was both seen in the mapping process and in interviews that many elderly people cannot move out of their housing due to a lack of smaller alternatives. In return, families and the younger generation struggle with finding houses. The second housing market further drives up the property values, yet taxes are paid elsewhere, meaning that despite the houses being partially lived in, the economic benefits received by the town in terms of property tax are smaller than if a permanent family lived there. Furthermore, while there are some jobs in Siglufjörður's local supplement manufacturer that require a higher education, many young people with a university degree won't be able to find activities that fit their criteria in the town. The lack of jobs and available housing means that Siglufjörður is not the ideal place for young families searching for their first home.

Interestingly, while Siglufjörður historically has suffered from economic decline and outmigration, the community has remained resilient adapting to the new industries and eventually leveraging their historical and cultural heritage to create future value. As such, the town has gone through a transformation where residents have managed to, with time change an inherently negative view of Siglufjörður to a positive and hopeful perspective on the future. This becomes especially evident within the art scene where many paintings, sculptures, and the local museum display the local history and counteract the previous stigma. Furthermore, while the town is still experiencing a more or less stagnated population decline, with the operations in tourism and biotech and the availability of remote jobs have resulted in more people seeking a "small-town life". Throughout the study, it became evident that Siglufjörður is a place by and for the people. The town is mostly run by the locals and its identity is shaped by the local culture. While it may make the town vulnerable in terms of dependency on singular individuals, the fact that individuals have embraced innovative ways of making a living greatly contributes to the available services in town. As such, the innovative capacity is quite extensive despite being a smaller town in "rural" Iceland.

7. Conclusion

Siglufjörður is a small town in the far north of Iceland that has overcome tough times and managed to thrive despite previous difficulties. Once the center of a booming fishing industry, the town has successfully navigated its way through hardship of economic and demographic decline into a tourism-driven economy. The town has successfully managed to maintain and leverage its historical identity and engage the locals in its smart shrinking strategies.

Rather than accepting the fact that population decline is an inevitability, the town and its active people have adapted target initiatives to attract new businesses, enhance the quality of life, and reutilize available infrastructure. Entrepreneurs have repurposed old industrial sites into public restaurants and innovative manufacturers that attract a workforce of different skill sets. The luxury hotel does not take away business from smaller housing establishments but rather offers recreation possibilities for visitors of different backgrounds. As the locals explained, the new businesses and the ambitious owner who run them, act as a catalyst for further communal development. Siglufjörður is a perfect example to other small towns how community and entrepreneurship can combine forces for each other's benefit.

The town has successfully preserved its cultural identity as a herring capital while transforming this heritage into an important tourism driver even after the fishing industry has almost ceased to exist. This transition was neither quick nor easy; the city faced significant economic challenges during this period of change. However, there was a positive side to this difficult period. By avoiding the trap of rapid and uncontrolled expansion, the town has retained its well-preserved historic charm from the days of the herring industry.
Most of the interviewed residents were not lifelong locals of Siglufjörður. Even those who were born there had spent some time away, primarily to pursue better educational opportunities. This pattern highlights the typical migration decisions people make throughout their lives. Education was the main factor driving residents to leave Siglufjörður, whereas settling down with a family or returning after completing their studies was the most common reason for coming back for the residents we spoke to.

The town's appearance and structure are significantly influenced by the tourism industry. However, it is not just the major entrepreneurs who shape the town's image. The concentration of short-term rental options in the town center can lead to it feeling empty during the low tourism season. Housing options for newcomers are limited due to a small housing pool and competition from wealthier individuals who drive up property prices by purchasing second homes in the town. There are not many abandoned properties available for revitalization. Therefore, the municipality should carefully manage the second home market to prevent it from becoming a ghost town during the winter months.

8. Recommendations

We were pleasantly surprised during our visit to Siglufjörður. We figured out that there is a great sense of community, which supports each other and works together. We feel like the locals appreciate their town and the surrounding nature. Another positive aspect we recognized is the welcoming atmosphere for tourists. At least the people we interviewed see tourism as a positive impact and as a source of income for the community.

From our short student project, the interviews we conducted, and the literature we have read we have some recommendations for Siglufjörður. We suggest carrying on as before and keep on expanding the tourism sector. We would also recommend diversifying it, which helps to spread tourism all year round. With this growing industry a constant income will be quarantined. It has to be mentioned that tourism can be affected by pandemics, as it was by the outbreak of COVID-19. That is why tourism should not be the only sector the town is relying on. One factor, which was also mentioned in the interviews, is that more people with high-quality shops should be attracted. The creation of a co-working space was an important step to attract people to well-paid jobs.

An issue we encountered is the current housing situation. We recommend building more apartments for young families, to attract long-term residents, who are active in the community and use the provided services. Also, it would be great if the town is able to get the funding to expand the retirement homes, so that elderly people can move there and do not necessarily need to move, for example to Akureyri.

Acknowledgement

As Sultana writes it is important to "reflect on self-process, and representation, and critically examining power relations and politics in the research process, and researcher accountability in data collection and interpretation" (Sultana 2007,p.376).

It is important to note that we are all outsiders of the community of Siglufjörður and none of us are considered as Icelandic. Thus, this study is limited to an external perspective of the town. Our study background is in geography and regional development either as a bachelor's or master's degree and we are located in the Nordic or Baltic region.

Picture collection of Siglufjörður

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Appendix 1

Figure 12: Map of tourist attractions in Siglufjörður

Appendix 2

Figure 13: Coding tree for interviews

- **Cultural Heritage**
  - 1900 - 1969
    - Herring
    - Many people
  - Decline after 1960s
    - Investments in the 80s
    - Resilience
  - 21st century
    - Demolition
    - Private money + local efforts
    - Start of tourism

- **Development & the rise of new industries**
  - Rise of the tourism industry
    - Hotels
    - Entrepreneurs
      - Big and small businesses
    - Cleaning of the backyards
  - Work
    - Biotech (higher education)
    - Remote work possibilities

- **The significance of culture and community**
  - Culture
    - Art exhibitions
    - Museums
    - "Slow life"
    - Neutral feelings towards the avalanche risk
  - Community feeling
    - Few people (need to attend)
    - Everyone knows everyone
    - Safe space for children

Appendix 3

Figure 14: 1969 Siglufjörður Expansion Plan Overlaid on Modern Map