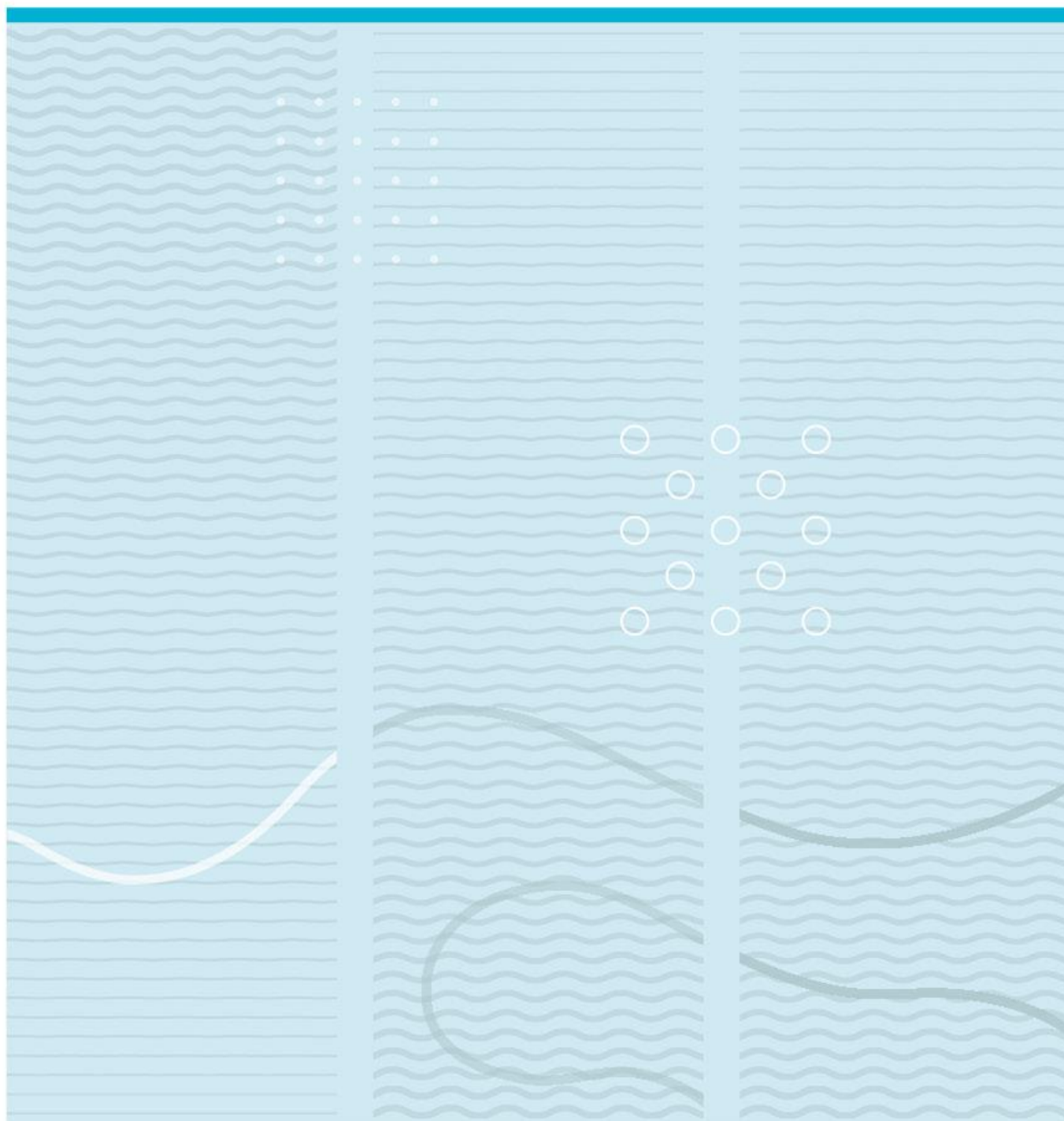


Kristoffer Barrett Ronning

Guiding tourism on Svalbard

A place-responsive pedagogical approach



University of South-Eastern Norway
Faculty of Humanities, Sports and Educational Sciences
Institute of Sports, Physical Education and Outdoor Studies
PO Box 235
NO-3603 Kongsberg, Norway

<http://www.usn.no>

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This thesis is worth 30 study points

Abstract

This master thesis explores the potential of applying a place-responsive pedagogy to the tourism sector on Svalbard. It addresses the need for a guiding framework which shapes how tourists engage and interact with the places they will encounter when visiting, as currently there is no guide standard on Svalbard. This qualitative study incorporates an interpretive research paradigm where semi structured interviews have been conducted with 6 experienced stakeholders in the tourism sector on Svalbard. Rephotography examples of places on Svalbard have been incorporated as part of my semi structured interviews via a photo-elicitation technique where cultural and climatic examples which depict changes in the landscapes were used to generate additional data. Findings reveal that elements of a place-responsive pedagogy both exist on Svalbard already, and are lacking in some respects. Furthermore, rephotography can communicate cultural and climatic changes on Svalbard as part of a place-responsive pedagogy.

1 TABLE OF CONTENTS

ABSTRACT	3
FOREWORD.....	7
1 INTRODUCTION	8
1.1 MOTIVATION.....	8
1.2 BACKGROUND OF TOURISM ON SVALBARD	9
1.3 BACKGROUND FOR STUDY	11
1.4 RESEARCH QUESTIONS.....	13
1.5 LITERATURE REVIEW	13
1.6 STRUCTURE OF THESIS	15
1.6.1 <i>Intro chapter</i>	15
1.6.2 <i>Methods chapter</i>	15
1.6.3 <i>Theory chapter</i>	15
1.6.4 <i>Analysis chapter</i>	15
1.6.5 <i>Discussion chapter</i>	16
1.6.6 <i>Conclusion</i>	16
2 METHODS CHAPTER.....	16
2.1 QUALITATIVE RESEARCH APPROACH	16
2.2 INTERPRETIVE RESEARCH PARADIGM	17
2.3 CASE STUDY	18
2.4 SEMI STRUCTURED INTERVIEWS.....	18
2.5 PROS AND CONS OF A VIRTUAL INTERVIEW	19
2.6 TRANSCRIPTION	19
2.7 PURPOSIVE SAMPLING: SIZE, TECHNIQUE, AND PROCEDURE	20
2.8 REFLEXIVE THEMATIC ANALYSIS	21
2.9 REFLEXIVITY ABOUT MY POSITION AS A RESEARCHER.....	22
2.10 REPHOTOGRAPHY AS A METHODOLOGICAL TOOL	24
2.11 QUANTITATIVELY CONDUCTING REPHOTOGRAPHY	25
2.12 PHOTO-ELICITATION AND CONTEXTUALIZATION.....	26
2.13 VALIDITY AND RELIABILITY	30
2.14 ETHICAL ISSUES.....	31
2.15 LIMITATIONS	31
3 THEORY CHAPTER	32
3.1 WHAT IS PLACE? WHAT IS A PLACE-RESPONSIVE PEDAGOGY?	33

3.2	RAFFAN (1993) LAND AS A TEACHER MODEL	33
3.2.1	<i>Toponymic component</i>	34
3.2.2	<i>Narrative component</i>	34
3.2.3	<i>Experiential component</i>	35
3.2.4	<i>Land as a teacher model's applicability to this research project</i>	35
3.3	PLACE-RESPONSIVE PEDAGOGY SIGNPOSTS	35
3.4	SIGNPOST 1: BEING PRESENT IN AND WITH A PLACE	36
3.5	SIGNPOST 2: THE POWER OF PLACE-BASED STORIES AND NARRATIVES	36
3.6	SIGNPOST 3: APPRENTICING OURSELVES TO OUTDOOR PLACES.....	37
3.7	SIGNPOST 4: THE REPRESENTATION OF PLACE EXPERIENCES	38
3.8	REPHOTOGRAPHY.....	39
3.8.1	<i>Visual aspect</i>	39
3.8.2	<i>Time aspect</i>	39
3.8.3	<i>Place aspect</i>	40
3.8.4	<i>Climate aspect</i>	41
3.8.5	<i>Cultural aspect</i>	42
3.8.6	<i>Educational aspect</i>	42
3.9	REPHOTOGRAPHY SUBJECTIVITY AND OBJECTIVITY	43
4	ANALYSIS CHAPTER.....	44
4.1	FRAMING MY ANALYSIS	44
4.2	SIGNPOST 1: BEING PRESENT IN AND WITH A PLACE	45
4.3	SIGNPOST 2: THE POWER OF PLACE-BASED STORIES AND NARRATIVES	48
4.4	SIGNPOST 3: APPRENTICING OURSELVES TO OUTDOOR PLACES.....	51
4.4.1	<i>Value of the natural landscape on Svalbard</i>	52
4.5	SIGNPOST 4: THE REPRESENTATION OF PLACE EXPERIENCES.....	54
4.6	SVALBARD: A SUSTAINABLE DESTINATION?	57
4.7	GUIDES' COMMUNICATION OF CLIMATE CHANGES	57
4.8	GUIDES' COMMUNICATION OF CULTURAL CHANGES	59
5	DISCUSSION CHAPTER.....	60
5.1	IMPLEMENTING A PLACE-RESPONSIVE PEDAGOGY DESPITE THE PARADOX OF TOURISM ON SVALBARD	60
5.2	SVALBARD: A SUSTAINABLE TOURISM DESTINATION?.....	61
5.3	REPRESENTATIVE CLIMATE CHANGE IN THE CONTEXT OF SURGING GLACIERS.	62
5.4	WAYS TO IMPROVE TOURISM SECTOR ON SVALBARD.....	65
5.5	TIME CONSIDERATIONS.....	66
5.6	WHOSE STORY IS BEING ADDRESSED?.....	67

5.7	INACCURACIES FROM GUIDES WHEN STORYTELLING.....	67
5.8	CULTURAL HERITAGE CONSIDERATIONS.....	68
5.9	GUIDE SAFETY TRAINING.....	69
5.10	CAN A PLACE-RESPONSIVE PEDAGOGY INFORM GUIDE TRAINING ON SVALBARD, ACCORDING TO MY INFORMANTS?	69
5.11	COULD A PLACE-RESPONSIVE PEDAGOGY CONTRIBUTE TOWARDS SUSTAINABLE TOURISM ON SVALBARD?	70
6	CONCLUSION	71
6.1	TO WHAT EXTENT CAN ELEMENTS OF A PLACE-RESPONSIVE PEDAGOGY BE IDENTIFIED IN THE TOURISM SECTOR ON SVALBARD? .	72
6.2	HOW CAN REPHOTOGRAPHY BE IMPLEMENTED AS PART OF A PLACE-RESPONSIVE PEDAGOGY TO COMMUNICATE CULTURAL AND CLIMATIC CHANGES ON SVALBARD?.....	73
7	REFERENCES	75
8	LIST OF FIGURES.....	90
9	ANNEXES	91
9.1	INFORMATION LETTER, INCLUDING CONSENT FORM	91
9.2	INTERVIEW GUIDE.....	94
9.3	VIRGOHAMNA 1896 AND 2022 CULTURAL REPHOTOGRAPHY TEXT [USED IN INTERVIEW GUIDE].....	97
9.4	GRAVNESET 1873 AND 2022 CLIMATE REPHOTOGRAPHY TEXT [USED IN INTERVIEW GUIDE]	98
9.5	FIGURE 1: VIRGOHAMNA 1896 COMPARED TO 2022. ADAPTED FROM AECO REPHOTOGRAPHY PRESENTATION [USED IN INTERVIEW GUIDE] (RONNING, 2022).	99
9.6	FIGURE 2: GRAVNESET 1873 COMPARED TO 2022. ADAPTED FROM AECO REPHOTOGRAPHY PRESENTATION [USED IN INTERVIEW GUIDE] (RONNING, 2022).	100
9.7	EQUIPMENT AND POST PROCESSING TECHNIQUES	101

Foreword

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Kristoffer Barrett Ronning

1 Introduction

1.1 Motivation

For more than a decade, I have been back and forth between Norway and Canada, participating in different outdoor education programs or working as a guide primarily in the Polar regions. After finishing my bachelor's degree in sport sciences and attending a folk high school in Northern Norway, I decided to study on Svalbard in the Arctic Nature Guiding [ANG] program. I lived on Svalbard from 2016-2020, where I had firsthand experience living in a community affected by climate change. Headlines in newspapers stated that Svalbard had reached the concerning milestone of having 100 consecutive months above average temperatures (Holm, 2019; Sabbatini, 2019). The community of Longyearbyen has been hit by two avalanches in recent years, one in 2015, which caused two fatalities and one in 2017. Both had extensive damage to community housing infrastructure due to climate change (Sydnes et al., 2021). In 2016 I was evacuated from my student residence as a severe rainstorm approached, resulting in several landslides in Longyearbyen, where some of the roads were destroyed (Wang et al., 2017). Svalbard is classified as an Arctic desert (Choe et al., 2021). However, it is predicted that the onset of climate change will increase the amount of precipitation and the frequency of avalanches and landslides (Norwegian Centre for Climate Services, 2019).

Despite experiencing and feeling that climate change was an important issue to address, I thought it was difficult to communicate with others. It wasn't until 2018 that I was first exposed to rephotography. Repeat photography, also known as rephotography, is a visual process which stems from visiting a location from an earlier time, revisiting the same area and taking a new photograph with the same subject material where differences between the two different times can be visually understood (see chapter 2.10). In this research project, I use the words photograph and image interchangeably where, I am primarily referring to either modern digital photographs or historical photographs which have become digitized. After witnessing how rephotography could be used as a communicative tool to depict changes in landscapes, I persuaded my colleague Erik Schytt Mannerfelt, a glaciologist and photographer, to conduct rephotography of our own. We received a grant

and spent three weeks in the summer of 2019 recapturing photographs at historic sites on Svalbard, where we published some of our findings to the Norwegian Broadcasting Corporation's [NRK] website, see: (<https://www.nrk.no/norge/xl/se-hvordan-isbreene-pa-svalbard-har-krympet-de-siste-hundre-arene-1.14698584>). Working with rephotography in 2019 led to a future opportunity where in the summer of 2022 I was privileged enough to join a sailboat expedition on the Northwestern coast of Svalbard. On this expedition I conducted the rephotography examples used in this research project (see chapter 2.12). My motivation for this research project has stemmed from a culmination of my combined personal experiences with tourism, conducting rephotography, and developing my understanding of place theory through the last two years while studying in the Nordic Friluftsliv master's program.

1.2 Background of tourism on Svalbard

The region investigated for this research project is the Svalbard archipelago, located in the high Arctic, North of mainland Norway. The population of Svalbard is approximately 3000 people. The Norwegian settlements comprise 2504 people, of which the bulk of the population live in Longyearbyen, the largest community of the archipelago, and Ny-Ålesund, a smaller research community. There are 391 people registered as living in the main Russian community Barentsburg and the ghost town Pyramiden, as well as 10 people living at the Polish research station in Hornsund (Statistics Norway, 2022).

Visit Svalbard, the official tourism board for Longyearbyen and Svalbard, has been awarded a sustainable destination label through Innovation Norway's sustainable tourism scheme. The sustainability label has been held from 2016-19, 2021, and 2022 (Visit Svalbard, n.d.-b). The World Tourism Organization [WTO] defines sustainable tourism as taking "full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and the host communities" (United Nations, n.d.). Despite Longyearbyen being a sustainable destination, ongoing practices warrant criticism when considering its infrastructure. There are lofty plans for Longyearbyen to drastically reduce emissions (Krystad & Pedersen, 2022), and transition to a sustainable community which is not reliant on coal [currently, Longyearbyen relies on

coal] (Hovelsrud et al., 2021), but those plans have not been fully realized as of yet, although progress is being made. Longyearbyen relies on ships to send goods to the community, where waste is sent back via ship to Europe (Hyland, 2021), as waste cannot be recycled or incinerated in Longyearbyen (Hager, 2020). Longyearbyen's wastewater has flowed unfiltered into the local fjord for over 100 years. It was not until December 2022, that a new mechanical treatment plant was implemented which sorted 50 kilograms of rubbish in one week (Longyearbyen Lokalstyre, 2022). In addition, most people who enter Svalbard come by either cruise ship or airplane, which makes me question how sustainable Svalbard is, at least from an environmental perspective.

Svalbard has a particular interest as an area of study as there is a long history in tourism which dates back more than 100 years. The first tourists literally followed the footsteps of polar explorers and scientists in the 19th century (Price, 1997). Svalbard has since become a large hub, operating primarily out of Longyearbyen for tourism on a year-round basis. It was not until 1975, when the new airport was established in Longyearbyen, that tourism started to grow gradually (Viken, 2011). The launch of commercial tourism in Longyearbyen in the early 1990's also contributed greatly to the industry's substantial growth (Saville, 2022). The 166,801 guest nights in 2019 showed an increase of 456% between 1994 and 2019 (Hovelsrud et al., 2023). Svalbard tourism can be divided into three seasons which Visit Svalbard has labelled: the Polar Summer (17th May- 30th Sept), Northern Light Winter (1st October- 28th February), and Sunny Winter (1st March-16th May) (Visit Svalbard, n.d.-a). Tourism on Svalbard is seasonal, with fewer visitors in the autumn and winter and more in the spring and summer months (Statistics Norway, 2016). Today tourists who visit Svalbard participate primarily in one of two types of tourism: land-based and cruise-based operations. The land-based operations include ATV safaris, hiking trips, food and drink experiences, dog sledding, kayaking, sightseeing and lectures, snowmobiling, biking, ice cave visits, skiing trips, northern lights trips, photo safaris, expeditions, fishing trips, mine visits, and more (Visit Svalbard, n.d.-a).

Cruise-based operations consist of ocean-going conventional cruise ships, expedition cruise ships, as well as several small vessels which offer day trips in Isfjorden [the icefjord]

near Longyearbyen (The Governor of Svalbard, 2022). It is estimated that 2023 will have the most visitors to Svalbard ever (R. Brunvoll, personal communication, March 3rd, 2023), where land-based tourists visiting Longyearbyen are expected to be similar to 2019, which was 77,136 (Visit Svalbard, 2019), expedition cruise vessels will contain 25,000 passengers similar to 2022, and large conventional cruise ships will contribute 50,000 passengers (Jørgensen, 2023) which is an increase from 2018 (45,927) guests, and 2019 (39,282) guests predominantly to Longyearbyen port (Port of Longyearbyen, 2023).

1.3 Background for study

Svalbard is being affected by climate change. Descamps et al. (2017) argue that the Arctic is warming more rapidly than any other region on the planet, and the Barents Sea, which Svalbard is a part of, is experiencing the fastest temperature increases and the highest rate of ice loss within the circumpolar Arctic. Simultaneously to rapid climate change, Longyearbyen, Svalbard's main settlement, is transitioning from a coal mining town to a tourist town. Tourism is signalled as the main economic pillar alongside research and education (Sokolickova et al., 2022).

Despite climate change occurring rapidly on Svalbard, tourism remains one of the three main economic pillars via the Norwegian government's official White Papers (Hovelsrud et al., 2020). There exists a paradox where Svalbard is experiencing climate change, and tourism products which contribute towards climate change are being sold, where the number of tourists is expected to reach an all-time high (R. Brunvoll, personal communication, March 3rd, 2023). With record high numbers of tourists visiting Svalbard, there is value in assessing the regulations and requirements being implemented for guides in the Norwegian tourism sector on the archipelago [I am focusing on the Norwegian tourism sector and not the Russian tourism sector which also exists on Svalbard]. In a press release on the 14th of January 2020, the Norwegian Nærings og fiskeridepartementet [fish and trade ministry] communicated that they wanted certified guides on Svalbard who could help to reduce the burden on vulnerable nature, ensure competence in regard to safety in the field, limit the disturbance of polar bears, and

preserve wilderness and cultural monuments, in efforts to ensure sustainable development (Beredskapsdepartementet, 2020).

As of April 2023, there has not been any implemented framework yet, and there is currently no standard that guides must have when working on Svalbard. Despite this fact, an array of unofficial frameworks have emerged in response to a lack of a guiding standard, including the ANG program, a one year program held at the University Center in Svalbard [UNIS] (University of Tromsø, n.d.). Visit Svalbard has developed a Svalbard Guide training course scheme (Visit Svalbard, n.d.-b), and the Polar Tourism Guides Association also has a scheme (Polar Tourism Guiding Association, n.d.). Alternatively, the Association of Arctic Expedition Cruise Operators [AECO] has developed an online assessment that field staff must take annually to work in the Arctic (AECO, n.d.). Several of the existing guiding schemes contain elements which suggest that tourists can be connected to the places they encounter while enjoying Svalbard's natural landscapes on their trips. However, there exists a lack of theoretical underpinning in which touristic experiences could connect to Svalbard as a place and specific places within Svalbard. Without any official framework as a standard in the tourism sector on Svalbard, tourists' could experience what Aldo Leopold called 'landlessness', which is the loss of our collective awareness of, and admiration for, the land (Leopold, 1986). In this context, places can be silenced as the mere backdrop to human action, which impoverishes opportunities for learning (Wattchow & Brown, 2011).

Therefore, in this study, I suggest applying a *place-responsive pedagogy* to the tourism sector on Svalbard. The term place-responsive stems from James Cameron's (2003a) work which calls for a place-responsive society in which the word responsive carries with it the impetus to act, and to respond (p.180). Wattchow and Brown (2011) have further developed the place-responsive concept, advocating for a place-responsive pedagogy that originated as an alternative to outdoor adventure education. They argue that an alternative to outdoor education is necessary as traditional outdoor education places are used as an arena for human development, which risks the lack of identification with places and results in a short-term raid mentality (Wattchow & Brown, 2011). Although a place-responsive

pedagogy was designed as an alternative to outdoor education, the concepts which comprise the framework can be applied in a tourism setting to connect tourists to the places they encounter while visiting Svalbard. I also advocate for the use of rephotography in this study to depict cultural and climatic changes as part of a place-responsive pedagogy.

1.4 Research questions

In response to the lack of a standardized framework within the tourism sector on Svalbard, I consider implementing a place-responsive pedagogy. The specific questions I aim to address in this research project include:

- To what extent can elements of a place-responsive pedagogy be identified in the tourism sector on Svalbard?
- How can rephotography be implemented as part of a place-responsive pedagogy to communicate cultural and climatic changes on Svalbard?

1.5 Literature review

Place theory spans many disciplines and has been associated with the branch of philosophy called phenomenology primarily through the works of Maurice Merleau-Ponty and Martin Heidegger in the 1960's and 70's where in phenomenology the purpose was to explore how people actually experienced life (Wattchow, 2021). Humanist geographers such as Yi Fu Tuan (2001), Edward Relph (1976), David Seamon and Robert Mugerauer (2000) contributed to place theory by identifying that the lived experiences were deeply connected to where each of us live. Social ecologists like James Cameron (Cameron, 2003; Cameron, 2003a), and historians like Geoff Park (Park, 1995), increasingly implemented the concept of place and its phenomenological foundations to look into the impacts of colonization. Different names associated with place-based education emerged in the 1990's where terms such as community-based education, ecological identity, experiential education, outdoor education and environmental education all had a degree of overlap (Wattchow, 2021). Part of the educational philosophy surrounding place stems from the resistance against the homogenization of learning experiences and the

centralization of curricula, which writers like David Gruenewald and (Gruenewald, 2003a, 2003b) and Gregory Smith (Smith, 2014) address. Since the term place-responsive was conceived by James Cameron (2003), there has been a growing body of literature which has focussed on a place-responsive pedagogy in the field of outdoor education (Mannion et al., 2011, 2013; Mikaelis, 2018; Stewart, 2008, 2020; Wattchow & Brown, 2015).

Wattchow (2021) argues that place can be experienced both at home and when we travel further afield and that there are lessons to be learned about being deeply attentive to the world. Despite Wattchow's (2021) claim that place can be experienced when we travel. There is a gap in knowledge as to how this looks in practice when adapting the concept of place-responsiveness to the context of tourism.

Rephotography is an excellent technique for evaluating landscape change over time. It was first used in the late 1800's by glaciologists as a simple method to monitor glaciers (Webb et al., 2010). There was an upswing where the process was used by American scientists, mostly after the second world war. Nowadays rephotography is well established globally where the technique answers a vast array of research questions which include fire effects and recovery, land-use effects, changes in archaeological features, historic routes and trails, assessing perceptions of change (Webb et al., 2010), urban development (Klett et al., 2006), among other uses. There have been published works of rephotography taken on Svalbard which include: Klett & Martinsson (2017), who argued that rephotography could serve as a tool for comparative studies which show clear evidence of human-caused change; Mcleod et al. (2014), who depicted rephotography on Svalbard and argued rephotography could contribute to knowledge beyond an illustrative comparison of the past and present; Martinsson (2022) who suggested rephotography can be implemented as part of virtual reality to aid travel experiences in remote places and give a reflective perspective that depicts how a landscape has changed. Despite rephotography being a tool which can help one understand changes within landscapes there is a gap in knowledge in regard to how rephotography looks in practice in the context of tourism and how rephotography contributes towards tourists connecting to places in a place-responsive manner.

1.6 Structure of thesis

1.6.1 Intro chapter

This chapter has served to give an overview of the rest of my research project, where I have addressed: my motivation for this research project, tourism on Svalbard, the background to my study, my research questions, and a brief literature review.

1.6.2 Methods chapter

In this chapter, I frame my approach to my research project where I advocate why I chose to conduct interviews, how I chose my sample population, using reflexive analysis to interact with my data, reflexivity about my position as a researcher, using rephotography as a methodological tool, photo-elicitation and contextualizing rephotography as well as limitations, validity, and ethical considerations.

1.6.3 Theory chapter

In this chapter, I describe concepts such as place and a place-responsive pedagogy. I depict 3 of the components from Raffan's (1993) *Land as a teacher* model. I also describe the 4 *Signposts* which comprise Wattchow & Brown's (2011) place-responsive pedagogy framework. In which Raffan's (1993) *Land as a teacher model* is embedded within the third Signpost. Lastly, I depict different aspects of rephotography theory to frame how it can be used in connection to place theory.

1.6.4 Analysis chapter

This chapter applies data from my informants to Wattchow & Brown's (2011) place-responsive pedagogy, which address my research questions and provide examples of how a place-responsive pedagogy could look in the tourism sector on Svalbard. This chapter also includes data from my informants, which address Svalbard as a sustainable destination, as well as guides' communications of both climate and cultural changes.

1.6.5 Discussion chapter

In this chapter, I address a place-responsive pedagogy within the paradox of tourism on Svalbard as well as through the perception of sustainable tourism. I consider rephotography to be depicted in a representative manner through the context of surging glaciers. I discuss the role that time plays in shaping experiences and whose stories are coming to light and whose are being suppressed. I address inaccuracies told by guides and consider safety and concerns with cultural heritage.

1.6.6 Conclusion

In this chapter I restate the premise of my research project, summarize my findings, and answer my research questions.

2 Methods Chapter

2.1 Qualitative research approach

Semi structured interviews were implemented as a method of research to generate data that pertained to my research questions. In order to obtain rich and applicable data that answered my research questions, I implemented a purposive sampling technique which enabled me to target informants (interviewees and informants are used interchangeably in this research project) within the tourism sector on Svalbard who were diverse and had a lot of experience. Implementing semi structured interviews enabled me to obtain what Brinkmann and Kvale (2014) call “descriptions of the lifeworld of the interviewee in order to interpret the meaning of the described phenomena” (p.3). My empirical material consists of implementing an interpretive research paradigm, case study, reflexive thematic analysis, and photo-elicitation technique, where rephotography examples were implemented as part of my interview guide.

Denzin and Lincoln (1994) describe qualitative research as: “a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including fieldnotes, interviews, conversations, photographs, recordings and memos to the self. At this level, qualitative research involves

an interpretive, naturalistic approach to the world” (p.3). This means that qualitative researchers study things and attempt to make sense of or interpret phenomena in terms of the meanings people bring to them.

2.2 Interpretive research paradigm

I have applied an interpretive research paradigm. In general, a paradigm can be understood as an “overarching set of beliefs that provides parameters – how researchers understand reality and the nature of truth, how they understand what is knowledge, how they act and the role they undertake, how they understand participants and how they disseminate knowledge – of a given research project” (Markula & Silk, 2011, p. 25). More precisely, Thorpe and Olive (2016) write that in an interpretive paradigm, researchers aim to understand participants’ subjective experiences and interpret participants’ meanings. In addition, an interpretive paradigm approach has a relativist ontology where individuals make multiple meanings of the social world based on their experiences in particular contexts and in relation to others. Ontology is a branch of philosophy which can be used to investigate the object of inquiry or in simple terms what you set to examine (Hammond, 2017).

In an interpretive paradigm, the epistemological position is subjective, wherein as a researcher, I have been involved in the production of knowledge and cannot be value-free or neutral (Thorpe & Olive, 2016, p. 127). Epistemology is the study of knowledge and is concerned with the mind’s relation to reality (University of Sheffield, n.d.). Tracy (2019) provides some clarity, writing that in an interpretive research paradigm, reality and knowledge are constructed and reproduced through communication, interaction, and practice (p. 51), and that researchers utilizing an interpretive paradigm emphasize the importance of empathy and examining the world from the participants’ points of view (p. 52). As a researcher, I have strived to be professional in my interactions with my participants, where respect was given throughout contact even when participants’ perspectives differed from my own.

2.3 Case study

For my research project I conducted a case study which is focused on Svalbard. Schwandt (1997) describes a case as a “specific and bounded [in time and place] instance of a phenomenon selected for study” (p.12). I conducted my case in the winter of 2023. Simons (2009) writes a “Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, program or system in a ‘real life’ context” (Simons, 2009, p. 21). I have conducted a series of interviews with different stakeholders within the tourism sector on Svalbard. There are different types of case studies which exist. I chose to implement an intrinsic case study as I feel it is most fitting for my research. Stake (2005) writes an intrinsic case study is undertaken because in all its ‘particularity and ordinariness’, the case is itself of interest (p. 445). An intrinsic case study has enabled me to suggest a framework to implement while considering issues that are currently being experienced on Svalbard, such as the lack of a guide standard in a place which is experiencing rapid climate change.

2.4 Semi structured interviews

For my data collection instrument, I have conducted semi structured interviews where all of my interviews have been conducted with a 1-to-1 ratio. Brinkmann (2013) writes that semi structured interviews can make use of the knowledge-producing potential of dialogues. Brinkmann (2013) also writes that semi structured interviews give the interviewer a greater chance of becoming visible as a knowledge-producing participant in the process itself, rather than hiding behind a pre-set interview guide (p.21). Semi structured interviews have an advantage in that they allow for more phenomena and emergent understandings to emerge and for the interviewees’ complex viewpoints to be heard without the limitations of scripted questions (Tracy, 2019). Researchers can learn what participants believe is the most interesting and important, and the interview can adapt to emphasize more meaningful topics (Tracy, 2019).

I drew heavily from Smith and Sparkes’ *Interviews* (2016) chapter when considering how I would prepare, conduct and review my interviews. While developing my interview guide, I consulted Smith & Sparkes (2016), who suggested drafting my questions by drawing from

relevant literature as well as personal experience. I also conducted one pilot interview in which I asked for feedback and later made necessary changes. During the interview, I implemented a receptive style of interviewing where I acknowledged what my informants were saying through head nods or verbal acknowledgment and I concluded by allowing my informants to add anything that they did not have the opportunity to address from the questions that I asked them prior. After the interview, I made notes and produced a transcript from the interview.

2.5 Pros and Cons of a virtual interview

All interviews were conducted and recorded via Zoom video conferencing. Gray et al. (2020) mention that one of the biggest advantages of online video conferencing for qualitative research is accessibility to participants. Factors such as distance, geographical location and funding for travel are removed when conducting virtual interviews. Gray et al. (2020) note that there is increased flexibility in the timing and length of interviews for both interviewees and interviewers. It can be less intimidating as the environment one is situated in is familiar to them. As an interviewer I found video conferencing advantageous as I did not have to fly to Svalbard to conduct my interviews and, I could start transcribing immediately as the audio and video files were saved onto my computer. I also found it very comfortable to read through my interview guide while hearing the responses from my informants. There are also potential downsides to conducting interviews via video conferencing where Gray et al. (2020) wrote that a potential disadvantage to video conferencing is that the researcher cannot observe the participant's physical space, and it could be a disadvantage where body language and emotional cues could be more easily missed.

2.6 Transcription

For my transcription process, I used the Macwhisper software program. Macwhisper uses Open AI's state of the art transcription technology, which transcribed my interviews relatively fast. All transcription was done on my device, where no data left my computer. After Macwhisper transcribed my audio files, I would read through the transcription while listening to the audio from the interview to make small changes if necessary. I went

through this process twice to ensure my informants were not misrepresented in the transcribed interviews.

2.7 Purposive sampling: size, technique, and procedure

For my research project, I implemented a purposive sampling technique. Purposive sampling is a deliberate choice to choose an informant due to the qualities that the informant possesses, such as experience and knowledge (Tongco, 2007). The purpose is to gain a deeper understanding of particular types of cases (Neuman, 2009). While choosing candidates to be interviewed, I sought people who had both experience as well as diverse roles within the tourism sector on Svalbard. I approached my potential interviewees via email. In total, I sent out 10 emails to various stakeholders within the tourism sector on Svalbard. Two of my emails were unanswered; two people responded, stating that they had busy schedules and held doubt as to whether they could contribute in a significant way to my research project. I ultimately ended up conducting 6 interviews which lasted approximately one hour each. As mentioned earlier, my first interview was also used as a pilot interview where the interviewee was invited to add constructive criticism, where I made changes for the following 5 interviews. The data generated from the interviewee in the pilot interview was considered credible and therefore applied in the same manner as the other informants. I will broadly mention that I targeted participants who represented a diverse composition of the stakeholders who comprise the tourism sector on Svalbard. One of my participants was employed as a guide, one was a tour operator CEO, two worked with policy, one was a scientist, and one had previously worked within the tourism sector in marketing. My informants were ensured anonymity, and thus textual excerpts which have been derived from the interviews and have been applied to this research project have been given a gender-neutral pseudonym and are referred to as they/them/their. The names include: Avery, Blake, Cody, Drew, Eli, and Forest. All interviewees were instructed that the data collected from the interview process would be collected and stored anonymously until the conclusion of my research project in June 2023 where it would then be destroyed. None of the interviewees were given any of the questions which pertained to my interview guide prior. Brinkmann & Kvale (2014) argued that the more spontaneous an interview, the more likely one is to obtain unprompted, lively

and unexpected answers from the interviewees. In an attempt to elicit more spontaneous responses, I decided to limit information shared via email to the general themes my interview guide was composed of.

2.8 Reflexive thematic analysis

I decided to implement a reflexive approach to thematic analysis to analyze my data. Braun et al. (2016) suggest that thematic analysis can provide analyses of people's experiences in relation to an issue or the factors that underlie and influence particular phenomena. In reflexive thematic analysis, the researcher is subjective, situated, aware and questioning (Braun & Clarke, 2019). Reflexive thematic analysis is valuable for this research project as it helps me elicit different data than if I were to employ other forms of thematic analysis. Reflexivity involves the practice of critical reflection of your role as a researcher and your research practice and process (Braun & Clarke, 2021). Berger (2015) defined reflexivity as the:

Turning of the researcher lens back onto oneself to recognize and take responsibility for one's own situatedness within the research and the effect that it may have on the setting and people being studied, questions being asked, data being collected and its interpretation. As such, the idea of reflexivity challenges the view of knowledge production as independent of the researcher producing it and of knowledge as objective (p. 220).

In practice, this means that as a researcher, I am heavily involved in the production of knowledge in collaboration with my interviewees. My position is situated in subjectivity which stems from my experiences living on Svalbard and working within the tourism sector. I address reflexivity about my position as a researcher in the next subsection (see chapter 2.9). Reflexive thematic analysis has several core assumptions which Braun and Clarke (2021) introduce. The researcher's subjectivity is treated as a resource for doing analysis (Gough & Madill, 2012). Analysis and interpretation of data cannot be accurate or objective but can be weaker or stronger. Good coding can be achieved by an individual researcher. Good quality codes and themes result from dual processes of immersion and depth of engagement and giving the developing analysis some distance. Themes are

patterns anchored by a shared idea or concept. Themes are analytic outputs which are built from codes and cannot be identified ahead of the analytic process. Themes do not passively emerge from data but are actively produced by the researcher through their engagement with the dataset. Data analysis is always underpinned by theoretical assumptions. Reflexivity is key to good quality analysis. Researchers must strive to understand and 'own their perspectives' (Elliott et al., 1999), which I have depicted in the following sub-chapter. Data analysis is conceptualized as an art, not a science (Braun & Clarke, 2021, pg. 43).

Braun and Clarke (2021) introduce several variations of reflexive thematic analysis. In regard to how I have oriented myself to my data, I have followed an inductive approach where my analysis is located within the data, and coding and theme development are driven by the data content. In regard to meaning-making, I followed a semantic approach where the analysis is conducted at a surface, explicit, or manifest level. My qualitative framework is an experiential approach where my analysis aims to capture and explore people's own perspectives and understandings in regard to the tourism sector on Svalbard.

2.9 Reflexivity about my position as a researcher

My research position within the topic for my thesis is predominantly as an insider. I first travelled to Svalbard in 2016-2017 where I was enrolled in the Arctic Nature Guiding program. I have possibly "I had" been living and working on Svalbard from 2016-20 in various guiding roles in the tourism sector. I continue to work in the tourism sector during the summers as an expedition guide onboard expedition cruise ships. My interest in researching the tourism sector on Svalbard stems from perceived shortcomings that I feel have been prevalent in terms of communication from my time working as and with guides.

I hold the view that there is also a lack of transparency in the tourism sector between stakeholders where the vague use of sustainability should be communicated better with tourists who are both visiting Svalbard in general but also those who might be visiting based off of Svalbard being a sustainable destination (see chapter 4.6 and 5.2). I believe

rephotography is heavily underutilized and can positively contribute to the communication of cultural and climatic changes occurring on Svalbard. This sentiment is also supported by relevant literature (Klett, 2020; Klett & Martinsson, 2017; Martinsson, 2022; Mcleod et al., 2014).

I believe that guides play a vital role in shaping experiences, and a standard should be implemented in the tourism sector to improve communication and information which is transferred to tourists. My sentiments on the topic are also discussed more in-depth in the discussion chapter. I feel my informants have perceived me well through structured and informative email contact as well as through the interview process. As mentioned earlier in this chapter, I have made an effort as a researcher to be respectful during my interactions with my informants. I was conscious about how I appeared in front of my informants and always treated them with respect. My informants' opinions were respected even if they differed from my own, which I feel ultimately contributed to a richer data set. I have been able to experience the tourism sector from two different but complementary perspectives. Working in the tourism sector for 5 years as a guide and now as a researcher, places me in a position of privilege. As an insider, my relationship with my participants is stronger than if I was an outsider. I feel as though mutual respect emerges from myself and my informant's experience, mutual knowledge, and awareness of the tourism sector where we can engage in topics with a higher baseline than if I did not have experience with Svalbard.

From my position, there are clear advantages in terms of familiarity with the constructs within the tourism sector on Svalbard. Asking questions as a researcher which have a high degree of relevance enables me to create a stronger rapport with my informants. If I asked several elementary questions about the tourism sector on Svalbard, which my informants considered redundant my position as an informed and experienced researcher could be questioned, and as a result, the data generated through the interview process could be more superficial and less rich. Alternatively, a criticism that could be made is that I am being biased and too particular, where I am delving into very specific aspects of the tourism sector where the relevance to the larger picture is lost or undervalued.

2.10 Rephotography as a methodological tool

Rephotography was implemented as a methodological tool in my research project. It has application in research for both the qualitative and quantitative fields. The most important shared goal for rephotography has been the visualization of change which is depicted through photographs made of the same subject, taken at different times (Klett, 2010). Smith (2007) adds to this notion where they write that rephotography is an ethnographic practice where the method is a “visual, embodied strategy that emphasizes looking, insight, and re-enactment”. This process of ethnographic practice is matched with the product, comparing the old and the new, reflecting on the changes, and interpreting those changes (p.197). The rephotography examples that I have included in my interview process followed a quantitative standardized approach when being conducted in the field. However, although the rephotography images were created following a quantitative approach, the images have been applied in my research project in a qualitative manner, where they have been used as part of a photo-elicitation technique in my interview guide in order to derive data from my informants. The process which was followed is explained step by step in chapter 2.11.

Rephotography can be conducted in a variety of ways which includes: aerial photography (Pillai et al., 2005), extended rephotography with the application of virtual reality (Martinsson, 2022) or a time series with 3 or more instances of a landscape (Rieger, 2020) being photographed. In this research project, the rephotography process consists of a two-part technique where a historical image is paired with a modern image. The same vantage point is maintained under similar lighting. The rephotography images implemented in this study were conducted from roughly eye level in proximity to the ground. This style of showcasing rephotography is very effective because the perspective is the same as if one was standing in the same location (Eiter et al., 2019).

2.11 Quantitatively conducting rephotography

Hastings and Turner (1965) describe the quantitative process of conducting rephotography in four basic steps. These were the same steps followed in order to produce the rephotography images used in this research project:

First, one must locate the historical photograph. Rephotography is inherently linked to archival photography, as is the case with the example images used in this research project. The rephotographed images featured in this research project were derived from a digital archive called the Grenna museum-Andréeexpeditionen Polarcenter which is part of a larger website (digitaltmuseum.se) located in Sweden and can be accessed online. Many images found in archives such as Digitaltmuseum can be protected by copyright, and one must consult the copyright owner. Permission was given from the Grenna Museum to use the images, and credit has been given to them in the images used. Locating images within a digital archive can be an arduous task where prior knowledge can be pivotal in terms of yielding results and locating historical images. Knowledge of specific expeditions or the name of the photographer can contribute to the reduction of images to filter through when searching. For example, Liljequist's (1993) book *High Latitudes* depicts both the Swedish expeditions used in this research project where the photographers could be identified.

Second, one must examine the historical photograph to determine the exact location in which it was taken. Finding the exact location can be straightforward, difficult, and at times impossible. In some cases, the position in which the original photograph was taken does not exist anymore, for example, along a beachfront which has eroded, or photographs which have been taken on glaciated areas which have since melted or moved away cannot be accurately reproduced. This method can be accomplished through rudimentary photogrammetry techniques as well as by refining a search by implementing a trial and error method (Klett, 2020). In my hunt for locating historical images, I have been very fortunate, as large rock cairns have usually been built around the locations. Hoel (1929) wrote that rock cairns were used for surveying for topographical purposes.

Third, one must take a new photograph from the exact location and angle as the original photograph. Klett (2020) mentions finding the *Vantage point*, which is responsible for the way three-dimensional space is translated into two dimensions through a camera lens. Finding the vantage point is important as the relationship between features will change if it is not correct, even if only off by a small amount. One can use features in the foreground and backgrounds of a photograph to pinpoint the vantage point, such as mountain peaks, rocks, or vegetated areas. Martinsson (2015) writes that the vantage point is determined by many factors, such as cultural background, time, the purpose of the photographer's visit, and technical limitations. This calls for an understanding of the conditions that prevailed when the photographer visited the place photographed. The lens also must be chosen to match the original photograph's angle of view and camera position in the direction to match the original framing and camera inclination (Klett, 2020).

Fourth, one must examine the two photographs with the scope of the research project to determine change/results. The techniques used to examine rephotography images have seen significant changes in the last 30 years. When Klett et al. (2004) was working on the *Third View* project in the 1990's, they were working with cutting-edge technology. Klett would bring a battery-powered printer into the field to print and compare the modern and historical images. We have opted to use smartphones and tablets in which we can zoom in on specific features to match up the images to the best of our ability. The process has remained the same as described by Hastings and Turner (1965) however, the fast pace of new technology enables the steps to be done more efficiently.

2.12 Photo-elicitation and contextualization

Photo-elicitation was implemented as part of my semi structured interview, where two examples of my own rephotography were introduced. Photo-elicitation is a straightforward visual method used to evoke: information, affection, and reflection (Rose, 2006); as well as comments, memory, and discussion (Banks & Zeitlyn, 2015). Photos can achieve something that methods relying on speech cannot. Photo-elicitation uses photos to encourage a dialogue with the informant that would not be possible without the aid of such

visual material. The photos and the responses are then interpreted by the researcher (Rose, 2006).

The rephotographed images utilized in my research project for photo-elicitation were captured during a two week expedition to Northwestern Spitsbergen National Park on Svalbard in late July and early August 2022. I joined this expedition as an auxiliary member who had hopes to collect relevant data for my thesis as well as add to a collection of rephotography images which began in 2019. As part of my master's program, I had a practice placement in the Fall of 2022, where I opted to post-process the rephotography images and develop a PowerPoint presentation for AECO with an accompanying contextualization document (see annexes 9.7 and 9.8) which could be used as a free resource as part of their up and coming knowledge center for guides which is due to be released in the fall of 2023. Two accounts of rephotography images with contextualization have been applied to my interview guide and read to participants. The examples were derived from my previous work for AECO. I used the *Virgohamna 1896* photograph as an example of change in a cultural landscape and chose to use the *Gravneset 1873* photograph as an example of climate change. Of the 13 photographs that I have post-processed from my 2022 expedition, I chose to feature the *Virgohamna 1896* photograph as the subject matter depicts the balloon hanger of Soloman August Andreé's ill-fated North Pole expedition of 1897. The modern *Virgohamna* photograph paired from the same vantage point as the historical photograph depicts a stark contrast between the photographs where, when combined, one can more readily understand the changes that have occurred in the landscape over time. I chose to feature the *Gravneset 1873* photograph, which depicts the once prominent "hanging glacier" (Capelotti, 2021) alongside the modern photograph taken from the same position as the disparity between the two images is stark. The location is one of the most visited places on Svalbard by tourists (Overrein et al., 2015), there has not been any recorded surging of the glacier (see chapter 5.3), and it could be implemented to visualize how the landscape was prior.

Figure 1: Virgohamna 1896 compared to 2022. Adapted from AECO rephotography presentation (Ronning, 2022).



Figure 2: Gravneset 1873 compared to 2022. Adapted from AECO rephotography presentation (Ronning, 2022).



These examples were shown separately from one another and in two phases. The images were depicted on a PowerPoint via screen sharing in a Zoom video conference. The 1896 Virgohamna cultural rephotography example was depicted first where the informants were able to observe the historical and modern images, which were toggled between each other

for approximately 1 minute where I asked, “What comes to mind when you see these images”? (see annexes 9.5 and 9.6). In succession to my informants’ responses to the 1896 Virgohamna cultural rephotography example, I revisited the same images and read out a contextualization of them where my informants were asked, “Do you see any value in presenting this contextualized rephotography image in the tourism sector on Svalbard?” among other questions. The same process was applied to the Gravneset 1873 example, which depicted climatic changes where the glacier had lost significant ice mass. Depicting rephotography at face value through both the historic and modern photographs is a strong way to portray what Klett (2020) calls the “passage of time”, where the combination of the two images depict time in motion as opposed to the limited understanding one can attain from the images being looked at individually. Implementing rephotography through photo-elicitation enabled informants to experience a place in two different time frames which can heighten their awareness about a place. Implementing a verbal contextualized account of rephotography can further raise awareness of the place that is in focus.

2.13 Validity and reliability

In terms of validity, my research has been guided by a relativist approach. Sparkes and Smith (2009) asserted that a relativist approach is contextually situated and flexible. A relativist believes that the evaluative criteria should be study specific and used only in specific conditions and situations (Gergen, 2014). The process of judging under this approach is viewed as a craft skill (Seale, 1999). The relativist must make informed decisions and judgements about which criteria reflect the inherent properties of a particular study as it develops over time (Burke, 2016). This means that criteria for judging the quality of qualitative research are not applied in a universal approach but instead drawn from an ongoing list of characterizing traits rather than following an official criteria list to judge the quality of my research (Sparkes & Smith, 2013).

Criteria that I have considered in this study have been led by the works of (Smith & Caddick, 2012; Tracy, 2019) where I have considered a *substantive contribution*, where the worthiness of data in contribution to my study has been considered. *Impact* I have considered how my study can contribute to the tourism sector with the production of

newfound knowledge. *Width* concerns the comprehensiveness of interpretations stemming from the interviews. *Coherence* evaluates how the parts of the project fit together. *Credibility* concerns the time spent with participants and whether the researcher sought the reflections of the participants in regard to the data. *Transparency*: I have sent transcripts generated from the interview process to informants who desired to assess whether their opinions were fairly represented.

2.14 Ethical issues

Generating data through interviews must be handled responsibly. All human interaction has an ethical element where generally, “ethics” implies simply “doing the right thing”, which means acting with respect for those around me (Palmer, 2016). The ethical concerns that exist chiefly through my research project are affiliated with the identities of my informants being disclosed. I have attempted to mitigate the chance of identities by coding my interviews anonymously and withholding text which could identify an individual. Upon first contact via email with my informants, I informed all of them that all data generated and used for my research project would be anonymous and eventually destroyed in June of 2023. When I started the interview, I also reminded my informants that all data used from the interview would be anonymous and that they could opt-out at any time, and their data would be deleted if requested. I am aware that a power dynamic may exist between the researcher and the informant and I have attempted to deflate any tension by addressing participants in a calm and respectful manner. My research project has been approved by Sikt, a Norwegian institution which inquires into the ethical soundness of research projects and contributes to a high standard of safe data handling.

2.15 Limitations

All of the interviews I have conducted were in English. All of my informants spoke English as a second or third language, and although they were able to communicate clearly for the most part, there were a few instances where they did not always have the English vocabulary, they wanted to express themselves with, and I, as the researcher would be left to: interpret what I thought they meant, suggest a word I thought they meant during the interview, or translate their use of a word to English. A limitation and criticism could be

made in regard to this research project where I could have influenced or altered my informants' meanings through interpretation, translation, or suggestion. I could have also done this subconsciously, where I tried to adapt their words to fit a narrative of my own.

Secondly, despite taking university courses in qualitative methodologies, I lack experience where I have applied the methodologies in practice. My experience with both interviewing and reflexive thematic analysis is limited as I have never used either before in a research project. Demuth (2015) writes that qualitative research is a craft skill that to master takes time, practice, and intellectual engagement. It is plausible to assume that if I had more experience as a researcher, I could have engaged with my informants in a manner which generated different and perhaps even richer data. Despite my limited experience, I have consulted literature which has guided my process and has given me structure. In regard to conducting interviews, I have consulted (Brinkmann & Kvale, 2014, 2018; Smith & Sparkes, 2016) as well as (Braun et al., 2016; Braun & Clarke, 2019, 2021) for direction with the reflexive thematic analysis process.

3 Theory chapter

As climate change is affecting Svalbard rapidly, I want to explore if the implementation of a place-responsive pedagogy can provide a strong guiding framework. It can be utilized as a theoretical underpinning for guide education and training and can be used in regard to how guides help connect tourists to the places they visit. Rephotography can also contribute towards how one experiences the places they engage with through the communication of cultural and climatic changes in landscapes. In this chapter, I define concepts such as place, and place-responsive pedagogy to frame my theory which is situated in the fields of outdoor education and human geography. I implement Wattchow and Brown's (2011) 4 Signposts to a place-responsive pedagogy as my main theory, where I also draw from Raffan's (1993) Land as a teacher model, which is embedded inside the third Signpost of a place-pedagogy to frame place theory. In addition, I draw from rephotography theory, where: visual, time, place, climate, cultural, and educational aspects are depicted in the context of place theory.

3.1 What is place? What is a place-responsive pedagogy?

Place is a complex phenomenon which is continually unfolding. Scholars have described core aspects of place where Cameron (2003b) wrote that place has to do “with the relationship between people and their local setting for their experience and activity’ (p.3). Relph (1992), wrote that place is best applied ‘to those fragments of human environments where meanings, activities and a specific landscape are all implicated and enfolded by each other’ (p.37). Both Cameron and Relph suggest places are inextricably tied to experiences. Wattchow and Brown (2011) asserted that a common characteristic in scholarship about place and is the concern about the cumulative effects of modernity upon our ability to care for and respect local places we both call home as well as remote places we encounter when we travel.

Baker (2005); and Wattchow and Brown (2011) argued that outdoor places are not venues or empty spaces to be used as backdrops for human action. Without a standard for guides, it can be argued that activities being conducted within the tourism sector on Svalbard could benefit from place theory as a theoretical underpinning. Wattchow and Brown (2011) asserted places are a powerful pedagogic phenomenon. If educators such as guides do not acknowledge and respond to places as an expression of culture, they fail to recognise that places could be other than what they presently are. Failing to acknowledge places by the guides will have an adverse effect on the tourists, where connections to the places will be limited and superficial. As mentioned, the term place-responsive pedagogy is inspired by Australian academic John Cameron, who calls for a place responsive-society ‘because the word “responsive” carries with it the impetus to act, to respond’ (Cameron, 2003a, p.180). Wattchow and Brown (2011) further expand on the concept of a place-responsive society with their place-responsive pedagogy, in which they create 4 Signposts that act as a guiding framework to follow.

3.2 Raffan (1993) Land as a teacher model

I have implemented 3 of James Raffan’s (1993) principal components in his *Land as a teacher* model, which is an organizational idea that emerged during his PhD fieldwork. The *Land as a teacher* model depicts a connection to place that emerged when studying how

people were attached to place where the land acted as a teacher. His efforts were spent learning about the Inuit and Euro-Canadian perspectives on the Thelon Game Sanctuary located in the Northwest Territories in Canada. This model is revisited later and applied as a part of Wattchow and Brown's (2011) place-responsive pedagogy where it is addressed in the third Signpost *Apprenticing ourselves to outdoor places* (see chapter 3.6), and is applied in the analysis chapter (see chapter 4.4) where the concept is examined under the scope of this research project.

3.2.1 Toponymic component

This component has to do with the processing of place names. Raffan found that the Inuit and Chipewyan people had a fully developed and finely tuned system for place naming, which he understood as an indication of their rich knowledge of the local area as well as their attachment to places. Raffan found that in addition to the place names published on maps, people had named places in a manner which stemmed from personal, family, or prior community experiences.

3.2.2 Narrative component

Raffan found that stories were utilized to depict the land in various ways such as how the land came to be, how things used to be, and how the land was currently being used. The narrative examples demonstrated a connectedness to the land through different perspectives, which include: the teller, listeners, and of the cultures in which the storytellers were immersed. Raffan found that the Inuit perspective differed from the Euro-Canadian perspective as to how places were given names as well as the association with the meanings behind them.

The name Svalbard is a good example of both the *Narrative* and *Toponymic* components as the entire Arctic archipelago was called Spitsbergen [Dutch name for steep mountains] from 1596-1924, named by the Dutch navigator Willem Barentsz who discovered the region (Haartsen & Hacquebord, 1996) and changed to Svalbard [Norwegian name for cold coast] in 1925 when Norway assumed sovereignty over the archipelago. In the early 1900's there were negotiations between Norway, Russia, and Sweden as to which nation would attain sovereignty. Norwegian polymath Fridtjof Nansen popularized the notion that

Svalbard had been visited as early as 1194 via Vikings, as the name Svalbard was mentioned in Icelandic manuscripts written during this period (Arlov, 2005). Although these claims were never substantiated, they contributed to Norway ultimately getting sovereignty over the archipelago, and when they did, the name Svalbard was given which made it appear as though the archipelago was Norwegian all along. In a similar vein, Russian literature from around this time emerged, which referred to the archipelago as Grumant, which is the Russian word Spitsbergen (Arlov, 2005). Important to note when considering both the Narrative and Toponymic components of Raffan's *Land as a teacher model* involves whose stories are being told and whose are being suppressed (see chapter 5.6).

3.2.3 Experiential component

Raffan (1993) mentions one can learn the names of places from a map or from listening to stories told by someone. However, without any kind of personal experience with the land itself, a sense of a place or any emotional bond to land appears limited. Raffan found that it was possible for people to move through a landscape with no appreciable new insights or observations of what the land was like or what it had to offer. Experiencing a place plays a central role in connecting one to a landscape.

3.2.4 Land as a teacher model's applicability to this research project

The components depicted in Raffan's model illustrated above have application to the tourism sector on Svalbard. The Toponymic component can contribute to how one engages with the places they visit on Svalbard through self-naming or learning the standardized names of the places they experience while visiting. The Narrative component can also add to the perspective of how the land has been represented through storytelling which can shape one's experience. The Experiential component ties the other components together as the experience is a foundational aspect to how one relates to the land, they are occupied in. Excluded from Raffan's (1993) *Land as a teacher model* was the Numinous component, which is the connection of people, places, and a spiritual bond.

3.3 Place-responsive pedagogy Signposts

Wattchow and Brown's (2011) place-responsive pedagogy is comprised of 4 Signposts which I describe below and later revisit (see chapter 4.2-4.5), where I use excerpts from

my informants to identify elements of a place-responsive pedagogy in the tourism sector on Svalbard. The signposts include: Signpost 1 *being present in and with a place*, Signpost 2 *the power of place-based stories and narratives*, Signpost 3 *apprenticing ourselves to place*, and Signpost 4 *the representation of place experiences*.

3.4 Signpost 1: Being present in and with a place

In this Signpost, Wattchow and Brown (2011) wrote that experiencing being present involves making an effort to attend to what is meaningful in our immediate surroundings and increase our level of awareness. The underlying concept to me, involves being mindful or attentive to the environment in which we engage in. Hay (2003), supports this notion where they encourage one to engage with the world with a sense of childlike wonder, which will change the way they engage with places. Hay's advice optimises attentiveness to places by engaging one's curiosity via a childlike wonder. Lopez (1996) suggests that the key to connecting to a place is to become vulnerable in it. If one can become vulnerable in a place, they will experience it differently and be able to experience the place differently through their senses. Through vulnerability, one puts down their guard and can be present in the places they encounter. Wattchow and Brown (2011) wrote that experiencing *being present in and with a place* requires one to be still, silent and patient within a place.

3.5 Signpost 2: The power of place-based stories and narratives

Wattchow and Brown (2011) said that rather than diminish the value of the senses, outdoor educators should attend to them and strive to better understand the cultural meanings they are attaching to them. They suggest this can be attained through the power of story and storytelling and that outdoor educators should take on the responsibility of becoming storytellers in the outdoor places they work. Outdoor educators and guides may not be experts in any specific field, and they do not need to be. Through a natural inquisitiveness in the outdoor places they visit and revisit, they can engage with their students on a meaningful level with a variety of topics (p.248).

Every place is full of stories, and it is the responsibility of the guide/educator to communicate the stories of the places that one finds themselves in. It is also important to consider whose stories are being addressed and whose are being suppressed and silenced (see chapter 5.6). Sinclair (2002) wrote, 'stories bring nature into culture and ascribe meaning to places, species, and processes which would otherwise remain silent to the human ear' p.22). My informant Blake adds to Sinclair's statement where they mention the importance of storytelling as part of the guide role, saying:

To get good nature alone is not enough. You need very often to explain both nature itself but also how humans interact in nature and how we affect nature, I guess. So storytelling is a very big part of the guide's role, it's a very big part of the good experience that people have on Svalbard. -Blake

Blake stresses the importance of storytelling in communicating the places that tourists encounter on Svalbard. Wattchow and Brown (2011) are in agreement with Blake, who spoke of storytelling as a serious attempt to connect and make sense of where we are and who we are. In a place-responsive pedagogy telling stories that connect to nature and culture is part of the guide/educator's responsibility. Stories can also be communicated through the Svalbard museum which has done a good job of representing many aspects of Svalbard's history with the limited space they have. Blake mentioned aspirations of the Svalbard museum to expand, where they could communicate storytelling through depictions of the national parks of Svalbard and address issues such as climate change saying, "one of the goals of such a center [a visitor center for national parks] is also to bring in climate change studies and the effect of climate change in the Arctic".

3.6 Signpost 3: Apprenticing ourselves to outdoor places

In *apprenticing ourselves to outdoor places*, Wattchow and Brown (2011) combine the first two signposts as alone; neither of them are enough. What is needed is an embodied encounter with a place and an engagement with knowing the place through various cultural knowledge systems (Wattchow & Brown, 2011). They argue in order to know a place there is a need for one to become an apprentice to that place. Raffan (1992) termed this 'land as a teacher' where he explored how the land may act as a teacher in shaping

both personal and communal responses to place. Raffan (1993) further developed his ideas into the *Land as a teacher* model where he found that the toponymic, narrative, and experiential components could contribute to one experiencing a sense of place. Wattchow and Brown (2011) explained that part of working as an outdoor educator is to craft a responsive negotiation between participants and place. The same idea applies to guides who are crafting experiences for their guests on Svalbard where guides shape guests' experiences through how they engage with places. A place-responsive pedagogy requires one to become more reliant on local places and peoples, to study place' histories and ecologies, and constantly couple this with experiencing places through our bodies (Wattchow & Brown, 2011).

3.7 Signpost 4: The representation of place experiences

Signpost 1 *being present in and with a place* suggested as educators, we should make an effort to attend to what is meaningful in our immediate surroundings and increase our levels of awareness. Signpost 2 *the power of place-based stories and narratives* discussed how outdoor places are composed of cultural systems which include different stories. Signpost 3 *apprenticing ourselves to outdoor places* drew together signposts 1 and 2 as a way of knowing a place and discussed how to frame the questions we must take with us as we learn about place with our students.

In Signpost 4 Wattchow and Brown (2011) stated, the “key to unlocking the potential of place-responsiveness as pedagogic practice extends the relationship of experience and reflection to include the representation of experience” (p. 249). In order to depict the representation of experience, Wattchow and Brown (2011) suggest two ways this is plausible. The first is to develop learners' critical capacities in interpreting how the place they find themselves in has been represented in various forms of cultural media. The second way that learners could respond, in terms of representation, is to create their own interpretive works inspired by the place. In this study, I focus on the first approach: developing learners' critical capabilities when interpreting a place.

3.8 Rephotography

Rephotography can be of value as part of a place-responsive pedagogy, where it can heighten how one experiences a place. Frank Gohle once said: ‘A landscape whose story is told is harder to dismiss ... At its best, telling the landscape’s story can still feel like a sacred task’ (Park, 1995, p.11). People who experience landscapes might struggle to visualize what it looked like at an earlier time. Rephotography can contribute towards telling the story of the place in question through the depiction of photographs which reveal a place in different times. In this section, I discuss the theory which surrounds rephotography in the context of place theory.

3.8.1 Visual aspect

Vision is our most dominant sense, where about 80% of the information that our brain acquires comes from sight (Man & Olchawa, 2018). The visual process that is undergone through rephotography enables one to understand changes that have occurred in a place. On April 27, 1875, in the New York Times newspaper, a comment was made about governmental survey photographs which stated “While a select few can appreciate the discoveries of the geologists or the exact measurements of the topographers, everyone can understand a picture” (Klett et al., 1990). The visual aspect of rephotography plays a powerful role in allowing one to understand changes that have occurred in a place. Forest came to a similar conclusion where they said:

I struggle with understanding the magnitude of the glaciers. I don't understand what 432 gazillion liters melting away every week means, like in what it actually does. So when we are presented with all these numbers, which we cannot sort of get our head around, I think it is very visual to see the rephotography images. Because then you can see, used to be a mountain, used to be a glacier. Now there's a river and a mountain where the glacier has gone, it melted. - Forest

3.8.2 Time aspect

Rephotography can be a useful tool to help visualize the passing of time. Klett et al. (1990) wrote that:

Individual pictures are like single frames picked from a time-lapsed film; when they are viewed in succession they give the appearance of time in motion, of continuous change. However, in this case, they are perhaps the first two frames in a monumental film, one which will span thousands of years (p.37).

Rephotography can positively contribute towards depicting places on Svalbard like a monumental film, as Klett et al. (1990) suggested where people can visualize changes which have occurred. By distinguishing differences from the past to the present, visitors might begin to think critically about the future of a place in which they are visiting. This is the same notion that Wattchow and Brown (2011) advocate for in their 4th Signpost *the representation of place experiences* where learners' critical capacities are being developed through a reflective process which rephotography contributes in establishing (see chapter 3.7). Klett et al. (2004) support this idea where they argue that the real meaning of landscape photographs concerns our essential connection to place, to each other, and most important, to time.

3.8.3 Place aspect

Rephotography can be used to connect one to a place. Klett and Martinsson (2017) wrote that human behaviour could be influenced by challenging the expectations of place that a limited viewpoint provides. Cody felt that the implementation of rephotography would increase the impact of how a tourist would experience a place from an emotional perspective saying:

I think it [rephotography] will have a stronger impact. Tourists could maybe want to go and explore more in detail, go up to where the glacier was and see if you can find traces of it. For instance, I think it will, what's it called, evoke more emotions or wake you up, make you feel more when you are there. - Cody

Finn et al.'s (2009) statement supports Cody where they wrote that rephotography is a "powerful method to produce knowledge about place . . . [that this] act goes beyond looking at historical images in archives to move our thinking onward about how we relate to images" (p. 593).

3.8.4 Climate aspect

Rephotography can be used to visually process how a place has been affected by climate change over time. Handley (2019) asserted that “the utility of rephotography is of a wholly different sort and with radically different consequences, whereas the climate crisis, when time is of the essence, suffers too often from a lack of human foresight, rephotography sharpens our visualization of time, slows it down” (p.183). The visual process is not to be underestimated in its ability to portray changes in a landscape caused by climate change. One can understand the extent of changes that have occurred a place and address the issue in which protective changes or environmental regulations could be implemented as a result. Martinsson (2015) further iterates this notion, saying:

In rephotography, photography is in dialogue with time, history, and memory. In terms of variables such as global warming and climate effects photography can serve as a tool for comparative studies in which photographs showing clear evidence of change over time in combination with data from science can be used to address politicians, policy makers, and the public. If successfully used in communication about environmental issues and arguments for conservation values of natural areas, it can influence the regulation of human destructive behavior in our relationship to nature (p.9).

Cody’s sentiments are concurrent with the above statement where both climate and cultural landscapes can benefit from being exposed to politicians through rephotography where they say:

Politicians, they are being affected in the same way as a tourist would. That's why they are here. We get a lot of visitors here from the Norwegian government and they want to see Svalbard and sort of feel how the conditions are up here and why we are, why it's important to preserve and things like that. And one thing is a glacier melting. It can also be a cabin that is sort of in one picture there, but in the other it's just a pile. And then they can understand that cabins must also be protected and preserved in order to tell a story. - Cody

3.8.5 Cultural aspect

Rephotography can be used to connect people to the cultural history of a place. For Klett et al. (2004), landscape photographs are a result of personal experience and cultural influence. The person taking the repeat photograph is subject to personal experience and cultural influences and is not an impartial witness, but rather a participant in the construction and reconstruction of the place/landscape. The photographer's subjective framing of the photograph has cultural implications in regard to what they decided to include and what they decided to leave out of the framing of the original photograph. Finn et al. (2009) see rephotography as a helpful tool which can be employed to "understand the ongoing transformation of a humanized landscape" (p. 593).

On Svalbard, it is easy for one to fail to identify or miss cultural influences completely, which would contribute to experiencing the landscape. Therefore, rephotography can play an important role in contributing towards connecting with a place via cultural aspects. Rephotography becomes not only an activity of observing differences between two pictures but also an ethnographic activity (Smith, 2007), where human history can be acknowledged. Handley (2019) argues that every photograph is an artifact writing, "every photograph is, in a sense, a placed fact, situated in space and time. But it is also more than that: not just a factual document, it is also a picture, an artifact, situated in culture and history" (p.161). Rephotography affords one to get a glimpse into a place from different times, which can shape their understanding. Ferrarotti (1993) wrote: Photographs are dynamic: they allow one to observe the aforementioned cultural underpinnings of photographs as frozen moments in time. It is this "dynamism" that allows one to transcend history, to see from the present day to the time of the original photo (p.75). Rephotography acts almost as a time machine where one's impression of a place can change as a result of the cultural depictions which are featured in rephotography examples. Through this dynamic process, repeat photography becomes an ethnographic activity.

3.8.6 Educational aspect

Rephotography can be used as an educative tool to depict changes in a landscape. Lemmons et al. (2014) found that rephotography helped students communicate in a host culture where they did not speak the language. Avery saw value in depicting landscapes

with rephotography through both the visual process as well as through a contextualized account of rephotography where they said:

Even someone that doesn't understand a single word of English will understand the picture of a receding glacier. But what I thought was interesting now was not just the picture, but also the contextualization that you gave for it. And that added extra depth and also kind of guides you to recognize things in the picture that you maybe wouldn't recognize if you wouldn't read the text. - Avery

I have been in situations as a guide where a language barrier existed as my guests did not understand English very well. As rephotography can visually communicate changes occurring in a landscape, people can come to a basic understanding of how the landscape has changed without or with very limited language use. However, as mentioned by Avery, if the communication threshold is high and tourists have a strong understanding of the language being administered by a guide, a contextualized account of a place could be administered to expand information and communicate a place effectively. The value of contextualized rephotography is addressed in greater length in the analysis chapter (see chapter 4.2 and 4.3).

3.9 Rephotography subjectivity and objectivity

A concern as to how rephotography can be implemented as part of a place-responsive pedagogy lies in the discussion of subjectivity and objectivity in regard to photographs. Barthes (1982) argues that photography is violent, meaning that photographs cause harm to viewers as they serve as a counter-memory. By representing objects exactly, photographs deny the capacity to refuse the past. Lemmons et al. (2014) wrote that photographs can inhibit opportunities to reconstruct the past through personal or communal memory. When photography is the main means of interaction with other cultures, the photograph can become a substitute for learning from personal and cultural histories, which impedes rather than contributes to involvement with other cultures. In a place-responsive pedagogy, rephotography is not used as the sole impression for cultural impressions but rather as a supplementary tool to help people visualize how the places have changed over time.

Photo theorist Susan Sontag wrote that “the picture may distort” but insists that “there is always a presumption that something exists, or did exist, which is like what’s in the picture”. Despite the flaws and limitations of photography, the mechanical fact of its production convinces modern human audiences that photography is “more innocent, and therefore a more accurate relation to reality than other mimetic objects” (Sontag, 1977, p.6). Sontag wrote that no photograph is a completely neutral record. One must understand that photographs are subjective portrayals of places where the features depicted cannot encompass the entire place and therefore, will only tell part of the story for an area. Sontag (1977) said that photographs are as much an interpretation of the world as paintings and drawings (p.5). Sontag and Barthes address both sides of the same coin. Despite the inherent subjectivity associated with photography and rephotography, Bass (2004) argues that objectivity outweighs the subjectivity in regard to rephotography.

4 Analysis chapter

The following sections in this chapter follow a thematic analysis which is organized chiefly by Wattchow and Brown’s (2011) 4 Signposts to a place-responsive pedagogy where Raffan’s *Land as a teacher model* is embedded within Signpost 3. Excerpts from my experienced informants identify elements of tourism on Svalbard in its current state where similarities and differences to a place-responsive pedagogy have been linked. Excerpts from my informants identify how rephotography has application within a place-responsive pedagogy, has also been applied to the four Signposts. Lastly, responses from my informants are addressed within the context of guides’ communication of cultural and climatic changes currently on Svalbard in the tourism sector.

4.1 Framing my analysis

I have framed this chapter under Wattchow and Brown’s (2011) place-responsive pedagogy framework, where I apply the theory behind the framework as a lens to understand my informants’ responses in effort to answer my research questions. I have used a reflexive thematic technique from (Braun & Clarke, 2021) to organize themes in which, I have applied to the 4 Signposts of a place-responsive pedagogy. I am engaging

with the extracted data as an insider who has experience working in the tourism sector as mentioned in my methodology chapter (see chapter 2.9). As mentioned, the names used in textual excerpts are gender-neutral pseudonyms which serve to give anonymity to the informants who have been interviewed in this research project. The fictitious names of my informants include Avery, Blake, Cody, Drew, Eli, and Forest. A set of nonbinary pronouns, they/them/their, has also been applied to prevent one's gender from being attributed to the given pseudonym.

4.2 Signpost 1: Being present in and with a place

The concept behind the theme *being present in and with a place* has been addressed in more detail in my theory chapter. However, it is worthwhile to briefly revisit this theme before drawing connections in regard to how my informants' responses resonate and differ from the theory. In review, Wattchow and Brown (2011) wrote that experiencing *being present* involves making an effort to attend to what is meaningful in our immediate surroundings and increasing our levels of awareness. It requires participants to be still, silent and patient within a place. This theme reminds me of the notion of mindfulness. When I was in high school, I had a math teacher who would often say, "when you are in the room, be in the room" (C. Adelman, personal communication, October 2008), my teacher was calling for the students to be present in that environment and increase our awareness in that place which is what Wattchow & Brown (2011) are advocating for in this Signpost. Eli conveys *being present in and with a place* well where their guiding style increases awareness where one can engage with the landscape. Eli said:

You can take all the small things you see or big things as well, of course, and make stories out of that, right? It can be a rock that you pick up on your way. It can be a plant. It can be some footprints or some droppings from an animal or carcass or whatever, right?... I like to make my guests wondering about what they see. I would do the same as if I was with my kids. -Eli

Eli's guiding approach is place-responsive as what could be perceived originally as mundane is brought to life through engagement with the places visited. Eli's guiding style

intrigues tourists' interests with unique aspects featured in the landscape they are occupied in. Eli further depicts their guiding style where they said:

If I was with my friends and I saw something special then I would say. Oh, what is this? A nice rock? I would pick it up and also show it to my friends and we would talk about it. Oh that looks funny, and what is this and things like that. - Eli

This type of approach to guiding enables tourists to be mindful of the places they encounter on Svalbard. However, it requires guides to be intentionally seeking ways to engage with places they visit. This is not to say that guides need to be experts in everything, but rather through inquiry they can engage with tourists in places they visit and learn together where engaging with the unknown ultimately increases one's awareness of a place. Eli also criticizes guides who conduct orchestrated trips with pre planned stops and routes where they say:

What I don't like is if you have this trip and are informed you have to stop here [by the tour operator]. You have to tell this story. You have to stop here... But then from A to B and from B to C you're not looking for interesting things... What I think is even worse is that making it that way is making it much more boring for the guides. - Eli

One could argue that Eli's criticism towards the above-mentioned method of guiding is not place-responsive, but rather the opposite. I would say that it is a balancing act. If guides are visiting the same places with tourists time and time again, then I imagine the guides would come to know the places more intimately than if they were visiting new landscapes on every trip. At the same time, knowing a place more intimately guides can address specific features in the landscape, which raise the awareness of guests. The average time that a tourist who visits Svalbard, and is participating in land-based tourism is 2.5 days (Governor of Svalbard, 2006). With this statistic in mind, I imagine that tourists for the most part, would still be able to be present in and with the places they visited and probably would not be affected if the guide was stopping at a standard stop or engaging with unique features within the landscape. What does matter is engaging with places passionately; this point is discussed more in detail in the next Signpost (see chapter 4.3).

Rephotography also has relevance to being present in and with a place, Avery advocated for the implementation of rephotography to communicate cultural and climatic changes saying, “I just thought of rephotography in terms of communicating the climate crisis, but I think it's also a super important tool for showing kind of the human dimensions of these cultural landscapes. So I think that's a great idea”. As mentioned, rephotography can be used for communicating both cultural and climatic changes. Rephotography images have intrinsic value on their own, where the visual aspects help one make sense of how a landscape has changed over time. However, one’s sense of being present in and with a place can be heightened where my informants alluded to the value of a contextualized account of rephotography images like the accounts I gave in the interview process (see annex 9.4 and 9.5). Avery pointed to the historical aspects of contextualized rephotography which they thought enabled one to resonate with places. They said:

I think that's kind of typical of how people relate to this Svalbard landscape. It's like there's mostly a focus on the natural environment and the human dimension often gets lost... I think the history of the place is super important in making people connect to it and understand it, and resonating with the place. So I think pointing to the rich human history in places in Svalbard is super important. And if rephotography can be used for that, then yeah, great. - Avery

In general, informants felt that rephotography would help them engage with a place more if they were visiting the places depicted in the rephotography. Klett et al. (2004) assert that rephotography can show change, but they cannot explain history. Therefore, one can benefit from a contextualization of rephotography when encountering the places they visit as a tourist. It is important to note that although rephotography can be helpful in aiding one to visualize how a landscape has changed over time, one can still see traces in landscapes which depict the past without the use of rephotography. However, in my opinion, rephotography makes it easier to convey changes in a landscape rather than reading the landscape without having a visual aid.

4.3 Signpost 2: The power of place-based stories and narratives

This section delves into the second Signpost of Wattoo and Brown's (2011) place-responsive pedagogy *the power of place-based stories and narratives*. Stories are a great way to engage tourists with places they visit, as the past of a place can be communicated. Avery said: "Communicating history can get people to feel more connected to a place" and suggested "maybe you even come to care more about the place and have a stronger place attachment if one would know more about the history". In some cases, stories told can transform one's perception of a place greatly. Avery also alluded to how stories can help one to recognize traces of the past when they said:

I would be like okay actually here I'm standing now like some people have been trapping or like there have been trappers here and so yeah I think these objects are super important communicators of that history that yeah make you feel maybe more in touch to it or makes you kind of see more meaning in the place. If you stare at the landscape that you think is empty or that has no history, you have a different feeling than if you know what has been going on there before and then you learn to recognize the traces of past human activities. -Avery

Avery's account of being in the same place as where trappers on Svalbard had been operating prior gave more substance to the place they visited from a historical aspect. As mentioned, Wattoo and Brown (2011) wrote that storytelling is a serious attempt to make sense of where we are and who we are. If a serious approach to storytelling is taken, guides on Svalbard will be able to communicate the places that encompass both climatic and cultural stories of the places they visit. As mentioned in Signpost 1, guides do not need to be experts; they need to be inquisitive, and according to the informants of this research project passion plays a key role. In regard to storytelling, Forest said: "I think it's everything, really. I think you can make people interested and passionate about absolutely everything if you manage to build up the story. It's all about telling about it passionately". Cody shared a similar sentiment as Forest when they said:

A good guide is also a good storyteller, ideally, in my eyes. And I've been lucky enough to have met a lot of good storytellers both in education and out on trips and

you can really tell the difference. The same story when told by two different people can have a whole different meaning and yeah. You get more taken with it if it's told in a good way. And you don't have to lie or do anything like that. You just have to be into it and tell it with passion. - Forest

When asked about the importance of storytelling in tourism on Svalbard Eli had a different opinion than Forest and Cody where they stated:

I think the word storytelling is not good. I think that the storytelling is nice and it's nice that you can tell a lot of stories. You have a lot of knowledge and all stories or present stories or whatever and you are good at telling them. And many, I know that many think that is very important for a trip and to be a guide. But I think in a way that is not the most important. Most important is to be able to make a good atmosphere and make everybody feel included and a part of the group. And for me storytelling is something different because for me storytelling is being able to create a good culture in your group. And that makes people have a nice experience and a nice trip. And they also maybe travel away from Svalbard with a very good feeling and emotions about Svalbard. And I think emotions are much more important than knowledge when it comes to if you want to protect something.

So in my opinion, I think storytelling is overrated and it is in a way a mechanical tool and I think sometimes you get an artificial atmosphere in the group and I've very much experienced many times that guides, they are not very good in interhuman relations and they like tell stories but it's not creating the right atmosphere. But then I'm not saying that you shouldn't tell stories, and you should tell a good story when it's there, but sometimes you should also shut up and let the group feel good and have a nice time and just talk about whatever they want to talk about and create a good culture in the group instead of making this, I think it's a bit artificial. I think storytelling is overrated. I think you should focus much more on human skills and being able to create a just culture in the group. - Eli

Despite Eli's notion that storytelling is overrated and is used as a mechanical tool, I think that Eli's guiding philosophy is in tune with a place-responsive pedagogy. Knowing when

to be quiet and let the group experience places corresponds with Signpost 1 *being present in and with a place* and will be discussed in more detail in Signpost 3 *apprenticing ourselves to place* (see chapter 4.4), where the experiential aspect of engaging with a place is considered. Guiding is a craft, and Eli points out that when guiding, one needs to balance when to tell stories and when not to, as stories told in abundance could negatively impact how a tourist encounters a place. Every group of tourists is different, and as a guide, you need to consider how to make the most for a group to experience the places they visit.

Rephotography also has application in this Signpost where it can be utilized as a visual aid to depict a landscape from a different time where stories about places can come to light. When asking my informants about rephotography as a communicative tool in combination with storytelling. Blake said: “If you can have the [rephotography] photos you can see how it was and how it is today, then you can more easily understand what has been there and how tremendous it really was”. Blake’s statement is supported by Klett et al. (1990) and Martinsson (2015), which have been introduced in the theory chapter (see chapter 3.8.2), where they argue that rephotography gives one the impression of time in motion. Forest’s statement also supports this notion where they said rephotography “helps with storytelling of the history of Svalbard, it’s a visual tool for sure. You quite quickly understand that these are two photos of the same place for different years and the natural landscape has changed”.

The value of rephotography in communicating place-based stories and narratives can be heightened through the contextualization of rephotography photographs. Similar to how contextualized rephotography contributes towards tourists *being present in and with places*, tourists can also benefit from the contextualization of rephotography, which contributes to how places are experienced through *place-based stories and narratives*. Drew said: “If you also fill in (rephotography examples) with information regarding the climate crisis, I think it’s very good information to give guests... It’s a very big difference than just standing there telling the stories, but if you can actually hold up a picture and show them how this [place] is what it used to be [like]”. Drew’s statement advocates for

rephotography with a contextualization which could contribute to one understanding how climate change is affecting Svalbard.

4.4 Signpost 3: Apprenticing ourselves to outdoor places

In Signpost 3 *apprenticing ourselves to outdoor places*, the concepts comprising Signpost 1 and Signpost 2 are combined as either of them alone is not good enough. Raffan's *Land as a teacher* model is drawn from where the 3 components help to make sense of Signpost 3 and how data from my informants is connected. Wattchow and Brown (2011) write that in this Signpost, one feels an embodied encounter with a place as well as engagement with knowing a place through a variety of cultural systems. In order to know a place, there is a need for one to become an apprentice to that place. Avery discusses how this looks in practice where they argue:

The more you know about the history of a place, the more you can know about it and identify with it. And especially in a place like Svalbard, that is very short term memory. And people stay there only for a short time. I think it's extremely important to communicate the past of the place and to kind of show okay, there has been people here before... I think that changes the relationship that people have to places and also contributes to place attachment and yeah, to identify with the place". - Avery

Knowing about a place's history enables one to identify with the place and even become attached to it according to Avery. I think Avery's notions of connecting to places on Svalbard resonate well with a place-responsive pedagogy, and more specifically, Signpost 3 where Avery has had embodied encounters with places which has stemmed from their knowledge of places experienced through different cultural systems. Svalbard has a rich human history which spans more than 400 years Haartsen and Hacquebord (1996), as well as a rich geological history which spans more than 3 billion years (Elvevold et al., 2007); tourists can apprentice themselves to the places on Svalbard by engaging with the variety of cultural systems in place.

Avery's statement also resonates with the 3 components of Raffan's (1993) *Land as a teacher* model. Knowing the history of the place depicts the Narrative component, where

stories are used to communicate the land. Identifying with a place is reminiscent of the Toponymic component, where place names [either given by a participant or coming to know already established place names] contribute to the rich knowledge of places. Knowing the history also contributes to the attachment to a place which is concurrent with Raffan's Experiential component where one becomes connected to the land through an emotional bond which comes from experience.

Raffan (1993) wrote: "without any personal experience to the land itself any sense of place or emotional bond to land appears limited" (p. 44). Similar connotations to Rephotography could be made to some extent where a connection to the place is limited if one is being shown the rephotography images but are not actually visiting the places showcased in the images. When asking Forest how they thought one would resonate with rephotography if they had physically been to the places depicted in a rephotography image, they responded with a powerful visual experience they had from a personal experience where they said:

I think it [rephotography] would make a bigger impact... I was on Nordstjernen [expedition cruise ship] once and as we were sailing into a fjord the captain said that "100 years ago there was a glacier here", and we continued to sail for five kilometers. And I do remember that point. I mean, that was sort of, that was a very sort of visual. I like visuals. So for me, seeing the glacier and what it used to be like is quite impactful. But even actually being there and then being told that where we are sailing now, there used to be a glacier that was even more impactful. - Forest

Here Forest uses a personal experience to communicate the power of visual examples where they note that rephotography will make a bigger impact for one who is visiting places where rephotography examples are depicted. Finn et al. (2009) came to a similar conclusion where they asserted that rephotography "takes the viewer beyond a single depiction of a historical landscape and creates a narrative of place through time" (p.585).

4.4.1 Value of the natural landscape on Svalbard

Svalbard has seen growing interest in recent decades. Aesthetically tourists have been drawn to its: virgin wilderness, exotic wildlife, magnificent scenery (The Governor of

Svalbard, 2022), glaciated landscapes, and mountainous terrain. I will now include excerpts that depict how the natural landscapes on Svalbard are valued from my informants. Eli stated:

In a way of course it's nice to see old trappers cabins or scientific sites and things like that but it's not what connects me to Svalbard. What connects me is the natural environment and wildlife and beauty of the landscape and the mountains and glaciers and things like that. The cultural landscape... is not what is making me concerned about the protection of Svalbard, I am more concerned about the natural environment. - Eli

Avery adds concerns in regard to the fragile environment found on Svalbard saying:

The landscape can be quite fragile and it can be easily disturbed and I think people should be made aware of that, and I think that can be quite easy to show. You can demonstrate it with just a piece of tundra or step on it and say okay this will take a long time to kind of re-cover. - Avery

Eli mentioned that the natural environment is what makes them concerned with the protection of Svalbard, and Avery depicted that they felt the vulnerability of the landscape should be communicated to people who visit Svalbard. The above-mentioned excerpts depict a concept within place theory which states that experiencing issues locally can lead to global understandings (Gruenewald, 2003a; Somerville, 2010; Wattchow & Brown, 2011). Somerville (2010) argued that place functions as a bridge between the local and the global, where without intimate knowledge of local places, there is no beginning point. Wattchow and Brown (2011) asserted that people need to know how to understand local conditions as well as how they are connected to global issues. Gruenewald (2003b) wrote that place is connected to global development trends that impact local places. As mentioned by Somerville (2010), local places can serve as a bridge which can help one to understand global issues. If you are skeptical of the value of protecting cultural remains on Svalbard as a whole, local examples can be used to communicate how cultural remains have merit in being protected on a global scale. Gravneset [the grave point] on Svalbard is a good example, where the cultural site offers rich whaling history and cultural remains

dating back more than 400 years but can also be used as a cautionary tale where beach buffets and parties were held next to the graveyard before the governor tightened regulations at that site (WWF International Arctic Programme, 2004).

I am advocating for educating tourists about the climatic and cultural changes locally where global understandings are made. I am aware that there exists a certain irony in advocating for tourism as an activity in a place that is already experiencing rapid climate change. Global understandings through local experiences on Svalbard can also be heightened through rephotography examples which depict cultural and climatic changes that relay the cultural systems in the places one encounters. This notion also has application in sensing the places we visit, as alluded to in Raffan's *Land as a teacher* model.

4.5 Signpost 4: The representation of place experiences

Signpost 4 *the representation of experiences* aims to include the representation of experience in which learners' "critical capacities in interpreting how the place they are learning in has been represented" (Wattchow & Brown, 2011. p. 249). Tourists who visit Svalbard can visualize how changes have occurred with rephotographic examples to depict them, as well as stories which indicate how the landscape has been used. Eli addresses different possibilities of how guides can convey information to tourists, which could engage their critical capacities, saying:

You have to attract their [people's] attention to things in the landscape, in the surroundings that can tell them about the climate changes, what has been done to the landscape, to the wildlife, and things like that. And also what it does to the infrastructure in town and things like that. So I think that is a good way of doing it. And also, of course, you have to read up on things and you have to gather a lot of information and knowledge about climate change and what effect it has here. And what, of course, nobody knows what is going to be the results of it, but we have a lot of scenarios and it's easy to talk about that as well, what can happen? What has happened? What do we know already? What can happen in the future? -Eli

Eli's above statement depicts a viable way to connect tourists to the places that they could find themselves visiting while on Svalbard. What is required from the guide is knowledge of a topic and the skill to engage with the landscape in a way which has one's guests thinking critically about the features brought to attention. Eli also argued that climate change was contributing positive in some ways for the whale populations saying:

And of course also discuss because it's not only negative the climate changes. In some ways it's a positive for the whales here, right? Because we probably wouldn't have had so many big whales if the water hadn't got a little bit warmer and a lot more food in the sea. -Eli

Although Eli's statement does engage one's critical capabilities in questioning whether climate change contributes positively for the whales, there is scientific literature which opposes Eli's claims. Where loss of habitat (Elliott & Simmonds, 2007), and negative ice loss for mass balance of Svalbard glaciers which is a foraging hotspot for whales (Descamps et al., 2017), are deemed to have negative consequences for the whales who feed in the Arctic and on Svalbard. The issue of inaccuracies addressed in Eli's claim is also identified in the discussion chapter (see chapter 5.7), where I address guides who are making up information. Another way to engage one's critical capabilities is to discuss the abundant amount of climate research which is undergone on Svalbard. However, Forest displayed concerns about how the research is communicated, saying:

I wish it was even better communicated what these climate changes mean and why there is so much study on Svalbard. And I mean, also that it can be looked at. It's super accessible. Scientists can actually come here and research them, and then they can look at Greenland and look at 10, 15 years ahead and see this is what's gonna happen on Greenland. And Antarctica and sort of use the place as a laboratory. But we don't communicate that. -Forest

Forest makes a valid point in that there is climate research being conducted on Svalbard, but the results aren't communicated very well to the public. The tourism sector could also benefit from the communication of climate change as well as educating guests about how climate change is affecting the places they are visiting. When I say educate, I refer to my

interview guide in which I define it broadly as “sharing of information”, and throughout this thesis future use of the word educate will follow under this working definition. The results of climate research on Svalbard are often published in academic journals, which often involve scientific jargon and complex figures that make it difficult for non-scientists to understand. In addition, access to information can often be behind a paywall, marginalizing who has access to the knowledge. This is another reason why rephotography is valuable as part of a place-responsive pedagogy, as one can make sense of the visual data and understand that changes have occurred in a landscape. Rephotography could be combined with climate research [provided that changes in the landscape were applicable to the field of research] to strengthen the communication of the findings to a wider audience. Blake also argued for the importance of communicating climatic change in the Arctic saying:

Obviously to understand that in the Arctic, they say that the effect is twice as, or at least twice as hard as elsewhere in the world and already we see a temperature of ice of two degrees, which is sort of the Paris goal (Is referring to the Paris treaty of 2015). So yeah, I think it's important just to give knowledge on that this is a fact and it's affecting nature and it's affecting life. -Blake

Climate change is important to address in tourism in the Arctic. Especially as it is occurring faster there than anywhere else in the world (Descamps et al., 2017). In Signpost 4 *the representation of place experiences*, climatic examples were primarily drawn to address learners' critical capacities, and although important, there are other ways to engage one's critical thinking such as through communicating cultural changes. Cultural interpretations can also be drawn upon where guides can engage tourists' critical capabilities with stories from a place which can draw from human history. Guides need to be aware of whose stories are being told in the places that tourists are experiencing and whose stories are being suppressed, as all stories which are told in a place cannot be addressed (see chapter 5.6).

4.6 Svalbard: a sustainable destination?

Visit Svalbard has been awarded a sustainable destination label for Longyearbyen through Innovation Norway's sustainable tourism scheme. The sustainability label has been held from 2016-19, 2021, and 2022 (Visit Svalbard, n.d.-b). For tourists who visit Svalbard and see this label, it is difficult to know what sustainable accreditation means in practice; as on Visit Svalbard's website they assert "having this prestigious label does not necessarily mean that we are sustainable, but it commits us to focus on sustainability" (Visit Svalbard, n.d.-b). When asking my informants whether they thought Visit Svalbard was greenwashing, Avery thought so, saying there is a "greenwashing aspect in regard to tourism on Svalbard where it pretends to be very sustainable, referring to the climate crisis, but ultimately, profit generation isn't questioned at all". Cody added, "There is a lot of focus at least on sustainability, but it's a very easy word to throw around that everything is sustainable". Blake also pointed out that tourism in Longyearbyen is "not sustainable in more or less any way, but that the industry has committed to becoming more sustainable through common effort in organization and working with different companies". Drew said "I think Svalbard will never in any way be sustainable. Everything you use up here will be imported. A lot of these stickers [labels] that you get for being sustainable is just that you kind of calculate your trash and your consumption". Eli said:

Why should Visit Svalbard have this label? If they know that they have member companies that are not green... I think that is greenwashing. I think that is just hypocritical... That is just, in a way, depleting the sustainable brand of what you say. It's just making it mean nothing, right? So what does it mean for me to be sustainable or get a certificate if everybody else can get it and they are not at least [at all] sustainable? Then it's just bullshit in my opinion. - Eli.

4.7 Guides' communication of climate changes

When inquiring about whether tourists should be educated about the climate crisis or not, my informants responded with a resounding yes they should. However, when addressing whether the climate crisis was being communicated well through the guides, I had a mix of

responses. Avery suspected that the climate crisis was being communicated well through the guides, where they said:

In the tourist activities, the climate crisis is I think communicated much more, especially through the guides, because a lot of them have been living on Svalbard for a long time and are very concerned about the environment. I think they really act as super important and communicators in that regard. – Avery

Andersen (2022) concluded with similar sentiments as Avery's statement, where guides on Svalbard are engaged in pro-environmental practices while working, which would lead one to believe that the climate crisis is being conveyed well in the field. Alternatively, Drew had a different opinion where they felt that climate change was communicated very differently from company to company, as well as from guide to guide, saying:

The climate crisis is communicated very different from company to company but more I think guide to guide. Personally I don't talk a lot about the climate crisis for my guests basically because I don't know enough about it. I like to keep to the things that I can kind of tell them about that I know as fact. So, I'm keeping it that a little bit more on the low, but I know that there's certain guides, especially more I think in a cruise tourism, that it's focusing on it more than on the land-based. Personally I focus a lot more about wildlife and the history. - Drew

Drew, a guide who has several years of experience guiding on Svalbard, does not discuss climate change with their guests despite stating that they felt that tourists should be educated about climate change on Svalbard. In this context, a place-responsive pedagogy has value where addressing issues such as climate change can be encompassed in guide training. The disparity between companies' and individual guides' perspectives on how climate change is affecting Svalbard can be rooted in a framework which is designed to inform all guides on Svalbard. Blake drew criticism in regard to the communication of the climate crisis from guides saying:

We do not have a common understanding. We don't have a common sort of a history to tell. It's really up to the guide and the different companies' own interpretations of

climate change. I think we should be more precise than we managed to be today... What I have experienced is that some guides tend to forward their own understanding of climate change. And very often do the mistake of pointing out one thing happening one day as a direct effect of climate change. - Blake

Implementing a place-responsive pedagogy as part of the proposed guide standard could benefit guides in having a framework to follow in terms of how they will depict the places they visit while out on excursions with guests. In addition, the implementation of rephotography examples which depict changes in the climate could be part of a solution for depicting the changes that have occurred in the landscapes that are visited.

4.8 Guides' communication of cultural changes

On Svalbard, all cultural monuments from before 1946 are protected by law. (Governor of Svalbard, n.d.). In the tourism sector on Svalbard, my informants have suggested that guides do a good job of communicating cultural changes in the landscapes. Blake said, "It is part of the guide training [referring to local schemes that already exist]... I feel that quite many of the companies they put cultural heritage as part of their experience. So when on a snowmobile trip or whatever, this sort of tells people about cultural heritage". Blake also commented that "more or less all trips are connected to the [cultural landscapes], even the hikes close to Longyearbyen. Cody also adds that places which depict cultural heritage are natural places to stop when you are out on a trip. They say that cultural landscapes are:

Maybe more relatable for people than watching flowers or reindeers. And it's very easy to... It's always there, so you can stop there and you can talk about it as opposed to birds and animals who are walking all over. So I think that's important and that it is being used a lot in almost all trips, I would guess. And for instance, when you go on a guided tour in town with the taxis, that's basically all they talk about. It's important. - Cody

As discussed in the theory chapter (see chapter 3.8.5), rephotography can also be implemented to convey human history and other cultural remains. Drew suggested that rephotography is currently being utilized by one of the tour operators in Longyearbyen.

However, aside from that, rephotography does not appear to be utilized very much in the tourism sector on Svalbard to communicate cultural changes in the landscapes despite being addressed without rephotography by the majority of tours. Blake also suggested that rephotography was being used by the governor to depict erosion over time where they can communicate climate change issues that are occurring at cultural sites where they said “The governor has taken cabins and moved them like at Fredheim [cabin of Norwegian trapper Hilmar Nøis] for instance they used rephotography to communicate the effects of climate change at Fredheim... they use it as an example of soil erosion”. As part of a place-responsive pedagogy, guides could be using rephotography to depict how cultural sites are being affected by the changing climate through examples like Fredheim.

5 Discussion chapter

In this chapter I address a place-responsive pedagogy within the paradox of tourism on Svalbard and through the perception of sustainable tourism. I consider rephotography being presented in a representative manner in the context of surging glaciers and ways to improve the tourism sector with data from my informants. I discuss the role time plays in shaping experiences and whose stories are being addressed and whose are being suppressed. I address inaccuracies told by guides. Lastly, I address concerns with representing cultural heritage and other elements of the guide role such as safety concerns.

5.1 Implementing a place-responsive pedagogy despite the paradox of tourism on Svalbard

Policy on Svalbard is shaped by different ministries which have conflicting interests, particularly when it comes to wilderness preservation and commercial activities such as tourism. National Norwegian policy aims to develop Svalbard as one of the world’s best managed wilderness areas, where conservation interests are prioritized over commercial interests (Hovelsrud et al., 2023). However, tourism remains one of the three economic pillars on Svalbard alongside education and research (Hovelsrud et al., 2020), and the Norwegian government encourages tourism while also restricting it (Hovelsrud et al., 2023). It appears the tourism sector will prevail despite increased restrictions in the future.

Avery addresses the paradox of tourism on Svalbard, stating “The Arctic is threatened by climate change, but we still keep selling tourist activities to the Arctic that fuel these changes. I think that’s a dilemma that should be communicated more”.

Despite this paradox, it is worthwhile to inquire whether the implementation of a place-responsive pedagogy has merit as part of a guiding framework for guides to follow on Svalbard. As long as tourism exists on Svalbard, addressing cultural and climatic changes could potentially lead to a form of sustainable tourism from an environmental perspective where tourists can learn how Svalbard is being affected through local examples and come to global understandings.

5.2 Svalbard: a sustainable tourism destination?

My informants were critical towards the sustainability label awarded to Visit Svalbard after asking if the label was a form of greenwashing (see chapter 4.6). Hovelsrud et al. (2023) ask a good question in regard to sustainable tourism, “Sustainability of what and for whom?” (p.100). As mentioned, the World Tourism Organization [WTO] defines sustainable tourism as taking “full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and the host communities” (United Nations, n.d.). Limiting large cruise ships will have sustainable benefits for the environment but will impact the socio-economic benefits of businesses in Longyearbyen, which counteracts the policy goal of sustainable tourism as an economic pillar on Svalbard (Hovelsrud et al., 2023). As mentioned, there are expected to be more tourists than ever visiting Svalbard in 2023 (R. Brunvoll, personal communication, March 3rd, 2023), and there is currently no standard guiding framework in place to manage these tourists who are travelling up to Svalbard. I feel that it is doubtful that the tourism sector is taking “full account of its current and future economic, social, and environmental impacts” and whether the needs of “visitors, the industry, the environment, and the host communities” (United Nations, n.d.), are being addressed as well as they could be.

As mentioned earlier, Longyearbyen’s energy plant still runs on coal, ships receive goods and send waste back to mainland Europe via ships, and the majority of people who travel

to Svalbard arrive via airplane or cruise ship. Herein lies a paradox where Visit Svalbard, which is not necessarily sustainable can attain the sustainability label as long as they “commit to focus on sustainability” (Visit Svalbard, n.d.-b) in the future, while having affiliate members who are not practicing sustainably as mentioned by Eli (see chapter 4.6).

5.3 Representative climate change in the context of Surging glaciers.

When applying rephotography as part of a place-responsive pedagogy to communicate climate change in the Arctic, one must be careful when depicting surging glaciers or glaciers that have recently surged. Surging is a phenomenon which could depict a glacier in a manner that is not representative of the timespan in which photographs have been taken if used in a rephotography setting. In short, surging is typically a short-lived event where a glacier moves faster than its normal rate (Meier & Post, 1969). A surge can occur when meltwater accumulates at the base of a glacier, where water provides lubrication that quickens the flow of a glacier. Sevestre et al. (2015) found that three types of glaciers have moved from slow to fast flow on Svalbard: (1) small glaciers that underwent thermal cycles [switches between cold and warm based conditions] during the Little Ice Age, which lasted from the 14th-19th century (Martín-Moreno & Allende Álvarez, 2016), (2) large terrestrial glaciers which have remained warm during the entire surge cycle but develop cold termini during quiescence [a quiet phase], and (3) large tidewater glaciers that remain warm based throughout the surge cycle. Sevestre et al. (2015) apply the concept of enthalpy cycling which is the internal energy of a glacier system, a function of ice temperature and water content (Aschwanden et al., 2012) to explain surging glaciers on Svalbard. Enthalpy cycles are climatically induced, meaning that an increase of precipitation [snow or rain] accumulation and refreezing in the firn area [area between snow and glacial ice], which increases enthalpy inside the glacier leading to more meltwater which can lead to surging (Sevestre et al., 2015). Enthalpy cycles are indicators of climate, but not necessarily contemporary climate change, since the glaciers have been surging prior to industrial carbon dioxide levels (Sevestre et al., 2015).

One must be careful not to portray glaciers which have surged when narrating the effects of climate change because the results may not be indicative of the reality of a glacier, especially if represented through photography. Eli was concerned that rephotography could be used in a way which pushes a narrative that is distorting the reality of climate change, where they alluded to surging glaciers as an example stating:

It's important that you are reflecting upon other things as well and not using this as the one evidence that show that climate change is going on because, of course I know as well that it is a lot of changes the last 30 years but it is too easy to be questioned if you only use that... you know surging glaciers right? You can take a picture of this surging glacier, and then you can take the same pictures 10 years after you can say, oh, look here, climate change. - Eli

If a narrative is given, it should be communicated to the viewer that a glacier depicted in a rephotography example features a glacier that had recently surged and that surging glaciers are more complex than a photograph would make it appear. An example of rephotography I want to criticize, is the example of Blomstrandbreen glacier named after Christian Wilhelm Blomstrand (Norwegian Polar Institute, 2003) where Christian Åslund/Greenpeace conducted rephotography in the summer of 2002 of a photograph which had been originally taken in taken in 1918 by Sigvald Moa (see figure 3 and 4). I take issue with this specific example because Blomstrandbreen has surged likely four times: 1966, 2008, 2016 and one inferred surge between 1911-1928 (Burton et al., 2016; Sund & Eiken, 2010; E.S. Mannerfelt, personal communication, April 24, 2023), which makes it the glacier with the second most recorded surges on Svalbard after Tunabreen (E.S. Mannerfelt, personal communication April 24, 2023). Using surging glaciers in rephotography to depict climate change is problematic as it can take decades for glaciers to retreat back to their nominal length (E.S. Mannerfelt, personal communication April 24, 2023). Therefore, rephotography images could be misrepresenting the reality of a specific glacier. I also take issue with the rephotography examples conducted by Åslund/Greenpeace of Blomstrandbreen as they lack the same focal point which is integral to the rephotography process. In the examples of Blomstrandbreen, the highpoints of the mountains appear aligned; however, the proximity between the vantage points of the 1918

and 2002 images are nearly impossible to determine. There are two different accounts of rephotography from Åslund/Greenpeace, which both depict Blomstrandbreen from 2002, where the two rephotography examples have been taken from different positions in the fjord [2002a and 2002b]; however, both have been paired with the 1918 historical photograph from NPI. Åslund/Greenpeace's 2002 rephotography account of the 1918 historical image of Blomstrandbreen is perhaps one of the most recurring examples of

Figure 3: Blomstrandbreen 1918 compared to 2002a. Sigvald Moa, Norwegian Polar Institute, and Christian Åslund, Greenpeace



Note. Blomstrandbreen is depicted as image 2 of 7 under the heading Glacier comparison-Svalbard from the website: <https://www.christianaslund.com/glacier-retreat>

Figure 4: Blomstrandbreen 1918 compared to 2002b. Sigvald Moa, Norwegian Polar Institute, and Christian Åslund, Greenpeace



Note. Obtained from NPI with permission

rephotography on Svalbard at least from what I have seen online. Among the two examples of rephotography conducted by Åslund/Greenpeace of Blomstrandbreen in 2002 the more widespread image is the one which depicts starker changes in the landscape

(see figure 3), whereas the other example (see figure 4) is depicted much more seldomly which warrants criticism.

In regard to the Gravnesbreen, the glacier used in this research project to depict an example of rephotography, there is no account of the glacier surging, where if it had, the disparity between the historical and the modern images could have been misrepresenting reality. As mentioned, I chose a climatic and cultural example of rephotography for this research project. In terms of providing credible portrayals of rephotography on Svalbard, what is needed is a larger quantity of rephotography examples which are all telling the same story. And although the story is in fact true that climate change is affecting Svalbard quite severely, critics can exploit inconsistencies in rephotography examples which do not represent the facts and instead are promoting a flawed narrative, such as what has been depicted in the example of Åslund/Greenpeace's images from Blomstrandbreen in 2002. If rephotography examples are implemented as part of a place-responsive pedagogy which are flawed, the credibility as to whether rephotography can be implemented to communicate cultural and climatic changes will be questioned. External to this research project, I am trying to address this issue by accumulating rephotography examples which reflect the changes occurring on Svalbard. My hopes are to cover enough glaciers so we can identify the outliers. I am working in collaboration with Erik Schytt Mannerfelt on this project, and our work can be found at our temporary website:

(<https://svalbard.schyttholmlund.com/?overlay=Retaken+photographs>)

5.4 Ways to improve tourism sector on Svalbard

While considering the wealth of experience that my informants have in regard to the tourism sector on Svalbard, I asked them about ways the tourism sector could improve on Svalbard as part of my interview, and Forest said, "I want it to be communicated in a better way and a more understandable way. So tourists who are actually coming here, not only see the pretty glaciers and hear about them melting, but actually understand why they're melting and the consequences". Forest's desire to have improved communication in regard to climatic change suggests an environmental type of sustainable tourism. Through a place-responsive pedagogy, communication of climatic change could be improved, but

an important consideration is how the guide training informs this communication. Cody suggested taking advantage of infrastructure which already exists in Longyearbyen, saying: “We have the Norwegian Polar Institute here in town and UNIS. They are already experts, and I know some companies have hired them for lectures and also on their guide seminars”. An issue which concerns guide training on Svalbard currently is that different companies have different budgets to have guest speakers who have expertise on specific topics of interest. Cody suggested that informative lectures could be incorporated as part of the annual Sysselimesteren’s Timer [hour with the governor], where the intention is to meet with guides and have presentations from different departments of the governor’s office on Svalbard (Governor of Svalbard, 2023.). I think this would be a good step towards addressing both environmentally sustainable tourism, as well as guide training. An issue I foresee however, is that the Sysselimesteren’s Timer only occurs once a year during the winter season and lasts for approximately 2 hours where only a fraction of guides who work on Svalbard could be in attendance.

5.5 Time considerations

In Wattchow and Brown’s (2011) Signpost *being present in and with a place*, they speak of the importance of taking time in and with places rather than rushing through them. As mentioned, the average time that tourists spend on overnight stays in Longyearbyen was 2.5 days (Governor of Svalbard, 2006). Perhaps a weakness in the application of a place-responsive pedagogy to the tourism sector on Svalbard is the reliance on time where the relationship between the amount of time tourists spend in a place affects the extent of how one experiences and connects to the places they visit. However, time is a difficult construct to gauge; where despite tourists spending a short amount of time overnighing in Longyearbyen on average, the time they spent could have resulted in rich and meaningful engagement in the places they visited. Another consideration involves the aspect of time represented through rephotography, where places are depicted in different periods and address how landscapes have looked in different periods of time. Perhaps rephotography as part of a place-responsive pedagogy provides a compromise. Where the construct of time is experienced in a dynamic manner where tourists’ visual input depicted in

rephotography images under different time periods enables them to sufficiently experience a place despite physically being in a location for a limited amount of time.

5.6 Whose story is being addressed?

Guides/educators need to be aware of which stories are being told when communicating a place and which stories are not being addressed. When depicting the Virgohamna rephotography example, Blake stated, “I guess not all will understand the same thing from the picture, for instance, from Virgohamna. But you can at least have some sort of interpretation. But if it's the right interpretation, that's another question”. Blake makes a good point in asking whether one's interpretation is the correct one. A place-responsive pedagogy can be applied to inform guide training where the guide's critical capabilities can be engaged when considering which stories to include or exclude. Cronon (1992) adds to this notion where they say that stories are an expression of power where they “inevitably sanction some voices while silencing others” (p.1350).

5.7 Inaccuracies from guides when storytelling

Without the establishment of a standard for guides on Svalbard there will continue to exist a disparity between the quality of guides that tourists will encounter when visiting places. An issue that I have witnessed and have heard from my informants is that sometimes guides makeup stories that are both factually incorrect or misleading, which is problematic. Blake has experienced this issue, stating “we know that some guides, at least new guides, tend to create their own history”. Drew also shed light on this issue stating that “The problem with the guides that are usually newer is that they are just guessing instead of reading up and learning so yeah it could be a fact that they're telling but it could just be their opinion”. Drew also shared a bizarre situation they encountered when they started guiding saying:

I went on a trip with another [experienced] guide, and he told me a story about the cabin fire. And then I had a future trip. I didn't tell people about that place because I had no clue. And then I went with a different [experienced] guide four or five days later, and he told me another story about something different. And the funny thing is

that none of them were true. So it's just like people spread these urban legends, and they just spread to newer guides, and they add to them. - Drew

I experienced a similar situation as Drew where I was guiding alongside a more experienced guide who shared a story with some exaggerated details, which I perceived at face value. I later shared the story with different guests, where a different more experienced guide corrected me. When I asked the original guide who told me the story where they got their figures from, they informed me that they had heard it from someone else. The implementation of a guide standard could potentially play a role in lessening the amount of hearsay which reaches guests' ears on Svalbard. Perhaps a place-responsive pedagogy could improve the accountability of guides when telling stories.

5.8 Cultural heritage considerations

Within the tourism sector on Svalbard there exists a dilemma which must be addressed. As part of a place-responsive pedagogy, cultural heritage can add tremendous value in communicating places on Svalbard from an array of different perspectives. Blake stated, “[cultural heritage] was an interesting Svalbard thing, but I think it's a good thing. leave it on [Svalbard]. It has a story”. For the most part, I agree with Blake’s statement that cultural heritage has implicit value and can be used to communicate places. However, in some cases, it is difficult to discern between cultural heritage that serves as important cultural communicators and cultural heritage which is neglected bits of garbage that pose a threat to wildlife. Forest provides an example of a coal mine explosion in Ny-Ålesund, stating “What's left there is just shocking. And if you took a photo of it and showed it to anyone, they would not believe it was cultural heritage”. Forest addresses an

Figure 5: Reindeer carcass found entangled in wire [cultural heritage]. Trine Lise Sviggum Helgerud, Norwegian Polar Institute.



important issue where cultural heritage, in some cases, could be glorified trash which has failed to be cleaned up and is now protected by law. I also understand the concerns where tourists have looted cultural heritage sites in the past, thus deteriorating valuable cultural sites. However, there is a dark reality which needs to be addressed where wildlife such as reindeer have become entangled in cultural heritage and have died as a result. The framework that emerges in the tourism sector, whether it be a place-responsive pedagogy or not, should consider measures to remove cultural heritage that threatens wildlife.

5.9 Guide safety training

I have failed to address the safety aspect of guiding, which plays a very important part of the guiding role. Within the frameworks which exist today the safety aspect of guiding is an integral part of preparing guides for working in the tourism sector. Polar Bears which inhabit Svalbard contribute to the necessity to have safety training in order to enable tourists to experience places on Svalbard in a safe manner. Approximately 60% of the entire Svalbard archipelago is glaciated (König et al. 2014), where guides must account for the safety of their guests when conducting activities in glaciated terrain, especially when considering crevasses. Other safety considerations that guides in tourism work with include: working in Arctic conditions, traveling over sea ice, and working with the search and rescue services, among others. I support the inclusion of safety courses as a part of a guiding framework on Svalbard, despite not addressing it as part of a place-responsive pedagogy.

5.10 Can a place-responsive pedagogy inform guide training on Svalbard, according to my informants?

The concept behind a place-responsive pedagogy has been developed to give a philosophical and pedagogical foundation about place, which can be implemented to inform guide training on Svalbard. The 4 Signposts, which comprise a place-responsive pedagogy, can enable guides to engage with tourists in places and shape their experiences as illustrated in the Analysis chapter. Signpost 1 *being present in and with a place* can be utilised to attend to meaningful features, which increase our awareness of a place, as depicted by Eli (see chapter 4.2). Signpost 2 *the power of place-based stories*

and narratives can be employed to understand cultural meanings through storytelling on Svalbard, as indicated by Avery (see chapter 4.3). Signpost 3 *apprenticing ourselves to outdoor places* can be applied by guides to shape tourists' experiences by attending to embodied encounters with places and coming to know places by engaging with different cultural knowledge systems as described by Avery (see chapter 4.4). Signpost 4 *the representation of place experiences* has application to inform guide training on Svalbard by developing learners' critical capacities in interpreting how places have been represented in cultural media. Eli addresses what this looks like in practice where they said:

You have to attract their [people's] attention to things in the landscape, in the surroundings that can tell them about the climate changes, what has been done to the landscape, to the wildlife, and things like that. And also what it does to the infrastructure in town and things like that - Eli (see chapter 4.5)

Rephotography also has application as part of a place-responsive pedagogy and can be utilised as a tool to inform guide training, according to my informants. A place-responsive pedagogy can potentially inform guide education through environmental stewardship, where guides can inform tourists of issues such as climate change through local examples which, results in global understandings. A place-responsive pedagogy can improve the communication of climate change on Svalbard as well as build upon the already established communication of cultural aspects which exist in the tourism sector on Svalbard today. In addition, a place-responsive pedagogy can inform guide training by perhaps playing a role in limiting the issue of guides making up stories, as well as having tourists' critical capabilities engaged through consciously depicting whose stories are being told when in places and whose are not.

5.11 Could a place-responsive pedagogy contribute towards sustainable tourism on Svalbard?

Andersen (2022) found that guides on Svalbard find themselves in a paradox: their work destroys the nature that they care about and depend on. To navigate this, they engage in pro-environmental practices despite working in tourism which contributes to climate

change. This reflects what some of the guides I talked to expressed. Eli stated that the natural landscape made them concerned with the protection of Svalbard. Avery felt it was important to communicate the vulnerability of the landscapes on Svalbard. These examples point to the notion expressed by the guides that communicating the vulnerability of the landscape can be a way of contributing to its protection. This reflects similar findings from Andersen (2022), who found that guides in Svalbard tourism attempt to communicate and role-model sustainability through their guiding (p.7). My informants have expressed that integrating place-responsiveness as a part of their guiding can contribute to an increase of environmental awareness in the tourism sector. Therefore reflecting elements of a place-responsive pedagogy that could be a framework for enhancing these attitudes. Rephotography implemented as part of a place-responsive pedagogy can also play a contributing role towards the environmental aspect of sustainable tourism, where changes in the landscape can be visually understood and emotions are evoked as advocated by Cody (see 3.8.3).

6 Conclusion

In response to an absence of a standardized framework for guides within the tourism sector on Svalbard I have argued for the implementation of a place-responsive pedagogy. More specifically, this research project has been guided by the following research questions:

- To what extent can elements of a place-responsive pedagogy be identified in the tourism sector on Svalbard?
- How can rephotography be implemented as part of a place-responsive pedagogy to communicate cultural and climatic changes on Svalbard?

The purpose of investigating these questions was to assess the viability of how a place-responsive pedagogy could contribute towards guiding the future of the tourism sector on Svalbard. A place-responsive pedagogy has been considered as a theoretical underpinning which provides a framework for guides which can shape how tourists

experience the places they encounter when travelling to Svalbard. I have adapted Wattchow and Brown's (2011) place-responsive pedagogy from their intended application which was an alternative form of outdoor education, to an application in the tourism sector on Svalbard. In addition, rephotography theory was applied in the context of place theory, where the visual process was able to be applied as part of a place-responsive pedagogy. Originally, I wanted to include two more research questions which included:

- How can a place-responsive pedagogy inform guide training on Svalbard?
- How could a place-responsive pedagogy contribute towards sustainable tourism on Svalbard?

Ultimately my data was not strong enough to answer either of these questions in a practical sense, where I addressed both of these questions in more of a theoretical sense in my discussion chapter instead.

6.1 To what extent can elements of a place-responsive pedagogy be identified in the tourism sector on Svalbard?

My findings suggest that elements of a place-responsive pedagogy already exist on Svalbard. However, my findings also suggest that tourism on Svalbard is a spectrum where the tourism sector could benefit from the implementation of a place-responsive pedagogy as a standardized framework. Eli demonstrated Signpost 1 *being present in and with a place* through their personal guiding approach which elicited curiosity and a sense of wonder through a mindful approach where they said they "like to make my [their] guests wondering about what they see" and that they would guide in the same way as if they were with their kids or friends. However, Eli also suggested that some tour operators were making guides conduct trips in a manner which was not place-responsive, where they had pre-emptive stops and stories to discuss where they did not look for interesting things in the landscapes. In Signpost 2 *the power of place-based stories and narratives*, my informants suggested that storytelling is present in the tourism sector on Svalbard. They suggested that storytelling was important and that telling stories passionately and with enthusiasm is a key factor in telling stories successfully and communicating places.

Wattchow and Brown's (2011) idea that guides/educators do not need to be experts in everything, but through a natural inquisitiveness they can engage meaningfully with tourists/students also became apparent through a dialogue with my informants. However, Eli criticized the over usage of storytelling they had experienced many times by guides where the use of storytelling was being overused and acted as a mechanical tool which created an artificial atmosphere with groups of tourists. Eli instead advocated for a balance where stories could still be told; however, letting a group enjoy a place without a constant stream of stories should be considered. In Signpost 3 *apprenticing ourselves to outdoor places* my informants shared embodied experiences from personal accounts, which suggests that elements of a place-responsive pedagogy already exist on Svalbard. Informants spoke of identifying a place through knowing the history where the cultural systems were embedded, as well as a connection to the natural landscape, where both shaped one's attachment to places on Svalbard. In Signpost 4 *the representation of place experiences*, Eli suggested how tourists can have their critical capabilities engaged, which indicates that some elements of a place-responsive pedagogy are already incorporated in the tourism sector on Svalbard. However, discussed in both Signpost 4 and in the discussion chapter, guides sometimes tell stories which are not grounded in reality where they are making things up which is problematic, where false narratives can mislead tourists and affect how they interact with a place.

6.2 How can rephotography be implemented as part of a place-responsive pedagogy to communicate cultural and climatic changes on Svalbard?

Findings from my informants suggest that rephotography can be implemented as part of a place-responsive pedagogy in a variety of ways. Informants indicated that rephotography can be used to help one *being present in and with a place* where the visual aspect of both cultural and climatic examples of rephotography can enable one to see how a landscape has changed over time. Informants also suggested that contextualized accounts of rephotography can heighten how one experiences places both on Svalbard. In Signpost 2 *the power of place-based stories and narratives*, informants suggested that rephotography could help communicate the storytelling of the history of Svalbard. Informants also

suggested that rephotography could help communicate stories which depict climate change on Svalbard, even more so when conducted in a contextualized manner. In Signpost 3 *apprenticing ourselves to outdoor places*, Forest indicated that rephotography could make a bigger impact in experiencing a place which could lead to an emotional bond to the landscape one immerses themselves in. Cody also indicated that rephotography could evoke one's emotions and make one feel more in a place. In Signpost 4 *the representation of place experiences*, I built upon Forest's call for improved communication of scientific research in regard to climate change by advocating that rephotography could be combined in a larger capacity to contribute towards disseminating changes to a wider audience. Informants also suggested that rephotography could be used to change policies as politicians are affected the same way as a tourist would be. Avery suggested that rephotography can be used to communicate changes in landscapes even when a language barrier exists. As addressed in the Discussion chapter (see chapter 5.3), one must be cautious not to depict distorted examples of rephotography such as images which depict surging glaciers.

7 References

- Adobe. (n.d.). *What is bracketing in photography*. Retrieved March 20, 2023, from <https://www.adobe.com/creativecloud/photography/hub/guides/what-is-bracketing-in-photography>
- Andersen, T. C. B. (2022). Negotiating trade-offs between the environment, sustainability and mass tourism amongst guides on Svalbard. *Polar Record*, 58, e9. <https://doi.org/10.1017/S0032247422000080>
- Arlov, T. B. (2005). The Discovery and Early Exploitation of Svalbard. Some Historiographical Notes. *Acta Borealia*, 22(1), 3–19. <https://doi.org/10.1080/08003830510020343>
- Aschwanden, A., Bueler, E., Khroulev, C., & Blatter, H. (2012). An enthalpy formulation for glaciers and ice sheets. *Journal of Glaciology*, 58(209), 441–457. <https://doi.org/10.3189/2012JoG11J088>
- Åslund, C. (2002). *Glacier Comparison on Svalbard, Climate Change*. <http://www.christian.se/global-warming-retreating-glaciers>
- Baker, M. (2005). Landfullness in Adventure-Based Programming: Promoting Reconnection to the Land. *Journal of Experiential Education*, 27(3), 267–276. <https://doi.org/10.1177/105382590502700306>
- Banks, M., & Zeitlyn, D. (2015). Research Strategies. In *Visual Methods in Social Research* (Second edition). SAGE Publications Ltd.
- Barthes, R. (1982). *Camera Lucida: Reflections on Photography* (5245th edition). Hill & Wang Pub.
- Bass, J. (2004). More trees in the tropics. *Area*, 36, 19–32. <https://doi.org/10.1111/j.0004-0894.2004.00325.x>

- Beredskapsdepartementet, J. (2020, January 14). *Regjeringen vil ha sertifiserte guider på Svalbard* [Pressemelding]. Regjeringen.no; regjeringen.no.
<https://www.regjeringen.no/no/dokumentarkiv/regjeringen-solberg/aktuelt-regjeringen-solberg/jd/pressemeldinger/2020/regjeringen-vil-ha-sertifiserte-guider-pa-svalbard/id2685318/>
- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234.
<https://doi.org/10.1177/1468794112468475>
- Boyer, D. E., Webb, R., & Turner, R. M. (2010). Techniques of matching and archiving repeat photography used in the desert laboratory collection. In *Repeat Photography: Methods and Applications in the Natural Sciences*.
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597.
<https://doi.org/10.1080/2159676X.2019.1628806>
- Braun, V., & Clarke, V. (2021). *Thematic Analysis: A Practical Guide*. SAGE.
- Braun, V., Clarke, V., & Weate, P. (2016). Using thematic analysis in sport and exercise research. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (0 ed.). Routledge.
<https://doi.org/10.4324/9781315762012>
- Brinkmann, S. (2013). *Qualitative Interviewing*. Oxford University Press.
<https://doi.org/10.1093/acprof:osobl/9780199861392.001.0001>
- Brinkmann, S., & Kvale, S. (2014). *InterViews: Learning the Craft of Qualitative Research Interviewing* (Third edition). SAGE Publications, Inc.

- Burke, S. M. (2016). Rethinking 'validity and "trustworthiness" in qualitative inquiry. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (0 ed.). Routledge. <https://doi.org/10.4324/9781315762012>
- Burton, D. J., Dowdeswell, J. A., Hogan, K. A., & Noormets, R. (2016). Marginal Fluctuations of a Svalbard Surge-Type Tidewater Glacier, Blomstrandbreen, Since the Little Ice Age: A Record of Three Surges. *Arctic, Antarctic, and Alpine Research*, *48*(2), 411–426. <https://doi.org/10.1657/AAAR0014-094>
- Cameron, J. (2001). *Beyond dualism: Wilderness, outdoor education and everyday places*. 27–32.
- Capelotti, P. J. (2021). *The Coldest Coast: The 1873 Leigh Smith Expedition to Svalbard in the Diaries and Photographs of Herbert Chermiside*. Springer Nature.
- Chapter 1: Introduction a brief history of repeat photography. (2010). In R. Webb, D. E. Boyer, & R. M. Turner, *Repeat Photography: Methods and Applications in the Natural Sciences*.
- Choe, Y.-H., Kim, M., & Lee, Y. K. (2021). Distinct Microbial Communities in Adjacent Rock and Soil Substrates on a High Arctic Polar Desert. *Frontiers in Microbiology*, *11*. <https://www.frontiersin.org/articles/10.3389/fmicb.2020.607396>
- Cronon, W. (1992). A Place for Stories: Nature, History, and Narrative. *The Journal of American History*, *78*(4), 1347–1376. <https://doi.org/10.2307/2079346>
- Demuth, C. (2015). "Slow Food" Post-qualitative research in psychology: Old craft skills in new disguise? *Integrative Psychological & Behavioral Science*, *49*, 207–215. <https://doi.org/10.1007/s12124-015-9304-8>
- Denzin, N., & Lincoln, Y. S. (1994). Introduction: Entering the Field of Qualitative Research. In *Handbook of Qualitative Research*. SAGE Publications, Inc.

- Descamps, S., Aars, J., Fuglei, E., Kovacs, K. M., Lydersen, C., Pavlova, O., Pedersen, Å. Ø., Ravolainen, V., & Strøm, H. (2017). Climate change impacts on wildlife in a High Arctic archipelago – Svalbard, Norway. *Global Change Biology*, 23(2), 490–502. <https://doi.org/10.1111/gcb.13381>
- Eiter, S., Fjellstad, W., Puschmann, O., & Krøgli, S. O. (2019). Long-Term Monitoring of Protected Cultural Heritage Environments in Norway: Development of Methods and First-Time Application. *Land*, 8(5), Article 5. <https://doi.org/10.3390/land8050075>
- Elliott, R., Fischer, C. T., & Rennie, D. L. (1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology*, 38(3), 215–229. <https://doi.org/10.1348/014466599162782>
- Elvevold, S., Blomeier, D., & Dallmann, W. K. (2007). *Geology of Svalbard*. Norsk polarinstitutt.
- Ferrarotti, F. (1993). Culture and Photography: Reading Sociology through a Lens. *International Journal of Politics, Culture, and Society*, 7(1), 75–95.
- Finn, J., Fernandez, A., Sutton, L., Arreola, D. D., Allen, C. D., & Smith, C. (2009). Puerto PEÑAsco: Fishing Village To Tourist Mecca. *Geographical Review*, 99(4), 575–597. <https://doi.org/10.1111/j.1931-0846.2009.tb00448.x>
- Gergen, K. (2014). Pursuing excellence in qualitative inquiry. *Qualitative Psychology*, 1, 49. <https://doi.org/10.1037/qup0000002>
- Gough, B., & Madill, A. (2012). Subjectivity in psychological science: From problem to prospect. *Psychological Methods*, 17(3) 374-384., Gough, B., Madill, A. (2012). <https://pubmed.ncbi.nlm.nih.gov/22799622/>

- Governor of Svalbard. (n.d.). *Cultural heritage management*. Governor of Svalbard.
Retrieved April 18, 2023, from <https://www.sysselmesteren.no/en/the-governor-of-svalbard/environmental-protection/cultural-heritage-management/>
- Governor of Svalbard. (2006). Tourist Statistics for Svalbard. *Longyearbyen: Governor of Svalbard*.
- Governor of Svalbard. (2023). *Sysselmesterens time 2023*.
<https://www.sysselmesteren.no/en/news/2023/03/sysselmesterens-time-2023/>
- Gray, L., Wong-Wylie, G., Rempel, G., & Cook, K. (2020). Expanding Qualitative Research Interviewing Strategies: Zoom Video Communications. *The Qualitative Report*, 25(5), 1292–1301. <https://doi.org/10.46743/2160-3715/2020.4212>
- Gruenewald, D. A. (2003a). Foundations of Place: A Multidisciplinary Framework for Place-Conscious Education. *American Educational Research Journal*, 40(3), 619–654. <https://doi.org/10.3102/00028312040003619>
- Gruenewald, D. A. (2003b). The Best of Both Worlds: A Critical Pedagogy of Place. *Educational Researcher*, 32(4), 3–12. <https://doi.org/10.3102/0013189X032004003>
- Haartsen, T., & Hacquebord, L. (1996). 400th anniversary of the discovery of Spitsbergen by the Dutch explorer Willem Barentsz. *EPRINTS-BOOK-TITLE*.
- Hager, J. (2020, June 15). *Nine tons of improperly disposed trash in Longyearbyen*. Polarjournal. <https://polarjournal.ch/en/2020/06/15/nine-tons-of-improperly-disposed-trash-in-longyearbyen/>
- Hammond, M. (2017). *Ontology*.
<https://warwick.ac.uk/fac/soc/ces/research/current/socialtheory/maps/ology/>
- Handley, W. R. (2019). Re-Viewing Western U.S. Rephotography in the Anthropocene. *KronoScope*, 19(2), 153–187. <https://doi.org/10.1163/15685241-12341441>

- Hastings, J. R., & Turner, R. M. (1965). *The changing mile: An ecological study of vegetation change with time in the lower mile of an arid and semiarid region*. Tucson: University of Arizona press.
<https://www.cabdirect.org/cabdirect/abstract/19670700517>
- Hay, P. (2003). 'Writing place: Unpacking an exhibition catalogue essay.' In *Changing places: Re-Imagining Australia* (pp. 272–285). Double bay: Longeville Books.
- Hoel, A. (1929). *The Norwegian Svalbard expeditions: 1906-1926*. DEN NORSKE STATS BEKOSTNING VED SPITSBERGEN KOMITEEN. <https://brage.npolar.no/npolar-xmlui/bitstream/handle/11250/173618/Skrifter001.pdf?sequence=1&isAllowed=y&fbclid=IwAR2V5XNsgkdQ6qANqU-XBusSMf3rvWP6nzWqYrrq2HMWNsm88D6PAhPvGjl>
- Holm, A. (2019, March 24). *100 måneder med temperatur over normalen på Svalbard*. Meteorologisk institutt. <https://www.met.no/nyhetsarkiv/100-maneder-med-temperatur-over-normalen-pa-svalbard>
- Hovelsrud, G. K., Kaltenborn, B. P., & Olsen, J. (2020). Svalbard in transition: Adaptation to cross-scale changes in Longyearbyen. *The Polar Journal*, 10(2), 420–442.
<https://doi.org/10.1080/2154896X.2020.1819016>
- Hovelsrud, G. K., Olsen, J., Nilsson, A. E., Kaltenborn, B., & Lebel, J. (2023). Managing Svalbard Tourism: Inconsistencies and Conflicts of Interest. *Arctic Review on Law and Politics*, 14, 86–106. <https://doi.org/10.23865/arctic.v14.5113>
- Hovelsrud, G., Veland, S., Kaltenborn, B., Olsen, J., & Dannevig, H. (2021). Sustainable Tourism in Svalbard: Balancing economic growth, sustainability, and environmental governance. *Polar Record*, 57. <https://doi.org/10.1017/S0032247421000668>

- Hyland, C. (2021, October 4). Deep in the Arctic, a town fights for zero emissions. *Wired UK*. <https://www.wired.co.uk/article/svalbard-energy>
- John Cameron. (2003a). *Responding to place in a post-colonial era: An Australian perspective* (pp. 172–196). Earthscan Publications.
- Jørgensen, F. (2023, March 1). *AECO's respons to Svalbardpostens article "Swarms of high-speed Zodiacs."* AECO. <https://www.aeco.no/2023/03/aecos-answer-to-svalbardpostens-article-swarms-of-high-speed-zodiacs/>
- Klett, M. (2010). Chapter 4 Three methods of presenting rephotography photographs. In *Repeat Photography: Methods and Applications in the Natural Sciences*.
- Klett, M. (2020). Rephotography in landscape research. In *Sage Research Methods—The SAGE Handbook of Visual Research Methods*.
<https://methods.sagepub.com/book/the-sage-handbook-of-visual-research-methods-2e>
- Klett, M., Bajakian, K., Fox, W. L., Marshall, M., Ueshina, T., & Wolfe, B. G. (2004). *Third Views, Second Sights: A Rephotographic Survey of the American West* (1st edition). Museum of New Mexico Press.
- Klett, M., Lundgren, M., Fradkin, P. L., Solnit, R., Breuer, K., & Calif., L. of H. (San F. (2006). *After the Ruins, 1906 and 2006: Rephotographing the San Francisco Earthquake and Fire*. University of California Press.
- Klett, M., Manchester, E., Verburg, J., Bushaw, G., & Dingus, R. (1990). *Second View: The Rephotographic Survey Project*. Univ of New Mexico Pr.
- Klett, M., & Martinsson, T. (2017). Environmental Rephotography. In *Humanities for the Environment (HfE): Integrating Knowledge, Forging New Constellations of Practice*. (1st ed.). Routledge.

- König, M., Nuth, C., Kohler, J., Moholdt, G., & Pettersen, R. (2014). A digital glacier database for svalbard. In J. S. Kargel, G. J. Leonard, M. P. Bishop, A. Kääb, & B. H. Raup (Eds.), *Global Land Ice Measurements from Space* (pp. 229–239). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-79818-7_10
- Krystad, T., & Pedersen, A.-J. (2022). *Revidert masterplan for Svalbard mot 2030 “Etter håndbok for reisemålsutvikling.”*
<https://en.visitsvalbard.com/dbimsgs/RevidertmasterplanSvalbard2mai2022.pdf>
- Lemmons, K. K., Brannstrom, C., & Hurd, D. (2014). Exposing students to repeat photography: Increasing cultural understanding on a short-term study abroad. *Journal of Geography in Higher Education*, 38(1), 86–105.
<https://doi.org/10.1080/03098265.2013.836745>
- Leopold, A. (1986). *A Sand County Almanac* (1st edition). Ballantine Books.
- Liljequist, G. H. (1993). *High Latitudes: A History of Swedish Polar Travels and Research*. Swedish Polar Research Secretariat in collaboration with Streiffert.
- Lopez, B. (1996). *A literature of place*. https://uwosh.edu/sirt/wp-content/uploads/sites/86/2020/04/Lopez_ALiteratureOfPlace.pdf
- Man, D., & Olchawa, R. (2018). The Possibilities of Using BCI Technology in Biomedical Engineering. In W. P. Huneck & S. Paszkiel (Eds.), *Biomedical Engineering and Neuroscience* (pp. 30–37). Springer International Publishing.
https://doi.org/10.1007/978-3-319-75025-5_4
- Mannion, G., Fenwick, A., & Lynch, J. (2013). Place-responsive pedagogy: Learning from teachers’ experiences of excursions in nature. *Environmental Education Research*, 19(6), 792–809. <https://doi.org/10.1080/13504622.2012.749980>
- Mannion, G., Fenwick, A., Nugent, C., & l’Anson, J. (2011). *Teaching in nature*.

- Markula, P., & Silk, M. (2011). *Qualitative Research for Physical Culture* (2011th edition). Palgrave Macmillan.
- Martinsson, T. (2015). *Tyrone Martinsson: Arctic Views - Passages In Time*. Art And Theory.
- Martinsson, T. (2022). *Extended ways of experiencing climate change* (pp. 77–91). <https://doi.org/10.4324/9781003293316-6>
- Mcleod, G., Hossler, T., Itälähti, M., & Martinsson, T. (2014). *Rephotographic Powers: Revisiting Rephotography at Photomedia 2014*. 44.
- Meier, M. F., & Post, A. (1969). What are glacier surges? *Canadian Journal of Earth Sciences*, 6(4), 807–817. <https://doi.org/10.1139/e69-081>
- Mikaels, J., & Asfeldt, M. (2017). Becoming-crocus, becoming-river, becoming-bear: A relational materialist exploration of place(s). *Journal of Outdoor and Environmental Education*, 20(2), 2–13. <https://doi.org/10.1007/BF03401009>
- Neuman, W. L. (2009). *Social Research Methods: Qualitative and Quantitative Approaches* (7th edition). Pearson.
- Norwegian Centre for Climate Services. (2019). *Climate in Svalbard 2100: A knowledgebase for climate adaptation*. <https://www.miljodirektoratet.no/globalassets/publikasjoner/M1242/M1242.pdf>
- Overrein, Ø., Henriksen, J., Johansen, B., & Prestvold, K. (2015). *Gravneset in Magdalenefjorden—The Cruise Handbook for Svalbard*. <https://cruise-handbook.npolar.no/en/nordvesthjornet/gravneset-in-magdalenefjorden.html>
- Palmer, C. (2016). Ethics in sport and exercise research: From research ethics to committees to ethics in the field. In B. Smith & A. C. Sparkes (Eds.), *Routledge*

Handbook of Qualitative Research in Sport and Exercise (0 ed.). Routledge.

<https://doi.org/10.4324/9781315762012>

Park, G. (1995). *Nga Uruora/the Groves of Life: The Groves of Life : Ecology and History in a New Zealand Landscape*. Victoria Univ Pr.

Pillai, R., Weisberg, P., & Lingua, E. (2005). *Object-oriented classification of repeat aerial photography for quantifying woodland expansion in central Nevada*.

Port of Longyearbyen. (2023). *Port Longyear – Ship arrivals at Port Longyear*. Arrival Port Longyear. <https://portlongyear.no/arrivals/>

Price, M. F. (Ed.). (1997). *People and Tourism in Fragile Environments* (1st edition). Wiley.

Raffan, J. (1992). *Frontier, Homeland and Sacred Space: A Collaborative Investigation into Cross-Cultural Perceptions of Place in the Thelon Game Sanctuary, Northwest Territories*. <https://eric.ed.gov/?id=ED356927>

Raffan, J. (1993). The Experience of Place: Exploring Land as Teacher. *Journal of Experiential Education*, 16(1), 39–45. <https://doi.org/10.1177/105382599301600109>

Relph, E. (1976). *Place and Placelessness* (1st edition). SAGE Publications Ltd.

Relph, E. (1992). Modernity and the reclamation of place. In *Dwelling, Seeing, and Designing: Toward a Phenomenological Ecology* (pp. 25–40). State University of New York Press: New York.

Rephotography for documenting social change. (2020). In J. H. Rieger, *The SAGE Handbook of Visual Research Methods*. SAGE Publications, Inc. <https://doi.org/10.4135/9781526417015>

Ronning, K. (2022). *AECO Rephotography presentation*.

Rose, G. (2006). *Visual Methodologies: An Introduction to the Interpretation of Visual Materials* (2nd edition). Sage Publications Ltd.

- Sabbatini, M. (2019, March 25). *'No other place in the world is warming up faster than Svalbard': March will be 100th straight month of above-average Svalbard temperatures, weather service says*. <https://icepeople.net/2019/03/25/no-other-place-in-the-world-is-warming-up-faster-than-svalbard-march-will-be-100th-straight-month-of-above-average-svalbard-temperatures-weather-service-says/>
- Sabbatini, M. (2021). *'(NEAR) RECORD NUMBER OF ANIMALS AND TWO CRUEL DEATHS': Annual Svalbard reindeer count shows Mother Nature was kind, but humans discarding steel wires were a fatal snag*. <https://icepeople.net/2021/07/20/near-record-number-of-animals-and-two-cruel-deaths-annual-svalbard-reindeer-count-shows-mother-nature-was-kind-but-humans-discarding-steel-wires-were-a-fatal-snag/>
- Saville, S. M. (2022). Valuing time: Tourism transitions in Svalbard. *Polar Record*, 58, e11. <https://doi.org/10.1017/S0032247422000055>
- Schwandt, T. A. (1997). *Qualitative Inquiry: A Dictionary of Terms*. SAGE Publications, Inc.
- Seale, C. (1999). Quality in Qualitative Research. *Qualitative Inquiry*, 5(4), 465–478. <https://doi.org/10.1177/107780049900500402>
- Seamon, D., & Mugerauer, R. (Eds.). (2000). *Dwelling, Place & Environment: Towards a Phenomenology of Person and World*. Krieger Pub Co.
- Sevestre, H., Benn, D. I., Hulton, N. R. J., & Bælum, K. (2015). Thermal structure of Svalbard glaciers and implications for thermal switch models of glacier surging. *Journal of Geophysical Research: Earth Surface*, 120(10), 2220–2236. <https://doi.org/10.1002/2015JF003517>
- Simons, H. (2009). *Case Study Research in Practice*. SAGE.

- Sinclair, P. (2002). *The Murray: A River and Its People* (First Edition). Melbourne University Publishing.
- Smith, B., & Caddick, N. (2012). Qualitative methods in sport: A concise overview for guiding social scientific sport research. *Asia Pacific Journal of Sport and Social Science*, 1(1), 60–73. <https://doi.org/10.1080/21640599.2012.701373>
- Smith, B., & Sparkes, A. C. (Eds.). (2016). Chapter 9 Interviews: Qualitative interviewing in the sport and exercise sciences. In *Routledge Handbook of Qualitative Research in Sport and Exercise* (0 ed.). Routledge. <https://doi.org/10.4324/9781315762012>
- Smith, G. A. (2014). *Place-Based Education in the Global Age: Local Diversity* (D. A. Gruenewald, Ed.; 1st edition). Routledge.
- Smith, T. (2007). Repeat Photography as a Method in Visual Anthropology. *Visual Anthropology*, 20(2/3), 179–200. <https://doi.org/10.1080/08949460601152815>
- Sokolickova, Z., Meyer, A., & Vlahov, A. V. (2022). Changing Svalbard: Tracing interrelated socio-economic and environmental change in remote Arctic settlements. *Polar Record*, 58, e23. <https://doi.org/10.1017/S0032247422000213>
- Somerville, M. J. (2010). A Place Pedagogy for 'Global Contemporaneity.' *Educational Philosophy and Theory*, 42(3), 326–344. <https://doi.org/10.1111/j.1469-5812.2008.00423.x>
- Sontag, S. (1977). *On Photography*. <https://www.amazon.com/Photography-Susan-Sontag/dp/0312420099>
- Sparkes, A. C., & Smith, B. (2009). Judging the quality of qualitative inquiry: Criteriology and relativism in action. *Psychology of Sport and Exercise*, 10(5), 491–497. <https://doi.org/10.1016/j.psychsport.2009.02.006>

- Sparkes, A. C., & Smith, B. (2013). *Qualitative Research Methods in Sport, Exercise and Health: From Process to Product*. Routledge.
<https://doi.org/10.4324/9780203852187>
- Stake, R. E. (1995). *The Art of Case Study Research*. Sage Publications.
- Statistics Norway. (2016). *This is Svalbard 2016—What the figures say*. Ssb.No.
<https://www.ssb.no/en/befolkning/artikler-og-publikasjoner/this-is-svalbard-2016>
- Statistics Norway. (2022). *Population of Svalbard*. SSB.
<https://www.ssb.no/en/befolkning/folketall/statistikk/befolkningen-pa-svalbard>
- Stewart, A. (2008). Whose place, whose history? Outdoor environmental education pedagogy as 'reading' the landscape. *Journal of Adventure Education & Outdoor Learning*, 8(2), 79–98. <https://doi.org/10.1080/14729670801906125>
- Stewart, A. (2020). *Developing Place-responsive Pedagogy in Outdoor Environmental Education: A Rhizomatic Curriculum Autobiography*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-40320-1>
- Sund, M., & Eiken, T. (2010). Recent surges on Blomstrandbreen, Comfortlessbreen and Nathorstbreen, Svalbard. *Journal of Glaciology*, 56(195), 182–184.
<https://doi.org/10.3189/002214310791190910>
- Sustainable Destination*. (n.d.). Visit Svalbard. Retrieved April 23, 2023, from <https://en.visitsvalbard.com/visitor-information/sustainable-destination>
- Sydnes, A. K., Sydnes, M., & Hamnevoll, H. (2021). Learning from crisis: The 2015 and 2017 avalanches in Longyearbyen. *Safety Science*, 134, 105045.
<https://doi.org/10.1016/j.ssci.2020.105045>
- The Governor of Svalbard. (2022). *Cruise tourism*. Environmental Monitoring of Svalbard and Jan Mayen MOSJ. <https://mosj.no/en/indikator/influence/traffic/cruise-tourism/>

- Thorpe, H., & Olive, R. (2016). Conducting observations in sport and exercise settings. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (0 ed.). Routledge. <https://doi.org/10.4324/9781315762012>
- Tongco, M. D. C. (2007). *Purposive Sampling as a Tool for Informant Selection*. <http://hdl.handle.net/10125/227>
- Tracy, S. J. (2019). *Qualitative Research Methods: Collecting Evidence, Crafting Analysis, Communicating Impact*. John Wiley & Sons.
- Tuan, Y.-F. (2001). *Space and Place: The Perspective of Experience* (Reprint edition). Univ Of Minnesota Press.
- United Nations. (n.d.). *Sustainable tourism | Department of Economic and Social Affairs*. Retrieved May 9, 2023, from <https://sdgs.un.org/topics/sustainable-tourism>
- University of Sheffield. (n.d.). *Epistemology*. Retrieved March 24, 2023, from <https://www.sheffield.ac.uk/philosophy/research/themes/epistemology>
- Viken, A. (2011). Tourism, research, and governance on Svalbard: A symbiotic relationship. *Polar Record*, 47, 335–347. <https://doi.org/10.1017/S0032247410000604>
- Visit Svalbard. (n.d.-a). *About Visit Svalbard*. Retrieved April 23, 2023, from <https://en.visitsvalbard.com/visitor-information/about-visit-svalbard>
- Visit Svalbard. (n.d.-b). *Activity Planner*. Visit Svalbard. Retrieved May 1, 2023, from <https://en.visitsvalbard.com/activity-planner>
- Visit Svalbard. (2019). *Svalbard Statistikken*. [https://www.visitsvalbard.com/dbimgs/%C3%85rsstatistikk2019_generell\(2\).pdf](https://www.visitsvalbard.com/dbimgs/%C3%85rsstatistikk2019_generell(2).pdf)

- Wang, T., Krøgli, I., Boje, S., & Colleuille, H. (2017). *Monitoring and forecasting local landslide hazard in the area of Longyearbyen, Svalbard—Early progress and experiences from the Autumn 2016 events.*
- Wattchow, B. (2021). Place-Responsiveness in Outdoor Environmental Education. In G. Thomas, J. Dymont, & H. Prince (Eds.), *Outdoor Environmental Education in Higher Education* (Vol. 9, pp. 101–110). Springer International Publishing.
https://doi.org/10.1007/978-3-030-75980-3_9
- Wattchow, B., & Brown, M. (2020). *A Pedagogy of Place: Outdoor Education for a Changing World.* Monash University. <https://doi.org/10.26180/5f3be12b9d719>
Wattchow—2021—Place-Responsiveness in Outdoor Environmental Educ.pdf. (n.d.).
- Webb, R., Boyer, D. E., & Turner, R. M. (2010). *Repeat Photography: Methods and Applications in the Natural Sciences.*
- Wiki Panotools. (2022). *Lens correction model—PanoTools.org Wiki.*
https://hugin.sourceforge.io/docs/manual/Lens_correction_model.html

8 List of figures

Figure 3: <i>Virgohamna 1896 compared to 2022</i>	28
Figure 4: <i>Gravneset 1873 compared to 2022</i>	29
Figure 3: <i>Blomstrandbreen 1918 compared to 2002a</i>	64
Figure 4: <i>Blomstrandbreen 1918 compared to 2002b</i>	64
Figure 5: <i>Reindeer carcass found entangled in wire [cultural heritage]</i>	68

9 Annexes

9.1 Information letter, including consent form



University of South-Eastern Norway
Nordic Master in Friluftsliv Studies
Master Thesis
Kristoffer Barrett Ronning

Are you interested in taking part in a research project?

“A qualitative case study with stakeholders in the tourism sector on Svalbard”.

This is an inquiry about participation in a research project where the main purpose is to find out more about: the state of the tourism sector on Svalbard. This letter will give you the purpose of the project and what to expect from you as a participant.

Purpose of the project

The purpose for this research project is to find out more about the state of the tourism sector on Svalbard and assess whether implementing a place-responsive pedagogy is a viable framework that addresses the unique and culturally rich places which are dispersed throughout the Svalbard archipelago. As you may know, currently there is no standard for guides on Svalbard although several frameworks exist. I am interested in gaining insight in regards to the tourism sector as well as hearing suggestions as to how the tourism sector can improve. The results of this project will be published in my masters thesis and potentially as well as an article later on.

Who is responsible for the research project?

The University of South-eastern Norway USN is the institution responsible for the project. My thesis is a part of the Nordic Friluftsliv masters program which additionally has a collaboration with the Swedish School of Sport and Health Sciences GIH, the Norwegian school of sport sciences NIH, Holar University in Iceland.

Why are you being asked to participate?

The sample population for this research project consists of stakeholders from the tourism sector where I have chosen informants who represent a diverse and experienced group of individual participants as part of a purposive sampling technique.

What does participation involve for you?

If you choose to participate in this project you would participate in a semi structured interview conducted with Zoom video conferencing. The interview will be recorded for transcription purposes and I will make notes during the interview. The duration will last approximately 1 hour and is flexible to cater to your schedule.

Participation is voluntary

Participation in the project is voluntary. If you choose to participate, you can withdraw your consent at any time without giving a reason. All information about you will be made anonymous. There will be no negative consequences for you if you choose not to participate or later decide to withdraw.

Your personal privacy- how we will store and use your personal data?

Your personal data will only be used for the purposes specified in this information letter. Your personal data will be processed with confidentiality and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

- Only my supervisor at USN and I will have access to your personal data.
- I will leave out any information from the thesis which could identify you where excerpts will instead be under an alias name.

What will happen to your personal data at the end of the research project?

The project is scheduled to end 15.05-2023 All raw data (recordings, emails, ect) will be deleted after my masters presentation by June 9th.

Your rights

So long as you can be identified in the collected data, you have the right to:

- Access the personal data that is being processed about you
- Request that your personal data is deleted
- Request that incorrect personal data about you is corrected/rectified
- Receive a copy of your personal data (data portability),
- Send a complaint to the Data protection officer of the Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?

We will process your personal data based on your consent.

Based on an agreement with the University of South-eastern Norway, Data Protection Services has been assessed that the processing of personal data in this project is in accordance with data protection legislation.

Where can I find out more?

If you have questions about the project, or want to exercise your rights, contact:
University of South-eastern Norway via

Tommy Langseth: Tommy.Langseth@usn.no +47 3595 2760.

Or Kristoffer Ronning: Kristofferonning@gmail.com +47 9481 5035

- Our Data Protection Officer: Paal Are Solberg: Paal.A.Solberg@usn.no
- Data protection services, by email, (personverntienster@sikt.no) or by phone: +47 5321 1500

Yours sincerely,

Project Leader
Tommy Langseth

Student
Kristoffer Ronning

Consent form:

I have received and understood information about the project *Tourism on Svalbard: a case study*, and have been given the opportunity to ask questions. I give consent:

- to participate in an interview conducted via Zoom
- I give consent for my personal data to be processed until the end date of the research project, Approximately June 15, 2023

(Signed by participant, date)

9.2 Interview guide

Welcome, and thank you for agreeing to be interviewed today. My name is Kristoffer Ronning, I am a student at the University of South-East Norway where I am studying in the Nordic Friluftsliv Masters program. My topic of interest is tourism on Svalbard. I have contacted you as you have been affiliated with tourism on Svalbard and I think your knowledge and experiences are valuable to help me deepen my understanding on the matter. It should be noted that with your permission your responses will be recorded and any data generated and used will remain anonymous. It should also be noted that if at any point you want to withdraw from the study and have your data deleted it will be respected and carried out.

If you have any questions or need clarifying feel free to ask. I will occasionally include working definitions to terms and phrases you may not be familiar with to help frame my questions. I have approximately 20 questions where the topics are focussed on communication, cultural changes, climate change, education and rephotography. The amount of time required for this interview will take approximately an hour. Let's begin.

Terms defined here:

Cultural landscape: "The interaction between humankind and the natural environment

- Taken from History and terminology section: <https://whc.unesco.org/en/culturallandscape/>

Repeat photography / rephotography defined: can be described "as taking photographs from the exact same location as another existing photograph or photographs".

Educate defined: Sharing of information.

Ice breaker Q's

- What has your involvement been on Svalbard in terms of tourism?

1) Communication - *climate crisis*

- Do you think that tourists should be educated about the climate crisis when on Svalbard?
 - Why or why not?
- How do you feel that the climate crisis is currently being communicated in the tourism sector?
 - What can be improved?
- How can one communicate the climate crisis to tourists who come from different countries and don't speak the same languages?

2) Communication - *cultural landscape*

- Definition for the phrase cultural landscape: "The interaction between humankind and the natural environment
- Do you think that tourists should be educated about changes in cultural landscapes when on Svalbard?
 - Why or why not?
- How can one communicate changes in cultural landscapes to tourists which come from different countries and don't speak the same languages?

Cultural change Q's

- How have changes in cultural landscapes on Svalbard been communicated in the tourism sector?
- How do cultural landscapes contribute to feeling more connected to Svalbard as a place?
- How have you experienced cultural landscapes through tourism on Svalbard?

Storytelling

- Can you speak to the importance of storytelling in tourism on Svalbard?
- Can you give an example of how the climate crisis has been communicated through storytelling in tourism on Svalbard?
- Can you give an example of how cultural landscapes have been communicated through storytelling on Svalbard?

Rephotography Q's

Rephotography defined: can be described "as taking photographs from the exact same location as another existing photograph or photographs".

- Have you seen rephotography implemented on Svalbard? If so, in what capacity?

Adjust for the images on power point

Depict **Virgohamna** before and now

- What comes to mind when you see these images?

Read the contextualized text for image

- Do you see any value in presenting this contextualized rephotography image in the tourism sector on Svalbard?

Depict **Gravneset** before and now

- What comes to mind when you see these images?

Read the contextualized text for image

- Do you see any value in presenting this contextualized rephotography image in the tourism sector on Svalbard?

- How do you think people will resonate with the rephotography images if they have physically been to the locations depicted in the landscape?
- Do you think that presenting these images is an effective way to educate people about the climate crisis on Svalbard?
- Do you think that presenting these images is an effective way to educate people about changes in cultural landscapes on Svalbard?

- To what extent are visual aids used on land based and sea based tourism in your opinion?
- In what aspects of the tourism industry do you think that rephotography has the most application?
- Do you see any value in having rephotography applied in a museum setting?
- Can rephotography benefit groups of tourists which come from different countries and don't speak the same languages?
- It has been argued that rephotography can be used to raise awareness of cultural and climatic changes which results in changes in policy at a political level.
 - Do you think that rephotography could be used in local and/or national politics to raise awareness of climatic and cultural changes on Svalbard?

Visit Svalbard has been granted the label of being a sustainable destination through innovation Norway sustainability scheme. On their website they also say “having this label does not mean that our destination is sustainable, but it commits us to focus on sustainability”

- Do you think that this is a type of greenwashing?

Closing Q's

- Are there any efforts that you know of which attempt to compensate for the emissions which are brought to Svalbard.
- How do you think tourism on Svalbard will look 50 years from now in 2073?
- Is there anything else you would like to add?

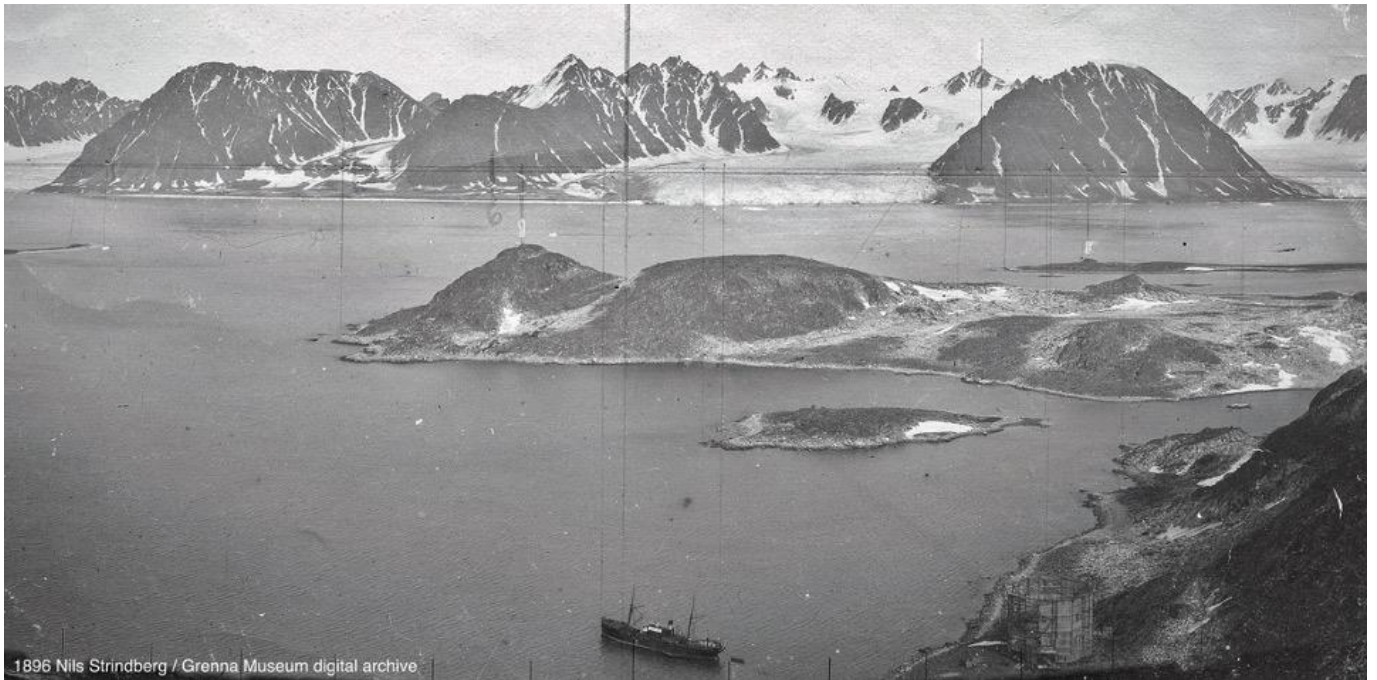
9.3 Virgohamna 1896 and 2022 cultural rephotography text [used in interview guide]

Virgohamna lies on the northern part of Danskøya, named after S/S Virgo (depicted in the image) the vessel of Swedish engineer and explorer Soloman August Andrée who built his balloon hangar in 1896 and set off for a bid to the North Pole on July 11th, 1897. The hydrogen balloon used was called 'Örnen' or 'the Eagle'. The trip would ultimately be ill fated for all onboard which included Andrée, Knut Frækel, and photographer Nils Strindberg. For many years no one knew what exactly happened to Andrée's party of three in 1897. It was not until August 5th, 1930 on Kvitøya (White Island) where a Norwegian sealing vessel called the Bratvåg landed on the island and made the discovery. From this finding we have been able to obtain considerable information from the expedition. Recovered were items such as diary logs as well as more than 90 images taken by Nils Strindberg which give tremendous insight to their expedition. For those thinking that Andrée's undertaking was impossible in the year 2000 British Adventurer David Hempleman-Adams left from Longyearbyen in a gas balloon and reached the North pole after 6 days. An interesting fact is that the scientifically focussed Swedish Arctic expedition of 1898 under Geologist Alfred Gabriel Nathorst circumnavigated White Island around the 12th of August, 1898 where all three members of the Andrée expedition layed and had perished less than a year prior. Nathorst would also embark on a journey in 1899 where one of the expeditions major focuses was to attempt to locate Andrées party in Northeastern Greenland.

9.4 Gravneset 1873 and 2022 climate rephotography text [used in interview guide]

Gravnesbreen means the grave point glacier. Where Smeerenburg was heavily utilized in the early 1600's by Dutch whaling operations Gravneset was used by the English. The name stems from a mass grave site where there are estimated to be around 130 grave sites over the duration of the whaling period on Svalbard. This site was once known as the 'hanging glacier' and was first featured on a map by Captain Philip Broke who made the first detailed map of the fjord in 1807. In 1843 William Beechey described the hanging glacier: "The bay is rendered conspicuous by four glaciers, of which the most remarkable, though the smallest in size is situated two hundred feet above the sea, on the slope of a mountain. This glacier, from its peculiar appearance, has been appropriately named the Hanging Iceberg. Its position is such, that it seems as if a very small matter would detach it from the mountain, and precipitate it into the sea. And, indeed, large portions of its front do occasionally break away, and fall with headlong impetuosity upon the beach, to the great hazard of any boat that may chance to be near". The site was used as a benchmark for safe navigation and anchoring in the cove. Herbert Chermiside took this photograph in 1873, possibly on September 5th. Photography was still largely in development during this point in time and accounts of Chermiside experimenting with different processes under a dark canvas on a rolling ship can be made. Today the 'Hanging glacier' or Gravnesbreen is sadly but a fraction of what it used to be where it has receded immensely which is a phenomena occurring with the vast majority of glaciers on Svalbard. This photograph was taken along the beach of the popular landing site at Gravneset or trinity harbour.

9.5 **Figure 5:** Virgohamna 1896 compared to 2022. Adapted from AECO rephotography presentation [used in interview guide] (Ronning, 2022).

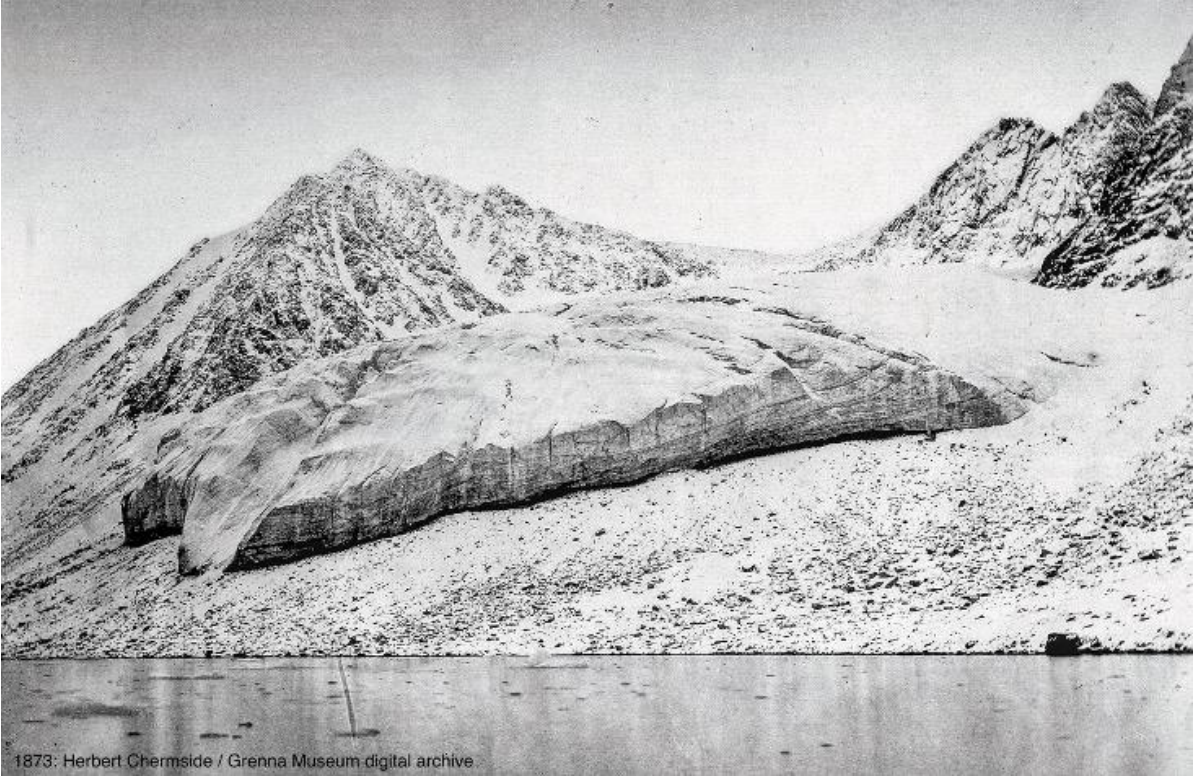


1896 Nils Strindberg / Grenna Museum digital archive



2022-7-25: Erik Schytt Mannerfelt / Kristoffer Barrett Ronning

9.6 **Figure 6:** Gravneset 1873 compared to 2022. Adapted from AECO rephotography presentation[used in interview guide] (Ronning, 2022).



9.7 Equipment and post processing techniques

The *1896 Virgohamna* modern photograph was captured on a Mavic 2 pro drone and utilized a Digital Negative [DNG] file to store it onto a micro secure digital [SD] card. The *1873 Gravneset* photograph was captured on a Nikon D800 [Digital Single-Lens Reflex] D-SLR camera and utilized a raw format Nikon Electronic Format [NEF] to store it onto a secure digital [SD] card. The post processing occurred in the Fall of 2023. In some cases the modern photographs would be bracketed (Adobe, n.d.) to obtain ideal lighting conditions. The software programs I used for post processing the images include Krita, Hugin, and Darktable. Krita (<https://krita.org/>) is a free and open-source painting program, it was used to convert the colour profiles from grayscale to standard Red, Blue, Green [sRGB] so that both the historical and modern photographs would share the same colour profile in order to make the images compatible in the Hugin software program. Krita was also used to convert file types to Tagged Image File Format [TIFF] files. A TIFF file does not compress information when working with it unlike a Joint Photographic Experts Group [JPEG] file (Boyer et al., 2010).

Hugin (<https://hugin.sourceforge.io/>) is also a free to use open source software program which was used as a panorama photo stitcher. The *1896 Virgohamna* photographs consist of a single historical and modern photograph and the *1873 Gravneset* photographs consisted of a single original photograph and 12 slightly overlapping modern portrait oriented photographs fused together to create a panorama. The focal length from the cameras in the modern (digital) and historical (analog) photographs can differ which can leave distortion in the image even if it was taken from the same place (Webb et al., 2010). Hugin can estimate the focal length and distortion parameters and account for them digitally. When overlaying modern and historical images in Hugin two camera models are calculated [the analog and digital], by adding control points which share the same artifacts depicted in the foreground and background of both photographs we are able to reach sub-pixel alignment provided we are in the same location as the original photograph and there is enough control points for the camera estimation model (Wiki Panotools, 2022). After a period of trial and error I could add refining parameters such as geometric optimization parameters including: positions, view, and

barrel distortion. I would proceed to crop the historical and modern photographs to the same dimensions and export them as panoramas to be processed in Darktable.

Darktable (<https://www.darktable.org/>) is an open source photography workflow application and raw developer. In Darktable I would apply: denoise to the images, local contrast, shadows and highlights, colour balance rgb, global vibrance, global saturation, and change the white balance if necessary to my preference. It should be noted that this process is subjective where features are coloured as to promote key features in the foreground and background of the photographs. Handley (2019) writes that some rephotography photographs have been reproduced in black and white for continuity reasons despite obvious advances in technology. The rephotography photographs utilised in this project are coloured. Handley (2019) writes that colour heightens the viewer's awareness of dramatic changes in light and weather. Once post processed, I would create a JavaScript Object Notation [JSON] file with metadata which includes: name of the location, before date, after date, longitude, latitude, credits to the database [Grenna Musuem, ALVIN, or NPI] and photographer for both the historical and modern images. The rephotographed images and the JSON file were then uploaded to a website which can be viewed here (<https://svalbard.schyttholmlund.com/?overlay=Retaken+photographs>). This website is only a temporary solution and may be transferred to something more permanent soon.