Science and Daily Life in the Study of the Northern Lights, 1898–1928

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By

Mette Bunting and Toril Synnøve Jenssen

Translated by Josephine Stenersen

Cambridge Scholars Publishing



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PREFACE

HISTORY DEVELOPS SLOWLY, JUST LIKE LIFE

The authors of this book met for the first time in autumn 2007, when attending a conference about the Northern Lights at Alta Museum. Before that we had not known about each other's existence. Neither did we know that for a long time we had both been playing with a similar idea concerning the historical events, to which we were both closely associated.

Unique material was available; a collection of letters from daily life on a North Norwegian mountaintop, which had been a bastion for Northern Lights research since 1898. The originator for all of this was Professor Kristian Birkeland (1867-1917). Birkeland had developed a theory about the Northern Lights based on laboratory experiments at the University of Kristiania at the end of the 19th century. To continue these research results he established the world's first Northern Lights' Observatory on the summit of Haldde Mountain in West Finnmark.

This steep mountain with its 900 metres above sea level is among the highest mountains surrounding the small village of Kåfjord. A house was built as an extension to the observatory in 1912, and was further extended in 1915 to house more residents. In that rather bizarre place, where snowstorms can range from the end of August, there were, at the most, four families of adults and children living in the research colony. Three of the children were born on the mountain. The letters illustrate an interesting picture of everyday life and scientific research mainly from a woman's perspective.

The events on Haldde occurred when our grandparents' were young. Mette Bunting is a granddaughter of Dagny and Ole Krogness, who during the years 1912-1918 lived on Haldde. This was directly above the village where Toril Jenssen's mother's family lived. Toril's grandfather, Henrik Jensen, who was a carpenter, took part in the building of the house on Haldde.

During the Northern Light's conference in Alta in 2007, Mette gave Alta Museum, on behalf of herself and her sister, Bente Ødegård, two armchairs, a chronometer, and a lovely dress. Both the chairs and the dress had been used on Haldde during the height of its heydays, and the

chronometer was used there, and in Tromsø, in connection with scientific measuring done by Mette's grandfather.

Toril had worked with the letters for a while in connection with a manuscript for a documentary film, and held a lecture about events on Haldde. The room was full of interested listeners. "Write a book about it," they said.

We followed their advice and have worked together on the material for this book, producing this monograph through our shared effort. However, while working with the material we have also individually taken more responsibility for some themes, as shown in the author's list at the back of the book, as well as contributing material for the other chapters.

We would like to thank everyone who has given us their time and goodwill so that we could realise our book project. Dagny and Ole Andreas Krogness' family willingly shared with us the material they had collected. There were letters, memoirs, a diary, photographs and newspaper cuttings. The descendants of Olaf and Dagny Devik, who also lived on Haldde for some years, have likewise, shared a lot of what they had of letters and photographs. A special thank-you to Hilde Holbæk-Hanssen, Ole Andreas Krogness and Hennige Astrup and other family members for collecting this material from these families.

Both in Kåfjord and in Alta, we have experienced great willingness from people who had memories and tales about Haldde. We would especially like to thank, Åse Synnøve Oppegård, daughter of Sanna Pedersen, who had been a maid on Haldde, Rannveig Håkegård Pedersen, local historian in Kåfjord and Werner Daniloff, previously headmaster of Kåfjord School and leader of the Cultural Committee in the village. To be able to obtain the stories local residents in Kåfjord still remember, has been enriching and important. We are very grateful for the interviews with the sisters Mary and Borghild Lukkassen about their childhood memories from Haldde. Also the interview with Gudrun Dagenborg, for her memories from when she was a maid on Haldde, and the conversation with Synnøve Holbæk Hansen, who was born on Haldde. These women gave us irretrievable contributions at the end of their lives.

Many have contributed with photographs and text material for the book. We would like to especially thank Frithjof Heitmann, Anne Marie Sørensen, Bernt Øien Jenssen, Reidun Tøllefsen and Nina Levin, who gave us access to their late relatives' photo albums and literature collections. Thanks also to Hallvard Birkeland and Per Eliassen, for good help in searching for special photographs.

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Discussions with professional people have been important, both in connection with Northern Lights' research and historical research. These are: Researcher Magnar Gullikstad Johnsen and Professor Asgeir Brekke at UIT the Arctic University of Norway, and Associate professor Truls Lynne at the Northern Light's Observatory in Tromsø, Professor Knut Kjeldstadli and Professor Alv Egeland at the University of Oslo. Many thanks to those who have used their time to talk with us, and have corresponded, via e-mail. Thanks to NFF, the Norwegian Non-Fiction Writers and Translators Association for our project grants for the Norwegian publication.

Many thanks to Alta Museum that have on a number of occasions, allowed us to use valuable archive material freely. A special thank-you to the Museum's conservator, Hans Christian Søborg, for good advice and useful cooperation. A big thank-you to the National Library, for the free use of illustrative material, and their letter collection, and for developing photos from the glass plates, which was a demanding process. Thanks also to the Norwegian Museum of Science and Technology in Oslo, Tromsø Museum, the Regional State Archive, and Perspektive Museum in Tromsø for their help, when searching for photographs and other illustrative material.

We would like to give a big thank-you to Orkana Academic Publishers, for their belief in this project from the beginning and for publishing the Norwegian version in 2014. In connection with the translation from Norwegian to English we would like to especially thank Josephine Stenersen, retired Associate Professor, who has translated the book, and Mark Stenersen, Graphic Designer and advisor in visual communication and development, at RESULT, UiT The Arctic University of Norway, who has done a great job preparing and organising the final English manuscript.

A special thank-you to Kjell Kolbeinsen and Trond Mohn for actively contributing financially, so that the publishing of this book could be a reality, together with the following, who we give our very grateful thanks:

Rector Anne Husebekk, UiT The Arctic University of Norway NORLA – Norwegian Literature Abroad Alta Municipality Dean Arild Hovland, University of Southeast Norway

Finally, we would like to thank each of our family members and close friends, both in the north and south, who have been sparring partners, and have contributed with local knowledge. They have been interested and a good support to us throughout the whole process.

Skien and Tromsø, August 2017-08-17

Mette Bunting and Toril Synnøve Jenssen

CULTURE'S GARRISON IN THE NORTH



This is what their house looked like while it was being built. A tunnel to the observatory had been dug out and was still lacking a roof. Archive: World Heritage Rock Art Centre - Alta Museum

Dear Mother, Yes I am sitting on Haldde in brilliant sunshine. You can believe me it is beautiful here. I almost walked all the way up, but for the last steep part, and then I sat on the sledge, which was buckled to the horse. Have you sent double woollen blankets?¹

¹ Letter from Dagny to her mother-in-law 02.10.1912

It was a stormy day in October 1912 that Dagny Krogness travelled on a local ferry into Alta fjord. She was 25 years old, newly married and her husband, Ole Andreas Krogness, was her travelling companion. He had been appointed as the Director of the Northern Lights Observatory, which was placed in a deserted mountainous landscape where they would be staying for the next six years. The quotation above is from the beginning of a letter to Ole's mother, Christiane Augusta Krogness, from a frozen daughter-in-law.

About a hundred years later in the summer of 2008 we find ourselves on the ascent from Kåfjord towards the first craggy rocks, along a trickling brook in a birch wood and we climb further upwards and upwards. The Krogness family are to have a reunion. A whole flock of Dagny and Ole's family descendants are on their way to Haldde, together with us, the two authors. The last bit is hard going, as it is very steep. Down below we can see houses that have been rebuilt after the Germans had burnt almost everything in 1945. Some of them are empty during the winter, but in the summer holidays many of their owners, who otherwise spend the rest of the year in other places, fill many of them.

It is a lovely summer day. We are almost at the summit and see a large building of natural stone in shades of grey. Like a castle towering towards the heavens. What traces of past history can we find here?

Haldde is a Sami word and means holy mountain. The mountain looks like a pyramid in shape and can be seen clearly from most of the central places in Alta and the community of Bossekop, which is nine kilometres further out in Alta fjord. You can catch a glimpse from there of the observatory and house, as two small black clumps on the mountain's summit.

The house is like a fortress built of large stone blocks. A darker and a lighter part of the building inform us that there has been an extension added to the house. The two-floor building is dominating. There are lattice windows on both floors, with solid frames. Around the house there is not much room to move, as the mountainside falls steeply down the pathway that we came up. At the back of the house there is a short slope up to the actual observatory. We are lucky with the weather. The view is fantastic from there.

We walk into the building, which has housed so many people, adults and children, researchers, wives, servants and assistants. The house is divided into two large rooms now after the building was renovated, which took place in the 1980's. The rooms are empty.² Only the outside of the

² Restoration work was done in 1980, under the management of Alta History Society, Alta Museum, and the County Curator in Finnmark with financial help from the Norwegian cultural fund. (See Nielsen & Petterson 1993)

building is the same as it was when people lived here. The tunnel that joined the house, observatory and outhouse has fallen down, and there is a temporary wooden roof over the passageway.



The research colony's home and work place. Archive: World Heritage Rock Art Centre - Alta Museum

We come up to the observatory, and look out over the mighty mountainous landscape, with Alta in the distance towards the northeast, and further on over the land towards the east and south. The mountains lie below us, and we can see the fjord a long way down below. We peep into the outhouse and return to the main building. Here were the flats and the maids' rooms, the office, cellar and attic. On that small spot, large-scale research was carried out on the Northern Lights, wind and weatherforecasts, rearing of livestock, births, maintenance of instruments, making meals and leisure time; work and private life hand-in-hand. Within these solid stonewalls life was unfolded.

When Dagny saw her new home on the summit of the naked mountain, she thought, "[...] it is not likely to be very warm in this house, but I beg

your pardon, when I got inside I was met by light painted walls and it looked quite cosy".3

The Northern Lights' research on Haldde can be regarded as the most significant event in North-Norwegian history, as well as being nationally important. However women's contributions, have to a larger degree been omitted in written accounts. That three children were born up on the mountain, for example, has not been mentioned very much. The research, which was carried out on Haldde Mountain, is rightfully placed in Norwegian geophysical science development. It was a branch of knowledge known and valued outside Norway's borders, "Haldde, the cultural outpost in the north, really became an important place in Norwegian geophysics for more than a decade", Professor Alv Egeland writes in 1994. Olaf Devik called the Haldde-period, a time of pioneering in Norwegian physics and geophysics.⁵

From an historical perspective, Professor Kjeldstadli, writes:

[...] at the same time research is only one side of life, and research is restricted by everyday life and budgets given by employers, not to mention the researchers' own intelligence and perseverance. Research is also about finding ways forward with the ability, the time and the resources one has.⁶

In this book we focus our attention on the everyday events surrounding the research activities on this wind-swept outpost. We will present the daily activities, which was the "glue" that kept the existence on Haldde Mountain together; and a significant premise for the creation of their intellectual work. We want to shed light on the social organisation round scientific knowledge. Everyday life does not restrict itself just to the home; it also covers the world as seen from the home. Therefore this book also contains stories about how life on Haldde expanded and was spread to other arenas, and into other contexts. Daily life was part of a larger scene that had far-reaching consequences.

In publications by, "Alta Historielag", and articles in journals as well as in chapters and paragraphs in specialist literature, the activities on Haldde are described. We have especially had great pleasure in reading, "Nordlyspionerene", about the Northern Lights' pioneers, written by, Alf Ragnar Nielssen and Arvid Petterson, published in 1987. We have also

³ Dagny's diary from 1912.

⁴ Egeland 1994:19

⁵ Devik 1976

⁶ Kjeldstadli 2007:6

⁷ Gullestad 1989:175

made good use of Olaf Devik's self-biography called, "Blant fiskere, forskere og andre folk", from 1971, which tells us about fishermen, researchers and other people. While working with this material we have also been inspired by the book, "Mine fire besteforeldre", written by Knut Kjeldstadli in 2010, about his four grandparents.

The main material, which we rely on in this book, is based on a private letter collection. Dagny herself writes the majority of letters to her mother-in-law. Some letters are written by Ole, and a few are answers from Dagny's mother-in-law. She was clearly an important contact in the couple's special life situation in the north. Altogether there are eighty letters of this unique material, kept by Synnøve Holbæk-Hansen, Dagny and Ole's daughter. Synnøve was born on Haldde Mountain in 1915 and died in 2006. From her and the rest of the family, we have been given permission to make public the contents of the letters, which today can be found in the National Library's hand-written collection.

We also base our book on Dagny's diary, which she started on the very first day that she lived on Haldde. Her diary is in Alta Museum. Other documents include Dagny's memoirs, which she wrote for her grandchildren; and this covers the whole of her family history. She completed these notes in 1976. We have collected supplementary material from interviews with people, who lived on Haldde, at that time, and from public archives where we have found information about the research activity, both in the form of letters and other documents. To be able to come even closer to what actually happened in everyday life on the mountain, we visited and discussed this with academic researchers working with physics and history.

Many of the incidents we write about can be visualised in the unique photo material, which we have been given access to. We have used some illustrations from a collection belonging to Alta Museum as well as from other archives. A large private photo collection from family members' photo albums and original glass photographic plates, which were donated to the National Library of Norway, have been free for us to use. We have also obtained photographs from descendants of people we mention.

Some of the personality of the people we present becomes clearer through the letters and photographs. We can put ourselves in their position and see how they participate in events that change over time, as new decisions are made. These activities move forward and into new forms. We try and present a coherent story about how life was experienced by those who were researching the Northern Lights, under extreme conditions in the Arctic. We follow Dagny and her experiences through a number of

phases while living there. She is our main informant. What was important for her and those around her during these years?

As we write questions pop up, which have relevance to the closeness each of us has to the incidents that occurred. How well do we know the people, who participated in these occurrences? Can we place ourselves in their thoughts and feelings? This relates to research's ethical questions about how to make people and sources anonymous, how to present events and attitudes that can be related to cultural background and class affiliation. It is also how we approach descendants of those we write about and who are alive today. Our own cultural background is most likely to influence how we interpret our material. The impressions we have of people and social relationships that come to mind from our own knowledge, experiences, research and our own life, will influence our interpretations of events and people. The cooperative work, for this book, has also resulted in us taking a journey into ourselves.

The questions we ask are: What was it like for these people to live on Haldde, and what were the everyday activities based on? What did they achieve? Where did they go to when they left Haldde?

In trying to understand the events as being a meeting between different cultures from the north and south of Norway, we show how the local people are portrayed in some of Dagny's accounts. We have chosen a chronological approach, so that we can participate in life on Haldde as the years go by. We let Dagny, Ole and other participants tell about events using their actual words in the quotations, letters and other documents. In this chronology we show everyday life's diverse activities, births, hospitality and social occasions, loneliness, travel, scientific research work and the world around them. When Dagny and Ole touch upon important events, people and tendencies in their lifetime, we give supplementary information.

Theoretical background and everyday life

A society that does not know its past will suffer from a collective loss of memory. Such a society does not know what they are, where they come from and where they are going, claims Knut Kjeldstadli.⁸

We have material about historical events in the Arctic zone. With a background in education and sociology our contribution takes us a step into an unknown terrain. The book project is interdisciplinary. We are closely connected to this material, as we have heard the stories from our

⁸ Kjeldstadli 2007:23

grandparents about Kåfjord and Haldde Mountain. It is this that has made us inquisitive and, at the same time, aware of treating the material we use with respect, both with regard to the actual subject area and the people we present.

The letters document a segment of activities, as interpreted by the letter-writers themselves. Through the letters we come closer to the life of the people who wrote them. In these letters they tell about their experiences, adventures and thoughts. They place themselves, languagewise, according to their own cultural context, both in close relationships and distant social structures. They hold firmly onto the real moments in a written form, and are therefore able to deliver their thoughts to posterity. Their assignment on Haldde was special, and we can imagine that they believed that their stories would be of interest to future generations. At the same time, letters are always addressed to an addressee, so they are also important testimonies of relationships and networks in a specific contemporary culture.

We will look at the material from an everyday perspective. The choice of perspective is based on our interpretation of the contents of the letters, which is our empirical material. Our approach can be called a, "double hermeneutic", as we will interpret the interpretations that the letters convey.

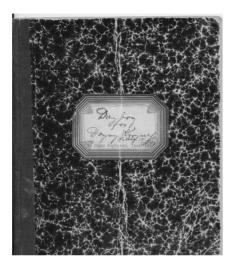
Even though the everyday-life perspective mainly acts as a background for the letter material, our own theoretical understanding may appear quite unintentionally in the choices we make, when using the actual texts. We do not want to just describe what the letter-writer describes, but to achieve a deeper understanding of these actual events. The material documents some of the things these people have thought and experienced, as well as some actions that they want to tell the recipient. Therefore these letters can be regarded as prime sources. Among the sources we have at our disposal, it is these prime sources, which are closest in time to what actually happened. Obviously not everything is to be found in the letters. We know very little about what has been left out.

At times we have raised questions about things that might have happened, but for which we have no documented material. What have they speculated about? What did they talk about? What actually happened? We wonder. The letters, diary and other sources are remains of situations they experienced. They are documents that show just a part of the past reality in which they lived. When we read the letters or the diary notes, we only manage to get part of the situations that have been included. We can draw

⁹ Giddens 1993

¹⁰ Kieldstadli 2007:177

our own conclusions about a particular person, or from a more extensive situation that resulted in the actual source material. From small pieces of information, it is possible to piece together a larger overall picture. 11 We reconstruct the past in this book, based on our source material and our interpretation of it.



Dagny wrote a diary, especially at the start of her stay on Haldde, Archive: World Heritage Rock Art Centre - Alta Museum

As we also try to interpret what is not said, we come closer to what sociologists call, triple hermeneutic. 12 It means that we interpret with a critical eye and search for the underlying cause, hidden interests and driving force, not just in the people we write about but also in ourselves. That our grandparents are the actual figures in the events, is a challenge that demands reflective consideration as to credibility in our interpretation of the material. In the interpretative sciences, the relationship between proximity and distance to the material is discussed, especially related to field work studies, where the researcher delves into a known local community, talks with people, and writes about the culture they are analysing. It has been maintained that an, "inside perspective", blocks new knowledge, because the researcher is too close, and knows the study-field so well that she becomes oblivious to it. One does not see what is obvious.

Kjeldstadli 2007:229Alvesson & Sköldberg 1994

Closeness and distance to a field of study is important, but both positions offer advantages and disadvantages.¹³ Even so the researchers' own personal assumptions will influence what material one can get access to, and what problems one is likely to meet when continuing to work with it.¹⁴ This discussion is about studying one's own society versus an unfamiliar one.

This book contains grandparents and a rural community, which individually we know very well. The events happened a long time ago, and most of the people we mention have died. History has moved on and distanced these people from us. The distance of time means that even closeness includes distance. There is clearly not so much depiction of life portrayed a hundred years ago. Therefore, close proximity can, to a lesser degree, make us oblivious to the well-known situations, and block out new information, despite both of us having our own personal ballast with us in the way we approach these situations. We look at the past using the present day's cultural assessments as a background, and do our best when using the interpretative repertoire that we know. At the same time we try to balance a critical investigative perspective while taking ethical care of the people we present.

Using private letters as our main material is not without its problems. What right do we have to make public private communications from real people, by quoting from letters that have been written confidentially to a specific addressee? The letters are meant for just that person, not for the public. At the same time we know that the everyday descriptions in these letters are more of a report than intimate confidentialities. Most of the letters are about everyday life, which was also a working life for a housewife. The young Dagny's position, as wife to a researcher, was to take responsibility for organizing the household and home. It was virtually her specific task, as she was part of her husband's official position. That she kept the letters, when her mother-in-law died, can indicate that she thought they were important for posterity

What do we understand by the expression, "everyday life"? Everyday life is daily-life, that which quickly becomes a routine, and which we do not ask many questions about as it is taken for granted; it is "the unheeded". In everyday life we maintain our existence, and recreate ourselves from day to day, while we sleep and while we are awake. Everyday tasks keep existence together, but it happens in a manner that does not demand so much attention, even if it is of great importance. In

¹³ Rosaldo 1989

¹⁴ Paulgaard 1997:75

¹⁵ Hyiid Jacobsen & Kristainsen 2005

everyday life we also find extremes in our existence, such as in birth and death. Everyday life is all-embracing.

Danish, Troels-Lund's 14 volumes, "Dagligt Liv i Norden i det sekstende Aarhundrede" is about daily life in the Nordic region in the 17th Century, and covers a wide range of titles about housing, clothes, food, parties, birth, engagements, weddings, marriage, morals, phases of life and life's termination as well as cultural history, countries and people. Almost everything about daily life is covered in the large collective works of Troels-Lund. Eilert Sundt, Norway's first sociologist was also engaged in the diversity of the lives people lived, during their everyday. He also studied arts and crafts, morality and cleanliness in Norway in the 19th Century. 17

The Norwegian anthropologist, Marianne Gullestad, emphasizes two main dimensions concerning everyday life. One is practical organisation of main tasks and activities. We find quite a lot about this in the letters. The other dimension is "lifeworld", which is about people's experiences. Lifeworld can be understood as the sum of that which is obvious and inevitable, and therefore covers the background of people's total existence, also about things that happen outside the home. In people's lifeworld non-specific knowledge that has filtered into the subconscious can be found, and included in everyday actions. This knowledge is justly significant, and is expressed in communication and linguistic formulation, and is associated with culturally belonging. 18 Home is the place where a person's different roles and participation in different environmental activities, is united. Therefore, everyday life scenarios from the home world constitute a basis for analysis and understanding reality, as well as an entrance into an understanding of society. In this dimension we find a dynamic in the letters, a kind of transgression to something new and until now inexperienced, processes in which Dagny participates.

There are many theoretical approaches to the investigation of everyday life, but there are principally two main approaches; a social-philosophic and an empirical-sociological one. The first is directed towards a structural level and makes use of abstract categorizing of the everyday. The other is mainly directed towards the specific, reality near, otherwise an everyday life containing "myriads of small things" that individuals do.¹⁹ The connection between these two main approaches is exciting. It is about

¹⁹ Maffesoli 1993: 7, ref. in Hvid Jacobsen & Kristiansen 2005:22

¹⁶ Troels-Lund 1914

¹⁷ Stenseth 2000

¹⁸ Gullestad 1989:25. Life-world concept comes from Hussel's phenomenological philosophy

macro and micro levels in society, and how these levels stand in an interrelationship with each other. In recent understanding of everyday life, it is important to avoid a polarisation of a one-sided sociological macro study or one that is a narrow-minded micro-sided study.²⁰ Wanting to describe society "from below", implies a risk of being drowned in empirical data, which means just describing instead of analysing.²¹

We want to give a detailed description from everyday life in extreme surroundings, but we also want to take a look at daily life events from the point of view of other contexts, so that we can take an analytic look at the larger relationship in which the everyday situations are an integral part.

In the Haldde material the relationship between the individual and overall structure, is open. This is the actual heart of the matter and is documented in each of the individual letters, the majority of which are based on an arena that is a woman's domain. Our perspective will especially be from a woman's point of view, with opinions from experiences of everyday life. In a strange way these experiences are connected to the "extra-local", level of society and in that way, these experiences gain a retrospective strength in the organization of new everyday situations. The "extra-local" level is a social sphere, characterized by specialized institutions, formal organisations, expert knowledge and abstract work, also called society's dominant system.²² In this case it constitutes the geophysical research environment, and the central authorities constitute the most influential dominance system, in addition to cultural values in the individual's lifeworld.

Maybe the theory of everyday life can be a meaningful background in order to see some contexts that otherwise would not appear. Even in the most extreme living conditions and special situations there is an everyday life, which relates to an extra-local society, which both affects downwards and becomes affected from below.

Our ambition is to present the empirical material in such a way that it will contribute to understanding everyday-life, where structures take root, and either arise and are cultivated through the personal life of the subjects own development and initiative, or they come from overall systems, such as cultural expectations, or clear commands and limitations, which merge together with everyday experiences.

²⁰ Hvid Jacobsen & Kristiansen 2005:30

²¹ Gullestad 1989:37

²² Aakvaag 2008:199ff.

CHAPTER ONE

A DRAMATIC ENTRÉ





Dagny Vegerd Guldberg and Ole Andreas Krogness out rowing when they were engaged. Archive: National Library, Photo collection.

After a lovely trip along the Norwegian coast up to Hammerfest, continuing to Alta, with that terrible boat, "Nor", we arrived in Kåfjord after one and a half day's journey.²³

We have reported the boat, as it was dangerously loaded and filthy. Everyone in the whole of Alta has complained.²⁴

The 26th June 1912, after the couple had been engaged for four years, Dagny Vegerd Guldberg and Ole Andreas Krogness, celebrated their wedding day in Kristiania, (Oslo). At last they can be married as Ole has completed his final examinations as a Master of Science. Both of them are

²³ Dagny's diary from 1912

²⁴ Memoirs for grandchildren written by Dagny in 1976

in their twenties, Ole 26 and Dagny 23. Towards the end of her life Dagny sums up the wedding in three sentences, "When he had completed his examinations we got married. There were 70 guests at the wedding. It was my aunt Julie that held it for us at the Studenterhjemmets Hotel." It was not very long before Ole, on 1st July, was appointed Director of the observatory on Haldde in Finnmark. Immediately after receiving this appointment, the newly married couple left for Germany on a two-month scholarship. Ole was going to do some research on terrestrial magnetism, his special field of study, and also to buy instruments for the observatory.

After their stay abroad they prepare their journey north, as Ole is to begin his new job 1st October. Ole has a lot to do with all the preparation of packing important equipment for the observatory, as well as the normal household necessities. The world's first Northern Lights' observatory, is placed on a mountain, 900 metres above sea level and is to be their home and workplace, with Dagny's maid and Ole's assistants. The actual building is a long way off the beaten track and there are no neighbours. From Kåfjord it took about three to four hours to climb up to the house. Their luggage is to be transported by horse and sledge, but they have to walk most of the way. It is only during the winter months, September to April that the house can be lived in, as there is no water nearby and they depend on using melted snow.

The couple do not know anyone in Kåfjord and they have no family in Finnmark. Their mothers, who are widows, live in Kristiania. The contrast from city-life that they are used to in the capital city will be rather different for the couple, who are emphatically social and closely attached to their family; according to the description given of them by their descendants.

In September, Ole and Dagny leave Kristiania and begin their journey. It is the year that the whole of Norway cheered over Amundsen and his men, who had reached the South Pole. Little does Ole Andreas know, as he is busy packing for the move, that the work he is going to begin would later bring him and Amundsen together, in connection with work in the Arctic region.

Other events in the world that left their mark on 1912, were that China became a Republic, and that the USA's president, Theodore Roosevelt, was shot, but perhaps what is remembered most of all is that the Titanic was shipwrecked 14th April. The world's largest and safest passenger ship of that time sank and resulted in 1,350 people losing their lives.

²⁶ Lindeman 1924:41

²⁵ Memoirs for grandchildren, written by Dagny, 1976

It is a long journey the young couple set out on. The complete journey is 1,800 kilometres, about 1,100 British miles, first from Kristiania to Trondheim by train, and from Trondheim to Hammerfest by boat.



The young Dagny and Ole Andreas. Archive: The National Library of Norway - Photo collection

In 1912 Hammerfest is the hub of the shipping trade for the whole of Norway, even the Hamburg route²⁷ docks there. Here the couple must change boats and travel on a smaller local ferry, which transports people and goods into Alta fjord and to Kåfjord, where the couple are to get off. Usually, a newer boat called "Alten" was used for that journey, but the reserve local boat, "Nor" is put into service, and is a lot smaller and older than the one it replaced.

Dagny has previously packed the most important and private belongings into three large suitcases. These contain clothes for all kinds of weather, pictures and other personal belongings. They also have some furniture with them that they thought they might need in their house on Haldde, plus boxes with other equipment for their home. Ole has

28 Hansen 1999:7

²⁷ From 1870 there was a ferry route from Hamburg to Vadsø (Nielsen 199: 378)

instruments, for measuring the earth's magnetism with him, and camera equipment to take photos of the Northern Lights. He has also taken his scientific work, a great number of copies of magnetic measurements from his stay in Germany. He plans to do some more research on this work, and complete it. All of this is most carefully packed into large boxes, which are difficult to handle. Ole has an agreement with the steamship company to reload them onto the next boat when they reach Hammerfest.

In Hammerfest, problems arise, when they are about to reload their luggage onto the local ferry, "Nor". On checking that their luggage is in place, and that everything is as it should be, Ole finds that it is nowhere near ready. Dagny writes, "The reason why Ole had to work so hard to get the instrument boxes in place, was because the First Mate had been drunk since the middle of the day, and he had promised to put our things safely on-board." Nevertheless, Ole manages to organize things so that the luggage is to be taken on board before the boat leaves that evening. The couple leave the boat, and set out for the centre of Hammerfest.

When they return to "Nor", in the evening, the situation is no better. They are not only met by a drunken First Mate, but, "[...] when we got there that evening both the First Mate and the machinist were so drunk that it was impossible to use them; the Captain had to stand on watch all night." In some way or another the luggage is loaded aboard, the letters do not say anything about how. Dagny does not like the situation, and is disgusted that the ship's crew is to such a degree influenced by alcohol. Luckily the Captain is sober, and is able to stay awake through the whole night's sailing. When Dagny and Ole go to bed in their cabin, we can imagine that they are a little anxious, and that they long to get to Kåfjord, which according to their plans will take twenty-four hours.

What influenced Dagny to choose such a life with Ole? To take such a long journey with him, and to contribute to building up something, almost from nothing, so far north? During the short time they have been married, they have not owned their own house, and now they are on their way to create their first home, and that is on the top of a mountain, isolated from the surrounding world. In Dagny's family, such long and challenging journeys were not uncommon. Three of her brothers have already emigrated to America, and a fourth, who wants to live in a warmer climate, travels later to the Galápagos Islands.

Dagny's family were noted for their interest in travel and their pioneering spirit, and it is something their children have inherited from them. Before Dagny was born, the family were stationed on Madagascar.

²⁹ Letter from Dagny to her mother-in-law, 19.10.1912 ³⁰ Letter from Dagny to her mother-in-law, 19.10.1912

Dagny's father, Carl Johan Guldberg, was converted when he was a young man, and wanted to work as a missionary on that island. He had to give up this work as he had emphysema, and his breathing problem made it difficult to preach. In addition, the rules of the Norwegian Missionary Society did not allow someone with such an illness to be in that climate. They believed it would be detrimental to his health. Carl Johan Guldberg was resolute, and instead, educated himself as a doctor, because the association for that profession was not subject to such health requirements. In the same way as Dagny and Ole, he and Dagny's mother, Louise Henriette, travelled to distant areas of the world as a newly married couple.

There was little doubt that Guldberg's work in Madagascar had been important for many people. Guldberg's reports to the Missionary Society³¹ described all their duties and enterprises. He worked as a doctor, surgeon and dentist, and in that way saved many lives. The couple were idealists and paid for their own journey. The intention was that they would use the profit from the doctor's practice to buy medicine, and to help to build the mission-station. Even so, it appears that Dagny's father often worked without being paid, as the inhabitants were extremely poor.

Having textbooks in Malagasy, the Madagascan language was quite an issue for Carl Johan Guldberg. He believed that it was important to educate Madagascan health-workers. Together with a colleague, Dr Borchgrevink, he wrote and translated among other things, medical books for doctors and midwives, as well as books for pharmacists, surgeons and botany for doctors. Dagny explains that first of all her father worked with Dr Borchgrevink, but later when Dr Borchgrevink travelled back home, her father was left alone with the Negros.³²

Dagny writes that her mother was good at telling stories, "My mother used to tell us dramatic stories about the war and escapes and many other strange events, during the long winter evenings throughout our childhood." Dagny's mother had done more than observe things that were happening around her. She had altogether six births in ten years, and her main task and responsibility was for the children. The most difficult thing that happened to her was the loss of a little girl, Henriette Amalie. 34

The family decides after ten years to return home. Dagny's father writes in his letter to the Governing Missionary Board that the reason for

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³¹ Carl Johan Guldberg's letter to the General Council in the Norwegian Mission Society, 1876-1886

Memoirs for grandchildren written by Dagny in 1976

³³ Memoirs for grandchildren written by Dagny in 1976

³⁴ She died when she was three months old

them leaving the island, in addition to his own poor health, was his worry over his sons' upbringing and development; "[...] that my children are somewhat behind in Norwegian than others, [...] and my children are so engrossed in the Malagasy language and Madagascan morals that it will be difficult to make anything out of them later." Guldberg believed that the boys' upbringing and education would only be good enough in their native country, and if they stayed any longer on Madagascar they would be unsuitable for a career in their homeland.

On their return to Norway their father said no to a job as chief physician at Louisenberg Hospital. He clearly preferred to travel to Dovre and be a district doctor. His reason was simple: According to him people in the towns had grey-black lungs, whereas the lungs of those who lived in the country were pink. Dagny was one and a half years old when they moved to Dovre.



The quay in Kåfjord, where the Krogness couple landed after an extremely difficult journey. Archive: World Heritage Rock Art Centre - Alta Museum

Security was in many ways what characterized Dagny Guldberg's adolescence. She writes in her memoirs to her grandchildren that as a child, she had a free and good life. Her older brothers, who she calls in her memoirs, "some real children of nature", included her in their games. The woods and fields were their playground, and animals and plants were their playfellows. A tame crow, a butterfly collection, and a family of mice were invited into their home.

Dagny's mother was in charge of a large household on Dovre. In addition to five boys and four girls, they had two maids, a governess, a cook and a Nanny. A Nanny, hired by their mother, was expected to be musical. "She believed that music was necessary for a good upbringing", Dagny writes in her memoirs. Nevertheless, she commented in the same

³⁵ Carl Johan Guldberg's letter to the General Council in the Norwegian Mission Society, 25.02.1885

notes that she experienced a level-headed upbringing. Their life was at times somewhat frugal, because their income varied, despite Guldberg's good job. Dagny tells us that even when they lived on Dovre her father was reluctant about his patients paying him, because many of them had very little money. Therefore, as far as she remembers, they were constantly in need of money. Some of the patients paid with products, something that meant that their diet could vary according to what the patient used for payment, which at times could be rather monotonous for the large household. Dagny writes about when her father was given a sack of sago as payment, something that meant that they had to consume a lot of sago soup and sago porridge. Even so, one can take it that Dagny's life as she grew up, the daughter of a district doctor, was economically easier than for many others.

We are not quite sure when Dagny first moved to Kristiania, but suppose it must have been while she was a teenager. She writes in her memoirs to her grandchildren that she started school in the capital city, and that things did not go so well. Dagny, like her brothers, had been educated at home, she had a governess, and her brothers had tutors. "In town we were thirty girls in the class, and they used a different method than the one I was used to." It was a big change from a quiet life on Dovre with her brothers and sisters around her, to a school's miniature society where she did not know the ground rules. Dagny calls it, a "horrible" time. She went from experiencing that she was clever in her school at homes, to no longer doing so well.

As an adult, 21 years of age, Dagny moves from her home for good, to work in the capital. Dagny's older brothers already live there and are studying at the university. They found a place to live with their aunt, their father's sister, Mathilde Sofie Waage. She is married to Professor Peter Waage, a well-known professor of chemistry, who works with her father's brother, and develops what was later known as, "Guldberg and Waage's Law", the law of equilibrium.³⁷ Because Dagny was a woman, she was not given a chance to study, but was to live and work as a receptionist for another aunt, Julie Sand, her mother's sister and Principal of a residential home for students in Kristiania. Her wage was food and board and 15 kroner (ca. £0,81 in 1910³⁸) a month. Dagny found this was impossible to live on. Just having suitable clothes on that wage was difficult, she felt. To

³⁶ Memoirs for grandchildren written by Dagny in 1976

³⁷ Pedersen (2014)

³⁸ Reference: National Bureau of Statistics, http://www.ssb.no/kpi (ca. 1910-17), http://inflation.stephenmorley.org/ Historical UK inflation rates and calculator (ca. 1910-17)