



**Arctic
Design**
Opening
the Discussion

Edited by Päivi Tahkokallio

Arctic Design Opening the Discussion

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Arctic Design

Opening the Discussion

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Foreword

Arctic Design. Opening the Discussion aims at encouraging discussion on the role of design in the development of the Arctic.

I believe the time is right for this, for at least two reasons. Firstly, interest in the Arctic is rapidly growing, as public bodies from regions and countries within the European Union, as well as from within other international bodies, are developing Arctic strategies. The business world keeps an eye out for opportunities within the Arctic, while environmental organisations and other NGOs keep a close eye on companies.

Secondly, design is evolving too. Product design is giving over to service design and strategic design. User participation is becoming a core element in most design processes, not only in service design. There is a

growing interest in applying design thinking and design methods to social and public policy challenges. The Faculty of Art and Design at the University of Lapland and the Regional Development Agency of Rovaniemi are located in the Arctic Circle. Their location alone provides a strong interest in Arctic issues. Their mutual interest has led to a collaborative project on Arctic Design in 2011-2012.

The book in hand consists of introductory articles by Mauri Ylä-Kotola, the Rector of the University of Lapland; Juha Seppälä, the CEO of the Rovaniemi Regional Development Agency; and Päivi Tahkokallio, CEO of Tahkokallio Design+. Päivi worked for the Arctic Design project at the University of Lapland's Faculty of Art and Design while editing this book.

Satu Miettinen, Professor of Applied Art and Design at the University of Lapland's Department of Industrial Design, has touched upon some of the possibilities of service design in the Arctic in her article. Timo Jokela, Dean of the Faculty of Art and Design

at the same university, discusses developments in snow design in the cultural context of Lapland. Kai Ryyänen, Senior Lecturer at the Rovaniemi University of Applied Science, describes how snow and ice construction as part of cold technologies has evolved.

Glen Coutts from Scotland, part-time Professor of Applied Visual Arts at the Institute for Northern Culture, and Docent at the University of Lapland in Finland, discusses Applied Visual Arts and how it can be used in work with local communities. Michael B. Hardt, a guest professor at the University of Lapland, proposes a definition of Arctic Design, paying attention to the relationship of design and sustainability and respect for indigenous people. Anne Marchand, a product design professor at Université de Montréal, Canada, and Renata Marques Leitão, a Ph.D. student at the same university, discuss an indigenous community from Quebec, the Atikamekw, and their design.

Tuija Seipell, a Finland-born business consultant, speaker and writer, known for her work as the senior writer of the popular Cool Hunter blog, writes about the potential of Arctic Design as a brand. Her article works as a bridge to the business case studies

included in this book. Firstly, Johanna Ikäheimo, the Chairman of the Board of Directors at Lappset Group Ltd. and Jukka Jokinen, Vice-President and General Manager of BRP Finland, discuss the role of Arctic Design in their businesses. Five other business case studies from Rovaniemi are then presented to the reader: Metsähallitus, Flatlight Films, Prosanta, Annelin Yrtit & Karkit, and Arctic SnowHotel.

The *Arktinen Muotoilu* – Arctic Design project would not have been possible without funding received from the European Union and its European Social Fund, and The Lapland Centre for Economic Development, Transport and Environment.

I would also like to pass on my heartfelt thanks to all of the excellent authors who contributed to this book, and to all of the companies which kindly provided information on their business. Warm thanks are also due to the brilliant graphic designers Antti Ahvonen and Veli-Pekka Laitinen from Puisto Design and Advertising. It has been a pleasure to work with each and every one of you.

To the reader: I hope this book leaves you with a wish to comment and a need for discussion.

Rovaniemi, in the Arctic Circle,
August 2012

Päivi Tahkokallio
Editor

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Mauri Ylä-Kotola

Ph.D. Mauri Ylä-Kotola is Rector (President) of University of Lapland located in Rovaniemi, Finland. Prior to his current position Ylä-Kotola worked as a President of Finnish Academy of Fine Arts in Helsinki.

Mauri Ylä-Kotola's areas of academic expertise include, e.g., the thematics and problematics of the information society, media technologies, content production, computer-mediated communication and electronic aesthetics. He has undertaken research in the new forms and methods of interactive media, especially synthetic multi-user environments, and has recently been working on a project on philosophical questions of virtual reality technologies and spatial interfaces. Ylä-Kotola regularly lectures at various European universities.

Mauri Ylä-Kotola has written, edited or co-edited dozens of books. He is the editor of, among others, the four-volume anthology *The Integrated Media Machine* (I A Theoretical Framework, II Aspects of Internet Culture, Hypertechnologies and Informal Learning, III&IV: Aspects of Future Interfaces and Cross-Media Culture).

Arctic Design

At first sight, the concept of 'Arctic Design' seems puzzling.

Is there such a thing?

We can seek answers to this question by considering first what design is. Notions of art in the 19th century expressly focused on the individual, i.e. the artist. It was maintained that artists lived in an existence larger than life and that artworks were meant to pass on to the public the emotions of the artist, permitting the former to taste, if only for a moment, Olympian nectar from the heaven of the arts. A major change that took place in the 20th century was the alliance of art and the manufacturing, in which artists began to design mass-produced goods. This was called design. In the 21st century, the design of services has come to accompany and replace the production of goods as an area of work for artists/designers. The European economy in particular has increasingly shifted from producing goods to services, and people have begun to ask how services can be designed aesthetically, ergonomically and in ways that provide experience in everyday processes of working life, commerce and educational, social and health services. Industrial design is at present to an increasing degree service design instead of the design of objects.

What does 'Arctic' then mean? The term 'Arctic' refers the areas around the North Pole. This region can be defined in various ways. Geographically, it is bounded by the Arctic Circle (66° 33'N), but the cold and great variations of daylight

are characteristics of its natural environment. The Arctic region can be defined, for example, with reference to permafrost, temperatures, the boundary of forest cover, the freezing of the sea and various international agreements. The population of the region is slightly more than 3, 500, 000, but a major part of the world's still unutilized oil and natural gas resources are located within it. Climate change and the resulting melting of ice cover have opened up an economic market for the exploitation of the Arctic region. Oil drilling and seafaring in particular have benefited from the reduction of ice cover. The economic utilization of the Arctic entails immense environmental risks and Greenpeace, for example, has called for leaving the Arctic alone in the same manner as the Antarctic.

Arctic Design could be firstly be considered a characteristic of style in the same way as Finnish or Scandinavian design. This definition, however, is a paradox. Alvar Aalto did not feel he was creating Finnish design but instead universal design taking its starting points in an intuitive understanding of nature and correct solutions of colour and form with nature as their basis. The work of the classic names of modernism, such as Aalto or Le Corbusier, is just as relevant in Brazil or Japan as it is at Rovaniemi.

Arctic Design could also be understood to mean design by indigenous peoples. The Arctic region is home to over 30 indigenous peoples. According to one method of calculation, this amounts to a population of approximately 650, 000. A core issue of design by indigenous peoples are the traditions introduced by adaptation to the environment, which saved the Inuit of Greenland when the Viking civilization collapsed.

Hippolyte Taine (1828 –1893) maintained that culture can be defined with three indicators: Race, Milieu and Moment. Although the indicator of race has a poor reputation, it also served as an underlying strand of the Arctic Spring of the indigenous people at the turn of the 20th and 21st centuries. Milieu and moment are values with which Arctic Design can be approached in broader terms.

Arctic Design means design in the Arctic Milieu, in which both service and industrial design take into account human adaptation to the cold: permafrost, sub-zero temperatures, the forest boundary, and the frozen sea. In the present Moment, this means that the emphasis of art and research is shifting from the union of commerce, technology and art to a critical union of the social sciences, environmental thought and art. In the Finnish university system, Aalto University swears by the union of commerce, technology and art, while the research profile of the University of

Lapland underscores the interaction of critical research in the social sciences, environmental thinking and art. This is necessary in Lapland and the Arctic region, because the economic exploitation of this region entails immense environmental risks.

The University of Lapland has given Arctic Design three goals of research and artistic activity: research in Arctic service design, the development of Nordic welfare and changing forms of work through design and introducing the perspective of sustainability, justice and fairness in Arctic Design. These three perspectives find concrete forms for example in studies on future mining activities and their development from the perspective of Arctic Design.

“The research profile of the University of Lapland underscores the interaction of critical research in the social sciences, environmental thinking and art.”

Juha Seppälä

Juha Seppälä, Lic.Sc. (Tech.) is the Managing Director of Rovaniemi Regional Development Agency. Owned by the City of Rovaniemi and Municipality of Ranua, the Agency acts for the development of business in the region and as an expert organisation.



Photo: Rovaniemi Regional Development Agency

The business world needs

Arctic Design

The Arctic has taken an important position. It is responsible for the internationalisation of our businesses and enhances Rovaniemi's status as the capital of Lapland and more widely as the Barents hub. Rovaniemi's image as one of the centres of design expertise is reinforced through determined development work, given a solid foundation by the design expertise of the Faculty of Art and Design of the University of Lapland.

“In the future, Arctic Design will have an even more important role in the development of branding Rovaniemi and the northern regions.”

Working in cooperation, we are enhancing Arctic Design as an internationally recognised brand while strengthening Rovaniemi's position as the centre for expertise in Arctic Design. By defining the concept of Arctic Design and opening up international discussion, companies are provided opportunities for standing out and profiling, and for utilising the framework of Arctic Design in their commercial activities. In the future, Arctic Design will have an even more important role in the development of branding Rovaniemi and the northern regions.

Design is a business not bound by place or time; rather it is design that is possible to produce regardless of location. Affiliating arctic properties into the design concept and local identity facilitates the possibilities for a new way of thinking, which in turn provides visibility and a way of standing out from the crowd. Arctic Design is special expertise using which companies providing design services can also succeed both nationally and internationally.

Rovaniemi is a good region for offering design services. Taking advantage of the neighbouring markets in North Sweden, Norway and Russia can open up new business possibilities in the growing Barents markets. Activity and life in the northern regions is forecast to increase in the future. The mining industry is expanding, the Arctic Ocean railway connection is being discussed, and lifetime experience tourism to the north is increasing all the time. Design can also be utilised in resolving problems associated with education, health care and the town. There is an increasing need for enterprises providing a wide range of design services.

The significance of Arctic Design is not only affiliated with the visual appearance of brands, but moreover with content. Design means that things are working well. Design is straightforward solutions that regardless of their simplicity make large impacts on everyday life. How can an object improve the quality of life and make life easier? In what ways does it conform to the principles of sustainable development and how does it suit the culture and society for which it has been designed?

At best, Arctic Design utilises the existing strengths of the region and creates its own identity for expertise. Arctic nature is close to us, being a strong part of our cultural heritage. Natural materials, raw materials, forms, colours. The changing of the seasons

– long cold winter, darkness, snow and ice. Strong intensive summertime – Midnight Sun, full of light and growth. How is creativity created, a state of mind where thoughts flow? The environment, forests, fell highlands and wilderness give plenty of space for concentrating on what's important.

Enterprises and good examples were sought from the commercial sector in Rovaniemi, where Arctic Design as a phenomenon already exists. Themes are related to wooden construction and the sustainable use of northern forests, travel in the Arctic regions, not only taking into consideration the vehicle, but also the significance of clothing and equipment, as well as utilising Arctic cultural heritage in the design language, materials, colours and stories associated with the products

of industrial enterprises. A lifetime experience in tourism is created from genuine experience in an authentic location, in nature surrounded by tales. Design has special importance in snow and ice construction which is defined by safety precautions. The plants and berries growing in the northern nature are especially aromatic due to their short and intensive growing season.

Creativity is easy to highlight in companies that draw their strengths from the Arctic environment. This publication shows concrete examples from these companies of how Arctic Design is apparent in different companies and how these companies utilise Arctic Design as a factor for improving competitive ability, as well as accounts on what brand value Arctic Design provides these enterprises.



Photo: Antti Kokkonen

Päivi Tahkokallio

Päivi Tahkokallio is the founder and CEO of Tahkokallio Design+ Ltd. The company was founded in 2009 and is based in the Arctic Circle (Rovaniemi, Finland).

Päivi is an expert in strategic and social design. She is a creator of innovative platforms to promote Arctic Design. A recent creation of hers is the concept and brand strategy for Rovaniemi Design Week, which is the world's most northern design week. Päivi's passion is to help businesses and public bodies succeed with design.

Before moving to the Arctic Circle in 2009, Päivi has led the cross-disciplinary Design for All Finland network at the National R&D Centre for Welfare and Health in Helsinki. Päivi also acted as President for Design For All Europe EIDD in the beginning of 2000.

Päivi has lectured widely on Design for All and social design in Europe and internationally.

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What has **Arctic Design** got to do with it?

“For several days this month, Greenland’s surface ice cover melted over a larger area than at any time in more than 30 years of satellite observations. Nearly the entire ice cover of Greenland, from its thin, low-lying coastal edges to its two-mile-thick centre, experienced some degree of melting at its surface, according to measurements from three independent satellites analyzed by NASA and university scientists.”

“The definition of design is being reshaped, and perhaps with our times, and the challenges ahead, it needs more reshaping than ever.”

This news bulletin was reported on July 24 2012 by NASA Science News, and published on its website¹. The news soon made its way into the Finnish media. It was further reported that when half of the surface of Greenland’s ice sheet naturally melts, most of the melted water quickly refreezes in its place.

This summer the melted water did not freeze back. The question which we all seem to have on our minds is whether or not this is a sign of permanent change. The NASA Science site quotes Lora Koenig, a Goddard glaciologist and member of the research team analysing the satellite data:

“...melting events of this type occur about once every 150 years on average. But if we continue to observe melting events like this in upcoming years, it will be worrisome.”

Global forces are arctic forces too

Climate change is without doubt one of the most intriguing global forces. If you are not a scientist, it is very difficult to follow what really happens. This much is clear though: the long-term trend is that the global average temperature

will go up. Also the impact of rising temperatures is more dramatic in the Arctic - scientists say that the region experiences double the warming than anywhere else. Melting ice sheets leads to rising sea levels. Michael B. Hardt also writes about this in his article which appears later in this book (pp. 54-59). Climate change has a direct impact on the flora and fauna within the Arctic region. If you want to learn more, just read what Laurence C. Smith writes in his book titled *The World in 2050: Four forces shaping civilization's future* (Smith, 2010). I suspect we will see much more happening in the line of polar bear and North American grizzly bear interbreeding – the first offspring from this new breed was found in 2006 on Banks Island in the Canadian Arctic.

How can one grasp other megatrends, such as demographic change and population ageing? The world’s population hit 7 billion towards the end of 2011. The number of people on Earth has more than doubled during the past 50 years, during my lifetime. More than half of us live in urban areas already. Ageing, like any demographic measure (e.g. birth rate and migration flows), does not happen the same way in all parts of the globe, yet trends are nonetheless evident. Finland is of particular interest: it is currently the country in Europe where ageing takes place the fastest, as well as being a country which is predicted to have more people over 60 years of age than in any other part of our continent by

2030. And what happens in Lapland, north of the Arctic Circle? We already have towns and villages that are like demographic laboratories for Finland in 2030, where it is estimated that more than 26 % of population is now 65 or older. From 2000 till 2030 the share of people 65+ in Finland will grow to almost 80 % – by which time I shall be a part of this age group.

From design of products to design of services and strategies

I am asking once more, whether or not this has anything to do with Arctic Design? I certainly hope so. The coming challenges, especially in regard to the impact of these two global forces alone, will be immense. Design thinking and design methods are seen as useful in tackling the wicked problems of our time. Geoff Mulgan, CEO of NESTA, National Endowment for Science, Technology and Arts in the US, talks about this in his foreword for *In Studio: Recipes for Systemic Change* (Boyer, Cook, Steinberg, eds., 2011) when he states that recent years have brought about a growing interest worldwide in applying design methods and design thinking to social and public policy challenges. The definition of design is being reshaped. Perhaps due to the present challenges we now face, it needs more reshaping than ever before. The design of objects will not die out, but in a world where the service sector covers twice as much of GDP as industry does, design

¹science.nasa.gov/science-news/science-at-nasa/2012/24jul_greenland/

is becoming increasingly prevalent to services. As Satu Miettinen writes in her article (pp. 28-33), service design can help us create radical innovations and solutions for service production in marginal living conditions. She also explains how service design can come to aid e.g. the development of improved services for ageing citizens in Finnish Lapland.

But design does not stop at service design. Michael B. Hardt takes a critical stand to the developments in the Arctic, suggesting that it is inconsiderate to think of melting sea ice as an advantage, for example when discovering new oil reserves. (pp. 58-59). He challenges us to speak about sustainability *by* design, not sustainable design, arguing that sustainability by design is about restoring the sustainable system of the Arctic through design methods. I consider this to be a highly strategic issue, and strategic issues demand strategic decisions. This is how strategic design can be explained: design expanding into shaping decisions.

“Strategic design is a way to specify the intentions that we want to accomplish and steward efforts towards the realisation of those aims.”

say Bryan Boyer, Justin W. Cook and Marco Steinberg, when describing their work at Helsinki Design Lab, a project run by Sitra, the Finnish Innovation Fund (Boyer, Cook, Steinberg, eds., 2011).

Can't disregard nature

How did this book on Arctic Design come into being? In practical terms it is a result of a joint project between the University of Lapland's Faculty of Art and Design and the Regional Development Agency of Rovaniemi. The most northern Faculty of Art and Design in the world, based in the Arctic Circle in Finland, takes a natural interest in the Arctic; this also goes for the business developer for the City of Rovaniemi. The desire to take a closer look at Arctic Design reflects growing political, economic and cultural interests in the Arctic in general, but also reflects the agility of design to react to changes in the world.

How do we then define Arctic Design? This book is the very first international publication on Arctic Design, with contributions from the northern regions of Finland, Sweden, Scotland and Canada. The articles included are complemented by seven business case studies to give the reader an insight into how companies based in Rovaniemi perceive Arctic Design. The Arctic Design project itself has become involved in many other tasks besides producing this publication, such as asking design students, ordinary citizens, and local business representatives attending the Arctic Business Forum last February, to each describe how they perceive Arctic Design. Citizens often mention ice and ice sculpting, reindeer, the university and its faculty of design,

the Arctic Circle, and tens of other details. However, these were often only reflections of nature as a designer, or nature as a source of inspiration. Does Michael B. Hardt not speak about the same connection to nature when he proposes a potential definition of Arctic Design with close attention to nature?

“Survival in the Arctic is only possible with total respect for nature and by living in harmony with it.”

Or when Anne Marchand and Renata Marques Leitão state that the singularity of one of Quebec's First Nations, found in Atikamekw design, reflects the singularity of their territory? Or when Timo Jokela writes that Northern Finland can represent

itself by means of winter art and design, and how community-based and co-design projects help people connect with their own environment? Or when Tuija Seipell writes that we want to know about the people who continue to live in the harsh environment of the North, because it represents hope?

Why not return to a great design thinker who had a fond affection for Scandinavia?

“Design, if it is to be ecologically responsible and socially responsive, must be revolutionary and radical in the truest sense.”

wrote Viktor Papanek (Papanek, 1984). I vouch for this; and this concerns Arctic Design, too.

“The desire to take a closer look at Arctic Design reflects growing political, economic and cultural interests in the Arctic.”

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Photo: Aino Huovinen

Satu Miettinen

Satu Miettinen (Doctor of Arts) works as professor of Applied Art and Design in the University of Lapland, Department of Industrial Design. For several years, she has been studying and developing service design and social design practice in multiple projects. She is actively working with writing and editing service design research literature. Satu Miettinen works actively in the area of social design. She has been co-operating with Namibian local communities for more than a decade on several projects. She is actively involved in design policy work and has vast experience in the management and co-ordination of design research and development projects.

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Service design, **radical innovations** and arctic wellbeing

Service design opens up new opportunities for Arctic wellbeing. Service design tools and methods enable active user participation in the service design process. Jones and Samalionis (2008) discuss the pathway to radical innovation and how difficult it is to introduce new services. Focusing too much on current reality makes it problematic to envision a world that is different. The use of innovative methods, creativity, and also intuition, have all helped the service design approach.

This working approach with service users can help us create radical innovations and solutions for service production in marginal living conditions. In the Arctic distances between towns are long, land area is sparsely populated, natural living conditions are harsh and, in some places, population is rapidly ageing. Service design and radical innovation could create a balance between the lively tourism service sector and everyday living in the local context. We need both sides to sustain tourism and maintain the Arctic as a desirable place to live.

What is service design?

Service design is establishing itself as a method for developing services and the service business. Service needs, new ideas and ways of utilising technology are encountered when a customer and an end user participate in the design process. Mager (2009) has pointed out that the need for service design is evident, since economic development has changed dramatically during the last four decades from a state of manufacturing to a state of information and service provision. Service design looks at service development from the designer's point of view, while design thinking itself has the ability to create concepts, solutions and future service experiences for users.

Service design connects areas of cultural, social and human interaction. The use of different design methods, design research, design thinking, and different visualisation techniques link different stakeholders' views during the service design process. Conceptual and iterative design techniques are important elements of service design. The main goal of the service design process is to identify users' needs and wants while developing service solutions to them. Saffer (2007) notes that services do not come alive before people are using the service and walking through the process.

Service design and the public sector

Service design has a growing role in the public sector. The design profession is changing as design simultaneously moves towards experience-based co-design (Szebeko 2011). Government demand and user-driven policies for innovation require more user engagement in the development processes (Ministry of Employment and the Economy 2010). Better public services are in demand from users while services develop in general. At the same time, innovative design methods used in service design continue to enable user participation in service development (Thomas 2008).

Manzini (2009) discusses how the next economy re-orientates its activities in new directions. This economy's products are complex artefacts such as: distributed power generation systems, new food, intelligent mobility, programmes of urban and regional development, collaborative services (where inclusion and user involvement are important), and health care. Considered as a whole these solutions are to be considered a new kind of service: complex localised systems, whereby different actors interact in order to produce a commonly recognised value. The result is that by being based on context-related, service-oriented solutions, the next

economy calls for a robust adaptation of traditional ideas on the means of production and consumption, and consequently on design.

The use of service design in the public sector is needed to keep the marginal areas competitive and to create new ways to overcome obstacles which the geographic context suggests. Service design methods propose new inclusive ways of public service design where peer-to-peer service production as well as participatory budgeting, build a sense of community and commitment.

“The use of service design in the public sector is needed to keep the marginal areas competitive.”

“The SINCO lab has worked with companies focusing on prototyping new solutions for their service journeys, user interfaces and overall product experiences.”

Service design in Lapland

Service design is one of the strategic research areas at the University of Lapland. The Faculty of Art and Design has worked for several years with service design and service prototyping methods. The main purpose of prototyping is to concretize an idea (Fulton Suri 2008).

A prototype can quickly and inexpensively communicate a service proposition and prompt questions on technical feasibility, consumer desirability, and business viability (Samalioniis 2009). Prototypes should represent an interaction between products, technology, and society (Kurvinen 2007). Ideas and concepts can be shared in various ways, for example as prototypes, from the beginning to the end of the design process, in order to learn from other people's reactions and to check, revise and refine assumptions (Fulton Suri 2008). Blomkvist and Holmlid (2011) propose that the rapid prototyping approach sometimes means that prototyping is an activity ongoing throughout the design process. In this sense the character of service prototypes change over time as they become progressively elaborate and detailed.

SINCO¹ (Service Innovation Corner) is a prototyping lab for service and interaction design at the University of Lapland. The SINCO lab has worked with companies focusing on prototyping new solutions for their service journeys, user interfaces and overall product experiences. The lab enables us to study and analyse existing services and user experiences. We visualize ideas and develop them quickly. We communicate with stakeholders coherently. And we test and evaluate concepts collaboratively.

SINCO is actively working with public sector service developments in several projects which include the following: IKÄEHY² promotes improved quality and command of living for the elderly through improved services; ELÄVÄ LAPPI³ promotes new service solutions for lifestyles like shopping, nature and sports. These types of practical developments help to concretise opportunities within service design, for the creation of new radical service concepts and user involvement.

¹www.ulapland.fi/sinco

²some.lappia.fi/blogs/ikaehyt/

³some.lappia.fi/blogs/elavalappi/

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Timo Jokela

Timo Jokela is the dean of the Faculty of Art and Design at University of Lapland and the director of the Institution for Northern Culture of Lapland University Consortium. Since 1994 he has worked as a professor of Art Education at the University of Lapland. During the years 2006-2011 he worked also as a visiting professor of art education and environmental art at the University

of Strathclyde, Glasgow, UK. His theoretical academic studies focus on phenomenological relationship between art and nature, environmental art, community art and art education. He is also responsible for several international cooperative and regional development projects in the field of visual applied art, design and art education. Jokela has published several articles and books.

Jokela works actively as an environmental artist, often using natural materials, wood, snow, ice, or the local cultural heritage as a starting point for his works. He has realized several exhibitions and environmental art projects and community projects in Finland and abroad.

Lapland snow design: reflections from Walden Pond

Henry Thoreau wrote his famous book, *Walden; or, Life in the Woods* (published in 1854), based on his experiences during a two-year experiment, from 1845-1847. He did this while living in a simple cabin that he had built within the woodland near Walden Pond in Concord, Massachusetts. Future generations saw the book as praise for northern simplicity: woods, wilderness, tranquility and natural beauty. Later on the book became an illustration of ecological and sustainable development. Captivated by the wintery wilderness, Thoreau hardly noticed

the people working on the Pond. While Thoreau lived in his cabin, a businessman named William Tudor drew ice from the Pond, stored it, and shipped it using his custom made sailing ships to Southern States and Caribbean shores. Later he expanded his ice selling business all the way to India and Australia. With his trade, Tudor became the first multi-millionaire in America. His business ended due to the invention of refrigerating machines. Long after Tudor's business had ceased, readers found Thoreau's works and the cabin at Walden Pond became a place of pilgrimage for admirers of natural aesthetics.

Winter art and Arctic Design

Following Henry Thoreau's aesthetic concept (the natural beauty of winter), winter's art is art created by winter itself, including its natural forces and conditions, which we look at as art or through art. There is not only metaphorical art; there is also the metaphorical artist or designer. Winter is personified as a creative designer, working with snow and ice, mist, frost, and light. Winter in the North is an impressive phenomenon. Snow covers the landscape in Lapland for eight months of the year, from the middle of October to the beginning of May. The solid states of water in winter – snow and ice – are central aesthetic elements in the northern landscape. Through aesthetic experiences, winter touches the deep, basic human emotions. Many an artist and designer are inspired by winter's art.

But we need to remember that the way in which we experience winter is also culturally related: our environment affects us and one's culture conditions an understanding of it. Narratives related to winter in art and culture vary, encompassing emotions such as fear, respect, or piety. We should also notice that both Thoreau and Tudor ignored Native Americans who lived in winter conditions around Walden Lake. We should ask if there was a special attitude towards, or knowledge of, winter among Northern people.

Olaus Magnus, who in his book *History of Northern Peoples* described living with snow and ice in incredible detail, had made note of the Scandinavian 'know-how' of winter, in as early as 1555. Winter has always been a time of activity. Indigenous peoples in the North do not see snow as an obstacle, or as a handicap, but rather as an essential part of life. When getting around, snow is in fact a joy, since travelling using dogs or reindeer makes sledging easy. Forestry, reindeer herding, winter hunting, ice fishing, and transportation between trading places, have traditionally been winter tasks and have therefore defined people's relationship to winter. This practical connection to winter also includes a rich tradition of observing nature. Snow has not always just been snow; there have been dozens of different names to describe its various forms. The understanding of snow and the ability to read it have been transferred as tacit knowledge from one generation to another. Children's plays have also been a very important way of passing on this kind of cultural knowledge.

It is not merely about adapting livelihoods to the change of the seasons, but also the northern mind. Winter has, indeed, shaped the northern mentality. Being the time of togetherness and story-telling, winter has also strengthened communal identities. This is obvious all over the circumpolar North. Looking at northern and Arctic living, we see a

phenomenon which brought together Thoreau's natural aesthetic and Tudor's economic attitude towards snow and ice.

For example the culture of traditional village communities in Lapland, shaped by winter's terms, has become a diverse and distinctive way of life. With technology and urbanization threatening the link between traditional livelihoods and winter, our cultural relationship to winter is changing. One manifestation of this change, a positive one, is the brisk increase in winter festivals, winter theatres, snow and ice sculpting events, snow architecture, and snow and ice design. At their best, these phenomena can collectively be called winter art and design; a separate characteristic of Arctic Design. One should note that most of the people working in the field of snow and ice art and design do not have relevant formal education: they have developed their skills themselves.

Winter art and design in Lapland seems to have one characteristic developmental path. At first, winter art and design opens up views to winter's cultural experiences. The local significance of winter art in Lapland is exceptional because it seems to be strongly connected to characteristics of local identity, self-expression, and cultural tradition. Northern Finland can represent itself by means of winter art and design. Making winter art and architecture together, for example

“The local significance of winter art in Lapland is exceptional because it seems to be strongly connected to characteristics of local identity, self-expression, and cultural tradition.”

in community-based and co-design projects, is an excellent way of helping people to connect with their own immediate environment and with each other, in the spirit of dialogue and sharing.

Characterisation and representation of the self through the medium of art is a central characteristic of culture. This holds true for Lappish snow and ice activities as well, which form an essential part of an image which Lappish culture projects about itself. In a community-oriented project, these phenomena are considered to be the local foundation of winter art and design in regard to its positive experience.

A world-wide view which we need to remember is that snow and ice sculpting as art forms are based on a Far Eastern tradition. The Japanese Zen Shinto village rituals, which celebrated with works of snow and were based on a respect for transition during winter, as well as Korean-Chinese celebrations with their ice sculptures, have both been transformed into the snow and ice festivals we see today, and have spread throughout the Northern Hemisphere. Winter events have contributed to making winter art well known but, by the same token, have channeled snow and ice sculpture into standardized competitions. On the one hand: decorativeness and demonstration of technical skill; on the other hand: a formalistic language of shape – have

both become recurrent features. The events have become detached from their original closeness to nature and community spirit. At their dullest, snow and ice sculpture competitions produce “winter Disneylands,” or modernist sculpture parks and design copies, repeating the same motifs in Japan, Canada, Russia, and Finland, irrespective of the culture or venue. This phenomenon can be seen, unfortunately, in Lapland. At their best, events are open and innovative occasions, characterized by a search for new forms of expression, new content, and means of interaction with winter design. This positive development has happened in Lapland, especially through educational programs realized by the Faculty of Art and Design, at the University of Lapland.

The second dimension of winter art and design in Lapland is developing technical tools and design knowledge as a part of research-based education. Even though the traditional know-how of forms of snow and ice have been the basis of developing winter art, no tacit knowledge is enough for strength calculations, safety control of construction, or increasing cost-efficiency in regard to working methods. Therefore the University of Lapland and the Rovaniemi University of Applied Sciences have joined together with companies specializing in snow and ice building, and have purposefully developed expertise via snow and ice research. By



Photo: Timo Jokela



combining knowledge of snow and ice characteristics with structural planning it has been possible to create secure, economical, predictable, and replicable construction methods. Hence it has been possible to build massive snow and ice constructions such as hotels, restaurants, and various other settings, as well as creating a proper basis for snow and ice design.

But can we learn something from the unprejudiced and broadminded business operations of Tudor? Is there a way to take snow and ice to the world today? The export of snow and ice expertise is in its infancy and business has opened to Norway, Canada, Austria, and Russia, through Lappish companies and education projects. To support and export joint-venture projects by the University of Lapland, the Rovaniemi University of Applied Sciences and local companies, Lapland Snow Design is in the process of developing methods for customer- and user-based design, more flexible cooperation models for companies, and integrating lighting and media to snow and ice environments. This way the increasing and diversifying demand for snow and ice expertise can be met by Arctic designers.

The purpose of this short article has been to introduce the notion that by using methods of environment- and community-based art and user-orientated design, it is possible to create Arctic Design where winter aesthetics and local cultural

dimensions, along with high-quality services and economic development can be met.

Snow and ice design will certainly have a future in Lapland. The community approach makes winter art and design a permanent feature of local cultural identity in villages, while a winter city mentality increases the enjoyment of residents in cities and towns. The event- and performance-oriented approach make it possible to relate snow design to contemporary phenomena in a critical, while at the same time celebratory, manner of commercial experience. I believe snow design is a good means to develop a new type of socially, culturally, and ecologically active art and design form in the Arctic, which could be transferred to the rest of the world.

For more information about Lapland Snow Design project, please visit lapland-snow-design.blogspot.fi

Recent developments in **cold technologies** in Lapland



Kai Rynnänen

Since 2001 Kai Rynnänen has acted as a Senior Lecturer at the Rovaniemi University of Applied Science. He has also acted as a Project Manager for several EU funded projects on snow and ice construction. His recent book, Handbook of Snow and Ice Construction, was published in 2011.

Cold technologies include numerous, often variable, technological areas. This article focuses on two industrial areas: snow and ice construction, and off-road vehicle design. Both industrial areas are strongly linked to tourism in Lapland.

Cold technologies have been of great strategic interest at the Rovaniemi University of Applied Sciences (later RAMK) during the past fifteen years. In Northern Finland our companies are used to working in cold climate conditions. Local companies have considered the cold climate during wintertime to be a benefit, for example in tourism.

Snow and ice

Almost twenty years ago now, someone came up with the idea to build a big snow castle in Kemi. The first snow castle appeared in 1996, and ever since then Kemi Snowcastle has been built annually. At the same time in other places in Lapland, other snow and ice projects have begun to be developed by newer tourist sites. In Rovaniemi and Saariselkä, for example, local areas have been developed to include these regions' first snow and ice buildings for tourists.

From the use of snow and ice material, a new industrial development has come into being: what we are now calling 'snow and ice construction.' This construction industry focuses on building and developing snow and ice buildings or structures. Snow and ice construction includes many different kinds of activities and/or structures, such as snow and ice hotels, amusing parks, exhibition areas, etc. Using snow and ice as construction material is not a new concept either. For example, in Japan and Canada they have had snow and ice festivals and exhibitions for quite some time, long before Kemi Snowcastle was invented. However, in terms of Finnish snow and ice construction, the desire has been to go inside; thus we have made snow and ice structures, such as vast hotels or igloos, where one can stay in overnight.

There are only a few companies which have turned snow and ice construction into a business. After the very first ideas had emerged in relation to Kemi

Snowcastle, cooperation on snow and ice construction research has been developed with the University of Oulu. Meanwhile, RAMK has also been involved in R&D activities. In its first R&D actions, RAMK defined the essential shapes of structures and drafted some principle design standards for snow construction; mainly due to the fact that in Finland snow and ice buildings require planning permission. In regard to planning permission, structural analyses have been carried out by construction engineers to ensure that the building's strength is viable. At first, snow and ice construction shapes were copied from old stone bridges and churches. However, it was soon discovered that the best shapes of snow and ice could be formed by compression within supporting structures. Snow and ice material has a weak tension compression, therefore within almost every snow and ice construction the same shapes can be found: catenary vaults, walls, towers, etc. The only difference between

different snow and ice structures tends to be how long tunnels are or what the height of a tower is. In addition, building methods may vary between different companies.

Companies started to develop their own methods of building snow and ice constructions during the first ten years or so. It can be said that the most radical changes during those years were when companies started to use air-pressure moulds. Since this time, RAMK has developed R&D with snow and ice construction companies. Due to successful R&D activities, companies cooperating with RAMK have developed their construction systems ahead of time, and have made snow and ice construction quickly and efficiently. New shapes of structures have been invented. New material know-how has been an important impulse in our construction work. Another goal of R&D work has been to use less snow and ice in structures; i.e. when mixing snow and water in structures, 'slush' is formed. Slush

has been used in many different ways in snow and ice construction. Nowadays new structures are often made using a so-called 'three layer method,' whereby ice, slush, and snow are used in the same structure. Using the three layer method has opened up new opportunities for snow and ice construction, which has resulted in today's different shapes and taller structures.

“New structures are often made using a ‘three layer method,’ whereby ice, slush, and snow are used in the same structure.”

“Our newest challenge in snow and ice construction is to adapt to warm weather in late autumn and early winter time.”

A very important part of this development has been to create new snow and ice construction specifications for designers, constructors, building inspection authorities and end-users. In terms of snow and ice specifications, each are given detailed instructions on how to build snow and ice constructions. The main focus, however, is to ensure that safety standards of snow and ice constructions are high enough.

Our newest challenge in snow and ice construction is to adapt to warm weather in late autumn and early winter time. This is because almost every snow and ice construction (except the Kemi Snowcastle) is built yearly, in November or December. Weather conditions during the last five years have caused problems, in regard to making man-made snow or getting thick-enough ice blocks for ice-layered structures. Many companies invest in R&D activities nowadays in order to solve weather-related problems. Improvements have also included

the reduction in raw materials, the reduction in construction time, and the better use of building techniques more effectively. Companies cooperating with RAMK have done a lot of R&D activities in order to work on these problems. In the future, however, there is still a lot of room for development: better snow cannons, structure density optimisation, new material combination designs, etc.

One other wintertime tourist activity in Lapland is the snowmobile safari. At RAMK cold technology design can also be witnessed in off-road vehicle development. For example, as noted in customer feedback, tourists often claim that snowmobile noise is too loud. Additionally, exhaust discharge is another common negative feedback from snowmobile safaris. Tourists want a peaceful experience and do not wish to pollute nature.

Feedback from tourists along with new ‘greener’ ways of thinking, have together led to a development in

new electric vehicles for outdoor purposes. RAMK has cooperated with a number of different companies from a variety of branches, and have started R&D projects to develop electric snowmobiles. Projects started a few years ago and the first task was to create a system to replace the combustion engine with an electric motor. In the next phase of these projects, vehicles were tested outdoors and battery technology was improved so as to survive in colder climate conditions. The latest step in project-development has been to use fuel cells to charge batteries whilst driving.

In the springtime of 2012, the first snowmobile safari using electric snowmobiles took place. In winter 2012-2013 at least one company is going to begin using electric snowmobiles in their safari tours, alongside more traditional combustion engines.

The two case studies are examples of what cold technologies are capable of providing in regard to changing winter conditions. Cold technologies have led to new ways of thinking, as companies collectively try to solve problems caused by warming weather, as well as develop environmentally friendly vehicles and construction methods for tourism.

Ryynänen Kai. 2011. Lumi- ja jäärakentamisen ohjekirja. Vinkejä viranomaisille – ohjeita rakentajille. Rovaniemen ammattikorkeakoulu, julkaisusarja C27.

Alakunnas Tuomas, Karjalainen Ari. 2010. Sähkökäyttöiset pienajoneuvot matkailukäytössä hankesuunnitelma. Rovaniemen ammattikorkeakoulu.



Photo: Julie Austin

Glen Coutts

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Design, not accident

Everything happens either
by accident or design,
or the saying goes.

Design problems may be much the same all over the world, but in the North, in the Arctic region, the context exerts a powerful influence on design. For example, the climate and unique fragile environment shape the way that artists and designers go about their work, but there is something more than the obvious climatic and geographic factors influences designers in the Northern countries and that is the social and cultural context. Design that is sensitive to people, to communities and individuals is flourishing.

Frank Lloyd Wright said that he would never design a building before seeing the site and meeting the people who would use the building. Every design situation is unique, is located in a particular time and place and normally involves a community, group or individual; in short the design problem and its eventual solution is inextricably bound to the context within which it is conceived and developed. The same could be said to be true of art. This short essay explores the relationship between applied visual art as taught in the pioneering courses in the university of Lapland¹ and more conventional notions of art and design practice. It is in the margins between the disciplines of art and design that my interests lie.

It is often said that problem solving is what design is all about, it is pivotal to the endeavour and normally involves other people: people who will use or live with the results of the designer's work, something Frank Lloyd Wright understood very well. Traditionally the artist, and by this I mean the

'fine artist', has not had to worry too much about other people, but artists are also problem-solvers and art is certainly located in time and place – or context. One major difference between artists engaged in problem-solving activities and designers is that someone else normally sets the problem for designers in the form of a brief. Artists have traditionally taken a more personal almost introspective approach to subject matter, form and content in art. There is also the fact that design products have users and artworks have viewers. So, on the face of it we have two distinct disciplines but could there be some common ground between the worlds of artist and designer? What can one learn from the other? I believe that a lot of interesting work is happening in the territory that lies somewhere between 'art' and 'design', in other words when art is 'applied' in a particular context. In a design process, the notions of 'problem' and 'context' are inextricably linked and exert a powerful influence on the designer. These notions impact on artists too and I will use the

following example to show this, but first it might be useful to define what I mean when I use the words 'visual art' and 'applied' together.

What is meant by the term 'Applied Visual Art'? In my view this practice is located somewhere between the domains of design and art and it draws on aspects of both disciplines. Applied visual art has its roots in public, community or 'socially-engaged' art and is being pioneered by the University of Lapland. Around the world there is increasing interest in it because it offers new ways of working with, and for, communities in a wide variety of contexts from rural and remote areas to cities and towns. In the following example, I argue that this field of practice has great potential. As in design, context is central in applied visual art; a careful mapping of the social, physical and cultural context is the normal starting point for artist's work with communities. The social dimensions of art are often to the fore and the personal preferences and style of the artist remain in the background.

“Through developing an understanding of community issues and problems, the artist works in partnership with the community members to create art.”

A different perspective?

Those working in this field do not think of themselves as an artist first and foremost, rather they act as a *facilitator* with a community group, offering skills and experience to arrive at commonly agreed solutions.

In that sense, there are clear parallels with established design methods. In the applied arts model, the artist's own skills are not explicitly used to create the artwork, but through developing an understanding of community issues and problems, the artist works in partnership with the community members to create art. Skills beyond technical and artistic competence are necessary to be effective in this area of work, notably social and communication or 'people' skills. The disciplines of design and art, traditionally seen as separate, have qualities that can be shared: there is much to be gained from drawing on the best aspects of each domain. The long-running project described next demonstrates the power of partnership between art, design, people and context – applied visual arts. Such projects can only happen by design, not by accident.

¹ The University of Lapland and Institute for Northern Culture has developed a masters level programme on Applied Visual Art. For more information, please visit www.ulapland.fi

Applied visual arts in practice: *FabPad*

FabPad is run by the Glasgow based community arts organisation, *Impact Arts*² and draws on interior design practice. A number of centres in cities and towns across Scotland offer people (ages 16-34), at risk of homelessness and who are offered their first home, the opportunity to personalise it and make it their own. Over a period of between 6 and 12 months weekly workshops with professional interior designers give people the chance to learn new skills and develop their own ideas. Discussion on use of space, colour, textiles and so on together with shopping trips, design and planning sessions give participants the opportunity to personalise the place in which they live. Parallel to the focus on design, sessions are offered on help in gaining employment, securing training, education and becoming more active citizens. The project organisers claim that over 90% of participants sustain their tenancy for 12 months and many progress into employment or further education. Participants in the project receive £100 (€120) towards

the cost of materials and travel expenses. This project exemplifies an effective merging of design and art methodologies an example of what I would call applied visual art.

Established in 1994, *Impact Arts* is the largest community arts organisation in Europe, the company ethos is encapsulated in this statement from the company web pages:

Impact Arts uses visual arts, music, drama, dance and technology to work in local communities with people of all ages. It uses the arts as a tool for change – improving the environment, helping get someone back into work, or simply improving the quality of life.

In July 2012, the *FabPad* project won a national award for its work from the Centre for Social Justice, and a recent independent evaluation found that for every £1.00 of investment, there was a return of £8.38.

The *FabPad* project is just one of a number that the organisation uses to work with local communities and others focus on public art and regeneration, fashion or community gardening. Artist/ facilitators guide all sessions and the aim is to develop artistic and social skills that are transferable to work settings.

This is just one example of many that have taken place in Scotland, there are countless others around the world and, for some reason, there are a lot of projects in Scandinavia and Scotland. Artists, designers and architects are engaging with public and community groups in ways that are very different from the 'top down' model of, for example a commission for a public monument. Key words characterising this practice might include facilitation, consultation, collaboration, sharing and interdisciplinary working. These words are quite familiar in the design world, but these growing areas of arts-infused community engagement represents a merging of disciplines, not quite design and not just art either.

“Applied visual art is about working with people and that work is always influenced by time, place and context.”

No accident: concluding comment

I suggest that there are many advantages to the 'applied visual arts' approach for artists and communities. I also believe that the practice shares a great deal with design thinking. Applied visual art is about working with people and that work is always influenced by time, place and context. It is a difficult and challenging task that demands a sensitive and facilitative approach by the artist. It normally takes much longer to achieve an end result than an artist working on his or her own, but it is worth it.

So what might be the key characteristics of applied art? Here I suggest is a list of characteristics of good practice, designers might recognise some of these properties:

Applied visual arts:

- Promotes the artist as facilitator and/or co-ordinator with the emphasis on developing and passing on skills to others
- Is an active rather than passive learning process
- Is (normally) a collaborative rather than solitary activity
- Is inclusive and enabling for members of a community
- Places equal emphasis on process and product.
- Produces results that are often temporary rather than permanent
- Artist works within the context and culture of a community (an ethnographic approach)
- Embraces multidisciplinary techniques.

As the distinctions between 'design' and 'art'; between 'artist', 'designer' and 'educator' become increasingly blurred there is scope for more research into the benefits of artists and communities working together. The work was infused with design thinking and art processes, it happened by design, not by accident.

² For more about Impact, please visit www.impactarts.co.uk/

For more information about FabPad, please visit www.impactarts.co.uk/flagship-programmes/fab-pad



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The story of the frozen ice **or the art of sustainable design in the Arctic**

A contribution to define the topic.

We are living in a time of well-sounding, empty word bubbles. In their ambitious attempt to make the normal look special, advertisement and news industries exaggerate the invention of meaningless new terms and abuse existing ones. The terms “sustainability” and “design” have become victims of this attitude. It might be useful to define the terminology before we talk about Sustainable Design in the Arctic.

“When we deal with art and design in the Arctic we don’t enjoy total artistic freedom.”

Geographically and politically speaking, the Arctic is simple to define: everything north of the Arctic Circle, 66°33’N.

Eight nations have territories within or north of this line: Russia, the United States (Alaska), Canada, Denmark (Greenland), Iceland, Norway, Sweden, and Finland. Natural sciences define the Arctic by vegetation or climatic terms. Depending on its definition, the population above the Arctic Circle is estimated to be between one and four million. To offer a comparison, Brussels has 1 million and Berlin has 3.5 million inhabitants.

50% belong to indigenous peoples, such as: Evenki (16, 000), Inuit (150, 000), Inupiat (20, 000), Samoyedic (43, 000), Urgic (30, 000), Yupik (24, 000), and Sami (163, 000). Sami people amount to no more than the total number of inhabitants in Trondheim, Norway.

To quote a statement from the University of the Arctic:

“The Arctic is not about latitude, it is about attitude.”

To a great extent modern design is an urban phenomenon mainly related to mass industry and mass consumerism. 50% of the world’s seven billion people are urban. In urban societies, “nature” is an abstract term. But the Arctic is not urban, suburban or rural: it is primal. Nature is concrete and tangible. Lifestyle is not dictated by culture but by nature.

Most indigenous peoples are still nomads, despite all unfortunate attempts in the past to suppress their lifestyle and force them to settle. So we are not only faced with a very sensitive and fragile ecology in the Arctic, but we are also dealing with very sensible cultural issues.

In 2007 the United Nations General Assembly adopted the Declaration on the Rights of Indigenous Peoples which has since then been ratified by most of the nations worldwide. Two articles are important in respect to aspects concerning Arctic Design:

*Art. 11
Indigenous peoples have the right to (··) protect and develop the past, present and future manifestations of their cultures, such as (··) artefacts, designs, (··) visual and performing arts and literature.*

*Art. 31
Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, (··) including (··) designs, (··) visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.*

This declaration raises immediate legal questions. For example, is the design of the modern kayak violating Art. 31 of the Declaration on the Rights of [the Inuit]?

When we deal with art and design in the Arctic we don’t enjoy total artistic freedom. Any culturally related activity has to respect the rights belonging to indigenous people in this region. Investigating the need for design in the Arctic, we often discover that most of the artefacts needed to live and survive in the north have been perfectly, sustainably, beautifully designed long ago, and can hardly be improved. Many designs originate from the Neolithic age and could be regarded as sustainable design. It would make much more sense to analyse and adopt existing design principles from the Arctic and to make these available to the rest of the world while respecting the intellectual property of indigenous peoples.

This now raises the question, what do we mean by the term “design?” Are we talking about styling and decoration? Or do we understand design in a broader sense? The Nobel laureate Herbert A. Simon defined design as:

“...activities which aim at changing existing situations into preferred ones”.

“It is not design unless it is sustainable.”

So what would be the preferred situation in the Arctic?

There are alarming signs that the world's urban lifestyle has devastating effects on the people, culture, economy, and most of all on the ecology of the Arctic. The effects of climate change hit the Arctic and Antarctic regions much harder than anywhere else. The rise in temperature is twice as fast in these regions, resulting in a dramatic reduction of the Polar ice sheets. Melting of the ice leads to rising sea levels. Sweetwater reduces the concentration of the salt in the oceans. Big streams such as the Gulf Stream alter their flows. All of this incidentally influences the flora and fauna in the regions, off- and onshore. It is inconsiderate to think of melting sea ice as an advantage, for example when discovering new oil reserves or traversing the North West Passage in global transportation. We currently run the risk of an uncontrollable release of methane due to the melting of the permafrost regions. Furthermore, knowing that big methane releases in the past had caused all of the historically great dying events on Earth, including the extinction of the dinosaurs and mammoths, this should also be putting mankind on alert.

All abstract scenarios are concrete in the Arctic

Aside from climate-related problems, we should not shut our eyes to the fact that other social problems exist for Arctic inhabitants. Some result from well-meaning political activities which are based on a simplified, misty-eyed, romantic urban perception of nature, but which destroy the means of existence and survival of indigenous people. We run the risk of the continuation of indigenous tribes dying out. The global society is concerned about the extinction of plants and animals, but how much do we care about human minorities?

Nature does not permit anyone to rule it. Survival in the Arctic is only possible with total respect for nature and by living in harmony with it. This rule is valid for the entire world although a violation of this natural law is evident.

If design is about changing existing situations to preferred ones, and/or if an unsustainable situation could never be considered a preferred one, design is sustainable per se. On the contrary, if it is unsustainable and ephemeral then it is not design but bad, superficial styling. Good styling is neither superficial nor unsustainable.

It is not design unless it is sustainable. So the term “sustainable design” is a pleonasm, like “burning fire” or “frozen ice”.

We should rather speak about sustainability *by* design. Sustainability by design for the Arctic is about restoring the sustainable system of the Arctic. This includes a restoration of Arctic indigenous peoples' dignified existence. Their design has always been sustainable. The Arctic is the most suitable environment to learn about sustainability by design and the indigenous peoples can be our teachers.

This idea is not new. In 1732, the Swedish Botanist Carl von Linné travelled in Lapland. In the manuscript of his book, *Flora Lapponica* (Amsterdam 1737), he made a handwritten note:

“The Sami shall be our teachers.”

As a contribution to further discussion, I would like to make a proposal for a potential definition of Arctic Design:

Arctic Design devises courses of action

- to sustain the knowledge and skills in regard to the culture of the people and nature in the Arctic
- to share this knowledge as a source of understanding the sustainable system of this planet and
- to design sustainable services and products

aiming at

- protecting the environment
- respecting the culture of the indigenous peoples and
- improving the social and economic conditions in the Arctic.



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Renata Marques Leitão is a Ph.D. student at Université de Montréal. Her research interests focus on empowerment through design and the appreciation of aboriginal cultures among both native and non-native peoples, through the use of graphic design. She holds an MSc.A in Design & Complexity from Université de Montréal.



Anne Marchand

Anne Marchand is a product design professor at Université de Montréal. She holds a Ph.D. in environmental design from the University of Calgary (2008). Her research interests include issues related to sustainable consumption, alternative visual and material cultures, and localisation in the design and production of goods. She is also conducting action-research projects with First Nation communities in Quebec, Canada, to support cultural, economic and social empowerment through design.

Design as a **means of empowerment** within aboriginal communities in Quebec

The Arctic and northern countries contain many indigenous populations with diverse design cultures. As Amartya Sen (2004:38) states, *“one of the most important roles of culture lies in the possibility of learning from each other.”* This paper proposes that exchanges with different populations may allow us to build on shared knowledge and know-how of design, which are respectful of the northern environment.

This paper presents some lessons learned from an interaction with one indigenous group from Quebec, the Atikamekw, while partaking in a range of workshops in design and innovation, during summer 2011. The workshops brought together Atikamekw artisans and designers

from the research group, Design & Culture Matériel (DCM), based at the Université de Montréal and the Université du Québec à Chicoutimi. DCM understands the term “design” as the activity through which we create material culture, being one of the most ancient human activities, directly connected to the survival of people on their land (Kaine & Dubuc 2010).

The workshops aimed to valorise Atikamekw identity and artisanal traditions through the creation of contemporary products aimed at the global market. We believe that the knowledge gained from these workshops could help to form a definition or understanding of what Arctic Design is.

The Atikamekw Nation

Atikamekw is one of Quebec's First Nations, whose ancestral territory corresponds to the St Maurice River valley and its surroundings. They have been nicknamed "the people of the bark" because of their skill in crafting birch bark objects, such as canoes and baskets. Atikamekws are also known for their moose skin moccasins and clothing, as well as for their exceptional snowshoes. There are approximately 6,700 Atikamekws. Close to 85% of them currently live on three reserves – Manawan, Opitciwan and Wemotaci – while the other 15% live in urban areas (Secrétariat aux affaires autochtones 2009).

Atikamekws have been confined to small portions of their ancestral territory, corresponding to the three reserves mentioned above, while gaining little control over the exploitation of resources (Ottawa 2012). This lack of control over their natural resources causes distress to the Atikamekws and threatens their cultural reproduction.

This study primarily focuses on the threat to Atikamekw craft traditions. Atikamekw artisans face two major problems: loss of cultural identity and a scarcity in supply of birch bark and moose skin – the two most important raw materials in Atikamekw craft. It is noticeable that these two problems are inextricable, since the natural resources belonging to the territory

constitute the core of their cultural identity. In a focus group conducted by Professor Elisabeth Kaine (Université du Québec à Chicoutimi, and founder of DCM research group in 1992), some Atikamekw elders revealed distinguishing features belonging to their people:

I think that is the reason why each nation is different, because of the differences in the territories. In essence the Amerindians have the same philosophy, the same way of life. The objects are what distinguish us from other nations. There are common objects, such as the crooked knife, but there are differences in those tools. Each nation has managed with what they found in their territory (March 30, 2011).

In other words, native design distinguishes the Atikamekw from other nations, as they possess a style of design closely connected to their territory. Most indigenous peoples have constructed their cultural identity and a particular way of life in relation to their territory and its natural resources. As Kipuri (2009: 53) states,

"the importance of land and territories to indigenous cultural identity cannot be stressed enough."



could similarly communicate who they were; namely their contemporary identity, to the Other.

Nigel Cross points out that in craft-based societies:

“the conception, or ‘designing’, of artefacts is not really separate from making them; that is to say, there is usually no prior activity of drawing or modelling before the activity of making the artefact” (2011: 4).

my culture?” and “What do I want to communicate to the Other?.” Each participant was also invited to reflect upon the resources they would employ to make their products – material resources (especially in regard to their availability or scarcity), as well as human resources (regarding time, abilities, expertise). Second, we introduced drawing and modelling as a means of exploring new ideas and possibilities. Third, participants were asked to plan the production of a small series of objects in advance, considering the necessary tools, accessibility to materials, time, etc.

These stages of reflection, exploration and planning enhanced the participants’ ability to design. The design process allowed Atikamekw artisans to achieve a number of things, such as learning to identify with challenges and to develop a means of overcoming them; or to make choices and transform them into practical action. Importantly, this concurs with our understanding of empowerment:

“Empowerment is defined as a group’s or individual’s capacity to make effective choices, that is, to make choices and then to transform those choices into desired actions and outcomes” (Alsop, Bertelsen & Holland 2006: 10)

In this context, design becomes a means of empowerment to Atikamekw artisans.

Workshops in design and innovation

To address some of the challenges posed by the loss of cultural identity and a scarce supply of birch bark and moose skin, Coopérative des Arts Nehirowisiw (CAN) has established a partnership with the DCM research group in order to encourage exchange between artisans and product designers. CAN is an organisation which specialises in bringing Atikamekw artisans together.

The first joint action activity to have involved CAN and DCM was an eight week programme of workshops, which included 10 artisans’ participation in order to enhance their ability to design and to innovate. Each participant created a small series of innovative products, aimed at the global market and embodying Atikamekw cultural identity. The key tasks of the workshop were: (1) to find alternatives to traditional materials based on new resources available on the territory, and to use less scarce materials; (2) to generate new ideas for products which

Atikamekw artisans usually do not design an object before making it, as traditional artefacts are reproduced across generations to transmit artisanal know-how. Consequently, there is little room for innovation, i.e. for identifying alternative resources and opportunities. Notwithstanding this practice, the distressing contemporary challenges prompt Atikamekw artisans to develop the capacity to innovate in order to attain cultural and socio-economic prosperity.

The workshops were designed to encourage participants to separate, to some extent, the process of designing objects from the process of making them, by introducing stages of reflection, exploration and planning.

First, we introduced a reflection upon the participants’ cultural identity, as they tried to answer questions like “Who am I?,” “What characterises



“We suggest that Arctic Design is about the conception of products that consider one’s relation to the land and express its singularity.”

Conclusion

Atikamekw design is the embodiment of their relation to their territory, which goes for most indigenous communities. On one hand, exchanges between designers and native artisans could empower the latter to face an environment transformed by climate change, deforestation, pollution, etc. Northern aboriginal populations have been deeply impacted by the crisis of unsustainability: while their territories drastically change, they in turn need to become innovative in order to attain sustainable development.

On the other hand, when looking at traditional native cultures, designers are invited to connect or re-connect with the territory; i.e. the singularity of Atikamekw design reflects the singularity of their territory. This reconnection may nourish our understanding of what Arctic Design is.

Based on our experience with the Atikamekws, we suggest that Arctic Design is about the conception of products that consider one’s relation to the land and express its singularity. Because Arctic and northern countries contain many different indigenous populations, Arctic Design should support an exchange of cultural knowledge and know-how between these populations in order to enhance mutual respect for the northern environment. Unesco (2009) views cultural diversity as a resource that can renew common approaches to sustainable development, and which needs to be nourished through intercultural dialogue.

“Cultural diversity and dialogue are mutually reinforcing” (Unesco, 2009: 9).

In this sense, Arctic Design reinforces the notion of territoriality and diversity through intercultural dialogue.

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Tuija Seipell

Tuija Seipell is a Finland-born business consultant, speaker and writer who has lived and worked in North America for almost 30 years - the last 23 of them in Vancouver, Canada.

She's perhaps best known for her work over the past six years as the senior writer of The Cool Hunter blog www.thecoolhunter.net, followed by millions around the world. She is the widest-read Finnish blogger in the world.

But hunting for cool, and writing and speaking about design, trends, architecture, retail and branding, are only part of what she does. Most of the time she works with retail, service and other consumer-facing businesses, helping them solve their communications, branding and customer experience issues. Her clients range from small creative enterprises to multi-nationals.

Seipell's uniquely broad perspective stems from her degrees in business and communications, her extensive, practical business experience around the world and, above all, from her creative, curious attitude. The key characteristics of her presentations, articles and consulting are: practical, realistic and customer-centric.

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Arctic Design is hope

When preparing for my presentation on Arctic Design at the Rovaniemi Design Week in February 2012, I found myself asking some very basic questions. What exactly is Arctic Design? Why would anyone care?

Through a process of observing some gut reactions — mine and others' — I came to the conclusion that Arctic Design is a brand. And that on a deep, emotional level, the brand of Arctic Design is about hope.

I was born and educated in Finland but have lived and worked in North America for the past 30 years. I have spent much of my career working with designers, but I am not a designer. My background is in business and my perspective is a business perspective, and in addition, I tend to consider things from the vantage point of the consumer, the end-user.



“There was the horizon, way out there, but what was beyond that?”



What is Arctic Design?

Before I started my quest for answers, I wanted to capture my own notion of what Arctic Design is. I did not want to dilute the first impressions and gut reactions, that are especially important in the fast-paced consumer world of today.

I thought about the only past visits I'd ever made to Finnish and Norwegian Lapland, which had taken place when I was six and seven years old. The more I thought about it, the clearer the image in my mind became. It was an image of a flat horizon. I remember standing on top of a *fjäll* or *tunturi*, looking outwards, thinking that the world seemed to go on forever. There was the horizon, way out there, but what was beyond that?

At the next stage in my quest, I wrote down the first words that popped into my mind. They were mostly words relating to the cold, vast landscape.

Being a visual person, I continued to search for more images. I found myself looking at images of reindeer, polar bears, white Arctic foxes, seals, narwhal whales; all perfectly designed for the environment; all form and function at their finest.

Often when I research a new project, trip, city, country, building or designer, I find it eye-opening to consider what something is *not*. In the case of Arctic Design, I ended up selecting images of slums in Mumbai, the Skyscraper Alley in Dubai, suffocating crowds on the streets in Soweto. These were all things that were ugly, and total opposites of my vision of the Arctic.

This really stopped me. Why did I zero in on such ugly images? Just as well, I could have been drawn to images of *beautiful* things that are not about Arctic Design. Such as lush Hawaiian beaches, ornate Indian temples, or colourful Mayan costumes.

I realised that my reaction was completely emotional and that my vision of the Arctic was extremely positive. I also realised that I had focused on the Arctic and forgotten the Design. In the images I selected to depict the Arctic, it was also always winter (although my own two visits to Lapland, until this past February, had been in the summer), and they always depicted the outdoors.

Check

To check my views against others', I conducted an informal survey. I asked dozens of friends and colleagues how they would describe Arctic Design. To avoid getting a biased "insider" view, I included very few designers and excluded Scandinavians.

The results supported my views. The discussion always turned to the elements, cold weather, survival. Many envisioned hardship or a tough life, but it was always in a positive, admiring way. They used words like "demanding," "inhospitable," "pared-down," "minimal," "uncomplicated," "simpler times," "unspoiled," "no pipelines," "no tankers," "crazy," "Arctic hysteria."

And as soon as I drew their attention back to design, they would start describing Scandinavian design (or Nordic or Northern in general), and they'd describe the indoors, i.e. cozy, nest-like environments, warm textures, wood, minimalist, functional pieces of furniture.

The logic here is that the harsh environment of the Arctic forces people to focus on survival and function, and design is seen only as "decoration" of the shelter, of the home, and of the people.

Of course, if we are to consider design in its broader context, then we must consider all of those perfectly stacked pieces of snow for igloos, or those perfectly water-tight canoes, or the time-tested methods of hunting whales and seals — all of which are results of Arctic Design. However, it seems that, for the ordinary consumer today, design — and not just Arctic Design — has shrank to being about minor tinkering and decorating.

Arctic

Where exactly is the Arctic? Depending on where you live, the Arctic could be pretty much all of Scandinavia, Russia and Canada. The more I talked with people about Arctic Design, the clearer it became that they did not really see any difference between Finnish, Swedish, Danish, Scandinavian, Nordic or Arctic Design.

Arctic in this context, and for most people, is more of an idea and a temperature, a condition and a lifestyle, and less of a specific geographic location. It is an adjective, a feel, a gut reaction, an emotionally charged assumption.

Design

There is no perfect definition of design, either. Ask 100 people, and you will hear 100 different definitions. In my view, design is always something created for someone else. To use, to accept, to benefit from.

That is what makes the word "designer" a description of a profession and not of a hobby. If you plan to make a living from design, you will need to design things, processes or services that someone else (in addition to you) needs or wants.

In essence, you are selling. Even if you were designing a process to halt global warming, you still need to sell that idea and process to someone. Design needs to be sellable.

Design is also one of the most effective tools to create emotion. Whether we think of Apple computers or LEGO bricks, Mini cars or Dyson vacuum cleaners, design is the one element that creates the emotional connection that adds value and justifies a higher price. Design *is* emotion.

Hope

At a very deep level, Arctic Design — and life in harsh, cold climates — speak of hope. What we envision when we think of Arctic Design is a hopeful place. We feel happy that there is still a place somewhere where nature, not people, runs the show. There is still a place where the white seal-pup can survive, where things are as they were before; where there is an abundance of hope.

Brand

Nobody knows what Arctic Design really is, and yet most people seem to have a gut feeling about it. Arctic Design has all of the characteristics of a brand. According to my favourite definition, a brand is "an entity that engenders an emotional connection with the consumer." A brand only exists in the eye of the beholder. Just like Arctic Design.

Opportunities

In my view, this is one of the opportunities facing the Arctic Design brand: taking design out of the small confines of the indoors and moving it back into its larger context. Arctic Design can mean bigger, more impressive, important things: designing a better functioning environment; more energy-efficient or weather-proof machinery; smarter buildings; easier systems of health care in remote areas; faster ways of breaking ice; safer ways of transporting goods; or more enchanting ways of filming nature.

For the past seven years I have been the senior writer at *The Cool Hunter* (www.thecoolhunter.net), which is one of the world's most popular "pop-culture" design blogs. Our ever-growing readership includes millions of readers, newsletter subscribers, Twitter followers, and Facebook fans, who all attest to the fact that an impartial and independent review of minimalist, design-related phenomena has real, enduring value.

I think there are some parallels between the value and success of The Cool Hunter and the potential of Arctic Design as a brand. I believe there are several "big-picture" trends which support this.

One of these is speed. With real-time online, mobile communication, we are bombarded with more information and

images than ever before. A minimalist and clean sensibility expressed in an honest and compact way, offers relief and clarity to the reader in this overly busy environment.

Another is sustainability. The popularity of, and expectations regarding, sustainable solutions is not going to go away. Arctic Design has never lost its credibility in this regard, so it has an advantage over many brands needing to clean up their acts, rebuild their credibility, and earn their way back to our hearts and minds.

"Less is more" is another trend that remains strong. The latest economic downturn has made conspicuous consumption un-cool, while sustainability concerns add to the desire to consume less. People against throwawayism. The minimalist lifestyle and design sensibility are again extremely attractive, and the Scandinavian form and function principle is again in vogue.

There is also a new fascination of life in the North. Movies, TV nature series, TV dramas, documentaries and Youtube videos that describe the real and imagined struggles of life in cold climates are currently extremely popular.

In a Vancouver newspaper, a recent review by Katherine Monk of the documentary *Happy People: A Year in the Taiga* (by Werner Herzog and

Dmitry Vasykov) summarised this beautifully:

"This co-directed ode to a simpler, if not kinder or gentler, life wears the viewer down to a primal state, where watching a man make his own pair of skis with an axe is better than a James Bond car chase."

We crave these simpler, more basic things in our chaotic, uncertain lives. We may never set foot on snow, but we want to know it exists. And we want to know about the people who continue to live in the demanding environment of the North. They represent hope.

"We may never set foot on snow, but we want to know it exists."



Johanna Ikäheimo

Ms Johanna Ikäheimo is the Chairman of the Board of Directors at Lappset Group Ltd. (since 2006). She is a member of the election committee for the Confederation of Finnish Industry and Employers, as well as a member of the Board of Directors for the Varma Mutual Pension Insurance Company. She was also a board member for the Regional Bank of Handelsbanken until the end of 2011.

She has acted as Chairman for the Finpro Supervisory Board and as Vice-Chairman for Finnish Industry Investment Ltd.

In addition to her current positions of trust in Finland, she is an Honorary Consul for Sweden and acts as the Chairman of the Board for the Federation of European Play Industry, FEPI.

In 2007 Ms Ikäheimo received the distinguished Veuve Cliquot Business Woman of the Year prize.

Designing playgrounds in the Arctic for the world

Play unites children all over the world. Traditional play in outdoor play areas, in your own backyard, in the kindergartens and school yards, in public parks, has always included a natural means of exercise. When playing one negotiates different obstacles as one constantly faces new challenges and opportunities for learning.

Outdoor play involves a natural way of moving, developing a child's motoric skills, balance, muscle strength, coordination, and many other features which help it to stay fit. Play is essential to a child's physical and mental development, as well as her general wellbeing. Play helps relieve stress, enables momentums of flow, enhances imagination and, above all, allows children to develop their skills at their own pace.

Children of different ages play in a very similar way, in different parts of the globe. Our business idea is to enhance children's wellbeing by providing them with joyful outdoor play experiences, by designing attractive, self-developing, imaginative, innovative play solutions.

The essence of designing outdoor play equipment, along with its many forms and functions, lies in a deep understanding of human beings as end-users. In addition to this, customers' needs and safety regulations (namely the European safety standard EN 1176) play an important role in the design process. Despite these challenges and constraints, the modular structure of Arctic raw materials used in Lappset's play equipment still provide great potential for the designer to create individual, imaginative, interesting play environments for urban and/or rural surroundings. Furthermore, our logistic location in the Arctic Circle of the North poses a challenge to the designer, as he or she must pay attention to the entire process from behind the design desk. This often demands efficiency in logistics until product installation, as well as a keen use of equipment, from the confines of one's office.

Does playground design represent Arctic Design? This is a good question to which there is no straight answer. The design language used in our collection reflects our origin: versatile nature and our cultural heritage in Finnish Lapland. Developed from local sources, play area design has yet to become global and to become appreciated by a broader audience in different cultures across Europe, Asia and Australia.

Obviously, people of different ages appreciate Lappset's design since the company exports its solutions to more than 50 countries worldwide. This is likely due to its high play-value, colour-variety, safety and ecology standards, as well as an adaptability to various surroundings and climate conditions. Arctic Design of play equipment for the world has been recognized by numerous awards which Lappset has been honoured with during its 42 year history.

“Children of different ages play in a very similar way, in different parts of the globe.”



Lappset Group's vision for 2015:

We invite mankind

outdoors!

Lappset brings people of all ages together by creating a joyful outdoor experience. We encourage people to play, learn and exercise today, and to feel better tomorrow. The company's core business focus is in designing and manufacturing playground and sports equipment for all ages.

Photos: Antti Kurola / Lappset Group Oy Ltd.

Lappset's key values include:

- Growth is our passion.
- Responsibility and flexibility are in our DNA.
- Success is our pleasure.

Lappset combines efforts from in-house designers as well as design services from third-party consultancies. The design of its products and services are key functions of the company's product portfolio. Lappset also cooperates with universities, such as the University of Lapland and Aalto University (Finland), in regard to design issues.

In product and graphic design, Lappset uses a combination of in-house designers and advertising agencies. Service design is done internally, to a great extent, while strategic design is co-produced using internal and external services.

How does the company perceive Arctic Design, and how does Arctic Design complement the company's identity?

It is difficult to specify what Arctic Design is. Lappset is a company based in the Arctic region, with its origins deep in the northern territory of Finnish Lapland. The local heritage and culture are most certainly important factors, which have had an impact on Lappset's design language. In addition, the company's geographical location in the Arctic Circle offers an exotic place for its customers and other important stakeholder groups who wish to visit. With its distinctive seasonal variations and its exotic climatic temperament, such as the Northern Lights (Aurora Borealis) and an extreme winter falling well below minus 20 degrees centigrade, Lapland offers an apt environment for different sorts of seminars and activities.

Environmental values have always played a crucial role in Lappset's design and production, which is due to the fact that the company originates from northern latitudes. Finnish timber is a durable, ecological and sustainable raw material, which Lappset is always

within close proximity to. Wood comes from PEFC certified forests, which means that Lappset and its customers can always rest assured that material used in product design comes from sustainably managed forests. The company has also attained a Chain of Custody certificate for PEFC since it pays high quality attention to the sustainable process.

Environmental issues are taken seriously throughout the manufacturing process, while safety aspects are carefully considered during the design process. Lappset's understanding of sustainability considers not just traditional green values, but also respects people's living spaces. Nature in Lapland is a source of inspiration when designing play and sports environments for people of different ages, while the environment also offers a place for tranquility and phenomenal experiences.

"Lappset is committed to its Northern roots and its location in the Arctic Circle. Through Arctic Design, Lappset brings a northern dimension to the world', says Johanna Ikäheimo, the Chair of the Board for the Lappset Group.

"The local heritage and culture are most certainly important factors, which have had an impact on Lappset's design language."

Company name: **Lappset Group Oy Ltd.**

Website: **www.lappset.com**

Founded: **1970**

Location: **Rovaniemi, Finland**

Ownership: **Privately owned by the Ikäheimo family**

Turnover: **46.5 million EUR in 2011**

Employees: **ca. 370**





Jukka Jokinen

Jukka Jokinen is vice-president and general manager of BRP Finland since February 2008.

Prior to joining BRP, Jukka was senior vice-president, Sales and Marketing, for Outokumpu Oy, one of the largest manufacturing companies in Finland from 1989 to 2005, where he managed a team of 1,200 people in 30 countries. Jukka has more than 20 years of experience in different management positions and a solid international expertise, having managed the Asian activities of Outokumpu in Singapore from 1997 to 2000.

Jukka is an Economics graduate from the University of Vaasa, Finland (1984).

LYNX

– the snowmobile moving Northern Europe

The snowmobile plays a major role in the Scandinavian lifestyle. It is a vehicle used as a modern age work horse or reindeer, as well as a recreational vehicle. It is no coincidence that the market leader in European snowmobiles comes from Rovaniemi.

“This 30 year period is a testament to the power of creativity, hard work, and Arctic Design.”

Lynx is the only brand of snowmobile made in Europe and is a market leader in its respective field. Its great success is based on its ability to offer consumers sleds which have revolutionised what snowmobiling is all about. The secret behind Lynx's success has been its “we *can* do and *will* do” attitude. Innovative thinking and a deep understanding of Scandinavian conditions are elements which have helped Lynx take pole position in the European snowmobile market.

The first Lynx saw the light of day in 1967. Since its very first sled, Lynx has always been a snowmobile designed to make its own trails. To make a sled which has not needed others' track prints before it has taken a great deal of creative thinking, as well as more than a small amount of risk-taking. We at Lynx want to be the best in technology and design, but our main goal has been to offer an unforgettable riding experience. Making a snowmobile is not too tricky. However, making a sled which makes you scream “Wow!” when you see it, or when you hear or ride it, is a totally different ball game. It must have great performance, desirability, and of course it must be fully-loaded with industry-leading technology. When all of our parts have found their right places, we've then got a snowmobile which makes you pray for a never-ending winter.

Lynx's history has been fueled by an endless hunger for victory. Year 2013 marks 30 years since a Lynx racing sled made its debut on a race track. Being renowned as the best utility sled brand, the only people who first believed in Lynx's success on the tracks were its makers. The prototype for the legendary Lynx GLS snowmobile appeared and attained its first victory at its very first race. 30 years after an historic debut, Lynx is still dominating European snowmobile race tracks. This 30 year period is a testament to the power of creativity, hard work, and Arctic Design.

Arctic Design and Lynx

One can tell at first glance that Lynx is a Scandinavian snowmobile. It is designed for Scandinavian conditions, meaning that it's built to be bullet-proof and capable of operation day in, day out, in cold weather and demanding snow conditions. To Lynx's designers the challenges that a Scandinavian winter brings every year is just everyday stuff. For example, every Lynx snowmobile is made to be operable in -40°C. Even though all snowmobiles are designed for winter, not every snowmobile will start when you turn its key under such extreme conditions.

Being designed and manufactured in Northern Finland gives Lynx a strong competitive edge over the Scandinavian market and also over the Russian market. The combination of tough riding conditions and demanding Scandinavian snowmobilers (who have always wanted industry-leading performance and reliability) has had a huge impact on what Lynx is all about. Nobody knows the Scandinavian winter better than a Scandinavian. We know the wants and needs of the Northern people and this is what guides us through to our newer product-planning stages.

The cold Scandinavian winter demands a lot from a snowmobile and the snowmobiler. Lynx snowmobiles are designed to protect a rider from the cold as much as possible. It is a very challenging job to make a hood design which is protective as well as good looking. No matter what category the sled represents, it must be compact in size. Too wide a sled is tricky to handle in the woods, while side hilling and riding in deep snow is difficult if the sled has too wide cheeks.

Lynx's product lines are designed by its design team in Rovaniemi and the BRP Design and Innovation Center, located in Valcourt, Canada. The BRP Design and Innovation Center takes care of BRP DNA, while Lynx's design team in Rovaniemi make our sleds Scandinavian. 90 percent of all design work is done by BRP's own designers.

Lynx currently has a strong DNA to be witnessed in future sleds too. Some of the most remarkable details are Lynx ears and Lynx teeth. Driving lights are fitted as fierce Lynx eyes. Design respects Lynx's credible heritage but also seeks to develop powerful emotions. Snowmobiling is not just a hobby: it's a way of life; that is why design must be eye-catching and elegant.

Product design is based on the Stage Gate process. The Stage Gate process has been widely used in the automotive industry, and the first manufacturer to have used this technique was General Motors. The process can be described as having seven gates that must be passed before moving to the next stage; thus the procedure consists of seven gates. For example, the new product-planning stages start at Gate 0, while Gate 7 refers to a new product-launch. This process has been tailored to meet BRP's needs.

The Stage Gate process and modern business facilities helped us to build Europe's most sought-after sled. However, for us to remain as Number One, year after year, takes a whole lot more: we know our Scandinavian conditions, and everything that we do is designed to meet the challenges which a Scandinavian winter throws at us.



Passion and innovation drive **BRP Finland**

Based in Rovaniemi, BRP Finland Oy is a fully owned subsidiary of Bombardier Recreational Products Inc. The annual turnover in 2011 was 219 million Euros. BRP Finland employs a total of 350 persons.

Photos: BRP Finland Oy

BRP is a world leader in the design, development, manufacturing, distribution and marketing of motorised recreational vehicles.

Founded already in 1967, BRP Finland is the only manufacturer of snowmobiles in Europe.

BRP Finland's mission statement is "passion & innovation that moves the powersports world." The company's slogan is "Arctic playground – Can you handle it?"

The company's key values are winning attitude, integrity, innovation, quality through rigorous execution, and financial strength.

Does Arctic Design give your company a competitive edge over the rest of the market?

In response to this question, Jukka Jokinen, CEO for BRP Finland explains: "30 years after an historic debut, Lynx is still dominating European snowmobile race tracks. This 30 year period is a testament to the power of creativity, hard work, and Arctic Design."

“The company slogan is:
**Arctic playground -
can you handle it?”**

Company name: **BRP Finland Oy**

Website: **www.brp.com, www.brpscandinavia.com**

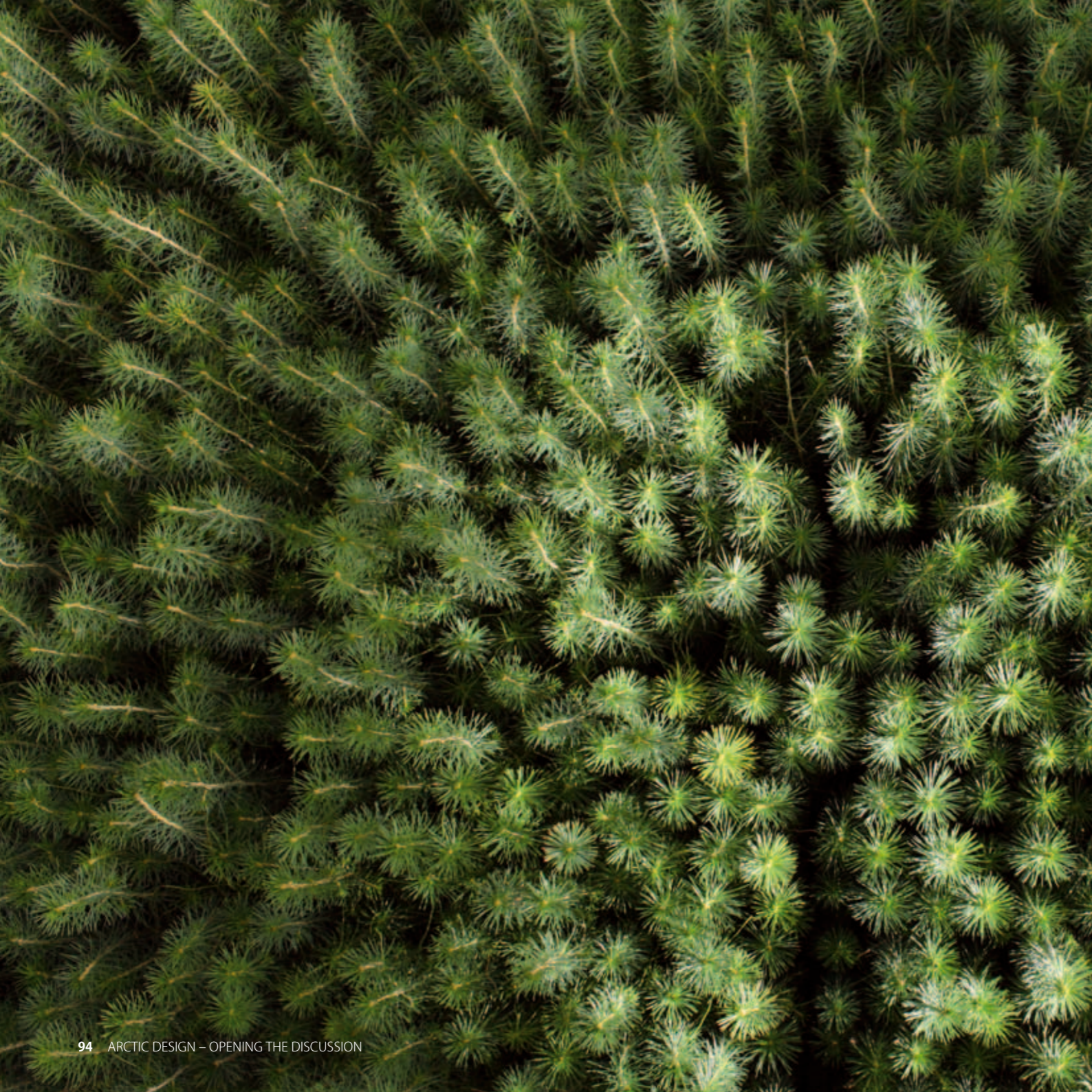
Founded: **1967**

Location: **Rovaniemi, Finland**

Ownership: **Subsidiary of Bombardier Recreational Products Inc.**

Turnover: **219 million EUR in 2011**

Employees: **350**



Good Arctic Design
does not fear

SNOW, **darkness** **or frost**

Metsähallitus is a state-owned enterprise which administers more than 12 million hectares of state-owned land and water areas in Finland. It manages land according to common goals set by Finnish civil society and does so in a way that benefits everyone to the greatest extent possible. Metsähallitus undertakes business activities while also performing various public administration duties.

Photos: Metsähallitus

“Arctic Design at its best is the functional and practical expertise developed out of a necessity to cope in the Arctic environment.”

Metsähallitus performs a range of high quality services related to the use and conservation of natural resources in Finland and abroad. It combines traditional Finnish expertise in forest management with a keen focus on international cooperation.

Mission statement and values

The main target for Metsähallitus is to become a leading operator in Europe for the sustainable use and conservation of natural resources.

Metsähallitus is an enterprise which values the responsible management of natural resources, as well as economic profitability, the well-being of workers, customer satisfaction, and international cooperation.

Design has played a big part in the way Metsähallitus works. The enterprise's main activities are based on the profitable management of state-owned land. Clients include citizens as often as large corporations. Various design services range from graphic and product design, to service and strategic design.

How does the company see Arctic Design, and how does Arctic Design complement the identity of the company?

Arctic Design at its best is the functional and practical expertise developed out of a necessity to cope in the Arctic environment. One can be a leader in a number of fields, using Arctic Design services.

Kristiina Vuopala, from the Metsähallitus Corporate Communications team, states: “Good Arctic Design does not fear snow, darkness or frost – which are extreme conditions! On top of this, good Arctic Design supports the sustainable use of our natural resources.”



Company name: **Metsähallitus**

Website: **www.metsa.fi**

Founded: **1859**

Location: **headquarters in Vantaa, Finland**

Ownership: **State-owned**

Turnover: **369 million EUR in 2011**

Employees: **1857 in 2011**

Flatlight Films -

Something
different
from the
north

Based in Rovaniemi and Helsinki, Flatlight Films' core business interests are in audiovisual productions, such as commercials, TV-shows, documentaries, or music videos.

Photos: Flatlight Films Ltd.



Company name: **Flatlight Films Ltd.**

Website: **www.flatlightfilms.com**

Founded: **2009**

Location: **Rovaniemi and Helsinki, Finland**

Ownership: **Privately owned by Miikka Niemi (CEO), Lauri Ahlgren and Tuukka Konttinen**

Turnover: **ca. 500, 000 EUR in 2012**

Employees: **9**

The company aims to achieve in a range of areas: creativity, originality, high visual quality, fresh angles, and a good atmosphere in all of their undertaken projects. The Arctic and the north in general, provide a backdrop for an energetic, rapidly growing company.

Flatlight Films has always used in-house designers. The company designs marketing concepts while collaborating on them with their clients. At Flatlight Films some of our younger professionals tend to say:

“Our own perception is the basis for our concepts, since we often use things we love or feel sentimental about in our films.”

With this passion we channel our efforts into the things we love to do. In our company, every member of staff is strongly encouraged to use their creativity during productions.

Flatlight Films also designs audiovisual concepts of their own, e.g. the webside series, Nipwitz, short films, documentaries and music videos.

The company’s identity is developed with care, together with our graphic designer and our web designer, to promote our image and to maintain credibility among our customers.

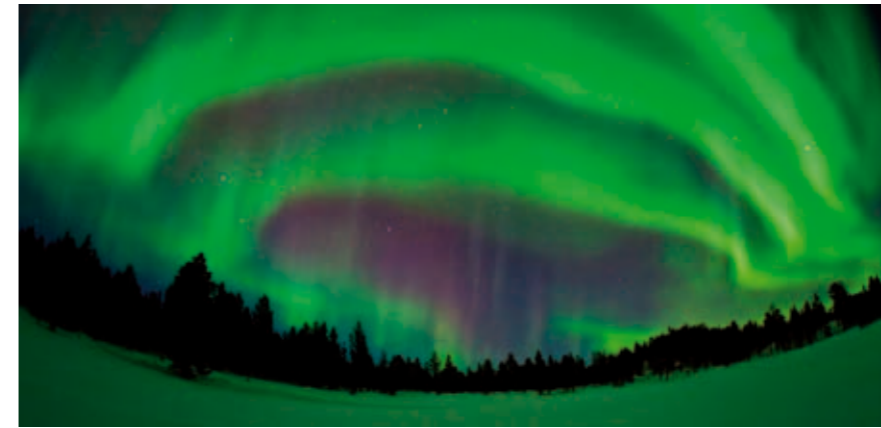
How does the company see Arctic Design, and how does Arctic Design complement the company’s identity?

The company’s identity is clearly based on its location in the Arctic Circle. “Being ‘up there in the north’ is something different”, says Miikka Niemi, the CEO of Flatlight Films Ltd. It helps the company remain in the mind of our clients. The location also gives a better perspective and fresh angles for filming and capturing moments.

Miikka Niemi continues: “Location in the Arctic gives you a certain kind of a freedom to do what you love. There are inspirational landscapes, great locations, wonderful people, etc., to be found in Lapland. Also there is a great atmosphere among people who work in different creative fields, so you can easily find people to cooperate with.”

The Lappish working mentality is based on trust and dedication. Young professionals at Flatlight Films would also point out that “when you are from Lapland, you are not even afraid of the hardest weather conditions or other obstacles.”

“We often use things we love or feel sentimental about in our films.”



Aurora Borealis

The beauty of Finnish nature is often the source of inspiration for us. Seeing the Aurora Borealis is always a magical experience and is something we wish to share from our Arctic environment. The video was made for Visit Finland and has received many awards.



Viking Line - Vikingrace.fi

Flatlight Films designed the marketing concept for Viking Line’s new boat. The idea was to tell a story about how the boat was built, who built it and where it was made. We tell its story using visual images: videos, photos, texts. And by involving additional social media, the audience is able to take part in the boat-building story, such as naming the boat or introducing their own ideas in regard to its design.



Nipwitz - Sarajevo

Sarajevo charmed us while we were there on a summer holiday. We realised that you could ski there in the winter! Today people still tend to think about the Bosnian war when thinking of Sarajevo. By bringing the Nipwitz crew there to ski and film, we wanted to update the public’s image of Sarajevo and to them tell about how great a city it really is.

Photo: Ville-Petteri Määttä



“In a secret place,
in the middle of
a deep forest,
you will find a
magical place
called **Joulukka**”

Photos: Antti Kurola / Joulukka.com

The purpose of Prosanta's business is to produce the best Christmas experience in the world. The company produces Christmas experiences tailor-made for their clients.

Prosanta, a Rovaniemi based company, has clear values it is committed to: sharing and caring, authenticity, and Finnishness. Company values help to guide Prosanta in producing experiences which are personal and of a high quality. These experiences are developed in close cooperation with satisfied clients.

Design services have a clear role in the production process. Both in-house expertise and external services should play a part in reaching a high level of quality which the company strives for. Graphic design services are used more than any other field of design. Service design is used to co-create the experience together with clients, although the company admits that service design – as a relatively new design field – at times produces results which are not as good as the company expects. Strategic design has so far not been tested, but the company is willing to keep an open mind to this possibility, as it does in regard to other new fields of design as well.

How does the company see Arctic Design, and how does Arctic Design complement the company's identity?

The value base of everything Prosanta does lies within the cultural tradition in Lapland and Scandinavia. Being authentic is the red thread to Prosanta's work, which appears even within the smallest details – it is also something which Prosanta expects from its sub-contractors too. Arctic Design is intrinsic to all services.

Could Arctic Design give your company a competitive edge over the rest of the market?

"It can, it should, and it does. We need to use Arctic Design more in the future, to achieve even more successfully in our primary aim: to provide each and every client with an authentic experience", concludes Ilkka Länkinen, one of the owners of Prosanta Ltd.

"The company admits that service design – as a relatively new design field – at times produces results which are not as good as the company expects."



Company name: **Prosanta Ltd.**

Website: **www.joulukka.com**

Founded: **2006**

Location: **Rovaniemi, Finland**

Ownership: **Privately owned by Ilkka Länkinen and Katja Ikäheimo-Länkinen**

Turnover: **850,000 EUR in 2011**

Employees: **2 permanent staff members; ca. 80 in high season**

The mysterious magic of Lapland

Annelin Yrtit & Karkit is a natural products company, based in Rovaniemi and conducting business directly from its natural surroundings in Finnish Lapland.

Photos: Annelin Yrtit & Karkit





Company name: **Annelin Yrtit & Karkit**
 Website: **www.annelin.net**
 Founded: **1998**
 Location: **Rovaniemi, Finland**
 Owner: **Privately owned by Anneli Tahvonen**
 Turnover: **200,000 EUR**
 Employees: **3**

“Lapland’s cultural heritage and Lappish nature appear to be common narratives in the stories about the plants used by Anneli.”

Anneli Tahvonen comes from Rovaniemi. She founded her family-owned business in Rovaniemi in 1998. Two family members also work for the company. The annual turnover of the company is 200 000 euros.

The products Anneli makes, namely herbs and sweets, are made from natural ingredients which can be found in Lapland, or are organically farmed nearby. Chemical fertilizers or plant preservation products are never used. Even weeds are carefully removed by hand.

Anneli has used professional design services since the company was established. Graphic design, package design and clothing design are all used. Strategic design has also proved useful when developing the company. A manual on Quality Management techniques directs the long-term development of the company.

How does the company see the value of Arctic Design, and how does Arctic Design complement the company’s identity?

What Anneli says below, reflects a close relationship to nature in Lapland, as well as a respect for its cultural heritage:

“It is wonderful to live so close to nature. The bright and short summer supports quick growth; there is no pollution; nature is clean. All of this intensifies the flavour of plants used and current research supports this fact. Is this not Arctic Design at its best?”

Lapland’s cultural heritage and Lappish nature appear to be common narratives in the stories about the plants used by Anneli. These stories interest people and are fundamental when marketing Anneli’s products. As a well-known Finnish tango group from the 60’s, Lapinmaa (Lapland’s land), once put it: “nature in Lapland is full of mysterious magic.”



Arctic SnowHotel is a Rovaniemi based company which provides tourism and event services. The core of the business' success lies in its excellent know-how about snow and ice design and construction.

Photos: Arctic SnowHotel

A way of life

Arctic SnowHotel's mission is to create customer experiences. Sustainable development is a strong guiding principle for the hotel, e.g. there are no heating expenses since the hotel is designed to be self-insulating and construction is carried out by local professionals. For owners and visitors alike, the Arctic SnowHotel is a way of life.

The company designs technical details as well as moulds for snow and ice construction. This type of expertise has been elementary to the company's progress from the very start. The Faculty of Art and Design at the University of Lapland has been of invaluable support in terms of design expertise, and design students have worked for the company on many occasions. Design services have included graphic, product, service and strategic design.

How does the company see Arctic Design, and how does Arctic Design complement the company's identity?

On behalf of Arctic SnowHotel, Ville Haavikko, who is the owner and CEO of the company, states the following:

"Arctic Design is an everyday issue for us. We are directly affected by the possibilities to use northern raw materials. Snow and ice create fascinating, magical environments. Silence is very powerful. When finding shelter in a snow castle, one experiences the dim, blue light passing through a dark winter setting, surrounded in snow and ice. All of these natural elements create a strong impression.

And then, of course, safety issues, and the functional use of the hotel's vault structure, are also issues directly related to Arctic Design.

Arctic Design is clearly what distinguishes us from the rest of the international tourist industry."

"For owners and visitors alike, the Arctic SnowHotel is a way of life."

Company name: **Arctic SnowHotel**

Website: **www.arcticsnowhotel.fi**

Founded: **2008**

Location: **Rovaniemi, Finland**

Ownership: **Privately owned by Ville and Heidi Haavikko**

Turnover: **400, 000 EUR**

Employees: **10**

ARKTINEN | ARCTIC MUOTOILU | DESIGN



Arctic Design.

Is there such a thing?

ARKTINEN | ARCTIC
MUOTOILU | DESIGN

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