Contemporary Craft in Iceland: Communicating Culture Through Making

A Thesis submitted in partial fulfilment for the degree of Doctor of Philosophy

By

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I dedicate this thesis to Jenny

Abstract

This doctoral project develops an interdisciplinary collaborative approach to furniture designer\maker practice. At its core is a practice-based framework that can be used to assess and reflect upon the tacit, primarily visual nature of makers' knowledge and the way that this can be communicated in order to develop design outcomes.

The enquiry takes as its focus a two-year collaboration between the author – a British-based furniture designer/maker – and six indigenous Icelandic craft practitioners in which the ultimate goal was the creation of artefacts that, it was hoped, would be expressive of Iceland's native craft traditions. During the 'Iceland Project,' as it came to be known, interaction between and among participants was grounded in a predetermined plan developed democratically through consultation and dialogue.

The project successfully develops new knowledge through a contemporary reinterpretation of indigenous Icelandic craft-making knowledge and demonstrates this through the making of artefacts imbued with recognized cultural status. It also extends furniture designer/maker research by developing an innovative practice-based method of collaboration rooted in the multimedia archiving of the making process which can then be used to illuminate and facilitate future practice.

The project is a scholarly display of makers' knowledge: the process is shared democratically among peers; the decisions that articulate design and methods of making are reviewed; and inter-subjective outcomes are generated. To facilitate learning from designer/maker practice-based research, the creative narrative is necessarily partly articulated through visual media and artifacts.

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Acknowledgements

Without the enduring patience and willing commitment made by the makers who shared their skills, time and workshops with me, this project could not have happened. I am indebted to Fjolnir B. Hlynsson, Thórhildur Thorgeirsdóttir, Grein Oddgeirsson, Gretar Mar Thorvaldsson, Biger Andersen, Ása Hátún and many more makers who did not get directly involved in the project, but gave me their time, knowledge and enthusiasm.

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Finally I give deep gratitude to my wife Jenny and son Fergus for their enduring encouragement and support. Jenny's company during part of the nine-week exhibition tour, marketing experience, and assistance with data collection, data presentation and comments on my first drafts was much appreciated.

Author's Declaration

The practical knowledge of making, handed down from maker to maker, is the primary resource of this project. This making heritage has been interpreted to design and make a table and chairs, which are part of the project submission. The author and the following partners share an equal part in the designing and making of the table and chairs submitted.

Fjolnir B. Hlynsson, Sculptor, Iceland.

Thórhildur Thorgeirsdóttir, Goldsmith, Iceland.

Grein Oddgeirsson, Cabinetmaker, Iceland.

Gretar Mar Thorvaldsson, Pattern Maker, Iceland.

Biger Andersen, Shipwright, Denmark.

Ása Hátún, Wool Worker, Faroe Islands.

The author coordinated the designing and making of the tables and chairs with the above list of partners and recorded this process on audiovisual multimedia.

1. Introduction

The author's vision was to share skills and ideas between makers from different making traditions, typical of Icelandic culture, with the aim to develop an artefact suitable for collective batch production in Iceland, with a strong cultural identity that would demonstrate future potential for Iceland's indigenous making traditions. The following describes the events and findings that led the author to put forward the research proposal to BCUC.

1.1. The Author's Background

The author has been running a business since 1997 as a furniture designer/maker based in the Scottish Borders. Throughout his childhood he has made experimental objects such as wooden boats with nails and scrap wood in his father's garden shed. Learning to respect the traditional practice of making things; he looked to historic, contemporary objects and makers as a source of inspiration. Throughout a period of higher education there grew an understanding of the world by reflection through drawing, making and writing. Pursuing a degree course focused on English traditional furniture making which complemented his interest in traditional making practice, he was finally awarded a BA (Hons) degree in Furniture Design and Craftsmanship, from Buckinghamshire College. After graduation in 1997 he found workshop space in the Scottish Borders and started a business with a determination to manage my own business affairs and design and make furniture from wood. A variety of commissions from public and private clients were completed. One commission marks the beginning of the relationship between Iceland and the author. This commission was from the British Foreign and Commonwealth Office and was to design and make a chair for the Icelandic Parliament Speaker. The chair was a gift from the Scottish Parliament Speaker to the Icelandic Parliament Speaker, to mark the 1000th anniversary of Christianity in Iceland, in Reykjavik, Iceland, on 1st July 2000.

1.2. The Icelandic Parliament Speaker's Chair Commission: The Projects Background

The design brief for the chair given as a gift to the Icelandic Parliament Speaker, came from Tom Burnham, the UK Trade Promoter for the Nordic Region. Tom Burnham worked for the then Trade Partners UK and now UK Trade and Investment. This is a joint agency reporting to the Department of Trade and Industry and the British Foreign and Commonwealth Office. The brief was to design and make a chair that expressed the Icelandic culture, that would be suitable to replace the existing Icelandic Parliament Speaker's Chair, which retained the Danish coat of arms, a symbol of Danish Rule before the independent republic of Iceland was established in 1944[1]. The author started the design process by researching the history of Iceland, looking for a typical craft tradition[2] of Iceland and the Nordic region that could be translated and used to make a chair, along with historical evidence that would link a chosen craft tradition to the history of Iceland. As a designer/maker the author finds visual information and observation are essential references for making things.

Historian Gwyn Jones, in 'A History of the Vikings' described how Iceland was colonized by the Vikings and the original settler, Ingolf Arnerson, is described as a Norwegian Norseman (Viking), in the Viking age sailing to Iceland around 870 AD to find a new home and land of his own[3]. It was from this book that the illustrations and plate of the elegant Viking ship found in Gokstad (Fig. 1) in Norway struck the author as an obvious cultural symbol of Ingolf's time. The Gokstad ship symbolises to the author the importance of hand skills, material knowledge, and the high status of wood within the Nordic culture.

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[1] G. Karlsson, *Iceland's 1100 Years,* C.Hurst & Co., London, p. 322.

[2] craft tradition – methods of making artefacts by hand that are handed down through the generations specific to a region or culture.

[3] G. Jones, *A History of the Vikings,* Oxford University Press, Oxford, second edition, 1984, p. 275.

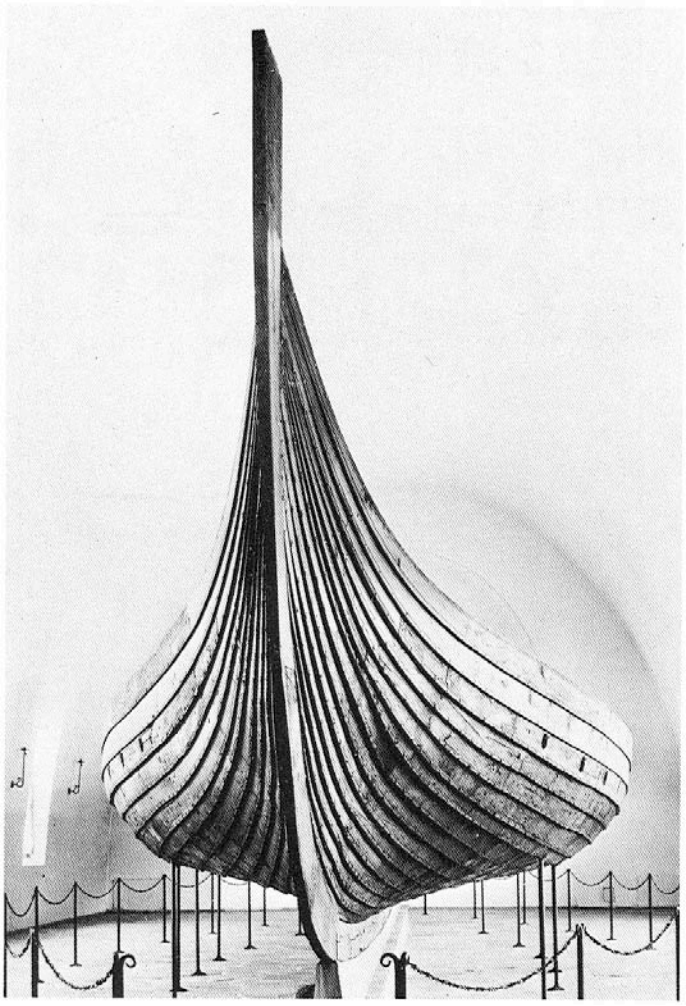

Fig. 1 The Gokstad Ship.

In *The Oxford Illustrated History of the Vikings*, Jan Bill, Research Fellow at the Centre for Maritime Archaeology, National Museum of Denmark, Roskilde, wrote that;

> Although shipbuilding traditions in Viking-Age Scandinavia were not fundamentally different from those in other parts of northern Europe, archaeological evidence shows that Viking Ships were lighter, slimmer, faster, and thus better sailers than the heavier vessels used by the English and presumably, the Franks at that time.[4]

The Viking ship is unmistakably related to the foundation of Icelandic history. The author saw this as a starting point and opportunity to explore the

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[4] J. Bill, 'Ships and Seamanship', in *The Oxford Illustrated History of the Vikings,* ed. P. Sawyer, Oxford University Press, New York, 1997, p. 182.

technology of Viking shipbuilding to influence the design and making of the chair. The process of using traditional craft methods of manipulating materials with hands and hand tools, relatively uncommon to furniture making, was already a familiar method of creating innovative furniture designs by the author. Two examples made by the author as an undergraduate at BCUC that illustrate the use of traditional making methods not normally related to making furniture, are the cherry picking ladder writing desk (Fig. 2) and coat rake (Fig. 3, page 21).

Fig. 2 Cherry picking ladder writing desk, made by the author, 2000.

Hand skills used to make this ladder include: ladder sides and rungs shaped and finished with a drawknife; splitting of the Oak rungs with a froe.

Fig. 3 Coat rake, made by the author as undergraduate, 1996.

Hand shaped and finished with a drawknife and made from green (unseasoned) Ash.

Following some brief sketches of ideas for the Speakers Chair (Fig. 4, page 22), that might express the ship building methods of the time the author looked for a practising boat builder who was prepared to share his practical knowledge and help resolve the sketch design. The first boat builder to be found who was making boats in the Nordic (Viking) tradition was Peter Matheson who was building boats with the Galgael Trust in Glasgow. The author visited him and received a practical and demystifying demonstration of the elements of boat building required to complete the design of the Speakers Chair and make it. Working with Peter Matheson, a master boat builder, alongside the boat he was in the process of building, was a deeply rewarding and stimulating experience. Peter Matheson's explanation, with hand gestures, of how to handle the tools, and the half built boat constantly being referred to for explaining the making methods required for the

Speaker's Chair design, was a 'learning to make' experience never before received with such effectiveness.

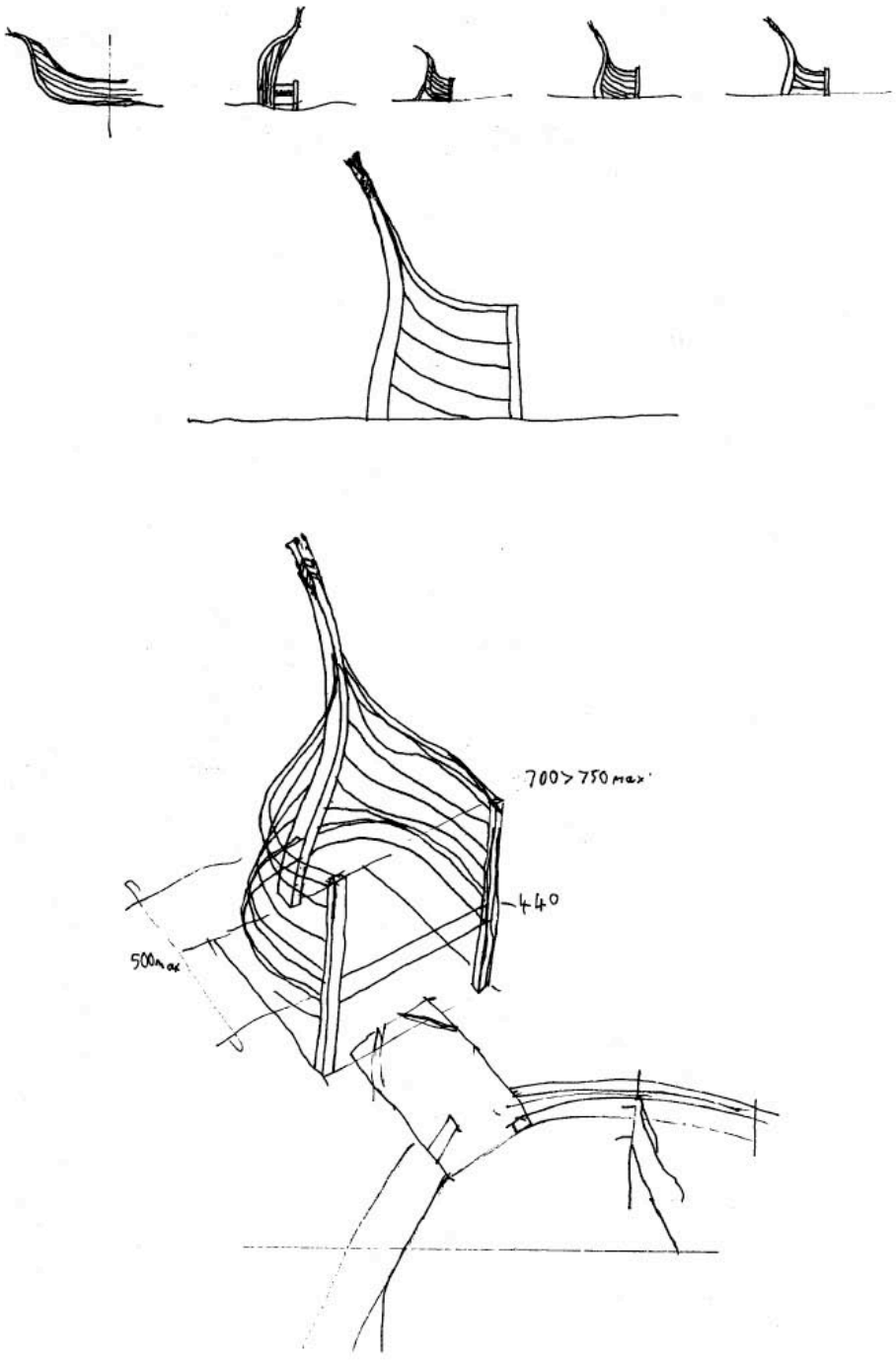

Fig. 4 First sketch design of the Iceland Parliament Speakers Chair.

During the process of making the final chair the author felt overwhelming confidence in his hands.

> “My hands were making the chair by themselves, like a reflex, without consciously controlling them. I have experienced this feeling of my hands working automatically at complex but repeated tasks and been impressed at their skill, but never have they operated in such a way while carrying out a making task so unfamiliar to them.”

While this experience of hands having a mind of their own, may sound a little strange to non-makers, it is probably familiar to most well practised makers. What it suggested to the author was that elements of the boat making process demonstrated by Peter had come through generations of boat builders in the same way. Having completed the Speaker’s Chair with the help of Peter’s demystifying explanation, the author felt he had no ownership of the skills required to make the chair and therefore could not call the chair a product of his own. Hence when visiting the Icelandic Parliament the following year to see the Speakers Chair in situ, the author, when asked to sign the visitors book as the maker of the chair, signed on behalf of generations of Scottish makers, by signing the outline of his hand “Scottish Makers”, (Fig. 5).

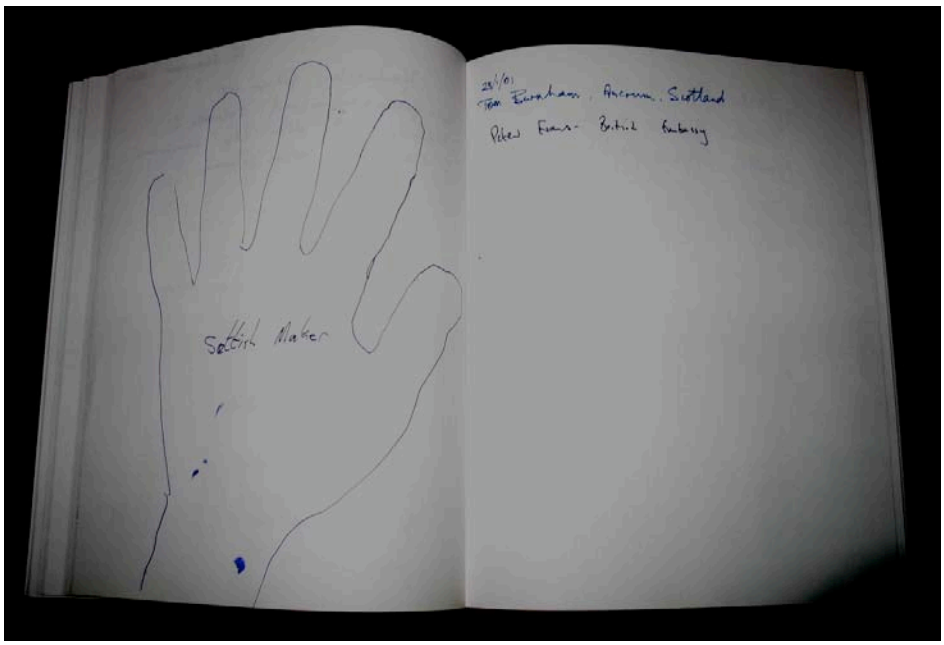

Fig. 5 Hand print signature by the author in the Icelandic parliament visitor’s book.

The Icelandic Parliament Speaker’s Chair commission (Fig. 6), demonstrated the author's ability to physically imitate another maker’s physical actions and

description of their specialised discipline, and to reinterpret this tacit and visual knowledge into the design and making process of his own discipline.

Fig. 6 Icelandic parliament speakers chair.

It was felt by the author that, because he had been working for some time as a professional furniture maker in wood and was well practised at making within his own discipline, his abilities, as an observing apprentice, were greatly enhanced. The potential for innovation by cross-referencing making methods by brief apprenticeships with other makers was an opportunity the author wanted to explore further. This self awareness of the author's making

and imitating abilities had not been realised in this way before, and recognition of the intelligence that lies within the hands of the maker was unfolding. This is not to say that the author fully understood his imitating and making ability or the implications of it, only that he recognized it as a practised skill in its own right, with future potential and that the artefacts made represent very complex creative journeys, full of meaning. Frans de Waal, Professor of Primate Behaviour at Emory University, wrote that;

> Imitation is seen as one of the highest cognitive feats. Think about it: how does one get from watching another individual's actions to performing the same actions for the same purpose? Imitation requires that visual input is converted into motor output, telling the body to re-enact what the eye saw.[5]

The design of the Iceland Parliament Speaker's Chair was led by the making process, using the methods of traditional making processes as a decorative element to convey cultural meaning. Visual and physical communication has led the development of traditional making practices over generations, making them undoubtedly part of most cultures, embedded in remnants of traditional making practice, artefacts of the past and our environment. Deborah Schneebeli-Morrell, a maker who works in paper maché, spoke at the Ideas in the Making: Theory and Practice Conference at the University of East Anglia, 1998, wrote in her paper.

> 'That somehow vital knowledge and intelligence and even perhaps ancestral history is carried through manual work'.[6]

To explore further new skill in imitating crafts of the past and to influence one-off designs that carry cultural meaning, potential was seen in the possibility of influencing industrially made products. From the development of these new skills an idea for a project was forming. For the maintenance of cultural continuity, traditional practice can play a role in the forming and influencing of the modern industrial process and industrially made product.

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[5] F. Waal, *The Ape and the Sushi Master,* Penguin, St Ives, 2001, p. 219.

[6] D. Schneebeli-Morrell, 'She's Clever with Her Hands', in *Ideas in the Making: Theory and Practice,* H P. Johnson, Crafts Council, London, 1998, P.49.

The modern maker, with knowledge of traditional practice and an understanding of areas of industrial production, can rapidly make innovative demonstration artefacts, challenging design for industrial practice. Making demonstration artefacts almost entirely by intuition and a creative making process provides artefacts that could be exposed to a potential buying audience for assessment. This assessment would consider its viability as an industrially made artefact and its success at carrying cultural content, and it would also stimulate the market to consider alternatives to the norm and the value of cultural content in repeat production artefacts.

The Parliament Speaker's Chair commission inspired the author with a growing interest in Icelandic culture and its economic climate and it created an opportunity to develop a project in partnership with Icelandic makers. The author's vision was to share skills and ideas between makers from different making traditions, typical of Icelandic culture, with the aim to develop an artefact suitable for collective batch production in Iceland, with a strong cultural identity that would demonstrate future potential for Iceland's indigenous making traditions.

In January 2001 the author made a trip to Iceland[7] to propose a project to Icelandic makers from different fields, government development agencies and other relevant bodies, to gauge their interest and potential commitment in participation and support of the proposed project. The proposed project was to develop a new export from Iceland. To do this the author proposed to select a group of Icelandic makers from different disciplines who could share their skills and workshops, and with them he would design and make a demonstration artefact. He would then propose a production process for the artefact in Iceland, and test the market for the artefact. The project was received with support from the East of Iceland Development Agency, who were prepared to fund some internal travel expenses of the author's to complete the project. Icelandic makers also offered their support for the

[7] This trip was made, as part of an organised Export Explorer Mission, subsidised by the British Government Department of Trade and Industry (DTI).

project and agreed to share their facilities and traditional Icelandic making skills, to make a demonstration artefact in collaboration with the author. Further funding and support was gained in the UK in the form of a bursary to complete the project as a PhD with Buckinghamshire Chilterns University College (BCUC).

Iceland was an attractive place to carry out the project because:

- Iceland has a living indigenous making heritage, tied to Nordic traditions.
- Iceland as a member of the Nordic community has a sympathy and commitment to support a project that aims to preserve and promote its cultural heritage.
- To minimise the mass depopulation of rural communities, as agriculture becomes less and less profitable, diversification is required.
- Their reliance on fish exports forces them to look at diversification.
- Oak and aluminium were materials processed with renewable geothermal and hydroelectric energy and ready for use in large quantities in Iceland.
- Icelanders are familiar with distance communication, via the internet.
- Icelanders are familiar with the English language, using it for most international communication.

The proposed project included a design brief for a dining room table and chair. The choice to design and make a dining table and chairs was made because they are typical domestic artefacts of the West European home, and were familiar commissions in the author's professional furniture making experience. A dining room table and chairs would be familiar as artefact

types with all the makers participating in the designing and making process. The following was the proposed design brief:

- Artefact to be a domestic dining table and chair.
- Its design to be influenced by the traditions of Icelandic making.
- To carry or represent in the nature of its design, Icelandic culture.
- Made from oak and aluminium.
- The artefact to be sold to the home market and exported to other Nordic countries.

1.3. Project Overview

The ambition for the project was to design and make a dining table and chairs in partnership with Icelandic makers, physically involving and sharing the whole process with them. The author saw the project as an opportunity to explore the potential for makers across different disciplines and levels of expertise to learn from the experience of sharing physical and cultural making knowledge. The author positioned himself as the medium and facilitator to a selected group of 6 makers from different disciplines and Nordic locations. Taking a role as apprentice, he physically worked for each of the selected makers for 1 to 2 weeks, empathising with their work while making alongside them, responding to their materials, watching their hand control, emulating it and learning from them. While working as apprentice to the makers their potential input into the making of a table and chairs was considered through experimental making, discussion and reflection. These learning experiences and the work of each maker were then considered while drawing up design proposals for a table and chairs. These designs aimed to reflect the work of the selected makers. Having gone through a process of amending the designs on paper with the selected makers the author travelled to Iceland to make the table and chairs. In the workshops of Gretar Mar Thorvaldsson, Geir Oddgeirsson and Fjolnir Hlynsson (joined in Gretar's workshop by Thorhildur Thorgeirsdottir another of the selected makers from Iceland), the table and chairs' design developed considerably during the making process, and the final table and chairs were made. The author and the selected makers physically shared the making process, and, during this physical interaction and discussion, the influence of the non-present makers was shared also.

This process of interaction to design and make the table and chairs was primarily a physical and visual one with some discussion. To capture the process of interaction different media and methods were used including:

- Digital video recordings - these were made during the author's apprenticeship with each maker as formal interviews and at moments where design decisions were being made during the making of the table and chairs.

- Audio recordings - conversations on the telephone, face-to-face meetings and the author's personal reflections were recorded throughout the project.

- Still images - were taken to reference artefacts and moments of the designing and making process.

- Artefacts - were made throughout the project and can be considered as the outcome of shared experiences and shared experimental making. These include: experiments made during the two-week apprenticeship to the makers; models, full scale mock ups and more experiments made in preparation for the design proposal; finally the table and chairs made in Iceland with the selected makers.

The above can be seen as references to the shared physical making experiences of the author and the selected makers. These references when reviewed by the selected makers having completed the project and other makers outside the project will serve as the most appropriate medium for reflection. They also serve as important references within the presentation of the project thesis.

The table and chairs, along with DVD presentations of the audio and visual reference material recorded during the author's apprenticeships and the designing and making of the table and chairs, were exhibited at the following six venues in the four countries from which the different participants came from:

- HANDVERK OG HÖNNUN (Handwork and Design), Reykjavik, Iceland. 14 August - 20 August 2004
- Gunnarsstofnun, Egilsstaðir, Iceland. 22 August - 29 August 2004
- Faroes Crafts Sociaty annual show, Tórshavn, Faroe Islands. 4 September - 7 September 2004
- Shetland Museum, Lerwick, Shetland. 11 September – 16 September 2004
- The Lighthouse Design Museum, Glasgow, Scotland. 21 September – 24 September 2004
- The Viking ship Museum, Roskilde, Denmark. 29 September – 4 October 2004

The exhibition shared with a broad audience the outcomes and activities of the project. Feedback from the exhibition audience was recorded via questionnaires and used to reflect on, and assess, the project's success in developing a table and chairs suitable for repeat production in Iceland raising support in the broader community for the activities of makers and outcomes of the project.

2. Research

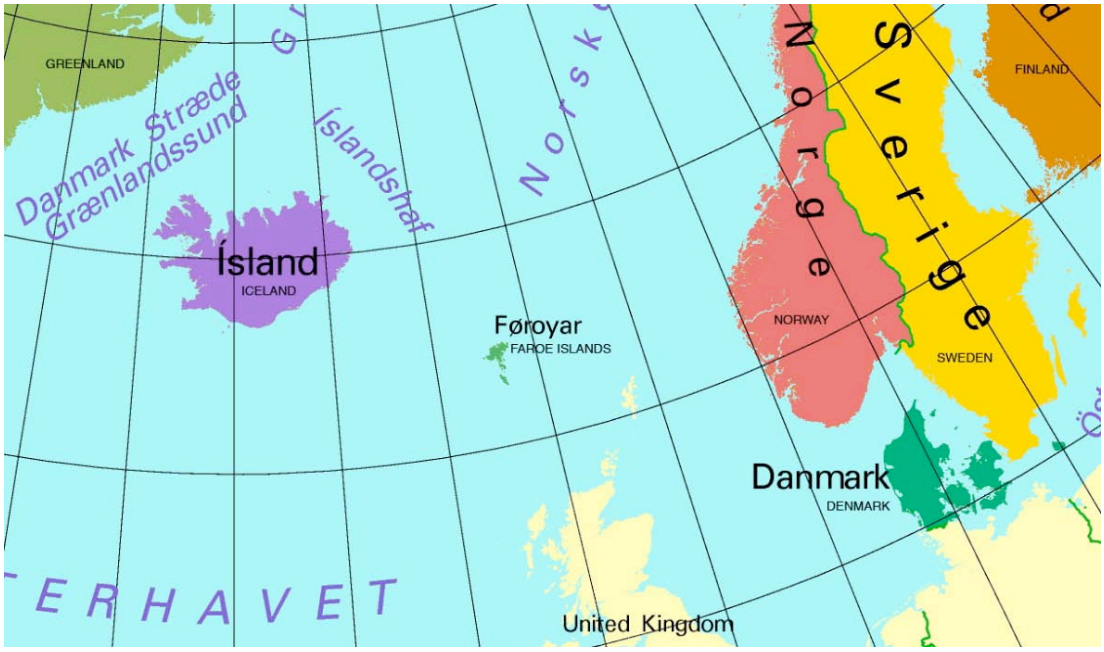

Fig. 7 Map of the Nordic Region. Copyright, Kort & Matrikelstyrelsen, Denmark.[8]

From January 2002 the author received bursary funding from Buckinghamshire Chilterns University College for a Project Led PhD. The project would be a practical one, the author working in partnership with Icelandic makers to design and make, in their workshops, artefacts suitable for batch or larger scale production in Iceland. The project would then go on to assess the artefacts reception during a touring exhibition. Due to the practical nature of the project, primary sources of information including, physical interaction with makers, semi-structured qualitative interviews, qualitative and quantitative questionnaires and artefacts account for most of the research. In effect, the knowledge in the hands of makers is the primary source of reference for this project. These references are physically represented in the demonstration artefacts, and with the video recordings

[8] Nordic Council, 'Map of the Nordic Region (Copyright, Kort & Matrikelstyrelsen, Denmark)', *Facts about the Nordic Region and Nordic Co-operation'*,<www.norden.org> 30.4.04 (accessed 22.3.05)

made while developing and making the artefacts, form central research references. This material is submitted with the thesis. It is an ambition of the author within the scope of the projects thesis submission as a whole (including the demonstration artefact and video recordings) to articulate the grounded theories that lie in the hands and practice of makers. With variable approaches to academic research in this area, few secondary sources can be found of reflective analysis of these grounded theories, or of this type of project. Research using video to record craft makers, has helped inform the process. This research includes Nicola Wood's project to record crafts as a reference to show how to do a craft and the National Electronic and Video Archive of the Craft (NEVAC) directed by Matthew Partington at the University of the West of England, (both described in more detail in Section 2.3. page 41). The intellectual practice of the hands of makers is often taken for granted and unarticulated in words, only represented by the methods they use and artefacts they make. Secondary sources of information would provide background reference material into the historical, cultural, political and economic context and for drawing up methodologies from other disciplines.

2.1. People.

Makers in Iceland and the Nordic region have been the focus of the research, from a broad view of the maker community, to a focused interaction with a select group of makers. The author has visited makers at their workshops from different fields and backgrounds in Iceland, Faroe Islands, Shetland and Denmark, seen their work and had lengthy conversations with them about their work. These informal meetings have continued to provide a general feeling of sympathy and understanding for an extended Nordic makers' community. This general sense of empathy and kinship to Nordic makers developed by the author has shaped the methods and means of communication with Nordic makers throughout the project.

The following list of makers includes all those visited by the author during the project:

Nigro A. Hermansen, Wood Carver, Faroe Islands, 24.01.01.

Søren Nielsen, Boat Builder at The Viking Ship Museum, Denmark, 12.08.01.

Ásgeir Reynisson, Goldsmith at Gull og Silfursmidjan Erna hf. Iceland, 05.04.02.

Guttormur Jónsson, Sculptor in Stone, Iceland, 05.04.02.

Kolbrun Bjorgolfsdottir, Ceramic Potter and Sculptor at Kogga Pottery, Iceland, 10.04.02.

Ragnhildur Magnúsdóttir, Wood Carver, Iceland, 3.11.02

Gudmundur Magnússon, Green Wood Worker and Carpenter, Iceland, 3.11.02.

Hildigunnur Halldórsdóttir and Guðmún Hamelen, Weaving, Knitting, Felting, Wool at Ullarvinnslan Thingborg, Iceland, 4.11.02.

Sigithur J Kristjánsdottir, Wood Carver, Iceland, 4.11.02.

Edda Björnsdóttir and Hlynur Halldórsson, Wood, Bone, Horn Carving at Listithjan EIK, Iceland, 5.11.02.

Lára Vilbergsdóttir, Papier-mâché Decorative Objects, Iceland, 8.11.02.

Halla Bogadóttir, Goldsmith, Iceland, 20.7.03.

Vignir Jónsson, Artist, Iceland, 20.7.03.

Ófeigur Björnsson, Master Gold and Silversmith, and Sculptor, Iceland, 24.7.03.

Kolbrún S. Kjarval, Ceramics and Sculpture, Iceland, 25.7.03.

Óthin, Black Smith at Járnsmithja Óthins ehf., Iceland, 20.04.04.

Cecil Tait, Furniture Maker at Paparwark, Shetland Islands, 10.8.04.

Sueinn Olafsson, Wood Carver, Iceland, 17.8.04.

Ole Jakob Nielsen, Wood Turner and Sculptor, Faroe Islands, 8.9.04.

In addition to the above list of makers, six makers (listed below) were visited by the author for formal interviews and physical involvement in the designing and making of the table and chairs.

Geir Oddgeirsson, Cabinet Maker, Iceland, 24.01.01.

Gretar Mar Thorvaldsson, Foundry Man and Pattern Maker at Malmsteypan Hella ehf., 05.04.02.

Fjölnir B. Hlynsson, Sculptor, Iceland, 5.11.02.

Thórhildur Thorgeirsdóttir, Goldsmith, Iceland, 11.11.02.

Birger Anderson, Shipwright at The Viking Ship Museum, Denmark, 27.4.03.

Ása Hátun, Wool Worker, Feroe Islands, 25.6.03.

The author spent a minimum of two weeks with each maker from this selected group, working as their assistant and formally interviewing and recording the nature of their work with video. The same makers were in correspondence and close contact with the author between April 2003 and March 2004 designing and making the project artefacts. The communication has been recorded in many ways including recorded telephone conversations, audio recording, still photography, video, written responses and the final outcome of the communication, the project artefacts. It is important to recognize that these selected makers are the most important references within the project, their making knowledge handed to the author has made the project artefact. This project is in a new field of academic research, the thesis and the submission material, represents a record of the creative journey made by the author and selected makers in designing and making the project artefacts. Professor Mike Press, Head of Grays School of Art, Aberdeen, wrote in 1995, concerned with the need for designers to develop their own research culture with craft skills and tacit knowledge at its core:

> … we are navigators of uncharted waters…[9]

Throughout this project many people have been contacted for information and assistance. This has been particularly relevant in Iceland, with little published in English, people have been relied on to provide their professional opinion when required. The list below provides the names, organisations and a summary of the professional guidance and information they have provided throughout the project:

> Elsa Einarsdóttir, Commercial Assistant at the British Embassy Reykjavík 24.01.01. She provided general advice about Iceland's economic and political environment.

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[9] M. Press, at 'The European Academy of Design: Design Interfaces Conference', paper, *It's research, Jim…*, April 1995.

Eyjólfur Pálsson, owner and Director of Epal (contract furniture shop), Iceland, 24.01.01. He gave positive criticism of the project concepts.

Sigrun Kristjansdottir, Curator in Department of Ethnology at the National Museum of Iceland, 09.04.02. She offered guidance on the selection of visual sources and Icelandic craft tradition.

Sunneva Hafsteinsdottir and Harpa Björg Guðfinnsdóttir, Director and Assistant of the Icelandic Government funded, Handverk og Honnun (Crafts and Design) 10.04.02. She provided assistance in the selection of makers to participate in the project.

Thórthur Tómthsson, Curator of Skógar Folk Museum, Iceland, 4.11.02. He gave access to and descriptions of Museum artefacts.

Werner Karrasch, Photographer at, The Viking Ship Museum 28.4.03. He gave positive criticism of filming and editing techniques.

Vibeke Bischoff, Ship Reconstruction, Draughting and Boat Builder, at the National Museum of Denmark Centre for Maritime Archaeology, 7.5.03. She provided a thorough explanation of the authenticity of Viking ship reconstruction at the Viking Ship Museum.

Pétur B. Lúthersson, Furniture Designer, PBL Design, Iceland 24.7.03. He gave positive criticism of the project and overview of the furniture design community in Iceland.

Stephen Jackson, Curator of Scottish and European Furniture, at the National Museum of Scotland 16.08.02. He gave advice on the choice of venues and methods of approaching them for the project's exhibition tour.

Paul Western, Curator of Crafts, at the National Museum of Scotland 16.08.02. He gave advice on the choice of venues and methods of approaching them for the project's exhibition tour.

Guðmundur Ásgeirsson, Director of Contract Furniture Manufacturer Á. Guðmundsson EHF, Iceland, 24.7.03. He provided his considerations in manufacturing the project artefact in Iceland and an overview of the furniture manufacturing industry in Iceland.

Guðrún Eggertsdóttir, Librarian at the National Library of Iceland, 25.7.03. She retrieved relevant publications and information for the project.

Gisli Thorsteinsson, Assistant Professor at the University of Education, Craft and Design Department, Iceland, 05.04.02. He provided positive criticism of the project and assistance in finding makers and general sources of information.

Inga Lára Balduinsdóttir, Photographic Archivist at the National Museum of Iceland, 30.07.03. She found and provided relevant photography sources.

Ulla Boje Rasmussen, Freelance Film Director, Denmark, 19.10.03. She gave positive criticism of filming and editing techniques.

Hazel Hughson, Shetland Arts Trust (Indigenous Crafts Project), Shetland, 10.8.04. She gave positive criticism of the project and information regarding the links between the Shetland Islands, Faroe Islands and Nordic region's craft traditions.

Robert Neil, Researcher and Assistant Producer of Science Programmes for the BBC, London. He provided advice on video interviewing methods.

Dan Malsen, Freelance Filmmaker, London. He provided advice on digital video technology, computer editing and interview recording methods.

2.2. Objects

Given that this is a practical project the most important reference material is the selected group of makers and the nature of their work. The next most important references are the artefacts of these makers, their tools, and the tools and artefacts of their related craft traditions and their contemporaries. As well as the tools and artefacts seen and handled when visiting and working with makers, every opportunity was taken to see the work of contemporary makers along with the artefacts and tools of historical craft traditions. These artefacts were seen in exhibitions and museums in Iceland, Faroe Islands, Shetland Islands, Scotland and Denmark. The visual and tactile references that these objects represent are a visual rather than verbal language, but they have been fundamental in influencing the design and methods of making the project artefacts. As references these objects and tactile experiences have been presented as the following: on the interaction interview presentation DVD discs (which are to be viewed by the reader when introduced in chapter 4.1, page 73); as video and still photography; in sketch books; expressed in the making of experimental artefacts; the project table and chairs.

One example of an experimental artefact made during the project by the author was a copy of a 14th century felted wool Viking trader's hood, as worn by traders sailing open boats across the North Atlantic to Iceland from Norway. The hood sketched by the author (Fig. 8, page 40) at the Culture House in Reykjavik, Iceland[10] was made for a number of reasons, to further understand methods of felting wool, to sympathize with historic Nordic culture and to reflect, while making, on the experience of working for and interviewing Asa Hatun (wool worker from the Faroe Islands selected to participate in the designing and making of project artefacts, page 35).

[10] The Culture House, is a museum of Icelandic culture in Reykjavik.

Fig. 8 Sketch of 14th century Viking trader's helmet by the author.

Fig. 9 Author wearing the 14th century Viking trader's helmet he made.

The author's reflections while making the hood (Fig. 9) represent just one way in which an artefact (the hood) can be used as a 'maker's reference'. These experiences of how objects influence the project and the making of the project artefacts are not put into words but the presentation of this information is provided for in a visual format in the interaction interview presentation DVD discs (chapter 4.1).

2.3. Related Research Projects

Three academic research projects were found which put the practical activities of makers at the centre of their research. The following three projects were identified by the author to help inform his research processes and identify methods for referencing the making process.

The Tacitus project.[11] This project is co-ordinated by Ann Marie Shillito research fellow at the Edinburgh College of Art. Ann is a jeweller and the main interest of her research is touch, and touch sensitive computer interfaces in design and rapid prototyping. Ann's project explores the limitations and possibilities of transferring the sensitivity and tacit skills from the hands of makers into computers and computer controlled methods of production. During a visit to see Ann at the Edinburgh College of Art in February 2003 to discuss areas of shared interest, the author experimented with a 3-dimensional haptic drawing computer interface. Ann showed enthusiasm and support for the use of video as a means of referencing the practical activities of makers, of which she has had some experience and provided some feedback of the author's ideas. Ann considered her field of research was breaking new ground in the area of applied arts and design, putting makers and the viewpoint/touch of makers at its centre, and that there were few examples of this type of research to draw references from. This confirmed the author's difficulty in finding references in the area of maker-centred research. Apart from a general discussion about Ann's project, no useful references could be taken by the author.

National Electronic and Video Archive of the Craft – NEVAC.[12] Directed by Matthew Partington at the University of the West of England, Bristol School of Art, Media and Design. This unique archive of craft is not orientated to the physical practice of making and visual images, but towards

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[11] Edinburgh College of Art, 'Tacitus Research Project', <http://www.eca.ac.uk/tacitus/>, 2001 (accessed 16 May 2005).

[12] M. Partington, 'NEVAC', http://www.media.uwe.ac.uk/nevac/, 11th May 2005 (accessed 16 May 2005).

the nature and cultural context of the craft person / maker in their own words. NEVAC is an archive of interviews, carried out most recently as open-ended qualitative interviews with craft people talking about their work. This method of interviewing contrasts with the author's structured approach during the Iceland project, where structured questions orientated more to practical aspects of the interviewed maker's work, and how they could influence the design of artefacts to meet the project demonstration artefacts brief. The methodologies used by NEVAC were not used in the Iceland project.

Nicola Wood, a PhD post graduate in the department of art and design at Sheffield Hallam University, uses video to capture craft practice. In a letter to the author dated 06 September 2002, (see Appendix 1 – Letter from Nicola Wood, page 179) Nicola explained her research interests.

> My research is into the teaching of crafts and recording craft skills in a way that could be used by someone wanting to teach themselves. There are many craftsmen who are the last of the line for their particular skill and, rather than just recording an archive of what they used to do, I would like it to be something that could be used to make the craft skill live again.

In the same letter Nicola goes on to confirm the author's findings that there is little academic research activity in the area of recording with video the activities of makers / craftspeople.

> The only precedents (within academic research) I have found so far for recordings of craftspeople are NEVAC (National Video Archive of the Crafts) based at UWE, Bristol

The author found no academic research project led by a maker that put the relationships and practical communication between makers to resolve a collective design brief at the centre of their research. Furthermore, a project where the prime objective was to install cultural content from the hands of makers into demonstration artefacts and gauge the success of this cultural expression via an international exhibition tour, and survey of visitors to that exhibition, could not be found. The nature of the author's project is unusual and references, especially for methods, had to be taken from different appropriate fields.

2.4. Literature

Due to the individual nature of the project and that little relevant academic research exists within the field, written references were hard to find. What could be found served to reinforce the nature and direction of the project and came from a broad area of sources. As the project developed the review of relevant literature along the way strengthened the author's understanding and evaluation of the choices made throughout the project. The choice to carry out the project in Iceland as a PhD developed out of the Iceland Parliament Speaker's Chair commission and a continuing professional interest with Iceland.

Only a few generations from its pre-industrial past, Iceland is a place where makers have close links to their own distinctive craft traditions and a strong cultural identity.

> It was definitely not true that ancient Nordic culture in Iceland had been kept deep frozen for centuries as the young Danish romantic Orla Lehmann maintained in the 1830s. On the other hand, Iceland was still throughout the 19th century a primitive, underdeveloped society.[13]

It is this rapid change from primitive underdeveloped society that gives some Icelandic makers, now, a close affinity with their pre-industrial past. It was an objective of the project to select makers to work with who demonstrated a commitment to the continuity or contemporary re-interpretation of the craft traditions of Iceland. Makers with these commitments were not difficult to find in Iceland. The craft traditions of Iceland are unarguably rooted in their Nordic heritage[14] but remain unique within the Nordic region (see Fig. 7. Map of the Nordic Region, page 32) perhaps because of their physical isolation and the dramatic nature of their landscape and environment. As described on the web site of Handverk og Hunnun (craft and design), the Icelandic

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[13] G. Karlsson, p. 248.

[14] G. Karlsson, p. 62.

government funded a long-term project to support and develop craft and design:

> The craft and design tradition has developed richly here in the middle of the Atlantic Ocean, thousands of kilometres away from most other countries.
>
> The beauty of Icelandic nature is the paramount source of inspiration for most Icelandic craftspeople, who transfer - in modern and dynamic ways – nature's shapes, colours and materials to their work. The outcome is often striking artistic expression in creations designed even for everyday use.[15]

After receiving so much support and enthusiasm for the project in Iceland from individuals who appreciated the cultural commitment in the project, it was rewarding to read of the commitment to culture Nordic countries have. As stated by J. Finn, writing about public support of culture and arts in the Nordic region.

> …they have also felt themselves to be threatened by the more populous countries and have undertaken a cultural mobilisation in order to preserve and protect their traditions and distinctive character.[16]

Iceland's reliance on its fisheries for its foreign income was also in the projects favour, as it would test a system to develop new exports and help in the diversification of Iceland's economy. G. Karlsson wrote.

> One must look at export statistics to appreciate the sense in which Icelandic life is fish. From the 1940s until late 1960s marine products usually made up over 90 percent of the total export value of goods, while the rest mostly consisted of agricultural products. Since the 1970s, the share of marine products has usually been 70 to 80 percent, with manufacturing products providing most of the remaining 20 to 30 percent. Around 1990 the export of goods made up approximately three-quarters of the total export income compared with the exports of services (tourism, transport, work at the Keflavík base etc.). So because three-quarters of

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[15] Handverk og Hunnun 'The objectives of CRAFT AND DESIGN', <www.handverkoghonnun.is> (accessed 1/2/05).

[16] J. Finn, 'Public support of culture and the arts', in *Nordic democracy, ideas, issues and institutions in politics, economy, education, social and cultural affairs of Denmark, Finland, Iceland, Norway, and Sweden.* Det Danske Selskab. Copenhagen, 1981, p. 505.

> 75 percent is 56.25, Iceland seems to earn a little more than half of its foreign currency from fish products.[17]

The project also aimed to utilize some of the by-products of Iceland's recent and large-scale commitment to hydropower and geothermal energy, respectively aluminium and American oak.

> In the 1960s a search was begun for foreign firms willing to launch energy intensive industries in Iceland, run by hydroelectric power. The result was an aluminium smelter located in Straumsvík, south of Hafnarfjorthur, opened in 1969. It was fuelled by a new hydroelectric power station on the Thjórsá river. The factory, which is owned exclusively by Swiss Aluminium, processes imported raw material and exports all its products, but the power station is in Icelandic ownership.[18]

The most recent hydropower development in Iceland is a 690 MW, £651M power station under construction for Iceland's national power company Landsvirkjun. Damon Schunmann, in the UK New Civil Engineer periodical, reported,

> Sigurdur Arnalds, public relations manager for national power company Landsvirkjun, explains: it is not possible to export electricity to Europe as it is too far away, so we attract industry here. The industry in question is energy intensive aluminium smelting.[19]

Geothermal resources supply 50 percent of the total primary energy for Iceland and 7.9 percent of this resource is used as industrial process heat.[20] One industrial application for the use of this geothermal energy is kiln drying wood, as described by A. Ragnarsson an Icelander and geothermal specialist.

> The most recent industrial application is drying of hardwood in Husavik. This plant has been in operation since 1996. Hardwood logs are transported from North America to Husavik where they are sawn and kiln dried with geothermal hot water. In the beginning the products were

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[17] Karlsson, p. 358.

[18] Karlsson, p. 358.

[19] D. Schunmann, 'Power Steering', *New Civil Engineer,* 9/9/04, p. 16.

[20] A. Ragnarsson, 'Geothermal Development in Iceland 1995-1999', OS Orkustofnun, www.os.is, accessed 10.2.05.

> mainly exported to Europe without further processing. After financial difficulties the plant was reorganised in 1999 with emphasis on further processing of the hardwood as floor parquet, until now mainly for the domestic market.[21]

The little domestic utilization of the large quantities of aluminium and oak (the by-products of the natural energy resources of Iceland) was an important factor in starting the project with Iceland. The author recognized in the situation an opportunity to demonstrate how the creativity and skills of indigenous makers could produce a demonstration artefact and develop a system of production that could use these materials.

The use of imported materials is not new to the Icelanders, in fact, it is quite natural for people living on an island with few natural resources, materials as essential as wood have been imported to Iceland since the first settlement. Jesse Byock a Professor of Old Norse and Medieval Scandinavian languages at University of California, Los Angeles, wrote,

> After the first relatively few big trees had been cut down, the birch available was of only limited use in shipbuilding and house construction. From early on good timber had to be imported. This expense raised the cost of maintaining ships, a factor that overtime severely limited the Icelanders ability to compete with Norwegian merchants.[22]

Quality timber was not a natural resource available in Iceland, this however did not stop the development of an Icelandic woodcarving tradition. Dr. Ellen Marie Mageroy (whose doctorate examines 'flower ornament in Icelandic wood carving' from Oslo National Academy of Art) described in her essay about the Icelandic history of 'Wood carving and wooden sculpture',

> In Iceland the art of woodcarving must be as old as the settlement of the country and it continued to flourish for a thousand years - a paradox in a land so lacking in trees.[23]

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[21] Ragnarsson.

[22] J. Byock, *Viking age Iceland,* Penguin, London, 2001, p.33.

[23] E. M. Mageroy, 'Wood carving and wooden sculpture' translated by C. Long, in *Árbók*, ed. M. Snaesdóttir, Útgefandi Hid Íslenzka Fornleifafélag, Reykjavík, 2001, p. 106.

The author working in practical collaboration with other makers to collectively develop designs and demonstration artefacts suitable for repeat production is not a new experience. Putting this activity and the related tacit and visual knowledge at the centre of academic research, is a new field. One paper written by K. Yair, A. Tomes, M. Press, confirms the lack of research in this field titled 'Design through making: crafts knowledge as facilitator to collaborative new product development'[24], documents and discusses an example of best practice.

> The case study was conducted in the context of doctoral research into applications for crafts knowledge to design for industry. The methodologies chosen reflect a relative lack of academic research in the field of enquiry.[25]

This study illuminates that makers and craft, distinct from industrial designers and design have a growing and significant role to play in influencing product development for industrial production.[26] The positive benefit of allowing design to develop during collaborative making processes between makers from different disciplines has been debated.

In a paper titled 'Knowledge and the Artifact', the potential of the artefact within design research to be central rather than secondary to a text and how the design and production of an artefact can be used to create knowledge is discussed.[27] Central to the author's Icelandic project are processes and artefacts, the 'Knowledge and the Artifact' paper was a useful reference confirming how artefact can play a central role in academic research.

> …artefacts, in this case drawings and prototypes, can provide clear descriptions of designs, principles and processes. They can communicate across boundaries of discipline and experience. They can support the

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[24] K. Yair, A. Tomes, M. Press, 'Design through making: crafts knowledge as facilitator to collaborative new product development', *Design Studies*, Vol. 20, No. 6, November 1999.

[25] K. Yair, A. Tomes, M. Press, p. 497.

[26] K. Yair, A. Tomes, M. Press, p. 496.

[27] C. Rust, S. Hawkins, G. Whiteley, A. Wilson, J. Roddis, 'Knowledge and the Artifact', Proceedings of Doctoral Education in Design Conference, La Clusaz, France, July 2000. http://www.chrisrust.pwp.blueyonder.co.uk/academic, (accessed 02/2005)

progress of research and they can be instrumental in eliciting knowledge, including tacit knowledge, in and from individuals.[28]

[28] C. Rust, S. Hawkins, G. Whiteley, A. Wilson, J. Rod.

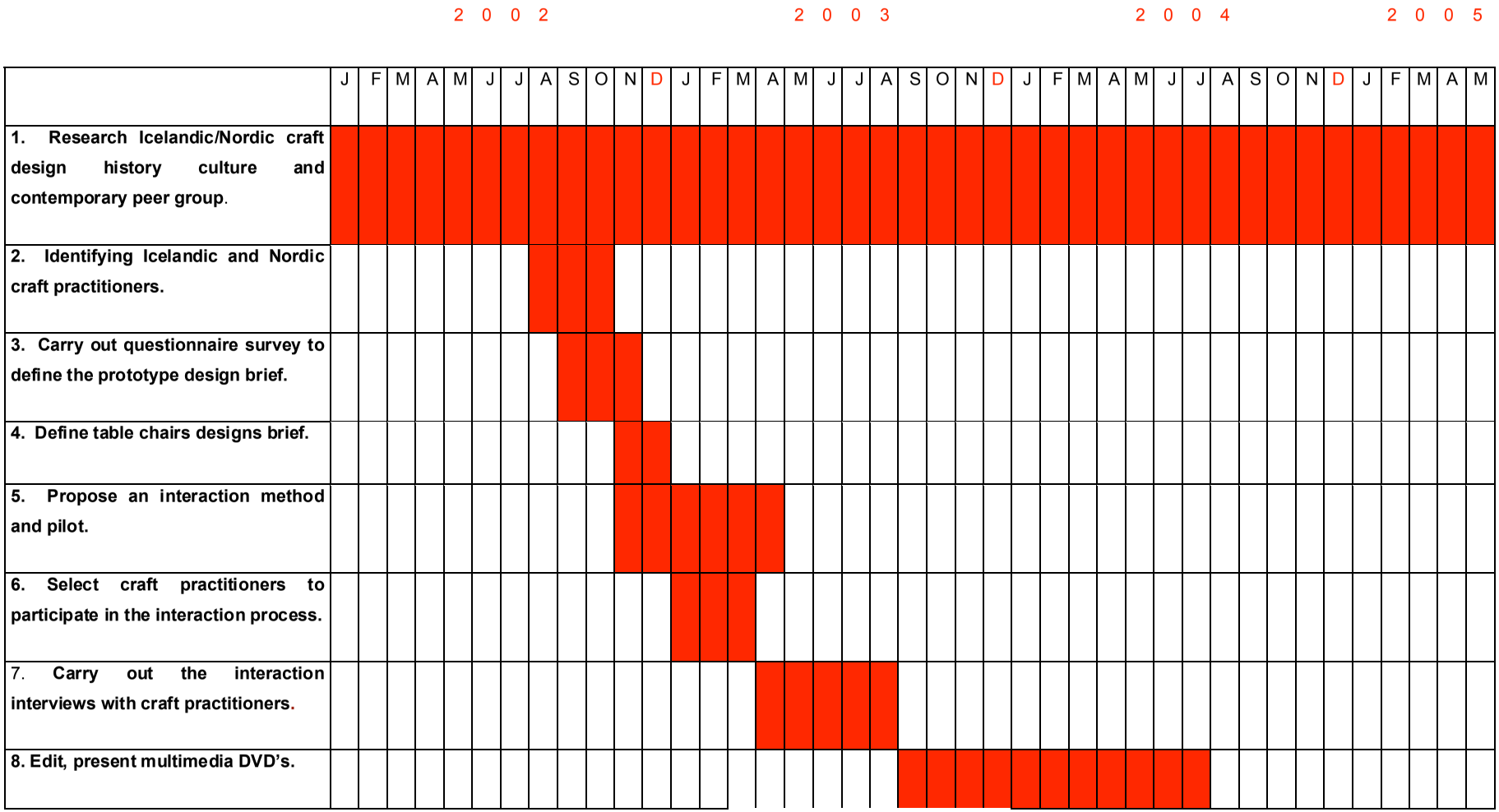
3. The Interaction Plan: Development of a System to Share the Design and Make Experience

This chapter lays out the planning, development and methods used for setting up the interaction process. The interaction process is how the selected group of makers and the author would collaboratively design and make the table and chairs. This part of the project was the preparation before the practical collaboration with the selected makers could begin. It included:

- A survey to confirm the table and chairs design brief.
- The proposal of the interaction process to Icelandic makers.
- Pilot interaction interview.
- The selection of makers to participate in the interaction process.

A time plan for the whole project including the designing and making of the table and chairs and the exhibition tour was also drawn up as part of this preparation (Table 1 Project Time Plan, page 50).

Table 1 Project Time Plan



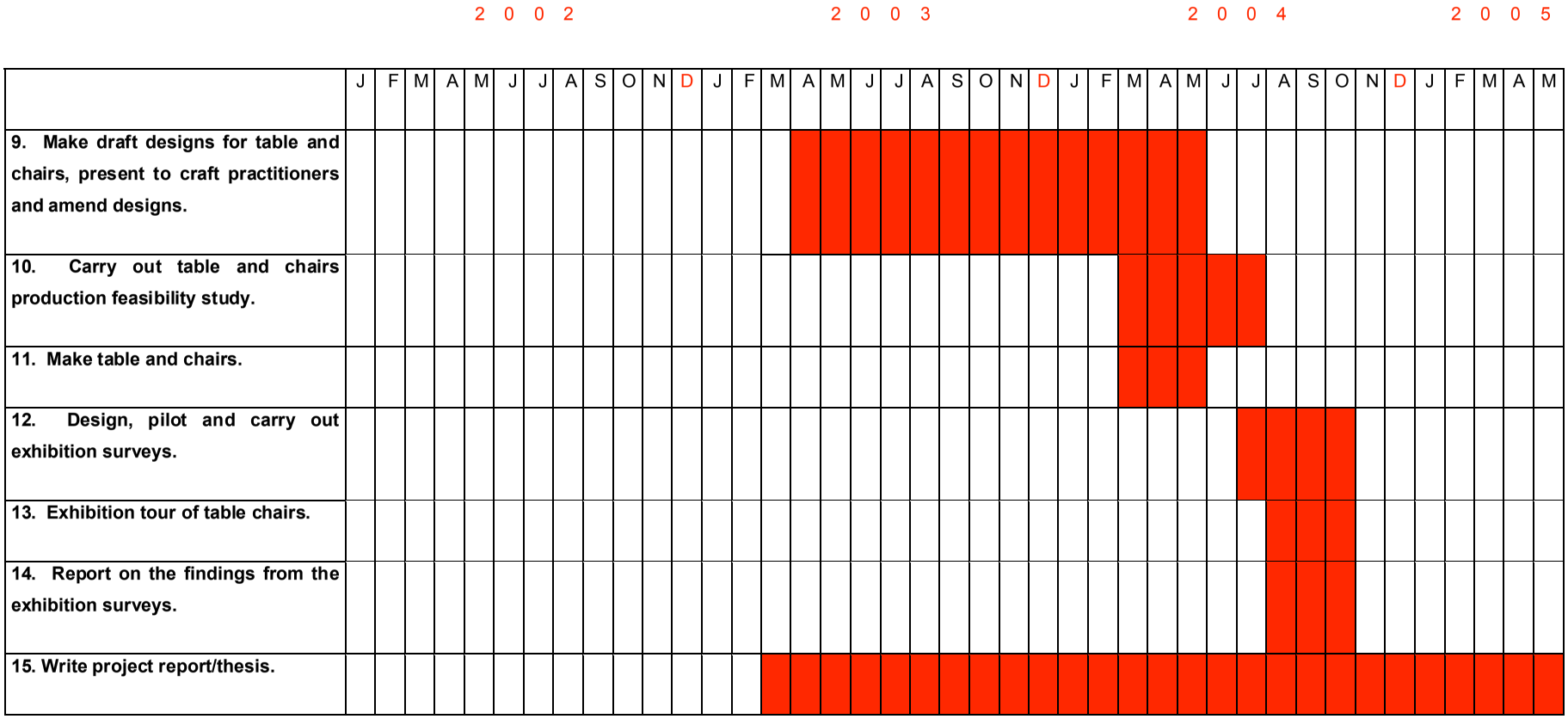


Table 1 Project Time Plan

3.1. Defining the Table and Chairs Design Brief

To confirm that Icelandic makers shared the author's vision of the project and the proposed design brief for the table and chairs, a survey was carried out between September and December 2002 with a quantitative questionnaire. It was important to confirm that the author's understanding of the economic and cultural climate was the same as the Icelandic makers and that the project and an amended design brief would be accepted by them. The results of this survey are provided in Appendix 2 – Defining the Product Brief Questionnaire (page 180).

The questionnaire was designed to confirm and make any necessary changes to the original design brief which was the result of an investigation made by the author in January 2001, on an "Export Explorer Mission" supported by the DTI (as discussed on page 26).

3.1.1. Questionnaire Methods

The questionnaire was posted to Icelandic craftspeople, with questions they could answer easily yes or no in tick boxes and return by post. The questionnaire was translated and piloted by Gisli Thorsteinsson Assistant Professor in Craft Design and Technology at the Iceland University of Education.

Of the 24 posted questionnaires in September 2002, 8 were returned and a further 9 were completed by craftspeople visited by the author between 1st and 12th November 2002. It should be noted that to maintain consistency, craftspeople given questionnaires personally by the author, were not given any more information about the project, or the questionnaire, than those who received it by post.

The recipients of the questionnaire consisted of amateur or professional craftspeople practising mainly in wood, metal and wool, whose work

demonstrated a continuation of traditional Icelandic crafts or a modern development of them.

These people were sourced from:

- British Embassy, Iceland.
- Handverk og Honnun, Icelandic government funded Handwork and Design organization.
- Iceland University of Education.
- The author's own research, from exhibitions and travel.

The British Embassy provided 2 names of craftspeople who were leaders in their field. Hnadverk og Hönnun gave 14 names, from their database of approximately 160 names. They were selected by the Director, Sunneva Hafsteinsdóttir, and Assistant, Harpa Bjorg Gudfinnsdottir, as best fitting the criteria. Gisli Thorsteinsson, Assistant Professor of the Craft Design and Technology Department in the Iceland University of Education, provided 16 names of craftspeople of an Icelandic traditional nature. When comparing the lists of names it was noted that some names came up in two or more lists.

All the supplied lists of craftspeople were included in the questionnaire mailing list. Six more craftspeople who satisfied the criteria were added, who were met by the author on his travels and no sorting or preferences were made in compiling the mailing list. Gender, materials used or degree of professional status was not considered important, only that their name had been put forward in consideration of the criteria.

Table 2 List of Questionnaire Recipients (page 54), is a list of all the craftspeople who have either been posted a questionnaire in September 2002 (all names up to 24) or were given a questionnaire to answer personally by the author (all names above 24) between 1-12 November 2002.

Table 2 List of Questionnaire Recipients

ID	org	introduced	name	town	country
1	ULLARVINNSLAN ÞINGBORG		Hildigunnur Halldórsdóttir	801 Selfoss	Iceland
2	handverksstofa	HH	Philippe Ricart	300 Akranes	Iceland
3	Rita Freyja Bach & Páll Jensson	HH	R. F. Bach & P. Jensson	310 Borgarnes	Iceland
4	Sculptor museum man	TH	Guttormur Jónsson	Akranesi	Iceland
5	GALLERÍ HNOSS	GT	Bjarni Þór Kristjánsson	101 Reykjavík	Iceland
6	Beate Stormo	HH	Beate Stormo	601 Akureyri	Iceland
7	HADDA VINNUSTOFA	HH,GT	HADDA VINNUSTOFA	603 Akureyri	Iceland
8	Birkir Fanndal Haraldsson	HH	Birkir Fanndal Haraldsson	660 Mývatnssveit	Iceland
9	Valdimar Bjarnason	GT	Valdimar Bjarnason	801 Selfoss	Iceland
10	LISTIÐJAN EIK	HH,GT,BE	Edda Kr. Björnsdóttir	700 Egilsstaðir	Iceland
11	Þórey S. Jónsdóttir	HH	Þórey S. Jónsdóttir	531 Skagafjörður	Iceland
12	LISTIÐJAN EIK	HH,GT,BE	Fjölnir B. Hlynsson	700 Egilsstaðir	Iceland
13	Gull og Silfursmidjan Erna hf.	GT	Gull	105 Reykjavk	Iceland
14	ULLARVINNSLAN ÞINGBORG	GT,HH	Guðmún Hamelen	801 Selfoss	Iceland
15	ULLARSELIÐ	HH	ULLARSELIÐ	311 Borgarnes	Iceland
16	Black smith	TH	Poul H justinussen	FO-100 Torshaun	Faroe
17	Sculptor	GT	Vignir Johannsson	105Reykjavik	Iceland
18	Tresmidjan Grein ehf.	BE	Grein Oddgeirsson	200 Kopavogur	Iceland
19	Sueinn Olafsson	HH	Sueinn Olafsson	105 Reykjavik	Iceland
20	Stick carver	TH	Nigro A. Hermansen	FO-100 Tórshavn	Faroe
21	The Viking ship Museum	TH	Søren Nielsen	DK-4000 Roskilde	Denmark
22	Malmsteypan HELLA ehf.	BE	Gretar Mar Thorvaldsson	220 Hafnarfjordur	Iceland
23	Kogga	GT	Kolbrun Bjorgolfsdottir	101 Reykjavik	Iceland
24	LISTIÐJAN EIK	HH,GT,BE	Hlynur Halldórsson	700 Egilsstaðir	Iceland
25	Þórhildur Þorgeirsdóttir	TH	Þórhildur Þorgeirsdóttir	101 Reykjavík	Iceland
26	Sigriður Kristjánsdottír	GT	Sigriður Kristjánsdottír	801 Salfoss	Iceland
27	Lára Vilbergsdóttir	TH	Lára Vilbergsdóttir	700 Egilsstaðir	Iceland
28	Þingborg	GT,HH	A. Saem	Selfoss	Iceland
29	Þingborg	GT,HH	Hilur Hákonardóttir	Selfoss	Iceland
30	Helga Magnusdottir	GT	Helga Magnusdottir	845 Flúðir	Iceland
31	Ragmlúldur Magnúsdóttir	GT	Ragmlúldur Magnúsdóttir	801 Selfoss	Iceland
32	Gudmundur Magnússon	GT	Gudmundur Magnússon	845 Flúðum	Iceland

3.1.2. Questionnaire Findings

Comments made as additional information on the questionnaire were few. Two craft practitioners at the wool workshop said that wool should be used, because the resource was going to waste in Iceland at the time. Lára Vilbergsdóttir also said the same thing. This comment on wool being an under-utilized material in Iceland made it attractive to the project. As a material wool has a lot of potential and given the potential quantity available it also makes it an abundant resource. One craft practitioner suggested that Asp wood, as an indigenous natural resource, should be explored as a

potential resource in the design brief. This comment is offset by the fact that Asp as a raw resource, or a pre-processed one, does not exist in any large quantities in Iceland unlike kiln dried Oak. Its potential is not ruled out as a useful natural resource for some applications, but it is neither appropriate for furniture making nor is there the potential scale for production, as it is very soft and is only available in very limited amounts. This ruled it out of the design brief.

It was decided from the additional comments made on the questionnaire to change the original brief, and include the addition of wool as a material to be used on the seat of the chair. Also it was felt by the author from the start of the project that his position as the design team leader may not be welcome amongst such resourceful Icelandic craftspeople, who may prefer to lead the project themselves. The results of question 12 (Appendix 2, page 182), "would Icelandic craftspeople be the best equipped to design and produce demonstration products made from oak and aluminum", were negative, suggesting that craftspeople did not have the confidence to lead the production of prototypes themselves. Question 8 (Appendix 2, page 181) however confirmed that Icelandic craftspeople could influence and provide inspiration for designs. These results strengthened the position felt by the author that he could work between industry and traditional crafts and lead the design/making development process with confidence.

3.1.3. The Amended Table and Chair Design Brief

The table and chairs were to be designed and made collectively by a selected group of craftspeople and the author. They would all contribute to the designing and making process, via an agreed method of interaction. The following design brief was developed after considering the results of defining the product brief questionnaire (Appendix 2, page 180).

Table and chairs design brief:

- Product to be a domestic dining table and chair (and carver).
- Made from oak, aluminium and wool.
- Its design to be influenced by the traditions of Icelandic crafts.
- To carry or present in the nature of its design, Icelandic culture.
- The product to be sold to the home market and exported to other Nordic countries.

3.2. Proposing the Interaction Plan to Icelandic Makers

The next stage of the project involved proposing a plan of interaction with makers to design and make in close partnership with them a table and chairs to meet the design brief. The interaction plan was designed to provide a framework in which selected makers could contribute in a measured way to a collectively designed and made table and chairs.

The following overview of the interaction process and the proposed formal interview questions, recording method and archive presentation structure provided in Appendix 3 (page 184), were presented by the author in November 2002 in Iceland to two Icelandic makers and potential partners in the project, Fjolnir Hlynsson and Thorhildur Thorgeirsdottir for their opinion and criticism of the plan.

Overview of the interaction process, as presented to the Icelandic makers for their consideration:

- Define method of interaction.
- Prepare presentation of interaction method.
- Expose interaction method to craft practitioners and ask for their opinion on and their willingness to participate with the defined interaction method.
- Redefine interaction method with consideration of their opinion.
- Choose craft practitioners to work with.
- Carry out practical work with craft practitioners, work alongside craft practitioners for as long as seems necessary or possible to provide insight into, and sympathy with their work.
- Carry out formal interview, collecting any reference material. Record interview and reference material with video/audio and digital photography methods.

- Prepare multimedia archive of interviews.
- Consider interview findings, draw conclusions and produce draft designs.
- Expose draft designs to craft practitioners for their opinion.
- Amend draft designs considering craft practitioner's opinion.
- Draft design complete.
- Produce prototypes with the assistance of craft practitioners where appropriate.
- Record craft practitioners direct contribution to the prototype production and append to appropriate multimedia archive.

The following question was asked to Fjolnir Hlynsson and Thorhildur Thorgeirsdottir, having presented the proposed interaction plan to them.

Do you think this method of interaction is acceptable, good or bad, please explain your thoughts, in your own words and how you would improve on this method of interaction?

Transcriptions of their responses to the proposed plan are in Appendix 4 (page 192). A summary of their responses and the amendments made to the interaction plan are provided in chapter 3.2.1. page 59.

3.2.1. Icelandic Makers Responses and the Amendments Made to the Proposed Interaction Plan

From the interview with Fjolnir Hlynsson on 8.11.02, the following points and suggested amendments were raised:

- The questions and interaction method provide a way of getting to the essence of each craft practitioner's work and practices.
- There should be no problem in obtaining reference materials and information from the practitioners once they have agreed to participate in the project, as it was quite clear in the introduction to the project what is to be expected from participants.
- The language of the questions should be made simpler for people from different countries to understand.

From the interview with Thorhildur Thorgeirsdóttir on 11.11.02, the following points and suggested amendments were raised:

- The project is a good thing.
- We should develop on from these traditions that we craftspeople practice.
- Yes, we could try the project out and see what happens it would be interesting.
- Within the interaction process we could see how it develops, by leaving the questions more open. The response to the questions would be more individual and the presentations of the interviews would represent more of the individual nature of each craft practitioner.
- The project should include Faroese craft practitioners, ideally in wool. This strengthens the idea of using wool in the project and points to the Faroes as the place to find a craft practitioner with whom to work.

3.2.1.1. Amended Interaction Interview Method

Consideration was made to the Icelandic makers suggested amendments and the following interaction interview method was prepared:

- The interview structure was a qualitative, semi-structured, in-depth method. Within basic interview sections i.e. background, materials, workspace etc, open questions were given to the craft practitioner to answer. For each open question the checklist of specific questions are sought to be answered by the interviewer and ticked off in the provided tick box. With the minimum input the interviewer was to guide the conversation so the craft practitioner might answer the checklist questions. This open and conversation style of interview[29] was designed to make the interviewee as comfortable as possible. It was hoped this method would provide an in-depth view of the craft practitioners' thoughts and ideas, it was important that the interviewer was conscious enough not to lead the conversation towards their own bias or opinion. This potential bias would be considered in the outcome of the interviews.

- When carrying out the interviews it was important to find as much reference material to substantiate statements by the craft practitioners as possible. This reference material would include photographs, documents, video etc. After each set of questions, sources of reference material should be requested from the craft person being interviewed and noted down for collection at the end of the interview.

- A new set of formal interview questions were prepared, these questions were to be recorded on video along with the reference material and edited together in the same format, as an archive

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[29] From Renneus experience as a researcher interviewing craftspeople in Scotland "an open interview, lead more by the interviewed participant was considered to provide more reliable and a larger quantity of information about the interviewed participant." A. Renneus, 'Contemporary Woodcarving in Scotland', Decorative Arts Diploma Dissertation, University of Glasgow, History of Art Department, 1988, p. 2.

presentation for each maker. A copy of the amended formal interview questions and archive presentation structure is provided in Appendix 5 (page 197).

3.3. Pilot Interaction Interview

The interaction interview method and amended formal interview questions and archive presentation structure is provided in Appendix 5 (page 197). It was piloted between 13.02.2003 and 14.04.2003 with Janis Embelton, a practising weaver from Coldstream, in the Scottish Borders. The pilot interview tested the general method and the technical side of recording the interview and reference material with video and photography and editing this material into a presentable format on DVD.

Having completed the pilot interaction method, including; working alongside Janis, carrying out the interview, collecting reference material and producing a DVD video presentation, the following points in the method were considered for amendment.

It would be better to:

- Carry the interview out in two parts. The interview was carried out in two parts to fit in with Janis' working schedule. This was a better way of conducting the interview which is quite long and in two parts it was less tiring for the interviewee. This is an advantage to the quality of the answers to the questions.

- Record all material for DVD presentation directly onto digital video camera. The method of recording the interview and the reference material for the purposes of the DVD presentation were completed using only the video camera. It is easier in the editing process if all reference material visual or audio is recorded directly to digital videotape.

- Record a visual and audio diary. As a separate reference to the project, a visual and audio diary will be kept. This diary will be recorded with a digital camera and mini disc recorder and stored on CD's in JPEG digital file format for pictures and as a normal audio CD for use on any CD player. During the interaction process keeping the diary will be most

important for future reference in the final project, for the presentation of findings.

- Record more reference material. During the interview, notes must be made by the interviewer of possible reference material and the interviewee must be encouraged to refer to reference material where possible, to highlight their ideas and thoughts. As much reference material must be recorded, including material that may not seem relevant, to put the craft practitioners, and what they say, in context and underpin the final presentation.

- Change angle and scale during interview. While recording the interviewee speaking, it is important to change the angle and scale of the camera shot. This provides material for the presentation that will keep the viewer interested.

- Have the same thing said twice. Having the same thing said twice by the interviewee but in a different way will provide material for the editing process that will better convey the ideas of the craft practitioners.

- The order in which the checklist of questions is answered in each section is not important. It is only that the questions in the checklist are answered. The interviewee should be allowed to speak as freely as possible. The quality of what the interviewee says is improved given more freedom.

- Make the questions from the checklist simpler. Some of the check list questions are complicated and long, these should be made as easy to understand as possible.

- The universal opening introduction should be made shorter. The introduction was too long and complicated for a listener to take in.

The following formal interview method is the result of the above considerations having completed the pilot interview. This interview method would be conducted with all the participating craft practitioners in as similar a way as possible.

3.3.1. Amended Craft Practitioners Interaction Interview Method

The following interview structure is a qualitative, semi-structured, in-depth method. Within basic interview sections i.e. background, materials, workspace etc, open questions are given to the craft practitioner to answer. For each open question the checklist of specific questions are sought to be answered by the interviewer. With the minimum input the interviewer is to guide the conversation so the craft practitioner might answer the checklist questions. This open and conversational style of interview is designed to make the interviewee as comfortable as possible. This method aims to provide a more in-depth view of the craft practitioners' thoughts and ideas. It is important that the interviewer is aware not to lead the conversation towards their own bias or opinion. This potential bias would be considered in the outcome of the interviews.

When carrying out these interviews it was important to find as much reference material, to put in context and underpin statements etc, by the craft practitioners as possible. This reference material included photographs, documents, video etc. After each set of questions, sources of reference material were asked for from the craft person being interviewed and noted down for collection at the end of the interview.

It would be necessary from time to time during the interview to ask the craft practitioner to repeat what they had just said and change the camera angle and or scale. It was also important to continue changing the camera angle and scale whenever possible between the questions.

The final interaction interview questions and presentation structure is provided in Appendix 6 (page 207). Appendix 6 provides a copy of the blank form used during the interaction interviews that were filled in by the author. These completed forms included notes of the reference material given by the interviewees that was then captured by the author on video and digital photography. This reference information aided the process of editing the video and digital photography into the DVD presentations. The format of the form also represents the structure of the DVD presentations.

3.4. Selection of makers to participate in the interaction process

The selection process was conducted between January and March 2003. The selection was made with the purpose of finding makers with specific characteristics. These characteristics included:

- willing to participate in the project
- ability to speak English
- professionally practising
- being from a separate discipline/craft tradition to the other participants
- being from a discipline relevant to the table and chairs design brief

This method may not have provided a full cross-section of the Icelandic maker's community because the selection size was too small but it took makers from a discipline relevant to the prototype brief. The selected participants came from well-recognized sources and are representatives from the top of their profession. Gender did not play a part in the selection process.

The following makers from different disciplines were selected.

Birger Anderson, Shipwright at The Viking Ship Museum, Roskilde, Denmark. The author requested to work with someone from the Viking Ship Museum because they use the same methods of building ships as the Vikings did. Birger Anderson's name was put forward as one of their most experienced shipwrights. There was no one working in shipbuilding of a Viking nature in Iceland.

Ása Hátun, Wool Worker, Tórshaven, Feroe Islands. The chairman of the Faroe Islands craft association Randi S. Vang, put Ása Hátun's name forward as an artist in wool and expert in the field of hand working it.

Fjolnir B. Hlynsson, Sculptor, Egilsstathir, Iceland. He is the third generation in a family of recognized Icelandic wood carvers, and has an inherited understanding of this tradition. He works as a contemporary artist, using mixed materials and film.

Thórhildur Thorgeirsdóttir, Goldsmith, Reykjavik, Iceland. She combines wood and silver in her work. The author saw her work in 'SPOR', an exhibition of contemporary Icelandic crafts, organized by Handverk og Honnun (Handwork and Design, page 53), on the 9.11.02, in Hafnarfjordur, Iceland. She recently exhibited in 'Nordic Cool: Hot Women Designers', at the National Museum of Women in the Arts, in Washington D.C., USA, between 23 April and 12 September 2004.

Geir Oddgeirsson, Cabinet Maker, Vogar, Iceland. He has the longest established cabinet making business in Iceland.

Gretar Mar Thorvaldsson, Foundry man and Pattern Maker at Malmsteypan Hella ehf. Hafnarfjordur, Iceland. He is the only working Icelander both trained as a Foundry Man and Pattern Maker. He has experience of making a wide variety of artefacts.

3.5. Schedule for the Interaction Interviews

Formal arrangements were made to visit the selected makers between one to two weeks for the author to work as their apprentice and carry out the formal interviews. The schedule for these visits can be seen below in table 3 interaction interviews schedule.

Table 3 Interaction Interviews Schedule

DATE 2003	MORNING	AFTERNOON
21 April	1400 check in Newcastle Royal Quays for Gothenburg	
22 April	Arrive Gothenburg, drive to Denmark	Drive to Denmark. Camp out on the way
23 April	Arrive Roskilde Viking Ship Museum	Work for Birger Andersen
24 April	Work for Birger Andersen	Work for Birger Andersen
25 April	Work for Birger Andersen	Work for Birger Andersen
26 April	Work for Birger Andersen	Work for Birger Andersen
27 April	Rest	Rest
28 April	Work for Birger Andersen	Work for Birger Andersen
29 April	Work for Birger Andersen	Work for Birger Andersen
30 April	Work for Birger Andersen	Work for Birger Andersen
1 May	Work for Birger Andersen	Interview Birger Andersen
2 May	Work for Birger Andersen	Interview Birger Andersen
3 May	Record reference material	Record reference material
4 May	Record reference material	Record reference material
5 May	Record reference material	Work for Birger Andersen
6 May	Work for Birger Andersen	Work for Birger Andersen
7 May	Pack and Rest	Drive to Gothenburg

8 May	Depart Gothenburg 1000 for Newcastle	
9 May	Arrive Newcastle 1000	
gap		
23 June		1700 check in at Aberdeen North link ferry terminal. 1900 dep. for Lerwick
24 June	Arrive Lerwick Shetland at 0700.	Check in Lerwick Smyril line 2400
25 June	Depart Lerwick at 0200	Arrive Tórshavn Faroe Islands 1500. Find a place to stay and meet Ása Hátún
26 June	Work for Ása Hátún	Work for Ása Hátún
27 June	Work for Ása Hátún	Work for Ása Hátún
28 June	Interview Ása Hátún	Record reference material
29 June	Record reference material	Rest
30 June	Interview Ása Hátún	Record reference material
1 July	Record reference material	Record reference material
2 July	Prepare to leave	Check in Smyril line Tórshavn 1600 depart 1800
3 July	Arrive Seyðisfjörður 0800	Find a place to stay/camp and meet Fjölnir B. Hlynsson
4 July	Work for Fjölnir B. Hlynsson.	Work for Fjölnir B. Hlynsson.
5 July	Work for Fjölnir B. Hlynsson.	Work for Fjölnir B. Hlynsson.
6 July	Interview Fjölnir B. Hlynsson.	Rest
7 July	Interview Fjölnir B. Hlynsson.	Record reference material
8 July	Record reference material	Record reference material
9 July	Record reference material	Record reference material
10 July	Prepare to leave. Drive west.	Drive west. Rest. Camp out.
11 July	Drive west. Visit Skógar Folklore museum, and meet keeper Þóðður	Record reference material. Camp out.

	Tómasson.	
12 July	Drive west	Meet Thórhildur Thorgeirsdóttir and work for her.
13 July	Rest.	Rest.
14 July	Work for Thórhildur Thorgeirsdóttir.	Work for Thórhildur Thorgeirsdóttir.
15 July	Work for Thórhildur Thorgeirsdóttir.	Work for Thórhildur Thorgeirsdóttir.
16 July	Interview Thórhildur Thorgeirsdóttir.	Record reference material.
17 July	Interview Thórhildur Thorgeirsdóttir.	Record reference material.
18 July	Record reference material.	Record reference material.
19 July	Record reference material.	Record reference material.
20 July	Rest.	Rest.
21 July	Meet Geir Oddgeirsson and work for.	Work for Geir Oddgeirsson.
22 July	Work for Geir Oddgeirsson.	Work for Geir Oddgeirsson.
23 July	Interview Geir Oddgeirsson.	Record reference material.
24 July	Interview Geir Oddgeirsson.	Record reference material.
25 July	Record reference material.	Record reference material.
26 July	Record reference material.	Record reference material.
27 July	Rest.	Rest.
28 July	Arrive at Malmsteypan HELLA ehf. Meet Gretar Mar Thorvaldsson.	Work for Gretar Mar Thorvaldsson.
29 July	Work for Gretar Mar Thorvaldsson.	Work for Gretar Mar Thorvaldsson.
30 July	Interview Gretar Mar Thorvaldsson.	Record reference material.
31 July	Interview Gretar Mar Thorvaldsson.	Record reference material.
1 August	Record reference material.	Record reference material.
2 August	Record reference material.	Record reference material.
3 August	Rest.	Rest.

4 August	Rest	Rest
5 August	Rest	Drive east. Camp out.
6 August	Drive to Seyðisfjörður	Camp out.
7 August	Check in Smyril line Seyðisfjörður 1000, depart 1200	
8 August	Land Tórshavn 0500.	Record reference material. Camp out
9 August	Rest. Record reference material.	Rest. Camp out
10 Aug.	Rest. Record reference material.	Rest. Camp out
11 Aug.	Check in for Smyril line departure to Lerwick 0630, depart 0830	Arrive Lerwick 2130. Camp out.
12 Aug.	Record reference material.	Check in for Northlink departure to Aberdeen 1700, depart 1900.
13 Aug.	0700 arrive Aberdeen.	Drive Home for 1300.

4. The Interaction Interviews

Visiting the 6 selected makers, being their apprentice for one to two weeks and sharing with them the vision of the project and the nature and commitment they have to their work, was a two-way sharing experience between the author and makers. Having no previous experience of working alongside makers in different disciplines prior to the project, and having the observation skills of a professional maker himself, the author absorbed practical, physical, visual and other information during these apprenticeships. With the focused approach of the formal interviews and the collection of visual reference material, an in-depth understanding of each maker, and how they might influence the demonstration artefacts, was developed. Learning so many new making skills in a short space of time opened up unforeseen creative potential for the author. This quote from the author's audio diary expresses these feelings while apprentice to Ása Hatún in the Faroe Islands.

> "Working with Ása Hatún, she has been quite an inspiration when I start to add up everything she is telling me, she just does not stop telling me new things I have never heard of before, to do with wool, felting, knitting, weaving, needlework, embroidery. Her commitment has always been pedagogical but really it's much broader than that. She travels widely and studies quite hard her felting craft..."[30]

As well as being inspired about how wool could be integrated into the design of the project table and chairs the author was also inspired to make experimental felt artefacts such as the 14th century Viking traders helmet (fig. 9, page 40).

The majority of what the makers discussed with the author during his apprenticeship to them was supported by observation of the makers' physical gestures and actions. The artifacts and tools made and used by the makers, their working environment and reference images/artifacts provided by the makers and museums also supported what was discussed. The experience

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[30] *Interaction diary Ása 30.6.03, track 11,* Interaction Audio Diary 2003, T. Hawson, 2005, (Audio CD).

of observing the different makers' working methods, physically and visually demonstrated to the author how to make like them with the same hand and body movements, rhythms and mental approach. This knowledge of how to make within different disciplines gave the author sympathy with the different makers' ways of working and how their making methods could be used to design and make the demonstration table and chairs.

The information absorbed by the author during his apprenticeship to the makers cannot effectively be described in word. Words are felt to be inadequate at describing the intimacies of physical and visual observation experienced by the author. To best present these experiences as references for the project, edited video recordings, artifacts, and audio diary recordings are provided. These visual, audio and physical records represent the reference points for learning, as experienced by an apprentice.

The formats used for recording and presenting images, audio and video are described in Appendix 7 media formats (page 217).

For the continuity of presentation the reader is reminded to view the multimedia reference material when they are instructed to do so in the text.

4.1. Edited Video Recordings: Interaction Interviews with Makers

The dialogue in these presentations is only the background and basic introduction to the visual media. During the editing process attention was given to not change the meaning of what the makers said, but to condense the interviews. The following points should be considered when viewing these presentations:

- The facts to be found are visual. The shape, form, rhythm and proportions of the maker's work, the approach to the work and other unspoken unwritten information are the points of reference that are most relevant between the makers and the author.
- Each interview has been conducted and presented in the same way as described in appendix 6 (page 207).
- These presentations of the interviews represent the experience of the author working as apprentice/assistant to the interviewed makers.
- The visual media within these presentations provide references of the makers' influence on the design of the project's demonstration artefacts.
- The presentations represent evidence of the author's observation of the working methods of the makers interviewed.

Considering the above points the reader should now view the interaction interview presentation DVD discs labelled:

Multimedia Disc 1

Contents:

- Birger Andersen, Shipwright, Denmark, Interaction Interview, May 2003.
- Ása Hatún, Wool Worker, Faroe Islands, Interaction Interview, June 2003.
- Fjolnir B. Hlynsson, Sculptor, Iceland, Interaction Interview, July 2003.

Multimedia Disc 2

Contents:

- Thórhildir Thorgeirsdóttir, Goldsmith, Iceland, Interaction Interview, July 2003.
- Geir Oddgeirsson, Cabinetmaker, Iceland, Interaction Interview, July 2003
- Gretar Mar Thorvaldsson, Pattern Maker, Iceland, Interaction Interview, July 2003.

A list with reference information for the images used in the generic title sequence and slide shows for each maker is provided in Appendix 8 (page 218). Transcriptions of the interviews are provided on the multimedia disc 2 Interaction Interview presentation (DVD) as DVD-ROM Microsoft Windows Word files.

References from the DVD discs that show how the makers have influenced the design of the demonstration artifacts are numerous. One example can be seen in the first nine slides of the slide show on Birger Andersen's DVD,

'upper deck knees' made by the author while apprenticed to Birger Andersson.[31] The form and the way of making this Viking warship component was used to make the wooden pattern for the aluminum back legs of the demonstration chairs. The tool marks from the spoke shave used to make the wooden chair leg pattern were left visible as they are on the Viking warship component and the finished aluminum casting of the wooden leg pattern retains these tool marks as part of the intended surface finish. The closing scene of Birger Andersen's interaction interview film shows Birger shaping a upper deck knee with an axe, the rhythm and pace in which he works is that which the author adopted to learn how to make a knee like Birger.

[31] T. Hawson, 'Birger Andersen, Shipwright, Denmark, Interaction Interview, May 2003.' *Slide Show,* slides 1-9*,* DVD 1, T. Hawson, 2003. (DVD)

4.2. Artefacts

Artifacts made by the author with the assistance of the makers represent the physical nature of his apprenticeship experience with them. Some of the artefacts are experiments in preparation to make the demonstration table and chairs and others were made with no direct intention to influence the table and chairs design. The following eight illustrations, (Figs. 10 to 17), are the artefacts made with the makers during the interaction interviews. Comments are provided as to how these artefacts or their making have influenced the author and/or the table and chair design. These images can also be seen on the multi media disc 3 in the folder titled, Interaction Interview Artefacts.

Fig. 10 Viking ship upper deck knee made by the author under instruction from Birger Andersen at the Roskilde Viking Ship Museum, 2003.

The author made 5 of these Viking ship components (Fig. 10). They influenced most directly the design and making method of the wooden pattern for the chair back leg, which was cast in aluminum.

Fig. 11 Felt seat made by Ása Hatún and the author, in the Faroe Islands, 2003.

The felt seat (Fig. 11) was made as an experiment to see how directly fleece from a sheep could be processed to make a seat for the chair. Part of a sheep's fleece was rapped in a cloth and roughly stitched through to make it a flat shape before putting directly into a washing machine. It was hoped that this simple process would produce a seat pad for the chair, it was, however, too uneven, making repeat production too variable.

Fig. 12 Viking lady's Knife made by the author with Fjolnir Hlynsson, 2003.

Fig. 13 Reindeer horn handled knives, made by author with Fjolnir Hlynsson, 2003.

Fig. 14 Poem Fence, by Fjolnir Hlynsson assisted by author, 2003.

The artefacts made while apprenticed to Fjolnir Hlynsson (Figs. 12, 13, 14) provided an insight into Icelandic culture. The Viking lady's knife (Fig. 12) was made with the tang as the handle, because in early Icelandic history, Fjolnir told the author while making it, a law was passed that ladies could not have knives with handles, because of repeated incidences of lady's using

knives as weapons in passion motivated attacks. While making the reindeer horn handled knives (Fig. 13), the author was told many stories about hunting and the non-indigenous reindeer's impact on the landscape. The Poem Fence (Fig. 14) was a site-specific artwork by Fjolnir Hlynsson. The poem was by a local sheep farmer about two lovers going behind the hill. The Poem Fence was sited in front of this hill. While assisting to make and erect this fence, stories about the lives of people in the area, where this artwork was sited, were told to the author by Fjolnir and his father.

Fig. 15 Silver and bone handled spoon, made by the author while apprentice to Thorhildur Thorgeirsdottir, 2003.

The scratched surface finish of this spoon (Fig. 15) is a method used by Thorhildur and was used to decorate/finish the aluminum inlays in the project demonstration table.

The cast aluminum artefacts (Fig. 16, 17, page 80) were experiments in surface finishing. The transfer of the tool carved facetted surface of the wooden patterns onto the surface of their aluminum castings and the different processes available in the foundry workshop were studied.

Fig. 16 Cast aluminum spoons, made by the author while apprentice to Gretar Mar Thorvaldsson, 2003.

Fig. 17 Wooden pattern and aluminum casts, sculpture made by the author while apprentice to Gretar Mar Thorvaldsson, 2003.

4.3. Audio Diaries

Audio diaries were recorded throughout the interactive interview process by the author. These diaries were kept as a personal record for the author to remind himself at a later date of thoughts, feelings, new ideas and things of interest learnt while carrying out the interviews. During the initial stages of the design process for the table and chairs, the diaries were listened to by the author while sketching and making models, reminding him of his experiences with the makers and strengthening their influence on the designs. These audio diaries are provided on the Interactive Interview Diaries discs 4 and 5, (audio CD). References are made to these diary discs in the text of this thesis.

5. Design Proposals

Design proposals, including illustrations and specifications, were prepared between October 2003 and January 2004 by the author. These proposals were presented to the selected makers for their comments and amendments in February 2004. With consideration to these comments, some final amendments were made by the author before departure to Iceland, to begin the making process on the 28th March 2004. The design process for these proposals involved the author sketching, model making, building a full-size mock up, preparing outline and presentation drawings and writing specifications. Whilst reflecting on his experiences with all the makers during the interaction interviews, the author also looked at the sketches and listened to the audio diary recordings he had made during the interaction interviews, strengthening his memory of these experiences, while designing. The editing of the video and photographic material into DVD presentations also helped to remind the author of these experiences. The design proposals were influenced as much as possible by the selected makers via the author's interaction interview experiences. It was not the author's intention to produce designs to be made exactly as presented, but to begin the process and leave the final development of the designs to be done during their making in the company of the selected makers in their workshops.

During the design process, photographs of the drawings, models and mock-ups were uploaded onto the author's website[32] for the selected makers to comment upon, and these images can be seen on the, multimedia disc 3, (file name 'website photographs of work in progress'). Only Fjolnir Hlynsson made a response to these photographs uploaded onto the website. He sent two e-mails, see Appendix 9 (page 229).

[32] T.Hawson, 'See pictures of the first model making and sketching of first prototypes', *Work in progress*, www.thomashawson.com, 2004 (accessed 4 April 2005).

5.1. Drawing

The drawings in the author's sketchbook provided on multimedia disc 3, image files P1 to P8, show sketchbook entries made while carrying out the interaction interviews, and the image files P9 to P21 show sketch book entries made during the process of designing the table and chairs.

One example of an idea that is represented in the sketchbook and became part of the finished design is the applied tabletop pattern. The sketchbook drawing shown on image P8 (Fig. 18), Celtic knot work art, was drawn from George Bain's book[33]. Thóthur Tómassen, curator of the Skógur Folk Museum, lent this book to the author while at the museum between the interaction interviews in Iceland, July 2003. The Vikings used the same knot work patterns as the Celts for their decorative woodcarving, and the same construction methods for them. Later in the sketchbook image P13 (Fig. 19), the influence of this marking out technique can be seen in a design sketch for the tabletop, which was the pattern used on the finished table.

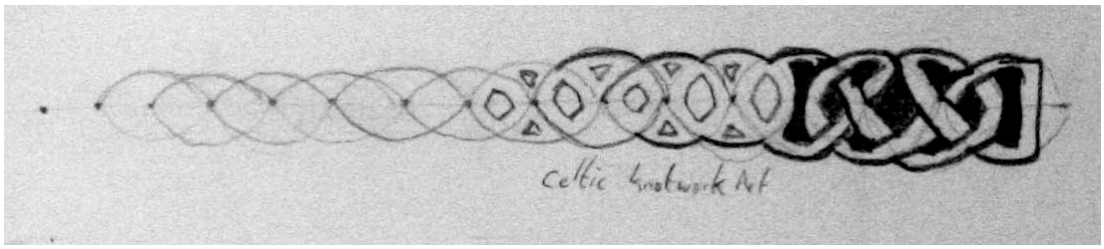

Fig. 18 Celtic knot work art.

[33] G. Bain's, *Celtic art the methods of construction*, 24th edn, Constable, London, 2002, p. 28.

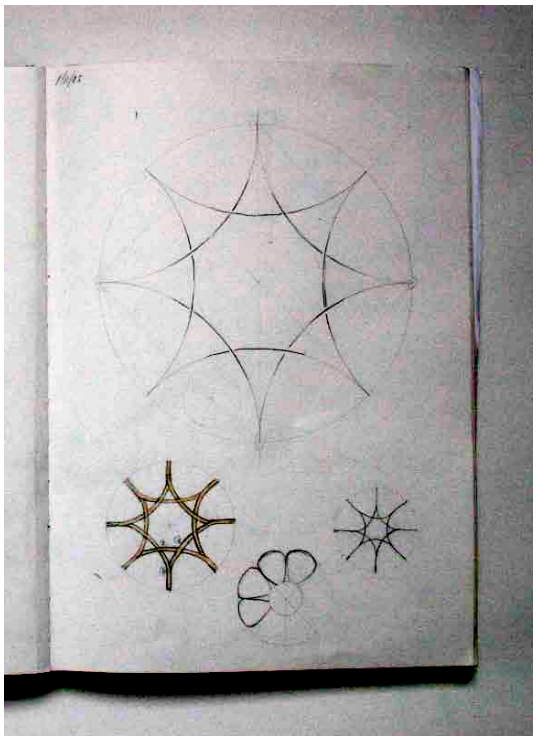

Fig. 19 Design sketch for table top.

5.2. Models and Mock-ups

Models and full size mock-ups of dining table and chair designs were built at the author's home studio and Buckinghamshire Chiltern University College, Fine Craft workshops, between October 2003 and March 2004. These models and full size mock-ups were made as part of the design process along with sketching. The models and mock-ups can be seen on multimedia disc 3.

5.3. Specifications

Written specifications, outline and presentation drawings were finished in January 2004 ready for the selected makers to suggest amendments. The outline and presentation drawings are illustrated in Figs. 20, 21 and 22, on pages 85 and 86.

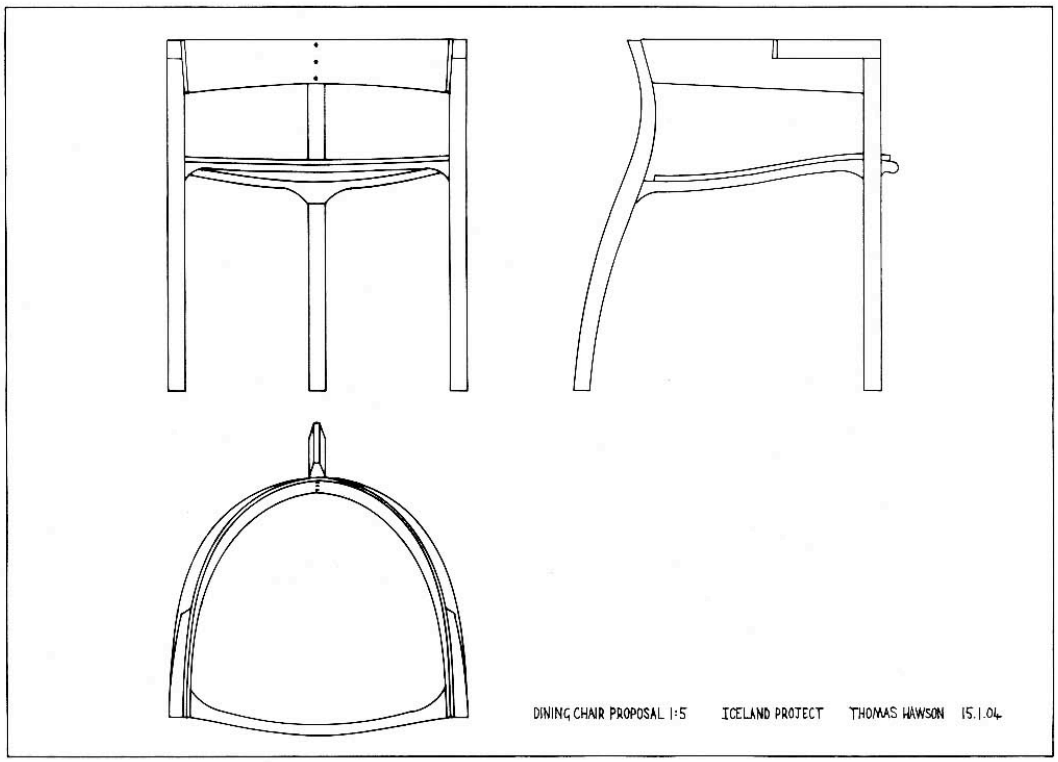

Fig. 20 Dining chair outline proposal drawing.

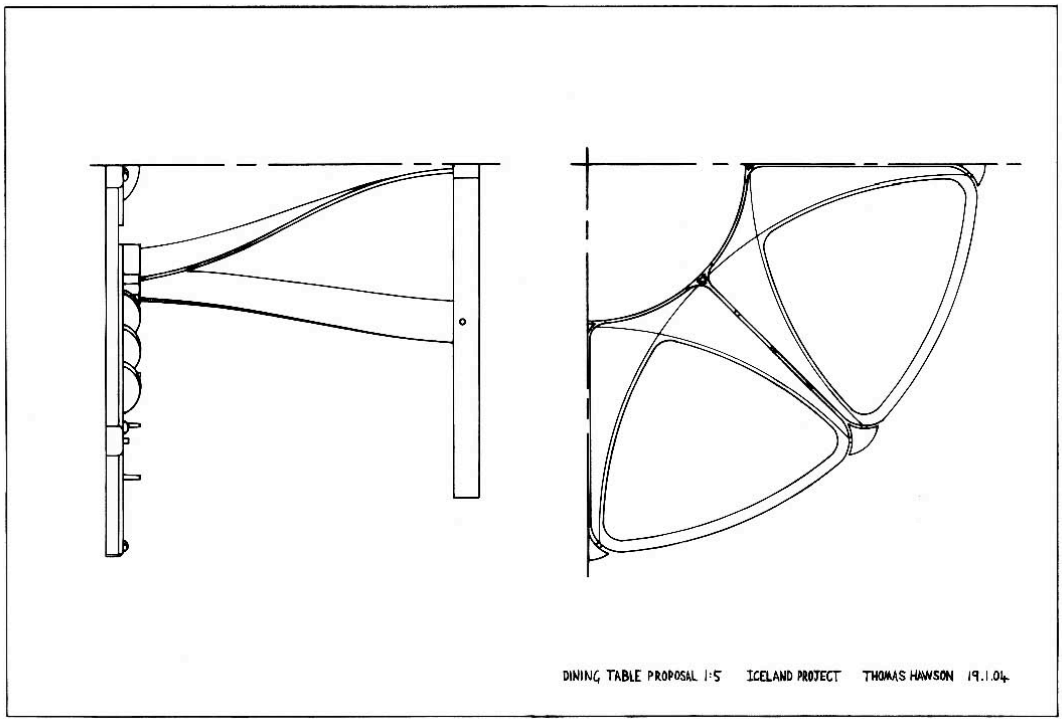

Fig. 21 Dining table outline proposal drawing.

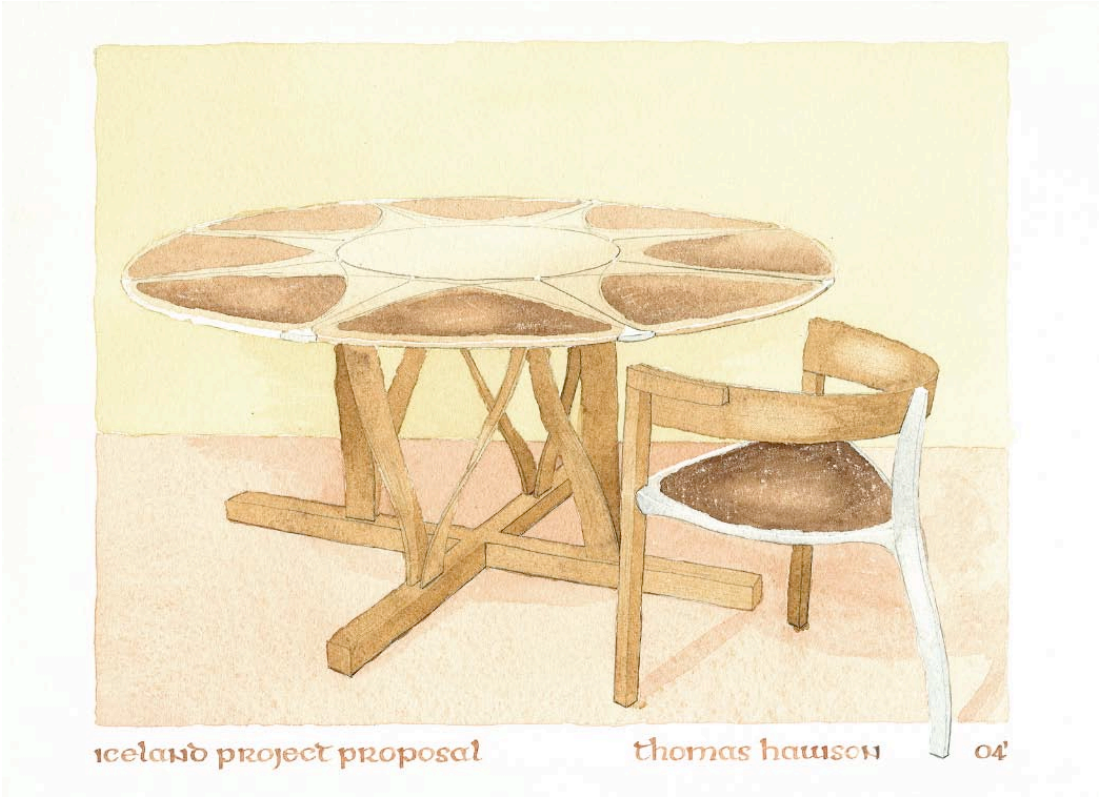

Fig. 22 Dining table and chair presentation drawing.

The following written specifications give a basic description of the proposed design, suggested materials and methods of construction. Specific influences from the work of the makers on the design were given. These elements are only an indication of the selected maker's full influence on the design.

5.3.1. Dining Table Specifications

The table top was to be constructed of eight separate wooden segments with a central disc in the middle, this central disc may have had the option of spinning round. The eight separate wooden segments of the tabletop were to be connected with eight aluminium castings. The castings would come to the surface of the table at the corners of each segment, and interconnect under the tabletop to make an under frame and provide connection points for the eight wooden steam bent legs. The eight legs were to be connected to a wooden cross frame on the floor. The surface of the tabletop could have had a shallow groove cut into it, to visually interconnect the aluminium details that

would come to the surface and the eight separate wooden segments. Place mats made of wool, of a rounded triangular shape, could fit between the interconnecting shallow grooves on each segment.

The composition of components that made up the table top were described by Fjolnir Hlynsson, having viewed the sketchbook images uploaded onto the author's website, as being reminiscent of Viking shield designs and also early Icelandic jewellery. The interconnecting lines carved into the tabletop are references to the marking-out lines used in the preparation of Celtic knot work, as used by Vikings as a decorative medium. The eight steam bent and twisted legs, are references to the boat building tradition. The square cross frame on the floor is left purposefully simple as if it were made from driftwood found that size.

The wooden elements of the table were to be made of oak. A 5 mm gap would be left between the table top components including the wooden segments, central disc and surface aluminium details. This gap would be open under the surface of the table so as not to trap food crumbs. The table top components would be connected by narrow fins of aluminium.

The aluminium components would be sand cast from a pattern. The pattern could have had a decorative surface texture that would be left on the visible parts of the finished components. Additional surface finishes and effects could be applied to the castings. The aluminium castings would be screwed to the underside of the wooden table top where appropriate slots would be made in the aluminium screw holes to allow for shrinkage and expansion in the wood. The eight legs would be steam bent on to jigs before assembly. These legs would connect to the aluminium castings by bolts ideally in a shallow socket. The legs would connect to the cross frame on the floor into a narrow socket and be secured with a loose dowel. The table was to be shipped as finished components that can be assembled by the distributor/agent or by the end user. The wool tablemats were to be felted and to sit on the surface of the table.

5.3.2. Dining Chair Specifications

The chair seat was to be made of an aluminium frame with a woven or plywood infill panel with a felt cover. The aluminium seat frame was to be attached to the aluminium back leg and the wooden front legs. The influence for this chair design was from Viking shipbuilding. The surface finish on the aluminium castings could have the appearance of hand carved wood. The steam bent curved arm/backrest could have lines or a profile scratched onto its surface along the inside edges to illustrate where the nails or screw fixings should go, this would be in keeping with Viking shipbuilding methods.

The profile and shapes in the aluminium seat frame are organic and curved, in contrast to the square section of the front legs. The crude square section of the front legs matched the square section of the table floor frame.

The aluminium seat frame and back leg were to be sand cast. A seat infill panel made of plywood was to be screwed into a rebate in the frame or a woven seat could have been threaded through holes in the seat frame. The seat frame was to be attached to the aluminium back leg and the wooden front legs with bolts. The felted wool seat was to be fastened to the seat to stop it sliding. The wooden patterns for the sand cast aluminium back leg and seat frame, were to have a fine hand carved surface finish (not to be sanded out) to be left as detail in the final sand cast components. The front legs and armrest were to be made of oak. The curved arm/backrest component was to be steam bent from oak and fixed into position with copper boat nails or screws. The chair was to be shipped as finished components that could be assembled by the distributor/agent or by the end user.

5.4. Selected Makers Amend the Design

The specifications including the written descriptions (chapter 5 sub headings 5.3.1 and 5.3.2, pages 86 and 88) and drawings, (Figs. 20, 21 and 22, pages 85 and 86), were posted to the selected makers for their comments and suggested amendments to the designs. A form for this purpose was prepared, and subsequently piloted with Halla Bogadottir, an established goldsmith from Reykjavik, Iceland, on 24.1.2004, at Hundalee Mill Farm. Below are the recommended amendments to the comments form after the pilot exercise and discussion with Halla on 26.1.2004.

These are as follows:

- The makers should be advised to look at the technical drawings and presentation drawing together, to get the best understanding of the design.

- A telephone conversation between the makers and the author would be useful during the form filling exercise. This would iron out any misunderstanding and provide for a better outcome. This telephone conversation should take place when the form filling exercise has been done, then the form should not be returned for five days to allow for further comments to be made.

- Ensure that the craft practitioners put their name and the date on all papers, a name and dateline should be provided for.

These comments were taken into account, the form amended and posted out. The amended form is provided in Appendix 10 design comments form, page 231. The telephone calls made were recorded and are provided on multimedia disc 6 telephone design amendments and parts of them have been added to the making a table and chairs DVD presentation, multimedia disc 7.

5.4.1. Makers' Comments on Proposed Design

Gretar Thorvaldsson and Geir Oddgeirsson both chose not to fill in the form because they felt that the design discussions could not easily be made on the phone or on paper. They both agreed that it would be best to make them when the work was in their hands to be done in their workshops. Gretar made the following point on the phone to the author,

> "I don't see the point to draw something down...it is best to do these things when you are working on it in your hands..."[34]

Geir made comments on the phone which are included on the multimedia disc 6. These comments concerned the complexity of the table and the suggestion that the table could be made much simpler by having a solid top.

Birger Andersen's wrote the following on his returned form:

> Steaming: one hour per inch, from when the box is warm.
>
> The shape of a plank on a Viking ship will be narrow towards the stern and wider at the middle like this (Fig. 23):

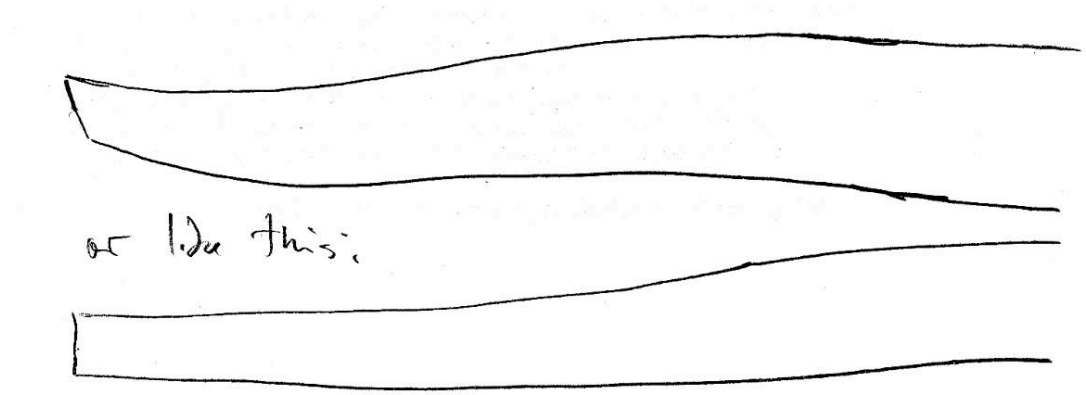

Fig. 23 Birger Andersen's amendment sketch

[34] T. Hawson, 'Gretar Phone amendments 26.2.04', Multimedia disc 6 Telephone design amendments, 2003. (Audio CD)

The connection of the legs. We don't see this solution on Viking ships, or the few places where there is things like it, it is locked by itself. I think the loose dowel is perfect.

The steam bent wood, will not stay in shape when loosened from the jig, how much it has to be over bent is hard to say.

Fjolnir Hlynsson did not fill in the form itself but sent the following letter with his thoughts about the design.

Fjolnir Hlynsson

Mithhús

700 Egilsstathir

Iceland

9.2.2004

Dear Thomas.

I have been looking at the designs that you have sent me and I must say they are very clearly and nicely presented. You ask me for my opinion and critic on this design and I will give that to you, but before I start writing negative and form-altering things. I would like to state that the basic design is good.

However there are things that I would like to mention:

The table:

I like the table top, it is very nice. The round-cornered triangles are very interesting, and link the chair a little bit better to the table.

I would definitely get rid of the cross underneath the steam bent legs (Fig. 25, page 92) and strongly consider to get rid of the steam bent legs also. It is way too heavy in context to the fine detailed tabletop. You have made a full size "mock-up" of another kind that is much better, and also a photography set up of a 8 legged and 4 legged version (Fig. 24, page 92). The 4 legged is simple and good. I would like to see some more of that or the first mock–up type. I can imagine that if the arches on the table legs were altered a bit and moved more in line with the chair back arch it would be very good. I would also consider the number of table legs, it looks a bit crowded under the table, maybe 4 would be enough?

Fig. 24 Eight leg table

The design I like more (and also the 4 legged photography set up version)

Fig. 25 Steam bent leg table

I don't know what you said to Dr Simon Thorne and Prof. Polly Binns, and I miss that. Maybe you gave reasons for various elements in the design – I don't know. I do however **think** that you were expressing the drawn – up lines in the table top in those steam bent legs, and extending a eight segment design down into a four point foundation. Right? It is good thinking but it somehow loses connection to the tabletop. It is way too crazy – and we want calm, we have got the crazy part in the tabletop. They bend in two arches (and one could argue that the back of the chair did that too), but also twist after the length of the leg – due to the round form. Too many – too crazy, baroque, I get a seaweed feeling (I'm not sure if I spelled that right, but it is basically a plant that grows in the sea). I also think that you have to have the table foundations cast in aluminium, not wood. If you look at the watercolour picture you sent me, you will see unbalanced the materials are between the chair and the table. It is also likely that you have to have "shoes" or "boots" from wood or you will again unbalance it. Think about this.

Here is the “Húsasnotra” that Vikings used to navigate across the ocean, and tabletop reminded me of.

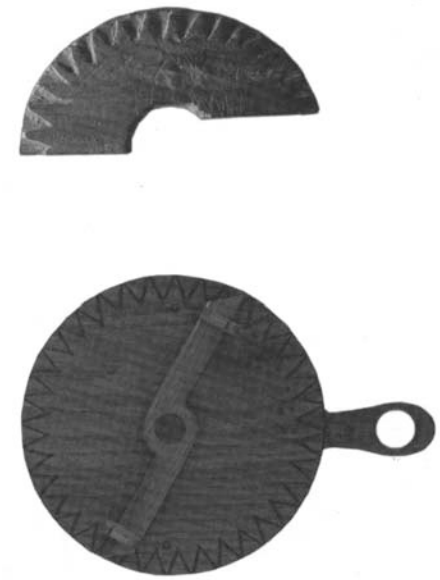

Fig. 26 Viking navigation aid

At last: I don’t vote for a spinning disc in the middle, there is no need for it in this design (Fig. 26, same as Fig. 35, page 230).

The chair:

Fig. 27 Model chair

This is a photo from the internet web page – and the one I originally saw.

At that point I did not see any aluminium, now that I do, it changes the design and opens up the need for a dialog between the two materials.

In the watercolour picture you have expressed the aluminium in the back and in the seat. In this dialog the “organic” lines up with the aluminium and now I get this feeling that the front legs and back are from another design.

There in one thing that I would definitely do, ***extend the back/leg above the level of the back/armrest*** **(Fig. 28).**

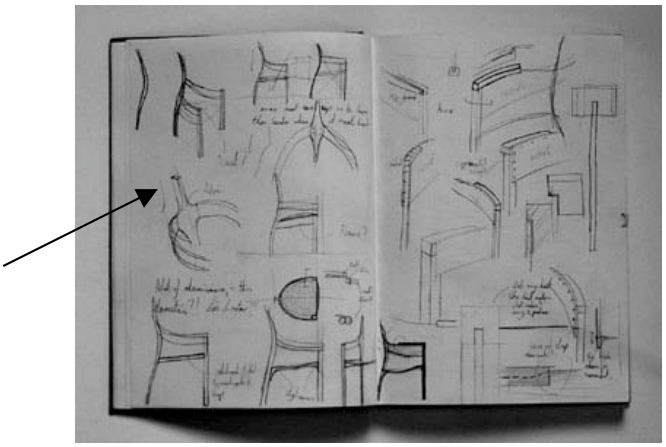

Fig. 28 Chair sketches

You have drawn this yourself, and some elements are useful here. I feel you have to move some “organic” over to the wood, or change this balance somehow. The back arch and the three legs format have to stay no matter what, they are the essence and the brilliance of the design. I have mentioned to you before that I feel ships, and I feel bones and skeletons when I look at this. Both are good. Viking ships were just boards of wood that covered a skeleton. Ribs are in the left page of your sketchbook, or you can also see a ship structure, and that might be something to think about. Maybe it is possible to think of the back arch as a spine that has steam bent fine wood arches attached to it, and loose the armrest? Just a thought, but I’ll throw in a sketch (Fig. 29, page 95).

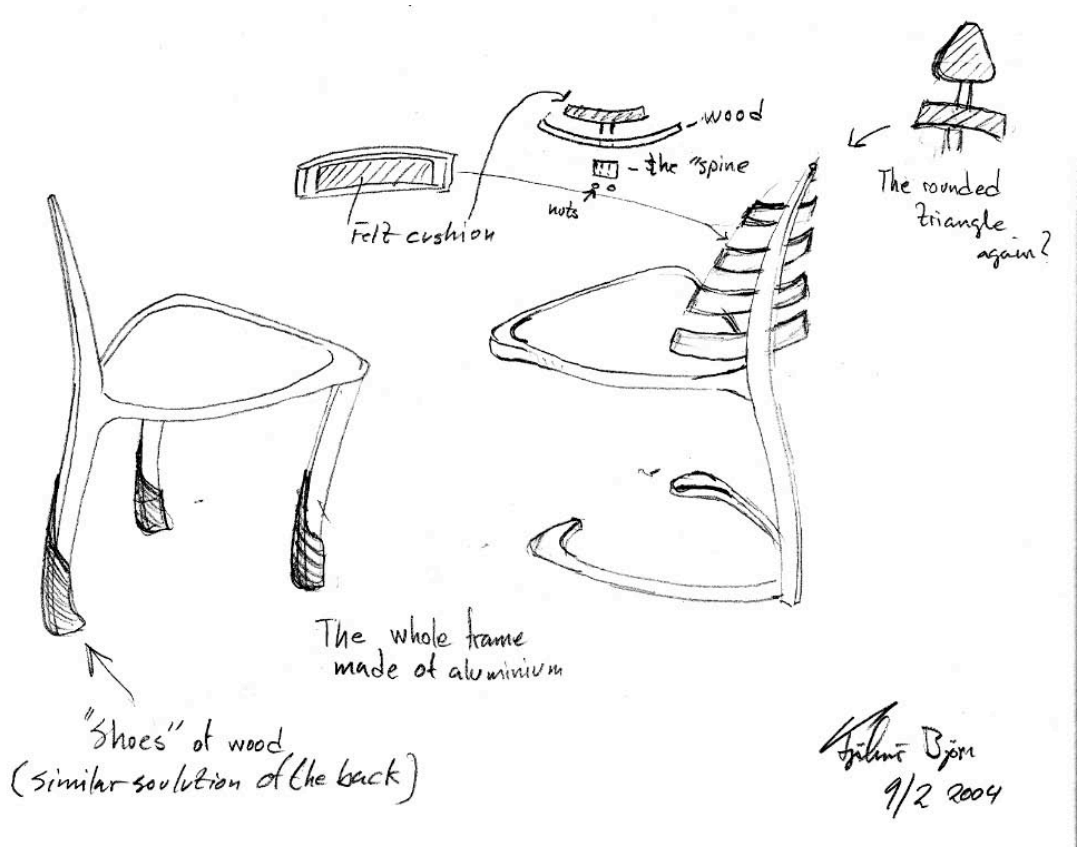

Fig. 29 Fjolnir's chair sketch

When I first glanced at the watercolour drawing I saw the round cornered triangles, and I saw them mirrored in the seat. But now I have looked at the technical drawings and I realise that it is not so. Is this something to consider? Can the felt in the seat mirror this form? Again just a thought. I have also seen a version (in my mind) of a table and chair where this felt extends the edge and slopes off like a tablecloth does. Maybe this could be an option? Could be removed and washed?

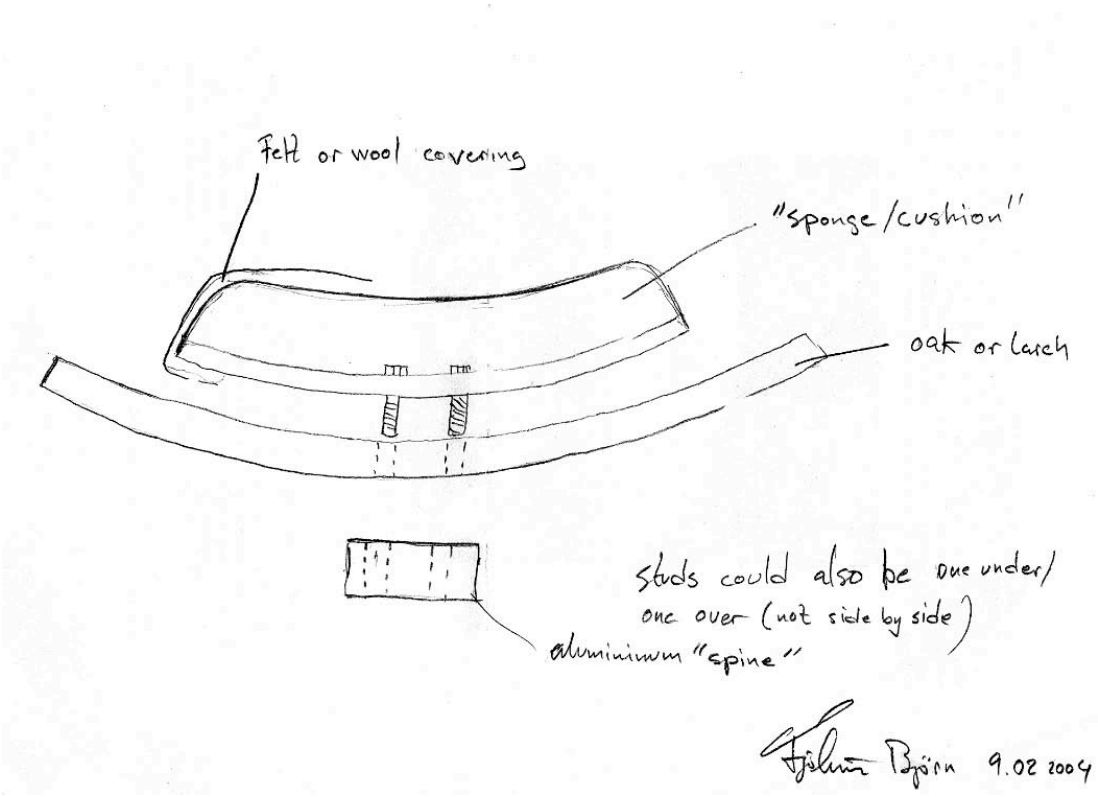

Fig. 30 Fjolnir's chair detail sketch

Summary

In few words:

- The cross and the steam bent legs away
- Replace with the other mock–up design, but made of aluminium
- Think about "shoes" or "boots" of wood
- Consider 4 legged photographed set up version
- Change the armrest /front leg to try to match the aluminium better - it is too different

Sincerely yours

Fjölnir Björn Hlynsson, Sculptor

09.02.2004

Ása Hatun wrote the following on her form.

Torshaven 22.3.04

Hi Thomas

I think that the new table design is very elegant – I suppose that the legs are sterns of a Viking-boat?

Have you dropped the table-and-chair mats/covers? They are not appropriate now, are they? But the chair may need something soft and warm. But you tell me about further plans.

I choose to make all my comments together.

About the proposal of table and chairs:

I find that felted material will be appropriate material for table-mats and chair-seats.

The design for both can very well match in colour and shape. The tablemats, of course, have to be thinner, but not thinner than they can keep structure and firm. They also have to be easily washable.

The mats for the chairs must be about 4-6 times thicker, hard felted and strong. This will be hard work as handicraft, but will be a fine option to go with this furniture.

The wool to be used for the purpose could be mixed coat and bottom wool, Faroese or Icelandic, in natural shades from white to grey shades, light to dark brown shades.

I find this proposed design very elegant and beautiful. I can easily imagine the legs as sterns of a Viking-boat. Could the lines from the legs (the boards of the boat) faintly be seen in the chair or on the table top? I really have no idea about architecture other than what I feel, so you may not care about what I say.

I wonder if felted mats and seats are appropriate to this version of furniture?

But you tell me what you want me to do, and I will do my best.

As to how to fasten the seats to the chair, it is possible to felt felted strings in between the layers of wool, so that the seat can be tied to the legs of the chair.

About design; I like the idea of the runes, but also floating patterns that the wool creates can be interesting. You tell me.

Asa

Thorhildur Thorgeirsdottir wrote the following replies on her form:

> The dining table top at least on the drawing proposal is too thin compared to the cross frame.
>
> I like it as it is. It reminds me of the sun – mythology – original..

In answer to the following question: What surface finish could be applied to the surface of the castings? Thorhildur wrote:

> We will have to see at the aluminium foundry.

In answer to the following question to Thorhildur on the form: Does the pattern the table top components make, remind you of patterns in early Icelandic jewellery? Thorhildur wrote:

> Yes the breast brooches from the first Icelandic – women – (Vikings)

Regarding the dining chair Thorhildur wrote:

> I like shape/form of the dining chair the triangular shape of the aluminium casting reminds me of a whale bone, the spine and the ribs, (it was used back in the early days as a “chair”), it is still possible to find them in some gardens here in Iceland as a garden decoration.
>
> The surface finish – we will have to see and experiment about that at the aluminium factory. It is possible to get a special piece to put in the polishing machine, with “loose nails” I will see about that. The finish will be a bit hammered?
>
> We will have to think about when this chair goes to mass production that the one aluminium leg has to get some “ending” so it won’t harm the floor

The comments made by the makers in writing and by phone (multimedia disc 6, telephone design amendments, from 25.2.03 to 27.2.03) can be summed up as below.

- The chair was generally liked.
- The table was too complex in construction.
- The pattern on the table top was liked but not the cross on the floor.
- The work needed to be developed in the workshops of the makers with experimentation during the making process.

Before leaving for Iceland to make the table and chairs the author began sketching a new design for the table under-frame and legs, and for a table with a solid top. A new idea for the table developed in the author's sketchbook (Figs. 31 and 32).

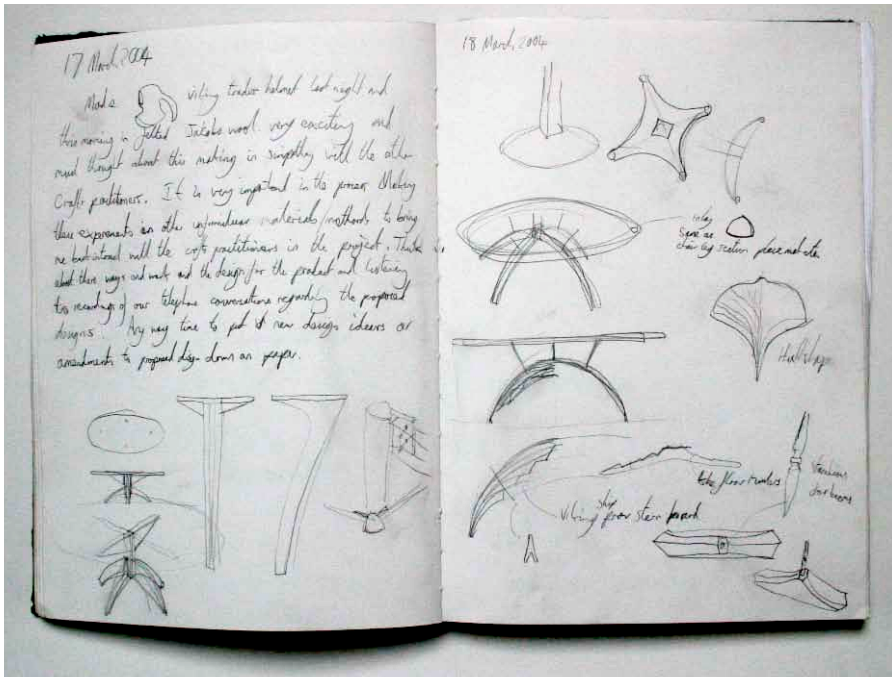

Fig. 31 New table legs sketch

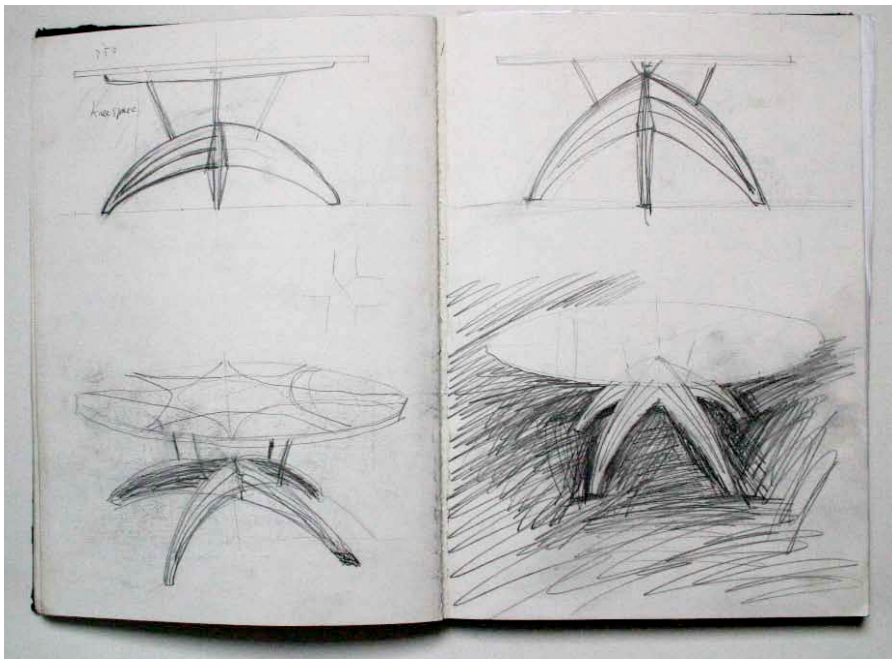

Fig. 32 New table legs sketch 2

This new leg design is an interpretation of the stern posts from a Viking ship, to be cast in aluminium. A model was also made of these new legs (Fig. 33).

Fig. 33 New table legs model

1:5 scale model in wood

6. Making the Table and Chairs

The making process was conducted in Iceland between 29 March and 8 May 2004, in the workshops of the selected makers: Gretar Thorvaldsson; Fjolnir Hlynsson; Geir Oddgeirsson. A time schedule for the making process is provided in Table 4, page 102.

The author shared the work with the makers, including Thorhildur Thorgeirsdottir, who visited Gretar Thorvaldsson's workshop. The author, under the guidance of the selected makers, did most of the making work. During this part of the project the author captured with photography, video and sound recordings the continued experimentation and development of the design throughout the making process (multimedia disc 7, making the table and chairs). The recorded media exposes the influence of the selected makers on the design and the creative making experience shared between the makers and the author.

After the table and chairs had been made in Iceland, templates were taken for the felted wool seat covers and tablemats to be made by Asa Hatun. These were made by Asa in the Faroe Islands and posted to the author.

Table 4 Time Schedule for Making the Table and Chairs in Iceland

DATE 2004	Morning	Afternoon
28 March	Check in Glasgow airport 0915, FN:FI431, depart 1115	Arrive Keflavik Int'l 1225,
29 March	Meet and work with Gretar Mar Thorvaldsson.	Pattern making and casting workshop. Aluminium comp.
30 March	Pattern making and casting	Pattern making and casting
31 March	Pattern making and casting	Pattern making and casting
1 April	Pattern making and casting	Pattern making and casting
2 April	Pattern making and casting	Pattern making and casting
3 April		
4 April		
5 April	Pattern making and casting	Pattern making and casting
6 April	Pattern making and casting	Pattern making and casting
7 April	Pattern making and casting	Pattern making and casting
8 April	Pattern making and casting	Pattern making and casting
9 April	Pattern making and casting	Pattern making and casting
10 April		
11 April		

DATE 2004	Morning	Afternoon
12 April	Pattern making and casting	Pattern making and casting
13 April	Pattern making and casting	Pattern making and casting
14 April	Pattern making and casting	Pattern making and casting
15 April	Pattern making and casting	Pattern making and casting
16 April	Pattern making and casting	Pattern making and casting
17 April	Rest	Rest
18 April	Rest	Rest
19 April	Meet and work at Geir Oddgeirsson Workshop. Tresmidjan Grein ehf.	Table top and other wooden non-steam bent components at Tresmidjan Grein ehf.
20 April	Timber components Tresmidjan Grein ehf.	Timber components Tresmidjan Grein ehf.
21 April	Timber components Tresmidjan Grein ehf.	Timber components Tresmidjan Grein ehf.
22 April	Timber components Tresmidjan Grein ehf.	Timber components Tresmidjan Grein ehf.
23 April	Timber components Tresmidjan Grein ehf.	Timber components Tresmidjan Grein ehf.
24 April	Travel to East of Iceland	Travel to East of Iceland
25 April	Meet and work with Fjölnir B. Hlynsson, Miðhús. Chair assembly, steam bending.	Fjölnir B. Hlynsson at Miðhús. Chair

DATE 2004	Morning	Afternoon
26 April	Fjölnir B. Hlynsson at Miðhús. Chair	Fjölnir B. Hlynsson at Miðhús. Chair
27 April	Fjölnir B. Hlynsson at Miðhús. Chair	Fjölnir B. Hlynsson at Miðhús. Chair
28 April	Fjölnir B. Hlynsson at Miðhús. Chair	Fjölnir B. Hlynsson at Miðhús. Chair
29 April	Fjölnir B. Hlynsson at Miðhús. Chair	Fjölnir B. Hlynsson at Miðhús. Chair
30 April	Fjölnir B. Hlynsson at Miðhús. Chair	Fjölnir B. Hlynsson at Miðhús. Chair
1 May	Rest	Rest
2 May	Rest	Rest
3 May	Travel West	Travel West back to Reykjavík
4 May	Tresmidjan Grein ehf. Complete the table and chairs.	Tresmidjan Grein ehf. Complete table chairs
5 May	Tresmidjan Grein ehf. Complete table chairs	Tresmidjan Grein ehf. Complete table chairs
6 May	Tresmidjan Grein ehf. Complete table chairs	Tresmidjan Grein ehf. Complete table chairs
7 May	Tresmidjan Grein ehf. Complete table chairs	Tresmidjan Grein ehf. Pack into packing case and deliver to air cargo.

DATE 2004	Morning	Afternoon
8 May	Rest	Rest
9 May	Check in Kaflavik Int'l Airport, 0500, FN FI430, depart 0720. Arrive Glasgow 1025.	

6.1. Method of Recording the Making Process

Due to the nature of this part of the project, it was unpredictable in what sequence things would happen, how they would happen, and how the design would be developed as work progressed. To capture this spontaneous design development in the hands of the makers, an unstructured method of recording in digital audio and visual media was used.

The formats used were digital photography, mini disc audio recording and mini DV (video).

The following areas, or events, in the design development and making process, were the key areas to be captured:

- Initial sketching, drawing and discussion of proposed design with selected makers, the emphasis being on their comments.
- Making full size drawings, models, experiments with the selected makers.
- Making the table and chairs, and any discussions on further design decisions.
- Talking about finished table and chairs or experiments.

The author, while recording the making process, considered the following points:

- While capturing the above it is the individual nature of each maker's working method or style that was to be recorded.
- The selected makers needed to understand the importance of the recording equipment right from the beginning.
- The use of the recording equipment, from the beginning, helped reduce camera and microphone shyness.
- The equipment must be to hand, set up and ready to record at all times during the making process.

- Predicting when an interesting moment might happen needed to be foreseen, in order to capture and record it successfully.

- Gathering evidence of a collective working method was an important part of the process which needed recording.

The video, photography and audio media capturing the shared making experience was used to make the presentation on multimedia disc 7, making the table and chairs (DVD). The presentation is a montage of media, focused on exposing the shared nature of the making experience. When viewing this presentation the reader should note that the visual and physical communication between the makers, is the most relevant to the making process.

The reader is now advised to view the multimedia disc 7, making the table and chairs (DVD).

6.2. The Completed Table and Chairs

The completed table and chairs were shipped back to the author's home on the 12 May 2004, where an oil finish was applied. Images of the completed table and chairs can be seen on the multimedia disc 3, and one of these is provided in Fig. 34.

Fig. 34 Completed table and chairs

Table is 153 cm in diameter and 71 cm high, made of Oak and Aluminium.

Over a period of 6 weeks the author, with a group of makers in Iceland, made the table and chairs (Fig.35). Through a series of shared making sessions in different workshops, the design for the table and chairs was resolved and made. This designing and making process was shared democratically between the makers and the author by the communication of ideas through physically making and experimenting and talking.

7. Feasibility Study: Production of the Project Table and Chairs in Iceland

This study was carried out during the making process and before the exhibition tour began, between March and August 2004. Its purpose was to assess whether or not the table and chairs could go into production in Iceland, at what scale and what the estimated cost per unit would be. This was done by direct correspondence with the makers who had made the table and chairs in their workshops, Gretar Thorvaldsson, Geir Oddgeirsson, Fjolnir Hlynsson and Asa Hatun. A feasibility study form (see Appendix 11, page 244), was sent to each maker with a copy of the specifications, provided in Appendix 12 (page 248). The makers were asked to fill in the form and provide information with respect to their part of the production. The forms were designed to help assess the potential costs of producing the table and chairs in Iceland, for orders of one item at a time, and for batches of 100 or 1000 items. It was thought that the larger batch sizes would bring the costs down. The requested elements of production and summaries of the returned information provided by the different makers are provided below.

7.1. Gretar Mar Thorvaldsson

Gretar Mar Thorvaldsson, was requested to provide:

> Cast aluminium components for both the chair and table, prepared to a finished state ready for final assembly with wooden elements.

Summary of returned information from Gretar:

- He could produce up to 100 sets of aluminium components for 800 chairs and 100 tables.
- It would take one week to complete an order for one set of aluminium components for 8 chairs and 1 table. It would take 3 months to complete an order for 800 chairs and 100 tables.

- Gretar did not want recognition or a royalty for helping to develop the table and chairs.
- It would be acceptable and cheaper to have it made in another country.
- It would costs £1240 for the production of one set of aluminium components (4 table leg brackets and 8 chair back legs/seat-frames). No cost was provided for larger quantities.
- The table and chairs could be sold on the internet.

7.2. Fjolnir Hlynsson

Fjolnir Hlynsson, was requested to:

> Make wooden chair components including oil finish and assemble with aluminium parts, to a finished state. Disassemble the chairs and pack into packing crate, eight chairs to a crate. Packing crate also to be made and supplied.

Summary of returned information from Fjolnir:

- He could produce up to 1 set, 8 chairs and 1 table.
- He was not equipped or interested in heavy production, was not interested in large orders.
- The production of 8 chairs would take 1 month, at an estimated cost of £2616 (these figures do not include aluminium component costs).
- If someone else made the table and chairs recognition in its development and a royalty was requested.
- Production could take place outside Iceland.
- The table and chairs should be sold in furniture shops

Fjolnir wrote the following statement at the back of the form.

I'm pretty sure that this chair and table are "unfeasible" to produce from hand.

To produce them I think it would be necessary to ask professional furniture making companies that have specialized machinery, and a lot of experience. However it is a good design and it has built in some "hand-made" elements and serves the goal: "to make use of craftspeople skills to design a product for industrial production".

I am not sure that is should be the goal to get craftspeople to actually make the product, and I am not sure that craftspeople would like making things on such a scale, simply because that takes away the freedom they have.

I would like to see an estimate price from a factory also.

7.3. Geir Oddgeirsson

Geir Oddgeirsson was requested to:

> Make wooden table components, insert aluminum discs into tabletop and apply cut line decorative details. Apply oil finish to wooden components. Make final assembly of table components. Disassemble table and pack into a secure packing crate. Packing crate to be made and supplied also.

Summary of returned information from Geir:

- Could produce up to 100 tables.
- It would take 9 weeks to complete an order for 1 table. It would take 24 weeks to complete an order for 100 tables.
- 1 table would cost approximately £2735 and 100 tables would cost approximately £191,845 (these figures do not include aluminium component costs).
- It would be acceptable for another company in another country to make the table, in return for development expenses paid and published recognition.
- The table and chairs could be sold in exhibitions.

7.4. Ása Hatún

Ása Hatún, was requested to:

> Make felted wool seat covers and table mats. Pack mats and seat covers into parcels of 8 ready for delivery.

Summary of returned information from Ása:

- She could produce up to 1 set of 8 tablemats and seat covers.
- It would take 10 to 12 days to make one set of these items.
- No objection for others to make these items. Does not know about royalties or published recognition.

7.5. Combined Summary of Makers Returned Information

With consideration to the information returned from the makers it can said that:

- Production of the table and chairs by the selected makers could only be produced one set at a time, 1 table and 8 chairs. Tables on their own could be made in batches of 100.
- From the approximate costs provided, not including the costs of the woollen elements or delivery, £2975 for one table and £452 for one chair, would make the point of sale price too high for retail sales. As a wholesale price is normally half of the retail price, this mean the table would have a retail price of £6000, which is too high for the retail market.
- These products could only be made for an exclusive or one-off market and would be competing with bespoke furniture.
- The possibility to produce this furniture in quantity in Iceland can be ruled out, as the specialist manufacturers required for this do not exist in Iceland.

8. Exhibition Tour and Evaluation of Artefacts

The exhibition's purpose was to expose the table and chairs to as broad an audience as possible across Northern Europe and assess the response. It was also the purpose of the exhibition to expose elements of the Icelandic/Nordic culture of craftsmanship and design. The exhibition demonstrated what a valuable commodity the traditional crafts are, how they contribute to cultural identity and how modern industry could be influenced by them. The exhibition tour took place between 9 August and 9 October 2004. The author travelled with the exhibition to HANDVERK OG HÖNNUN (Handwork and Design), Reykjavik, Iceland, where the British Ambassador, Alp Mehmet opened the first exhibition in the tour, on the 16 August. On tour the exhibition spent approximately a week in each of the following venues:

HANDVERK OG HÖNNUN (Handwork and Design), Reykjavik, Iceland. This is an Icelandic Government funded project representing Icelandic crafts, with a permanent exhibition venue.

Gunnarsstofnun, Egilsstaðir, Iceland. This is a cultural centre in the east of Iceland, hosting regular exhibitions and events, including Icelandic craft and art.

Faroes Crafts Society, Torshaven, Faroe Islands. The Iceland project exhibition would join the Faroes Crafts Society's two week annual show in the centre of Torshaven, a cultural venue.

Shetland Museum, Shetland, Scotland. This is the local Government funded museum, a cultural centre in Shetland with a permanent exhibition space.

The Lighthouse, Design Museum, Glasgow, Scotland. This museum has a permanent exhibition on the work of Charles Rennie Mackintosh, the architect of the venue building. The venue hosts a number of temporary and touring, design orientated exhibitions, throughout the year.

The Viking Ship Museum, Roskilde, Denmark. This museum houses a permanent collection of Viking ships found nearby and a boat yard making reconstructions of them and other boats.

The exhibition tour venues are detailed in Appendix 13 (page 253). The following tables 5 and 6 provide details of the exhibition tour time schedule.

Table 5 Iceland, Faroe's and Shetland Exhibition Time Schedule

DATE	MORNING	AFTERNOON
9 August	Depart Hundalee mill farm 1130 (175 miles to Aberdeen)	Check in Aberdeen North link ferries 1500 Depart 1700
10 Aug	Arrival Lerwick 7300	check-in Lerwick on Norröna 2400
11 Aug	Depart Lerwick 0200	Ariv. Dep Tóshavn 1500 1800
12 Aug	Arrive Seyðisfjörður Iceland 0800. Drive West (543 km 337 miles to Skógar) (700 km 434 miles to Reykjavík)	Drive West to Skógar Foss and camp.
13 Aug	Drive West to Reykjavík	Meet and stay with Thórhildur, and family.
14 Aug	Meet HANDVERK OG HÖNNUN	Set up Table and chair
15 Aug	Set up Table and chair	Set up Table and chair
16 Aug	HANDVERK OG HÖNNUN Exhibition write thesis draft	Exhibition - Exhibition opened by British Ambassador. Dinner at Halla's House.
17 Aug	Exhibition	Exhibition
18 Aug	Exhibition	Exhibition
19 Aug	Exhibition	Exhibition
20 Aug	Exhibition	Take down Exhibition.
21 Aug	Drive east	Drive east Camp on the way.
22 Aug	Meet Skúli Björn Gunnarsson at Gunnarsstofnun, set up table and chairs etc.	1400 open exhibition
23 Aug	Exhibition write thesis draft	Exhibition
24 Aug	Exhibition write thesis draft	Exhibition
25 Aug	Exhibition write thesis draft	Exhibition
26 Aug	Exhibition write thesis draft	Exhibition

DATE	MORNING	AFTERNOON
27 Aug	Exhibition write thesis draft	Exhibition.
28 Aug	Exhibition write thesis draft	Exhibition
29 Aug	Exhibition write thesis draft	Exhibition
30 Aug	write thesis draft	
31 Aug	write thesis draft	
1 Sep	write thesis draft	
2 Sep	Check in at Seyðisfjörður 1000 for Norröna Depart 1200	
3 Sep	Arrive Tórshavn 0500	
4 Sep	Set up Exhibition with Faroes Crafts Society	Exhibition
5 Sep		
6 Sep	Exhibition write thesis draft	Exhibition
7 Sep	Exhibition write thesis draft	Exhibition
8 Sep	write thesis draft	
9 Sep	write thesis draft	
10 Sep	Check in Tórshavn for Norröna 0630, Depart 0830	Arrive Lerwick 2100
11 Sep	Set up Exhibition at Shetland Museum	Exhibition
12 Sep	Spoon carving workshop	Project Lecture to crafts community
13 Sep	Exhibition write thesis draft	Exhibition
14 Sep	Exhibition write thesis draft	Exhibition
15 Sep	Exhibition write thesis draft	Exhibition
16 Sep	Exhibition write thesis draft	Check in Lerwick North Link Ferries 1700, depart 1900
17 Sep	Arrive Aberdeen 0700, Drive home to Hundalee.	

Table 6 Glasgow and Denmark Exhibition Time Schedule

DATE	MORNING	AFTERNOON
20 Sep	Set up Exhibition at The Light House, Glasgow. (90 miles)	Exhibition

DATE	MORNING	AFTERNOON
21 Sep	Exhibition	Exhibition
22 Sep	Exhibition	Exhibition
23 Sep	Exhibition	Exhibition
24 Sep	Exhibition	Drive home
25 Sep		
26 Sep		
27 Sep	Check in Newcastle 1300, Depart 1500 (50 miles)	
28 Sep		Arrive Gothenburg 1700
29 Sep	Drive to Roskilde (175 miles)	Set up Exhibition
30 Sep	Exhibition	Exhibition
1 Oct	Exhibition	Exhibition
2 Oct	Exhibition	Exhibition
3 Oct		
4 Oct	Exhibition	Exhibition
5 Oct		
6 Oct	Drive to Gothenburg	
7 Oct	Check in Gothenburg 0800, Depart 1000	
8 Oct	Arrive Newcastle 1000	

8.1. Methodology for Exhibition and Questionnaire

The type of exhibition venue approached (advised by Stephen Jackson and Paul Western, page 37) was that of a cultural centre, a museum or art gallery. The type of venue space asked for was a small auxiliary space, which would be surplus to normal requirements. The exhibition went between different countries, so similar venues and spaces were requested in order to find similar audiences in the different countries. This was important so the assessment of the surveys carried out during the exhibitions would be from comparable audiences.

A quantitative tick box type questionnaire and a qualitative open question interview type questionnaire was conducted in each venue during the exhibition tour. A minimum of 15 interviews was required in each venue for both questionnaires, however, the more questionnaires that there were completed the more compelling the results. The questionnaires were designed to find out the following information:

- How likely are people to buy the table and chairs?
- What elements are the most appealing?
- Would people like the product in their own home?
- Would the product sell well over the internet aided by word of mouth?
- What do people think the table and chairs would cost to buy?
- Do people like to be aware of the cultural origin of their dining table and chairs?
- How well does the product express its Icelandic and Nordic cultural origin?
- How is the product seen to express its cultural origin?

- Can the influences of Icelandic/Nordic traditional crafts be recognized, and can any of these be identified?
- Does a product with Nordic cultural identity have added value in the Nordic market?
- Does a product foreign to the Nordic region with a clear cultural identity of its own have added value in the Nordic market?
- After learning how the table and chairs were designed, made, and how the Icelandic/Nordic traditional crafts have influenced the design, does it change the viewer's perception of the table and chair?
- How does it change their perception?
- How interested are people in the story behind this product?
- How much would it influence a purchase decision?
- Having heard the story behind the table and chairs, how much would they pay for the table and chairs?
- Is the choice of materials, oak, aluminium and wool appealing?
- Do the table and chairs appear to be traditional or modern in their design?
- Is there cultural value in the continued practice of traditional crafts?
- Has this project demonstrated the successful use of traditional crafts in a modern way?
- What bit of the design do people like the most?
- What bit of the design would they change?

General information about the Interviewees was required for consideration when compiling the results.

- Where they are from and age to filter these who are most likely to buy the table and chairs in the Nordic region.

- Prior knowledge of the project, or no prior knowledge.

A draft questionnaire was written as provided in Appendix 15 (page 255) and with it a pilot interview was conducted on Peter Hawson (relative of the author) on 29.7.04. With consideration to this pilot and correspondence with Tom Burnham,[35] an experienced international marketing consultant, the following points for amendment were raised:

- As the questions repeat themselves if the same person goes on to do the longer questions, it was thought a better idea to make them into one, with green colour-coded questions.

- Some of the questions could have a scaled answer from 1 to 5 instead of yes/no.

- Reading out the names of craft practitioners sounded boring, but it was felt necessary to read out all people responsible to be fair

- Some answers should have areas for separate answers regarding chair, table, oak, aluminum, wool.

- Where the product would sell well, does not answer what needs to be known, that is, would the internet and word of mouth method work.

- Space at the end should be made for any other comments and sketching.

- The different currencies should be worked out.

Appendix 16 (page 260) provides the amended questionnaire as used for the exhibition survey.

[35] Tom Burnham, who since 1997 has been an International Trade Adviser working for UK Trade and Investment, a British Government branch of both the DTI and the Foreign Office. Between 1985 and 1997 he ran his own marketing consultancy business.

8.2. Results of Exhibition Survey

Eighty-seven questionnaires were completed during the exhibition tour. The raw data from these answered questionnaires has been put into a Microsoft Excel spreadsheet, file name 'exhibition data copy.xls' and is provided on the multimedia disc 3, image and data files (CD). This raw data has been filtered to make 3 separate spreadsheets, which are referred to in the text and provided in Appendix 17, 19 and 20 (pages 268, 270, 273). On the spreadsheet the qualitative answers have been abbreviated and a copy of these is provided as a Microsoft Word document, on the multimedia disc 3, image and data files (CD) and abbreviations referred to in the text are provided in Appendix 16 (page 267). The abbreviations were made with the following guilde-lines:

- Qualitative comments meaning the same thing such as 'I like the table', and 'I think the table is nice', have been given the same abbreviation, 'LT'.
- Answers which say something particular e.g. What part of the table design do you like the most? Answer: The whole design, have been recorded with a '/'.
- Answers that have been unclear, sometimes due to language problems have been given the abbreviation, AU.
- Q8 regarding cost of table and chair? The first category recorded as '1', second category recorded as '2' etc. If the answer given was less than minimum amount in first category, this was recorded as ´0´.
- Q11 Are you familiar with Nordic culture? 'yes' was recorded even if only familiar with Icelandic culture.
- If a reply to a question was that they would have to think about it, or they did not know, it was recorded as 'dk' or '/'.
- Entry numbers with the star sign * in front of them only completed the quick green colour coded survey.

8.3. Interpreting Exhibition Data

The following is a presentation of statistics from the exhibition survey data that assess whether the table and chairs were a success, would the market they were made for buy them, was the Icelandic/Nordic culture expressed in the design recognized and did this cultural element have added value. More information was recorded in the survey than was necessary for the purposes of the project; this additional data has broader relevance with respect to potential postdoctoral applications.

8.3.1. Would the Market Buy the Table and Chairs

The data has been filtered to give the opinion of those that are most likely to buy the product, ages 26 – 65, from within the home market (Scandinavia/Nordic region). Appendix 17 (page 268) is the filtered data that shows a mean 84 % (sample 43) of the potential market would like the table and chairs in their home. Appendix 18 (page 270) shows data (sample 36) of the potential market that would have the table and chairs in their home. It shows they think the chairs would cost between £250 and £500 and the table would cost between £1500 and £2000. Considering the predicted cost from the feasibility study of £2975 for one table and £452 for a chair, both without the cost of the wool components or delivery, the potential markets expected costs for the table and chairs were low. Appendix 18 also shows (mean) that the potential market thinks that quality and aesthetic appeal is just under very important (4.75/5) and price is only little over (3.5/5) mid way between not important and very important, when considering to buy domestic furniture like a dining table and chairs.

8.3.2. Does the Market Recognize the Cultural Content and is it Important?

The filtered data, in Appendix 19 (page 273), of those who are most likely to buy the table and chairs (sample of 43), shows that the table and chairs were

thought to express Icelandic and Nordic culture well, a mean answer of 4, on a scale of 1(not at all) to 5(very well), was given. A mean 70% of this sample felt that products with Nordic cultural identity had added value. From the same sample the Nordic traditional crafts were well recognized in the design of the table and chairs, a mean 4 was given from 1(not at all) to 5(very well). Thirty-five people from the filter data in Appendix 19 (page 273) (sample of 43) gave answers to question 15, which asked; what specific Nordic traditional crafts can you recognize in the table and chairs design? Table 10 gives the frequency of descriptions for the different crafts recognized (abbreviations provided in Appendix 16, page 267). Of the 19 people who recognized Viking ship shapes in the design, 4 of them saw the exhibition at the Roskilde Viking Ship Museum, which may have given them an unfair advantage. It can be said however, that all the main traditional crafts influencing the design were clearly recognized within the sample.

Abbreviation	Description of abbreviation	Frequency of description
VS	Viking ship shape	19
WW	Wood work	9
F	Felting/wool work	7
C	Carving	4
CA	Metal casting	1

Table 7 Recognized Nordic Traditional Crafts (sample 35)

8.3.3. Project Success

Towards the end of the questionnaire, after receiving the description of how the table and chairs were designed and made as part of question 18, nearly all of the most likely buyers thought that the project did demonstrate the successful use of traditional crafts in a modern way. A median of 5 and mean

of 4.6 was given on a scale of 1(no) to 5(yes) in reply to this question, data provided in Appendix 19 (page 273).

8.4. Summary of Exhibition Process and Information Gathering

The exhibition of the project's dining table and chairs, designed and made in partnership with the six selected Icelandic and Nordic makers, went on tour from Iceland to Denmark between 14 August 2004 and 8 October 2004 (see map, page 32). The exhibition went to the following six venues (see schedule, Tables 5 and 6, pages 114, 115):

HANDVERK OG HÖNNUN (Handwork and Design), Reykjavik, Iceland.

Gunnarsstofnun, Egilsstaðir, Iceland.

Faroes Crafts Society, Torshaven, Faroe Islands.

Shetland Museum, Shetland, Scotland.

The Lighthouse, Design Museum, Glasgow, Scotland.

The Viking Ship Museum, Roskilde, Denmark.

During the exhibition tour, a survey was conducted on the visitor's response to the dining table and chairs (see chapter 8.1. page 117). The raw data ('exhibition data copy.xls', multimedia disc 3, image and data files CD) from this survey was analysed and the results (page 121) show that the table and chairs were thought (by a filtered sample) to express Icelandic and Nordic culture well, a mean answer of 4 on a scale of 1(not at all) to 5(very well) was given, and a mean 70% (of the same filtered sample) felt that products with Nordic cultural identity had added value (page 121).

9. Reflect Review Appraise

This chapter provides a literature review of projects and theories from the field of reflective practice and practice-based research, that relate to the results of the Iceland project. Using this knowledge of reflective practice the chapter reflects and appraises the phases of the project related to cultural and practical learning through making. These project phases include: the apprenticeships with the six makers, practical experiments made with the makers and by the author, and the making decisions during the construction of the demonstration table and chairs. This chapter exposes the intuitive methods developed out of the practice of the author and participating makers during the Iceland project and puts them in context with existing reflective practice and related theory.

9.1. Literature Review of Reflective Practice

This literature review focuses on reflective practice and practice-based research, and how these relate to the project and its methods. This literature review does not exhaust all literature on reflective practice and practice-based research, but provides only the foundations and most relevant material on the subject.

9.1.1. Paradigm of Inquiry

This section is a short account of the present academic paradigm relevant to the field of reflective and practice-based research, which includes the most relevant and current ideas on reflective, action and practice-based research and where they have come from. Understanding the theoretical paradigm, in which reflective and practice-based research has developed, provides a philosophical foundation from which to consider the Iceland project.

Before considering the most present and relevant paradigm of inquiry it is useful to look briefly at previous ways of understanding knowledge.

> Among philosophers of science no one wants any longer to be called a Positivist, and there is a rebirth of interest in the ancient topics of craft, artistry, and myth-topics whose fate Positivism once claimed to have sealed.[36]

Positivism considers observation and experimental investigation as the only ways of gaining substantial knowledge. It has been the dominant methodology and paradigm of inquiry within science for the past 300 years.[37] Schon, a social scientist and a leader in the field of reflective practice, makes the point that positivism is no longer the most acceptable form of knowledge acquisition because it fails to recognize its own limited utility in practice.[38] Positivism has brought us knowledge especially in the sciences and given us an advanced understanding of the laws of nature[39], but it fails to account for an individual's interpretation of their environment or to provide a rigorous method of inquiring into tacit knowledge, unspoken/non-literary knowledge and knowledge acquired and demonstrated through practice.

The focus of the Iceland project has been the creative, dynamic and mostly unspoken but demonstrative and visual communication of practical knowledge, embodied in the actions of craft practitioners collaboratively designing and making artefacts. The paradigm in which this activity has taken place is most closely related to constructivism. Constructivism is summed up well by C. Gray and J. Malins, in their guide to the research process in art and design:

> …the constructivist paradigm is characterized by a 'relativist' ontology (multiple realities exist as personal and social constructions) and the epistemology is subjectivist (the researcher is involved); as a

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[36] D. A. Schon *The Reflective Practitioner, How Professionals Think in Action*. Ashgate, Aldershot, 1983, p. 48.

[37] C. Gray, J. Malins, *Visualizing Research: A Guide to the Research Process in Art and Design,* Ashgate, Aldershot, 2004, p. 19.

[38] Schon, p. 49.

[39] Schon, p.32 – 33.

> consequence, methodologies are hermeneutic (interpretative) and dialectic (discursive).[40]

Schon suggests that if the technical rationale of positivism cannot account for professional knowledge having practical competence in real, divergent situations,[41]

> Let us search, instead, for an epistemology of practice implicit in the artistic, intuitive processes, which some practitioners do bring to situations of uncertainty, instability, uniqueness, and value conflict.[42]

Within a constructivist paradigm the epistemology is subjectivist: the inquirer and the inquired act together as one and the findings are the outcomes of an interaction process between the two.[43]

In the context of the Iceland project the author and the selected makers worked together sharing their making experiences to both become inquirer and the inquired in the process of designing and making the table and chairs. The projects method of enquiry developed out of the author's designer/maker practice and was later shaped by the relationships with the selected makers, and not from theories in reflective practice. The methodology used to create this collaboration and sharing of making knowledge was predominantly naturalistic. The author in partnership with the selected makers looked to experience a new way of developing a table and chairs, and recognised the potential of learning from this activity. It maybe said that participation in the project was motivated by a recognition that this was an opportunity to learn and develop professional practice, and not one to develop a marketable table and chairs. The quantitative and qualitative elements of the project were additions beyond the more useful learning experience. On reflection the quantitative and qualitative additions were put in place to fulfil traditional expectations in academic research and provided only minor support to the

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[40] Gray, Malins, p. 19.

[41] Schon, p. 49.

[42] Schon, p. 49.

[43] Gray, Malins, p. 20.

more useful visual and physical learning experience. A constant processing of physical and visual experiences (experientially based knowledge) amongst the participants shaped the successive focusing of the making process[44]. The Iceland project was led by the dynamic, divergent and intuitive nature of the creative making process. Reflecting in action and reflection of action amongst the participants shaped the constant refocusing within the process of making the table and chairs.

9.1.2. Social Science and Anthropological Theories of Reflective Practice

The following theories from social science and anthropology are the most relevant theories for use in reflecting on the Iceland project. The Iceland project has looked to develop its own theories and methods out of the existing practice of the author and participant makers. This has been done for the development of appropriate theory for the designer/makers' field, where there is only recently emerging theory and no standard practice. It is useful to compare these developments in the Iceland project with known and relevant theories in other fields.

Schon describes reflection-in-action as thinking and learning while doing, and being aware of the knowing-in-action, while reflecting.[45] Reflection-in-action and knowing-in-action is what the professional practitioner uses to develop their specialised artful skill and to solve ever changing problems in workaday life. It is something often taken for granted and not put into words. Recognising one's own knowing-in-action and also reflecting on what is at hand is a challenging task to reflect on. Schon writes:

> There is some puzzling, or troubling, or interesting phenomenon with which the individual is trying to deal. As he tries to make sense of it, he also reflects on the understandings which have been implicit in his action,

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[44] Y. Lincoln, E. Guba, *Naturalistic Inquiry*, Sage, London, 1985, p. 11.

[45] Schon, p. 49-54.

> understandings which he surfaces, criticizes, restructures, and embodies in further action.[46]

This account of reflection-in-action makes explicit, for craft practitioners or makers, an area of their knowledge often overlooked and taken for granted. It provides a framework in which to try and become more conscious of the reflective process embodied in their practice. For the transfer of such knowledge Lincoln and Guba recommend the case study as the reporting mode of choice.[47] The Iceland project is a case study and is partly represented by the table and chairs, the multimedia DVD's of their making and the interviews with the makers. It is recognized that further reflection on the process by the author as facilitator of the project would be of value in transferring knowledge, especially back to the participating makers for further reflection by them.

P. Reason and H. Bradbury have a vision of reflective practice they call action research and give a working definition:

> …action research is a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities.[48]

Action research is a holistic approach to research focused on making the research relevant to the researchers and making the participants, traditionally the subjects, the researchers too. It has its roots in social science and methods of naturalistic inquiry. It has relevance to the Iceland project in providing a framework of enquiry and for unpacking the data or outcomes of participatory enquiry and analysing them for critical review. In his study of

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[46] Schon, p. 50.

[47] Lincoln, Guba, p. 11.

[48] P. Reason, H. Bradbury, Inquiry and participation in search of a world worthy of human aspiration, Introduction to P. Reason & H. Bradbury (Eds), *Handbook of Action Research: Participative Inquiry and Practice* (pp. 1-14). London, Sage 2001, <http://www.bath.ac.uk/> (accessed 8 August 2005).

action research cases, *Participation in Human Inquiry*, Reason makes an interesting observation that the initiators of projects go to great lengths in

> …developing participatory group relationships. The group first has to be created and established with enough clarity of purpose and method that it has some chance of success, a culture of collaboration developed over time, and then space has to be provided for initiatives from participants to take over and transform the inquiry beyond the original dreams of the initiator.[49]

The unpacking of the inquiry within the Iceland project has been achieved partly through the collaborative making of the table and chairs, with the participants leading the process beyond the author's initial designs. Further unpacking is provided in the reflection on the makers' journey section of this chapter (page 152). Other aspects of action research that are relevant to the Iceland project are some of the motivations and aims behind it. This is illustrated by Reason's argument,

> …that the creation of knowledge is in the hands of the rich and powerful elements of an increasingly global society, and works to enhance their interests against those of the disenfranchised majority world.[50]

With this in mind an aim of action research is to,

> …empower people at a second and deeper level through the process of constructing and using their own knowledge [learnt through action research]: they "see through" the ways in which the establishment monopolizes the production and use of knowledge for the benefit of its members.[51]

In the case of the Iceland project the making knowledge of the makers was illustrated clearly as developing the design of the table and chairs. This is often covered over by the presence of the 'designer' who comes with a proposal to the maker, who then has to subsequently develop it during a prototype-making phase. The designer then walks away with an amended

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[49] P. Reason, *Participation in Human Inquiry*, Sage, London, 1994.

[50] P. Reason, Learning and Change through action research, 2001, <http://www.bath.ac.uk/> (accessed 8 August 2005).

[51] Reason, 2001.

design he calls solely his own, including licensing and royalty rights. This is endemic in a hierarchical, non-democratic and repressive situation, and does not put the maker in a fair situation. This type of situation may be rare in a developed country like Iceland, but perhaps not untypical in a developing country. In the Iceland project the author's motivation has been in part to expose the disenfranchisement of the makers. In the multimedia interview presentation of Geir Oddgeirsson, he points to this situation when in response to the question by the author,

> "where will your skills be, in influencing the product brief".[52]

Geir Oddgeirsson responds through his interpreter and workmate, Björn Hrafnsson,

> "we are not architects, we don't have, you know, legal taste. For example an architect comes with or a designer comes with a chair, you cannot say to him it's ugly, but you can say it's impossible to sit in it. So you have to be a diplomat."[53]

Geir Oddgeirsson does not want to offend the designer, and at the same time he does not want to make a bad chair. So suggestions for the design changes have to be made diplomatically, and, unfortunately for Geir Oddgeirsson, he retains no rights invested by him in the design.

Action research does not make a separation between the knower and what is to be known, in other words, the researcher does not distance himself from the subjects or participants,

> … action research is rooted in each participant's in-depth, critical and practical experience of the situation to be understood and acted in.[54]

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[52] T. Hawson, 'Transcription of interview with Geir Oddgeirsson and translator (Geir´s work mate) Björn Hrafnsson'. 23 July – 24 July 2003, Multimedia Disc 2, T. Hawson, 2003, (DVD).

[53] Hawson, 'Transcription of interview with Geir Oddgeirsson', (DVD).

[54] P. Reason, Learning and Change through action research, 2001, <http://www.bath.ac.uk/> (accessed 8 August 2005).

This description fits well with the making activities of the Iceland project participants, who expressed their criticism and knowledge of the situation in the decisions made in making the table and chairs. Another aspect of action research described by Reason that is useful to compare with the Iceland project is,

> …that truth is not solely a property of formal propositions, but is a human activity that must be managed for human purposes which leads action research practitioners to take into account many different forms of knowing-knowledge of our purposes as well of our ideas, knowledge that is based in intuition as well as the senses, knowledge expressed in aesthetic form such as story, poetry and visual arts as well as propositional language, and practical knowledge expressed in skill and competence.[55]

Translating this to the Iceland project, truth is to be found in making artefacts, the process and the outcomes, and the motivations behind making. The Iceland project has engaged the participants in consciously exposing the truths behind making. It has not challenged them to provide an in-depth and critical review of their participation in words, this would be un-natural to their making practice.

There are similarities between action research and the participatory research described by B. Hall, A. Gillette and R. Tandon in their book *Creating Knowledge: A Monopoly? – Participatory Research in Development*. This book published in New Delhi by the Society for Participatory Research in Asia, is written from a social anthropological perspective and calls for a democratic and humanistic approach to participatory research. The following quote emphasises the importance of the subjects of research to be involved in the research themselves as active participants, and how this teaches critical thinking and the implications of the finished research to the community it was researching.

> If I am interested in knowing the people's ways of thinking and levels of perception, then the people have to think about their thinking and not be only the objects of my thinking. This method of investigation which

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[55] Reason, 2001.

> involves study-and criticism of the study-by the people is at the same time a learning process. Through this process of investigation, examination, criticism and reinvestigation, the level of critical thinking is raised among all those involved.
>
> Thus, in doing research, I am educating and being educated with the people. By returning to the area in order to put into practice the results of my investigation, I am not only educating and being educated; I am also researching again, because to the extent that we put into practice the plans resulting from the investigations, we change the levels of consciousness of the people, and by this change, we do research again. Thus, there is a dynamic movement between researching and acting on the results of the research.[56]

If the consciousness of the participating makers has changed as a result of the Iceland project and the author returns to them this thesis presentation, this will be a continuation of the reflective research and constitute post-doctorate work.

With no mention in the text to reflective practice or action research, A. Collins, J. Seely Brown and A. Holum's article in the American Educator, 'Cognitive Apprenticeship: Making Thinking Visible', has many similarities to this subject and the Iceland project. Coming from a pedagogical perspective their description of the traditional apprenticeship and how this can be interpreted to develop methods of teaching reading, writing and mathematics, by participatory, naturalistic and heuristic methods is useful. Some of their thoughts are that,

> …standard pedagogical practices render key aspects of expertise invisible to students. Too little attention is paid to the reasoning and strategies that experts employ when they acquire knowledge or put it to work to solve complex or real-life tasks.[57]

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[56] B. Hall, A. Gillette & R. Tandon, (Eds.). (1982). *Creating Knowledge: A Monopoly? - Participatory Research in Development*. New Delhi: Society for Participatory Research in Asia, p. 30.

[57] A. Collins, J. Seely Brown, A. Holum, Cognitive Apprenticeship: Making Thinking Visible, *This article originally appeared in the Winter, 1991 issue of American Educator, the journal of The American Federation of Teachers.* <http://www.alite.co.uk/readings/motivation/motivation5.htm> (acsessed 31 August 05).

These are familiar ideas to reflective practice and action research and many of the basic underlying ideas in this paper on ‘cognitive apprenticeship’ are similar. The methods given in this paper to facilitate the use of these ideas in teaching practice are specifically useful in looking at the relationship between the makers and the author, and the transfer of knowledge between them. The definitions of the aspects of traditional apprenticeship: modeling (master providing a demonstration), scaffolding (support given to apprentice to carry out the task), fading (slow removal of scaffolding), and coaching (overseeing the learner)[58], provide a frame work to look at the author’s traditional apprenticeship experience with the participating makers. This framework is also used to support the idea of teaching the thinking behind actions, ‘cognitive apprenticeship’, which is useful in looking at the way in which the author explained the ideas behind the project’s design process to the participating makers.

The social sciences and anthropology have during the 20th century begun to look at knowledge and go about finding it in places that are ever changing and from an individual’s or communities perspective. They have made the subjects of research the researchers and exposed knowledge and knowing in action, intuition and experiences. They suggest that the reflection, reinterpretation and redistribution of this knowledge be shared with the researched, by a democratic and humanly responsible process, to gain substantial consensus.

9.1.3. Visual, Social and Anthropological Research

Although the following literature on the use of image in social and anthropological research does not refer to the terms ‘reflective practice’ or ‘action research’, a brief review is provided, as the image is clearly a reflective tool in research. J. Collier, an anthropologist, uses photography and film to help understand human behaviour. In his book *Visual Anthropology:*

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[58] Collins, Seely Brown, Holum.

Photography as a Research Method, he makes some relevant points concerning the appropriate use, and the limitations of, visual media in research. Collier points out that,

> Film is the tool for analysis of process where technology innovation or subtle abstraction on technological change is needed.[59]

This statement helps to confirm the use of film/video to record the making of the table and chairs and some of the making action witnessed by the author during his apprenticeship experiences. The following quote from the same book further validates the use of film/video in capturing those moments of design decision while making and the relationship between the makers and the author at those moments.

> Only the moving picture film can record the realism of time and motion, or the psychological reality of varieties of interpersonal relations.[60]

Collier also makes the point that visual media in research remains illustrative in its nature and has its limitations.

> …we have not succeeded in completing research with the camera unless we can place the photographs aside in our final statement. The part of our study which has not been interpreted in this way remains illustration, not research conclusion…[61]

M. Banks a reader of social and cultural anthropology at the University of Oxford, in his book *Visual Methods of Social Research* reminds us, that the researcher who records visual media in the field should do so in collaboration with the subjects of his research and perhaps has no choice but to do so.[62]

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[59] J. Collier, *Visual Anthropology: Photography as a Research Method*. London, Holt, Rinhehart and Wiston, 1967, p.128.

[60] Collier, p. 129.

[61] Collier, p. 67.

[62] M. Banks, *Visual Methods in Social Research*, Sage, London, 2001, p. 119.

9.1.4. Practice-Based Research in Art and Design

The use of artefacts and visual material to document the creative process or narrative comes naturally to designer\makers. To designer/makers, professional practice is predominantly visual and physical in nature. In designer/maker practice, visual media, physical processes and artefacts provide stimulation for holistic and non-linear creative thought processes that develop innovation. Likewise the tacit and experiential knowledge of the designer/maker is embodied in the related visual media, physical processes and artefacts. If designer/maker practice-based research is to be articulated and its creative narrative exposed, visual media and artefacts must be employed. Professor C. Rust (from the Art and Design Research Centre at Sheffield Hallam University) writes of the advantages of visual media and artefacts in communicating tacit knowledge and related thought processes behind creative innovation. He considers his experiences in supervising design-related PhD projects and writes:

> It was apparent that the collection of drawings and 3D objects provided a record of the research in which all aspects of the work could be seen and encompassed, in a holistic fashion by the researchers.[63]

In the same paper Rust describes how the use of a record of artefacts aids the researcher:

> The artefact record was quite different from written notebooks which do not provide a complete picture ‘at a glance’ and require their owner to maintain a complex mental picture (not accessible to collaborators) of their work if they are to navigate and exploit their records.[64]

The following two quotes from the same paper by Rust describes some of the reflective potential of images and artefacts to the research process:

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[63] C. Rust, ‘Design Enquiry: Tacit Knowledge and Invention in Science’, Sheffield Hallam University, Art and Design Research Centre working paper 8 July 2003, <http://www.shu.ac.uk> (accessed 8 August 2005), p. 7.

[64] Rust, 2003, p. 8.

> The provision of a rich set of images or artefacts provides an environment in which an individual can dwell in their work and employ their tacit knowledge.[65]
>
> … a designer's ability to embody ideas and knowledge in artifacts can give us access to tacit knowledge, and can stimulate people to employ their tacit knowledge to form new ideas.[66]

The designer, in research, can develop their role by making artefacts to assist and/or communicate the design process or demonstrate a design. Rust writes:

> If an energetic and able designer can find any role at all in a research environment they can quickly develop that role by creating and deploying artefacts that affect the work in hand and demonstrate their ability to make a difference.[67]

In the Iceland project, knowledge regarding design-and-make practice, embodied and communicable within artefacts and images, was used to continuously analyse, reflect (holistically) and reform the 'essentially experiential and heuristic'[68] research process. The artefacts and images used as a reflective and communicative tool amongst project participants also becomes the archive or narrative of the designing and making journey.

With regard to the subject of reflection in design inquiry, Tim Marshall and Sid Newton from the School of Design, at the University of Western Sydney, Australia, in their paper given at The Research into Practice Conference 2000 at the University of Hertfordshire (UK), suggest the following:

> Design inquiry might therefore be described in terms of reflective practice itself: as a conversation with the situation where understanding the back-talk from the situation is essential to the process of inquiry itself. In the context of reflective practice, Schon (1983) proposes story-telling as an effective genre for the translation of research back into practice. Story-

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[65] Rust, 2003, p. 8.

[66] Rust, 2003, p. 12.

[67] Rust, 2003, p. 13.

[68] K. Bunnell, 'The Integration of New Technology into Ceramic Designer-Maker Practice', PhD Thesis, Robert Gordon University, Aberdeen, 1998, (CD-ROM), p. 86.

> telling discloses relevant themes, rather than theories. Story-telling both facilitates and actively promotes a transformation of the story themes into a specific situation context. In this sense, the stories themselves represent design knowledge.[69]

Having described design inquiry as a form of reflective practice, Marshall and Newton go on to propose that:

> In place of scientific inquiry we propose scholarly design. In this sense, design inquiry (as with scientific inquiry) represents a valid form of scholarship. The value of design inquiry is as a contextual and situated engagement with practice: it is a means of grounding research in practice. The validity of this engagement is not embodied in the rigour with which a particular method is applied, but rather the agency the enacted propositions carry with them for practice: the facility of the research work to reframe or provoke further action.[70]

Marshall and Newton position scholarly design as a valid form of academic research. In designer/maker research it is important that the knowledge embodied and communicated in visual media, making processes and artefacts holds enough information to make the design-and-make process transparent to those within the knowledgeable peer group. If this communicable knowledge is reflected upon and put back into action during the research process, this can be considered 'scholarly' making. It is important however that this reflective activity is made transparent and accessible to a broad academic community. This makes 'generalizable answers'[71] from case studies transferable to other fields. Ken Friedman, Professor of Leadership and Strategic Design from the Norwegian School of Management in his address at the 'Sensuous Knowledge 2' conference, Norway, 2005, reminds us

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[69] T. Marshall, S. Newton, 'Scholarly Design as a Paradigm for Practice-Based Research", paper at The Research into Practice Conference 2000, The Centre for Research into Practice, biennial international conference at the University of Hertfordshire (UK) 2000, <http://www.herts.ac.uk> (accessed 6 November 2005).

[70] Marshall, Newton, 2000.

[71] K. Friedman, 'Theoretical and Philosophical Challenges in Artistic Research and Development', Address delivered to Sensuous Knowledge 2, Norway, November 2005 (from correspondence with K. Friedman, December 2005).

> …that it is not experience itself, but interpretation of the experience that makes us learn.[72]

In C. Gray and J. Malins's book *Visualizing Research,* they describe reflective practice, in relation to research:

> Reflective practice therefore attempts to unite research and practice, thought and action into a framework for inquiry which involves practice, and which acknowledges the particular and special knowledge of the practitioner. It is a framework that encourages reflection in different ways. Retrospective reflection - 'reflection-on-action' - is a critical research skill and part of the generic research processes of review, evaluation and analysis. 'Reflection-in-action' is a particular activity of professional practitioners and involves thinking about what we are doing and reshaping action while we are doing it. In this sense it is improvisational and relies on feeling, response and adjustment. Schon likens it to conversation, especially in relation to design. He suggests that designing is a 'reflective conversation with the materials of a situation' (Schon, 1983, chapter 3, p. 78).[73]

This description of reflective practice interpreted from the designer/makers point of view suggests that 'reflection-on-action' is a legitimate academic framework to reflect on the physical actions of the designing and making process. Likewise 'reflection-in-action' can be interpreted as being subjective in nature and peculiar to the individual, and the process of designing while making suits very well Schon's suggestion of a 'reflective conversation'.

With regard to the inevitable one-sided view and lack of objectivity of the 'practitioner-researcher', Gray and Malins provide a strategy of peer review to combat this problem:

> It can be addressed to some extent by always exposing ideas and practices to other professionals for feedback, support and advice. In seeking the views of others, which will inevitably be subjective, we can develop inter-subjective views, which are less likely to be one-sided. Of course, keeping a critical view of your research at all times is essential. However, the advantages of the practitioner-researcher role are compelling: your 'insider' knowledge, experience and status usually lends your research credibility and trustworthiness in the eyes of your peers, that is, you are not an 'external' researcher. Most importantly, you are inquiring

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[72] Friedman, December 2005.

[73] Gray, Malins, p. 22.

> as a reflective practitioner, acknowledging the complexity, dynamism and unpredictability of the real world.[74]

During the process of designing and making the table and chairs during the Iceland project, the participant makers, who were effectively part of the research team, provided peer review. This designing and making process, however, was further reviewed by the touring exhibition and is presented in this thesis for extended peer review.

Throughout the Iceland project it was apparent that methodological models of collaborative designer/maker research practice were not known to the author. The lack of standard practice in designer/maker research practice made it necessary to invent methods and borrow them from other fields. In practice-based design research, Gray, Ure and Malins write that:

> Adopting a practice-based methodology entails making use of the inherent knowledge, understanding and experience of the practitioner, acquired through the designer's own informal research, but to which a further 'toolbox' of practice-based strategies could be added or invented. This is entirely logical since the research questions, methods and outcomes are derived from, and applied to, issues of direct relevance to the field.[75]

They go on to say that borrowing 'pseudoscientific or social science methodologies'[76] may be inappropriate or unsympathetic to the nature of the designer's enquiry. This is all fuel to support the specific development of methods for the Iceland project, which were drawn from a mix of sources including the existing practice and experiences of the author and collaborating makers. Instead of the scientific idea of transferable methodology, Gray and Malins suggest a notion of

> … explicit 'rules of conduct' specifically related to an individual's research project, allowing a clear understanding of procedure (transparency), but

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[74] Gray, Malins, p. 23.

[75] J. Malins, J. Ure, C. Gray, 'The Gap: Addressing Practice-Based Research Training Requirements for Designers', Sheffield Hallam University, 1999, <http://www.shu.ac.uk> (accessed 8 August 2005).

[76] Malins, Ure, Gray.

> acknowledging that complete transferability is not achievable, nor perhaps desirable.[77]

This incomplete transferability of a set of rules of conduct, specific to an individual's research, fits within a constructivist paradigm where research findings are specific to the inquirer and inquired, but aim to generate knowledge for which there is substantial consensus.[78]

Within the Iceland project consensus was sought within the group of participant makers for the development of methods and the outcomes of practice. The outcomes of the project's collaborative practice (the table and chairs) were exhibited in order to achieve a consensus on whether the artefacts successfully expressed indigenous Icelandic crafts as had been intended (exhibition tour and survey provided on page 113).

Dr Anne Douglas from the Centre for Research in Art and Design at Gray's School of Art, Aberdeen, in her paper delivered at the RADical conference, Aberdeen, 1994, presented the relationship between practice and research in her own work as a practice-led sculptor researcher. Douglas explains that the creative process can be observed as a phenomenon in the development of methodology.[79] In the same paper Douglas goes on to write:

> The individual orientation of artistic practice requires the kind of methodology which can admit choice and the structure within which choice can be exercised. Methodology in this sense does not contain procedures which could disprove the thesis (the positivist view point). It simply acts as a prism through which a set of beliefs can be examined. It is relative not absolute in nature.[80]

It was important throughout the Iceland project for the creative process to be given the same freedoms enjoyed by designer/makers working outside

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[77] Gray, Malins, p. 18.

[78] Gray, Malins, pp. 19 - 20.

[79] A. Douglas, 'Relationship between Practice and Research: The crafting of a metaphor', from the, RADical Conference Preceedings '94, at the Centre for Research in Art & Design Gray's School of Art, Aberdeen, 1994, p. 9.

[80] Douglas, 1994, p. 11.

research. What the research element of the project provided was a framework in which the creative process could develop freely while making a visual and audio record of actions and events for later reflection. Reflecting on the actions and events of the project facilitated learning, and the new knowledge gained was used to influence the subsequent elements of the designing and making process.

Within recent debate about practice-based research in art and design M. Thomas has asked the following question:

> Can practice-based research in a university environment create work of real aesthetic merit and true research value?[81]

In answer to this question Dr Anne Douglas provides the following and also explains the focus of such research.

> I think one of the great dangers of the expectations of research is that it can solve everything. There is no guarantee within research that you are going to produce the fantastic piece. What it is trying to address is the thinking, issues and conditions around which art is made. There is no guarantee that you will have, as Susan Tebby says, the masterpiece at the end. No research does that, not even medicine.[82]

Douglas went on to initiate the 'On the Edge' research project in 2001, at Gray's School of Art, Robert Gordon University, Aberdeen. This project initially looked at the role and value of visual arts in remote rural areas,[83] in the context of living in Northern Scotland.[84] More recently the project has moved on:

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[81] M. Thomas, 'Editorial: Practice-based research', *Digital Creativity*, Vol. 15, No. 1, 2004, p. 1.

[82] A. Douglas, 'Question and Answers Session', RADical Conference Proceedings '94*,* at the Centre for Research in Art & Design Grays School of Art, Aberdeen, 1994*,* p. 31.

[83] A. Douglas, 'Biographical Statement', *Research Personnel*, Gray's School of Art, Robert Gordon University, Aberdeen, <www2.rgu.ac.uk/subj/ats/research/home.html> (accessed 11 December 2005).

[84] Gray's School of Art, Robert Gordon University, 'On the Edge Research Project' <http://www.ontheedgeresearch.org/> (accessed 11 December 2005).

> In 2005 we have arrived at a new position in which art is an action between individuals within the everyday. We are currently exploring the value of art practice in these terms.[85]

As a Senior Research Fellow, Douglas':

> … postdoctoral research has focused on the formulation of an approach to art making that is participatory and exploratory - where individuals with diverse perspectives are involved in determining what kind of art should be made.[86]

Douglas' 'On the Edge' project has much in common with the Iceland project. Both are interested in the cultural value of artists'/makers' work, are practice-led and involve and engage creative practice participants within the research process.

> I am interested in developing approaches to visual art practice that evolve a creative relationship with specific place and culture, in particular cultures undergoing radical social and economic change. I am particularly interested in generative metaphor as a specific tool for sharing poetic images that in turn shape the way we understand processes and our behavior towards them.
>
> My artistic practice has undergone a transition from 'maker of objects', artistic practice as an individually authored activity, to 'maker of situations' through the development of focused art projects from a research base. Formal research offers me a framework for sharing explicit questions on the value of art across disciplines. Visual art research can, I believe, offer unique insights into this area of thought.[87]

The 'On the Edge' project is unlike the Icelandic project in that the participants in the inquiry involved individuals and organisations responsible in different ways for the provision of culture[88] and visual arts practice; whereas the Iceland project's inquiry involved only artists and makers as participants and was not concerned directly with individuals and organisations responsible for the provision of culture. The author would

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[85] <http://www.ontheedgeresearch.org/>

[86] <http://www.ontheedgeresearch.org/>

[87] Douglas, 'Biographical Statement'.

[88] <http://www.ontheedgeresearch.org/>

position his practice within the Iceland project as, as Douglas puts it, a 'maker of situations' and as a formal researcher with 'a framework for sharing explicit questions on the value of art [indigenous crafts] across disciplines'.[89]

From discussions at the Sensuous Knowledge 2 conference in Norway, in November 2005, T. Mjaaland interprets Douglas' meaning of artistic research within the context of the 'On the Edge' project:

> Artistic research, according to Douglas, creates a space for questions that is not, to the same extent possible within artistic practice itself. Thus research is more than exploration (which might be understood as a more open-ended process), but rather a *structured interrogation through the practice of art.*[90]

Designer/maker research in the context of the Iceland project can be interpreted in the same way as Mjaaland's description of Douglas' artistic research, as a 'structured interrogation' through designer/maker practice.

Closer to professional design practice, and specifically new product development inside companies, the Centre for Design Innovation, within the Birmingham Design Research Group, at the University of Central England, has made live observations of decision making to identify and study critical decision points. The 'critical decision points' in new product development are useful points of reference for reflection and understanding the nature of this creative, non-linear and non-logical process. The project leader, Professor Bob Jerrard, briefly describes the reflective potential of this research:

> The knowledge resulting from this research would contribute greatly to the companies studied as a reflective tool for their creative practice. It will also be informative to other small companies NPD [New Product Development] process in reflecting their decision-making and risk assessments. The academic audience would benefit from the outcomes of this research as a

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[89] Douglas, 'Biographical Statement'.

[90] T. Mjaaland, 'A summary from discussions in Group D', Chair: Nils Gilje, from the conference, Sensuous Knowledge 2: Aesthetic Practice and Aesthetic Insight, at Solstrand, Norway, 9 - 11 November 2005, p. 12.

> further development to the knowledge in the fields of creativity, knowledge communication, designing and design management.[91]

It is of relevance to the Iceland project to recognize the importance of critical decision points in the designing and making of the table and chairs. During the designing and making process it was a strategy of the Iceland project to try to capture in photographs, audio recordings and video these decision-making-moments, specifically design decisions made during the making process, for later reflection.

9.1.5. Practice-based Research in Art and Design in Iceland.

The following Icelandic academics in the fields of art, design, craft and technology were contacted and asked for any information regarding practice-based research in Iceland:

- Jóhannes Thordarson, Dean of the Department of Design and Architecture, Iceland Academy of the Arts,
- Kristjan Steingrimur, Dean of the Department of Visual Arts, Iceland Academy of the Arts,
- Gudrun Helgadottir, Department of Rural Tourism, Holar University College, Iceland,
- Gisli Thorsteinsson, Assistant Professor in the Department of Craft, Design and Technology, Iceland University of Education,
- Jón Erlendsson, Knowledge Network in the Engineering Department, University of Iceland,
- Halldor Gislason, Dean of the Department of Design at Kunsthogskolen i Oslo, National Academy of the Arts, Norway.

From the correspondence with the above Icelandic academics it is clear that there is, and has been, little practice-based research in the area of art, design and craft, in Iceland. The only practice-based research that was found was Gisli Thorsteinsson's project. In correspondence with the author on 8 December 2005, Gisli Thorsteinsson described his PhD project as 'action

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[91] B. Jerrard, 'Risk Taking in Design – an investigation of critical decision points in new product development', Centre for Design Innovation, Birmingham Design Research Group, <http://www.biad.uce.ac.uk> (accessed 16 August 2005).

research but in the area of Innovation Education using a Virtual Reality Learning Environment.' Gisli Thorsteinsson's research makes case studies of 'Innovation Education' design projects in schools and shows how the use of 'Virtual Reality Learning Environments' can aid communication and development within these projects.

There is no academic institution in Iceland concerned with postgraduate studies or research in craft practice. In Iceland there is little happening in the research field of art and design as a whole, and this situation is confirmed in a survey of art and design universities in Nordic and Baltic countries, conducted by Designium, The New Centre of Innovation in Design, at the University of Art and Design Helsinki. In this report Hanna Heikkinen writes the following about the current situation in the design field:

> The situation for the most designers in Iceland is challenging. There is much creativity but only few manufacturers. To get something produced, the designers have to probably do it themselves or look abroad, both options requiring a lot of resources.
>
> Therefore, the Iceland Academy of the Arts has established an interdisciplinary design program, which focuses on concept more than craft, and with an emphasis on marketing and business training.
>
> When it comes to Iceland and Lithuania, the whole design sectors are in need of comprehensive development programs. [92]

9.1.6. Video in Practice-based Research

B. Hutchinson, P. Whitehouse and P. Bryson, have written a workbook; *Modern Media and Reflective Practice*, for the Post Graduate Diploma/Master's Degree in Education, at the University of Ulster. This provides clear guidance on the use of video in action research and reflective

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[92] Hanna Heikkinen, *INNOVATION NETWORK OF ART AND DESIGN UNIVERSITIES IN NORDIC AND BALTIC COUNTRIES Preliminary Survey*, Designium, The New Centre of Innovation in Design, University of Art and Design Helsinki, 2004, http://www.learningbusiness.fi/portal/research_insights/reports (accessed 7 December 2005), pp. 45 - 57.

practice in teaching. The Iceland project used video to make a record of the predominantly visual transfer of knowledge between makers while making, and to provide a tool for later reflection of practice. Of particular relevance to the Iceland project, the workbook of Hutchinson, Whitehouse and Bryson argues for the value of video in capturing more than just what people say:

> What is much more satisfactory for getting an unbiased record would be to use a tape recorder or better still, capture the event on video. The video has the added advantage of letting us see the gestures people are making as well as hearing what they say; but more importantly it lets us see the situation in which the event is taking place which adds to the meaning of what is being said.[93]

Video-recording teaching practice and the context in which it takes place for later reflection by the teacher is an empowering reflective tool. In the Iceland project the authors use of video in recording elements of the designing and making of the table and chairs in partnership with the participant makers is an reflective tool for all concerned. The situations and actions recorded during the Iceland project are open to a number of perceptions. Knowledgeable peers and outsiders to the designing and making process can independently review the projects situations and actions from the relatively unbiased multimedia record (multimedia discs 1 – 7). The multimedia record is relatively unbiased because, although the photographic and video footage cannot lie, the situations and actions recorded and edited were the choice of the author. It was the intention of the author to record and present the situations and actions in a consistent manner. The record was made within guidelines (page 64 and 106) to provide for consistency of representation between the interaction interviews and during the making process, allowing for independent review. In Hutchinson, Whitehouse and Bryson's words, 'this openness of the medium is particularly suited to the exploratory nature of

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[93] B. Hutchinson, P. Whitehouse, P. Bryson, *Modern Media and Reflective Practice,* Workbook from the Post-Graduate Diploma/Master's Degree in Education, University of Ulster, 1995, p. 6.

action research'[94] and 'the use of video is closely associated to the ethics of action research.'[95]

The Iceland project's focus is the visual and tacit knowledge communicated through making and the context in which it takes place and thus the use of video and photography is an appropriate method for later reflection.

Hutchinson, Whitehouse and Bryson provide the following guidance for the action researcher using video:

> We are a society of face savers, you must be aware of the threat of the medium and seek to assure those you use the medium with. You must attempt to suppress your own ego and respect the individuals who participate with you in this project. Always be overt with your aims and intentions, let people get used to the camera, you are not directing you are observing, video in this project is assisting your observation. Therefore you should aim to record as typical as scene as possible, the only way to achieve this is to use the camera with people rather than on them. One last point is always to remember why you are using the camera, to challenge your own perceptions and learn more about yourself and your practice, you are the subject in front of the lens not the controller behind it.[96]

The above recommendations match up with the methods employed in the Iceland project (page 72 and chapter 6.1. page 106) and are considered in this chapter, section 9.2 Reflections on the 'Makers' Journey' (page 152).

S. Braden from the University of Reading considers the use of video in collaborative action research as a reflective tool, in his 1998 PhD thesis, 'A Study of Representation Using Participatory Video in Community Development: From Freire to Eldorado'. The following quote from Braden regarding the use of video to reflect collectively, makes the point that such shared reflections consolidate a group's identity, allowing for the collective imagination to be communicated:

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[94] Hutchinson, Whitehouse, Bryson, p. 30.

[95] Hutchinson, Whitehouse, Bryson, p. 30.

[96] Hutchinson, Whitehouse, Bryson, p. 30.

> It tests identity coherence, and when this is done within the insider world, it offers the freedom to reflect and to imagine collectively – and then perhaps, to represent and communicate or re-presentation to others.[97]

Within the Iceland project the interaction interview process and the collaborative nature of the project created and nurtured the collective imagination among the participant makers. The multimedia presentations of the interaction interviews and the making process presented with this thesis (multimedia discs 1, 2 and 7), strengthens the collective imagination of the participants in developing new methods of practice and further projects.

9.1.7. Collaborative Visual Arts Practice

Karen Scopa completed her PhD thesis at Robert Gordon University, Aberdeen, in 2003, on the subject of developing strategies for interdisciplinary collaboration from her own and other visual-art practitioners' practice. Scopa writes:

> …this appears to be one of the first practice-led, formal research projects to directly address strategies for engaging interdisciplinary collaborative projects (between a visual artist and other practitioners).[98]

To assist with the reflections on the Iceland project it is useful to consider a summary of Scopa's findings regarding key qualities observed in successful collaboration:

> …the following four key qualities present in successful collaboration and lacking in unsuccessful collaboration were identified:
>
> - Common ground: the presence of common understanding established within the shared space created between collaborators, upon which a shared creative vision is developed.

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[97] S. Braden, 'A Study of Representation Using Participatory Video in Community Development: From Freire to Eldorado,' PhD Thesis, Department of Agricultural Extension and Rural Development, University of Reading, 1998, p. 102.

[98] K. Scopa, 'The Development of Strategies for Interdisciplinary Collaboration from the Visual Arts,' PhD Thesis, Robert Gordon University, Gray's School of Art and Design, 2003, p. 248.

- Shared Creative Vision: the presence of common aims and expectations of collaboration developed through dialogue, negotiation and the establishment of shared collaborative values.
- Shared ownership: the presence of an equal sense of shared authorship, control and responsibility in achieving a collaborative outcome, which is felt by all collaborators.
- Mutually Beneficial Transformation: the presence of a shared openness and willingness to learn from and about co-collaborators through the shared creative processes and to be challenged and changed through the collaborative process.[99]

The above findings of Scopa's study closely match the author's experience of collaboration with the makers during the Iceland project. These experiences are discussed further in, 9.2 Reflections on the 'Makers' Journey'(page 152).

9.1.8. Summary of Theories Relating to 'The Makers' Journey'

The Iceland project has taken place within a constructivist paradigm, where the author has worked alongside the participating makers as co-researchers in reflecting on their collaborative practice while designing and making the table and chairs. Throughout the project this reflective process has continued to inform and shape the creative process.

The social science and anthropological theories of the mid to late twentieth century have provided a framework of theory and methods of reflective and practice-based research. These theories and methods of reflective and practice-based research appear to be most relevant in the development of research in designer/maker practice.

The use of visual media including video is suited to reflective and practice-based research. It is particularly suited to the Iceland project and designer/maker practice, which has a focus on visual and unspoken means of communication.

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[99] Scopa, p. 183.

The field of reflective and practice-based research in art and design is a new and rapidly expanding one, with much debate concerning theory and methods. It is important to recognize the value of developing theory out of art and design's own fields of practice and to value the individual nature of such research.[100] If designer/makers are to have a position in research, they must take responsibility for communicating to a broad audience, by providing peer-reviewed explanations of their reflective making practice.[101] Collaborative and reflective designer/maker practice can be seen as a method of peer reviewing practical and visually led activities within the field. However, these activities must be exposed to members of the community outside the field by using commonly understood language.

During the process of collaborative designing and making within the Iceland project a photographic, audio and video record was captured with a focus on, what is described in Jerrard's book as, 'critical decision points'[102]. This record of 'critical decision points' presents elements of the participant makers' working methods in a new way and perhaps reveals previously unnoticed and taken for granted aspects of their practice. This record of the participating makers' practice becomes a useful point of reference for reflection and understanding the nature of their creative, non-linear and non-logical process. These reflections provide insight and new knowledge, which may then inform and reshape subsequent practice.

One of the most important outcomes of reflective and practice-based research in the field of art and design is the narrative of the journey and the interpretation of this, and not necessarily the artefacts produced at the end, as Dr Anne Douglas has said,

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[100] Gray, Malins, p. 18.

[101] Friedman, December 2005.

[102] Jerrard.

> There is no guarantee within research that you are going to produce the fantastic piece. What it is trying to address is the thinking, issues and conditions around which art is made.[103]

A survey of academics and literature from the field of art, design and technology in Iceland has revealed that little in the way of practice-based research exists and the academic 'design sectors are in need of comprehensive development programs'.[104]

9.2. Reflections on the 'Makers' Journey'

This section of the chapter consists of the author's reflections on the different phases of the 'makers' journey' in designing and making the table and chairs during the Iceland project. References are included where relevant to the reviewed literature on reflective and practice-based research. The different phases of the designing and making process reflected on by the author include:

- **Apprenticeships.** Working alongside the six participating makers and carrying out the interaction interviews.
- **Practical Experiments.** Artefacts made by the author and collaboratively with the participating makers, as learning aids and experiments, as part of the designing and making of the project table and chairs.
- **Making decisions.** Decisions made by the participating makers and the author on the design and methods of making the table and chairs.

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[103] Douglas, 1994, p. 31.

[104] Heikkinen, p. 45-57.

9.2.1. Apprenticeships

Professor Peter Senker in a paper concerned with the formal training of apprentices for the Teaching and Learning Research Program, University College Northampton, provides a useful definition of 'apprenticeship':

> … 'apprenticeship' is defined very broadly to encompass the learning of workers entering an occupation for the first time, regardless of the type of occupation involved or the qualifications (if any) required for entering the occupation.[105]

The author's experience of being an apprentice for one or two weeks to six different makers during the project provided insight into the visual and physical knowledge and material culture embodied in their work (page 71). The previous experience of the author as an accomplished maker himself gave him the observation skills for him to absorb this new knowledge efficiently. Less experienced makers beginning their training have less insight into making and therefore less is learnt when they observe other skilled makers. The requirement of video recording the author's apprenticeship experience as a reference for reflection within the Iceland project enhanced his observations. The following article, titled 'The Three Ways to Watch and Learn' was written by the author for the Iceland project newsletter *A Craftsman*. This newsletter was distributed by e-mail to all involved and interested in the project.

> Having been an apprentice to my father and to many other skilled craftsmen after him, and now being a skilled craftsman in wood furniture myself, I have been reflecting on the experiences of my short apprenticeships with the different Nordic craft practitioners involved in the Iceland Project. When I set out to be a craftsman it took me a very long time to learn the skills that I needed. Now I practise with great confidence in my specialist area, fashioning my own tools and developing my own working practices. When I had the opportunity to learn new skills from craft practitioners in other fields and in their own workshops for the first time, I was very surprised at how transferable my skills were and how quickly I could learn. When considering new and acceptable forms of academic

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[105] P. Senker, 'An Exploration of the Nature of Apprenticeship', Teaching and Learning Research Program, University College Northampton, <http://www.tlrp.org/project%20sites/IILW/>, (accessed 31 August 2005).

> reference for craft practitioners, it is impossible to ignore the importance of observation. Craft practice is learned predominantly by observation and mimicking crafts people's skills in using tools and manipulating materials. Inuit children are taught many activities when they are very small and before they are physically able to try the real thing. To learn how to paddle a kayak a child is sat on the parent's knee facing forward, while the parent mimics the action of paddling a kayak with the child's hands inside their own. My father taught me to saw a piece of wood in the same fashion but with a real saw and a real piece of wood. He simply put my hand inside his on the saw handle. Any child that learns skills by mimicking physical actions must learn more quickly. While observing another craft practitioner at work the unskilled apprentice does not easily understand what they are looking at, or what telling signs will give them the clues to do the same. A skilled craft practitioner learns easily and copies the same actions successfully with a little practice. The artistic and skill-seeking craft practitioner not only learns the skills of others quickly but can identify the transferable elements of a practice and successfully combine them with their own skills knowledge.[106]

The timescale in which the author's apprenticeships were conducted was a short period of one or two weeks. In this short period of time visiting the makers it was not possible to witness the full potential of their skills, or to understand and learn all the technical knowledge they have of their materials and processes, and the cultural content of their work. It was, however, long enough to gain a sense of empathy with the makers and their work. The focused approach to the apprenticeships, with the structured interview and the shared understanding between the author and the makers of the design brief that they were to resolve together, brought to the surface demonstrations of physical and visual knowledge that satisfied the shared aims. The period of time taken for the apprenticeships was too short to adequately learn the maker's skills and related information in order to carry out the occupation independently. In a traditional apprenticeship, the apprentice may be bound by contract for a number of years to a master,

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[106] T. Hawson, 'The Three Ways to Watch and Learn', issue 3 of the newsletter, *a craftsman,* 2004, <http:/www.thomashawson.com> (accessed June 2005).

learning by observing demonstrations by the master and doing a lot of repetitive and preparative work until they are confident to see a job through themselves. A modern apprenticeship sometimes combines on the job learning with formal training provided by a further education college or other institution. A commitment by the author to do any amount of repetitive work was offered during his short apprenticeships. The author offered to do the mundane jobs in the workshops in order to earn the makers two mornings of time to complete the formal interviews. The author showed willing and enthusiasm in doing workshop maintenance, and this won the favour and respect of the makers visited. The author felt that such work was a pleasure when carried out in someone else's workshop as it was a great way to study the contents, layout and work in progress. The knowledge gained by the author sweeping up in another maker's workshop will have been greater than that of an inexperienced apprentice doing the same thing.

The time spent by the author with the selected makers during the apprenticeships or interaction interviews and while making the table and chairs was a process of two-way communication, sharing knowledge and learning (multimedia discs 1, 2, 7). While working alongside the selected makers a continual dialogue was maintained verbally and visually and by physical demonstration. The author asked questions about the maker's work and the makers asked questions about the project. This communication continued to inform the research and develop new forms of critical thinking, changing 'the levels of consciousness'[107] of the author and the participating makers. Having this communication in the workshops provided readily available material to illustrate some of what was said in the interaction interview presentations and to carry out small experiments (page 76). These research experiments exposed the otherwise hidden tacit knowledge of the author and participant makers, so the work could be considered, 'in a holistic fashion by the researchers'[108]. These experimental artefacts, and images of

[107] Hall, Gillette, Tandon, p. 30.

[108] Rust, 2003, p. 7.

them, allow for other makers 'to employ their tacit knowledge to form new ideas'[109].

The author was a traditional apprentice to the makers and they were cognitive apprentices to the author.[110] These definitions of apprenticeship are provided in an article by American researchers concerned with teaching and learning, Allan Collins, John Seely Brown, and Ann Holum:

> in traditional apprenticeship, the process of carrying out a task to be learned is usually easily observable. In cognitive apprenticeship, one needs to deliberately bring the thinking to the surface, to make it visible…[111]

The author provided 'scaffolding'[112] for the makers to understand the project's plan, objectives and proposed methods, by explaining the thoughts and experiences that began and developed the project. These open explanations gave emphasis to the continual reflective thought process that went into developing the project. For example, the story of how the author saw new potential in sharing making knowledge between makers after visiting the boat builder Peter Matheson as part of the development of the Iceland Parliament Speakers Chair (page 18) provided 'scaffolding' or support for the makers to understand the aims of the collaborations. The author's reflections on this experience were explained and the makers were invited to consider and explain their own reflection on their collaboration with the project. The author made every effort to consider openly the makers' reflections and demonstrate his willingness to change the project plan or design of the table and chairs, sharing ownership of the project and design. This shared ownership and equal sense of authorship provided for 'mutually

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[109] Rust, 2003, p. 12.

[110] Allan Collins, John Seely Brown, and Ann Holum, 'Cognitive Apprenticeship: Making Thinking Visible', http://www.21learn.org/arch/articles/brown_seely.html, accessed 1 October 2005.

[111] Collins, Brown, Holum.

[112] Collins, Brown, Holum.

beneficial transformation'[113]. This gave value to the makers' commitment and raised the level of their enquiry and effort in problem solving during development of the table and chairs.

During the sharing of visual and physical knowledge between the participating makers of different nationalities and the author, it was not apparent that differences in language hindered the process. It became apparent to the author that between him and the participating makers there existed a common method of communication through visual language, gesture and physical demonstration (page 71). This form of communication was direct and natural to the participants and for the purposes of the project. The use of video and photography to record this communication and the presentation of it in the interaction interview presentations was more appropriate than a fieldworker's inscribed notebook. Video and photography as a record of material reality provides selective but specific information, 'with qualifying and contextual relationships that are usually missing from codified written notes.'[114] However biased the author may have been in his selection of the visual information recorded, this information cannot lie and it will remain open to reinterpretation among the participants and other researchers. The openness of the visual medium, and the explicit way it exposes the context of situation, matches the 'ethics of action research'[115].

The main objective of the apprenticeship phase of the project was for the author to experience and learn Icelandic crafts and making knowledge from the selected makers, asking them specifically how their specialised knowledge could contribute to the designing and making of a table and chairs to satisfy the agreed design brief (page 55). It was hoped that this method of collecting cultural making knowledge would enable the author to propose outline designs for artefacts that would express Icelandic culture. Later in the

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[113] Scopa, p. 183.

[114] Collier, p. 10.

[115] Hutchinson, Whitehouse, Bryson, p. 30.

project these proposed designs were to be amended by the selected makers on paper and during the making process. The proposed method of multi-disciplinary input into the designing and making of a table and chairs (interaction plan, page 57) to express Icelandic culture was the hardest part of the project to explain or for the selected makers to be convinced of. All of the makers did accept their role as cultural mediums (carrying into the future craft traditions), but some found it harder than others to realise the potential of becoming more conscious in expressing this in their work. The author openly explained to the selected makers the thinking behind his commitment to try and express cultural elements of the makers' work into a shared process of designing and making a table and chairs suitable for batch production and export from Iceland.

The author explained that Icelandic making traditions were becoming undervalued in this area and a project that would expose the future value of the makers' cultural assets might create enthusiasm. It was also suggested by the author that if these cultural assets could not be woven into the future outcomes of the makers work, including artefacts that could become manufactured goods, then it would be to the detriment of their society's culture. When trying to explain these thoughts to the selected makers it was difficult to provide full explanations or examples of the Icelandic making knowledge that could be transferred to the design of the demonstration artefacts. When the makers were asked during their interaction interview what elements of their work could be transferable to the design and making of the demonstration artefacts the replies were vague and non-specific. The following quote from Fjolnir Hlynsson's edited interview (multimedia disc 1) gives an example of the type of answers given. The author asked:

> Considering your skills how do you think you would best influence the project product [demonstration artefact]?

Fjolnir Hlynsson's reply was:

> My knowledge of how the Nordic elements that you are looking for in the thing [demonstration artefact], I would know something about them because, I am of this Nordic origin, and I thereby have them in me. [116]

The non-specific comments on the makers' transferable making knowledge underlines again the importance of visual and physical making demonstrations as the most appropriate communication method for makers. It may have been more appropriate for the makers to have been asked to make experimental artefacts to answer these questions instead.

The apprenticeships succeeded in the exchange of making-knowledge and ideas about the use of such learning between the author and the makers. This communication was mainly visual and physical in nature. For the benefit of developing ideas to answer the design brief it may have been more appropriate for the author and the participating makers to have made together a greater number of experimental artefacts. However, it was observed by the author that making experimental artefacts with the participating makers greatly enhanced the communication of tacit, visual and contextual knowledge. The video and photographic record of the experimental artefacts and the making of them shares the knowledge invested in them.

9.2.2. Practical Experiments

Practical experiments refer to the artefacts made by the author and participating makers during the apprenticeship phase of the project (page 76), and to experiments made during the designing of the table and chairs. During the designing process drawings, scale models and mock-ups of tables and chairs were made as practical experiments. This material can be seen, as Chris Rust from Sheffield Hallam University describes it, 'as a record of the research in which all aspects of the work could be seen and

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[116] T. Hawson, 'Interaction Interview with, Fjolnir Hlynsson, Sculptor, Iceland, June 2003.' *Fjolnir Talk,* 11 minutes and 17 seconds, Multimedia Disc 1, T. Hawson, 2003 (DVD).

encompassed, in a holistic fashion by the researchers.'[117] The researchers in the Iceland project include the participating makers, who were given images of the drawings, models and mock-ups to offer their feedback during the design phase (page 82).

The participating makers as co-researchers also took part in the making of practical experiments during the apprenticeship phase. Some, but not all, of these practical experiments were made to influence the design of the table and chairs. The most illustrative examples of these were the aluminium castings made by the author under the direction of Gretar Thorvaldsson (multimedia disc 2). They included the casting of a spoon (fig. 16, page 80) and an abstract form (fig. 17, page 80). The intention of this experimental making was to see how the faceted knife cut marks from the wooden patterns would be reproduced in the finished castings and how the different surface treatments affected this. The knowledge from these experiments in surface treatment was used in the making of the table and chairs.

The experimental pieces made by the author and Gretar Thorvaldsson were learning experiences for both parties (fig. 16, 17, page 80). It demonstrated to Gretar Thorvaldsson the creative potential of working in partnership with another maker from a different discipline. It was a new experience for Gretar Thorvaldsson to feel an equal share and responsibility in a creative project outside the family business. By doing most of the required workshop labour in making the table and chair components, the author minimised the financial cost for Gretar Thorvaldsson to participate in the project. This reduction in financial costs encouraged Gretar Thorvaldsson's participation in the project. The author further reduced the cost of Gretar Thorvaldsson's participation by carrying out menial duties around the workshop. The project gave Gretar Thorvaldsson the opportunity to take part in an exploratory creative process outside his day-to-day working practice, with minimum financial implications to his business. During the time spent by the author working alongside Gretar Thorvaldsson, enthusiasm and commitment to the project was developed

[117] Rust, p. 7.

and a new understanding of both parties own working practices and potential was shared. The author was inspired by the depth and quantity of knowledge it was possible to absorb during the experimental making experience within the company and workshop of another maker from a different discipline.

Having completed the apprenticeship phase of the project the author assembled a record of the practical experiments made by him and the participating makers, including artefacts, sketches, photographs, video and audio recordings. The author used this record during the development of design proposals for the project table and chairs as references and as a means of reflecting on the apprenticeship experiences he had had with the different makers. The visual, tacit and contextual knowledge held in this multimedia record informed the design of the table and chairs. By looking, touching and hearing this multimedia record throughout the design process, the author was enabled to relive the apprenticeship experiences and remember the knowledge learnt from the participating makers. This process facilitated the author's intention to embed in the design of the table and chairs as much of the visual, tacit and contextual knowledge learnt from the participating makers as possible. During the design phase some additional experimental making was carried out in the author's own studio workshop. The author, while making the felted Viking trader's helmet (page 40) in his own studio during the design phase, strengthened his memory of the knowledge learnt from his apprenticeship with Asa Hatun (wool worker from the Faroe Islands selected to participate in the designing and making of project artefacts, page 35). These methods of reflecting while making and designing have been developed intuitively out of the author's existing practice as a designer/maker. The Iceland project has adopted a practice-based methodology and, as Gray, Ure and Malins describe, this 'entails making use of the inherent knowledge, understanding and experience of the practitioner, acquired through the designer's own informal research'.[118] Gray, Ure and

[118] Malins, Ure, Gray.

Malins go on to suggest that a ‘‘toolbox’ of practice-based strategies can be added or invented.’[119]

The author’s invented toolbox of strategies includes the interaction plan (page 57) that was partly invented out of his own practice as a designer/maker. This practice-based research strategy was developed in consultation with the Icelandic makers who were asked to consider the interaction plan. The interaction plan included, recording and presentation methods of the collaborative process of designing and making the table and chairs (Appendix 6 Final Interaction Interview Questions and Presentation Structure, page 207, and 6.1 Method of Recording the Making Process, page 106). These recording and presentation methods were developed to provide a multimedia narrative of the designing and making of the table and chairs to non-makers and makers outside of the project. This multimedia narrative also provided the participating makers with an additional means for reflecting on their practice and actions within the project. These methods of reflecting on practice and actions within the project have been new experiences for the participant makers and the author. These reflective methods have provided for the participant makers, the author and outsiders to the project, an ‘interpretation of the experience that makes us learn.’[120]

Learning within the project is demonstrated by the development of the democratic and sensitive commitment made by the participants to the collaborative effort. After the interaction interviews and apprenticeship phase, the project participants had time to reflect on this experience and the project interaction plan (page 57). The project was an unusual and unfamiliar experience for all the participants. An example of the depth and openness of communication between the project participants is provided on the multimedia disc 7, ‘Making the Table and Chairs’ (DVD),[121] which shows

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[119] Malins, Ure, Gray.

[120] Friedman, December 2005.

[121] T. Hawson, ‘Making the Table and Chairs, 2004.’ 9 minutes and 10 seconds, Multimedia Disc 7, T. Hawson, 2004. (DVD)

Gretar Thorvaldsson, Thorhildur Thorgeirsdottir and the author developing surface finishing and construction details. The project received from the participants a sensitive and democratic approach to the collaborative reflection-in-making experience and in return offered an opportunity for learning.

The activities of the project can be considered as a scholarly designer/maker's inquiry[122] and a rigorous 'reflective conversation'[123] with materials and contexts. The participating makers and the author all shared in a reflective conversation through experimental making, focused on answering the table and chairs design brief (page 55). This reflective conversation included reflection-in-making and reflection-on-making practical experiments. The outcomes and record of this reflective conversation via practical experiments includes: drawings, photographs, audio and video recordings and the artefacts. The participating makers and knowledgeable peers will find this record accessible, but outsiders to the field may find it less so. In a discussion on this subject with the author, Chris Rust said,

> I believe the inclusion of visual material allows knowledgeable people to access the quality and validity of activities or materials used in research.[124]

Outsiders to the field, it may be argued, will find the tacit and contextual knowledge present in the Iceland project of little relevance or transferable value. What outsiders may find of transferable value to their field is the reflective, democratic and interdisciplinary nature of the methods developed out of creative designer/maker practice. Regarding the transferability of methodology developed out of the subjective nature of creative practice, Gray and Malins write: 'complete transferability is not achievable, nor perhaps desirable.'[125]

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[122] Marshall, Newton.

[123] Schon, p.79.

[124] Chris Rust, from conversation with the author on 5 October 2005.

[125] Gray, Malins, p. 18.

Inter-subjective views[126] of the participant makers have been developed and considered throughout the designing and making of the table and chairs, providing the collectively reflected outcomes of the project with some objectivity.

9.2.3. Making Decisions

This section reflects on decisions made with regard to the design and methods of construction during the making of the project table and chairs by the participating makers and the author. Some of the decisions made may be described as 'critical decision points'[127] and further reflection of these reveal the 'learning through making' achieved in the process of making the table and chairs. The table and chairs were made in three different workshops in Iceland, between March and May 2004 (page 102).

9.2.3.1. Critical Decision Point Example 1

The first participating maker to be visited by the author to begin making the table and chairs in Iceland was Gretar Thorvaldsson. On arrival at his workshop the author explained the proposed designs for the aluminium components to be made with him. The author explained that the design for the table legs at that time had been criticised by Fjolnir Hlysson for being to heavy.[128] Gretar Thorvaldsson had the same opinion that the amount of aluminium in the casting was too much.[129] To resolve this situation, which may be described as a 'critical decision point', the author drew a new design for the underframe of the table in his sketchbook and he presented it to

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[126] Gray, Malins, p. 23.

[127] Jerard.

[128] Hawson, 'Making the Table and Chairs', 1 minutes and 45 seconds (DVD).

[129] Hawson, 'Making the Table and Chairs', 3 minutes and 51 seconds (DVD).

Gretar Thorvaldsson for his thoughts and approval.[130] This new table underframe design was also shown to Geir Oddgeirsson and Thorhildur Thorgeirsdottir, for them to share their thoughts[131]. In explaining the new underframe design the author showed Gretar Thorvaldsson the visual reference that had influenced the form of the aluminium bracket. The visual reference was a sketch from the author's sketchbook[132], made while apprentice to Birger Anderson, of a beam, an internal component from the hull of the Viking ship; Skuldelev 6, at the Viking Ship Museum. Hearing and seeing the author's explanation, Gretar Thorvaldsson made the following comment 'do you think someone is going to see that'.[133]

While making the design changes the author learnt about and reflected on Gretar Thorvaldsson's practice and workshop capabilities. Making the design changes while in Gretar Thorvaldsson's workshop illuminated the author's reflections and learning. The author's use of visual references was a surprise to Gretar Thorvaldsson and this provided an opportunity for him to recognize the potential for this unfamiliar method in his own work. Through working and solving problems together Gretar Thorvaldsson and the author have shared their reflections and learning, through making. They have both reflected upon the tacit and visual knowledge, within their own and each other's practice, to collaboratively reshape and inform the making of the table and chairs.

9.2.3.2. Critical Decision Point Example 2

As a goldsmith the surface finish of metal is an important aspect of Thorhildur Thorgeirsdottir's work and her sensitive knowledge in this area was specifically requested in the design comments form (page 234) and during the making of the aluminium components for the table and chairs. Thorhildur

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[130] Hawson, 'Making the Table and Chairs', 1 minutes and 54 seconds (DVD).

[131] Hawson, 'Making the Table and Chairs', 2 minutes and 59 seconds (DVD).

[132] Hawson, 'Image and Data Files, Sketchbook Pages', p. 4 (CD).

[133] Hawson, 'Making the Table and Chairs', 2 minutes and 35 seconds (DVD).

Thorgeirsdottir and the author had a discussion[134] with the half made aluminium components to decide on the finished surfaces. During that discussion tacit, material and visual knowledge was communicated through the aluminium components and words. The author shared knowledge with Thorhildur Thorgeirsdottir and answered questions concerning Gretar Thorvaldsson's workshop and practice and how different surface finishes could be achieved. Shortly after this meeting Thorhildur Thorgeirsdottir came to Gretar Thorvaldsson's workshop to discuss and confirm the surface finish treatment of the metal components with him and the author.[135] This group discussion around the aluminium components, the wooden patterns, and drawings, in the context of the workshop, was a moment of rapid decision-making. It was the only time in the making of the table and chairs that two of the participating makers were together in a workshop with the author, direct sharing of knowledge and confirming of ideas was made possible. The combined knowledge and openness within the group made solving problems and making decisions straightforward. It would have been of benefit to the project and the making of the table and chairs, if meetings with more than one participating maker could have happened more often.

9.2.3.3. Critical Decision Point Example 3

When making the wooden elements of the chair with Fjolnir Hlynsson in his workshop, the infill panel of the chair seat proved to be the hardest part of the design to resolve. Fjolnir Hlynsson and the author considered the original seat design as described in the proposed Dining Chair Specifications: a seat infill panel made of plywood was to be screwed into a rebate in the frame or a woven seat could have been threaded through holes in the seat frame (page 88). Fjolnir Hlynsson and the author discussed their ideas around the half made elements of the chair in the workshop[136]. The half made chair gave

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[134] Hawson, 'Making the Table and Chairs', 8 minutes and 49 seconds (DVD).

[135] Hawson, 'Making the Table and Chairs', 9 minutes and 8 seconds (DVD).

[136] Hawson, 'Making the Table and Chairs', 12 minutes and 26 seconds (DVD).

'access to tacit knowledge'[137] and stimulated Fjolnir Hlynsson and the author to 'employ their tacit knowledge to form new ideas'[138] and proposals for a chair seat. Fjolnir Hlynsson did not like the proposed ply wood or woven nylon string infill panel and instead proposed one made of thin oak boards. The author did not recognize Fjolnir Hlynsson's seat description as having any reference to wooden boat deck boards until he described it as such:

> I would say a thin wooden seat of oak, which might have the appearance of a ship deck…[139]

Without Fjolnir Hlynsson's help in developing this chair seat the author may not have thought of this obvious idea for some time, if at all.

9.2.3.4. Critical Decision Point Example 4

The problem of how to cut the aluminium disks to fit holes in the table top as decorative inlay, was solved and explained to the author by Geir Oddgeirsson's assistant Bjorn Hrafnsson.[140] Bjorn Hrafnsson's explanation is an example of how the tacit knowledge of makers was employed to make decisions about appropriate methods of making. This knowledge was much appreciated by the author, who did most of the making himself. Without the practical knowledge of the participating makers, the table and chairs could not have been made the way they were.

9.3. Summary of Chapter

This chapter has provided a literature review of reflective, action and practice-based research relevant to the Iceland project. Considering the

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[137] Rust, 2003, p.8.

[138] Rust, 2003, p.8.

[139] Hawson, 'Making the Table and Chairs', 12 minutes and 51 seconds (DVD).

[140] Hawson, 'Making the Table and Chairs', 15 minutes and 33 seconds (DVD).

literature review, this chapter has reflected upon the different phases of the project: apprenticeships, practical experiments and making decisions. This chapter has illuminated the knowledge gained by the participant makers and the author through designing and making the table and chairs and reflecting on one another's practice. It has provided the outsider to the project a view of the makers' journey and the knowledge and reflective learning contained within it.

10. Conclusion

The experience of working with a traditional boat builder to develop a chair design for the Icelandic Parliament Speaker, inspired the author to begin this project (see chapter 1.1. page 18). The author's ambition was to share with makers from different Icelandic craft traditions, the experience of designing and making a dining table and chairs which would express their culture, and be suitable for repeat production and export from Iceland to the Nordic market (see chapter 1.2. page 29). The choice to design and make a dining table and chairs was made because they are typical domestic artefacts of the West European home, and furniture making is the author's profession. The choice to make a dining table and chairs and the design brief for them, was confirmed by a survey with Icelandic craftspeople (see chapter 3.1. page 52).

The project has been concerned with the visual and physical communication of knowledge that takes place between makers observing and imitating each others working methods. This communication is presented in the video presentations (DVD multimedia discs 1, 2 and 7) submitted as research references to this project. These references are of the physical relationship makers have with their materials, tools, environment and culture. The video presentations, the dining table and chairs (Fig. 35 page 108), and the artefacts made by the author, while apprentice to the makers, (described in detail in chapter 4.2. page 76), all represent new knowledge identified, and communicated, through making. A second area of research referenced is the interaction interviews presented on the multimedia discs 1 and 2. These include references as to how the physical and visual nature of the different makers' work influenced the design of the dining table and chairs. One example of this, from Birger Andersen's interview, is the Viking ship upper deck knees[141] that influenced the form and method of making the back leg of

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[141] T. Hawson, 'Birger Andersen, Shipwright, Denmark, Interaction Interview, May 2003.' *Slide Show,* slides 1-9*,* Multimedia Disc 1, T. Hawson, 2003. (DVD)

the chair, as described in chapter 4.1. page 74. An example of the cultural insight makers have of their materials is provided in the background section of Asa Hatun's interaction interview, where she states her belief that "wool is the gold of the Faroe Islands".[142]

The methods used by the hands and body in manipulating materials, the rhythm and pace of the work, is knowledge essential to makers who learn process by physical imitation. Birger Andersen making a Viking ship upper deck knee in the closing video clip of his interaction interview presentation provides an example of physical knowledge.[143]

The methodology for capturing and presenting the visual and physical knowledge of makers was researched and developed as part of the project. From the related academic research projects, NEVAC and Tacitus (page 41), no references could be found to help develop a method for capturing the relationships and practical communication between makers while resolving a shared design brief (page 55). To develop a suitable methodology, professionals from the film and TV industry shared their experiences of recording interviews and editing, and a pilot interview was completed (as described in chapter 3.3. Pilot Interaction Interview, page 62).

The project created and articulated a democratic system of making. The contributions made by the makers in the designing and making of the dining table and chairs is clearly demonstrated on the multimedia disc 7, making the table and chairs. A section of this video[144] captures the shared commitment and the equal influence the makers had in the designing and making process. This section of the video is of the author, and the two makers, Gretar Thorvaldsson and Thorhildur Thorgeirsdottir, communicating their thoughts openly about design details for the table and chairs. They stand

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[142] T.Hawson, 'Ása Hatún, Wool Worker, Faroe Islands, Interaction Interview, June 2003.' *Ása Talk,* 2 minutes and 9 seconds, Multimedia Disc 1, T. Hawson, 2003. (DVD)

[143] Hawson, 'Birger Andersen, Shipwright, Denmark, Interaction Interview'. (DVD)

[144] T. Hawson, 'Making the Table and Chairs, 2004.' 9 minutes and 10 seconds, Multimedia Disc 7, T. Hawson, 2004. (DVD)

together looking and touching aluminium components, gesturing with their hands textures and methods of making, and talking. It demonstrates that makers from different disciplines have empathy for each other's work and share common methods of visual and physical thinking and communication, and reveals these particular forms of knowledge.

The dining table and chairs were taken on an exhibition tour from Iceland to the Faroe Islands, Shetland, Glasgow and Denmark (schedule of tour on page 114, map provided on page 32). During the exhibition tour a survey (page 117) was conducted on the visitors. The results of this survey show that the dining table and chairs were thought (by a filtered sample) to express Icelandic and Nordic culture well, a mean answer of 4 on a scale of 1(not at all) to 5(very well) was given, and a mean 70% (of the same filtered sample) felt that products with Nordic cultural identity had added value (page 121). This project has demonstrated that culture is passed on through time in the hands of makers, and, if this making knowledge is used to design and make contemporary artefacts, it can provide those artefacts with cultural value and a higher market value.

The feasibility study (page 109) was conducted to consider the commercial viability of the table and chairs to go into repeat production in Iceland, one at a time and in batches of 100 or 1000. This presented problems to the relevant Icelandic companies and makers, and when asked to consider these batch sizes they were found not to be familiar with production on this scale and they were reluctant to provide estimates. It may have been more appropriate to request estimates for smaller batch sizes to suit the companies and makers' production capacity. However the study predicted an approximate price for one-off production, not including the costs of the woollen elements or delivery, of £2975 for one table and £452 for one chair (page 112). These prices could feasibly compete in the one-off and bespoke furniture markets of Nordic Europe.

The research has demonstrated that the democratic making experience was a positive one for the makers that participated in the project. The evidence demonstrates the makers recognized that the table and chairs had cultural

expression (confirmed by the exhibition survey to also have value in the Nordic market), and the benefits of a cross discipline approach were realized. This new and shared experience amongst the makers constitutes new knowledge. This new knowledge gives the makers a new way of reflecting on and learning from their practice and regional craft traditions. The interaction interviews and the making of the dining table and chairs presentations (multimedia discs 1, 2 and 7), provide references for this new knowledge. These presentations enhance any reflections by the makers of each other's work and the democratic making experience in which they participated. The project has created and illuminated a template for democratic making, which could be used in other areas.

The interactive making process and recording methods developed in this project are part of the 'toolbox'[145] of strategies that have been developed out of the author's designer/maker practice, and consultation with makers participating as co-researchers in the project. These strategies have provided a practice-based research method, which has enabled project participants to reflect on the visual, tacit, and contextual knowledge embodied in their own and each other's making practices.

The literature review of reflective and practice-based research (page 125) illuminates the constructivist paradigm in which the project took place. It reviews the founding theories for the present field of art and design practice-based research. Within the constructivist paradigm the Iceland projects approach to knowledge is relativist, the epistemology is subjectivist and methodology is hermeneutic and dialectic (page 125).[146] The making practices, peculiar to each of the participating makers, is the relativist knowledge of concern to the project; it is relative to their environmental and cultural context and is experientially based.

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[145] Malins, Ure, Gray.

[146] Gray, Malins, p.19.

Practice-based research in art and design has been developing since the late twentieth century from founding theories in social science and anthropological theory. From correspondence with Icelandic academics in the field of art, design and technology (page145), it is apparent that there are no examples known of practice-based research concerned with designer/maker practice. This project brings new knowledge, in theories of reflective practice, and a demonstration of practice-based research in art and design, to Iceland's designer/makers and the academic art and design communities.

With consideration to the literature review of reflective and practice-based research the different phases of the makers' journey have been reflected upon (page 152). These phases include; apprenticeships (page 153), practical experiments (page 159) and making decisions (page 164).

'Apprenticeships' consisted of working alongside the six participating makers and carrying out the interaction interviews. This was a two way 'learning through making'[147] experience that took place between the participating makers and the author. The author used the tacit, visual and contextual knowledge learnt through the apprenticeship experiences as references for preparing the design proposal for the table and chairs. The participating makers were provided with cognitive scaffolding[148] by the author, who made the thinking behind the project visible and explained the story, nature, reflective methods and aims of their collaboration with the project. This scaffolding invited the participant makers to join the author as co-researchers in reflecting-in-action[149], and to influence the projects creative enquiry. Shared ownership and an equal sense of authorship were developed between the participating makers and the author. This in turn provided for a 'mutually beneficial transformation'[150] of the projects developments and

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[147] Crafts Council, 'Learning Through Making', Conference Report, 25 November 1998, <http://www.craftscouncil.org.uk> (accessed 15 August 2005).

[148] Collins, Brown, Holum.

[149] Schon.

[150] Scopa, p. 183.

outcomes. The collaborative focus of the design brief and the project's aims provided confidence and a framework for the participant makers to share, in depth, their specialized knowledge. The nature and value of openly communicating through making was explored by the author and participant makers and was reflected upon and recorded in the interaction interviews. These interviews, presented on the multimedia discs 1 and 2, are a record of the knowledge and reflective experience shared between the participants and the author. This record may be used for reflection-on-action[151] and re-interpretation of the apprenticeship phase, by the participant makers, the author and outsiders to the project.

Artefacts, made by the author and collaboratively with the participating makers, as learning aids and practical experiments, are references and evidence of the scholarly[152] inquiry into the practice of designing and making the project table and chairs. A multimedia record of these practical experiments was made by the author and includes; artefacts, sketches, photographs, video and audio recordings (multimedia discs 1 to 6). The visual, tacit and contextual knowledge held in this multimedia record informed the design of the table and chairs. Looking, touching and hearing this multi-media record throughout the design process enabled the author to relive the apprenticeship experiences and remember the knowledge learnt from the participating makers. This process facilitated the author's intention to embed in the design of the table and chairs as much of the visual, tacit and contextual knowledge learnt from the participating makers as possible. This multimedia narrative also provided the participating makers with an additional means for reflecting on their practice and actions within the project. These methods of reflecting on practice and actions within the project have been new experiences for the participant makers and the author. These reflective

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[151] Schon.

[152] Marshall, Newton.

methods have provided for the participant makers, the author and outsiders to the project, an 'interpretation of the experience that makes us learn'.[153]

The project received from the participant makers a democratic and sensitive commitment to the collaborative reflection-in-making experience and in return offered an opportunity for learning.

The activities of the project are considered as an inquiry into the practice of designer/makers and a rigorous 'reflective conversation'[154] with materials and contexts. This reflective conversation included reflection-in-making and reflection-on-making practical experiments. The outcomes, artefacts and multimedia record of this reflective conversation, through the making of practical experiments, are accessible to the participating makers and knowledgeable peers, but outsiders to the field may find them less so. Outsiders to the field, it may be argued, will find the tacit and contextual knowledge present in the multimedia record of little relevance or transferable value. What outsiders may find of transferable value to their field is the reflective, democratic and interdisciplinary nature of the methods developed out of creative designer/maker practice.

Inter-subjective views[155] of the participant makers have been developed and considered throughout the designing and making of the table and chairs, providing the collectively reflected outcomes of the project with some objectivity.

The 'making decisions' phase of the project includes the decisions made by the participating makers and the author on the design and methods of making the table and chairs (page 164). Four 'critical decision points'[156] in the making of the table and chairs have been identified as examples that reveal

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[153] Friedman, December 2005.

[154] Schon, p.79.

[155] Gray, Malins, p. 23.

[156] Jerrard.

the learning through making and reflective 'conversation with the situation'[157] that took place.

The first critical decision point is about the redesign of the aluminium table under frame components that took place at Gretar Thorvaldsson's workshop (page 164). In his workshop Gretar Thorvaldsson rejected the proposed design and the author drew up a new one. While making the design changes the author learnt about and reflected on Gretar Thorvaldsson's practice and workshop capabilities. Being in Gretar Thorvaldsson's workshop and having the visual and physical references of his practice around him illuminated the author's reflections and learning. The author's use of visual references from his sketchbook to influence the form of the table components was a surprise to Gretar Thorvaldsson. This provided Gretar Thorvaldsson with an opportunity to recognize the potential for this unfamiliar method of using visual references in his own work. Through working and solving problems together Gretar Thorvaldsson and the author have shared their reflections and learning, through making. They have both reflected upon the tacit and visual knowledge, within their own and each other's practice, to collaboratively reshape and inform the making of the table and chairs.

The second example concerns the benefits of a group meeting of participating makers (page 165). Thorhildur Thorgeirsdottir came to Gretar Thorvaldsson's workshop to discuss and confirm the surface finish treatment of the metal components with him and the author.[158] This group discussion around the aluminium components, the wooden patterns and drawings in the context of the workshop, resulted in rapid decision-making. It was the only time in the making of the table and chairs that two of the participating makers were together in a workshop with the author and direct sharing of knowledge and confirming of ideas were made possible. The combined knowledge and openness within the group made solving problems and making decisions straightforward. It would have been of benefit to the project and the making of

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[157] Schon, p. 79.

[158] Hawson, 'Making the Table and Chairs', 9 minutes and 8 seconds (DVD).

the table and chairs if meetings with more than one participating maker could have happened more often.

The third example describes how Fjolnir Hlynsson in his workshop, developed the chair seat with the author (page 166). Fjolnir Hlynsson and the author discussed their ideas around the half made elements of the chair in the workshop[159]. The half made chair gave 'access to tacit knowledge'[160] and stimulated Fjolnir Hlynsson and the author to 'employ their tacit knowledge to form new ideas'[161] and proposals for a chair seat. Fjolnir Hlynsson did not like the proposed ply wood or woven nylon string infill panel and instead proposed one made of thin oak boards. The author did not recognize Fjolnir Hlynsson's seat description as having any reference to wooden boat deck boards until he described it as such:

> I would say a thin wooden seat of oak, which might have the appearance of a ship deck…[162]

Without Fjolnir Hlynsson's help in developing this chair seat the author may not have thought of this obvious idea for some time, if at all.

The fourth example (page 167) concerned the cutting of aluminium disks to fit holes in the table top as decorative inlay, and this construction problem was solved and explained to the author by Geir Oddgeirsson's assistant Bjorn Hrafnsson.[163] Bjorn Hrafnsson's explanation is an example of how the tacit knowledge of makers was employed to make decisions about appropriate methods of making. This knowledge was much appreciated by the author, who, with such guidance, did most of the making himself. Without the considerable contribution of making knowledge from all the participating

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[159] Hawson, 'Making the Table and Chairs', 12 minutes and 26 seconds (DVD).

[160] Rust, 2003, p.8.

[161] Rust, 2003, p.8.

[162] Hawson, 'Making the Table and Chairs', 12 minutes and 51 seconds (DVD).

[163] Hawson, 'Making the Table and Chairs', 15 minutes and 33 seconds (DVD).

makers, the table and chairs could not have been made.

The visual and oral data (on the multimedia discs) presented with this thesis have uses in further research as references to the different makers and their disciplines. The data from the exhibition tour survey (page 113) will have applications, particularly for Icelandic craft organisations, for interpreting the Nordic communities reaction to the project and their perception of craft traditions and cultural values.

Having completed the project the author is inspired to continue developing his skills at initiating projects to work in partnership with makers from different disciplines, and in reinterpreting traditional making skills in his own work.

Appendices

Appendix 1 Letter from Nicola Wood.

From: "Nicola Wood" <nicola@edale.org.uk>
To: "Thomas Hawson" <tom@hawson.fsbusiness.co.uk>
Subject: Re: Nicola's research methods.
Date: 06 September 2002 20:15

Hi Tom,

Thanks for your email and sorry for taking so long to reply.

My research is into the teaching of crafts and recording craft skills in a way that could be used by someone wanting to teach themselves. There are many craftsmen who are the last of the line for their particular skill and, rather than just recording an archive of what they used to do, I would like it to be something that could be used to make the craft skill live again. Last year I did the first part of a MA part-time, but now I've some money from the Ernest Cook Trust I can go full time, though whether I finish the MA first or just do it as a PhD is still up in the air.

The only precedents I've found so far for recordings of craftspeople are NEVAC (National Video Archive of the Crafts) based at UWE, Bristol http://www.media.uwe.ac.uk/nevac/. They have huge quantities of unedited recordings, nearly all of ceramists.

For my next stage I plan to record some craftspeople teaching and try to analyse what they're doing before developing a strategy for my own recordings. I'd be very interested in how you plan to structure your interviews - when do you hope to do your recordings?

Do keep in touch and let me know how it's going.
Best wishes,
Nicola Wood.

Appendix 2 Defining the Product Brief Questionnaire Results

The following questions where presented to 32 Icelandic craft practitioners, in the form of a yes or no tick box questionnaire. 17 craft practitioners completed the form.

The following numbers in the tick boxes refer to the results, there is additionally the number out of 17 who answered that question, a percentage as to who said yes and a note on any comments made specific to the question and at the end any general comments made.

1. Would you agree that Iceland needs to diversify its exports?

Number who answered [17] / 18. Yes [17] No [ ]

Percentage Yes [100] %

2. Would the development of new Icelandic exports be a good idea?

Number who answered [17] / 18. Yes [17] No [ ]

Percentage Yes [100] %

3. Would Icelanders prefer to have ownership and control of the investment and development of their new exports?

Number who answered [14] / 18. Yes [13] No [1]

Percentage Yes [93] %

Two Practitioners put a “/ “ mark between the yes and no boxes, perhaps to indicate that this would be 50/50 in their mind. This answer has not been considered in the results.

4. Do Icelanders consider themselves Nordic?

Number who answered [17] / 18. Yes [17] No [ ]

Percentage Yes [100] %

5. Is the maintenance of Icelandic culture important to you?

Number who answered [17] / 18. Yes [17] No [ ]

Percentage Yes [100] %

6. Would a new export from Iceland with an inherent Icelandic/Nordic character be more supported by Icelanders than a product without these characteristics?

Number who answered [15] / 18. Yes [14] No [1]

Percentage Yes [93] %

Three practitioners made marks to suggest a 50/50 answer and one practitioner made a comment that there are many Icelanders who did not appreciate the character of Icelandic crafts.

7. Do you think it would be of benefit to Iceland if a foreign buyer of Icelandic exports would gain knowledge and understanding of Icelandic culture through the character inherent in the product?

Number who answered [17] / 18. Yes [17] No [ ]

Percentage Yes [100] %

8. Would you consider the knowledge and skills of Icelandic craftspeople a good place to start looking for inspiration to develop new exports from?

Number who answered [17] / 18. Yes [16] No [1]

Percentage Yes [94] %

9. Given that there are few natural resources on Iceland, and there is an abundance of pre-processed oak and aluminium, would you consider these materials are under utilized?

Number who answered 17 / 18. Yes 15 No 2

Percentage Yes 88 %

The two practitioners who said no, would prefer the material that they used, which was traditional Icelandic crafts' material, the materials were Asp wood for one and wool for the other.

10. Could the production of products from aluminium and oak be developed into a new and successful export?

Number who answered 16 / 18. Yes 14 No 2

Percentage Yes 86 %

11. Would a table and chair be acceptable product types to demonstrate the potential use of these materials?

Number who answered 15 / 18. Yes 14 No 1

Percentage Yes 93 %

One of the practitioners that did not answer this question suggested a 50/50 response.

12. Would Icelandic craftspeople be the best equipped to design and produce demonstration products made from oak and aluminium?

Number who answered 11 / 18. Yes 3 No 8

Percentage Yes 27 %

Four practitioners who are not counted either yes or no provided indication of a 50/50 response.

13. As for the potential market of these products, would the home market and other Nordic markets be the best place to test the products?

Number who answered 15 / 18. Yes 10 No 5

Percentage Yes | 67 | %

One practitioner suggested a 50/50 response.

Appendix 3 Proposed Formal Interview Questions, Recording Method and Archive Presentation Structure

Instructions to Interviewer. When carrying out these interviews it is important to find as much reference material to back up statements from the craft practitioners as possible. This reference material can include photographs, documents, videos, and artefacts. After each set of questions sources of reference material should be asked for from the craft person being interviewed.

Universal introduction of the presentations and project

For all the interview presentations, this statement and slide show is to be applied.

Audio/voice, of the following transcript, over a slide show of black and white photocopies of Icelandic craft artefacts.

The following presentation is one in a series of presentations that have been carried out for the purposes of research into Icelandic and Nordic traditional crafts and how they might be utilized into the development of a new product for export from Iceland. The objective of the presentations is to formally present each craft practitioner in the project in an equal way. These presentations are the product of the same formula of interview given to each participant. The presentations will be shown to each participant in the project ensuring that all participants in the project understand each other's work in a way which will promote inspiration and a new way of understanding and reflecting on their own craft practice. The focus within the questions is to open a discussion to consider what elements of the craft practitioner's practice are imitated or utilized by industry, what elements are not, what elements could be and what element of their work could be utilized to meet the project's demonstration prototype brief.

Introduction

Introduction by the craft practitioner of their name, the craft that they practise and where they live and work.

Questions.

Q.1. What is your name?

Q.2. What is the name of the craft that you practise?

Q.3. What is the name of the place where you live and work?

Video/audio clip of the craft practitioner, still images and or panorama of their surroundings, including exterior of workshop/shed.

Background

Craft practitioner provides a brief description of their craft, the historical connection behind it, reason for why they have chosen to practise it and how they learned their craft.

Questions.

Q.1. Please provide a brief description of the craft that you practise?

Q.2. What is the history of your craft, where does it come from?

Q.3. How did you learn your craft?

Q.4. Why do you practise your craft?

Video/audio clip of craft practitioner answering questions with complementing still images.

Materials

Craft practitioner provides description of materials used along with the historical and cultural significance.

Questions.

Q.1. What materials do you use in your craft and please describe them?

Q.2. Where do the materials you use come from?

Q.3. Are there any specific characteristics or qualities that you look for when choosing or selecting materials to work with?

Q.4. Is there any historical or cultural significance in the materials that you use?

Q.5. What qualities and elements of the materials that you use, are also considered by modern industrial production techniques?

Q.6. What elements or qualities in the materials that you use have not yet been considered or fully explored by modern industrial production?

Video/audio clip of craft practitioner answering questions complemented by still images, referencing what is being talked about.

Workspace

The craft practitioner to provide a description of their workspace including the most important elements of the space with regards to their craft practice and how the space has changed over time.

Questions

This question to be asked in the workspace at the end of the formal interview.

Q.1. Please provide a description of your workspace?

Q.2. What are the most important elements of your workspace for the benefit of carrying out your craft?

Q.3. How has the workspace changed over the course of time within your knowledge of past craft people?

Q.4. Are there any similarities between your workspace and similar more industrial production workshops?

Q.5. Are there any elements of your workspace that are not considered in industrial production workshops?

Video/audio clip of craft practitioner answering questions complemented by still images, referencing what is being talked about.

Production process

For this area of the interview a brief description of the full process of production is explained and a few typical examples of the production process are to be demonstrated. Areas of the production process that could be developed in the production of a product to meet the project's product brief are to be considered.

Questions.

The first 2 question are asked in the workspace at the end of the formal interview.

Q.1. Please describe in full your production process?

Q.2. Please demonstrate a typical activity within your production process?

Q.3. What areas of the production process do you consider most peculiar to your craft?

Q.4. What areas of your production process are reproduced in manufacturing?

Q.5. What areas of the production process are not carried out or considered by modern industrial production?

Q.6. To satisfy the project's product brief, what areas of your production process could be explored by modern industrial production?

Video/audio clip of craft practitioner answering questions and demonstrating typical production processes, along with still images, referencing what is being talked about.

Finished product

In this area an overview of the craft practitioner's product range will be provided, specific attention given to their speciality and favourite products. Also to be considered are questions that put their products into cultural and historical context, including, what is the difference in their products to similar, production made products, the products of their contemporaries and craft made products of the past.

Questions.

Q.1. Please provide an overview of your product range?

Q.2. What is your speciality or what elements of your product are peculiar to you?

Q.3. Of all the products that you make, which is your favourite and explain why?

Q.4. What are the differences between the products you make and similar products made by craftspeople of the past?

Q.5. What are the differences between the products you make and similar products made by other craft people?

Q.6. What are the differences between the products you make and similar products made by industry?

Q.7. What quality or value in the products that you make is the most important to you and why?

Q.8. Please explain the cultural or historical value of your product?

Q.9. What element of your product or its design, is transferable to the design of an industrially made product?

Video/audio clips of craft practitioner answering questions complemented by video clips and still images of the products and other references being described.

Markets, end users and consumers.

Who uses the craft practitioner's product, what for and for how much? Past and present.

Questions.

Q.1. Where does your product go, who buys it?

Q.2. Why do your clients buy your product and not someone else's?

Q.3. Who did the past practitioners of your craft make their products for?

Q.4. What differences are there between past and present users and consumers of your craft?

Q.5. Why do these differences in past and present consumers exist?

Q.6. What is the main difference between consumers of your craft and consumers of industrially made products?

Q.7. Describe the markets that would be interested in a product made by industry that was designed and influenced by craft practitioners to meet the project's product brief?

Video/audio clip of craft practitioner answering questions complemented by video clips and still images.

Appendix 4 Transcription of Interviews to Consider Proposed Interaction Plan

Fjolnir Bjorn Hlynsson. 8.11.02

Transcription of answer.

FBH. I think it is probably the best way to put into measure, and into measurable, humm.

TH. It is measurable and good?

FBH. Yes, and and, but I feel like you could do improvements on, you know, simplifying really words,

TH. Simplify the language,

FBH. Simplify the language because I am not sure that everyone you talk to, although I am not questioning their ability in, you know, before, that the language is a bit complicated, so you don't want to wind up with, with something that is not really, the right answer to a question, because the person that was questioned did not really understand it.

TH. In the questions themselves I should be able to simplify it, because it is basic stuff, you know, what's your name, what's your... I see what you mean, I will try and keep the words as simple as possible.

FBH. It would be for the benefit of your research, you know, you're working between countries and there is always this language problem, to go between.

TH. Ok so simplify the language. It is measureable and good, you think it is a fair representation or it is a way of representing each person's participation in the project.

FBH. I think it is a fair representation of a person, you really try to capture the essence of one's work. And these things, you are coming to workshops and

you are staying there for a while, is really valuable to your understanding of each person.

TH. Yeh. Do you think, apart from the language, can you see anything else.

FBH. About the questions.

TH. The questions, at the end of each section I am going to ask for reference materials, I want to ask them for any photographs or illustrations in books which...

FBH. CV's

TH. Almost their CV, in different stages but you know, in a question like finished products, am going to say please provide an overview of your product range, what is your speciality or what element of your product are peculiar to you, or something like that. You know, I will ask each practitioner for pictures of their work for me to put into the presentation, do you think people will be happy to participate like that?

FBH. Ya.

TH. Providing pictures, and you know, even pictures of themselves working 25 years previous or ten years previous on their own project just to say this is how someone has been developing.

FBH. I don't really see why people which have already agreed to help or participate with you,

TH. Would want to hold that back.

FBH. No, because they must, you know, they must really, once they have said yes I understand the nature of this project.

TH. I think that is it. Great. So you are happy to participate in this project.

FBH. No no-no no-no.

TH. (Laughing) are you happy to participate in this project?

FBH. Yes

TH. Good. I am very happy, ok.

Thorhildur Thorgeirsdóttir. Interviewed 11.11.02

Transcription of the answer

TH. Do you think this method of interaction is acceptable, good or bad, please explain your thoughts, in your own words and how you would improve on this method of interaction?

TH TH. I think it is a very good thing, it is a very good thing.

TH. You can stop there. Ok. Any other thoughts about it apart from that it is good thing.

TH TH. Well I think it is because of the tradition, we should develop a bit further on, to use it more and work from that too.

TH. I think so too, we should develop forwards from the traditions,

TH TH. Yes.

TH. And do you understand the maintenance, by doing this we help to preserve the maintenance of these traditions.

TH TH. What is that m, m, maintenance.

TH. The maintenance, by the continued practice of these traditions we draw light to them as being a great resource.

TH TH. Yes. Yes.

TH. Do you think this method might demonstrate the potential.

TH TH. Yes, we could try it, and see what comes out of it.

TH. Yes.

TH TH. I think it is a very exciting thing.

TH. And can you see in anyway of, I know you've not seen it or thought about it for very long, but can you imagine in anyway improving on the method of interaction.

TH TH. Improving it.

TH. Yes.

TH TH. I think we just have to see how it develops.

TH. Ok, yes. So in effect you could say, it might be better to leave the method a little bit open while we are doing it.

TH TH. Yes.

TH. And change it per person.

TH TH. Yes.

TH. Yes that's a useful way of looking at. So make the questions more open.

TH TH. Yes.

TH. Yes so each presentation may become less formalized between each craft person, depending on their...

TH TH. Background and what they are doing.

TH. So develop presentation on from individual nature of each craft person. Yes it would be very interesting wouldn't it. I think I might be working with some sort of farmers

TH TH. Yes.

TH. You know it would be an interesting contrast of the different people working.

TH TH. Here in Iceland or.

TH. Maybe in Faroes. I really want to work with someone in Faroes.

TH TH. Have you been there.

TH. Not yet.

TH TH. It is a very interesting place, I've been there once I was really taken by it, it was really interesting.

TH. Do you think I should include someone from there.

TH TH. You could do that, they have a similar background…

TH. To Iceland.

TH TH. Yes, Faroese was very interesting because they, I think as Icelanders we don't think about the Faroese in a way, only, is it okay if we talk about something else.

TH. Yes, perfect.

TH TH. Because we always think of Europe you know we go to Europe to the Scandinavian nations, to Germany to England or somewhere or to America. But when I was in the Faroese they think a lot about the Icelanders, we are like the big brothers.

TH. Aaaar, and you don't care about them.

TH TH. They look up to us, and we don't know about them in a way, they come a lot to Iceland, but there are so few that we don't notice it in a way but it was very nice to, to visit them and get to know them. They are very friendly and open, and they have a very long history of tradition, in craft scene, it is very nice.

TH. Is it similar to Icelandic.

TH TH. Yes. But I don't, maybe more original in a way you know, I don't know I think so, they work a lot with wool. It's different but its interesting.

Appendix 5 Amended Formal Interview Questions and Archive Presentation Structure

Universal introduction of the presentations and project

For all the interview presentations, this statement and slide show was to be applied.

Instruction to the presentation editor: The following statement was to be dubbed over a slide show of black and white photographs of Icelandic craft artefacts.

> The following presentation is one in a series. They have been carried out as part of a research project into Icelandic and Nordic traditional craft practitioners and how they might be utilized in the development of a new product for export from Iceland. The objective of the presentations is to formally present each craft practitioners input into the project in an equal way. These presentations are the product of the same formula of interview given to each participant. The presentations will be shown to each participant in the project ensuring that all participants in the project understand each other's work in a way which will promote inspiration and a new way of understanding and reflecting on their own craft practice. The focus within the questions is to open a discussion, to consider what elements of the craft practitioner’s practice are imitated or utilized by industry, what elements are not, what elements could be and what element of their work could be utilized to meet the project’s demonstration prototype brief.

Introduction

Explanation of section to the interviewer:

> Introduction by the craft practitioner of their name, the craft that they practise and where they live and work.

Open question to the interviewee:

> In a few words please tell us your name, the name of your craft and the name of the place where you live and work?

Checklist of questions to be answered.

	Q.1. What is your name?
	Q.2. What is the name of the craft that you practise?
	Q.3. What is the name of the place where you live and work?

Video/audio clip of the craft practitioner, still images and/or panorama of their surroundings, including exterior of workshop/shed.

Background

Explanation of section to the interviewer:

> Craft practitioner provides a brief description of their craft, the historical connection behind it, and reason for why they have chosen to practise it and how they learned their craft.

Open question to interviewee:

> Describe a little, your craft, its history and how you came to do it?

Checklist of questions to be answered.

	Q.1. Please provide a brief description of the craft that you practise?
	Q.2. What is the history of your craft, where does it come from?
	Q.3. How did you learn your craft?
	Q.4. Why do you practise your craft?

Video/audio clip of craft practitioner answering questions complemented with still images.

Materials

Explanation of section to the interviewer:

Craft practitioner provides description of materials used along with the historical and cultural significance.

Open question to interviewee:

Describe the materials you use, the history behind them and what you see as their future use?

Checklist of questions to be answered.

	Q.1. What materials do you use in your craft and please describe them?
	Q.2. Where do the materials you use come from?
	Q.3. Are there any specific characteristics or qualities that you look for when choosing or selecting materials to work with?
	Q.4. Is there any historical or cultural significance in the materials that you use?
	Q.5. What qualities and elements of the materials that you use, are also considered by modern industrial production techniques?
	Q.6. What elements or qualities in the materials that you use have not yet been considered or fully explored by modern industrial production?

Video/audio clip of craft practitioner answering questions complemented by still images, referencing what is being talked about.

Workspace

Explanation of section to the interviewer:

> The craft practitioner to provide a description of their workspace including the most important elements of the space with regards to their craft practice and how the space has changed over time.

Open question to interviewee, to be asked in the workspace:

> Describe your workspace, the parts that are important to you and any similarities it has with industry?

Checklist of questions to be answered.

	Q.1. Provide a description of your workspace?
	Q.2. What are the most important elements of your workspace for the benefit of carrying out your craft?
	Q.3. How has the workspace changed over the course of time within your knowledge of past craft practice?
	Q.4. Are there any similarities between your workspace and similar more industrial production workshops?
	Q.5. Are there any elements of your workspace that are not considered in industrial production workshops?

Video/audio clip of craft practitioner answering questions complemented by still images, referencing what is being talked about.

Production process

Explanation of section to the interviewer:

For this area of the interview a brief description of the full process of production is to be explained and a few typical examples of the production process are to be demonstrated. Areas of the production process that could be developed into the production of a product to meet the prototype brief are to be considered.

1. Open question to be asked in the workspace to interviewee:

Please describe how one of your products is made and demonstrate a part of its production?

Checklist of questions to be answered.

	Q.1. Describe your production process?
	Q.2. Demonstrate a typical activity within your production process?

2. Open question to interviewee:

How do your production methods compare with industrial methods, and how could you influence the industrial production of a product to meet the product brief?

Checklist of questions to be answered.

	Q.3. What areas of the production process do you consider most peculiar to your craft?
	Q.4. What areas of your production process are reproduced in manufacturing?
	Q.5. What areas of the production process are not carried out or

	considered by modern industrial production?
	Q.6. To satisfy the project's product brief what areas of your production process could be explored by modern industrial production?

Video/audio clip of craft practitioner answering questions and demonstrating typical production processes, along with still images, referencing what is being talked about.

Finished product

Explanation of section to the interviewer:

In this area an overview of the craft practitioner's product range will be provided, specific attention given to their speciality and favourite products. Also to be considered are questions that put their products into cultural and historical context, including, what is the difference in their products to similar, production made products, the products of their contemporaries and craft made products of the past.

1. Open question to interviewee:

Describe your products, and how they compare to similar products that are made by other craft practitioners and industrially?

Checklist of questions to be answered.

	Q.1. Please provide an overview of your product range?
	Q.2. What is your speciality or what elements of your product are peculiar to you?
	Q.3. Of all the products that you make, which is your favourite and explain why?
	Q.4. What are the differences between the products you make and similar products made by craftspeople of the past?
	Q.5. What are the differences between the products you make and similar products made by other craft people?
	Q.6. What are the differences between the products you make and similar products made by industry?

2. Open question to interviewee:

What value do your products have to you and your culture, and how could you best influence the design of industrial products?

Checklist of questions to be answered.

	Q.7. What quality or value in the products that you make is the most important to you and why?
	Q.8. Please explain the cultural or historical value of your product?
	Q.9. What element of your product or its design is transferable to the design of an industrial product?

Video/audio clip of craft practitioner answering questions complemented by video clips and still images of the products and other references being described.

Markets, end users and consumers.

Explanation of section to the interviewer:

> Who uses the craft practitioner's product, what for and for how much? Past and present.

Open question to interviewee:

> Describe the market your products are in, and the market you think would suit the project prototype?

Checklist of questions to be answered.

	Q.1. Where does your product go, who buys it?
	Q.2. Why do your clients buy your product and not someone else's?
	Q.3. Who did the past practitioners of your craft make their products for?
	Q.4. What differences are there between past and present users and consumers of your craft?
	Q.5. Why do these differences in past and present consumers exist?
	Q.6. What is the main difference between consumers of your craft and consumers of industrial products?
	Q.7. Describe the markets that would be interested in a product made by industry that was designed and influenced by craft practitioners to meet the project's prototype brief?

Video/audio clip of craft practitioner answering questions complemented by video clips and still images.

Appendix 6 Final Interaction Interview Questions and Presentation Structure

Universal introduction to the project

For all the interview presentations, this statement and slide show was to be applied.

Instruction to the presentation editor: The following statement was to be dubbed over a slide show of black and white photographs of Icelandic craft artefacts:

> The following interviews have been conducted as part of a research project into Icelandic and Nordic craft practitioners and how they can influence the development of a new, industrially made product for export from Iceland. The focus within the questions is to open a discussion to consider what elements of the craft practitioner's practice are imitated or utilized by industry, what elements are not, what elements could be and what elements of their work could be utilized to develop a new export from Iceland.

Part one

Introduction

Explanation of section for the interviewer:

Introduction by the craft practitioner of their name, the craft that they practise and where they live and work.

Open question to interviewee:

In a few words please tell us your name, the name of your craft and the name of the place where you live and work?

Checklist of questions to be answered.

	Q.1. What is your name?
	Q.2. What is the name of the craft that you practise?
	Q.3. What is the name of the place where you live and work?

Video/audio clip of the craft practitioner, still images and or panorama of their surroundings, including exterior of workshop/shed.

Notes for reference material.

Background

Explanation of section for the interviewer:

Craft practitioner provides a brief description of their craft, the historical connection behind it, reason for why they have chosen to practise it and how they learned their craft.

Open question to interviewee:

Describe your craft, its history and how you came to do it?

Checklist of questions to be answered

	Q.1. Please provide a brief description of the craft that you practise?
	Q.2. What is the history of your craft?
	Q.3. How did you learn your craft?
	Q.4. Why do you practise your craft?

Video/audio clip of craft practitioner answering questions with complementing still images.

Notes for reference material

Materials

Explanation of section for the interviewer:

Craft practitioner provides description of materials used along with the historical and cultural significance.

Open question to interviewee:

Describe the materials you use, the history behind them and what you see as their future use?

Checklist of questions to be answered

	Q.1. What materials do you use in your craft and please describe them?
	Q.2. Where do the materials you use come from?
	Q.3. What characteristics do you look for when selecting materials to work with?
	Q.4. What historical or cultural significance do the materials you use have?
	Q.5. What characteristics in the materials that you use, are also considered by modern industrial production techniques?
	Q.6. What characteristics in the materials that you use are not considered by modern industry?

Video/audio clip of craft practitioner answering questions complemented by still images, referencing what is being talked about.

Notes for reference material

Workspace

Explanation of section for the interviewer:

The craft practitioner to provide a description of their workspace including the most important elements of the space with regards to their craft practice, how the space has changed over time and how it compares to industry.

Open question to interviewee:

Describe your workspace, what parts of it are important to you and how does it compare with industry?

Checklist of questions to be answered

	Q.1. Provide a description of your workspace?
	Q.2. What are the most important elements of your workspace for the benefit of carrying out your craft?
	Q.3. How has the workspace changed in the history of your craft?
	Q.4. What similarities are there between your workspace and industrial workshops?
	Q.5. What elements of your workspace are not considered in industrial workshops?

Video/audio clip of craft practitioner answering questions, complemented by still images, referencing what is being talked about.

Notes for reference material

Production process

Explanation of section for the interviewer:

For this area of the interview a brief description of the full process of production is to be explained and a few typical examples of the production process are to be demonstrated. Areas of the production process that could be developed into the production of a product to meet the prototype brief are to be considered.

1. Open question to interviewee:

How do your production methods compare with industrial methods, and how could you influence the industrial production of a product to meet the product brief?

Checklist of questions to be answered

	Q.1. Describe your production process?
	Q.2. What areas of the production process do you consider most peculiar to your craft?
	Q.3. What areas of your production process are reproduced in manufacturing?
	Q.4. What areas of the production process are not carried out or considered by modern industrial production?
	Q.5. To satisfy the project's product brief what areas of your production process could be explored by modern industrial production?

Video/audio clip of craft practitioner answering questions along with still images, referencing what is being talked about.

Explanation of section for the interviewer:

This question to be asked in the workspace at the end of the sit down interview.

2. Open question to interviewee:

Please demonstrate a typical part of the production process?

Checklist of questions to be answered

	Q.1of 2. Demonstrate a typical activity within your production process?

Video/audio clip of craft practitioner demonstrating typical production processes.

Notes for reference material

Part 2.

Finished product

Explanation of section for the interviewer:

In this area an overview of the craft practitioner's product range will be provided, specific attention given to their speciality and favourite products. Also to be considered are questions that put their products into cultural and historical context, including, what is the difference in their products to similar, industrially made products, the products of their contemporaries and craft made products of the past.

1. Open question to interviewee:

Describe your products, and how they compare to similar products that are made by other craft practitioners and industry?

Checklist of questions to be answered

	Q.1. Please provide an overview of your product range?
	Q.2. What is your speciality or what elements of your product are peculiar to you?
	Q.3. Of all the products that you make, which is your favourite and explain why?
	Q.4. What are the differences between the products you make and similar products made by craftspeople of the past?
	Q.5. What are the differences between the products you make and similar products made by other craft people?
	Q.6. What are the differences between the products you make and similar products made by industry?

2. Open question to interviewee:

What value do your products have to you and your culture, and how could you best influence the design of industrial products?

Checklist of questions to be answered

	Q.7. What quality or value in the products that you make is the most important to you and why?
	Q.8. Please explain the cultural or historical value of your product?
	Q.9. What element of your product or its design is transferable to the design of an industrial product?

Video/audio clip of craft practitioner answering questions complemented by video clips and still images of the products and other references being described.

Notes for reference material

Markets, end users and consumers

Explanation of section for the interviewer:

Who uses the craft practitioner's product, what for and for how much? Past and present.

Open question to interviewee:

Describe the market your products are in, and the market you think would suit the project prototype?

	Q.1. Where does your product go, who buys it?
	Q.2. Why do your clients buy your product and not someone else's?
	Q.3. Who did the past practitioners of your craft make their products for?
	Q.4. What differences are there between past and present users and consumers of your craft?
	Q.5. Why do these differences in past and present consumers exist?
	Q.6. What is the main difference between consumers of your craft and consumers of industrial products?
	Q.7. Describe the markets that would be interested in a product made by industry that was designed and influenced by craft practitioners to meet the project's prototype brief?

Video/audio clip of craft practitioner answering questions complemented by video clips and still images.

Notes for reference material

Appendix 7 Media Formats

Presentation of edited video material is on DVD (Digital Video Disc) for use on computers with DVD drive or domestic DVD players.

Video footage is recorded on mini DV (Digital Video Cassettes).

Edited material is recorded and stored for archive on mini DV.

Audio material is recorded on mini disc and will be transferred to CD-R (Compact Disc-Recordable) via computer as AIFF (Audio Interchange File Format) files, for archive and playback on any CD (Compact Disc) player.

Still photographic material will be archived at the resolution suitable for multimedia presentations on CD-R in a cross platform JPEG (Joint Photography Expert Group) format.

These archiving decisions have been made after consideration of advice from R. Neil, Assistant Producer for 'Child of Our Time' and other science programmes at the BBC, Dan Malsen, Freelance Filmmaker and published material including:

- Technical Committee Paper, The International Association of Sound Archiving, 'The Safeguarding of the Audio Heritage: Ethics, Principles and Preservation Strategy. Version 2', www.iasa-web.org/iasa0013.htm, September 2001 (accessed January 2003).

- G. S. Hunter, Preserving Digital Information, Neal-Schuman, New York, 2000.

Appendix 8 Lists of Images Used in the Interaction Interview Discs

Title images used in all Interaction Interview presentations on Multimedia Discs 1 and 2.

1. Carved pine bed board. Made by Torsteinn Eyjólfssson 1777. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

2. Knitted wool pattern detail. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

3. Spinning wool in Faroe Islands, around 1900. The Historical Museum (Føroya Fornminnisavn), Faroe Islands. Origin of photo unknown.

4. Embroidery. Made by Anna Skdringsdóttir 1880. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

5. Hand spun and braided horsehair ropes for tying hay to a horse's back. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

6. Silver Brooch, 1880. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

7. Lady's saddle and feet cover blanket. Woven 1859 by Sigridur Jónsdóttir. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

8. Carved wooden box. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

9. Felting wool cloth, around 1900. The Historical Museum (Føroya Fornminnisavn), Faroe Islands. Origin of photo unknown.

10. Felt hat. Found at Fornusandar farm ruin, dated 16th century. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

11. Lady's traditional Icelandic dress, from Mödruvellir near Akureyri. Printed in Denmark, 1861. Skógar Folk Museum, Iceland.

12. Embroidery. Made by Runólfur Runólfsson, 1870. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

13. Loom. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

14. Gold Ornament, from woman's national costume. 18-19C. Árbær Reykjavík Museum. Photo Thomas Hawson 2003.

15. Einar Gudjohnsen (1879-1968) and his dog. Picture taken 1964 south east Iceland. Skógar Folk Museum, Iceland. Origin of Photo unknown.

16. Silver ornament from woman's traditional costume, from 1900-1920. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

17. Cupboard, made by Gisli Sigurdsson, 1830. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

18. Snuff boxes. Large one, 60th birthday present in 1952. Smaller lady's snuff box made 1870. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

19. Blanket. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

20. Cross pendent, called 'Thor's Hammer', from between the 1100 and 1200. National Museum of Iceland. Photo National Museum of Iceland.

21. Chairs. Middle and left chairs made by Runólfur Svensson, 1861 and right chair made by his son Erikur Runólfsson, 1879. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

22. Drinking horns. Three on left made by Jón Einarsson, 1780, two on right made by Simon Davidsson, 1820. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

23. Spinning wheels and equipment. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

24. Wooden eating bowl, made by Runólfur Runólfsson, 1870. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

25. Silver brooch. Árbær Reykjavík Museum. Photo Thomas Hawson 2003.

26. Seaman's Mittens, with two thumbs. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

27. Carved pine bed board. Made by Torsteinn Eyjólfssson 1777. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

28. Gold Ornament, from woman's national costume. 18-19C. Árbær Reykjavík Museum. Photo Thomas Hawson 2003.

29. Wooden Spoons. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

30. Silver Brooch from 11C. National Museum of Iceland. Photo National Museum of Iceland.

Images used in Birger Andersen's Interaction Interview presentation on Multimedia Disc 1.

1, 2, 3, 4, 5, 6, 7, 8, 9. Upper deck knee in the making, on re-construction of Viking war ship. Upper deck knee made by Thomas Hawson while apprentice to Birger Andersen at the Viking Ship Museum Boat Yard, Roskilde, Denmark. Photo Thomas Hawson, April 2003.

10, 11. Pine wood Boat Masts in the making, at the Viking Ship Museum Boat Yard, Roskilde, Denmark. Photo Thomas Hawson, April 2003.

12, 13, 14, 15, 16. Oak tree felled and split, for Viking ship construction. Photo, Viking Ship Museum Boat Yard, Roskilde, Denmark, 2000.

17, 18. Viking war ship under construction at Viking Ship Museum Boat Yard, Denmark. Photo, Viking Ship Museum Boat Yard, Roskilde, Denmark, 2000.

19. Axe marks in original wooden Viking ship component. Photo Viking Ship Museum Boat Yard, Roskilde, Denmark, 2000.

20. Axe marks reconstructed at Viking Ship Museum, Roskilde. Photo Viking Ship Museum Boat Yard, Roskilde, Denmark, 2000.

21, 22. Reconstructed Viking ship at the Viking Ship Museum Boat Yard, Roskilde. Photo Viking Ship Museum Boat Yard, Roskilde, Denmark, 2000.

23, 24, 25. Oak trees from which bent branches are cut for Viking ship construction. Photo Viking Ship Museum Boat Yard, Roskilde, Denmark, 2000.

26. Viking ship hull component templates matched up to tree limbs in the forest. Photo Viking Ship Museum Boat Yard, Roskilde, Denmark, 2000.

27, 28. Viking ship hull components. Photo Viking Ship Museum Boat Yard, Roskilde, Denmark, 2000.

29, 42. Sailing reconstructed Viking ship at the Viking Ship Museum, Roskilde, Denmark. Photo Thomas Hawson 2003.

Images used in Ása Hatún's Interaction Interview presentation on Multimedia Disc 1.

1. Kvívík village. Faroe Islands 1930's. The village where Ása Hátun was born. Origin of photo unknown.

2. Ása Hátun's mother, 1950's. Origin of photo unknown.

3. Hannelisa, Ása Hátun's sister, raking in hay, Faroe Islands late 1950's. Origin of photo unknown.

4. Kvívík village. Faroe Islands 1940's. The village where Ása Hátun was born. Origin of photo unknown.

5. Ása Hátun's hand knitted jumpers on her two sons Hjálman 8yrs and Dánjal 4yrs. Photo Ása Hátun 1982.

6. Ása Hátun's hand knitted jumper on Hjálman at his first whale kill, Faroe Islands. Photo Ása Hátun 1990's.

7. Hand embroidery by Ása Hátun on her son Hjálman's traditional costume for his graduation. Photo Ása Hátun 1995.

8. Traditional costume of relatives in Bøor from 1920's. Origin of photo unknown.

9. Loom of Viking style used until 1900 in Faroe Islands. The Historical Museum (Føroya Fornminnisavn), Faroe Islands. Photo Thomas Hawson 2003.

10. Spinning wool in Faroe Islands, around 1900. The Historical Museum (Føroya Fornminnisavn), Faroe Islands. Origin of photo unknown.

11. Felting wool cloth, around 1900. The Historical Museum (Føroya Fornminnisavn), Faroe Islands. Origin of photo unknown.

12. Fishermen wearing felting wool cloth coats called 'Kot', as worn until 1930's. The Historical Museum (Føroya Fornminnisavn), Faroe Islands. around 1900. Origin of photo unknown.

13. Sheep shearing, Faroe Islands, around turn of 19-20C. The Historical Museum (Føroya Fornminnisavn), Faroe Islands. Origin of photo unknown.

14. French felting machine, 1990's. Origin of photo unknown.

15. Ása Hátun's wool fashion, 2003. Origin of photo unknown.

16. Ása Hátun's wool fashion, 2003. Origin of photo unknown.

17. Ása Hátun's wall hanging, 2000. Photo Thomas Hawson 2003.

18. Felted wool sitting mat, Ása Hátun1985. Photo Thomas Hawson.

19. Ása Hátun's Swiss exhibition catalogue, 2000.

20. Ása Hátun's wall hanging, 2000. Photo Thomas Hawson 2003.

21. Ása Hátun working on experimental chair seat cover in back yard, 2003. Photo Thomas Hawson.

22. Ása Hátun's experimental felted wool on old cane chair, 2003. Photo Thomas Hawson 2003.

Images used in Fjolnir B. Hlynsson´s Interaction Interview presentation on Multimedia Disc 1.

1. Iceland Forestry Service sawmill and processing yard, Egilsstadir. Photo Thomas Hawson, 2003.

2. Fjolnir B. Hlynsson standing with the tallest Larch trees in east of Iceland forest. Photo Thomas Hawson, 2003.

3. Hlynur Halldórsson, father of Fjolnir B. Hlynsson, carving at Mithhús, Egilsstadir, date unknown. Photo Fjolnir B. Hlynsson.

4, 5, 6, 7, 8. Fjolnir B. Hlynsson work in progress on flower sculpture, wood metal and glass, date unknown. Photo Fjolnir B. Hlynsson.

9. Drawing of flower sculpture, Fjolnir B. Hlynsson, 2001.

10. Wooden flower, Fjolnir B. Hlynsson. Photo Fjolnir B. Hlynsson, 2002.

11. Flower Sculpture, Fjolnir B. Hlynsson. Photo Fjolnir B. Hlynsson, 2001.

12. Cheese Knives, Fjolnir B. Hlynsson. Photo Fjolnir B. Hlynsson, 2002.

13. Carved traditional Icelandic wooden eating bowl, Hlynur Halldórsson. Photo Fjolnir B. Hlynsson, 2002.

Images used in Thorhildur Thorgeirsdóttir Interaction Interview presentation on Multimedia Disc 2.

1. Thor´s hammer pendent, from middle ages. Photo National Museum of Iceland.

2. Silver hoard from Viking age, found at Mithhús 1980. Photo National Museum of Iceland.

3. Icelandic chalice with pattern in Romanesque style, from about 1200. Photo National Museum of Iceland.

4, 5, 6. First members of the National Goldsmith Union of Iceland. Goldsmith Union of Iceland members' book.

7. Kristófer Pétursson, Icelandic goldsmith early 20th century. Photo National Museum of Iceland.

8. Reconstructed southern Iceland farmstead 19th century. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

9. . Lady's traditional Icelandic dress, from Mödruvellir near Akureyri. Printed in Denmark, 1861. Skógar Folk Museum, Iceland.

10, 11. Silver ornament from woman's traditional costume, from 1900-1920. Skógar Folk Museum, Iceland. Photo Thomas Hawson 2003.

12. Filigree, twisted silver wire brooch, made by Thórhildur Thorgeirsdóttir, date unknown. Photo Thomas Hawson 2003.

13. Thóhildur at Goldsmith College in Germany. Photo Thórhildur Thorgeirsdóttir.

14, 15, 16, 17. Thórhildur Thorgeirsdóttir's drawings of spoons and pancake forks, 2000-2003. Photo's Thomas Hawson 2003.

18. Sugar spoon and pancake fork, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

19. Sugar spoon, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

20. Sugar spoon, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

21. Pancake fork, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

22. Pancake serving set, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

23. Pancake serving set, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

24. Spreading knife, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

25, 26, 27. Close up of sugar spoons, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

28. Ring, gold and pearl, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

29, 30, 31. Earrings, Thórhildur Thorgeirsdóttir 2000-2003. Photo Thomas Hawson 2003.

32. Spoon made by Thomas Hawson, as apprentice to Thórhildur Thorgeirsdóttir, 2003. Photo Thomas Hawson 2003.

Images used in Geir Oddgeirsson's Interaction Interview presentation on Multimedia Disc 2.

1. American White Oak in Geir's workshop, Tresmidjan Grein ehf. Photo Thomas Hawson, 2003.

2. Bjórn Hrafnsson sawing wood at Tresmidjan Grein ehf. Photo Thomas Hawson, 2004.

3. Bjórn Hrafnsson planing wood at Tresmidjan Grein ehf. Photo Thomas Hawson, 2004.

4,5. Geir at his veneer press. Photo Thomas Hawson, 2004.

6. Bjórn Hrafnsson and Geir sanding wood at workshop. Photo Thomas Hawson, 2004.

7. Example of Geir's cutting list. Photo Thomas Hawson, 2004.

8. Cabinet made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

9. Pair of cabinets made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

10. Church pews in Reykjavik, made at Tresmidjan Grein ehf. Photo Thomas Hawson 2003.

11. Massive wood turned stools, made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

12. Kitchen, made and fitted at Tresmidjan Grein ehf. Photo Geir ddgeirsson.

13. Fume cabinet made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

14. Pair of cabinets made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

15. Hospital fittings made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

16. Office meeting table, made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

17. Large boardroom table under construction at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

18. Boardroom table made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

19. Office desks made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

20. Reception desk made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

21. Low table made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

22. Occasional table made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

23. Boardroom table made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

24. Boardroom table receiving final finish, made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

25. Round table made at Tresmidjan Grein ehf. Photo Geir Oddgeirsson.

26. Large boardroom table, made at Tresmidjan Grein ehf. Photo Thomas Hawson 2003.

Images used in Grétar Már Thorvaldsson Interaction Interview presentation on Multimedia Disc 2.

1. First Hálmsteypan Halle ehf. workshop, in 1950´s. Origin of photo unknown.

2. First Hálmsteypan Halle ehf. workshop, in 1950´s. Origin of photo unknown.

3. Hálmsteypan Halle ehf. smelter, in 1950´s. Origin of photo unknown.

4. Grétar Már Thorvaldsson´s grandfather at Hálmsteypan Halle ehf. workshop, in 1950´s. Origin of photo unknown.

5. Hálmsteypan Halle ehf. workshop, pouring aluminium in 1950´s. Origin of photo unknown.

6. Early Hálmsteypan Halle ehf. product for the Icelandic electric systems. Origin of photo unknown.

7. Grétar Már Thorvaldsson, turning pattern on lathe. Origin of photo unknown.

8. Aluminium apartment block rubbish shute door, product of Málmsteypan Halle ehf. Photo Málmsteypan Halle ehf.

9,10. Aluminium parts for Icelandic electrical systems, product of Málmsteypan Halle ehf. Photo Málmsteypan Halle ehf.

11, 12, 13. Fishing equipment parts, product of Málmsteypan Halle ehf. Photo Málmsteypan Halle ehf.

14,15. Fish pumping equipment parts, product of Málmsteypan Halle ehf. Photo Málmsteypan Halle ehf.

16. Aluminium ship deck hatch, product of Málmsteypan Halle ehf. Photo Málmsteypan Halle ehf.

17. Aluminium assorted signs, product of Málmsteypan Halle ehf. Photo Málmsteypan Halle ehf.

18. Composite wooden pattern for bronze, ship bearing. Product of Málmsteypan Halle ehf. Photo Thomas Hawson 2003.

19. Pouring bronze at Málmsteypan Halle ehf. Photo Thomas Hawson 2003.

Appendix 9 Fjolnir Hlynsson's Response to Work in Progress Photographs

Date: Thu, 30 Oct 2003

To: "Thomas Hawson" <tom@hawson.fsbusiness.co.uk>

From: Eik <eiksf@mmedia.is>

Subject: Re: work in progress

Greetings Tom of Hundalee.

I like your sketch. It is quite good, although you can find the Althingi chair's influence in it - it is somehow better. The Ship form is very "Viking/Nordic" and very strong in this. It also has a organic/bone structure feeling - which I like. If the chair was at the end of the table it would be somehow like a ships reflection in water. The vertical plane of the table gives a horizon to trigger these thoughts.

Fjolnir

Date: Tue, 18 Nov 2003 18:51:48 +0200

To: "Thomas Hawson" <tom@hawson.fsbusiness.co.uk>

From: Eik <eiksf@mmedia.is>

Subject: Re: comments please

Greetings Tom.

I am certain that you are heading the right way. This round table is very exciting, not because it is round - but because it has this connection to a Viking form - shield. It reminds me of a another Viking instrument, used to navigate - I attach a picture of it (Fig. 18) - it was used before the compass, locate the polestar .....

Fig. 35 Viking navigation aid

pattern is good. I like those sketches of the table - patterns, flowers and all that. But I ask where is the aluminium, where is the wool, I only see wood. Is it possible to cast the pattern for the table in aluminium or other metal (personally I would use copper/bronze/iron) and use it as inlay?

However I think that you need to make another chair to fit that table. They somehow do not belong together. Straight geometrical lines / soft organic lines do not go well to together (in my opinion- at least in this case) Do not take this as the chair is bad - It is as I said in my last letter very nice.

My comments - interesting and good. keep up the good work - I might comment some more later.

F

Appendix 10 Design Comments Form

Names and addresses of makers receiving the forms.

Birger Andersen, Shipwright

The Viking Ship Museum

Vindeboder 12

DK-4000 Roskilde

Denmark

+45 46 30 02 00

www.vikingeskibsmuseet.dk

Fjölnir B. Hlynsson, Sculptor

Mithhús

700 Egilsstathir

Iceland

471-1320

4711365

eiksf@mmedia.is

Thórhildur Thorgeirsdóttir, Goldsmith

Olafsgeisli 39

113 Reykjavík

Iceland

354551 6881

M. +354 8617178

thth@thth.is

www.thth.is

Geir Oddgeirsson, Cabinetmaker

Translator and assistant Bjórn Hrafnsson (M. +354 8973453)

Tresmidjan Grein ehf.

Littliær

190 Vogar

Iceland

+354) 557 1333

M. +354) 8933441

greinehf@binet.is

Gretar Mar Thorvaldsson, Pattern Maker

Malmsteypan HELLA ehf.

Kaplahraun 5

220 Hafnarfjordur

Iceland

+354) 565 1022

+354) 565 1587

hella@hella.is

Ása Hátún, Wool Worker

Heiðavegur 18

FO-100 Tórshavn

Faroe Islands

Teleph: 00 298-311819

T-postur: olavasa@post.olivant.fo

Covering letter

Dear participating craft practitioners

Please find attached a comments form, scale drawings and presentation drawing of the proposed dining table and chair design. Please read the notes before completing the form. Do not return the form until 5 days after receiving phone call from Thomas Hawson. Return the form, technical drawings if you have drawn over them and any other extra paper in the return envelope provided. Please put your name on all returned material. Keep the project proposal drawing for your own reference.

Looking forward to receiving your replies.

Yours

Thomas Hawson

Appendix 10 continued

Design Comments Form

NAME:…….DATE:……

This document provides:

1. A basic description of the proposed design.

2. Suggested materials and methods of construction.

3. Suggested areas of interest to craft practitioners.

After each of the above sections, an area in the document is left blank to be filled in by the participating craft practitioners with their comments.

Notes for consideration while filling in the form.

- Please complete the form as soon as possible, Thomas Hawson will soon phone you to discuss things. After the telephone call please allow five days to consider the designs and your comments before returning the completed form.

- The design proposal presented in this document does not describe all the details fully resolved.

- It may be helpful to look at both the technical drawings and watercolour presentation at the same time, side-by-side, to visualise the design.

- The proposed design described should not be considered as the final design.

- The proposed design is purposefully left open as a basic framework on which the participating craft practitioners can offer their ideas and physical hands on input, in developing the design.

- By the craft practitioners returning their written and sketched ideas on this form, their ideas will be considered and recorded by Thomas Hawson and amendments to the design will be made.

- The designs will belong in equal parts to the six named participating crafts practitioners and Thomas Hawson.

- Following amendments to the design, practical consultation will follow in early spring Feb/March 2004, when Thomas Hawson will be visiting the craft practitioners workshops where possible to produce the prototypes with them.

- The ‘Suggested areas of interest to craft practitioners’ is only a suggestion, please comment on any area of the proposed design.

- If there is not enough space on this form to provide answers please do not hesitate to return extra sheets of paper.

- Sketching (of any quality) will be the best way of communicating some of your ideas.

- Please draw ideas over the top of scale drawings provided.

- Please sign and date everything you return.

Dining Table

Please find attached scale drawing and presentation drawing.

1. Basic description of proposed dining table.

The table top is to be constructed of eight separate wooden segments with a central disc in the middle, this central disc may have the option of spinning round. The eight separate wooden segments of the tabletop are to be connected with eight aluminium castings. The castings come to the surface of the table at the corners of each segment, they interconnect under the tabletop to make an under frame and provide connection points for the eight wooden steam bent legs. The eight legs to be connected to a wooden cross frame on the floor. The surface of the tabletop could have a shallow groove cut into it, to visually interconnect the aluminium details that come to the surface and the eight separate wooden segments. Place mats made of wool, of a rounded triangular shape could fit between the interconnecting shallow grooves on each segment.

The composition of components that make up the table top has been described by Fjölnir B. Hlynsson having viewed the sketchbook images uploaded onto the Internet as being reminiscent of Viking shield designs (Appendix 9, page 229), it is also similar to early Icelandic jewellery. The interconnecting lines carved into the tabletop are references to the marking-out lines used in the preparation of Celtic knot work, as used by Vikings as a decorative medium. The eight steam bent and twisted legs, are references to the boat building tradition. The square cross frame on the floor is left purposefully simple as if it were made from driftwood found that size.

Craft practitioner's comments on the basic design of the dining table:

2. Suggested materials and methods of construction for the dining table.

The wooden elements of the table are to be made of oak, a 5 mm gap would be left between the table top components including, the wooden segments, central disc and surface aluminium details. This gap would be open under the surface of the table so as not to trap food crumbs, the components connected by narrow fins of aluminium. The aluminium components would be sand cast from a pattern; the pattern could have a decorative surface texture that would be left on the visible parts of the finished components. Additional surface finishes and effects could be applied to the castings. The aluminium castings would be screwed to the underside of the wooden tabletop, where appropriate slots would be made in the aluminium screw holes to allow for shrinkage and expansion in the wood. The eight legs will be steam bent on to jigs before assembly. These legs will be connected to the aluminium castings by bolts ideally in a shallow socket. The legs will be connected to the cross frame on the floor into a narrow socket and secured with a loose dowel. The table is to be shipped as finished components that can be assembled by the distributor/agent or by the end user.

The wool tablemats would be felted and sit on the surface of the table.

Craft practitioner’s comments on the materials and methods of construction for the dining table:

3. Suggested areas of interest to craft practitioners regarding the dining table.

Birger Andersen, Shipwright

Are the eight legs reminiscent of boards in a Viking ship's hull?

Could their shape be improved in anyway, could you sketch/make a better profile/template?

How could the ends of the legs be attached to the aluminium brackets and wooden cross frame to resemble methods used in Viking ships?

Fjolnir B. Hlynsson, Sculptor

How does the table exhibit traditions in Icelandic craft?

Where could this be strengthened or enhanced?

Thórhildur Thorgeirsdóttir, Goldsmith

What shapes or forms could be cast in the aluminium that comes to the surface of the table?

What surface finish could be applied to the surface of the castings?

Does the pattern the tabletop components make remind you of patterns in early Icelandic jewellery?

Geir Oddgeirsson, Cabinet maker

Translator and assistant, Bjórn Hrafnsson.

What do you think of the table design?

What profile would you put on the edge of the table?

Considering the number of individual wooden pieces in the tabletop, would this be an area of concern in the cost of this table?

Do you have experience of steam bending, and what do you think about it?

Gretar Mar Thorvaldsson, Pattern Maker

The aluminum castings.

What form could the castings take?

What surface finishing would you give the castings?

What considerations are there to be made if the castings are to be mass-produced?

Ása Hátún, Wool Worker

Felt place mats.

Is felt appropriate on the table?

Is there a design you would like to see applied to the mat?

How could these mats be made in large numbers?

Craft practitioner's comments on the suggested areas of interest regarding the dining table:

Dining Chair

Please find attached scale drawing and presentation drawing.

1. Basic description of proposed dining chair.

The chair seat is made of an aluminium frame with a woven or plywood infill panel with a felt cover. The aluminium seat frame will be attached to the aluminium back leg and the wooden front legs. The influence for this chair is from Viking shipbuilding. The surface finish on the aluminium castings could have the appearance of hand carved wood. The steam bent curved arm/backrest could have lines or a profile scratched onto its surface along the inside edges to illustrate where the nails or screw fixings should go, this would be in keeping with Viking shipbuilding methods.

The profile and shapes in the aluminium seat frame are to be organic and curved in contrast to the square section of the front legs. The crude square section of the front legs would match the square section of the table floor frame.

Craft practitioner's comments on the basic design of the dining chair:

2. Suggested materials and methods of construction for the dining chair.

The aluminium seat frame and back leg will be sand cast. A seat infill panel made of plywood could be screwed into a rebate in the frame or a woven seat could be threaded through holes in the seat frame. The seat frame will be attached to the aluminium back leg and the wooden front legs with bolts. The felted wool seat is to be fastened to the seat to stop it sliding. The wooden patterns for the sand cast aluminium back leg and seat frame, could have a fine hand carved surface finish (not to be sanded out) to be left as detail in the final sand cast components. The front legs and armrest are to be made of oak, the curved arm and backrest component to be steam bent from oak (oak would be preferred here for strength) and fixed into position with copper boat nails or screws. The chair is to be shipped as finished components that can be assembled by the distributor/agent or by the end user.

Craft practitioner's comments on the materials and methods of construction for the dining chair:

3. Suggested areas of interest to craft practitioners regarding the dining chair.

Birger Andersen, Shipwright

Are components in the chair reminiscent of components in a Viking ship?

Could the components shape be improved in anyway, could you sketch/make a better profile/template?

Are there any areas of the chair construction that could better resemble methods used in Viking ships?

Fjolnir B. Hlynsson, Sculptor

How does the chair exhibit traditions in Icelandic craft?

Where could this be strengthened or enhanced?

Thórhildur Thorgeirsdóttir, Goldsmith

What shapes and forms would you like to see in the aluminium castings of the chair?

What surface finish could be applied to the surface of the casting?

Could the nail or screw fixings the steam bent arm/back rest are fixed with receive any special treatment?

Geir Oddgeirsson, Cabinetmaker

Translator and assistant, Bjórn Hrafnsson.

What do you think of the chair design?

Do you have experience of steam bending, and what do you think about it?

Gretar Mar Thorvaldsson, Pattern Maker

The aluminum castings.

What form could the castings take?

What surface finishing would you give the castings?

What considerations are there to be made if the castings are to be mass-produced?

Ása Hátún, Wool Worker

How could the felt seat cover be applied?

Is felt appropriate for the seat?

Is there a design you would like to see applied to the seat cover?

How could these seat covers be made in large numbers?

Craft practitioner's comments on the suggested areas of interest regarding the dining chair:

Appendix 11 Feasibility Study Form

Product or services to be provided:

_____

_____

Name of producer or service provider:

_____

Name of person completing this form:

_____

Signature:_____Date:_____

Please note this is an academic project and any information provided while completing this form will be used only for academic purposes.

Please provide an answer for each question (even if it is, 'I refuse to answer this question'), unless you are asked to go to the next specified question.

In the future could you make the product or provide the service as specified above, for the production of 1 set of 8 chairs and 1 table?

Yes ☐ If yes please go to question 2

No ☐

1a. If you could not make this product or provide this service, please explain why?

_____

_____

_____

_____

_____

1b. If you could not make this product or provide this service in the future, who do you know that could?

_____

_____

In the future could you make the product or provide the service as specified above, for the production of 100 sets, 800 chairs and 100 tables?

Yes ☐ If yes please go to question 3

No ☐

2a. If you could not make this product or provide this service, please explain why?

_____

_____

_____

_____

2b. If you could not make this product or provide this service in the future, who do you know that could?

_____

_____

In the future could you make the product or provide the service as specified above, for the production of 1000 sets, 8000 chairs and 1000 tables?

Yes ☐ If yes please go to question 4

No ☐

3a. If you could not make this product or provide this service, please explain why?

_____

_____

3b. If you could not make this product or provide this service in the future, who do you know that could?

_____

_____

Please estimate how much you would charge for the product or service, as specified, for the following quantities:

(Answer only for the quantities you are able to make yourself, if you are unable to make any of the quantities go to question 6.)

4a. Production of 1 set of 8 chairs and 1 table? _____

4b. Production of 100 sets, 800 chairs and 100 tables?_____

4c. Production of 1000 sets, 8000 chairs and 1000 tables? _____

How much time would you need to complete an order for:

5a. Production of 1 set of 8 chairs and 1 table? _____

5b. Production of 100 sets, 800 chairs and 100 tables? _____

5c. Production of 1000 sets, 8000 chairs and 1000 tables? _____

Would you think it OK for someone else to go into production with the product you had helped to design, develop and make a prototype for?

Yes ☐ If yes please answer question 6a. 6b. then go to question 8.

No ☐ If no please go to question 7.

6a. Would you want something in return for your work helping to develop the product, for example, published recognition, royalties etc? Please specify.

_____

_____

6b. Would you think it OK to have the product made in another country? Why?

_____

_____

_____

Why would you say no to someone who wanted to go into production with the product you had helped to design, develop and make a prototype for?

_____

_____

Do you think an Internet based sales promotion and ordering system would be appropriate?

Yes ☐ If yes please go to question 9

No ☐ If no please answer question 8a. 8b.and miss question 9.

8a. Why would an internet based sales and ordering system not be appropriate?

_____

_____

_____

8b. Please specify an alternative sales and ordering system?

_____

_____

9. Why, do you think an Internet based sales system would be appropriate?

_____

Appendix 12 Table and Chair Specifications

Table

Table top:

- Dimensions — top 33mm thick, 1530mm diameter
  Under table brace, 1320 x 80 x 33mm
- Material — American oak, furniture quality
- Finish — Tung Oil
- Table top inlay — Aluminium Inlayed discs 5mm thick 8 @ 40mm
  Dia. and 8 @ 16mm Dia.
- Table top scratched pattern.
  Pattern of eight interlocking radius curves to be scratched into table top with jig.

Table legs:

- Dimensions — 70mm sq. (2 laminate) 820mm long
- Material — American oak, furniture quality
- Finish — Tung oil

Aluminium cast table brackets:

- Sand-cast aluminium brackets from supplied pattern.
- 4 brackets per table.
- Overall dim. length 340mm width 230mm depth 90mm
- Weight of aluminium 7kg = 4 brackets

- 3 x 4mm counter-sunk holes provided for attachment to table top
- 1 x 6.5mm hole provided for attachment to table leg.
- File off corner edges
- Washed with no finish

Stainless steel table to leg connection plates:

- 3 mm thick, 130mm x 140mm
- 8 counter sunk holes.
- 4 of these plates are required per table

Table 8 Stainless Steel A2 Screws and Bolts for Table

Description	Size	Quantity
Table top to under table brace pan head torque drive screw	6 x 50 mm	6
Table to aluminium bracket pan head torque drive screw	4 x 30 mm	12
Stainless steel connection plate to leg Countersunk screw	5 x 30 mm	16
Stainless steel connection plate to table Countersunk screw	5 x 20 mm	16
Aluminium bracket to leg Pan head hex drive bolt (with external wood screw threaded M6 sleeve)	M6 x 30 mm	4

Chair

Table 9 Chair Wooden Components

Description	Quantity	Length	width	thick
Front legs	2	610	33	34
Arms	2	250	40	34
Steam bent back	1	1080	220	6
Seat (total length required for 3 strips)	1	1200	125	12
Seat brace	1	330	20	20
Seat to frame buttons	6	30	20	13

- Material Oak, furniture quality, own choice of supply
- Finish Tung Oil

Aluminium cast chair leg and seat frame:

- Sand-cast aluminium back leg and seat frame from supplied patterns.
- 1 leg 1 seat frame per chair.
- Overall dim. Seat frame, length 480mm width 460mm depth 70mm
- Overall dim. Back leg, length 70mm width 100 depth 35mm
- Weight of aluminium 6kg = 1 chair
- 6 x 6.5mm holes with 10mm countersunk holes for chair frame to legs connection bolts (Allan key M6 bolts)
- File off corner edges
- Washed with no finish.

Table 10 Stainless Steel A2 Screws and Bolts for Chair

Description	Size	Quantity
Steam bent chair back to legs pan head torque drive screw	4 x 25 mm	14
chair seat to under brace pan head torque drive screws	4 x 25 mm	6
Chair seat buttons	5 x 20 mm	6
Seat frame to legs Allan bolts	M6 x 40 mm	6

Appendix 13 Exhibition Tour Venues 2004

HANDVERK OG HÖNNUN (Handwork and Design)

Sunneva Hafsteinsdottir and Fjóla Guðmundsdóttir
Aðalstræti 12
P.O.Box 1556
121 Reykjavik
Iceland
(+354) 551 7595
(+354) 551 7495
www.handverkoghonnun.is

Gunnarsstofnun

Skúli Björn Gunnarsson
Skriðuklaustur
IS-701Egilsstaðir
Iceland
(+354) 471 2910
www.skriduklaustur.is
klaustur@skriduklaustur.is

Faroes Crafts Society

Randi S. Vang
Niðaragota 108
Hoyvík
Faroe Islanda
T. +(298) 314265 or 214265 or 514253
ransiva@post.olivant.fo

Shetland Museum

Tommy Watt
Lower Hillhead
Shetland
ZE1 OEL
Scotland
01595 695057
tommy.watt@sic.shetland.gov.uk

The Lighthouse, Design Museum

Lucy McEachan
56 Mitchell Street
Glasgow
G1 3LX
Scotland
+44 (0) 141 225 8427
www.thelighthouse.co.uk
lucy@thelighthouse.co.uk

The Viking Ship Museum

Søren Nielsen
Vindeboder 12
DK-4000 Roskilde
Denmark
(45) 46 30 02 00
Direct +45 46 30 02 60
sn@vikingeskibsmuseet.dk

Appendix 14 Pilot Exhibition Survey Questionnaire

Tick box quantative and open question type qualitative interview questionnaire.

Venue_____

Interviewer_____

Date_____

Personal details.

1. Where are you from? _____

2. Male/female _____

3. What age group do you belong to: Under 16

   16-25

   25-40

   40-65

   over 65

6. How did you hear about the exhibition?_____

7. Did you know about this project before seeing this exhibition?

   Yes ☐

   No ☐

Response to the exhibition

- How appealing are the table and chairs?

_____

_____

- What elements are the most appealing?

- Would you like the table and chairs in your own home?

Yes ☐ No ☐

- Where would the product sell well?

- How much do you think the table and chairs would cost to buy?

Chair	£50	-	100	☐
	£100	-	250	☐
	£250	-	500	☐
	£500	-	750	☐
	£750	-	1000	☐
Table	£750	-	1000	☐
	£1000	-	1500	☐
	£1500	-	2000	☐
	£2000	-	2500	☐
	£2000	-	3000	☐

- Do you like to be aware of the cultural origin of your dining table and chairs?

Yes ☐ No ☐

- How well does the product express its Nordic and Icelandic cultural origin?

(not at all) 1 – 2 – 3 – 4 – 5 (very much)

- How does the product express its cultural origin to you?

- What specific Nordic traditional crafts can you recognize in the table and chairs design?

- Does a product with Nordic cultural identity have added value to you?

Yes ☐ No ☐

- Do foreign products that express clearly their cultural origin have more appeal to you?

(not at all) 1 – 2 – 3 – 4 – 5 (very much)

(Note to the interviewer, please read the following statement about how the table and chairs were designed and made)

The table and chairs were designed and made in partnership with seven Nordic craft practitioners.

Thomas Hawson, Furniture Designer/Maker, Scotland

Biger Andersen, Shipwright, Denmark.

Ása Hatun, Wool, Faroe Islands

Fjolnir B Hlynsson, Sculptor, Iceland

Thorhildur Thorgeirsdottir, Goldsmith, Iceland

Geir Oddgeirsson, Cabinet Maker, Iceland

Gretar Mar Thorvaldsson, Pattern Maker, Iceland

These craft practitioners were selected because they practise traditional Nordic crafts directly or in a contemporary way. The process of developing a new product for export from Iceland was developed in close partnership with them from concept through to making the finished prototypes. The table and chairs design including the forms used, applied patterns and methods used in the making of the prototypes, are all influenced by the traditional Nordic crafts.

- Has this story changed your view of the table and chairs?

  (not at all) 1 – 2 – 3 – 4 – 5 (very much)

- Would this story influence your purchase decision?

  (not at all) 1 – 2 – 3 – 4 – 5 (very much)

- How much would you pay for the table and chairs?

Chair	£50	-	100	☐
	£100	-	250	☐
	£250	-	500	☐
	£500	-	750	☐
	£750	-	1000	☐
Table	£750	-	1000	☐
	£1000	-	1500	☐
	£1500	-	2000	☐
	£2000	-	2500	☐
	£2000	-	3000	☐

- Do you like or dislike the choice of materials, oak, aluminum and wool and why?

Like ☐ Dislike ☐

- Why?

_____

- Would you describe the table and chairs as old fashioned or modern?

- What value is there in the continued practice of traditional crafts?

- How has this project demonstrated a use for traditional crafts?

- What bit of the design do you like the most and why?

- What bit of the design would you change and how?

Appendix 15 Exhibition Survey Questionnaire

Tick box questionnaire for the assessment of the project table and chairs, to be carried out during the exhibition tour, at the specified venues.

Venue_____

Interveiwer_____

Date_____

Personal details.

1. Where are you from? _____

2. Male/female _____

3. What age group do you belong to: Under 16

   16-25

   26-40

   41-65

   over 65

6. How did you hear about the exhibition? _____

8. Did you know about this project before seeing this exhibition?

   Yes ☐ No ☐

Response to the Exhibition

Tick box and quick question survey in green, approx. 2 minutes.

Additional qualitative questions in black, optional extra time of approx. 3 minutes.

1. How appealing are the table and chairs to you? (not) 1 – 2 – 3 – 4 – 5 (very)

2. Why are the table and chairs appealing/not appealing to you?

_____

_____

3. What elements of the table and chairs are the most appealing to you?

---

4. Would you like the table and chairs in your own home? Yes ☐ No ☐

5. If you would like/not like the table and chairs in your home, why/why not?

_____

_____

6. How successfully do you think this table and chairs would sell over the internet aided by personal recommendation and word of mouth.

(not sell) 1 – 2 – 3 – 4 – 5 (Sell very well)

7. What method of sales do you think would be most appropriate for this product and why?

_____

8. How much do you think a table and a chair would cost? (Exchange rates used as at 2 August, 2004 and the figures are rounded up.)

Single chair

£50 (DKK560 or ISK6,530) - £100 (DKK1,100 or ISK13,000)

£100 (DKK1,100 or ISK13,000) - £250 (DKK2,800 or ISK32,600)

£250 (DKK2,800 or ISK32,600) - £500 (DKK5,600 or ISK65,300)

£500 (DKK5,600 or ISK65,300) - £750 (DKK8,500 or ISK98.000)

£750 (DKK8,500 or ISK98,000) - £1000 (DKK11,300 or ISK130,500)

Table

£750 (DKK8,500 or ISK98,000)	-	£1000 (DKK11,300 or ISK130,500)
£1000 (DKK11,300 or ISK130,500)	-	£1500 (DKK17,000 or ISK196,000)
£1500 (DKK17,000 or ISK196,000)	-	£2000 (DKK22,500 or ISK261,000)
£2000 (DKK22,500 or ISK261,000)	-	£2500 (DKK28,000 or ISK326,500)
£2500 (DKK28,000 or ISK326,500)	-	£3000 (DKK34,000 or ISK391,500)
£3000 (DKK34,000 or ISK391,500)	-	£3500 (DKK39,500 or ISK457,000)

9. If you were to buy some domestic dining room furniture such as a table and chairs, how important would the following considerations be to you: (please mark the scale from 1 to 5)

Price	(no importance) 1 – 2 – 3 – 4 – 5 (very important)
Quality of product	(no importance) 1 – 2 – 3 – 4 – 5 (very important)
Aesthetic appeal	(no importance) 1 – 2 – 3 – 4 – 5 (very important)
Designer label	(no importance) 1 – 2 – 3 – 4 – 5 (very important)
Visible cultural origins	(no importance) 1 – 2 – 3 – 4 – 5 (very important)
Comfort	(no importance) 1 – 2 – 3 – 4 – 5 (very important)
Other consideration	(no importance) 1 – 2 – 3 – 4 – 5 (very important)

Please specify your other consideration below.

_____

10. Do you like to be aware of the cultural origin of your dining table and chairs?

Yes ☐ No ☐

11. Are you familiar with Nordic culture? Yes ☐ No ☐

12. How well do the table and chairs express the Nordic and Icelandic culture?

(not at all) 1 – 2 – 3 – 4 – 5 (very well)

13. How does the product express its cultural origin to you?

---

14. Is the influence of Nordic traditional crafts recognisable in the design of the table and chair?

(not at all) 1 – 2 – 3 – 4 – 5 (very well)

15. What specific Nordic traditional crafts can you recognize in the table and chairs design?

---

16. Does a product with Nordic cultural identity have added value to you?

Yes ☐ No ☐

17. Do foreign products that clearly express their cultural origin have more appeal to you?

(not at all) 1 – 2 – 3 – 4 – 5 (very much)

18. (Note to the interviewer, please read the following statement about how the table and chairs were designed and made)

The table and chairs were designed and made in partnership with seven Nordic craft practitioners.

Thomas Hawson, Furniture Designer/Maker, Scotland

Biger Andersen, Shipwright, Denmark.

Ása Hatun, Wool, Faroe Islands

Fjolnir B Hlynsson, Sculptor, Iceland

Thorhildur Thorgeirsdottir, Goldsmith, Iceland

Geir Oddgeirsson, Cabinet Maker, Iceland

Gretar Mar Thorvaldsson, Pattern Maker, Iceland

These craft practitioners were selected because they practise traditional Nordic crafts directly or in a modern way. The process of developing a new product for export from Iceland was developed in close partnership with them from concept through to making the finished prototypes. The table and chairs design, including the forms used, applied patterns and methods used in the making of the prototypes, are all influenced by the traditional Nordic crafts. The materials used were chosen because of their abundant availability in Iceland, oak and aluminum both processed in Iceland with the use of renewable energy and wool, a greatly under utilized Icelandic resource.

Has this story changed your view of the table and chairs?

(not at all) 1 – 2 – 3 – 4 – 5 (very much)

19. Would this story influence your purchase decision?

(not at all) 1 – 2 – 3 – 4 – 5 (very much)

20. Would you pay more for this table and chairs now you know more about all the work that went into designing and making them?

Yes ☐ No ☐

21. Is the choice of materials, oak, aluminum and wool appealing to you?

Oak	(not at all) 1 – 2 – 3 – 4 – 5 (very much)
Aluminum	(not at all) 1 – 2 – 3 – 4 – 5 (very much)
Wool	(not at all) 1 – 2 – 3 – 4 – 5 (very much)

22. Why do you like/not like these materials?

Aluminum _____

Oak _____

Wool _____

23. Do the table and chairs appear to be old fashioned or modern, in their design?

(old) 1 – 2 – 3 – 4 – 5 (modern)

24. In what way do the table and chairs appear to be old fashioned or modern, in their design?

_____

25. Do you think there is cultural value in the continued practice of traditional crafts?

(no) 1 – 2 – 3 – 4 – 5 (yes)

26. Why do you think there is cultural value in the continued practice of traditional crafts?

_____

_____

27. Has this project demonstrated the successful use of traditional crafts in a modern way?

(no) 1 – 2 – 3 – 4 – 5 (yes)

28. How has this project demonstrated the successful use of traditional crafts in a modern way?

_____

_____

29. What part of the table and chairs design do you like the most?

Chair _____

Table _____

30. Why do you like these parts of the table and chairs design?

Chair _____

Table _____

31. What part of the table and chairs design would you change?

Chair _____

Table _____

32. How would you change the table and chairs design?

Chair _____

Table _____

31. Any other comments or sketches should be made below.

Appendix 16 Exhibition Survey Qualitative Data Abbreviations

The complete list of abbreviations is provided as a Microsoft Word document, in the 'Exhibition data' file on multimedia disc 3, image and data files (CD).

Question 15

F – felting/ wool work

VS – viking ship shape, link to Vikings, boat building

WW – wood work

C - carving

SC – shape of chair

IN – inlay of metal

SW – aluminium in chairs reminiscent of swords

CM – combination of materials

SH – seat like a Viking shield

HE – top of back leg like a Viking helmet

CE – celtic crafts

CA – metal casting

AE – architectural elements

SI – simple design

TB – table brackets

QU – the high quality

BS - blacksmith

Appendix 17 Potential Market that Would Like Table and Chairs in Own Home

Entry No.	Date	Venue	Interviewer	1 From	2 M/F	3 Age Group	4 How did you here about exhib.	5 Pior Knowledge of project.
36	6,9	Faroes	JO	Denmark	M	26-40		n
74	30,9	Roskilda	TH	Denmark	M	41-65		n
25	4,9	Faroes	TH/JO	Faroes	F	26-40	newspaper	n
26	4,9	Faroes	TH	Faroes		26-40	past years	n
30	5,9	Faroes	JO	Faroes	M	26-40	mother exhibiting	y
31	5,9	Faroes	JO	Faroes	F	26-40	press	n
27	4,9	Faroes	JO	Faroes	F	41-65	craft society	n
*28	4,9	Faroes	TH	Faroes	F	41-65	press	n
29	5,9	Faroes	TH	Faroes	M	41-65	fellow exhibitor	n
32	5,9	Faroes	JO	Faroes	F	41-65	press	n
38	6,9	Faroes	TH	Faroes	M	41-65	wife	y
*9	22,8	East Icelar	TH	I	F	41-65		n
11	22,8	East Icelar	TH	I	F	41-65	friend	a little
*12	22,8	East Icelar	TH	I	M	41-65		n
*13	22,8	East Icelar	TH	I	M	41-65	curator	y
*15	22,8	East Icelar	TH	I	F	41-65	from curator	y
17	23,8	East Icelar	TH	I	M	41-65		n
*20	28,8	East Icelar	JO	I	F	41-65		n
*4	20,8	Reyjkavik	TH	Iceland	F	26-40	relative	n
6	20,8	Reyjkavik	TH	Iceland	M	26-40	word of mouth	y
1	18,8	Reyjkavik	TH	Iceland	M	41-65	word of mouth	y
3	20,8	Reyjkavik	TH	Lithunania	F	26-40	work at gallery	n
19	24,8	East Icelar	TH	Norway	F	26-40	work at museum	n
18	24,8	East Icelar	TH	Norway	M	41-65		n
62	21,9	Glasgow	TH	Scottish	M	41-65		n
70	22,9	Glasgow	TH	Scottish	M	41-65		n
48	11,9	Shetland	TH	Shetland	M	26-40		n
50	15,9	Shetland	TH	Shetland	M	26-40	furniture maker	y
54	15,9	Shetland	TH	Shetland	F	26-40	museum staff	y
42	11,9	Shetland	TH	Shetland	F	41-65		n
44	11,9	Shetland	TH	Shetland	M	41-65		n
49	15,9	Shetland	JO	Shetland	F	41-65		n
51	15,9	Shetland	JO	Shetland	M	41-65	met us	y
53	15,9	Shetland	TH	Shetland	M	41-65	museum curator	y
80	1,10	Roskilda	TH	Sweden	M	41-65		n
87	4,10	Roskilda	TH	Sweden	M	41-65		n
33	5,9	Faroes	JO	Faroes	M	26-40	advertising	n
39	6,9	Faroes	JO	Faroes	F	41-65	husband exhibitir	n
2	20,8	Reyjkavik	TH	Iceland	M	26-40		n
*58	20,9	Glasgow	TH	Scottish	M	26-40	staff	n
64	21,9	Glasgow	TH	Scottish	M	41-65		n
65	22,9	Glasgow	TH	Scottish	M	41-65	through TH	y
76	30,9	Roskilda	TH	Sweden	M	41-65		n

Entry No.	1 How appealing	2 Why appealing	3 Most appealing	4 Like in own home
36	4	CM,W,DE	CM	y
74	4	MA, SH	MA	y
25	4	AL	W	y
26	5	OM, UN	R	y
30	5	VI,AP,ST	DY	y
31	4	UN,CM,LCW	CM,VI	y
27	5	QU,SD,DE	SD	y
28	5	AP	CM	y
29	5	W	W	y
32	5	DE,C	RT,SC	y
38	5	LE, MA,AP	/	y
9	5	/	/	y
11	5	IC	SC,MS,W	y
12	5	/	/	y
13	4	/	/	y
15	5	/	/	y
17	5	ST	ST	y
20	5	/	/	y
4	4	/	/	y
6	5	AP	US	y
1	4	RT, TBL, RM	RT, MS	y
3	5	SD, WM, TM	SD	y
19	5	DE	CM	y
18	5	ST,DE, UN	ST,QU	y
62	4	W,CM,DE	SD	y
70	4	UN	WM	y
48	4	ST,STR	ST,RT	y
50	4	STR,SC,BS	SC	y
54	5	CO,AP	SD,W,CM,S	y
42	5	DE,UN	RT,SC	y
44	4	OB	ST,CM	y
49	5	DE	SC,RT	y
51	4	AP,LE,ST	QU,SD,TS	y
53	5	MA, UN	TS,W,ST	y
80	4	MA	W	y
87	4	SC	CM	y
33	4	QU	RT,DE	n
39	3	W,IN,TS,SC	SC	n
2	2	NTS	/	n
58	3	/	/	n
64	3	DLC,W,RT	RT,W,SC	n
65	3	UN	W	n
76	5	AP	CM	n

Appendix 18 What the Market Thinks the Table and Chairs Would Cost

Entry No.	Date	Venue	Interviewer	1 From	2 M/F	3 Age Group	4 How did you here about exhib.	5 Pior Knowledge of project.
25	4,9	Faroes	TH/JO	Faroes	F	26-40	newspaper	n
48	11,9	Shetland	TH	Shetland	M	26-40		n
44	11,9	Shetland	TH	Shetland	M	41-65		n
74	30,9	Roskilda	TH	Denmark	M	41-65		n
29	5,9	Faroes	TH	Faroes	M	41-65	fellow exhibitor	n
*12	22,8	East Icelan	TH	I	M	41-65		n
*13	22,8	East Icelan	TH	I	M	41-65	curator	y
*15	22,8	East Icelan	TH	I	F	41-65	from curator	y
17	23,8	East Icelan	TH	I	M	41-65		n
*4	20,8	Reyjkavik	TH	Iceland	F	26-40	relative	n
1	18,8	Reyjkavik	TH	Iceland	M	41-65	word of mouth	y
18	24,8	East Icelan	TH	Norway	M	41-65		n
62	21,9	Glasgow	TH	Scottish	M	41-65		n
50	15,9	Shetland	TH	Shetland	M	26-40	furniture maker	y
42	11,9	Shetland	TH	Shetland	F	41-65		n
80	1,10	Roskilda	TH	Sweden	M	41-65		n
87	4,10	Roskilda	TH	Sweden	M	41-65		n
36	6,9	Faroes	JO	Denmark	M	26-40		n
26	4,9	Faroes	TH	Faroes		26-40	past years	n
31	5,9	Faroes	JO	Faroes	F	26-40	press	n
38	6,9	Faroes	TH	Faroes	M	41-65	wife	y
*9	22,8	East Icelan	TH	I	F	41-65		n
11	22,8	East Icelan	TH	I	F	41-65	friend	a little
3	20,8	Reyjkavik	TH	Lithunania	F	26-40	work at gallery	n
19	24,8	East Icelan	TH	Norway	F	26-40	work at museun	n
70	22,9	Glasgow	TH	Scottish	M	41-65		n
54	15,9	Shetland	TH	Shetland	F	26-40	museum staff	y
53	15,9	Shetland	TH	Shetland	M	41-65	museum curato	y
32	5,9	Faroes	JO	Faroes	F	41-65	press	n
51	15,9	Shetland	JO	Shetland	M	41-65	met us	y
30	5,9	Faroes	JO	Faroes	M	26-40	mother exhibitir	y
27	4,9	Faroes	JO	Faroes	F	41-65	craft society	n
*20	28,8	East Icelan	JO	I	F	41-65		n
6	20,8	Reyjkavik	TH	Iceland	M	26-40	word of mouth	y
*28	4,9	Faroes	TH	Faroes	F	41-65	press	n
49	15,9	Shetland	JO	Shetland	F	41-65		n

Entry No.	1 How appealing	2 Why appealing	3 Most appealing	4 Like in own home	5 Why in own home	6 Sell on internet	7 Best sales method	8 Cost Chair	Cost Table
25	4	AL	W	y	SD,W	3	SP,Ex,E-bay	1	1
48	4	ST,STR	ST,RT	y	LI	4	SP	1	1
44	4	OB	ST,CM	y	OB	3	/	1	1
74	4	MA, SH	MA	y	/	4	T,Ex,IN	2	1
29	5	W	W	y	MY	3	Ex	2	0
12	5	/	/	y	/	3	/	2	1
13	4	/	/	y	/	3	/	2	1
15	5	/	/	y	/	4	/	2	1
17	5	ST	ST	y	BI	2	FS	2	3
4	4	/	/	y	/	4	/	2	4
1	4	RT, TBL, RM	RT, MS	y	RM	1	Ex, SS	2	3
18	5	ST,DE, UN	ST,QU	y	AR, UN	3	Ex,SP,DO,RA,	2	1
62	4	W,CM,DE	SD	y	/	2	FS	2	1
50	4	STR,SC,BS	SC	y	LI	4	T,FS	2	2
42	5	DE,UN	RT,SC	y	if bigger	4	T	2	1
80	4	MA	W	y	LI	4	FS	2	3
87	4	SC	CM	y	BI,SD	2	SS	2	1
36	4	CM,W,DE	CM	y	FI	dk	SP	3	2
26	5	OM, UN	R	y	/	1	Ex	3	3
31	4	UN,CM,LCW	CM,VI	y	LI	3	T	3	5
38	5	LE, MA,AP	/	y	SD,LI	3	Ex,T,IN	3	5
9	5	/	/	y	/	3	/	3	2
11	5	IC	SC,MS,W	y	/	1	T	3	7
3	5	SD, WM, TM/	SD	y	SD, LCW, MWF	2	FS, DO, T	3	3
19	5	DE	CM	y	UN,SD,	4	DO	3	2
70	4	UN	WM	y	BI	4	FS	3	3
54	5	CO,AP	SD,W,CM,S	y	LI	2	T	3	3
53	5	MA, UN	TS,W,ST	y	W,SD,RC	2	T	3	1
32	5	DE,C	RT,SC	y	RT	/	SP,DO	3.5	5.5
51	T5,C3.	AP,LE,ST	QU,SD,TS	y	TBL,AL,SO	4	IN,Ex	3.5	5
30	5	VI,AP,ST	DY	y	AP,ST,DY,VI	5	SP, VI	4	4
27	5	QU,SD,DE	SD	y	UN,SO	5	Ex, IN	4	4
20	5	/	/	y	/	dk	/	4	4
6	5	AP	US	y	LI	4	DO	4	2
28	5	AP	CM	y	if smaller	3	Ex	5	5
49	5	DE	SC,RT	y	AP	2	IM	5	6
								2.694	2.708
								3	2.5

9
Importance of considerations

2	5	5	1	2	5
2	5	5	1	1	5
2	5	5	3	5	5
2	5	5	1	5	5
2.5	5	5	1	1	5
2.5	4	4	1	1	5
3	4	5	2	2	5
3	5	4	1	2	4
3	5	5	1	1	5
3	4	4	2	3	4
3	5	5	4	5	5
3	4	4	1	1	5
3	5	5	1	2	5
3	5	5	1	4	5
3	5	5	2	1	4
3	5	5	1	3	5
3	5	5	1	3	4
3	5	5	3	4	5
3	5	5	2	3	5
3	5	5	1	1	5
4	5	5	1	1	5
4	5	5	3	4	5
4	3	4	3	4	5
4	4	4	1	3	4
4	4	4	1	3	4
4	4	5	1	3	4
4	5	5	1	2	4
4	5	5	2	4	5
5	5	4	3	4	5
5	5	4	1	5	5
5	5	5	1	4	5
5	5	5	2	2	4
5	5	5	1	3	5
5	5	5	2	3	5
5	5	5	1	2	5
5	5	5	1	4	5
3.5278	4.75	4.75	1.5556	2.805556	4.75
3	5	5	1	3	5

Appendix 19 Successful Use of Traditional Crafts

Entry No.	Date	Venue	Interviewer	1 From	2 M/F	3 Age Group	4 How did you here about exhib.	5 Pior Knowledge of project.
36	6,9	Faroes	JO	Denmai	M	26-40		n
32	5,9	Faroes	JO	Faroes	F	41-65	press	n
38	6,9	Faroes	TH	Faroes	M	41-65	wife	y
*9	22,8	East Ice	TH	I	F	41-65		n
*13	22,8	East Ice	TH	I	M	41-65	curator	y
2	20,8	Reyjkav	TH	Iceland	M	26-40		n
1	18,8	Reyjkav	TH	Iceland	M	41-65	word of mouth	y
*58	20,9	Glasgov	TH	Scottish	M	26-40	staff	n
64	21,9	Glasgov	TH	Scottish	M	41-65		n
65	22,9	Glasgov	TH	Scottish	M	41-65	through TH	y
70	22,9	Glasgov	TH	Scottish	M	41-65		n
48	11,9	Shetlan	TH	Shetlan	M	26-40		n
42	11,9	Shetlan	TH	Shetlan	F	41-65		n
49	15,9	Shetlan	JO	Shetlan	F	41-65		n
74	30,9	Roskild	TH	Denmai	M	41-65		n
25	4,9	Faroes	TH/JO	Faroes	F	26-40	newspaper	n
26	4,9	Faroes	TH	Faroes		26-40	past years	n
30	5,9	Faroes	JO	Faroes	M	26-40	mother exhibitin	y
31	5,9	Faroes	JO	Faroes	F	26-40	press	n
33	5,9	Faroes	JO	Faroes	M	26-40	advertising	n
27	4,9	Faroes	JO	Faroes	F	41-65	craft society	n
*28	4,9	Faroes	TH	Faroes	F	41-65	press	n
29	5,9	Faroes	TH	Faroes	M	41-65	fellow exhibitor	n
39	6,9	Faroes	JO	Faroes	F	41-65	husband exhibiti	n
81	1,10	Roskild	TH	France	M	26-40		n
11	22,8	East Ice	TH	I	F	41-65	friend	a little
*12	22,8	East Ice	TH	I	M	41-65		n
*15	22,8	East Ice	TH	I	F	41-65	from curator	y
17	23,8	East Ice	TH	I	M	41-65		n
*20	28,8	East Ice	JO	I	F	41-65		n
*4	20,8	Reyjkav	TH	Iceland	F	26-40	relative	n
6	20,8	Reyjkav	TH	Iceland	M	26-40	word of mouth	y
3	20,8	Reyjkav	TH	Lithuna	F	26-40	work at gallery	n
19	24,8	East Ice	TH	Norway	F	26-40	work at museum	n
18	24,8	East Ice	TH	Norway	M	41-65		n
62	21,9	Glasgov	TH	Scottish	M	41-65		n
50	15,9	Shetlan	TH	Shetlan	M	26-40	furniture maker	y
54	15,9	Shetlan	TH	Shetlan	F	26-40	museum staff	y
44	11,9	Shetlan	TH	Shetlan	M	41-65		n
51	15,9	Shetlan	JO	Shetlan	M	41-65	met us	y
53	15,9	Shetlan	TH	Shetlan	M	41-65	museum curator	y
76	30,9	Roskild	TH	Sweder	M	41-65		n
80	1,10	Roskild	TH	Sweder	M	41-65		n
87	4,10	Roskild	TH	Sweder	M	41-65		n

Entry No.	1 How appealing	2 Why appealing	3 Most appealing	4 Like in own home	10 Like to be aware of cultural orig.	11 Familiar with Nordic	12 Express Nordic culture
36	4	CM,W,DE	CM	y	n	y	4
32	5	DE,C	RT,SC	y	n	y	4
38	5	LE, MA,AP	/	y	n	y	3.5
9	5	/	/	y	y	y	5
13	4	/	/	y	n	y	4
2	2	NTS	/	n	n	y	3
1	4	RT, TBL, RM	RT, MS	y	y	y	3
58	3	/	/	n	y	y	3
64	3	DLC,W,RT	RT,W,SC	n	y	y	3
65	3	UN	W	n	y	y	5
70	4	UN	WM	y	y	y	5
48	4	ST,STR	ST,RT	y	n	y	3
42	5	DE,UN	RT,SC	y	y	n	1
49	5	DE	SC,RT	y	y	y	4
74	4	MA, SH	MA	y	n	y	4
25	4	AL	W	y	y	y	3
26	5	OM, UN	R	y	y	y	3
30	5	VI,AP,ST	DY	y	y	y	5
31	4	UN,CM,LCW	CM,VI	y	n	y	5
33	4	QU	RT,DE	n	y	y	5
27	5	QU,SD,DE	SD	y	y	y	4
28	5	AP	CM	y	y	y	3
29	5	W	W	y	y	y	4
39	3	W,IN,TS,SC	SC	n	n	y	4
81	3	DE, QU	C	n	y	y	4
11	5	IC	SC,MS,W	y	y	y	5
12	5	/	/	y	n	y	5
15	5	/	/	y	y	y	5
17	5	ST	ST	y	n	y	4
20	5	/	/	y	n	y	3
4	4	/	/	y	y	y	4
6	5	AP	US	y	y	y	4
3	5	SD, WM, TM/	SD	y	y	y	4
19	5	DE	CM	y	y	y	4
18	5	ST,DE, UN	ST,QU	y	y	y	5
62	4	W,CM,DE	SD	y	n	n	3
50	4	STR,SC,BS	SC	y	n	y	4
54	5	CO,AP	SD,W,CM,S	y	n	y	4
44	4	OB	ST,CM	y	y	y	1
51	T5,C3.	AP,LE,ST	QU,SD,TS	y	n	y	5
53	5	MA, UN	TS,W,ST	y	n	y	4.5
76	5	AP	CM	n	y	y	5
80	4	MA	W	y	y	y	4
87	4	SC	CM	y	y	y	4
							3.909091 4

13 How expess origin	14 Are Nordic crafts recog.	15 Crafts Recog.	16 Nordic culture added value	17 Foreign clear expression	18 Story changed view
AL	4	VS,C	n	2	2
SM,SO	3	WW	n	1	1
BS,VI	3	WW	n	1	1
WO	dk	/	n	5	2
/	4	/	n	1	4
WO	4	VS	n	1	3
BS, LCW	dk	F	n	3	4
WO,VI	2	dk	n	3	4
WO,LCW	3	VS,HE	n	1	2
VI,SO,OM	4	AU	n	3	4
WO,SH	4	F,VS,WW	n	4	4
BS,SM	4	VS	n	3	4
BS,PP	1	VS	n	3.5	4
PP	5	VS,C	n	1	2
BS,SH,SD	5	VS,SH,WW	y	3	3
W,SM	3	/	y	4	1
BS,WO	4	VS,F	y	1	1
VI,BS,SM,SC	4	F	y	5	4
VI	dk	SW	y	2	3
BS	4	VS	y	3	1
AU	4	AU	y	3	4
/	4	/	y	1	5
FA	5	VS	y	4	1
VI, SI	/	SH,HE	y	1	1
W,IN	2	F,VS	y	3	1
SM,SO	4	SC	y	3	1
BS	5	/	y	4	5
/	5	/	y	3	5
SH	4	none	y	4	1
/	4	/	y	3	4
/	4	/	y	5	5
DM	4	VS	y	4	5
WO,W, A	5	WW,F,C	y	4	3
CM	4	VS,C	y	4	5
CM	4	WW	y	4	1
WO	3	WW,VS,QU	y	3	1
BS	4	VS,WO	y	4	/
SH,TE	5	CM,TB	y	4	/
dk	3	VS	y	5	1
AL,SH	5	CA	y	5	1
WO,SC	4	F,VS,WW,SI	y	4	/
CM,LCW,DM	5	WW,BS	y	5	1
dk	4	VS,AE	y	4	4
CM,SC	4	VS	y	5	1
	3.94		69.767442		

19 Would influence purchase	20 Pay more	23 Old or modern	24 Why old/modern	25 cultural value in crafts	26 Why value crafts	27 Has project used traditional crafts in a modern way	
1	n	5	CM,SH	4	CI,LE		5
1	n	5	CM	4	CI,TL		4
4	y	5	CM,SC	5	KN		5
4	n	4	/	2	/		5
5	y	3	/	5	/		4
1	y	3	AU	5	UP		3
1	n	3	CD	5	SB	dk	
1	y	3	/	5	/		4
1	n	4	CM,TA	5	CI,TL		3
4	n	5	CD,SI	5	UP,CO		4
4	y	5	SD	5	QU,UP		5
3	n	3	TR	5	TL		5
1	y	4	SC,LCW	5	SB,CI,LE		5
4	y	5	CM,SC,SH	5	TL,PL		5
1	n	3	CM,AU	5	WR,CI		4
1	/	4	SD	5	DI		5
3	y	4	CD	5	CI		5
5	y	5	IN,QU	5	CI,LE		5
4	y	5	SD	5	CI,KN		5
1	n	5	CM	5	CI		4
1	n	3	/	5	CI, SB		4
4	y	5	/	5	/		5
1	n	4	/	5	CI,PL		5
1	n	5	CM,IN	5	TL,LE	/	
1	n	5	CM	5	KN,QU,D		5
4	y	5	CM	5	CI		5
4	y	4	/	5	/		5
5	y	3	/	5	/		5
2	n	3	/	5	TL		5
4	y	3	/	5	/		4
5	n	5	/	3	/		5
5	y	3	AU	5	AU		4
5	n	5	APP	5	CI, WR		4
4	y	5	CM,SI	5	CI,TL		5
3	y	5	CM	5	CI		5
2	y	4	SI	5	PL,QU		4
5	y	5	CM,CD	5	UP,PL		4
5	y	5	CM,CO	5	CI,LE		5
1	y	2	/	5	UP		5
1	n	5	CM	5	KN, LE		5
5	y	5	CD,ST	5	CI,KN		5
1	y	3	dk	5	CI		5
4	y	5	SH	4	dk		3
4	y	5	TR	5	TL,CO		5

4.571428571
5

Abbreviations

AIFF	Audio Interchange File Format
BA (Hons)	Bachelor of Arts with Honours
BBC	British Broadcasting Corporation
BCUC	Buckinghamshire Chiltern University College
CD	Compact Disc
CD-R	Compact Disc-Recordable
DTI	British Government Department of Trade and Industry
DV	Digital Video
DVD	Digital Video Disc and Digital Versatile Disc
ehf.	Icelandic term equivalent to Ltd. meaning limited company.
JPEG	Joint Photography Expert Group is a standard computer digital file format for photographs.
Mini DV	Digital Videocassette format for digital video cameras
UK	United Kingdom

Language Notes

Icelandic letter types have not been used in the thesis text; instead they have been anglicized with the following English letters:

Icelandic letters	=	Anglicized letters
Đ ð	=	Th th
Þ þ	=	Th th
Æ æ	=	Ae ae
Ö ö	=	O o

English has been used in questionnaires and interviews with Icelanders, because it is the commonly preferred language for international communication and well understood by most.

Glossary of Terms Within the Context of this PhD

Artefact - any object made by people, including for example tools, machines, furniture and works of art.

Viking ship bottom deck knee – L-shaped piece of timber with the grain approximately following the shape, reinforcing the joint between timbers in the hull and the bottom deck of a Viking ship.

Carver – a chair with arms that complements a chair without and normally sits at the ends of a dining table and gets its name from being the position of carving the meat.

Craft tradition - methods of making artefacts by hand that are handed down through the generations specific to a region or culture.

Crafts practitioner – a person who practices these craft tradition.

Drawknife – A two handled blade for shaving wooden components to shape. Often used together with a shaving horse.

Designer/Maker - a maker (as described below) and designer of things that may be made by themselves or by other makers or industry.

Froe – Hand tool used in spitting small logs in half along the grain.

Icelandic craft traditions – those that are represented at the National Museum of Iceland, the Skógor Folk Museum, Iceland and other regional Museums.

Maker - a person who makes things by direct manipulation of materials with hands and tools, with an understanding of the craft tradition and/or industrial practice of their chosen material (wood, metal glass) or field of making practise. Also referred to as a craftsman, crafts person or craft practitioner.

Imitate – to copy a process of manipulating materials with hands and hand tools or machines.

Nordic – the Nordic region which includes those countries that are members of the Nordic Council: Norway; Sweden; Finland; Aland; Denmark; Faroe Islands; Greenland; Iceland.

Sternpost – the vertical timbers at either end of a wooden ship.

Tang – pointed end of a tool, such as a knife, file or chisel, which is fitted into a handle or shaft.

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Site and other Visits

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Kolbrun Bjorgolfsdottir, Ceramic Potter and sculptor at Kogga Pottery, Iceland, 10.04.02.

Edda Björnsdóttir and Hlynur Halldórsson, Wood, Bone, Horn Carving at Listithjan EIK, Iceland, 5.11.02.

Ófeigur Björnsson, Master Gold and Silver Smith and Sculptor, Iceland, 24.7.03.

Halla Bogadóttir, Goldsmith, Iceland, 20.7.03.

Grein e.h.f., Cabinet Making Company, Iceland, July 2003.

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Kolbrún S. Kjarval, Ceramics and Sculpture, Iceland, 25.7.03.

Sigithur J Kristjánsdottir, Wood Carver, Iceland, 4.11.02.

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Ragnhildur Magnúsdóttir, Wood Carver, Iceland, 3.11.02

Gudmundur Magnússon, Green Wood Worker and Carpenter, Iceland, 3.11.02.

Málmsteypan Hella e.h.f. Foundry and Pattern Makers, Iceland, July 2003.

Ole Jakob Nielsen, Wood Turner and Sculptor, Faroe Islands, 8.9.04.

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