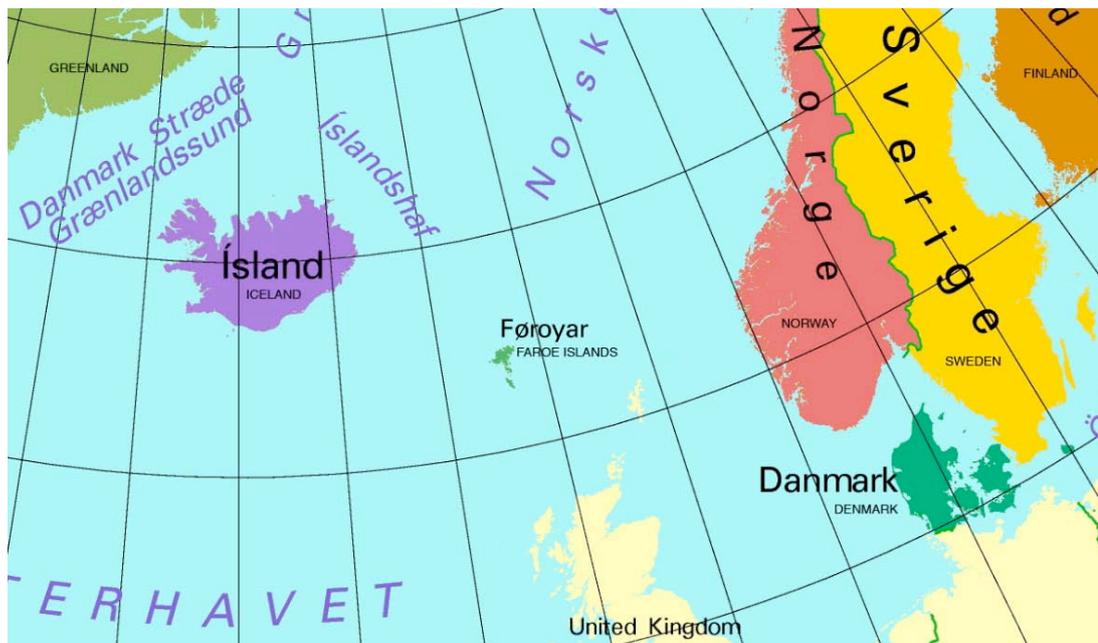


## 2. Research



**Fig. 7 Map of the Nordic Region. Copyright, Kort & Matrikelstyrelsen, Denmark.<sup>8</sup>**

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

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<sup>8</sup> Nordic Council, 'Map of the Nordic Region (Copyright, Kort & Matrikelstyrelsen, Denmark)', *Facts about the Nordic Region and Nordic Co-operation*, <[www.norden.org](http://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 Björgólfsson, 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 Kristjánsdóttir, 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.

Fjölur 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...<sup>9</sup>

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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<sup>9</sup> 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 Kristjansdóttir, 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 Hafsteinsdóttir 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.

Thórhur Tómtsson, 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<sup>10</sup> 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).

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<sup>10</sup> 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.**<sup>11</sup> 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.**<sup>12</sup> 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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<sup>11</sup> Edinburgh College of Art, 'Tacitus Research Project', <<http://www.eca.ac.uk/tacitus/>>, 2001 (accessed 16 May 2005).

<sup>12</sup> 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.<sup>13</sup>

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<sup>14</sup> 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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<sup>13</sup> G. Karlsson, p. 248.

<sup>14</sup> 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.<sup>15</sup>

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.<sup>16</sup>

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

<sup>16</sup> 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.<sup>17</sup>

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 Hafnarfjörður, 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.<sup>18</sup>

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,

Sigurður 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.<sup>19</sup>

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.<sup>20</sup> 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 Husavík. This plant has been in operation since 1996. Hardwood logs are transported from North America to Husavík where they are sawn and kiln dried with geothermal hot water. In the beginning the products were

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<sup>17</sup> Karlsson, p. 358.

<sup>18</sup> Karlsson, p. 358.

<sup>19</sup> D. Schunmann, 'Power Steering', *New Civil Engineer*, 9/9/04, p. 16.

<sup>20</sup> A. Ragnarsson, 'Geothermal Development in Iceland 1995-1999', OS Orkustofnun, [www.os.is](http://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.<sup>21</sup>

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.<sup>22</sup>

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.<sup>23</sup>

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<sup>21</sup> Ragnarsson.

<sup>22</sup> J. Byock, *Viking age Iceland*, Penguin, London, 2001, p.33.

<sup>23</sup> 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'<sup>24</sup>, 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.<sup>25</sup>

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.<sup>26</sup> 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.<sup>27</sup> 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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<sup>24</sup> 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.

<sup>25</sup> K. Yair, A. Tomes, M. Press, p. 497.

<sup>26</sup> K. Yair, A. Tomes, M. Press, p. 496.

<sup>27</sup> 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.<sup>28</sup>

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<sup>28</sup> C. Rust, S. Hawkins, G. Whiteley, A. Wilson, J. Rod.