

Project note no. 2-2012

Mae Colburn

# Reading into Norwegian Wool

an Annotated Bibliography for Textile
Innovators and Entrepreneurs



© SIFO 2012 Project note no 2 – 2012

NATIONAL INSTITUTE FOR CONSUMER RESEARCH Sandakerveien 24 C, Building B P.O. Box 4682 Nydalen N-0405 Oslo www.sifo.no

Due to copyright restrictions, this report is not to be copied from or distributed for any purpose without a special agreement with SIFO. Reports made available on the www.sifo.no site are for personal use only. Copyright infringement will lead to a claim for compensation.



| Title                       | Antall sider   | Dato                   |
|-----------------------------|----------------|------------------------|
| Reading into Norwegian Wool | 46             | 27.02.2012             |
| Forfatter(e)                | Prosjektnummer | Faglig ansvarlig sign. |
| Mae Colburn                 | 11-2010-11     | Irgun O Klern          |

#### Oppdragsgiver

SIFO

#### Sammendrag

Denne bibliografien skal gi leseren en oversikt over litteratur om norsk ull. Den legger vekt på ny litteratur, fokuserer på klestekstiler, og inkluderer kilder skrevet på både norsk og engelsk. Denne forskningen ble gjennomført som en del av prosjektet *Valuing Norwegian Wool* initiert av Statens institutt for forbruksforskning (SIFO) i samarbeid med Nordic Initiative, Clean and Ethical (NICE) for å skape oppmerksomhet rundt, og generere kunnskap om norsk ull som en bærekraftig, etisk, og verdifull naturressurs.

#### **Summary**

This is an annotated bibliography intended to orient readers within literature about Norwegian wool. It emphasizes new literature, focuses on clothing textiles, and includes sources written in both Norwegian and English. This research was undertaken as part of the project *Valuing Norwegian Wool* initiated by the National Institute for Consumer Research (SIFO) in partnership with the Nordic Initiative, Clean and Ethical (NICE) to further our collective knowledge of Norwegian wool as a sustainable, ethical, and valuable natural resource.

### Stikkord

Norsk ull, ulltekstiler, tekstilproduksjon, ullindustri, ull og mote

### Keywords

Norwegian wool, woollen textiles, textile production, wool industry, wool fashion

Reading into Norwegian wool

# **Reading into Norwegian Wool:**

An Annotated Bibliography for Textile Innovators and Entrepreneurs

by Mae Colburn

- with Ingun Grimstad Klepp and Marie Hebrok

## **National Institute for Consumer Research**

Statens Institutt for Forbruksforskning (SIFO)
P.O. Box 4682 Nydalen, N-0405
Oslo, Norway
www.sifo.no
December 2011

# **Acknowledgements:**

A special thanks to Ingun Grimstad Klepp, Marie Hebrok, Madeline Buck, Kirsi Laitala, Sarah Almgren, Hanne Hole Young, and Charlotte Bik Bandlien at the National Institute for Consumer Research (SIFO); Tone Tobiasson at the Nordic Initiative, Clean and Ethical (NICE); Eli Vesaas and Ingebjørg Vaagen at the Refashioning Vadmel Workshop; Kari-Anne Pedersen and Tone Odden at the Norwegian Museum of Cultural History; Tone Rasch and Ingebjørg Eidhammer at the Norwegian Museum of Science and Technology; Sylvi Sørensen at Sjølingstad Woolen Mill; Laurann Gilbertsen and Jennifer Kovarik at Vesterheim Norwegian-American Museum; and Hilde Buer, Carol Colburn, Aagot Noss, Amy Lightfoot, Carol Huebscher Rhoades, Terri Shea, and Annemor Sundbø.

# **Table of Contents**

| ABLE OF CONTENTS                | 3  |
|---------------------------------|----|
| NTRODUCTION                     | 4  |
| NNOTATED BIBLIOGRAPHY           | 6  |
| 1. SOURCES                      | 6  |
| A. Research Organizations       | 0  |
| B. Museums                      |    |
| C. Archives                     |    |
|                                 |    |
| 2. NORWEGIAN WOOL CAMPAIGNS     | 10 |
| A. The Wool Project             |    |
| B. Earlier Campaigns            |    |
| 3. RAW MATERIALS AND FARMING    | 13 |
| 4. DESIGN AND CONCEPT           | 17 |
| A. Fashion and Design Surveys   |    |
| B. Designer Monographs          |    |
| C. Design Diaries               |    |
| 5. MANUFACTURING AND PRODUCTION | 20 |
| Industrial Production           |    |
| A. Primary Sources              |    |
| B. Secondary Sources            |    |
| 1. Surveys                      |    |
| 2. Monographs                   |    |
| Craftwork and Cottage Industry  | 22 |
| A. Knitting                     |    |
| 1. Knitting History             |    |
| 2. Knitting Today               |    |
| 3. Patternbooks                 |    |
| B. Weaving                      |    |
| C. General Studies              |    |
| 1. Archeological Studies        |    |
| 2. Ethnographic Studies         |    |
| D. Handcraft Education          |    |
| 6. CONSUMPTION AND USE          | 35 |
| 7. RECYCLING                    | 38 |
| 8. CONCLUDING REMARKS           | 40 |
| DUADETICAL LIST OF SOLIDCES     | 42 |
| DEADETICAL LICEAL DE CATIONES   |    |

# **INTRODUCTION**

This is an annotated bibliography intended to orient readers within literature about Norwegian wool, Norway's 'white gold.' It emphasizes new literature, focuses on clothing textiles, and includes sources written in both Norwegian and English. This research was undertaken as part of the Wool Project initiated by the National Institute for Consumer Research (SIFO) in partnership with the Nordic Initiative, Clean and Ethical (NICE) to further our collective knowledge of Norwegian wool as a sustainable, ethical, and valuable natural resource.

'Traditional,' 'hardwearing,' and 'coarse' are adjectives often associated with Norwegian wool. These adjectives are accurate, but not absolute. In its most basic sense, wool refers to the hair of a sheep, goat, or similar animal. It is grown on every continent, comes in countless varieties, and can be transformed into everything from soft bikini briefs to thick, oil-absorbing mats. It possesses unparalleled insulating and moisture-wicking qualities and is of immense practical value in Norway, where winters are cold, wet, and remarkably long. Although many hands-on practices associated with wool (such as knitting, weaving, and felting) have waxed and waned in recent years, its practical value remains deeply engrained in Norway's cultural fabric. Wool sweaters are ubiquitous and wool underwear is a staple during the winter months.

Wool abounds in Norway, but most of it is imported, the result of shifting consumer preferences and a dwindling domestic infrastructure. This project aims to expand academic and popular discourse surrounding Norwegian wool and invigorate a more culturally, socially, and environmentally fluent consumer base. A relatively broad definition of Norwegian wool has therefore been employed throughout this study, encompassing wool garments worn and designed in Norway regardless of origin. A clear emphasis has, however, been placed on sources relating to wool grown and processed in Norway, wool that is Norwegian to the core.

The Wool Project aims explicitly to "look at the whole lifecycle of wool." This bibliography has been organized accordingly, using a lifecycle-based model inspired by the Cradle-to-Cradle concept first conceived of by Walter Stahel of the Product Life Institute in Switzerland and later developed by William McDonough and Michael Braungart. Cradle-to-Cradle represents a shift away from the waste-based material flow precipitated by the Industrial Revolution. In the Cradle-to-Cradle system, discarded products become nutrients, or "waste equals food." McDonough and Braungart describe two parallel metabolisms: a biological metabolism, or the cyclical processes of nature, and an industrial metabolism, in which materials circulate in a closed-loop of production, use, and reproduction. As Kjersti Kviseth notes in "Norwegian"

<sup>1</sup> Wool is referred to a Norway's "white gold" in a so-called 'propaganda brochure' produced by the Norwegian Agricultural Department in 1940. More information on this brochure is available in section two.

<sup>3</sup> McDonough, William and Michael Braungart. *Cradle-to-Cradle: Remaking the Way we Make Things* (New York: North Point Press 2002).

<sup>&</sup>lt;sup>2</sup> "Wool Project," Nordic Initiative, Clean and Ethical, accessed November 29, 2011. http://www.nicefashion.org/en/featured-projects/Wool/index.html.

Wool: Norwegian Sheep Husbandry as Basis for Cradle-to-Cradle Development" (2011), wool is both biodegradable and recyclable and, given the proper infrastructure, could circulate within both metabolic systems. Inspired by McDonough and Braungart, Kviseth outlines a Cradle-to-Cradle model for Norwegian wool (coined Renewawool) that flows from farming, to shearing, scouring, spinning, dyeing, knitting and weaving, design, manufacturing, distribution, use, and finally, to recycling.

This project is organized into a series of subjects based loosely on those outlined by Kviseth: raw materials and farming, design and concept, manufacturing and production, consumption and use, and finally, recycling. Two extra sections have been added in the beginning to orient readers within the Norwegian library and archive system and provide an historical perspective on Norwegian wool campaigns. Sources that fit into multiple sections are categorized according to a best-fit policy, but for the most part, this organizational system works. It provides a comprehensive understanding of Norwegian wool and brings previously unexplored aspects of the wool lifecycle into focus.

The Wool Project is one component of a larger reorientation toward a more holistic concept of Norwegian wool. This holistic strategy is not altogether new. Early twentieth century sources discuss the wool lifecycle from sheep to shoddy, reflecting a unique period in Norwegian history when the agrarian and industrial economies existed simultaneously and often overlapped. As Norway became increasingly urbanized and de-industrialized toward the end of the twentieth century, discourse surrounding Norwegian wool has narrowed, focusing on products rather than the processes involved in their production, maintenance, and recycling. More than anything, this project seeks to reintegrate discrete aspects of the wool lifecycle and make room for innovation within and beyond the realms of 'traditional,' 'hardwearing,' and 'coarse' wool products.

# ANNOTATED BIBLIOGRAPHY

Sections one and two are intended to orient the reader within the Norwegian library system and the business of promoting Norwegian wool. Beyond these initial sections, sources are organized according to the Cradle-to-Cradle system, which flows from raw materials, to design, production, consumption, and finally, recycling. Each section opens with an overview, followed by a series of citations organized in reverse chronological order. Each citation indicates whether the source is written in Norwegian or English and, when necessary, includes a brief English description of the title. Most of these sources were consulted in Oslo, but many are also available through international and online indexes.

## 1. SOURCES

### **SECTION OVERVIEW:**

This section includes a list of libraries and archives that feature sources specifically relevant to Norwegian wool. It focuses on specialized libraries housed at research institutions and museums. Online navigation of the Norwegian library and archive system is relatively simple. BIBSYS (<a href="www.bibsys.no">www.bibsys.no</a>) and Arkivportalen (<a href="www.arkivportalen.no">www.arkivportalen.no</a>) are Norway's primary library and archive search engines, covering most significant public and private collections. They proved tremendously helpful in completing this project.

Even more helpful, however, were conversations with scholars, researchers, and librarians who have specialized knowledge of the field and are acquainted with existent collections, several of which are particularly relevant to this study. Chief among these are the Anna Grostøl archive at the Norwegian Museum of Cultural History and the Hjula Archive at the Norwegian Museum of Science and Technology. The first concerns craftwork and cottage industry and the second, industrial textile production. A third potential source is the Norwegian Textile Library, established in 1938 to house resources pertaining to the textile industry. The contents of this library were recorded in a catalogue in 1948, but the physical location of the collection is currently unknown. Norway has a long tradition of documenting everyday life and significant events. This, combined with a strong academic tradition, has resulted in a great reserve of cultural memory housed in libraries and archives throughout the country.

### A. RESEARCH ORGANIZATIONS

National Institute for Consumer Research (Statens Institutt for Forbruksforskning):

The National Institute for Consumer Research (SIFO) library, located in Oslo, includes books, journals, magazines, and other material related to the diverse areas of consumer research undertaken at the Institute. Research undertaken for the Wool Project is available on the SIFO website (<a href="www.sifo.no">www.sifo.no</a>) and additional materials are available at NICE website (<a href="www.nicefashion.org">www.nicefashion.org</a>). These resources are particularly useful for those interested in contemporary production and consumption of Norwegian wool, technical

research into wool's performance as compared with other textiles, and current wool campaigns in Norway and abroad.

### Norwegian Ethnographic Research Institute (Norsk Etnologisk Gransking):

The Norwegian Museum of Cultural History established the Norwegian Ethnographic Research Institute (NEG) in 1946 to document everyday life in Norway. The archive is comprised of hundreds of *spørrelister*, or question lists, sent to correspondents in municipalities throughout the country. Responses have been compiled at the Norwegian Museum of Cultural History. These *spørrelister* are available on the museum website (<a href="www.norskfolkemuseum.no">www.norskfolkemuseum.no</a>) and responses can be obtained upon request. Relevant surveys conducted to date cover such topics as sheep farming, clipping, home textile production, and use of wool in everyday life. Information for researchers wishing to submit *spørrelister* is also available on the museum website.

### **B. MUSEUMS**

Many museums throughout Norway and the United States feature Norwegian wool. Most of these museums maintain a large collection beyond what is on display and house a library open by appointment. Several major institutions are included here.

The Norwegian Museum of Cultural History (*Norsk Folkemuseum*): Located in Oslo, the Norwegian Museum of Cultural History houses a vast collection of wool textiles from regions throughout Norway dating as far back as the 14<sup>th</sup> century. Part of the museum's mission is to support research on folk traditions. Their library and archives include numerous titles on wool textiles in Norway, emphasizing craftwork and cottage industry.

### The Norwegian Museum of Science and Technology (Norsk Teknisk Museum):

The Norwegian Museum of Science and Technology in Oslo houses a large collection of equipment and archival material related to the Norwegian wool textile industry in the 19<sup>th</sup> and 20<sup>th</sup> centuries. Their library includes primary source material such as industry books and journals and secondary sources written about home and industrial production. The museum also hosts a website on Norwegian industry (<a href="www.industrimuseum.no">www.industrimuseum.no</a>), which includes information on wool textile mills.

National Museum of Art, Architecture and Design (Nasjonalmuseet for Kunst, Arkitektur og Design): The National Museum includes four separate museum venues. Most relevant to this study is the Museum of Decorative Arts and Design (Kunstindustrimuseum), which houses an extensive collection of historic fashionable dress and textiles. The four musuem venues share a library, which contains numerous sources on Norwegian designers and fiber artists.

**Sjølingstad Woolen Mill (Sjølingstad Uldvarefabrikk):** Sjølingstad Woolen Mill was established in 1984 in Mandal, on Norway's southern tip. It was converted

into a working textile museum in 1986 and provides guided tours of the production process from raw wool to finished fabric. Their archive includes historical sample books and examples of textiles produced at the mill.

Museum of Norwegian Knitting Industry (*Norsk Trikotasjemuseum*): The Museum of Norwegian Knitting Industry is located at the site of the Salhus Knitwear Factory (1859-1989), twenty kilometers north of Bergen. Visitors are led through the production process from raw materials, to yarn, to knitted fabric and finished garments.

**Vesterheim Norwegian-American Museum:** Vesterheim was founded in Decorah, Iowa (U.S.A.) in 1877 to chronicle the Norwegian-American emigrant experience. Their collection and library include a broad range of textile-related materials and serve as important resources for researchers based in the North America, especially for those interested in exploring the transfer and development of traditional Norwegian textile production in the United States.

### **C. ARCHIVES**

### The Anna Grostøl Archive at the Norwegian Museum of Cultural History:

The Anna Grostøl archive is comprised of interviews, photographs, and films gathered by Grostøl between 1920 and 1950 on skills and techniques used on rural Norwegian farms. Grostøl (1894-1962) recorded information on materials, implements, and techniques used in textile and clothing production and wool holds a central place in the archive, featuring in discussions of spinning, weaving, knitting, dyeing, felting, vadmel, and verken. After Grostøl's death, the materials were presented to the Norwegian Academy of Science and Letters, and later to the Norwegian Museum of Cultural History, where they remain today. Many of Grostøl's photographs are also available on <a href="https://www.digitalmuseum.no">www.digitalmuseum.no</a>. The archive has been used in several textile studies to date but merits further investigation. Monographs on Grostøl's fieldwork include Bilete frå Åseral (1994) and "Anna Grostøl på Lista" (1994), featured below.

Gauslaa, Torbjørg. "Anna Grostøl på Lista: Litt om Granskningsarbeidet Hennar – 1920-1950-talet: Vyrke og Arbeidsteknikkar frå Naturhushaldet."
Raufoss: Raufoss Trykkeri A.S., 1994.

### **NORWEGIAN**

**Title note:** A Summary of Anna Grostøl's research on techniques and labor practices used on Norwegian subsistence farms from the 1920s through the 1950s

Written to celebrate the 100<sup>th</sup> anniversary of Anna Grostøl's birth, this booklet provides an overview of Grostøl's fieldwork and details about the archive material available at the Norwegian Museum of Cultural History and several other locations. It also includes a series of Grostøl's photographs, comprehensive lists of her films and publications, information on her education,

and a list of grants and stipends that she received throughout the course of her career.

### The Hjula archive at the Norwegian Museum of Science and Technology:

The Hjula Weavery (1855-1957) was a cotton and wool textile manufacturing company located on the Aker River in Oslo. Letters, bills, and account books belonging to the company and its founder, Halvor Schou, were given to the Norwegian Museum of Science and Technology in the early 1970s, and sample books were added to the archive at the end of the 1990s. Jan Wiig, Tone Rasch, and Kristine Bruland are among those who have studied the archive in the past. Rasch's "Blåtøy, kjoletøy og flanell," and Bruland's British Technology and European Industrialization, are discussed in section five. Bruland's "Hjula-arkivet og studiet av tidlig norsk industrialisering," which discusses the contents and potential uses of the Hjula archive, is included below.

Bruland, Kristine. "Hjula-arkivet og studiet av tidlig norsk industrialisering." Volund: årbok for selskapet Norsk teknisk Museum. Oslo: Norsk Teknisk Musuem, 1987.

NORWEGIAN WITH ENGLISH SUMMARY

Title note: The Hjula archive and studies on early Norwegian industrialization

This article concerns the history and potential uses of the Hjula archive at the Norwegian Museum of Science and Technology. Bruland discusses research based on the archive to date and proposes several potential research questions. This article underscores the importance of company history in understanding European industrialization and serves as an important precursor to the author's later book, *British Technology and European Industrialization* (1989).

### The Norwegian Textile Library (Norsk Tekstilbibliotek)

The Norwegian Textile Library was founded in 1938 to provide technical resources for the Norwegian textile industry. The library included publications in Norwegian, German, and English on such topics as industrial organization, accounting, labor relations, raw materials, and mechanics. Company histories and *jubileumskrifter* (anniversary texts) were also featured. The library was originally located in Bergen, but was moved to Oslo in 1958. While a record of the contents of the library is included in "Katalog over Norsk Tekstilbibliotek," featured below, the location of the collection is currently unknown.

"Katalog over Norsk tekstilbibliotek : yrkesbibliotek for tekstilindustrien." Norsk Tekstilbibliotek, Bergen, 1948.

**NORWEGIAN** 

**Title note:** Norwegian textile library directory

This booklet provides a brief history of the Norwegian textile library and a complete catalogue of its contents. In addition to serving as an important tool for researchers investigating the development of the Norwegian textile industry prior to 1948, it provides critical insight into the maintenance and dissemination of industry knowledge.

### 2. NORWEGIAN WOOL CAMPAIGNS

### **SECTION OVERVIEW:**

There have been a number of significant campaigns on behalf of Norwegian wool throughout the past sixty years, several of which are included here. They illustrate a variety of promotional strategies, and an equally diverse range of agendas. Organizations represented include industrial, agricultural, environmental, educational, and consumer-oriented groups. Although their true impact is unclear, the campaigns described here form a strong and multifaceted argument for the use of domestic wool.

Prior to the Second World War, campaigns tended to focus on the economic potential of domestic wool production. The earliest example featured here, dating from 1940, demonstrates this in a very literal way by proclaiming Norwegian wool to be 'kvite gullet,' or white gold. When Norway's economy strengthened in the 1960s, cultural rather than economic concerns became paramount and discourse surrounding Norwegian wool began to shift, focusing on heritage breeds and grazing for landscape preservation. Recent campaigns emphasize ethical and environmental concerns, responding to a burgeoning consciousness about animal welfare and the carbon footprint. A common refrain in each of these campaigns is the need for a state-of-the-art wool sorting and classification system in Norway. This appears to be as crucial a concern today as it was sixty years ago.

More so than other sections, sources included here demonstrate a consistently holistic approach to Norwegian wool. Early sources describe a robust value chain *in Norway* using *Norwegian wool*, a localized lifecycle espoused in the Cradle-to-Cradle model. In many ways, these historical sources can be viewed as earlier models of the Life Cycle Traceability software used by companies such as Icebreaker and Patagonia, and could serve as a point of reference in developing the Renewawool system.

#### A. THE WOOL PROJECT

Klepp, Ingun Grimstad, Tone Skårdal Tobiasson, and Charlotte Bik Bandlien. "A Fresh Look At Wool." National Institute of Consumer Research and Nordic Initiative, Clean and Ethical, 2011.

### **ENGLISH**

Addressing the current devaluation of wool produced in Norway, Klepp, Tobiasson, and Bandlien make the case for wool as an integral component of a more environmentally sustainable textile production and consumption model in Norway and abroad. After describing the Wool Project, the authors address factors contributing to current consumer stigmas against Norwegian wool, among them, mislabeling and misrepresentation. Ultimately, the authors propose a general reorientation toward unique products that exploit the social, cultural, environmental benefits of domestic wool.

Melchior, Marie Reigels. "From Design Nations to Fashion Nations? Unpacking Contemporary Scandinavian Fashion Dreams." Fashion Theory (Berg) 15, no. 2 (2011): 177-200.

**ENGLISH** 

In this article, Melchior provides a comparative analysis of Denmark, Sweden, and Norway in light of current trends in fashion, design, and politics. Design, Melchior suggests, served as the material equivalent to the social democratic welfare states that emerged in Scandinavia after the Second World War; both emphasized functionalism, egalitarianism, and "better solutions." The recent emphasis on fashion in Scandinavian countries marks a new era of international competition and national branding. Melchior examines unique aspects of each country's fashion industry. In Norway, she observes a merging of distinctiveness and ethics in the work of the Nordic Initiative, Clean and Ethical (NICE) and the Wool project.

### **B. EARLIER CAMPAIGNS**

Bjøru, Ronald and Åsbjørn Karlsen, eds. "Ull og ullbehandling: fagdag under "Sauens uke" 1996." Grønn forskning, 1997.

**NORWEGIAN** 

Title note: Wool and wool handling: Sheep Week symposium, 1996

Sheep Week, or *Sauens uke*, hosted in Tjøtta in 1996, included a series of courses and seminars on sheep husbandry and wool production. Printed in conjunction with the event, this booklet explains the historical significance of wool in Norway and the need to maintain wool classification standards that reinforce the value of wool from Norway's heritage breeds, such as the double-coated *spelsau*. The booklet features essays by Arne Brekken, Annemor Sundbø, Sissell Berntsen, and Sigurt Utne and covers such topics as breeding, sorting, infrastructure, and operations.

Engstrøm, Ulla. Arbeide med Ull. Landbruksforlaget, 1981.

**NORWEGIAN** 

Title note: Working with wool

The stated goal of this booklet, originally published in Sweden and circulated throughout Norway, is to "get as many people interested in working with sheep's wool as possible." Intended for use in classrooms, workshops, and seminars, this booklet includes instructions for felting, spinning, and plant dyeing with wool. Engstrøm takes a decidedly experiental approach, aiming to cultivate a broader appreciation of wool through hands-on educational experiences.

"Om ull og ullvarer." Tekstilfabrikkenes Konsulent- og Opplysningskontor, n.d., ca. 1960.

**NORWEGIAN** 

**Title note:** Wool and woolen goods

Produced by the Textile Factory Consultant and Information Office (*Tekstilfabrikkenes Konsulent og Opplysningskontor*), this pamphlet asserts the need to expand the Norwegian wool industry to meet the demands of the Norwegian public. It

walks readers through various aspects of wool textile production and use, discussing the wool classification system, the distinct qualities of wool, and proper washing techniques.

# "Garn er Ikke Bare Garn: Utstillingen Norsk Ull: avl, sortering, kvalitet." Statens Kvinnelige Industriskole, 1956.

**NORWEGIAN** 

**Title note:** Norwegian wool exhibition: breeding, sorting, quality

This pamphlet, produced in conjunction with an exhibit on Norwegian wool mounted by *Statens Kvinnelige Industriskole* (the National Women's Industrial School) in 1956, identifies products that make appropriate use of Norwegian wool (i.e. product development using available resources). Norwegian wool, the authors argue, possesses untapped economic potential. Conclusions are based on close analysis of distinct wool types available in Norway.

# Sande, Erling. "Ull: Kvalitet, Klipping, Behandling." Norsk Sau- og geitalslag, 1949. NORWEGIAN

**Title note:** Wool: quality, shearing, treatment

This booklet was published to accompany the educational film, "Clipping and Hand Processing of Wool" (or "Klypping og Handsaming av Ull"), produced by the Norwegian Sheep and Goat Coalition in 1949. Sections discuss wool quality, wool production, clipping, and classification. With its corresponding film, this booklet demonstrates the early use of new media in the promotion of Norwegian wool.

## "Norsk Ull: Landbruksdepartementets propagandaskrift for Ullsaka i 1940." Landbruksdepartmentet, 1940.

**NORWEGIAN** 

**Title note:** 'Propaganda brochure' on Norwegian wool produced, by the Agricultural Department in 1940

Produced in 1940, this brochure discusses the significance of the Norwegian sheep and wool industry within the national economy. It includes photographs of models in handsome, fashionable clothing made of Norwegian wool (*vadmel*, tweeds, and knitwear) and a number of impassioned essays on economic independence and Norwegian wool production, describing Norwegian wool as white gold, or *det kvite gullet*.

### 3. RAW MATERIALS AND FARMING

### **SECTION OVERVIEW:**

This section features sources on sheep husbandry and raw wool production in Norway. It includes a number of overview publications and several reports and theses. Special attention has been paid to *villsau* and *spelsau*, primitive short-tailed breeds considered native to Scandinavia. With their sturdy constitution and unique double coat, these breeds have a well-deserved following among proponents of Norwegian wool.

Recent sources on Scandinavia's primitive breeds include Hilde Buer's *Villsauboka* (2011) and several articles in *The World of Colored Sheep* (2004). Other sources featured here cover a range of topics, from sorting and classification, to alternative wool fiber sources, to product development. Other specialized sources are available at the *Universitet for Miljø og Biovitenskap* (the Norwegian University of Life Sciences), located in Ås in southeastern Norway. Most sources on sheep husbandry in Norway use somewhat specialized vocabulary, indicating that popular knowledge of the field might be rather scant. That said, several recent texts aim to engage a more popular audience, and as a more holistic lifecycle approach to wool textile production gains momentum, so too will this body of literature.

Buer, Hilde. Villsauboka. Førde: Selja Forlag, 2011.

**NORWEGIAN** 

Title note: The wild sheep book

Buer's *Villsauboka* explores the culture surrounding wild sheep in Norway, both past and present. An entire chapter is devoted to wool, with sections on traditional wool textile production, the unique characteristics of *villsau* wool, and use of *villsau* wool today (she even includes a list of spinneries that process *villsau* wool in Norway). Buer translates a highly specialized field into a readable format, providing readers with extensive cultural and technical information based on research and personal experience.

# Kviseth, Kjersti. "Norwegian Wool: Norwegian Sheep Husbandry as Basis for Cradle to Cradle Development." Oslo: Statens Institutt for Forbruksforskning, 2011. ENGLISH

In this article, Kviseth positions Norwegian sheep husbandry and the Norwegian wool industry within current debates about environmental sustainability and animal welfare, providing a strong argument for the implementation of a Cradle-to-Cradle wool textile system in Norway. The author goes into detail about various aspects of raw wool production and wool processing before describing how Norwegian wool could be integrated into a Cradle-to-Cradle system.

Klepp, Ingun Grimstad, Snapshot: Wool. Vol. 8, Berg Encyclopedia of World Dress and Fashion. Edited by Lise Skov. Oxford: Berg, 2010.

**ENGLISH** 

This article provides a brief overview of wool from antiquity to the present, describing its unique qualities and role in Europe's economic and material history. Although it was once the "primary material for clothing in Europe," wool textiles have recently experienced a dramatic devaluation, while cotton and synthetic fibers have grown in popularity. Norwegian *spelsau* is mentioned as an example of a double-coated primitive sheep with a coarser, sturdier outer coat and a fine undercoat.

# Cottle, D.J. *The International Sheep and Wool Handbook*. Nottingham: Nottingham University Press, 2010.

#### **ENGLISH**

This book covers the sheep and wool industry, "from paddock to plate" and "farm to fabric," with sections on breeding, flock management, and wool production and processing. The first section covers the history and development of sheep and wool industries in Europe and outlines the context within which the Norwegian industry exists. While Norway is not the sole focus of this book, it provides a strong framework for further regional studies.

# Vatn, S. "The Sheep Industry in the Nordic Countries." *Small Ruminant Research*, 86 (2009): 80-83.

### **ENGLISH**

This article provides recent statistical information about the sheep industry in Scandinavia, comparing information from Norway, Sweden, Finland, Denmark, and Iceland. Topics include sheep meat and wool production, characteristics of each regional sheep population, and preavalence of diseases in sheep. The author notes that wool and pelt production accounts for less than ten percent of sheep farmers' total income in the Nordic countries.

# Lundie, Roger S. and Elspeth Wilkinson, eds. *The World of Coloured Sheep*. The Black and Coloured Sheep Breeders' Association of New Zeland, 2004.

#### **ENGLISH**

In addition to general information on breeding colored sheep, managing a flock, and marketing fleece, this book contains several Scandinavia-specific articles. These include, "An Historical Overview of the Short-tail Breeds of Northern Europe" (17-19) and "The Traditional Handcraft Industry in Scandinavia" (235-7), both by Carol Huebscher Rhoades, and "The Primitive Short-tailed Sheep Breeds of Norway and Sweden" by David J.J. Kinsman (19-22). The articles provide useful historical, technical, and taxonomical information on Scandinavia's short-tail breeds.

# Steffens, Henrik and Sissel Berntsen. *Vi høster ull:* Lærebok om saueklipping, ullhåndtering og ullklassifisering. Oslo: 1999.

### **NORWEGIAN**

**Title note:** We harvest wool: textbook on shearing, handling, and classification

First published in 1999 and later reissued in 2003 and 2010, this textbook covers topics ranging from sheep breeds and breeding, wool fiber, shearing, classification, and

wool-related courses and competitions. Intended as a resource for farmers, wool graders, and shearers, the book includes contributions from Steffens, Berntsen, Signe Dahl, Rolf Gravdal, Turid Sundt, and Anna Rehnberg.

# Saueklypping. Ein instruksjonsfilm om riktig klyppeteknikk og riktig ullbehandling. Landservice, 1996.

**NORWEGIAN** 

Title note: An Instructional video on proper shearing techniques and woolhandling
This film was commissioned by the Norwegian Wool Advisory Service
(Fagtjenesten for ull) with support from the National Agricultural Authority (Statens landbruskforvaltning) as an instructional video for farmers and shearers. In 56 minutes, the film covers the use and maintenance of shearing equipment, pre-shearing exercises, shearing technique, shearing of double-coated sheep, footwork, grading, and wool packing.

# Eik, Lars Olav, Leif Jarle Asheim and Håkon Romarheim. "Produksjon av kasjmirull : ei aktuell næring i Noreg?" Bachelor's thesis landbrukshøgskole, Ås, 1993.

**NORWEGIAN** 

Title note: Is the production of cashmere wool possible in Norway?

Eik's answer to the question submitted in the title of this report is a definitive 'yes.' He substantiates his claim with a discussion of cashmere wool classification, production, use, and an analysis of cashmere wool production in other countries. Finally, he identifies breeds suited to the Norwegian climate.

# Fimland, Frode and Magne Sleire. Norsk Ull - frå klipp til ferdig product. Film. Norsk kjøtt ullavdeling, Norsk sau- og geitalslag and Dale garn og trikotasje AS, 1991. NORWEGIAN

Title note: Norwegian wool from shearing to finished product

This film was produced by *Gilde Norsk Kjøtt* (now Nortura), the Norwegian Sheep and Goat Coalition, and Dale of Norway as an instructional film for wool producers. In 23 minutes, it describes the processes of shearing, grading, classification, spinning and textile production. It was originally distributed to farmers, shearers, and educators throughout Norway.

# Brøndbo, Karstein, and Lars Johan Rustad. "Kostnader i Ullklassifisering, Variasjoner og Årsaker." Bachelor's thesis, Norges landbrukshøgskole, Ås, 1988.

**NORWEGIAN** 

Title note: Costs of wool classification, explanations and variations

This is an analysis of the costs involved in wool classification in Norway, covering costs associated with both technical and administrative aspects of wool classification. Data was assembled through a survey of wool classification stations throughout Norway.

# "Forslag til Arbeidsprogram Vedrørende Videreforedling av Islandsk Ull Resp. Norsk Spelsau Ull." Report, H.K. Hugen & Co. A/S, 1964.

**NORWEGIAN** 

**Title note:** Proprosal for work program concerning the processing of Icelandic wool, respective to Nrowegian *spelsau* wool

This report, located at the Norwegian Folk Museum, serves as a useful point of departure for those interested in product development using *spelsau* wool. The author describes sorting and classification methods, various grades of *spelsau* wool, and the inherent qualities of each grade. The report concludes with a series of charts identifying apparel and household products appropriate for each quality.

### 4. DESIGN AND CONCEPT

### **SECTION OVERVIEW:**

This section includes sources on Norwegian designers and design firms who use wool or evoke the Norwegian wool tradition in their design concept. It covers Norwegian fashion and design surveys, monographs written about Norwegian designers, and a series of what are herein called 'design diaries,' or books that celebrate individual Norwegian designers, most of which were produced in collaboration with the designers themselves. The folk dress and *bunad* traditions constitute an important component of Norwegian design and have been the subject of an entire body of literature, notably Aagot Noss and Kari-Anne Peterson's individual studies on folk dress and the *Norsk Bunad Leksikon* (2006), edited by Bjørn Sverre Hol Haugen. While these traditions are crucial to understanding Norwegian wool clothing design, the breadth of the field precludes its inclusion here. Several selected titles are featured in section five.

Beyond folk dress and the *bunad* tradition, relatively little has been published on Norwegian fashion design. Academic theses have been written about Oleana (2007) and Sigrun Berg (2010), and Per Spook's knitwear is the topic of two publications, one of which is included here. Recently, several colorful design diaries have been published on Solveig Hisdal, Arne & Carlos, and Unn Søiland Dale. The reason for this relative paucity could be that historically, most of the innovation in wool clothing and textiles emerged from individual interpretations of local traditions rather than from an exclusive designer class (a bottom-up rather than a top-down system). Designer labels have recently begun to emerge in Norway, but much of the innovative activity associated with Norwegian wool remains within the category of craftwork and cottage industry. The design diaries featured here and other popular pattern books such as Tine Solheim's *Retromasker* (2011) could represent an emerging Norwegian fashion design model that blends historical tendencies of individual and local design adaptation with new models of consumption.

#### A. FASHION AND DESIGN SURVEYS

Håberg, Kirsten Røvig. Den myke historien : om tekstiler, klær og moter. Vollen: Tell Forlag, 2002.

**NORWEGIAN** 

**Title note:** Textiles, clothing, and fashion history

Håberg provides a thematic account of textiles used for both dress and interior decoration. Interesting for our purposes is Håberg's inclusion of Norwegian designers in the chapter on international fashion and design. Norwegian designers such as Unn Søiland Dale and Per Spook (both of whom are recognized for their use of traditional Norwegian knitting patterns) are discussed alongside such European designers as Paul Poiret, Mariano Fortuny, Coco Chanel, and Mary Quant.

Kjellberg, Anne. *Mote: trender & designere Oslo 1900-2000.* Oslo: Huitfeldt forlag, 2000.

**NORWEGIAN** 

**Title note:** Trends and designers in Oslo 1900-2000

In this richly illustrated book, Kjellberg spotlights important Oslo-based designers active between 1900 and 2000. Organized chronologically, the book emphasizes the international nature of fashion, noting trends from Paris and London that influenced Norwegian fashionable dress. Wool features in sections on designers Frode Braathen, William og Hans, Tull Engø, and Kiss Markovic.

#### **B. DESIGNER MONOGRAPHS**

Sejersted, Ingebjørg Strøno. "Innovativ tradisjon og dekorativ kraft : en analyse av Oleana med hovedfokus på design." Masters thesis, University of Oslo, 2007. NORWEGIAN

Title note: Analysis of Oleana with a focus on design

Sejersted's thesis argues that the success of Norwegian knitwear company Oleana lies in the dynamism of its principle designer, Solveig Hisdal. According to Sejersted, *Oleana design* blends the principles of fashion, the functionality of design, and aesthetics of applied art. Sejersted's thesis provides a valuable description of a successful Norwegian knitwear company and insight into Hisdal's innovative interpretation of traditional Norwegian design.

Myhr, Turid S. "Sigrun Berg: Tekstilkunstner og Designer: en redegjørelse for hennes virksomhet med hovedvekt på den monumentale tekstil utsmykking av Håkonshallen i Bergen 1959-61." Master's thesis, University of Oslo, 2010.

**NORWEGIAN** 

**Title note:** An account of Sigrun Berg's career and her tapestry for Håkonshallen in Bergen, 1959-61

Myhr is among the first to write about Norwegian designer-cum-fiber artist Sigrun Berg (1901-1982), who played a significant role in defining Norwegian counterfashion in the 1960s and '70s with her handwoven wool scarves. The author explores Berg's work as a fiber artist, providing a thorough art historical analysis of the tapestry that she made for Håkonshallen in Bergen. She also includes ample biographical information and descriptions of Berg's studio, paving the way for future investigations into Berg's career as an apparel designer and handweaving instructor.

Kjellberg, Anne, ed. *Per Spook : Norsk motedesigner i Paris.* Translated by Peter Cripps. Oslo: Nasjonalmuseet for Kunst, Arkitektur og Design, 2006.

NORWEGIAN AND ENGLISH

**Title note:** Per Spook: Norwegian fashion designer in Paris

Produced in conjunction with an exhibit at the Norwegian Museum of Contemporary Art of the same title, this book discusses the professional and artistic life of Norwegian fashion designer Per Spook. The book describes Spook's use of traditional knitting patterns in collections shown in Paris and provides important insight into the role of Norwegian knitwear patterns in international fashion.

#### C. DESIGN DIARIES

Valestrand, Kolbjørn, Signe Aarhus, and Solveig Hisdal. *Oleana : fra drøm til eventyrlig virkelighet*. Oslo: Cappelen Damm, 2010.

**NORWEGIAN** 

**Title note:** Oleana: from dream to fairytale reality

This book provides a poetic and picture-filled description of knitwear company Oleana's evolution "from dream to fairytale reality." This book provides many colorful details about Oleana's design and production model and describes some of the company's larger goals in the process. Perhaps most importantly, this book demonstrates the invaluable social and cultural advantages of keeping production in Norway.

# Hisdal, Solveig. *Poetry in Stitches: Clothes you can Knit.* Oslo: Cappelen Damm, 2000. ENGLISH

This book includes images of paintings, embroidery, interior elements, and folk dress selected from museums throughout Norway by the author, now the principle knitwear designer at Oleana. Hisdal explains the significance of each piece, and includes photographs and patterns of items inspired by her research, all produced with yarn from Hillesvåg Ullvarefabrikk, north of Bergen.

# Tobiasson, Tone Skårdal, Arne Nerjordet, and Carlos Zachrison. Arne & Carlos: masker og snitt fra Tonsåsen. Oslo: Norges Husflidslag, 2007.

**NORWEGIAN** 

**Title note:** Arne & Carlos: Stitches and snippits from Tonsåsen

As the authors explain in the opening pages of this book, a finished piece of clothing is the result of a complex creative process. For Arne Nerjordet and Carlos Zachrison, a design team based in Valdres, this process involves inspiration, experimentation, and creation. This book follows their design process from the drawing board to the finished garment, providing details about their yarn selection, samplemaking process, and the local community.

# Segelcke, Nanna. To rette og en vrang: Unn Søiland Dale: designerliv og strikkeoppskrifter. Oslo: Aschehoug, 1994.

**NORWEGIAN** 

Title note: Unn Søiland Dale: biography and knitting patterns

Written in conjunction with knitwear designer Unn Søiland Dale's retrospective at the Oslo City Museum in 1994, this colorful book celebrates the designer's life and legacy. Part one discusses her biography, influences, and professional life, while parts two and three provide knitting instructions and patterns.

### 5. MANUFACTURING AND PRODUCTION

### **SECTION OVERVIEW:**

This category covers the process of transforming raw wool into a finished product (carding, spinning, weaving, knitting, and countless other steps). Within this category, it was useful to make the preliminary distinction between **industrial production** and **craftwork and cottage industry**. Both of these categories have been the subject of numerous academic studies, although popular literature also abounds.

Industrial production and craftwork are often viewed as conflicting practices, but the sources featured here demonstrate that industry and handcraft have much in common. Both have been the subject of a great deal of literature; both reflect centuries of international exchange, whether through trade, technological dissemination, or tourism; and both are often described with a distinct sense of nostalgia. Although wool textile production is no longer a major economic force in Norway, it remains a cultural cornerstone. The transformation of Sjølingstad Woollen Mill and Salhus Knitting factory into museums (described in section one) and the continued proliferation of pattern and instructional books in Norway demonstrate that wool textile production remains culturally resonant, whether by hand or machine.

### INDUSTRIAL PRODUCTION

#### **SECTION OVERVIEW:**

This section is divided into two subsections: primary source material, such as *jubileumskrifter* written to commemorate a company's anniversary year, and secondary source material, such as academic studies. *Jubileumskrifter* comprise the earliest sources available about the Norwegian wool industry. They typically include descriptions of the inner-workings of a given factory and lauditory remarks about its founder. The majority of these *jubileumskrifter* were produced between 1900 and 1950, when the textile industry was at its height in Norway, but the tradition continues today. Several recent examples are included here. Older examples can be found in the Norwegian Museum of Cultural History and the Norwegian Museum of Science and Technology libraries. Sigurd Greig drew upon these primary sources in his seminal two-volume *Norsk Tekstil* (1950). Although dated, this is recommended reading for those interested in nineteenth and early twentieth century industry.

Critical discourse about the Norwegian wool textile industry began to emerge in the 1970s and continues today. Early studies were often written within feminist and labor discourse. Later works delve into business and economic history, with authors availing themselves of Norway's largely-intact business and government archives. Sources such as these enable readers to understand the Norwegian wool textile industry within the context of the economic, technological, and political climate of Europe at large, reminding us that the Norwegian industry emerged within a matrix of external developments. What is distinctly 'Norwegian' about the Norwegian wool textile industry remains to be seen, but what is clear is that the industry was crucial to Norway's social and economic integration with Europe.

### **A. PRIMARY SOURCES**

Bruaset, Oddgeir. *I tråd med tida gjennom 75 år: Rauma ullvarefabrikk 1927-2002.*Rauma: Rauma Ullvarefabrikk, 2002.

**NORWEGIAN** 

Title note: Rauma Woolen Mill 1927-2002

This jubileumskrift for Rauma Ullvarefabrikk (still in operation) traces the history of the company within the context of local history and the Norwegian textile industry. Bruaset draws upon archival material, publications, and oral interviews to gain insight into how and why Rauma has managed to "fare better than most textile manufacturers" in Norway.

# Nygjerd, Gunnar. *Innvik ullvarefabrikk* 100 år. Innvik: Innvik Ullvarefabrikk, 1990. NORWEGIAN

Title note: Innvik Woolen Mill, 100 years

This *jubileumskrift* celebrates of the 100<sup>th</sup> anniversary of Innvik woolen mill in western Norway, which continues to produce wool textiles today. Nygjerd draws upon local newspapers, conversations with current and former employees, company documents, photographs, and Sigurd Grieg's *Norsk Tekstil*.

# Greig, Sigurd. Norsk Tekstil. 2 vols. Oslo: Johan Grundt Tanum, 1948. NORWEGIAN

**Title note:** Norwegian Textiles

The most comprehensive historical text on industrial textile production in Norway is Sigurd Greig's seminal *Norsk Tekstil*, published in 1950. The book traces the development of the Norwegian textile industry from *old-tiden*, or the old days, through 1945, employing a strict linear narrative of technological development. He draws primarily upon *jubileumskrifter* and other primary source material from textile manufacturing companies and organizations. This book provides an extraordinarily detailed account of Norway's industrial textile sector at its height.

#### **B. SECONDARY SOURCES**

### 1. SURVEYS

# Róbertsdóttir, Hrefna. Wool and Society: Manufacturing Policy and Economic Thought and Local Produciton in 18th Century Iceland. Göteborg: Makadam, 2008. ENGLISH

Róbertsdóttir discusses wool textile production throughout the conglomerate Danish-Norwegian state during the eighteenth century, which originally encompassed what is now Denmark, Norway, Iceland, Greenland and the Faroe Islands. The author combines economic and technological history, basing her work on land registers, censuses, laws, periodicals, and merchant archives. Her book forces us to think about

the Norwegian wool textile industry in relation to those of its Scandinavian neighbors and reminds of the complexity of establishing an historical narrative based on inherently unstable political boundries.

Jenkins, David. "The Western Wool Industry in the Nineteenth Century." In *The Cambridge History of Western Textiles*, edited by David Jenkins. Cambridge: Cambridge University Press, 2003.

**ENGLISH** 

The Cambridge History of Western Textiles provides detailed information about wool textile manufacturing in Europe from prehistory through the twentieth century. In this chapter, Jenkins traces the development of the wool textile industry in nineteenth century Europe, proposing that industrial production emerged from a perceived consumer demand for wool textiles created by the growth of domestic and proto-industrial wool textile production. The book provides important insight into the relationship between Britain (the source of many industrial innovations) and its Scandinavian partners.

Bruland, Kristine. British technology and European Industrialization: the Norwegian textile industry in the mid nineteenth century. Cambridge: Cambridge University Press, 1989.

**ENGLISH** 

Building upon her previous work on the Hjula archive, Bruland examines the transfer of textile technologies from Britain to Norway during the mid-nineteenth century. She takes an enterprise-oriented approach, relying on archival material from ten distinct Norwegian textile firms and ultimately claiming that mechanization in Norway was a process of "technological diffusion" from England and that this diffusion should be understood as an "extension" rather than an "imitation" of British technology. While her focus is Norway, Bruland's work resonates across national borders, serving as an important contribution to business, economic, technological, and European history at large.

### 2. MONOGRAPHS

Knutsen, Jostein. "Nedbygging og nedlegging i tekstilindustrien på Vestlandet: Arne Fabrikker og Salhus Tricotagefabrik." Master's thesis, University of Bergen, 2009.

NORWEGIAN WITH ENGLISH SUMMARY

**Title note:** The decline of the textile industry on the west coast of Norway: Arne Factory and Salhus Knitting Factory

Knutsen investigates the decline of the textile industry in western Norway through the lens of two wool textile companies: Arne Fabrikker (1846-1986) and Salhus Tricotagefabrik (1859-1989), both located just outside of Bergen. He focuses on the period between 1960, when Norway joined the European Free Trade Association (EFTA), and 1989, when Salhus Trikotagefabrik ceased production, describing company

decisions and the broader political and economic factors that initiated their decline. The collapse of the textile industry, Knutsen suggests, marks the end of a 150-year era of Norwegian industrial history.

Forrás, Peter. Vi behøver ikke at passe på arbeideren, vi passer kun paa arbeidet": arbeid og rasjonalisering i Salhus Tricotagefabrik 1920-1967. Bergen: Norsk trikotasjemuseum, 2009.

**NORWEGIAN** 

Title note: Labor and rationalization at Salhus Knitting Factory 1920-1967

This is a labor history of two major textile factories in western Norway, Salhus Trikotagefabrik (1859-1989) and the Salhus Veveri (1894-1877). Inspired by Norwegian sociologist Edvard Bull, Forrás explores such themes as capital, technology, rationalization, and paternalism within the context of the Salhus textile factories. Although wool itself is not discussed at length, the book provides a glimpse into the lives of the Salhusfolk, the people who worked and lived at the Salhus factories.

Rasch, Tone. "Blåtøy, kjoletøy og flanell: fabrikkvevde stoffer fra Hjula Veveri på slutten av 1800-tallet." Volund : årbok for selskapet Norsk Teknisk Museum. Oslo: Norsk Teknisk Museum, 2003.

NORWEGIAN WITH ENGLISH SUMMARY

**Title note:** An analysis of fabric produced at the Hjula Weaving Mill dating from the late nineteenth century

Rasch examines fabric samples from the Hjula Veveri (1855-1957) in Oslo within the context of international textile production and trade. The samples (many of which were based on patterns bought from design firms in France, Germany, and Great Britain) represent the "established nomenclature" of European fashion rather than a distinctly Norwegian aesthetic. Rasch concludes that Norway's nationalist movement had little impact on mass-market textile manufacturers. This article is especially relevant to inquiries into the relationship between wool textiles and national identity.

Raustøl, Bård. ""Øvede piger og dygtige mænd: mennesker, teknologi og kunnskap ved Sjølingstad Uldvarefabrik 1893-1920." Bachelor's thesis, University of Oslo, 2004.

**NORWEGIAN** 

Title note: People, technology, and knowledge at Sjølingstad Woolen Mill 1893-1920
Raustøl uses the idea of economically relevant knowledge, proposed in Bengtåke Lundvall and Björn Johnson's "The Learning Economy" (1994), to better understand the establishment and early development of Sjølingstad Uldvarefabrikk in southern Norway. Specific questions include: What type of knowledge was necessary for industrial textile production? How did workers and entrepreneurs receive this knowledge? And lastly, how did they retain this knowledge, and how was it passed on?

### CRAFTWORK AND COTTAGE INDUSTRY

### **SECTION OVERVIEW:**

This section is divided into four principle subsections: knitting, weaving, general studies, and education. Due to its size, the section on knitting is divided into three categories: knitting history, knitting today, and pattern books. Norwegian knitting designs have enjoyed widespread popularity since the nineteen-thirties, when Annichen Sibbern Bøhn first published Norsk Strikkemønstre (1933). An English translation, Norwegian Knitting Designs, was published in 1952, in concert with a burgeoning taste for heritage travel and consumption among immigrant communities in the United States. Knitting patterns and knitwear continue to be valuable currency in this cultural exchange. This, combined with the international vogue for ethnic patterns inaugurated in the nineteen-seventies, has resulted in a strong lineage of English-language books on the Norwegian knitting tradition. The pattern books featured here include detailed cultural and historical information and vast bibliographies; they are, indeed, intended for those interested in achieving a tactile grasp on Norwegian cultural history. In Norway, knitting is a sign of cultural kinship – kinship with each other, and with the knitted past.

Although much of what we wear today is woven (blue jeans, dress suits, parkas), handweaving is seldom associated with dress. Most sources on the Norwegian handweaving tradition focus on flat textiles. *Vadmel* is one exception. Often woven with *spelsau* wool, vadmel has gained a certain caché among contemporary handweavers, in tandem with the burgeoning interest in double-coated primitive breeds discussed in section three. The *vadmel* production process features in several pieces included here, most notably Marta Hoffmann's study on the warpweighted loom (1964).

The subsequent section, General Studies, includes academic surveys featuring multiple genres of craftwork and cottage industry. These include archeological studies on Norway's prehistoric and preindustrial past and ethnographic studies on craft traditions practiced in the twentieth century, often as alternatives to industrial manufacture. These alternative production methods, such as knitting and weaving, were a staple of the Norwegian education system until fairly recently. Today, formal handcraft education is less common, a reality addressed by several authors in the final section, Handcraft Education.

### A. KNITTING

### 1. KNITTING HISTORY

Vik, Sølvi. "Vavette : dei viktige fiskarvottane ." Havstrilen : kulturhistorisk årbok for Sund, Fjell og Øygarden, 2010.

**NORWEGIAN** 

Title note: Fishermen's mittens

In this article, Vik addresses one of Norway's lesser-known knitting traditions: fisherman's mittens (also known as *fiskarvottar*, *sjøvottar*, or *vavette*). These mittens, made from *spelsau* wool, were indispensable for fishermen on Norway's western coast prior to the invention of synthetic fibers. Vik concludes with a note about the environmental significance of maintaining handcraft traditions such as these in Norway.

# Klausen, Ann Kristin. *Masker mellom generasjoner : strikking som husflid, hobby, mote og symbol.* Mosjøen: Helgeland museum, 2006.

**NORWEGIAN** 

**Title note:** Knitting as cottage industry, hobby, fashion, and symbol

Written to accompany an exhibit of the same title at the Hegeland Museum in 2005, this book provides a history of knitting in Norway, focusing specifically on distinct articles of clothing: fishermen's socks (fiskernes stromper), Selbu mittens (selbuvotter), sea mittens (sjøvotten), underwear (underfasaden), hats (hjallislua, topplua), and sweaters such as the Islender, Fair Isles genser, Eskimogenser, Lusekoft, Ranakoft, and Nordlandskoft, among others. The text is followed by a detailed bibliography that lists numerous relevant articles published in Norsk Husflid.

# Kjellberg, Anne, Ingebjørg Gravjord, Gerd A. Rosander, and Anne-Lise Svendsen. Strikking i Norge. Oslo: Norges Husflidslag/Landbruksforlaget, 1987. NORWEGIAN

Title note: Knitting in Norway

This book chronicles the history of handknitting in Norway through examples featured in the Norwegian Museum of Cultural History's 1981 exhibit *Bundingen gir Glede (Knitting for Pleasure)*, and the accompnaying traveling exhibit *Strikking før og nå (Knitting then and Now)*. The authors trace the use of knitted goods in Norway as far back as 1400, taking readers through early trade of knitted goods, the *husflidsbevegelson* (home craft movement), the trend for handknitting patternbooks at the turn of the century, and use of the handknit sweaters in popular culture. A section on knitting equipment follows and the book concludes with a helpful list of literature and resources for handknitters and researchers.

Kjellberg, Anne. "Strikking og Bruk av Strikkeplagg i Norge før 1700." In *Textila* tekniker i nordisk tradition: rapport från nordiskt symposium om textila tekniker 1986, 38-48. Uppsala: Uppsala University, Ethnographic Institute, 1986.

**NORWEGIAN** 

**Title note:** Knitting and the use of knitted garments in Norway prior to 1700

Featured in a report from the Nordic Symposium on Textile Techniques in 1986, this article discusses the introduction of knitting and knitted garments in Norway.

Kjellberg, who bases her study on archeological evidence, suggests that knitting was not common in Norway until the mid-1600s. By identifying a point of origin, Kjellberg forces us to reconsider the basis of the Norwegian knitting tradition.

Rosander, Gerd Aarsland. "Mønstre - Moter - Markeder: Norsk Strikkings Image." In Textila tekniker i nordisk tradition: rapport från nordiskt symposium om textila tekniker. Uppsala: Uppsala University, Ethnographic Institute, 1986.

**NORWEGIAN** 

Title note: Patterns, fashion, and markets: Norwegian knitting's image

This article positions Norwegian knitting within the context of tourism,
marketing, and national branding. Rosander raises several important questions, among
others: How is Norway's image constructed through knitting? Who decides which
clothes are available for tourists to buy? Which knitting patterns are exported – the
Marius sweater, the Fana sweater, the Setesdal sweater? Based primarily on interviews
and anecdotal information, this article serves as an important early attempt to
understand the function of Norwegian knitwear on the international stage.

# Gravjord, Ingebjørg. *Votten i Norsk Tradisjon*. Oslo: Landbruksforlaget, 1986. NORWEGIAN

**Title note:** Mittens in the Norwegian tradition

First published in 1986 and reissued in 2006, this book examines the Norwegian mitten tradition from a cultural historical perspective, focusing on such themes as social function, symbolic meaning, and practical use. Gravjord draws upon the Anna Grostøl archive at the Norwegian Museum of Cultural History and other museum collections, covering both practical and aesthetic aspects of traditional Norwegian mitten patterns.

# Grimstvedt, Målfrid. "Spøt til salg : strikking som binæring i Rogaland før 1900." Årbok: Stavanger Museum. Stavanger: Stavanger Museum, 1984.

**NORWEGIAN** 

**Title note:** Knitting as a secondary income in Rogaland prior to 1900

Published in the Stavanger Museum's 1983 yearbook, this article discusses commercial hand knitting in Rogaland on the West Coast of Norway from the mid-1600s through the nineteenth century. Basing her research on customs ledgers, Grimstvedt addresses such questions as: When did knitting production begin in Rogaland? Which geographical locations served as 'hubs' of commercial knitting? What were the consequences of knitting production in terms of the division of labor between men, women, and servants? This is an interesting companion to Anne Kjellberg's "Strikking og Bruk av Strikkeplagg i Norge før 1700" (1986).

### 2. KNITTING TODAY

# Steihaug, Kari, Jorunn Veiteberg, and Dag T. Andersson. *Arkiv: De ufullendte/Archive: The Unfinished.* Oslo: Magikon, 2011.

NORWEGIAN AND ENGLISH

Steihaug's *Archive: The Unfinished* explores the theme of incompleteness through knitting. Her archive is comprised of more than 150 unfinished knitted garments (children's stockings, mittens, sweaters, etc.) each neatly photographed against graph paper and labeled with the donor's name, the date of acquisition, and a

story. This book illustrates the symbolic and conceptual value that knitting has achieved in contemporary Norwegian art.

# Klepp, Ingun Grimstad, and Charlotte Bik Bandlien. "Stram i Strikken." *Oslo Fashion Week Magazine* (2010): 24-29.

**NORWEGIAN** 

Title note: Stretching the stitch

In this article, Klepp and Bandlien position the Norwegian knitting tradition within the context of fashion and popular culture, identifying various venues in which an identifiably Norwegian knitting culture exists today: fashion, installation art, celebrity culture, and leisure time. Written for a popular audience, this article offers a valuable contribution to our understanding of current trends in knitting and knitting culture.

## Skjerve, Heidi Kennedy, Per Boym, Erlend Høyersten, and Vibeke Waallann Hansen. Herfra til Hit/Herefrom Hereto. Oslo: Arthub Publisher, 2010.

NORWEGIAN AND ENGLISH

This is the exhibition catalogue for the artist's 2010 exhibition *Herfra til Hit* (*Herefrom Hereto*) at the Bergen Art Museum. It includes photographs of the exhibition – vast turquoise knit planes hung against white gallery walls – and essays that position Skjerve's work within contemporary craft and art. This catalogue sheds light on the conceptual, technical, and aesthetic resonance of knitting in Norway today.

### Spurkland, Marte. "Strikk i Strid." D2, December 2008.

**NORWEGIAN** 

Title note: Knitting in dispute

This article investigates the lasting popularity of the Marius sweater in Norway, a pattern popularized by Unn Søiland Dale in the 1950's. The author includes information culled from a recent interview with Beate Eriksen, daughter of the Olympic skier for whom the sweater is named, and discusses Vigdis Yran Dale's plans to produce a readymade version of her mother's original pattern. Written in a style that is both informed and conversational, this article describes current and lasting Norwegian knitwear trends.

# Slåttum, Berit, and Anne Britt Ylvisåker. *Opplegg på gang : strikk du ikke ville drømme om.* Bergen: Fagbokforlag, 2007.

**NORWEGIAN** 

Title note: Casting on: knitting you wouldn't dream of

Slåttum and Ylvisåker's ambitious *Opplegg på Gang* serves as an important companion, or update, to Anne Kjellberg's *Strikking i Norge* (1987). Acknowledging the international vogue for knitting and the current profusion of knitting *hobbyboker* in Norway, the authors examine the role of knitting in Norwegian society today. They discuss fiber artists, knitting cafés, blogs, and knitting instruction in Norwegian classrooms. The authors describe an active, though shifting, Norwegian knitting culture.

# Leiro, Guri. "Hvorfor strikker kvinner i dag: tradisjon og refleksivitet." Master's thesis, University of Oslo, 2007.

**NORWEGIAN** 

**Title note:** Why women knit today: tradition and reflexivity

Leiro examines gender roles, environmental concerns, leisure practices, and living handcraft traditions in Norway in an attempt to answer the question she poses in the title of her thesis: "Why do women knit today?" Basing her thesis primarily on empirical research, Leiro explores the territory between *nytte* and *hygge* (benefit and enjoyment), a dichotomy that is, she explains, critical to this inquiry. Leiro's thesis is an important recent contribution to academic literature on knitting, one of the principle hobbies associated with Norwegian wool today.

#### 3. PATTERNBOOKS

# Sundbø, Annemor. Strikking i Billedkunsten/Knitting in Art. Setesdal: Torridal Tweed, 2010.

NORWEGIAN AND ENGLISH

In this book, Sundbø takes inspiration from historical and contemporary paintings, photographs, and fiber art, teasing out cultural and historical narratives on knitting and society. Artists featured range from national romantic painters such as Adolph Tidemann to contemporary artists such as Jeanne Ozon Høydal and Lisa Anne Auberbach. The author draws upon archival research and garments in her own 'ragpile' (discussed in greater length in section seven) to reconstruct knitting patterns featured in several historical paintings, which she invites readers to reproduce and reinterpret.

# Shea, Terri. *Selbuvotter: Biography of a Knitting Tradition.* Seattle, Washington: Spinningwheel LLC, 2007.

**ENGLISH** 

After orienting readers within the history of knitting and the town of Selbu, Shea traces the history of the famous Selbu mitten pattern to a singular knitter, Marit Guldseth Emstad, born in 1841. She then describes the dissemination of the pattern through business and trade connections, the Norwegian *husflid*, and various marketing publications. Detailed patterns and instructions follow.

### Breivik, Olga Marie. Fanatrøyer. Bergen: Eide, 1998.

**NORWEGIAN** 

**Title note:** Fana cardigans

Produced by the Fana Home Crafts Association, this book features lesser-known variants of the now-famous striped Fana sweater pattern. The book includes a brief history of knitting, diagrams and photographs of sweaters, knitting techniques, several patterns, and a discussion of the cataloguing process developed for the project.

Lind, Vibeke. *Knitting in the Nordic Tradition*. Trans. Annette Allen Jensen. Asheville: Lark Books, 1992.

#### **ENGLISH**

Knitting in the Nordic Tradition, originally published in Danish (1981) and later in Norwegian (1982), is an incredible reference for knitters interested in familiarizing themselves with Nordic knitting (that is, knitting in Scandinavia, Finland, Iceland, and the Faeroe Islands). Unlike other authors, who distinguish between distinct regional and national patterns, Lind focuses on general themes, providing instructions for techniques common throughout Northern Europe. She concludes with a section on the proper treatment of woolen clothes.

# Pagoldh, Susanne. *Nordic Knitting: Thirty-one Patterns in the Scandinavian Tradition.*Translated by Carol Huebscher Rhoades. Loveland, Colorado: Interweave Press, 1991.

**ENGLISH** 

Originally published in Swedish, this book features traditional knitting patterns from Denmark, the Faroe Islands, Greenland, Iceland, and Norway, each accompanied with detailed cultural and historical information. The section on Norway includes information culled from *Strikking i Norge* (1987) and draws upon the Anna Grostøl archive, featuring traditional patterns from Fana, Setesdal, Selbu, the Marius Sweater, and red caps used during the resistence in World War Two.

# McGregor, Sheila. *The Complete Book of Traditional Scandinavian Knitting*. New York: St. Martin's Press. 1984.

**ENGLISH** 

Originally published in England, the *Complete Book of Traditional Scandinavian Knitting* serves as a companion to Susanne Pagoldh's *Nordic Knitting*. Both provide instructions and patterns for knitted garments considered traditional throughout Northern Europe and supplement their work with cultural and historical information. McGregor's work serves as a particularly helpful general reference on the history of Selbu knitting, and provides information about suppliers of Norwegian, Icelandic, and Faroese wool and British equivalents.

### **B. WEAVING**

Tjelfaat, Unn. "Det Siste Stampehuset." Norsk Husflid 3 (1998): 44-47.

**NORWEGIAN** 

**Title note:** The last fulling mill

This article discusses Marta Hoffmann's rare footage of a couple fulling *vadmel* cloth at a *stampahuset* (fulling mill) in Svidal on the west coast of Norway. *Vadmel* is woven of wool yarn and fulled to make a dense, warm fabric. The article includes still photographs from the film and a short discussion of the fulling process. It merits further investigation for those interested in learning more about handwoven clothing textiles and wet finishing processes.

Gulsvik, Tove and Ingebjørg Vaagen, eds. Vyer i Vev. Oslo: Grøndal Dreyer, 1995.

#### **NORWEGIAN**

Title note: Woven visions

This is one of relatively few handweaving pattern books that explicitly features Norwegian wool. Apparel items such as shawls, capes, and jackets are among the thirty-two featured patterns. Three essays are included. The first, written by *husflid* consultant Ingebjørg Vaagen, discusses the history of Norway's sheep and wool industry and emphasizes the need to support Norwegian wool textile production. The second, written by Vibeke Vestby, discusses computerized weaving and the third, written by Arne Vinje, discusses the importance of crafts such as handweaving in modern Norwegian society.

# Christie, Inger Lise. *Brikkevevde bånd i Norge : levende tradisjon og glemte teknikker.*Oslo: Norsk Folkemuseum, 1985.

NORWEGIAN WITH ENGLISH SUMMARY

Title note: Card woven bands in Norway: a living tradition and forgotten technique

Christie draws upon archeological material, museum collections, and privately
owned garments to illustrate the Norwegian tablet weaving tradition and the creation of
woven braids for use in traditional folk costume. Distinct variations on the tablet
weaving techniques and patterns are described in detail.

# Hoffmann, Marta. The warp-weighted loom: studies in the history and technology of an ancient implement. Oslo: Universitetsforlaget, 1964.

**ENGLISH** 

While most books written on the warp-weighted loom focus on classical antiquity, Hoffman's book examines its use in the early twentieth century. Her research is based on careful examination of existent looms, and archival and ethnographic research. The book includes detailed descriptions of looms housed in museums throughout Norway, and photographs from farms in Hordaland and Troms where the loom continues to be used. It also includes a detailed discussion of the functional and economic value of *wadmel* (referred to as *vadmel* throughout this project), which Hoffmann describes as the "best known" product of the warp-weighted loom.

# Haug, Kari. "Stampemølle: etterhandsaming av ulltøy i gamle dagar" Textile history lecture, 1956.

**NORWEGIAN** 

Title note: The fulling mill: wet finishing techniques used for wool in times past

This transcript, typewritten and housed at the Norwegian Museum of Cultural
History, is one of the few sources focusing exclusively on historical Norwegian fulling
and felting techniques. Haug provides a loose historical trajectory of these techniques,
from wetting and wearing a pair of mittens or socks, to foot-powered fulling in openbottomed barrels, to the use of stampamøller (water-powered fulling mills).

Engelstad, Helen. *Refil-Bunad-Tjeld: Middelalderens Billedtepper i Norge*. Oslo: Gyldendal Norsk Forlag, 1952.

#### NORWEGIAN

Title note: Medieval tapestry weaving in Norway

Engelstad explores a series of tapestries dating from the medieval period in Norway (1030-1536 AD), describing each tapestry within the cultural context of medieval Europe. Research is based primarily on the Oseberg archeological finds and conversations with living practitioners of textile production techniques originally developed during the period. Although Engelstad focuses primarily on tapestry weaving and flat textiles, she also covers techniques employed in the production of what she describes as the "gray vadmel" used in everyday dress.

### **C. GENERAL STUDIES**

#### 1. ARCHEOLOGICAL STUDIES

Andersson, Eva B. Early History of Dress and Fashion in Nordic Countries. Vol. 8, in Berg Encyclopedia of World Dress and Fashion, edited by Lise Skov. Oxford: Berg, 2010.

**ENGLISH** 

Relying on archeological studies, Andersson traces the development of dress in the Nordic countries from the Stone Age through the Medieval period. The article includes descriptions of stylistic and technical changes in both men's and women's dress, tracing the development and implementation of such techniques as sewing, weaving, sprang, tablet weaving, and dyeing. The author mentions two wool dresses found in Uvdal, Norway, and a pair of trousers and a short dress found in Skjoldehamn, all of which date from the Medieval period.

# Øye, Ingvild. "Textile equipment and its working environment, Bryggen in Bergen, c. 1150-1500." In *The Bryggen Papers*. Oslo: Norwegian University Press, 1988. ENGLISH

Published with a grant from the Norwegian Research Council for Science and Humanities, this book contains the results of an archeological study of textile objects dating from 1150 to 1500 found during archeological excavations at Bryggen in Bergen 1955-1968. Øye begins with a detailed review of archeological textile research in Norway to date, then discusses implements used for spinning, weaving, tablet weaving, sewing, fulling, raising the nap, clipping the pile, dyeing, and washing. Wool, Øye notes, was "without a doubt the most important raw material in the medieval production of textiles." Detailed and scholarly, this piece serves as an archeological companion to Marta Hoffmann's ethnographic *Fra Fiber til Tøy*.

# Nordland, Odd. *Primitive Scandinavian Textiles In Knotless Netting*. Oslo: Oslo University Press, 1961.

**ENGLISH** 

Knotless netting is not among the primary techniques associated with Norwegian wool, but, as Nordland demonstrates, the technique serves an important function

within the history of wool in Norway. According to Nordland, knotless netting was invented as a means to construct nets from animal hair in the "pre-wool" period, before wool came to dominate Northern European textile production. This article reminds us of the ever-changing nature of our relationship to textile fibers. Anne Kjellberg describes the advent of knitting in Norway. Odd Nordland reaches even further back to describe the advent of wool textile production.

### 2. ETHNOGRAPHIC STUDIES

Noss, Aagot. Stakkeklede i Setesdal: byklaren og valldølen. Oslo: Novus Forlag, 2008. NORWEGIAN WITH ENGLISH SUMMARY

Title note: Setesdal pleating: Setesdal and its traditional folk dress

Noss has published widely, drawing upon careful study of the Norwegian Museum of Cultural History's textile collection, ethnographic fieldwork, archival records, and artistic depictions of dress. *Stakkeklede i Setesdal* examines folk and bridal dress in Setesdal in south-central Norway and includes two primary sections relevant to our current study. The first covers *fotbunad*, and includes descriptions and diagrams of several wool sock patterns (both knit and pieced with *vadmel* cloth). The second section of interest covers the production of *stakkeklede*, which Noss documented in a film housed at the Norwegian Museum of Cultural History. This section includes photographs of the sewing, felting, and dyeing process and a description of the technique, which takes more than a year to complete.

# Elstad, Åsa. Moteløver og heimføingar : tekstilar og samfunnsendringar i Øksnes og Astafjord 1750-1900. Stamsund: Orkana forlag, 1997.

**NORWEGIAN** 

**Title note:** Textiles and social change in Øksnes and Astafjord 1750-1900

Elstad traces the transition from a subsistence to a market economy through the lens of textiles in two towns in Northern Norway, Øksnes and Astafjord. She addresses a number of questions that shed light on both the cultural transformations that occurred during the period in question. These include: What kind of textiles did people use in northern Norwegian villages between 1750-1900? Why did textile use change during this period? What economic, social, and cultural shifts do these changes reflect? Who made these textiles? The book includes historical and contemporary photographs and a detailed bibliography.

# Hoffmann, Marta. Fra fiber til tøy : tekstilredskaper og bruken av dem i norsk tradisjon. Oslo: Landbruksforlaget, 1991.

NORWEGIAN WITH ENGLISH SUMMARY

Title note: From fiber to cloth: textile tools and their use in the Norwegian tradition
Marta Hoffmann's book draws upon over forty years of fieldwork, archival
research, and careful study of museum collections throughout Norway. She focuses on
tools used to transform raw materials – hemp, nettle, flax, and most importantly, wool –
into finished products. Topics covered include, among others: implements used for

processing wool before spinning, spinning implements, looms, implements for warping, lesser tools, implements for band weaving, and frames for sprang. This book is widely recognized as an important reference on home textile production.

## Audun, Dydahl. "Fra ull og lin til klær : arbeidsmåter og redskaper på Innherred." Steinkjer: Steinkjer Museum, 1988.

**NORWEGIAN** 

Title note: From wool and flax to clothing: working methods and tools in Innherred Produced by the Steinkjer museum, this book includes sections on nearly every stage in home wool textile production in Innherred, north of Trondheim. These include clipping, spinning, weaving, stamping, clothes production, and a piece about sociologist Eilert Sundt's work on *husflid* in Levanger, north of Trondheim. The book is a remarkable example of local studies in textile history, one that resonates far beyond its geographical scope.

### Sundt, Eilert. *Om Husfliden i Norge*. **1868.** Reprint, Oslo: Gyldendals: 1975. NORWEGIAN

**Title note:** On cottage industry in Norway

Social historian Eilert Sundt was an especially fervent nineteenth-century promoter of women's handcrafts and the *folk* movement. As Annemor Sundbø notes in *Knitting and Art* (2010), Sundt was "without doubt, the most important spokesman for preserving textile traditions." This book is organized by region, reflecting the nature of Sundt's research. He discusses *vadmel* production, knitting, and weaving, addressing the economic value, production, volume, and practical use of woolen items in each region.

#### D. HANDCRAFT EDUCATION

# Wikran, Åslaug. "Tråder i tiden : vevkunnskap i den tekstile kulturarv." Master's thesis, Oslo University College, 2010.

NORWEGIAN WITH ENGLISH SUMMARY

Title note: Threads in time: weaving knoweldge and cultural heritage

Wikran's thesis examines weaving education in Norwegian secondary schools, an aspect of the national handcraft tradition that she feels has been largely "put aside." After an analysis of the current curriculum and several interviews with teachers, Wikran outlines a syllabus appropriate for beginning weavers.

## Takle, Tone. Lær meg å strikke : innføring i strikking : metodisk oppgavesamling. Kristiansand: Høyskoleforlaget, 1999.

**NORWEGIAN** 

Title note: Teach me to knit: a methodological approach to knitting

Addressing what she sees as the current movement away from knitting education in Norwegian schools, Takle outlines a simple, streamlined knitting curriculum. The book includes lesson plans for spinning, dyeing, knitting, and computer patternmaking, and a detailed bibliography of instructional books for teachers.

Gulsvik, Tove, Andresen, Anette Solberg, Tore Risnes, Ingebjørg Vaagen, Kari Thunæs, and Egil Torin Næsheim. *Kom Skal vi Klippe Sauen*. Norges Husflidslag, 1992. NORWEGIAN

**Title note:** Come, we shall clip the sheep

Rich with drawings and activities, this educational handbook includes lessons on sheep breeds, wool fibers, carding, felting, spinning, recycling, and dyeing. The book is written in a lively and accessible manner appropriate for children.

### Bugge, Astrid, Helen Engelstad, and Valborg Kvaal. *Statens kvinnelige industriskole,* 1875-1950. Oslo: Aschelhoug, 1950.

**NORWEGIAN** 

**Title note:** National Women's Technical College, 1875-1950

This is one of several *jubileumskrifter* celebrating the National Women's Technical College (*Statens Kvinnelige Industriskole*), which has since become part of Oslo University College (*Høgskolen i Oslo*). The school was founded in 1875 to provide women with a professional education in handwork and home industry, marking a new age of economic emancipation for women throughout Norway. This book combines numerous essays on economic and cultural value of handwork. It also includes an essay by Helen Engelstad (rector at the school from 1947-76) on handwork education, and a detailed description of the school's curriculum.

### 6. CONSUMPTION AND USE

#### **SECTION OVERVIEW:**

This category concerns wool garments post-production and pre-disposal. This includes, for example, the processes of wearing, soiling, washing, drying, ironing, storing, altering, and mending (patching, darning, re-weaving, etc.). The topic is broad, and nebulous, and unlike other categories featured in this project, does not yet possess an obvious equivalent in academic or popular literature. That said, the social and practical function of a garment reveals a great deal about its use. Function often features in sources on dress. Several books on dress are featured here, on topics ranging from explorer wear, work wear, sports and reform dress, and everyday dress.

There is a general dearth of published sources on contemporary wool textile maintenance. Two reports from the National Institute for Consumer Research are included here, the first on wool wash habits and the second on mending. The former is based on interviews and laboratory research, and the latter on a survey of eighty women's magazines. Beyond select titles published within the field of consumer research, women's websites, magazines, and advice columns are likely the most fertile sources of written information on wool textile maintenance.

#### A. USE

# Rasch, Tone. *Norway.* Vol. 8, in *Berg Encyclopedia of World Dress and Fashion*, edited by Joanne B. Eicher. Oxford: Berg, 2010.

#### **ENGLISH**

Rasch provides a broad overview of dress in Norway, focusing on shifts in style and function from the mid-nineteenth century to the present. Sportswear and fashionable dress are discussed in light of feminist, handcraft, nationalist, and environmental movements. Wool is mentioned in connection with several key figures, organizations, and companies: Fritjolf and Eva Jansen's explorer- and ski-wear, *Husfliden* (the Norwegian Home Craft Organization), fiber artist Sigrun Berg's handwoven shawls and ties, designer Per Spook's "Nordic Look," Dale of Norway's Olympic Games sweaters, and Solveig Hisdal's designs for knitwear company Oleana.

# Cadenhead, Natalie. Antarctic Explorer Wear. Vol. 7, in Berg Encyclopedia of World Dress and Fashion, edited by Lise Skov. Oxford: Berg, 2010.

#### **ENGLISH**

Cadenhead describes clothing used in Antarctic explorations from the 1840s to the present, a period spanning both the "heroic" and "scientific" eras of exploration. While the scope of the article is broad, the author devotes a section to the *Fram* expedition (1909-1911), led by Norwegian explorer Roald Amundsen, who outfitted his crew in outfits inspired by Inuit dress: felted suits made from Norwegian navy blankets under reindeer and wolf skin garments and a top layer of gabardine. Wool and wool blends have continued to feature in subsequent expeditions, despite the growing prevalence of synthetic fabrics in Antarctic explorer wear.

# Wathne, Eva, Målfrid Grimstvedt, Lisbeth Risa, and Ragnhild Thu. *Då moten kom... : frå vadmål til mikrofiber.* Hå: Hå Kommune, 1998.

**NORWEGIAN** 

Title note: When fashon came: from vadmel to microfiber

Written to accompany an exhibit of the same title, this book traces the transition from home production to industrial production of textiles in the Hå municipality on the west coast of Norway. The book features articles on such topics as professional work clothing, sports and work-out clothing, underclothes, and everyday dress, drawing upon interviews, archival material and dress collections. Wool is featured under a variety of guises: as *vadmel* work pants, ski dress, bathing suits, underwear, and shoddy.

### Bugge, Astrid. Touristinder og andre sportspiker: blad av sportsdraktens og kvinneemansipasjonens historie. Oslo: Johan Grundt Tanum, 1961.

**NORWEGIAN** 

Title note: Sports and athletic dress and the emancipation of women in Norway

This, and Bugge's *Reformdrakten i Norge* (1984), which explores the spread of ideas surrounding women's reform dress in Norway in the mid- to late nineteenth century, forge the link between wool and female emancipation in Norway. This book is included here because of its explicit discussion of 'emancipatory' wool garments. In the chapter on winter sport dress, Bugge describes the outfit worn by Eva Nansen (wife of polar explorer Fritjolf Nansen) in a photograph of their first long ski tour together: a vadmel outfit with a cap inspired by the Sami. German doctor Gustav Jaeger's promotion of wool underwear is also mentioned, and a section is devoted to wool bathing suits. Both of Bugge's books feature an important thread in the Norwegian wool tradition about which relativley little has been written in the recent years.

#### **B. MAINTENANCE**

Laitala, Kirsi, Ingun Grimstad Klepp, Marit Kjeldsberg, and Kjersti Eilertsen.

"Consumers' Wool Wash Habits and Opportunities to Improve Them." Oslo:
Statens Institutt for Forbruksforskning, 2011.

**ENGLISH** 

This report presents the results of a series of studies undertaken at the National Institute for Consumer Research on wool washing. Wool, the authors explain, serves as a natural alternative to higher-maintenance fibers such as cotton or polyester as it is naturally soil-repellant, can be aired rather than laundered, and can be washed at lower temperatures. The report is based on laboratory tests and two qualitative consumer surveys on clothing maintenance habits.

## Klepp, Ingun Grimstad. "Techniques to Economize with Textiles 1900-2000." Oslo: Statens Institutt for Forbruksforskning, 2000.

NORWEGIAN WITH ENGLISH SUMMARY

This article concerns popular attitudes toward textile mending and recycling throughout the twentieth century. Klepp bases her work on a selection of eighty

Norwegian needlework books and periodicals. The author observes that mending techniques promoted in the early twentieth century stemmed from need; later in the century, mending transformed into a moral imperative, and most recently, into a mode of aesthetic expression.

### 7. RECYCLING

#### **SECTION OVERVIEW:**

A true Cradle-to-Cradle system elminiates the concept of waste. Wool textiles can be recycled as a nutrient or as a valuable material such as shoddy (shredded wool textiles, which can be respun and repurposed). Although there is a long tradition of shoddy production in Norway and recycling remains part of the the cultural lexicon, literature on wool recycling in Norway is relatively sparce.

Two recent texts are included here. The first is the Norwegian Museum of Cultural History's 2007 årbok, or yearbook, which discusses textile recycling within the context of Norwegian consumer culture. The second is by Annemor Sundbø, author of five books on the Norwegian knitting tradition. Her first book, *Treasures from the Ragpile* (2000), details the contents of the sixteen-ton load of knitted goods that Sundbo acquired upon purchasing a shoddy mill just outside of Kristiansand on the Southern tip of Norway. In subsequent books, she explores the contours of her 'ragpile' through various cultural and historical lenses. The Norwegian Museum of Cultural History's 2007 recycling theme and Sundbø's numerous books raised awareness about textile recycling in Norway, but neither provide specific details about wool textile recycling in Norway. This research needed in order to close the Cradle-to-Cradle loop and bring the wool lifecycle full circle.

Pedersen, Kari-Anne, Kari Telste, and Morten Bing. *Bruk, Kast – og Bruk Igjen.* By og Bygd: 40. Oslo: Norsk Folkemuseum, 2007.

**NORWEGIAN** 

**Title note:** Use, discard – and reuse

The 2007 Nothing Disappears (Ingenting Forsvinner) exhibition at the Norwegian Museum of Cultural History, produced in collaboration with Fretex, Norway's largest chain of second-hand shops, explores the theme of recycling in modern consumer society. The museum's 2007 yearbook also addresses this theme, with essays on such topics as flea markets, second-hand shops, 'retro,' rag rugs, mending, alterations, advertising, and art. Wool clothing textiles are not the sole focus of any of the essays, but many examples of wool garments are used. As a whole, this book reveals the symbolic value, practical function, and environmental impact of textile recycling in Norway today.

# Sundbø, Annemor. Everyday Knitting: Treasures from a Ragpile. Translated by Amy Lightfoot. Kristiansand: Torridal Tweed, 2000.

**ENGLISH** 

Sundbø's first book, *Everyday Knitting: Treasures from a Ragpile* (published in Norwegian in 1994) includes cultural information based on the author's discoveries in the sixteen-ton 'ragpile' of knitted garments that she inherited upon purchasing a shoddy mill just outside of Kristiansand. Sundbø sifted through the ragpile and classified the contents into several major categories, which are explored in detail in *Everyday* 

knitting: classic sweaters such as Devold's ganseys, modern designs based on classic sweaters such as the Marius sweater, and new ideas such as jumpers and bathing suits. Each of these sections is steeped in cultural history and supplemented with knitting patterns and instructions. The book concludes with a lengthy bibliography that includes primary and secondary source material on Norwegian knitting, and a series of early knitting patterns from the Sandnes Woolen Mill dating from the 1930s and '40s. Sundbø's subsequent books also merit investigation for those interested in the creative re-use of Sundbo's ragpile.

39

### 8. CONCLUDING REMARKS

Wool is an incredibly versatile material and literature on Norwegian wool is equally diverse, spanning every aspect of the wool lifecycle from farming to recycling and beyond. The Cradle-to-Cradle model used to organize this project created a matrix within which to categorize each source. It wasn't perfect. Many sources fit multiple categories and some didn't fit at all, but the model did provide insight into the space that wool inhabits within Norwegian culture.

The vast majority of literature about Norwegian wool concerns the first half of the Cradle-to-Cradle lifecycle, with a marked emphasis on *Manufacturing and Production* (sect. 5), both industrial and cottage industry. In general, these texts take the form of instructional books, educational manuals, and scholarly work. The audience includes Norwegian hobbyists, students, scholars, and an international group perhaps best defined by a general interest in textiles and Norwegian culture. A common refrain in literature about textile production is the desire to 'transform the old into the new,' to render traditional sensibilities, knowledge, and expertise related to textile production relevant to the present, sustaining cultural values. Books lend themselves to this practice, capturing and circulating information that might otherwise be lost. This is one possible reason why production remains the most frequently cited aspect of the Cradle-to-Cradle lifecycle.

Raw Materials and Farming (sect. 3) and Design and Concept (sect. 4) also feature ample material, although notably less than Manufacturing and Production. These, too, concern the first half of the Cradle-to-Cradle lifecycle. The section on Raw Materials and Farming features primarily educational manuals and scientific and statistical studies. Written in Norwegian, these typically target a relatively specific Norwegian audience. The section on Design and Concept features several academic studies and a unique genre of literature herein referred to as 'design diaries,' artfully rendered portraits of a designer's creative process. These are typically intended for a broad Norwegian and international audience.

The second half of the Cradle-to-Cradle lifecycle remains relatively unexplored in recent literature. Several texts featured in the section on *Norwegian Wool Campaigns* (sect. 2) that date from the early twentieth century describe the entire Cradle-to-Cradle lifecycle, although not in so many words. These date from a period when the Cradle-to-Cradle approach was practiced out of necessity, when wool was largely grown, processed, consumed, and recycled locally. This holistic approach is no longer universal, but it certainly isn't completely absent today. *Consumption and Use* (sect. 6) and *Recycling* (sect. 7) feature several recent publications concerning the second half of the lifecycle and are intended for popular and academic audiences both in Norway and abroad. Most of this recent literature is either written in English or includes English translations, a reflection of the globalized nature of fashion and textile production.

Although a great deal has been written about Norwegian wool, it's impossible to deny the sense that the literary map featured here is somewhat fragmented, emphasizing design and

production and glossing over consumption and recycling. The holistic approach to textiles outlined in the Cradle-to-Cradle model has yet to become part of Norway's broader cultural conscience, but signs indicate that this is happening, and soon. Efforts on the part of SIFO and NICE, and the sustained efforts of hobbyists, students, and scholars both in Norway and abroad are contributing to this movement. Much of this shift has been fueled by blogs and websites, media not investigated here. A thorough analysis of online media could provide greater insight into current cultural trends. That said, this study reveals the limits and potential of the literary form and its role in defining a significant cultural tradition. It demonstrates that wool is fundamental Norway's cultural fabric.

#### **ALPHABETICAL LIST OF SOURCES**

- Andersson, Eva B. Early History of Dress and Fashion in Nordic Countries. Vol. 8, in Berg Encyclopedia of World Dress and Fashion, edited by Lise Skov. Oxford: Berg, 2010.
- Audun, Dydahl. "Fra ull og lin til klær : arbeidsmåter og redskaper på Innherred." Steinkjer: Steinkjer Museum, 1988.
- Bjøru, Ronald and Åsbjørn Karlsen, eds. "Ull og ullbehandling : fagdag under "Sauens uke" 1996." Grønn forskning, 1997.
- Breivik, Olga Marie. Fanatrøyer. Bergen: Eide, 1998.
- Bruaset, Oddgeir. *I tråd med tida gjennom 75 år: Rauma ullvarefabrikk 1927-2002.* Rauma: Rauma Ullvarefabrikk, 2002.
- Bruland, Kristine. "Hjula-arkivet og studiet av tidlig norsk industrialisering." Volund: årbok for selskapet Norsk teknisk Museum. Oslo: Norsk Teknisk Musuem, 1987.
- Bruland, Kristine. *British technology and European Industrialization : the Norwegian textile industry in the mid nineteenth century.* Cambridge: Cambridge University Press, 1989.
- Brøndbo, Karstein, and Lars Johan Rustad. "Kostnader i Ullklassifisering, Variasjoner og Årsaker." Bachelor's thesis, Norges landbrukshøgskole, Ås, 1988.
- Buer, Hilde. Villsauboka. Førde: Selja Forlag, 2011.
- Bugge, Astrid, Helen Engelstad, and Valborg Kvaal. *Statens kvinnelige industriskole, 1875-1950.*Oslo: Aschelhoug, 1950.
- Bugge, Astrid. *Touristinder og andre sportspiker : blad av sportsdraktens og kvinne-emansipasjonens historie.* Oslo: Johan Grundt Tanum, 1961.
- Cadenhead, Natalie. *Antarctic Explorer Wear.* Vol. 7, in *Berg Encyclopedia of World Dress and Fashion*, edited by Lise Skov. Oxford: Berg, 2010.
- Christie, Inger Lise. *Brikkevevde bånd i Norge : levende tradisjon og glemte teknikker.* Oslo: Norsk Folkemuseum, 1985.
- Cottle, D.J. *The International Sheep and Wool Handbook.* Nottingham: Nottingham University Press, 2010.
- Eik, Lars Olav, Leif Jarle Asheim and Håkon Romarheim. "Produksjon av kasjmirull : ei aktuell næring i Noreg?" Bachelor's thesis landbrukshøgskole, Ås, 1993.
- Elstad, Åsa. Moteløver og heimføingar : tekstilar og samfunnsendringar i Øksnes og Astafjord 1750-1900. Stamsund: Orkana forlag, 1997.
- Engelstad, Helen. *Refil-Bunad-Tjeld: Middelalderens Billedtepper i Norge*. Oslo: Gyldendal Norsk Forlag, 1952.

- Engstrøm, Ulla. Arbeide med Ull. Landbruksforlaget, 1981.
- Fimland, Frode and Magne Sleire. *Norsk Ull frå klipp til ferdig product*. Film. Norsk kjøtt ullavdeling, Norsk sau- og geitalslag and Dale garn og trikotasje AS, 1991.
- Forrás, Peter. Vi behøver ikke at passe på arbeideren, vi passer kun paa arbeidet" : arbeid og rasjonalisering i Salhus Tricotagefabrik 1920-1967. Bergen: Norsk trikotasjemuseum, 2009.
- "Forslag til Arbeidsprogram Vedrørende Videreforedling av Islandsk Ull Resp. Norsk Spelsau Ull." Report, H.K. Hugen & Co. A/S, 1964.
- "Garn er Ikke Bare Garn: Utstillingen Norsk Ull: avl, sortering, kvalitet." Statens Kvinnelige Industriskole, 1956.
- Gauslaa, Torbjørg. "Anna Grostøl på Lista: Litt om Granskningsarbeidet Hennar 1920-1950talet: Vyrke og Arbeidsteknikkar frå Naturhushaldet." Raufoss: Raufoss Trykkeri A.S., 1994.
- Gravjord, Ingebjørg. Votten i Norsk Tradisjon. Oslo: Landbruksforlaget, 1986.
- Greig, Sigurd. Norsk Tekstil. 2 vols. Oslo: Johan Grundt Tanum, 1948.
- Grimstvedt, Målfrid. "Spøt til salg : strikking som binæring i Rogaland før 1900." Årbok: Stavanger Museum. Stavanger: Stavanger Museum, 1984.
- Gulsvik, Tove and Ingebjørg Vaagen, eds. Vyer i Vev. Oslo: Grøndal Dreyer, 1995.
- Gulsvik, Tove, Andresen, Anette Solberg, Tore Risnes, Ingebjørg Vaagen, Kari Thunæs, and Egil Torin Næsheim. *Kom Skal vi Klippe Sauen*. Norges Husflidslag, 1992.
- Haug, Kari. "Stampemølle: etterhandsaming av ulltøy i gamle dagar" Textile history lecture, 1956.
- Hisdal, Solveig. Poetry in Stitches: Clothes you can Knit. Oslo: Cappelen Damm, 2000.
- Hoffmann, Marta. Fra fiber til tøy: tekstilredskaper og bruken av dem i norsk tradisjon. Oslo: Landbruksforlaget, 1991.
- Hoffmann, Marta. *The warp-weighted loom : studies in the history and technology of an ancient implement.* Oslo: Universitetsforlaget, 1964.
- Håberg, Kirsten Røvig. Den myke historien: om tekstiler, klær og moter. Vollen: Tell Forlag, 2002.
- Jenkins, David. "The Western Wool Industry in the Nineteenth Century." In *The Cambridge History of Western Textiles*, edited by David Jenkins. Cambridge: Cambridge University Press, 2003.
- "Katalog over Norsk tekstilbibliotek : yrkesbibliotek for tekstilindustrien." Norsk Tekstilbibliotek, Bergen, 1948.

- Kjellberg, Anne, ed. *Per Spook : Norsk motedesigner i Paris.* Translated by Peter Cripps. Oslo: Nasjonalmuseet for Kunst, Arkitektur og Design, 2006.
- Kjellberg, Anne, Ingebjørg Gravjord, Gerd A. Rosander, and Anne-Lise Svendsen. *Strikking i Norge*. Oslo: Norges Husflidslag/Landbruksforlaget, 1987.
- Kjellberg, Anne. "Strikking og Bruk av Strikkeplagg i Norge før 1700." In *Textila tekniker i nordisk tradition : rapport från nordiskt symposium om textila tekniker 1986*, 38-48. Uppsala: Uppsala University, Ethnographic Institute, 1986.
- Kjellberg, Anne. Mote: trender & designere Oslo 1900-2000. Oslo: Huitfeldt forlag, 2000.
- Klausen, Ann Kristin. *Masker mellom generasjoner : strikking som husflid, hobby, mote og symbol.* Mosjøen: Helgeland museum, 2006.
- Klepp, Ingun Grimstad, and Charlotte Bik Bandlien. "Stram i Strikken." *Oslo Fashion Week Magazine* (2010): 24-29.
- Klepp, Ingun Grimstad, *Snapshot: Wool.* Vol. 8, *Berg Encyclopedia of World Dress and Fashion*. Edited by Lise Skov. Oxford: Berg, 2010.
- Klepp, Ingun Grimstad, Tone Skårdal Tobiasson, and Charlotte Bik Bandlien. "A Fresh Look At Wool." National Institute of Consumer Research and Nordic Initiative, Clean and Ethical, 2011.
- Klepp, Ingun Grimstad. "Techniques to Economize with Textiles 1900-2000." Oslo: Statens Institutt for Forbruksforskning, 2000.
- Knutsen, Jostein. "Nedbygging og nedlegging i tekstilindustrien på Vestlandet: Arne Fabrikker og Salhus Tricotagefabrik." Master's thesis, University of Bergen, 2009.
- Kviseth, Kjersti. "Norwegian Wool: Norwegian Sheep Husbandry as Basis for Cradle to Cradle Development." Oslo: Statens Institutt for Forbruksforskning, 2011.
- Laitala, Kirsi, Ingun Grimstad Klepp, Marit Kjeldsberg, and Kjersti Eilertsen. "Consumers' Wool Wash Habits and Opportunities to Improve Them." Oslo: Statens Institutt for Forbruksforskning, 2011.
- Leiro, Guri. "Hvorfor strikker kvinner i dag: tradisjon og refleksivitet." Master's thesis, University of Oslo, 2007.
- Lind, Vibeke. *Knitting in the Nordic Tradition*. Trans. Annette Allen Jensen. Asheville: Lark Books, 1992.
- Lundie, Roger S. and Elspeth Wilkinson, eds. *The World of Coloured Sheep.* The Black and Coloured Sheep Breeders' Association of New Zeland, 2004.
- McGregor, Sheila. *The Complete Book of Traditional Scandinavian Knitting*. New York: St. Martin's Press. 1984.

- Melchior, Marie Reigels. "From Design Nations to Fashion Nations? Unpacking Contemporary Scandinavian Fashion Dreams." *Fashion Theory* (Berg) 15, no. 2 (2011): 177-200.
- Myhr, Turid S. "Sigrun Berg: Tekstilkunstner og Designer: en redegjørelse for hennes virksomhet med hovedvekt på den monumentale tekstil utsmykking av Håkonshallen i Bergen 1959-61." Master's thesis, University of Oslo, 2010.
- Nordland, Odd. *Primitive Scandinavian Textiles In Knotless Netting* . Oslo: Oslo University Press, 1961.
- "Norsk Ull: Landbruksdepartementets propagandaskrift for Ullsaka i 1940." Landbruksdepartmentet, 1940.
- Noss, Aagot. Stakkeklede i Setesdal: byklaren og valldølen. Oslo: Novus Forlag, 2008.
- Nygjerd, Gunnar. Innvik ullvarefabrikk 100 år. Innvik: Innvik Ullvarefabrikk, 1990.
- "Om ull og ullvarer." Tekstilfabrikkenes Konsulent- og Opplysningskontor, n.d., ca. 1960.
- Pagoldh, Susanne. *Nordic Knitting: Thirty-one Patterns in the Scandinavian Tradition.*Translated by Carol Huebscher Rhoades. Loveland, Colorado: Interweave Press, 1991.
- Pedersen, Kari-Anne, Kari Telste, and Morten Bing. *Bruk, Kast og Bruk Igjen.* By og Bygd: 40. Oslo: Norsk Folkemuseum, 2007.
- Rasch, Tone. "Blåtøy, kjoletøy og flanell: fabrikkvevde stoffer fra Hjula Veveri på slutten av 1800-tallet." Volund : årbok for selskapet Norsk Teknisk Museum. Oslo: Norsk Teknisk Museum, 2003.
- Rasch, Tone. *Norway*. Vol. 8, in *Berg Encyclopedia of World Dress and Fashion*, edited by Joanne B. Eicher. Oxford: Berg, 2010.
- Raustøl, Bård. ""Øvede piger og dygtige mænd: mennesker, teknologi og kunnskap ved Sjølingstad Uldvarefabrik 1893-1920." Bachelor's thesis, University of Oslo, 2004.
- Róbertsdóttir, Hrefna. Wool and Society: Manufacturing Policy and Economic Thought and Local Produciton in 18th Century Iceland. Göteborg: Makadam, 2008.
- Rosander, Gerd Aarsland. "Mønstre Moter Markeder: Norsk Strikkings Image." In *Textila tekniker i nordisk tradition : rapport från nordiskt symposium om textila tekniker*.

  Uppsala: Uppsala University, Ethnographic Institute, 1986.
- Sande, Erling. "Ull: Kvalitet, Klipping, Behandling." Norsk Sau- og geitalslag, 1949.
- Saueklypping. Ein instruksjonsfilm om riktig klyppeteknikk og riktig ullbehandling. Landservice, 1996.
- Segelcke, Nanna. *To rette og en vrang : Unn Søiland Dale : designerliv og strikkeoppskrifter.*Oslo: Aschehoug, 1994.

- Sejersted, Ingebjørg Strøno. "Innovativ tradisjon og dekorativ kraft : en analyse av Oleana med hovedfokus på design." Masters thesis, University of Oslo, 2007.
- Shea, Terri. *Selbuvotter: Biography of a Knitting Tradition.* Seattle, Washington: Spinningwheel LLC, 2007.
- Skjerve, Heidi Kennedy, Per Boym, Erlend Høyersten, and Vibeke Waallann Hansen. *Herfra til Hit/Herefrom Hereto*. Oslo: Arthub Publisher, 2010.
- Slåttum, Berit, and Anne Britt Ylvisåker. *Opplegg på gang : strikk du ikke ville drømme om.* Bergen: Fagbokforlag, 2007.
- Spurkland, Marte. "Strikk i Strid." D2, December 2008.
- Steffens, Henrik and Sissel Berntsen. *Vi høster ull:* Lærebok om saueklipping, ullhåndtering og ullklassifisering. Oslo: 1999.
- Steihaug, Kari, Jorunn Veiteberg, and Dag T. Andersson. *Arkiv: De ufullendte/Archive: The Unfinished.* Oslo: Magikon, 2011.
- Sundbø, Annemor. *Everyday Knitting: Treasures from a Ragpile*. Translated by Amy Lightfoot. Kristiansand: Torridal Tweed, 2000.
- Sundbø, Annemor. Strikking i Billedkunsten/Knitting in Art. Setesdal: Torridal Tweed, 2010.
- Sundt, Eilert. Om Husfliden i Norge. 1868. Reprint, Oslo: Gyldendals: 1975.
- Takle, Tone. *Lær meg å strikke : innføring i strikking : metodisk oppgavesamling.* Kristiansand: Høyskoleforlaget, 1999.
- Tjelfaat, Unn. "Det Siste Stampehuset." Norsk Husflid 3 (1998): 44-47.
- Tobiasson, Tone Skårdal, Arne Nerjordet, and Carlos Zachrison. *Arne & Carlos : masker og snitt fra Tonsåsen*. Oslo: Norges Husflidslag, 2007.
- Valestrand, Kolbjørn, Signe Aarhus, and Solveig Hisdal. *Oleana : fra drøm til eventyrlig virkelighet*. Oslo: Cappelen Damm, 2010.
- Vatn, S. "The Sheep Industry in the Nordic Countries." *Small Ruminant Research*, 86 (2009): 80-83.
- Vik, Sølvi. "Vavette: dei viktige fiskarvottane." Havstrilen: kulturhistorisk årbok for Sund, Fjell og Øygarden, 2010.
- Wathne, Eva, Målfrid Grimstvedt, Lisbeth Risa, and Ragnhild Thu. *Då moten kom... : frå vadmål til mikrofiber*. Hå: Hå Kommune, 1998.
- Wikran, Åslaug. "Tråder i tiden : vevkunnskap i den tekstile kulturarv." Master's thesis, Oslo University College, 2010.
- Øye, Ingvild. "Textile equipment and its working environment, Bryggen in Bergen, c. 1150-1500." In *The Bryggen Papers*. Oslo: Norwegian University Press, 1988.