

Left: The Nina Grieg Sweater, by Dale of Norway. This cardigan was inspired by the wife of Norwegian composer Edvard Grieg. The rose motif is from a stained-glass window in their home. Courtesy of Dale.

Right: Modern production methods marry traditional materials and new designs in the Dale of Norway and Oleana factories. Here, at Oleana, the linking process, in which intricate patterns are matched for symmetry. Photo by the author.

Below: Dale of Norway's Salt Lake 2002 sweater pattern, created under official license of the Salt Lake City Organizing Committee for the Olympic Winter Games. Courtesy of Dale. Sheep are well suited to Norway's extreme topography: mountainous terrain that permits little farming. Since the Middle Ages, their wool, combining distinctive long and curly fibers, has been used to produce insulative material of strength and warmth for the long, cold winters. Mittens and woven stockings with knitted feet, often decorated with colorful embroidery, had been made for centuries. Around 1830, all-knitted stockings replaced woven ones. Soon pattern-knit sweaters and caps appeared, and when mill-spun yarns became available, winter garments were fashioned from two-ply worsted yarns.

Skiing, at one time an essential means for travelling from valley to valley, was invented in Norway. Its practitioners, known for legendary fortitude, wore the sweater as a necessary safeguard against the cold. As a result, on every farm throughout every valley, knitters busily worked during long, dark winters, often creating their own patterns of snowflakes, hearts, reindeer, and stars, inspired by the surrounding natural beauty.

Today, Dale of Norway and Oleana, two sweater factories in the vicinity of Bergen, render homage to their Norwegian heritage in their modern creations.

When businessman Peter Hebsen arrived



in the tiny village of Dale in 1872, his idea was to harness the nearby falls' natural power and to utilize the native sheep's raw material for a textile mill. Dale Fabrikker opened in 1879 to produce yarn and woven fabrics. Dale of Norway retains its reputation for yarns—and sweaters—to this day with classic knitting patterns that reflect Norse history and culture forming the core of the company's design repertoire.

Since quality is paramount, 100% Norwegian wool is an integral component of the Dale sweater. Wool produced all over Norway is sold to a central clearinghouse, the Norsk Njott, and from there it travels to Dale's fully integrated factory, where each step of production from raw material to finished product is handled in-house.

After blending, the wool is washed and dried. Spinning oil is added to help prevent later damage during spinning. Afterwards, the wool is carded to align the fibers. Throughout the process, the long fibers are stretched, passing the wool twice through combs to ensure maximum alignment of the fibers, and then lightly twisted or spun. Removal of the short fibers results in stronger yarn and permits more distinctive patterns in the final knit product. Norwegian yarn's breaking strength is greater than that of ordinary wool, so that sweaters fashioned from their yarn retain exceptional dimensional stability, allowing them to keep their shape for many years.

Modern sweater designs are programmed into Dale's sophisticated computer system and transferred directly to high-tech knitting machines. The dyed yarn is transformed into individual sweater elements, usually consisting of a front, back, sleeves, and neckbands.







These are assembled by means of a "looper" machine, with which each stitch is linked to another using the same yarn as was used for knitting the garment. Looping facilitates the smooth assembly of pieces to fit the particular pattern and gives the sweater a handknit appearance. "It's the most important part of the process," says Randi Sunde, director of product development.

The last step in the assembly involves handsewing and final inspection to eliminate any loose threads. The sweater is then steamed, measured, labeled, and packed for shipment.

Dale is one of Scandinavia's largest and best-known textile companies. In tribute to its heritage, since 1956 it has been an Official Outfitter of the Norwegian Ski Team and today is an Official Licensee of the 2002 Olympic Winter Games in Salt Lake City and the U.S. Olympic Team as well. The company remains loyal to creating winter sweaters based on ageold patterns and techniques even as it develops new collections each year and experiments with innovative fiber blends.

Emerging from Dale's factory environment, owners of one of Norway's youngest and most innovative knitwear companies, Oleana, have expanded their experience to new parameters of fashion. Kolbjørn Valestrand and Signe Aarhus met while working at Dale, the former in marketing and the latter in education and design. With partner Hildegrunn Møster, also a former Dale employee, they founded Oleana, named for the utopian colony in Pennsylvania founded by Ole Bull, a legendary Norwegian musician from Bergen. Bull taught the newly independent Norwegians to take pride in their folk art and culture, and, as a violin virtuoso, created new music from traditional roots.

Considered an "alternative" kind of company, its owners based its philosophy not on monetary values but on more socially responsible ones. Signe explained, "We believed that if we made the best product and cared about people, then monetary success would naturally result."

Different from in other factories, all employees receive a monthly wage rather than being paid by the piece, and they share in the company's annual profits. Turnover is practically nonexistent, and perks, such as a 10th-anniversary trip to New York City, are an added bonus.

Combining business with culture in a country in which hand knitting and tradition are still very much alive, Oleana is thriving. Housed in a portion of the century-old Janus underwear factory in Espeland, Oleana started with three employees and currently employs more than 50.

Left, top: An Oleana sweater inspired by 16th-century folk embroideries in London's Victoria & Albert Museum. Courtesy of Oleana.

Left, bottom: Kolbjørn Valestrand and Signe Aarhus, cofounders of Oleana. Photo by the author.

Right: After visiting Vesterheim Norwegian-American Museum in Decorah, Iowa, Oleana designer Solveig Hisdal created the Vesterheim Jacket. A brocade bodice on a mid-19th-century folk dress in the museum suggested the banded floral design in pink, gold, and green. The bodice's insert suggested the border pattern. Courtesy of Oleana.





Above: This fifth-anniversary design for Oleana was inspired by embroidery on an imported 16th-century silk nightshirt. Courtesy of Oleana.

Solveig Hisdal, Oleana's principal designer and the author of *Poetry in Stitches: Clothes You Can Knit*, early on found inspiration in the folk designs of many countries. Fascinated with textile patterns and combinations found in museum archives and collections, she turns a very personal sense of deep-hued coloring and rich pattern into jewellike designs embellished with fine French silk ribbons, velvet braid, and unusual buttons, sometimes imported or designed in sterling silver.



KNITTING INDUSTRY MUSEUM

The Salhus Knitting Mill, established in 1859, was the first modern knitwear plant in Norway. As a result of its success, an entire community grew up in this village, a short bus ride from Bergen. Forced to close in 1989 because of global competition, today the mill is reborn as a major educational facility. Visitors get guided tours (by appointment) in yarn and knitwear production and can purchase the once-popular Salhus sweater, a knitted peasant blouse. For more information, see page 78.

Brilliant color combinations, such as red and orange or lime and mauve, are paired with long silk skirts and sleeveless shells to create a total, integrated look. Matching shawls and wristlets (in Norwegian, *pulsvanter*, or "pulse warmers") are a direct link to the national folk costume, the *bunad*, a regional dress form that continues to be worn for special events.

Hisdal understands that wearing the bunad promotes a "special feeling" that runs deep in the heart of most Norwegians. In her designs, she draws on ancient European textile patterns and antique garments to achieve a fresh and luxuriant variation on a genuine feeling for the past. "My goal is not to make copies of old-fashioned costumes," Hisdal says, "but rather contemporary garments with traces of the past."

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