

The Norwegian Hardanger fiddle making tradition

Wiebke Lüders

Introduction:

Hardanger fiddle making has a long tradition in Norway. Beginning with the Jaastad-fele from Hardanger - the earliest known extant Hardanger fiddle dated 1651, and Isak and Trond Botnen's fine instruments, the Hardanger fiddle has made its way in the 18th century from the Hardanger region into the folk music and instrument making tradition of other areas in Norway.

About the tradition:

The Hardanger fiddle is a traditional folk instrument, which is played mainly in the southwest of Norway, especially in the regions Hallingdal, Valdres, Telemark, Setesdal, Numedal and Vestlandet. The violin (*vanlig fele*) is played as folk music instrument mostly in other Norwegian areas. The Hardanger fiddle is often used for dance music and entertainment, accompanied by rhythmic loud foot stomping, but also in concerts and folk music competitions (*kappleik*). Traditionally it was played as solo instrument, but nowadays it is also used in groups of several fiddlers playing in unison (*Spelemannslag*) or in combination with other musical instruments such as the accordion (*trekkspill/torader*) and double bass or with vocals. In the past, a Hardanger fiddle player also used to lead wedding processions. The Hardanger fiddle tunes are usually handed down aurally. In the 20th century the Hardanger fiddle also inspired contemporary composers, such as Johan Halvorsen and Geirr Tveitt, who wrote two concerts for Hardanger fiddle and orchestra. Outside of Norway, the Hardanger fiddle is also played in the US, Japan, Sweden and the UK.

The fiddle's shape is reminiscent of the classical violin, but the Hardanger fiddle often has a slightly higher and thinner top, often with overlapping f-holes, which are carved out of the wood. In addition to the common four violin strings the fiddle has four, five or more sympathetic strings running under the fingerboard, which resonate while the instrument is played and give it its typical, rich sound.

Instead of a scroll Hardanger fiddles often have a carved lion's head (the Norwegian heraldic lion), a dragon, a beast or sometimes a woman's head. The instruments are usually beautifully decorated with mother of pearl, bone and metal inlays on the fingerboard, tailpiece, pegs and sometimes along the edges of the fiddle. In addition, the Hardanger fiddles are lavishly decorated with black ink drawings of traditional Norwegian flower patterns (*rosing*) on the corpus and the peg box.

Even though there are many different possible tunings, depending on which tune the instrument is used for, the most common tuning of the Hardanger fiddle is a (*bass*) d1 (*ters*) a1 (*kvart*) e2 (*kvint*) and h - d1 - e1 - f#1 - a1 for the sympathetic strings (English notation: b - d1 - e1 - f#1 - a1). Since the Hardanger fiddle is a transposing instrument which is often tuned one whole tone higher than a violin the sound of the strings in relation to A=440 Hz is h - e1 - h1 - f#2 (English notation: b - e1 - b1 - f#2) and c#1 - e1 - f#1 - g#1 - h1 (English notation: c#1 - e1 - f#1 - g#1 - b1) for the sympathetic strings.

Hardanger fiddle strings are made of ram gut or silver wound gut core. They are thinner and lighter than those of a modern violin and resemble rather Baroque violin strings. The E-string is most often made of silver-steel, as are the sympathetic strings, but until the beginning of the 20th century a thin ram gut was mostly used for the E-string. Hardanger fiddle strings by Rudi Musikk in Heggenes have been made for more than a hundred years under the brand name "Fanitullen". Fiddle strings are also produced at the Hardanger fiddle making and repair workshop of the Ole Bull Academy in Voss under the brand name "Mosafinn".

The fiddle is traditionally only played in the first position. The bridge of a Hardanger fiddle is relatively flat, compared with the more rounded bridge of a violin. This makes it easier to play on two or even three strings simultaneously. The bowing style is lighter than on an ordinary violin. Short and rather convex bows were used in the past, but nowadays ordinary violin bows, which are longer and rather concave, are more common.

Like the classical violin, the Hardanger fiddle is nowadays built around an inner mould, which is made after a drawing of a fiddle or a violin. The modern Hardanger fiddle makers of the late 19th century down to the present day used to follow the model of early 18th century Italian violins by makers such as Antonio Stradivari, Giuseppe Guarneri del Gesù or Nicolò Gagliano. Hardanger fiddles made before the middle of the 19th century often have a much rounder and narrower body than a violin.

The top of the fiddle is carved out of spruce, while the bottom and the ribs are made of maple, Norwegian black alder or - in some older fiddles - of birch wood. Spruce and black alder wood of high quality can be found in Norway, whereas the quality of maple wood is thought to be better in the South of Europe. It is therefore often bought in countries such as Bosnia or Italy. The neck and pegbox are usually carved from the same material as the bottom.

For the inlay, small indentations are cut out of a piece of ebony for the fingerboard and tailpiece and the small intarsia of mother of pearl or bone are sawn out and fitted by sanding or filing.

As in the last centuries most of these work steps are nowadays done by hand with traditional tools such as hand planes, chisels and gauges, knives, scrapers etc. In some cases, also hand-operated machines, such as bandsaw, belt sander or milling machine are used today.

In 2013 the Ole Bull Academy and the Hardanger and Voss Museum launched the project *Hardingfela.no* to promote and strengthen Norwegian traditions related to the Hardanger fiddle. In the course of the sub-project *Framtids-Felemakeriet* the Ole Bull Academy has in 2017 purchased a computer-controlled CNC-router and the Academy's fiddle making student Ole Gjerde has been engaged in producing digital 3D-modells of Hardanger fiddles in order to make parts such as top, bottom, neck, fingerboard and tailpiece of Hardanger fiddles with this machine. First test pieces are already finished and the way to a mass production of Hardanger fiddles, especially for children has been paved. This is an important step since Hardanger fiddles for children are in demand and the availability of affordable instruments will in the long run very likely encourage folk music played on Hardanger fiddles.

However, our approach towards traditions and craftsmanship as an indispensable part of our cultural heritage is changing and Hardanger fiddle making needs to be considered as a tradition of high cultural value, worthy of preservation. It is not only a craft but also a form of artistic expression and should be protected as such. By using increasingly computer-controlled machines the individuality of the instruments and their high cultural value as a symbol of extraordinary Norwegian craftsmanship is in danger to get lost. But is it not one of the most significant features of Hardanger

fiddles, that each of them is unique? For this reason it is necessary to strengthen and support a parallel development of hand-made Hardanger fiddles based on traditional building techniques.

It is very important to pass on our experience in Hardanger fiddle making from one person to another by showing how things are made by hand. One could argue that, if we document every work step precisely, we can keep the knowledge of Hardanger fiddle making for the future. And there is indeed a book project running at the Academy right now, comprising a thorough step by step documentation of Sigvald Rørlien's work by study leader Håkon Asheim. But musical instrument making is also an intuitive work and documenting working techniques may not be enough. We are in danger of losing the ability to understand what we do and the feeling for the material and the quality of the wood, if we don't do the work ourselves.

Hardanger fiddle makers with expertise:

For some years there has been a decrease in the number of active Hardanger fiddle makers and only a few fiddle makers are left to keep up this valuable tradition in Norway. Only two of those fiddle makers (Ottar Kåsa and Salve Håkedal) are self-employed and able to live solely by their work with Hardanger fiddles. Ottar Kåsa is a very successful Hardanger fiddle player as well. All the other fiddle makers work for public institutions, and are therefore partly supported by the state.

Apart from making new instruments, the repair and maintenance of Hardanger fiddles is an important part of the fiddle maker's daily work. The fiddle makers are usually in constant exchange with the musicians they are working for.

Fiddle makers:

Ottar Kåsa (Bø, Telemark):

Ottar Kåsa (born in 1983) is a Hardanger fiddle player and maker, who grew up in Arabygdi, but lives now in Bø, Telemark. He started as a fiddle making student with Sigvald Rørlien at the Ole Bull Academy in 2005, where he completed his studies in 2008. Besides he has been learning from several Hardanger fiddle makers, Salve Håkedal, Wim Baeck, Alexander Pilz and Harald Lund among others. Since 2009 Ottar has had his own workshop in Bø in Telemark and has until now made about 29 Hardanger fiddles in addition to repair and set up work. As Hardanger fiddle player he has released to CD's with Hardanger fiddle music: "Ottar Kåsa" in 2012 and "Kjoskrullen" in 2016, on which he is playing on an instrument that he has built himself.

Keisuke Hara:

Keisuke Hara (born in Japan in 1986) is a violin maker, who was trained in Newark from 2007 to 2011. Afterwards he was working for four years as violin maker in Japan, where he became chief of the workshop and did a lot of repair and restoration work at instruments of the violin family. He also took training with violinmaker Stepan Soultanian in Cyprus. From 2015 to 2017 Keisuke learned Hardanger fiddle making, repair and restoration from Ottar Kåsa. He opened a Hardanger fiddle and violin workshop in Japan in the beginning of 2018. He has made 9 violins, one viola and 3 Hardanger fiddles so far.

Knut Opheimsbakken (Valdres Folkemuseum in Fagernes):

Knut Opheimsbakken (born in 1957) started Hardanger fiddle making at home in 1993, with some instructions by Olav Viken at the workshop of the Valdres Folkemuseum. He has been working at the Valdres Folkemuseum since 1997 together with Oddrun Hegge and Sigvald Rørlien and got valuable repair and instrument making practice there as the main base of his education. He has altogether made ca. 40 Hardanger fiddles, 1 langeleik and does about 50 repair jobs each year. Since 2001 he has been making strings for Hardanger fiddles – “Fanitullen” strings for Rudi AS.

Bård Riise Hoel (Valdres Folkemuseum in Fagernes):

Bård Riise Hoel (born in Oppdal in 1979) was trained by Sigvald Rørlien at the Ole Bull Academy in 2006-2009. He ran the workshop at the Ole Bull Academy for a year (2010) before starting his own workshop in Åseral (Vest-Agder), which he was running from 2011 to 2013. Bård started working at *Valdresmusea* in summer 2013. He also received some training in Potsdam, Germany with the Viola da Gamba and violin makers Valentin Oelmüller and Peter Volkmer. He has mostly been working with repairs and restoring instruments, but has also made six Hardanger fiddles and various other instruments. He has been making Hardanger fiddle strings for both “Fanitullen” and “Mosafinn”.

Leif Salve Håkedal (Birkeland, Aust-Agder):

Salve Håkedal (born in Birkeland, Aust-Agder in 1958) made his first fiddle at a summer course with Sverre Sandvik at the *Rauland Folkeakademi* in 1985. There were no professional fiddle makers in his area. As an autodidact he acquired his knowledge by making contact with amateur fiddle makers, reading violin making literature in different languages and studying, drawing and copying Hardanger fiddles by other fiddle makers, such as Sveinung Gjøvland, Torleiv Frøyså, Eirik and Olav G. Helland. In the last half of the 90ies he made more violins and violas than Hardanger fiddles, alongside with repair work in his own shop and for Urs Wenk-Wolff and Sevald Bismo at Hornaas Musikk in Oslo. Into 2000 he borrowed a Røstad Hardanger fiddle from 1921 and made "copies" of it. Nowadays he is making fiddles of his own model. Salve tries to reduce somewhat the lavish decoration that has become traditional on Hardanger fiddles, which makes for a more affordable price.

Sigvald Rørlien (Ole Bull Akademiet Voss):

Sigvald Rørlien (born in 1946 in Voss) has been working as a Hardanger fiddle maker for Kringsjå A/S, an operating company of the Ole Bull Academy, since 2004. He was trained by Anders Aasen in Eidfjord and has been active as a fiddle maker since the 1970s. Since then he has been learning the art of fiddle making from many others and has together with the Swedish fiddle maker Hans Lisper undertaken a study tour to Cremona, the "Mecca of violin making" in Italy. He has made about 70 Hardanger fiddles, mostly after the model of Gunnar Røstad's Hardanger fiddles from the beginning of the 20th century. For a period of ten years Sigvald was employed as a fiddle maker at the Valdres Folkemuseum, together with Olav Viken, Knut Opheimsbakken and Oddrun Hegge. At the same time he was running his own workshop in Voss. Sigvald is 71 years old and will very likely retire in 2018.

Wiebke Lüders (Ole Bull Akademiet Voss):

Wiebke Lüders (born 1979 in Germany) is a conservator of wooden musical instruments after studying at the Academy of Fine Arts in Vienna. She has been working as a freelance conservator in Vienna for several years and had a 1 1/2-year-long scholarship at the Conservation Department of the Metropolitan Museum of Art in New York, where she focussed on the conservation of historical harpsichords. From 2014-2015 she has been trained by viola da gamba makers in Germany (Valentin Oelmüller) and The Netherlands (Gesina Liedmeier). Wiebke became fascinated by Hardanger fiddles during an internship at the Ringve Museum in Trondheim in 2008 and her interest grew when she visited Salve Håkedal's workshop and the workshop at the Ole Bull Academy in Voss in 2015. Since she started to work at the Academy's fiddle making workshop in January 2016 she has been specialising in the repair, conservation and making of Hardanger fiddles. With Sigvald Rørlien as a teacher she has been making Hardanger fiddles since 2016.

Ole Gjerde (Ole Bull Akademiet Voss):

Ole Gjerde (born February 2, 1976) has been Sigvald Rørlien's student at the Ole Bull Academy since 2014 and is going to complete his bachelor degree in traditional Norwegian music and Hardanger fiddle making in 2018. Subject of his performance studies is the *torader* (diatonic accordion). He has a varied background as engineer and has worked with design and product development before. In winter 2016/17 he was employed by the Ole Bull Academy to do research on using 3D-models and a CNC-router for making Hardanger fiddles. Now he is about to establish his own fiddle making workshop - Gjerde Felemakeri AS in Strandebarm in Hardanger and is engaged in the development of affordable high-quality children instruments. In his new workshop he is also occupied with other wood work (design and making of prototypes) for other markets.

Besides those mentioned fiddle makers, there are a few people, who are making Hardanger fiddles from time to time, but do not see it as their profession.

There are also a few Hardanger fiddle makers in the US and several cheap mass-produced fiddles from China can be found in the internet.

Knowledge transfer:

In the last centuries, the craft of Hardanger fiddle making has usually been taught by a fiddle maker in his workshop to his apprentice. As is the case with many other crafts this traditional way of knowledge sharing is declining.

As a public institution, the Ole Bull Academy in Voss has offered the opportunity to study Hardanger fiddle making as a bachelor degree course in combination with Norwegian folk music since 2014. Before that there have been two informal Hardanger fiddle making students (Ottar Kåsa and Bård Riise Hoel) from 2005 to 2009 and at present one student (Ole Gjerde) is being trained at the Academy's workshop. He is expected to graduate in 2018. Furthermore, Ottar Kåsa has had a student from Japan - violin maker Keisuke Hara - in his own workshop in Bø for about two years.

Besides, the Ole Bull Academy's fiddle workshop is welcoming visits by anyone who is interested in Hardanger fiddles. There is also the possibility to informally work with the fiddle makers for a few

weeks and there has been a violin making student from Milano, who spent a month at the Academy's workshop in 2016.

Moreover, there are workshop visits organised for the music students that are coming from other Norwegian universities to the Ole Bull Academy almost every week.

The Hardanger fiddle workshop of the Ole Bull Academy has also been present at crafts exhibitions such as the *aktivitetsdager* at the Voss Folkemuseum (*Mølstertunet*) in 2017, a Hardanger fiddle exhibition in Granvin in September 2017 and, like most of the other Hardanger fiddle makers, every second year at the *Landskappleik*.

Also Salve Håkedal's and Ottar Kåsa's workshops as well as the Hardanger fiddle workshop at the Valdres Folkemuseum are open for interested visitors and therefore play an important role in the transfer of knowledge.

Unfortunately, there has been rather little interest in the Ole Bull Academy's bachelor degree course in Hardanger fiddle making so far.

There are several reasons for the lack of interest in Hardanger fiddle making among young people. There is very little awareness for the cultural significance of craftsmanship and musical instrument making in Norway. Previously existing crafts schools, were closed and there aren't any violin making schools in Norway, which could inspire students to pursue a further education in Hardanger fiddle making. The tradition of the great Hardanger fiddle making families ended in the mid-20th century and many of the fiddle makers of the last decades were rather solitary people, who did not wish to share their knowledge and therefore did not take any apprentices.

Another reason for the lack of interest in Hardanger fiddle making is certainly the disproportionately low price of newly built fiddles. Being folk instruments, Hardanger fiddles do not obtain nearly as high prices on the market as handmade classical violins. However, the process of Hardanger fiddle making is much more elaborate and time consuming than the making of a classical violin.

Historical background:

The oldest known extant Hardanger fiddle was made by Ole Jonsen Jaastad (1621–1694) in Ullensvang, Hardanger in 1651. It is exhibited in the "*Historisk Museum*" in Bergen. This fiddle is rather small and rounded with a high arching and has only two sympathetic strings as it was common in the early times of Hardanger fiddle making.

Isak Nilsen Botnen (1669–1759), born in Skaar in Hardanger, was one of the first known Hardanger fiddle makers, who produced fiddles professionally. He made fiddles with differing amounts of sympathetic strings and built also violins. A carved woman's head at the end of the peg box is typical for Isak Botnen's instruments. His fiddles often have a rather angular outline.

Isak's son Trond Isaksen Botnen/Flatebø (1713-72) successfully continued his father's fiddle making tradition and is said to have built over a thousand fiddles. His fiddles are often smaller and slightly more rounded than those made by his father. His instruments have scrolls as well as lion's or beast's heads at the end of the peg box. Trond's fiddles often have sparse "rosing" or none at all – mostly just a few lines, triangles or dots around the edge of the body and sometimes a geometrical pattern in the middle of the top. However, some fiddles by Trond Botnen show colourful flower drawings, but it is possible that they were not made by Trond himself but by local artists in Valdres, where his fiddles ("*Trondafeler*") were very popular. Instead of using ebony for the fingerboard and tailpiece

the older fiddles often have horn or bone plates glued on a lighter wood that is painted black on the outside.

The early Hardanger fiddles are constructed in a different way than the more modern fiddles. Unlike the modern Hardanger fiddle the older fiddles have very small or no corner blocks, the ribs have no linings and the bass bar is carved out of the same piece of wood as the top (instead of gluing it in). Instead of inserting the neck into a dovetail-shaped notch in an upper block, which is glued to top and bottom of the fiddle, the earlier fiddle makers used to let the neck run long into the instrument and glued it to a tongue that was carved out of the bottom.

This way of construction led to relatively unstable musical instruments, which soon began to twist due to the string tension. Therefore later fiddle makers went over to follow the construction method of the Italian violins and built more stable instruments.

Like baroque violins the early Hardanger fiddles had a relatively straight neck, whereas the neck of later instruments is inclined backwards at a bigger angle. The older fiddles often have back and ribs made of black alder or birch – wood that can be found in Norway. The neck can be made of black alder as well, but also fruit wood was used. Sometimes the older fiddles have a top of pine wood instead of the more common spruce.

In the middle of the 19th century the Hardanger fiddle began to develop closer to the classical violin, in regard to outline and inner construction. Instead of being played in small chambers the instrument was used more and more in bigger settings.

Whereas most of the Hardanger fiddles of the early type were made in the Vestlandet region, the more modern Hardanger fiddle has developed in Telemark. Hardanger fiddle maker Jon Eriksen Helland (1790-1862) was the founder of the Helland/Steinkjønndalen dynasty of fiddle makers in Bø and his son Erik Johnsen Helland (1816-1886) has played an important role in the development of the Hardanger fiddle towards what it is today. His grandson Olaf G. Helland (1875-1946) has become one of the most outstanding fiddle makers of modern times. Also Erik's nephew Knut Ellefsen Steinkjønndalen (1850-1902) made excellent Hardanger fiddles.

Another brilliant Hardanger fiddle maker was Gunnar M.A. Røstad (1874–1947), who was born in Øvrebø in Vest-Agder and became a fiddle maker in Christiania. There he was influenced by fiddle maker Anders Christensen Kleven, but also by Erik Johnsen Helland's instruments. Røstads fiddles were and are still today amongst the most highly priced instruments on the Hardanger fiddle market.

Since Helland, Røstad and Steinkjønndalen built Hardanger fiddles of excellent quality their instruments have often been copied by later fiddle makers until the present day (as are violins by Stradivari or Guarneri by modern day violin makers). The sound they are producing is still what most of the current Hardanger fiddle players are looking for. However, sound ideals can differ from place to place and from person to person. Therefore Hardanger fiddle makers are much freer in their workmanship than violin makers and there is a lot more variation.

Regarding decoration, the modern Hardanger fiddles have developed a similar look, often after the model of Helland or Røstad, with variations in the execution. Usually fingerboard and tailpiece are inlaid with mother of pearl and bone in the form of the typical Norwegian Hardanger fiddle patterns. The lion's head is more or less standardised and the corpus is usually lavishly decorated with flower drawings of different patterns.

Since there are also fiddle players who enjoy playing on fiddles of the older type, it seems reasonable to make Hardanger fiddles of the earlier type as well. This hasn't been done so very often in the last decades, but will hopefully increase in the future. An instrument after the model of a fiddle by Trond Botnen from about 1750 has just been built at the workshop of the Ole Bull Academy by Wiebke Lüders.

Plan for the continuation of the tradition:

It is difficult to say how many new Hardanger fiddles are really needed on the market and how many people would be able to survive as self-employed Hardanger fiddle makers in Norway.

Naturally, Hardanger fiddle making is closely connected to Hardanger fiddle playing. The more children become interested in playing the instrument and continue playing as adults, the more newly built fiddles are needed. Therefore it is absolutely essential to support the Hardanger fiddle playing tradition. A lot has already been done. The project "*Hardingfele.no*" which was launched in 2013 by the Ole Bull Academy and the Hardanger and Voss Museum is occupied with promoting and strengthening Hardanger fiddle play amongst other matters connected with the Hardanger fiddle.

Hardanger fiddle playing is taught in many "*kulturskular*" and in a test project in Granvin (Hordaland) it has become part of the curriculum for the first grade.

There are regular meeting points for children, who are interested in folk music and dance in many places in Norway (for example "*juniorklubben*" in Voss).

Besides, the Ole Bull Academy will continue to offer Hardanger fiddle making as a bachelor degree course and its workshop will furthermore be open for interested people.

There are thoughts about inviting school children to the Academy's workshop to introduce the craft of Hardanger fiddle making as early as possible to the next generation.

Stronger connections with violin making schools in other countries, and also with the Høgskolen i Sørøst-Norge, Campus Rauland – where one can study Norwegian folk music as well as traditional craftsmanship as a bachelor degree course – should be made.

Recently there has come up a new project by DEXTRA MUSICA, a Norwegian "*sparebank*" foundation, that is planning to buy over a period of five years 12 old and 12 newly build Hardanger fiddles of the highest quality with the purpose to give them as loan to the best Hardanger fiddle players of the country. This initiative will most certainly help to strengthen the tradition of Hardanger fiddle making and playing likewise.

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Links:

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