



Nyckelharpa Manufacturing in Sweden, Past and Present

By Esbjörn Hogmark

1. Introduction

This document is one of the concluding documents in the project CADENCE, a project encompassing collaboration between the three schools: Burg Fürseteneck in Germany, Scuola di Musica Popolare in Forlimpopoli, Italy and The Eric Sahlström Institute in Sweden. The theme of the project is adult education of music played on the nyckelharpa, an instrument which cannot be bought in an ordinary music shop. It can only be purchased from skilled instrument craftsmen.

The intention of this document is not to give a detailed step-by-step description of how to make a nyckelharpa. On the contrary, it deals with a wider perspective on high quality instrument making in general, with its focus on the nyckelharpa. To get the whole picture, it is important to understand how the instrument has been made throughout history.

This document is not based on any kind of academic research or other kind of investigations; it is just the author's personal opinion on the subject, an opinion based on more than 30 years as a folk music player, and a maker of more than 100 nyckelharpas spread widely over the world.



2. Making a top quality instrument demands so much more from the maker than “just a good woodworker’s craftsmanship”.

That’s why making top quality instruments, like making good music, often takes a life-long dedication.

Making a good instrument has much in common with making good music. It takes both skill and knowledge of the subject area. As the musician needs a lot of practising time to handle the instrument to develop the music ability, the instrument maker also needs a lot of time to learn how to handle different tools and to understand the difference between good and bad instruments. And like a piece of music can be split up into different sub-parts; rhythm, quality of individual tones, ornamentation, harmonies etc.; an instrument can also be judged from different perspectives: quality of sound, aesthetic appearance, functionality, etc.

A musician has to work to improve all the separate parts of his or her music and finally put them together into the final piece. An instrument maker also has to improve all the different aspects of his or her instrument and finally put it together into a well functioning, good sounding and aesthetically pleasing instrument.

The nyckelharpa instrument has throughout history always been adjusted to the music of the time. This adaptation is very obvious today, and along with the nyckelharpa entering new music areas in the last decades, a number of different types of nyckelharpas have been born to fit that music. They are all modifications of the basic nyckelharpa, but still they have a clear connection to the roots of the instrument in the early 17th century.

Finally, the most successful nyckelharpa makers must work in close contact with skilled players. Both parties often gain a lot through this kind of collaboration. They create a win-win situation and can together bring the music to new interesting levels.



Appendix 1. Shows an attempt to list the different sub-parts involved in making a good nyckelharpa.

3. The Swedish nyckelharpa and how it has been made throughout history

The root of the Swedish nyckelharpa is described more in detail in the article “**The Nyckelharpa in the CADENCE project**” by **Esbjörn Hogmark**.¹

Some of the oldest preserved nyckelharpas are stored at the Music and Theatre Museum in Stockholm. They are estimated to be made in the middle of the 18th century. They all have the characteristic long and rather narrow shape with a single acutely-curved top with two round or oval sound holes. The body, including bottom, sides and neck, is made in one piece. The top is made separately and glued to the body. Both body and top are made of Swedish spruce. The body, its shape and how it was made, stayed the same for about 350 years, until around 1930-1940, and it seems that the adaptations made to accommodate the music of the time was more or less done on the key box only.

The nyckelharpa instrument consists primarily of two separate parts: the body and the key box. The body is made to give the best sound and the key box to make it easy to express the individual notes. In addition, the instrument must be made easy to handle, i.e. not too big and heavy.

The way of making the nyckelharpa body was, after cutting down a suitable tree and cutting up a log, first to shape the outside and then hollow the inside, preferably while the wood was not completely dried. When the wood dries out, especially if it is spruce, it shrinks and becomes very hard to work on.

Tools used to hollow the log were various kinds of axes, chisels and gouges.

The first attempt to use a different manufacturing technique was to make both top and bottom separately and then glue

¹ See: www.cadence.nyckelharpa.eu - Articles



them to a body frame consisting of neck and sides made from one piece of wood. Later on, along with the folklore revival and Eric Sahlström, the nyckelharpa body frame was made differently. One way, which is still the most common, is to make neck and sides separately alongside the bottom and top. Another technique, developed by Eric Sahlström and others, was to use a compression moulding technique. This technique is in contradiction to the older solid wood sides technique and has only been accepted by a few makers today.

The nyckelharpa was almost on its way to disappear extinction during 1940-1950. In all of Sweden, there remained only a handful of nyckelharpa players playing the old traditional tunes, and they were located in the northern part of the county Uppland. One of them was Eric Sahlström. Together with a couple of other nyckelharpa players and makers, he made some modifications to the instrument so it could play the more melodic music of that time. This was the time when accordions, clarinets and violins were entering the folklore scene in Uppland. Sahlström made an instrument that was known to have an outstanding sound. He won a number of fiddler's competitions and got very popular for his nice compositions. He had the opportunity to, on a regular basis during 1940-1960, play on Swedish radio.

During the folklore revival of 1970-1980, there was a continuing lack of existing good instruments. With government financial support from the ministry of education and the department of schools, a number of evening courses were started, using Eric Sahlström as inspiration. Plans and manuals were approved and thousands of instruments were made. These instruments were of a good enough quality to fulfil the musical need of that time. Most of these early modern instruments are not accepted today by young skilled nyckelharpa players. They fail in sound quality as well in functionality and ergonomics.

Today the nyckelharpa has a position in Sweden as a very important cultural heritage. It is also unofficially approved to be the Swedish national instrument.



This means that those who deal with the making of nyckelharpas often take a kind of national responsibility to preserve what earlier generations have done to the instrument.

Today those who drive the instrument into future forms of music making are the most skilled nyckelharpa players. They often work in close collaboration with skilled makers.

One way of doing this in a broader perspective is to run seminars and short courses in nyckelharpa making. This has been done regularly in Sweden for more than 15 years.

These seminars often involve musicians and scientists together with the instrument makers. Jointly, they try to make the instrument even more fitting into the music of today, while not eliminating the connection to its ancient roots.

It is interesting to see that today the construction of the nyckelharpa has taken some steps back to the 18th century.

The body of the highest quality instruments of today is often made in full spruce, just as it was done three hundred years ago. This design produces a very good sound in combination with a light weight instrument. The best instruments today are also smaller than the ones that were made twenty years ago. Both their bodies and necks are narrower. They are equipped with a key mechanism of higher precision, giving less noise and also a more precise play than the older ones.

The instrument can also be custom designed to fit the needs of different players.

The nyckelharpa has lately been made in several different forms, more or less to fit into various musical contexts. Bigger instruments with longer strings tuned in lower ranges are made alongside smaller instruments tuned like violins. Also smaller instruments are made specifically for children. The standard length of strings is 400 mm. Children's sized instruments are made with a string length between 300 and 380 mm with 340-360mm being the most common. In spite of their shorter



length they are tuned like the normal sized ones. Their sound becomes a little weaker but still acceptable.

4. The nyckelharpa in the Swedish action plan for folk music and folk dance

In the Swedish action plan for folk music and folk dance, initiated by ESI, there is from now on a part dealing with the different folklore instruments.

Excerpts from that document, which focuses on the nyckelharpa, states:

There are three levels of support for continuity and further development of skills and knowledge regarding the nyckelharpa-making guild:

Level 1.

Good historical valuable instruments should be documented with pictures and plans. The leading nyckelharpa makers should be documented.

Level 2.

Regular short courses and seminars in nyckelharpa making should be established. (Continuation of existing)

Instrument making should in a proper way be introduced into various school syllabi and curriculums to provide for student interest.

Level 3.

A more comprehensive nyckelharpa maker's education should be established, preferably in combination with similar programs for the making of other instruments, not only folklore instruments.

Finally.

A consultant service with nationwide coverage is proposed to be set up at the Eric Sahlström Institute. The service should have a holistic responsibility and should initiate and



be in charge of the above suggested action steps. The Institute should also appoint an expert council who would be especially helpful in establishing the strategies for further work in the field of folk music instruments.

5. What has the Eric Sahlström Institute (ESI) done for instrument makers?

It is written in the "Mission of the ESI" that *special attention should be directed to the nyckelharpa instrument, both in how to play it and how to make it.*

Since the Institute started in 1998, this author has initiated and managed a number of seminars and short courses in nyckelharpa making.

Every year in June, usually in the week before Midsummer, there is a two-day course called *Nyckelharpa Makers Master Class*. At the end of November-beginning of December, there is a seminar in nyckelharpa making. This seminar has also been running every year since 1998.

The basic objective of these seminars and courses, all of which are open to foreign attendees, is to give makers a good opportunity to meet each other and to share knowledge. A main topic is chosen for each session and often reflects what is happening within the nyckelharpa making world. The seminar and courses are always done together with skilled nyckelharpa players.



A nyckelharpa made by the author in 2007



6. Some conclusion comments

This document has two appendices:

One listing several aspects of what a nyckelharpa maker should be aware of and gain knowledge in, and one which contains a set of pictures taken from the building process. Most of the pictures show how to make a standard chromatic 3-row nyckelharpa model created by Eric Sahlström.

To write a description of how to make a good instrument would take some 1000 pages and still not be enough to teach the instrument-making craft.

Pictures provide more information on the subject but there are many parts in the building process where even pictures are far from enough. A set of video clips would probably be the best.

But in my opinion with more than 30 years' experience as a nyckelharpa player and maker, the best way to learn to play or to make a good instrument is to go to someone you respect to learn and practise as a disciple. This way of learning, by joining a luthier master as an apprentice, often gives a good result very quickly. There is so much more to be learned, other than just "dimensions and tools", to reach the recognition as a master nyckelharpa maker.

Thank you for your attention

January 2011

Esbjörn Hogmark



Appendix 1

Instrument making is an art form, not just a practical skill!

"Making a good instrument involves so much more!"

Apart from having *good practical skills*, including knowledge of how to use common carpentry tools, the instrument maker should have a reasonably good understanding of the following related areas:

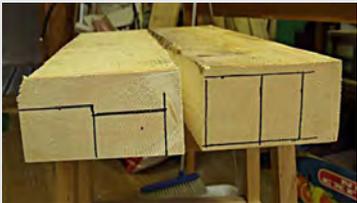
1. A basic idea of good sound quality, based on your own ideals and intuition
2. Instrument acoustics, bowed and plucked
3. History of the instrument is important for makers who want to show respect for achievements from past generations
4. Aesthetics regarding exterior shape, colour and ornamentation, all requiring artistic skills
5. Properties and choice of material suitable for acoustic instruments
6. Design and construction of the instrument according to basic stress and strain principals and theories/mechanics of building materials
7. Design for best functionality and ergonomics
8. To be ranked among the best, the maker should be able to provide some innovative features moving the artistic side forward
9. Contacts with other makers, good musicians and dancers for feedback purposes
10. Adaptation to other forms of music
11. Entrepreneurial skills to market and sell the instruments
12. History tells us that the best makers are also good musicians

Appendix 2



Above: The author with a friend with a spruce log in the band saw machine. Cutting out pieces for the body frame and bottom

Left: Maple for the key box, bridge tuning pegs etc.



Above: The sides can be cut out from a thick spruce plank

Right: Sides are cut out with a band saw

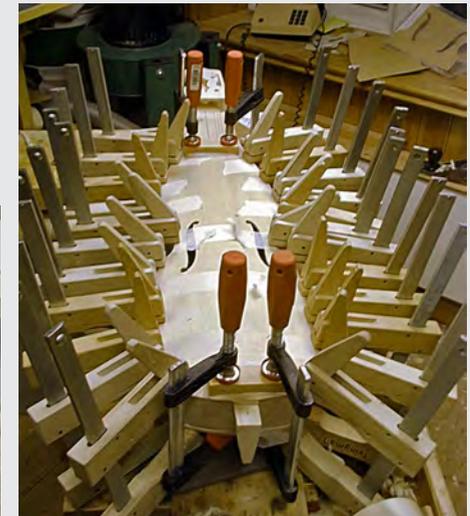


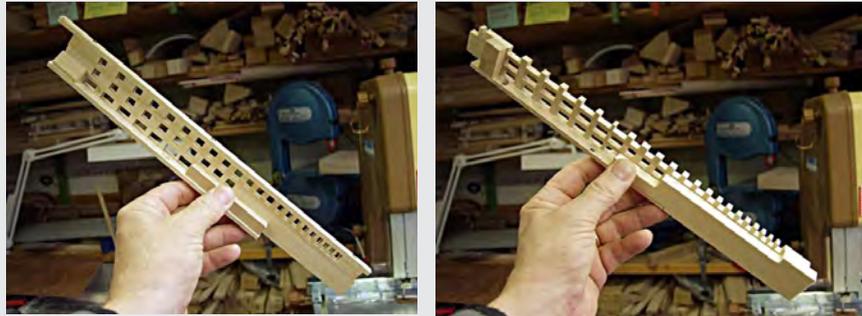
Left: 2 necks are cut out with a band saw

Above: The final body frame are glued together

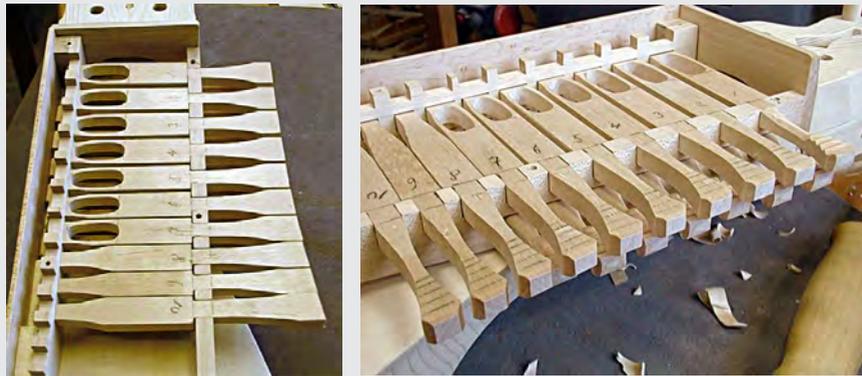
Right: Glowing of top with help of special clamps

Below: Reinforcement for the tuning pegs





Key box right side and left side



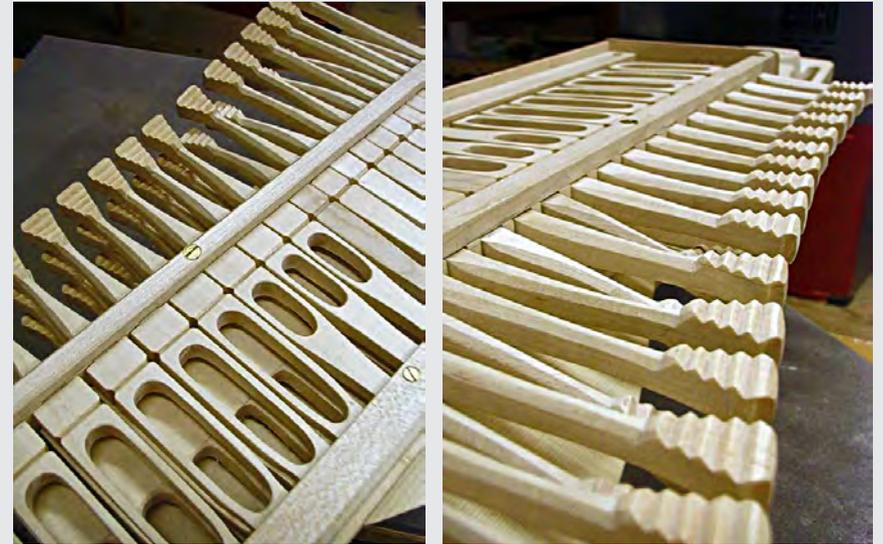
Intermediate row key blanks

Key heads pre shaped



How to cut out the key head

Bent down keys



The final key box before staining



Staining takes concentration. Here at a summer Master Class



Before and after applying shellac on top of the stain color. Shellac change the color to more yellow and red.



To make a copy of an old nyckelharpa, "Gammelharpa", you have to work directly on the full spruce log. It takes an awful lot of hard work to hollow out the inside.

English language checked by Do Ann Holzman from USA
All photographs are taken by the author



Esbjörn Hogmark, Sweden

Esbjörn Hogmark is a professional nyckelharpa manufacturer and nyckelharpa player from Uppland. He was a scholar and friend of Eric Sahlström. He was one of the founders of the Eric Sahlström Institute and is now member of the board. Together with family members he plays in the ensemble "Hogmarkarna" (the Hogmarks).

