

## **Theses**

**The fretless sound that is well renowned and accepted in classical and jazz music can be implemented into popular music via the ruling instrument in that musical genre, the guitar by which this sound capable of creating wonderful musical atmospheres can be transmitted to wider audiences.**

For the untrained ear the fretless sound is most commonly recognised when listening to a violin or doublebass or a fretless bass guitar, but in the mid-frequency range there is no adequate instrument.

There had always been notable experimentations by classical musicians, mainly violinists to open towards popular music so the classical sound could reach to areas it did not before. But for listeners only the usual violin sound can be heard, the possibilities and techniques of the fretless design are less apparent.

**Can we define a boundary during the design and styling process so the end product still has it's classic values but also reflects on the expectations of today, showing new ways guided by tradition?**

**The shape of acoustic instruments is normally determined by the laws of acoustics therefore changing the shape can result in the change of the characteristics of sound. How much can we change the shape so that it still suits basic acoustic requirements and our own expectations?**

**There are some parts on an instrument which, from an ergonomical point of view are in need of improvement. What are the solutions and design elements on the given type of instrument that through centuries have become so to say "fixed" parts but are not necessarily supportable ergonomicaly? What are the points that are allthough uncomfortable during use, have become so common that their absence could be inconvenient either functionally or aesthetically?**