

MAPLE EDGING

RAYMOND SCHRYER explains how to put a maple edge on a spruce top and laminate ribs using the same equipment

Last year I received an invitation to participate in the Amiata Summit run by Gregg Alf and Candice Wood, and as my contribution I decided to explore the idea of adding maple edges to a spruce instrument belly. It has always bothered me that violin, viola and cello spruce edges

are prone to damage that can lead to cracks.

Some years ago I made a piccolo model of a Stradivari guitar as a music box. I left an overhanging edge similar to the violin but glued the ribs into a channel cut into the top and back. I decided to use this as

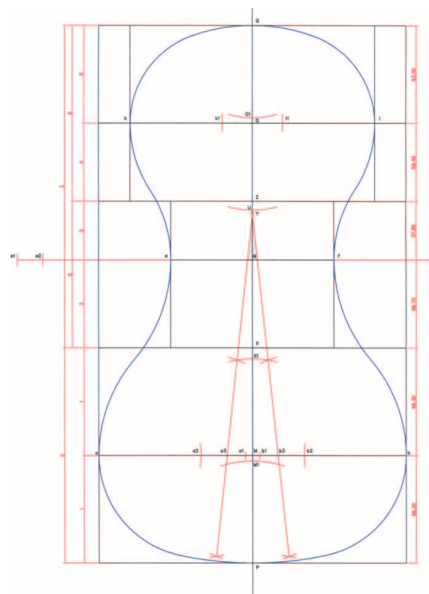
the basis of my maple-edged Amiata violin. Inspired by Stradivari's guitar and viola d'amore forms, I eliminated the corners in my prototype and, due to its guitar shape, I dubbed the project the Guit-Fiddle, after the nickname B.B. King gave his guitar.

STEPS 1-2

[1]

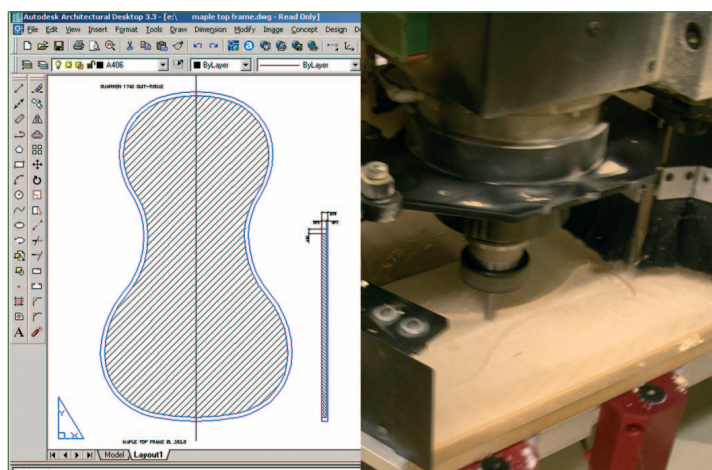


The instrument's outline was designed using Cremonese acoustical principles



ALL PHOTOS: RAYMOND SCHRYER

[2]



A CNC router cuts the maple top after it has been drawn using CAD software

[1]

I designed the outline using Cremonese acoustical principles and I applied the methods of François Denis's *Harmonic Proportional Designs*. The resonant air volume within the body is the same as a Guarneri model violin of 1740. In order to fit a maple edge to the top plate I needed an accurately produced spruce top and a slightly larger maple shell into which it could be inset.

[2]

I drafted these designs using computer software called AutoCAD Architectural Desktop. This allowed me to create accurate drawings and data which could be used to control a CNC (Computer Numerical Controlled) router. The two pieces of wood were sent to a local cabinet maker for CNC cutting. I used soft maple cut on the slab for the maple edge and quarter-cut spruce for the acoustical area of the top.