

A Vihuela de Mano in G

A couple of my lutherie course students and customers asked for a simple, flat backed vihuela in G, based on the Paris "Chambure" model. They also asked for the 7-course option with a single chanterelle. I also offer this vihuela as a student model.

It isn't clear where the Chambure vihuela was made, but scholars suspect Portugal for the country of its origin. The instrument shows very close resemblance to the 5-course guitar/vihuela made by Belchior Dias in Lisbon (1881), and the larger flat backed guitar also ascribed to his workshop. Aside from this there were no real clues to the origin of the instrument.

I decided to try the "Portuguese Customary Unit" on the dimensions of the original. Like a puzzle the instrument fell into place. For example the string length (645 mm) is exactly 31 Polegadas (thumb) and one Linba (fine). Corpus length 20 Polegadas and 11 Linbas, lower bout width 13 P plus 8 L (or 15 Polegadas), upper bout width 13 P + 2L, taille 11P + 3L (11%). Or when we take the dimensions for an inner form length=20%, L=15%, U=13, T=11%. We also find the PCM in the radii of the compass arches which construct the outline of the instrument.

In this smaller version (the original was probably intended for F or F# tuning) I still used the old measurement system to design the instrument. These units can be seen between brackets.

The original instrument was made in lute wood with a soundboard of spruce. While lute wood is very hard to obtain, any quality hardwood like maple, cypress or even rosewood (the Portuguese traded all over the world and often took wood home from Brazil as ballast in their ships) will do.

Don't be fooled by the sheer simplicity of the bracing, the soundboard is voiced by a gradual thickness of 3.6 mm in the middle, to 1.9 mm at the edges.

The original instrument has an elaborate "double fluted" multi-rib back, which even forms a challenge for experienced makers. Glue edges are strengthened by strips of paper. To make this model easier I gave it a flat back, 2 mm thick. You can leave it thicker (up to 3 mm) if you like. The Jacquemart Andr e vihuela even has a back that exceeds 5 mm...

The sides are 1.8 mm and there are no glue linings in the original. However for novice builders I would opt for a couple of wooden linings, about 4mm wide and 10 mm high. Knowing you have increased the glue surface by 200 % will probably give you a better nights sleep...

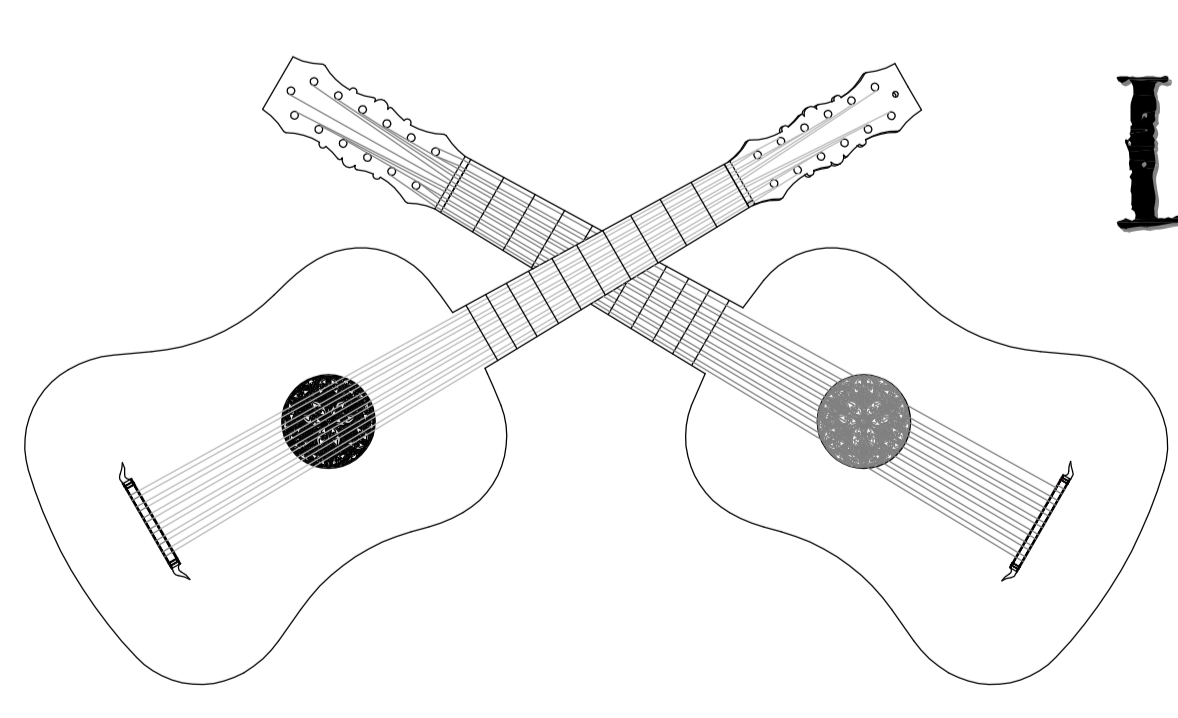
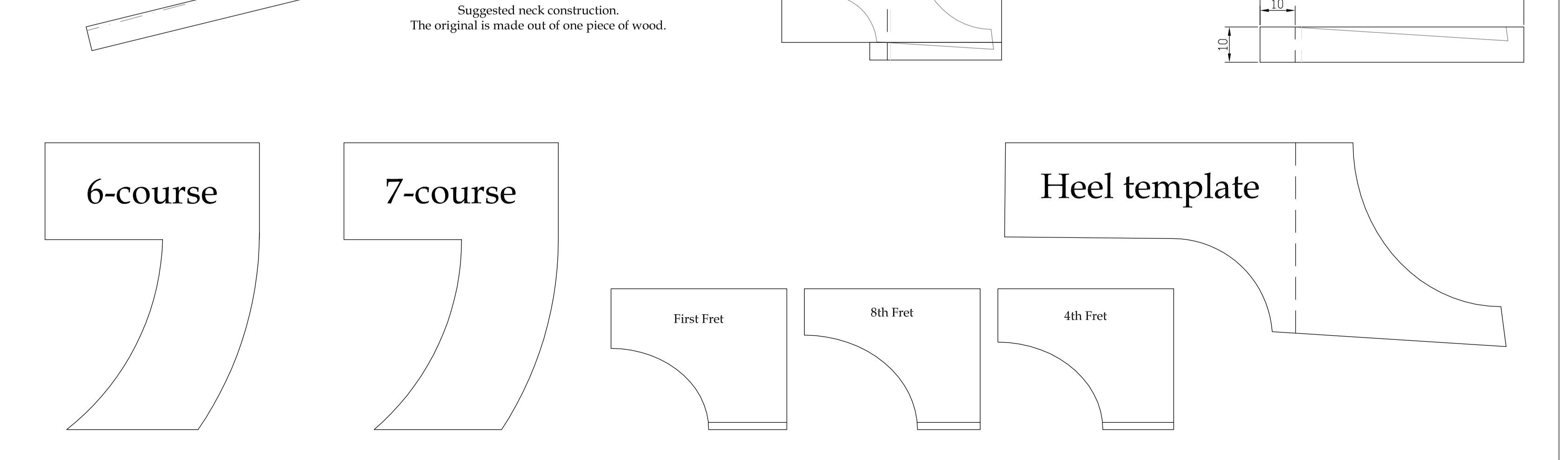
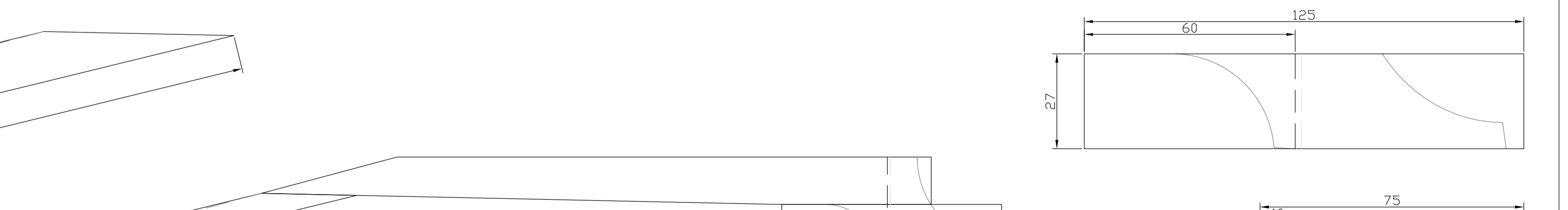
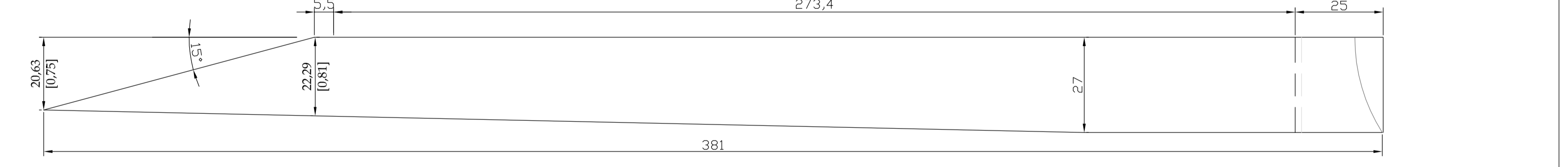
Even though the original shows no 'scoop' in the belly, I would recommend to make one of 3 mm, with its lowest point at the lower harmonic bar. Especially late players will benefit from this feature, and it also gives great stability to the instrument.

This design is my own work (based on pictures and given measurements of the original Chambure Vihuela) made for the instrument making course of "Bouwerkolof", Ede (NL). It's made available under Creative Commons license. You may use it for non-commercial and educational purposes only. Copies and works derived of this drawing must be shared under the same license.

Jan van Cappelle

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Literature:
- Jol Dagot (ed.) - "Aux origines de la guitare: le vihuela de mano" (Les cahiers du musicien de la musique - Paris, 2004)



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