

## STEPS 6-9

[6]

To prevent the ribs from warping and cracking, I decided to laminate or 'double' them using the same VacuPress system. This also eliminated the need for linings. As this process is quite tricky I decided to make the strips double width and then cut the strip in two lengthways once it had cured. I planed two pieces of slab-cut maple to a thickness of 0.6mm and made the rib mould with a centre section of high-density plastic, which has a slippery, non-stick surface and is thus ideal for supporting glued components.

[7]

I applied a thin layer of urea formaldehyde glue to each surface of the rib veneer with a sponge roller, pressed the veneers together and mounted them on the rib mould. I fitted the ends into specially created grooves and fastened them with wedges.

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[8]

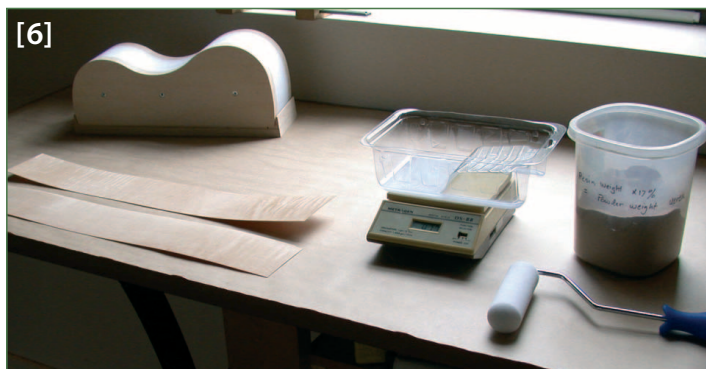
I also placed a wooden counter-form over the central bout. This transfers the force from the sheet to the ribs at this point, which otherwise would be less firmly clamped. I left them overnight in the VacuPress.

[9]

Like many laminated objects, the sheet was extremely flexible once it had cured and could be pushed almost flat without doing any damage, making it much easier to cut with my table saw. The result was a well-shaped pair of ribs.

It would be interesting to apply these ideas to a cello, which I think would benefit particularly from the strengthened ribs and maple edges – after all they seem to spend most of their times lying on their side. ■

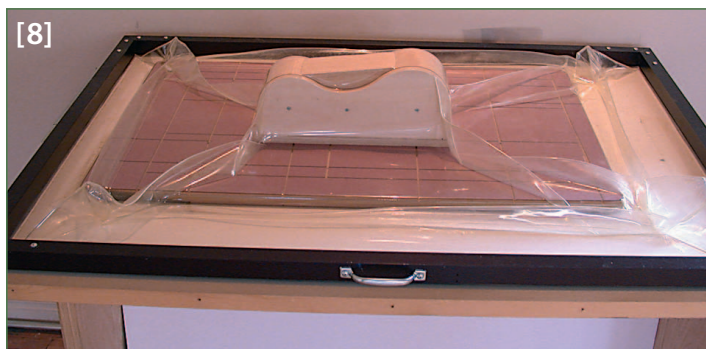
*Thanks to my assistant Robert McCutcheon for his help in the design and construction of this Guit-Fiddle*



[6] The maple rib sheets are ready to be glued together and bent over the mould (back left)



[7] The ends have to be wedged to the mould when fitting the rib sheets



[8] A block of wood is placed in the centre bout to transfer the force as the sheet is vacuumed down



[9] The finished sheet is cut in half, producing two well-formed ribs

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