



Folium

Developing a design means resolving aesthetic preferences with structural requirements. Story by David Haig.

I first thought of using a leaf shape for a chair backrest many years ago, and once tried it on a rocking chair but it was not that successful because the leaf ended at the seat, and the arms I made didn't blend in very well. However, it was wonderfully comfortable and had a very strong and light back-rest, so I just squirrelled the thought away.

After I'd made quite a few of my (effectively three-legged) V chairs and realised what a strong and surprisingly stable configuration it was, it struck me that the stem of a leaf could be extended downwards to form a back-leg just like the V chair. Then one day, when the ideas had clarified, I did a careful sketch and there it was...one of those especially exciting moments.

I made the first version out of English walnut, which hand works beautifully, but didn't make much of the graphic potential of the leaf-back, however the chair was very comfortable and felt strong. The recurve and inward angle of the leaf-wings stiffened the back structure and

Above: David Haig's Folium chair in maple and black walnut.

Top: Perfect match: Folium chair with the author's recurved walnut and maple desk.

allowed the stem to taper down to a very small cross-section, which had been my main structural concern.

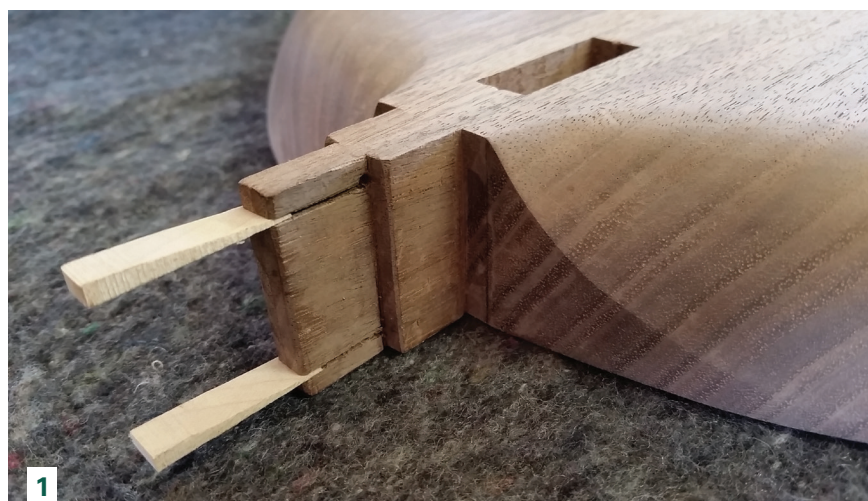
Then some of my past customers saw the new chair and commissioned a version to accompany a desk I'd built for them ten years ago. Matching the desk, the rippled maple was a perfect choice for the two halves of a leaf, contrasting beautifully with some rich dark Pennsylvania black walnut which I'd air-dried myself.

The leaf stem was attached to the seat by cutting out the solid seat allowing for a tenon protruding from the back. It's the full depth of the seat thickness (40mm) and is stepped, so it runs through the seat at 18mm for half its length and then down to 9mm where it comes through the back of the stem (I didn't want to weaken the stem by cutting away too much). I widened the mortise by 2mm top and bottom and wedged the tenon, so it's held very securely. I also incorporated a bracket beneath the seat to add surface area to the seat/back joint.

The leaf stem was made from a solid recurved piece of steam-bent walnut. A small rebate was cut on each side of the front face to take the two leaf pieces. The angle is cut on the leaf edges rather than in the stem, to give the leaves their roughly 6° inward angle each side. The leaf sections are book-matched front and back laminates with a cross-grain ply in the middle for lateral strength. Total thickness is just less than 6mm.

The most difficult part was attaching the leaves to the stem, which I did by holding the leaves unshaped in their respective moulds facing downwards and then clamping the stem down between them registering along the back edge of the rebate. So it required clamping across and down at the same time.

I used Epiglu epoxy and shielded unglued areas from squeeze-out using Waxilit paste. I did all



the profile shaping afterwards, bandsawed the outline then hand-shaped the edge detail.

The curved cross-section of the stem, being tapered in both directions top to bottom, was also hand-shaped, and I kept the centre line as a ridge to give definition. I carved a slight hollow into the front face at the bottom end below where the leaves join (an elegant detail you can actually find on many leaves).

The seat is formed from four pieces, slip-matched (or endgrain book-matched) with the two outer segments angled a little upwards, Sam Maloof style.

There are no rules for the shape of a leaf, and it's been fascinating looking closely at many different types. No two are the same, and neither are they ever perfectly symmetrical. I've shied away from trying to include veining though, or going too 'elvish' looking. I'm not trying to recreate an actual leaf, but more use the 'Platonic' idea for its structural and aesthetic potential as applied to a chair. It's difficult to make so I don't think it'll sweep the design world, but it's a wonderfully satisfying form to build.

Studio photography: Daniel Allen

In 2017 David Haig is Lead Tutor of the Furniture Maker's Program at the Centre for Fine Woodworking in Nelson, New Zealand. See www.cfw.co.nz and also www.davidhaig.co.nz



- 1 Clamping the stem to the leaf sections was the hardest part.
- 2 Showing the seat to stem joinery.
- 3 Final fitting the backrest to the solid walnut seat.