

New angles on old designs

Luthier **J. Paul Anderson** details an unusual commission from New Zealand, which required an innovative varnish ingredient: pumice



Front and back of 'The Emerald' violin



In late 2023 I completed an unusual commission from Michael Hill, the New Zealand-based jewellery magnate and founder of the eponymous violin competition. He asked for an instrument to commemorate his 55th wedding anniversary, so I named the resulting violin 'The Emerald'. I also made the colour green a recurring theme throughout the instrument – for instance, on the back of the scroll.

I decided on a Cubist-style design for the top, not only because I admire the work of that innovative art movement, but also because I wished to pay homage to Pablo Picasso, who died 50 years ago in 1973. The design was executed with no preconceived ideas, other than to create a 'Cubist-Picasso' motif. Anyone who has made a violin will be intimately

aware of the pitfalls associated with varnishing, especially on the spruce of the top plate. The application of varnish on maple is relatively straightforward but creating high-precision lines and shapes on spruce, where the structure and inconsistent density make it much more

THE PRIMARY PURPOSE OF VARNISH IS TO PROTECT THE WOOD BUT IT SHOULD ALSO SERVE TO ENHANCE ITS BEAUTY

sensitive, requires careful preparation of the ground coat to avoid colour-bleed from one section to another.

To mitigate this potential problem, it was imperative for me to find the right ground. I spent much time researching Italian wood-grounding methods and various wood fillers used by makers and painters of centuries past, which could serve to close up the wood pores and achieve a surface finish similar to that of a glass tabletop. As expected, I came across many hypotheses claiming to be the 'true' way the Cremonese masters prepared their wood. One particular method includes the use of volcanic ash. Eager to try but with no volcano in the vicinity, I opted for pumice, which is a product of volcanic activity consisting primarily of silica, obsidian (volcanic glass), various crystals and minerals such as feldspar, augite and zircon.

Precisely how I infused pumice into the wood is a process I will reserve for another time, but it works extremely well as an abrasive and wood filler, a sure way to achieve an ultra-smooth surface. Over the centuries, Cremonese instruments have arguably suffered the ravages of woodworm less than others, partly due to the level of care bestowed upon them. 'The Emerald', however, is laced with volcanic glass it can be said with certainty that no worm will dine on this violin.

Whether Antonio Stradivari or other historic makers deemed volcanic ash to be an ideal wood filler, the principle of closing wood pores completely prior to varnishing is one of contention. Many makers adhere to the idea that varnish should penetrate the wood and that the surface pores should be left open to relatively high absorption. But if the wood has a mirror-like surface, the light

The ribs around the end-button were given a greenish tinge



passes through the varnish and reflects back sharply with no or little clarity lost. Conversely, when the surface is uneven, and or with open pores, diffuse reflection can occur, resulting in a dull appearance of the wood beneath the varnish. Over the years I have examined around 150 Stradivari violins and even on the first, fleeting inspection of these masterpieces, one is struck by the extraordinary radiance and shimmering flame of the maple, a quality found in few other makers' work.

Returning to 'The Emerald', I started with the shadow of the tailpiece, boxed in the f-hole above and painted the top left corner gold. The rest naturally fell into place. Picasso often depicted stringed instruments in his paintings, so I put an angle at the end of both the fingerboard and the tailpiece for good measure, to emulate a guitar design.

The C-bout ribs are embellished with an 'M' and 'C' representing Michael and

his wife Christine. The lower rib design around the endpin has no particular significance other than to balance out the emerald-green colouring of the scroll.

The inlaid feature placed in the lower back is supposed to resemble an old coin. 'MC' stands for Michael and Christine; 'LV' for 55; the boomerang for the Hills Golf Club. The two ferns represent New Zealand's national identity; finally, the 'Daliesque' dripping egg symbolises fertility and a thread to the abstract theme.

On completing the design work, I added several layers of golden-brown varnish but not before noticing that the infusion of pumice had a hardening effect on the spruce, which may in part account for the vitality of the sound. Before 'The Emerald' departed for New Zealand, the violin was played by a member of the Vienna Philharmonic, who remarked on the exceptionally fast string response and accommodating balance overall.



Medallion on the back lower bout



The back of the scroll has an emerald-green colour

The C-bouts are decorated with a stylised 'M' and 'C'



So far, the critical reception for this violin has been very positive. Consequently, and now that I have an effective application technique, I intend to make a series of instruments, each with its own unique design. Of course, the prevailing trend of antiquing instruments will endure for a long time to come and the old-world varnishing style is a welcome change from the monochrome oranges and reds painted on 20th-century instruments.

If Picasso had designed a violin he may well have placed both f-holes on the same side of the bridge. Although I have no plans to go quite so far off piste, it is sometimes good to fling open the window to new ideas. ●