



Restoration of 1880 - 1900 Vuillaume a Paris Violin

Performed by Ron Cook

November 25, 2002, to January 17, 2003

For Patricia Scheuch

Background

On November 24, 2002, Patricia Scheuch dropped of a Vuillaume a Paris violin to be repaired. It belonged to her mother when she was a young girl and appeared to have been played a lot until cracks developed, probably around 30 years ago. There was one large crack and a few smaller cracks on the top, and failing glue joints at the base and on the back. On Monday, November 25, 2002, I began the restoration process. This document traces the steps I took to make this family heirloom violin playable and presentable again.

A Short History of Vuillaume

The Vuillaume name has been associated with violin building since 1755 when Charles François began working in Mirecourt. His violins were considered well made and with good tone. In the early 1800s, Jean Baptiste apprenticed in Mirecourt until he was 19, then went to Paris to study. His approach to violin making was scientific--and revolutionary. He studied acoustics, analyzed varnishes, and became recognized as the greatest technical genius of his time. His violins are considered some of the best French instruments ever made.

Since then, however, there has been over 30 bearers of the Vuillaume name in Mirecourt, which became the French center of violin craftsmanship. Due to the number of Vuillaume craftsmen, they created a wide divergence in quality of instruments. Some were beautiful instruments based on the work of Jean Baptiste, and others were mass produced to accomodate the growing number of musicians throughout the world.

Valuation

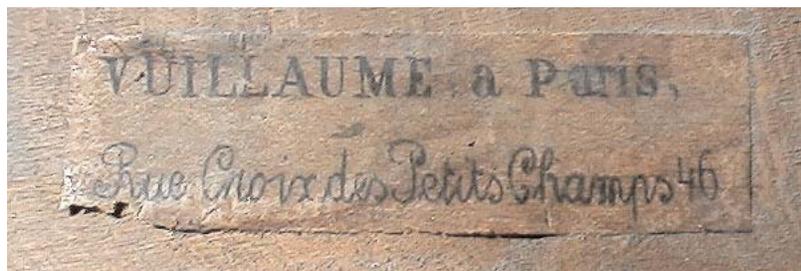
The values of Charles François and Jean Baptiste violins are very high, similar to the best Cremonese violins of the period. Bows by Jean Baptiste are highly sought after and can often bring prices in the same range of some of his instruments. Violins by other Vuillaume-named shops range in value from very high to low, depending on the builder. This violin, labeled *Vuillaume a Paris, Rue Croix des Petits Champs 46*, is of those mass produced between 1880 and 1900, but a recent search discovered one on the market for \$1100, a decent price for a late-period Vuillaume.

Day 1 Assessment & Inventory



On the first day I took photos of the instrument as I received it, then additional photos after removing and labeling existing parts. At this point I could assess the full scope of the project. The main concern is the large and open top crack. Of lesser concern are two smaller top cracks and an open seam on the lower portion of the back. There was also broken glue joints around the tailpiece on both the top and bottom. The tuning pegs show wear from years of turning, but are still very usable. The tailpiece is in excellent shape, but the tailpiece pin came apart at removal due to a crack, probably caused by being dropped many years ago. The chin rest is in good shape except for the 1970's-style flesh-colored paint and green flower.

Day 2 Disassembly



Day 2 saw the hardest part of the restoration. To re-glue the top, I had to remove it from the body. Fortunately, hide glue of that period (and before) gets brittle with age, and it doesn't bind wood together as much as the new yellow and white glues today. Because of that, the top came free with minimal tearing. Once the top was off, I was able to get a closeup photo of the inside label. The label's paper proved to be very brittle and began to chip and peel off once exposed to the elements. I replaced the few chips and coated the label with a clear varnish to preserve it.

Day 3 Glue Top & Back Cracks



Day 3 was exciting. The large top crack was a clean break and clamped together quite easily. The specially curved violin clamps I used kept the top from bowing in or out. The back seam crack and the space between the back and sides where the glue had failed took a little more effort. These areas were filled with years of dust and dirt, as well as "chunks" of hide glue, and required a thorough cleaning before I could glue them.

Day 4
Glue Additional Top Cracks
Strip & Clean Chin Rest & Clean Tailpiece



This day I glued the two smaller top cracks, one at the lower bout joint, and the other by a soundhole. I also stripped the “disco” paint off the chin rest, then cleaned both the chin rest and tailpiece. I gave them a coating of Tru-Oil, an oil-based finish commonly used on gun stocks, but also very good for some instruments and instrument parts.

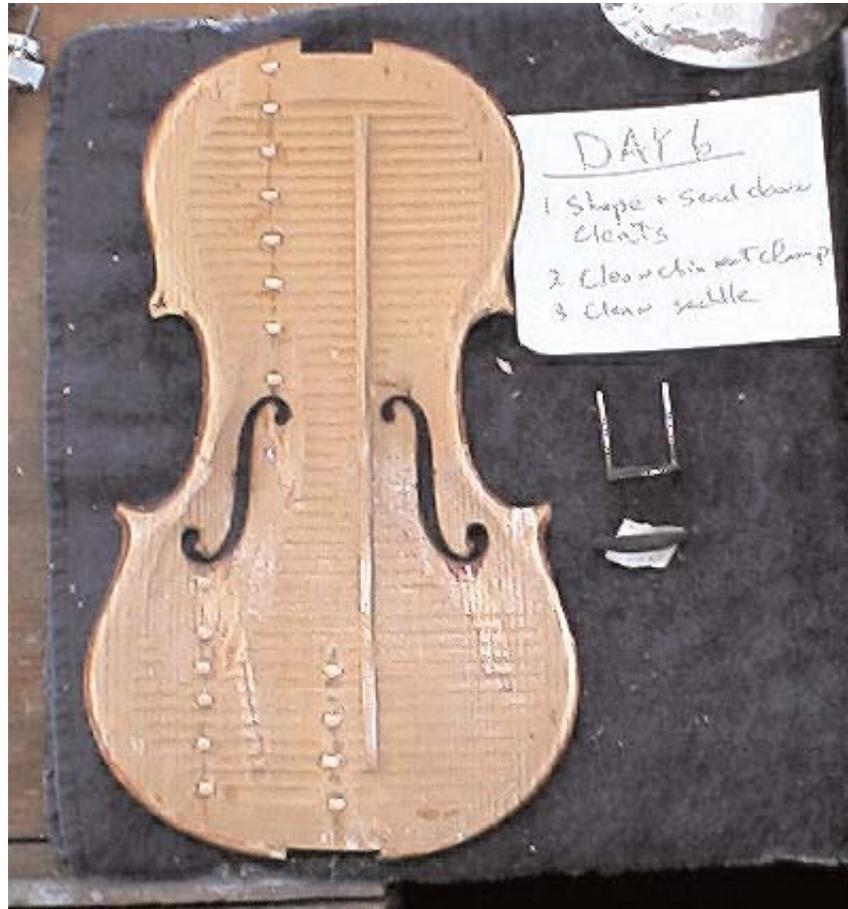
Day 5 Fabricate & Glue Cleats



When a string instrument has a large top crack, it's common to glue tiny cleats on the inside to add strength to the seam. I used small pine pieces and set them in with the grain running perpendicular to the top.

Notice the "ridging" on the inside of the top. This is caused by a routing machine used to carve several tops a day (another development of the Industrial Age). Once roughed out, the areas around the soundholes are manually thinned and smoothed out.

Day 6
Finish Cleats, Clean Chin Rest Clamp & Saddle



This day I carved and sanded the cleats. Additional wood on the top will change the tone somewhat, and needs to be as small and inconspicuous as possible. I thinned the cleats as much as possible.

I also cleaned the years of grime off of the chin rest clamp and polished it. I also scraped and cleaned the saddle and applied a coat of Tru-Oil.

Day 7 Sand Top



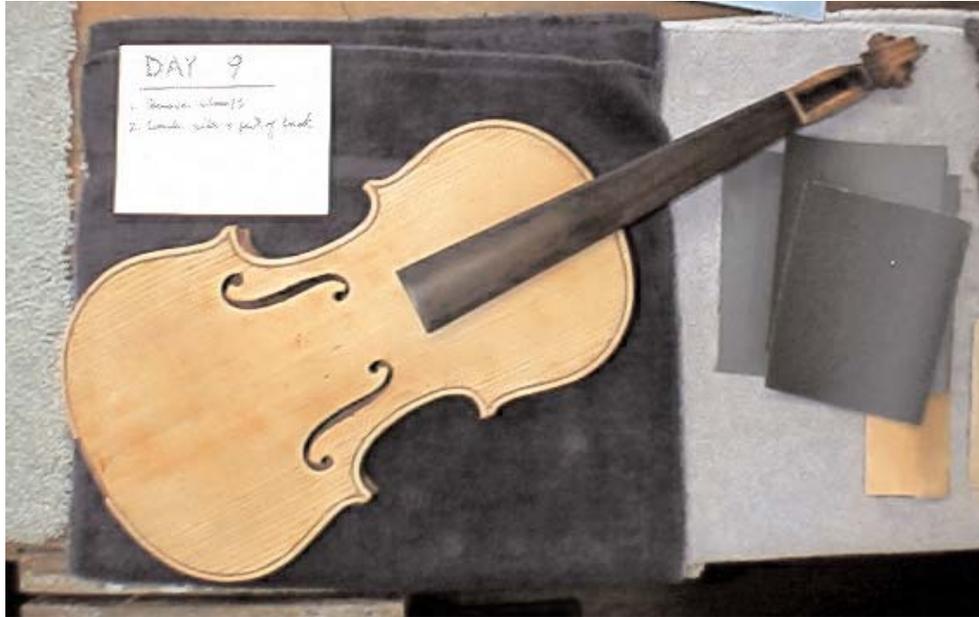
On Day 7 I did a lot of sanding on the top, going from 100 grit to 600 grit. However, before I did that I had to glue a small pine piece into a chipped out area next to the neck joint. After a few hours, once the glue dried, I proceeded with the sanding.

Day 8 Glue Top to Body



Another exciting day. The top gluing came off without a hitch. Now the instrument is about ready for its new life.

Day 9 Final Sanding Front & Back



After removing the clamps, I sanded down the front, sides, and back once more. I refrained from removing all the previous finish on the back because I didn't want to disturb the stamped in maker's mark at the base of the neck. There were a couple of "gouges" in the back that I sanded down, and I planned to match and blend in the varnish as best as possible.

Day 10 Varnish Sealer Coat



Because I completely removed the top varnish, the violin needed a sealer coat before applying the red spirit varnish. I used a red oil varnish as a sealer, which soaked into the bare top wood nicely.

Day 11 First Coat Red Spirit Varnish



Now comes the chore of matching and blending the colors. The top and sides are no problem, but the back needs a lot of work. This is the day before our big winter rains. It took a while for this varnish to dry enough before applying the next coats.

Day 12 Second Coat Red Spirit Varnish



After nearly two weeks of heavy rain and high winds, we had a short warm spell that allowed me to apply the next coat of red spirit varnish. I was able to hang it outside my shop in the sun for the day making it dry much faster. However, the rains started again that evening, and it was nearly a week before I was able to put the last coat on.

Days 13 & 14
More Varnish, Rub Out & Polish
Fabricate/Glue Nut, Glue Saddle



Day 13 saw us in a warm spell. The rains stopped again, and I was able to apply the last coat of varnish, which only took one day to cure (instead of three or four). On Day 14 I began the rubbing out process, using mineral oil soaked rags coated with pumice and rottenstone. These are light abrasives that smooth out the brush marks and the inevitable dust specks. I also fabricated a nut and glued it and the saddle in place.

Day 15 Completion



On the final day I polished the violin with Antique Wax, a non-abrasive paste wax, put all the parts on, including a new tailpiece pin, and strung it up. I found, in my cache of violin bridges, one labeled "Vuillaume" that I believe are still being made in France. I felt it was appropriate for this instrument. I tuned it up and struck a bow to it. A lovely sound came out.

Patricia, enjoy!