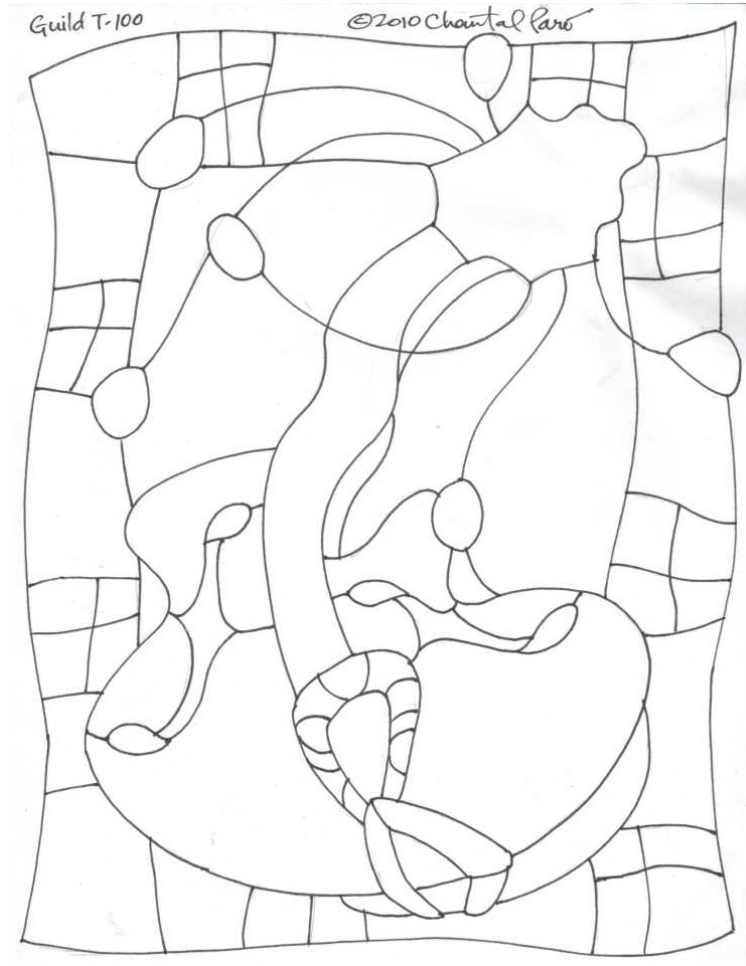


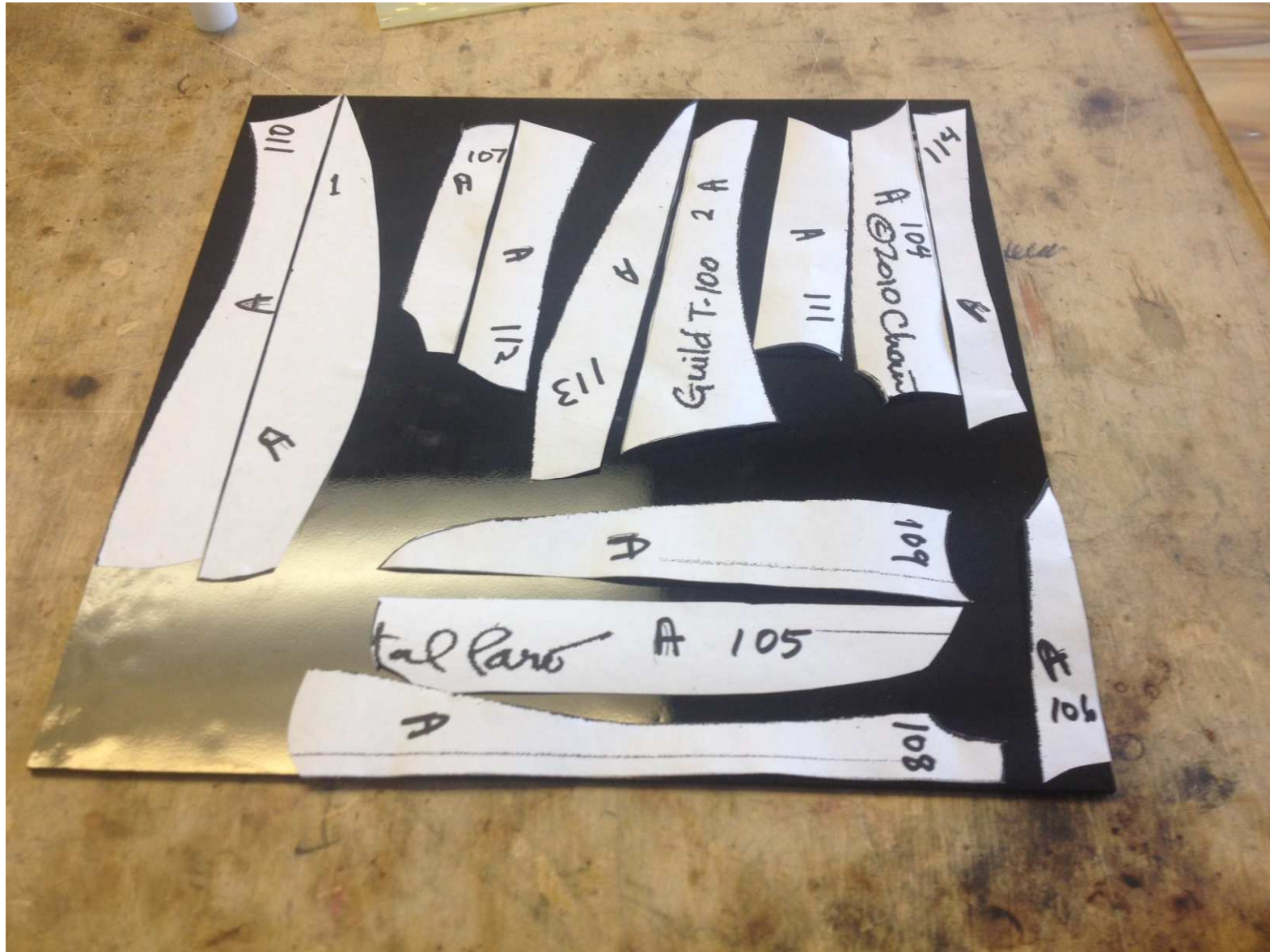
Glass Process -- Guild T-1000



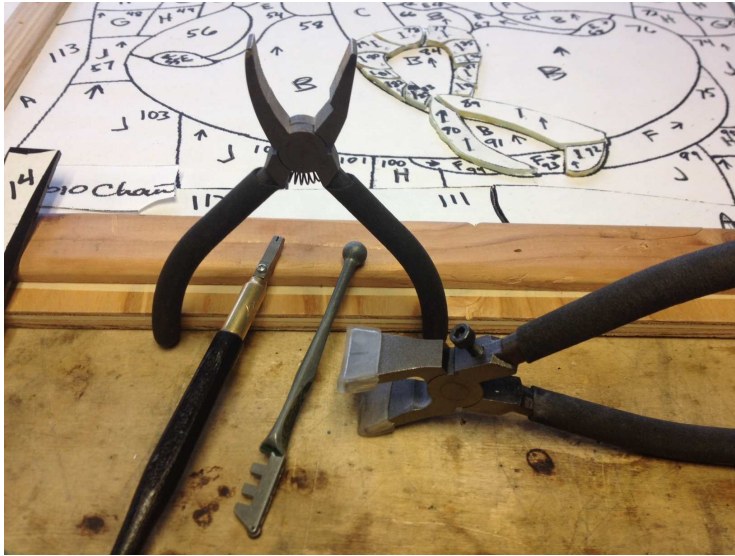
If you're fortunate you can find a rendering and a pattern to start with. Smart people also count the pieces.



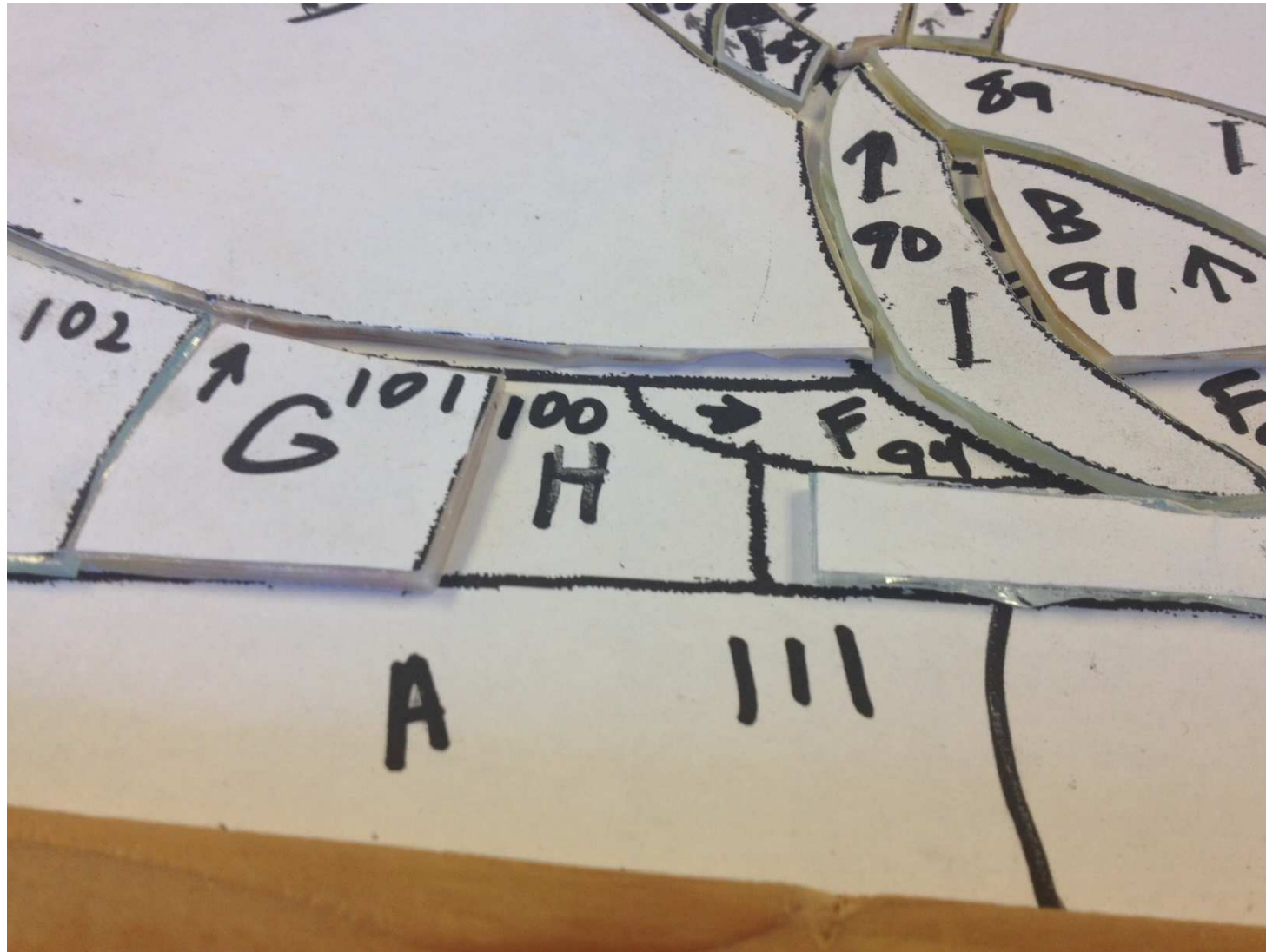
On the enlarged pattern, letters are the colors, arrows point up any grain, and all pieces have numbers.



Scissor-cut the paper pieces, and paste them on to the sheets for glass cutting. Lay out for long straight cuts first.



The glass cutter (left and above) scores the glass, but other tools, like the ball and various special pliers often must finish off the planned breakaways.



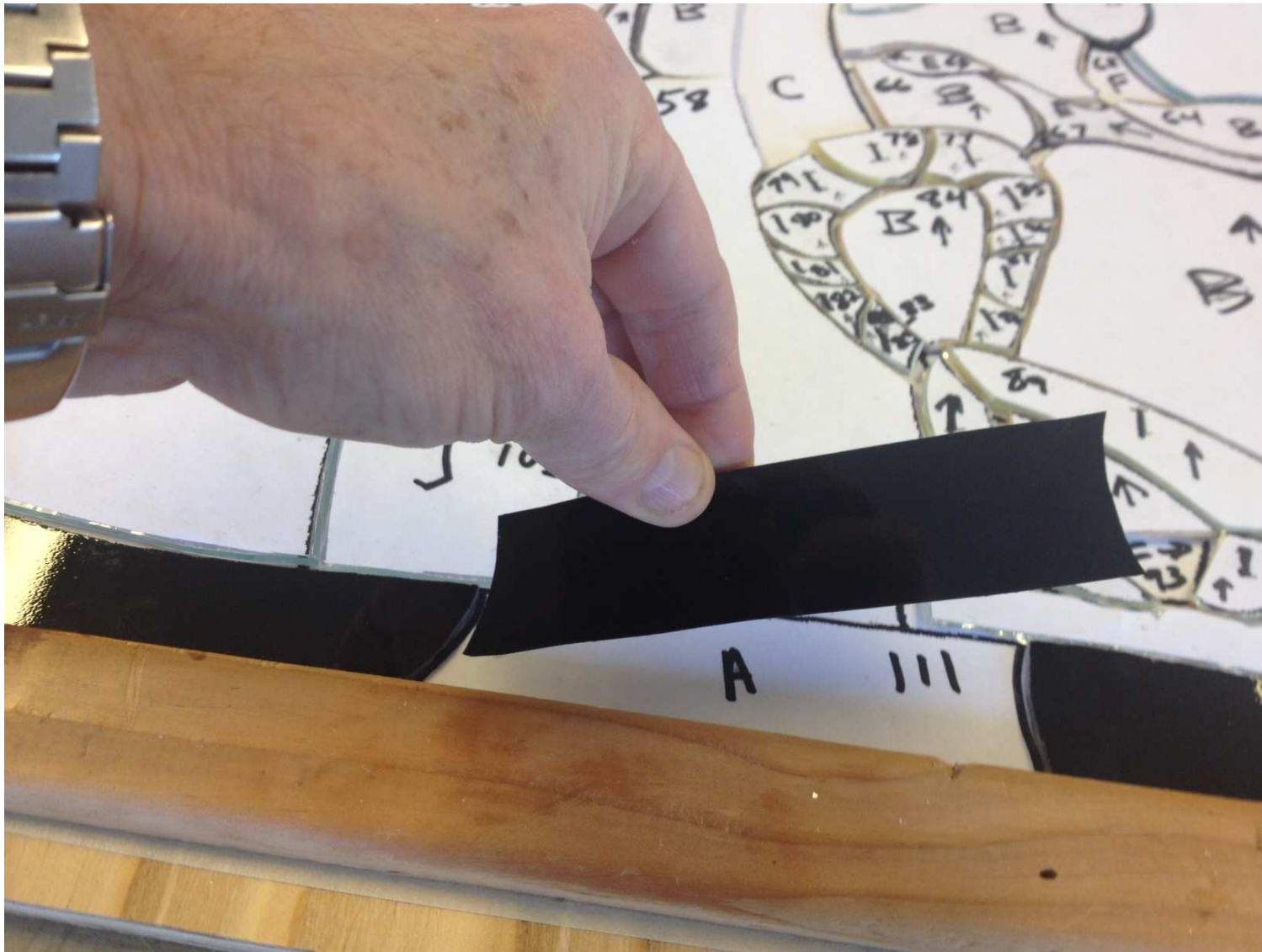
When all of the pieces of glass have been cut under paper, lay them in the whole pattern to be sure you have it all.



Grind rough pieces of glass and excess protrusions, and smooth inside and outside curves, all exactly to the paper.



After grinding, let pieces soak in shallow water tray until soggy paste allows paper to separate from the glass.



After grinding each piece, lay it into its place in the pattern.

The ground glass pieces gradually take over the pattern. (Looking at it from the top down.)

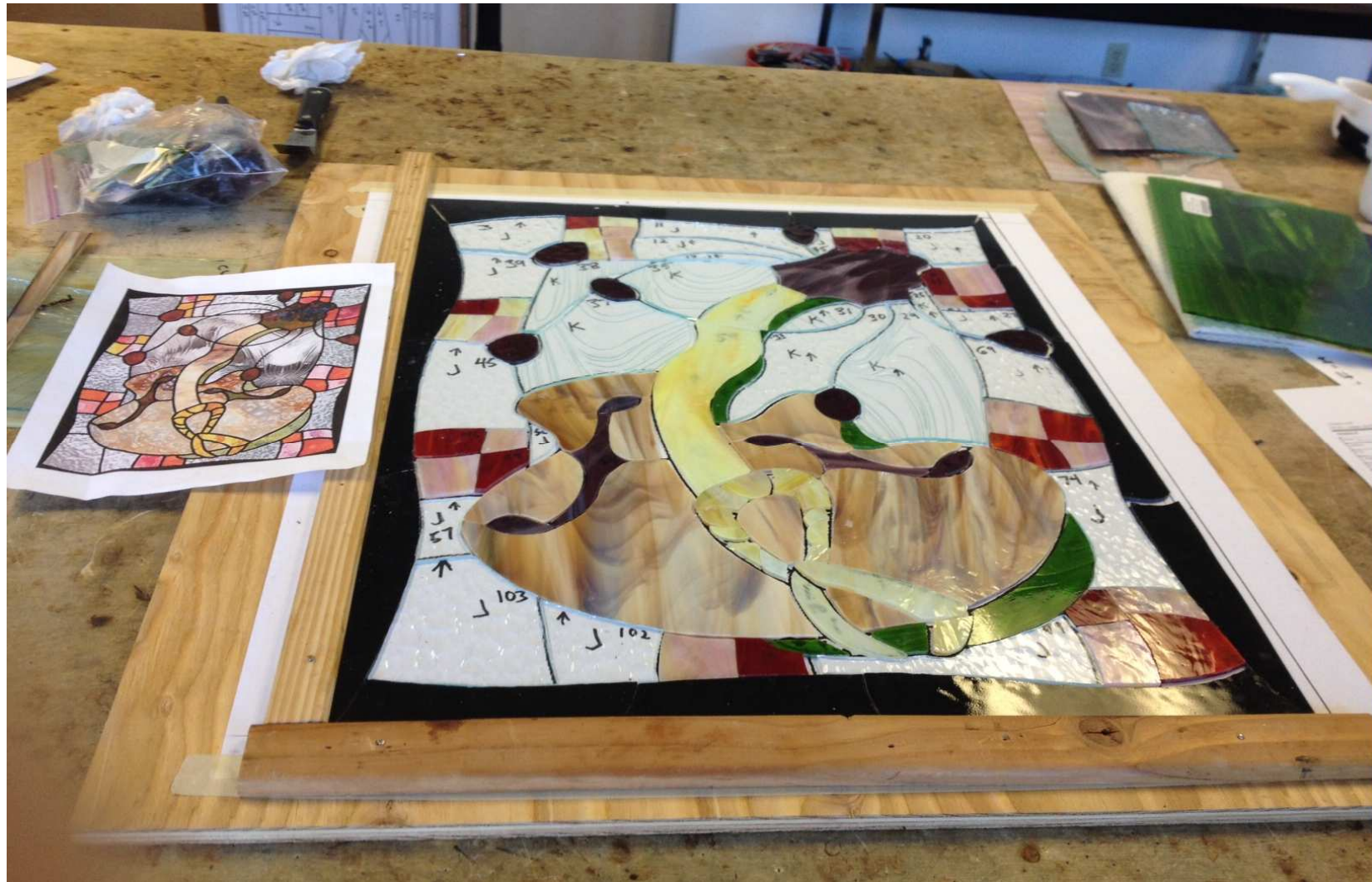
Here the black edges are the first ground glass pieces laid in.

Following are just more progress in this glass grinding and laying in.





The picture finally comes together in glass.



Without the bold solder, pieces don't have clear definition yet. But there is one more step before laying in the solder.



Each piece must be carefully wrapped with $\frac{1}{4}$ inch copper tape. This edging will melt with the hot solder to form the bond between all the small pieces of glass.



In this case, the black outer pieces have the copper tape applied first.



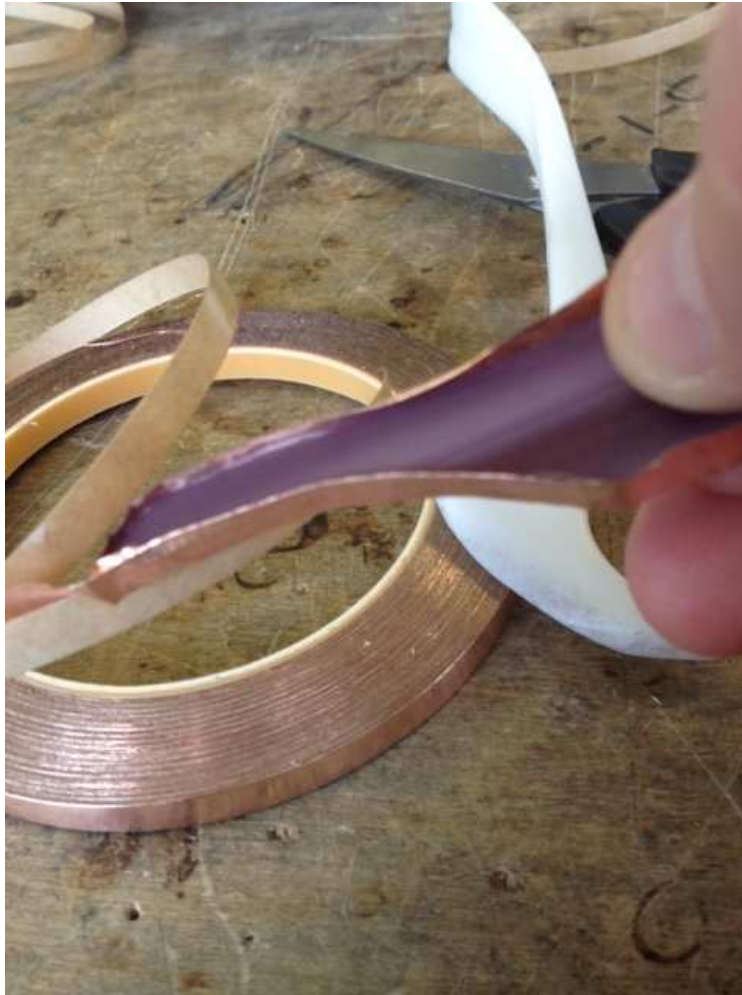
Each of 140 pieces must be wrapped with copper foil and the edges pressed down so that solder will not flow between foil and glass.



Here, all the pieces of the lower left quadrant have been properly edged with the copper tape.

The white plastic instrument on the left is called a Fid, and is used to press out the copper tape edges and fix the tape firmly to the glass.

All the pieces must be wrapped before we begin soldering.



Large pieces and small require the same careful wrapping, with equal overhang to be folded over on each side.



Now most of the pieces have been wrapped with copper foil, but about 25 pieces still remain.

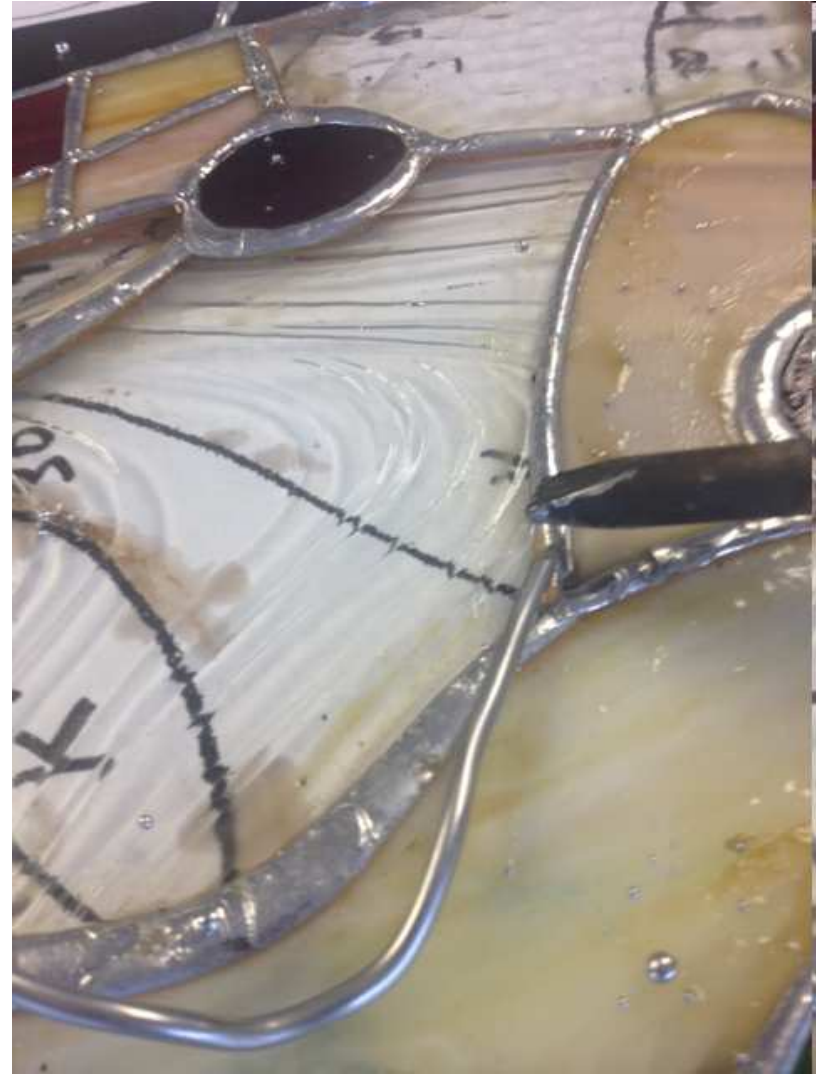
The color (letters) and piece-count and grain direction are markings on the original pattern which still show through clear glass. Of course the final glass piece gives light from both sides.



When all the pieces are wrapped in copper tape, the loose pieces must be locked within a four-sided wooden frame, so that the soldering can begin.



Applying first solder evenly is one skill that separates the pro from the novice. Judge for yourself what this is.



**Large scale soldering is a difficult learning process.
Solder is not at all forgiving...except when it is.**



Doing the backside, the soldering gets better. And you learn to smooth out the initial botcheries...a bit.



It will stay together now; time to hold it up to the light....



Well...perhaps that's not so bad after all.

The light behind finally tells you if your glass selection was OK.

Still to come are lead edges, and a black patina on the solder, and finally a wooden frame.

Finally you insert the edges of the glass in zinc strips to make a first solid frame.

Then rub the patina across the zinc and the silver solder, and it turning it all black.

It is now waiting for the final wood frame, which should pick up the coloring of the guitar.



3 pm



5 pm



6 pm



8 pm



In the final piece, its location, any natural light behind through the day, and the angle of your view, all make a huge difference.

Hope you like.