

Splitting Cane

1. Roll tube on table to find straightest portion
2. Mark with a piece of cane the ends and center line around the whole tube
3. Place in circle template to find symmetrical tip opening sections and mark edges
4. With a knife, split with your hand and a karate chopping motion or with a rubber mallet; you'll get 2-4 straight pieces per tube
5. Using the guillotine, cut off just enough to fit in your soaking container
6. Soak the cane overnight (9+ hours)

Pregouging

1. Cut piece to length (120mm) with the guillotine
2. Place the piece in the bed of the pregouger
3. Press down on the left side so it's flush with the bed and down on the right side when the crank makes contact
4. Turn the crank until the piece is all the way through; don't pull it out, pregouge your next piece so it pops out
5. To get the last piece out, put an already pregouged piece through
6. Place a drop of oil in the spots marked Oil

Gouging

1. Push the lever on the side of the gouging bed to open the bed
2. Put the piece down and center it
3. Put the holders on each side down to keep the cane in place
4. Gouge from the right side to the left side
5. If you hear metal on metal, stop immediately
6. Because the pregouger takes so much cane off, it should only take about 5 or 6 passes from the gouger
7. Pull the holders back and press the lever to release the cane
8. Oil the metal rod
9. Sand the newly gouged portion with sandpaper
10. Let it dry flat and bark side up for 4+ days

Shaping

This can be done either wet or dry; dry will result in a slightly larger shape. If using a flat shaper, you may shape before or after profiling. If shaping wet, soak overnight.

1. Center the cane in the shaper and measure to make sure the fold is at 60mm
2. Using a sharp Xacto blade, make one pass from fold to butt
3. From the butt, cut up to the narrowest point (future 2nd wire spot) and no further
4. From the tip cut to the narrowest point
5. Repeat for all sides
6. Soak overnight (not necessary if shaped wet)

Profiling

1. Line up the piece on the cane barrel using a ruler
2. Cut starting in the center of the cane
3. Turn the barrel after each pass, being careful not to turn while cutting

4. Pick up the barrel and switch sides after every few passes
5. Profile and rotate sides until no more cane comes off
6. Oil the metal rod

Scoring and Prep

1. Using a tap, score the bark of the cane on a dowel rod or something similar
2. Using gardening shears, cut the bark of the cane to 29mm (having the bark longer will result in a narrower shape and shorter will result in wider)

Forming

1. Fold the cane over and place the first wire 2mm below the collar (from the top of the wire)
2. Wrap cotton crotchet thread down from the wire to the butt and back up past the wire. Go a few mm past the wire onto the blade and wrap tightly
3. Soak the future mummy until it sinks (about a minute or two) to allow the thread to soak up the water
4. Insert forming mandrel straight into the reed as far as you can go
5. Use forming pliers to help the cane further onto the mandrel. Do not squeeze past where the future second wire will be
6. Form far enough up that the two sides are slightly separated
7. Allow mummy to dry for at least a week

Mummy to Blank

1. Remove thread and first wire
2. Bevel with either a file or sandpaper 10mm from the butt until cane is flat and tip pops open
3. To emphasize lows and have a flatter reed, bevel shorter and deeper
4. To emphasize highs and have a rounder reed, bevel longer (closer to the collar) and shallower
5. Wrap a portion of the thread from where the future 2nd wire will be up to the collar. This is to ensure a straight tube
6. Place third wire 5mm from the butt (measure from middle of wire)
7. Unravel the thread and place the second wire the opposite direction 18mm from the butt (middle of the wire)
8. Place the middle of the first wire 8mm from the middle of the second wire
9. Tighten and flatten the third wire
10. Add hot glue from below the second wire to just above the butt, leaving a bit of space to use your forming pliers if needed in the future
11. Tighten and flatten the first two wires
12. Clip at 29mm from the top of the first wire. Reeds may end up needing to be 28mm, but it's better to start longer because you can't put cane back on.