Making a double-reed for Aulos

Here I try to show, how I make double-reeds for Aulos (Louvre Aulos). I show here, **how I make** the reeds for my instruments. I don't guarantee, that your reeds built with this instruction will be able to play.

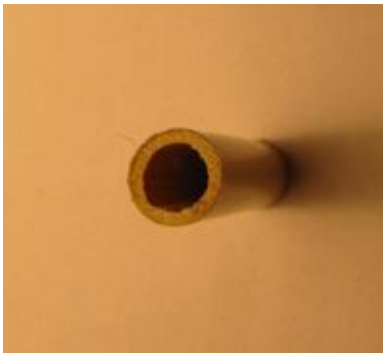
Basic informations about reedmaking for Aulos, I got from Dr. Stefan Hagel (ÖAW Wien), he´s making his reeds in a similar way, but I think he uses some different tools.

I buy my Arundo Donax in a shop called Medir in Spain (www.medir.cat).

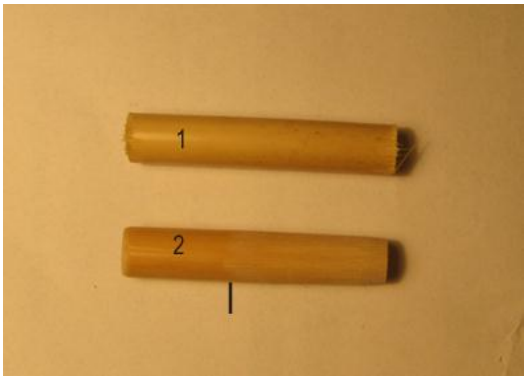
The outer diameter should be Der 8,5 to 9,0mm. The length should be min. 120mm, so you can make two Reeds out of one tube.

I cut two pieces, each with a length of 45mm bis 46mm. Therefor I use a sharp knife or a saw with a fine blade.

I use a sharp drill (DM = 6,5mm) to clean the inner surface of the tube. In this way, I also get equal inner diameters.



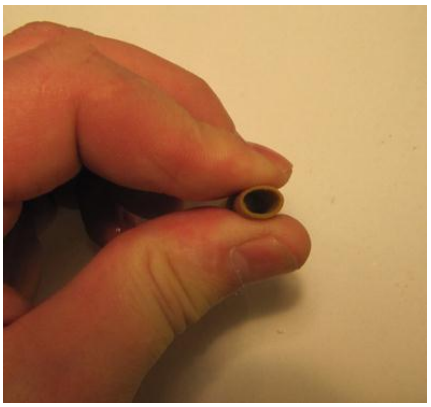
Now I start sanding the reed from the middle to one of the ends. I use sandpaper number 120 up to 180. It is important not to sand too much, the tube shall not be tohin at this moment. You can also use a special knife for reedmaking for this step.



Number 1 is not sanded.

Number 2 is sanded from the mark to the end.

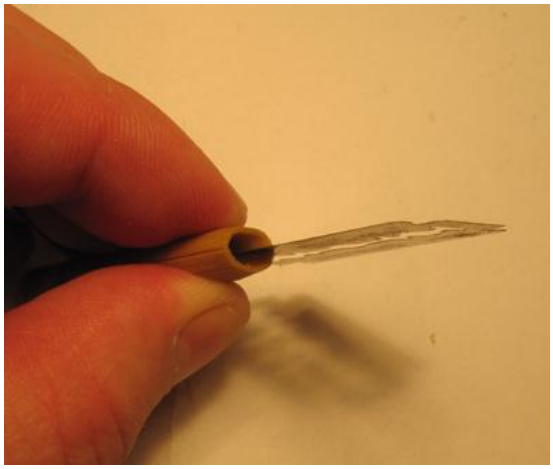
Now I put the sanded Reed with a clamp in boiling hot water. The tube should stay there for about 2 or 3 minutes. The hot water makes the Arundo Donax flexible.



Now it is possible to squeeze the tube till it is oval.

I use a razorblade and press it through one side of the material. After this, I squeeze the tube again and make a second cut on the other side. In this way, two lips are built which should have the same size.

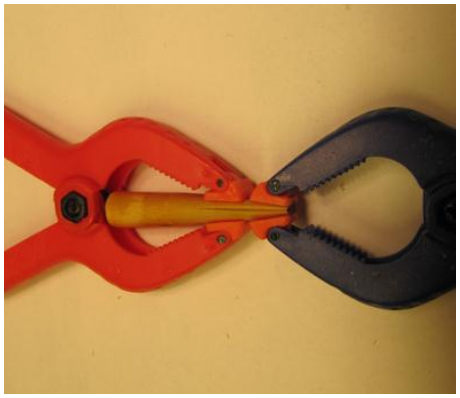
First cut



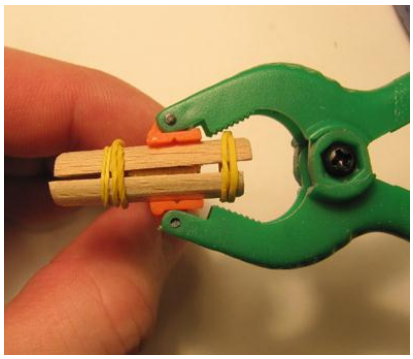
Opposite second cut

deep of the cut

Now I fix the clamp again and put the tube again in boiling hot water. The clamp presses the two lips together.



To keep the lips in this position, you have to fix a wooden clamp. I sand small pieces of wood and fix them with a strap.

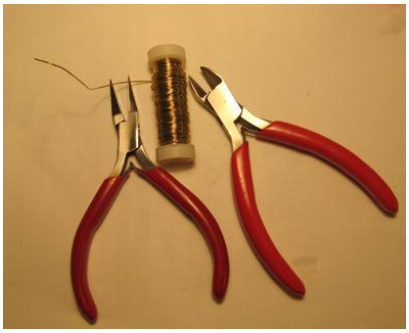


If the tube is still strong, you should fix a second clamp. The lips should be very tight on the top.

Attention!

It´s important to put a little plug into the bottom of the reed to keep it round. I make this plugs from beech-wood .

Now the reed has to dry for min. 24 hours. The reed should not try very quickly because cracks could occur.
After 18 to 20 hours, I try, if it is possible to get out the plug easily. If this is so, I know, that the reed is nearly dry. After removing the plug, the reed should dry again for a few hours.



Now I make a bridle out of brass-wire. The wire is about 0,5mm to 0,6mm thick.

The reed can be adjusted with this bridle later.

Normally the reed will be too thick at this moment. Sand again with sandpaper 240 from the bridle to the lips. The reed shall be more flexible.

It´s also a good way to use the reedmaking-knife for this. (You can also use any other sharp knife)

The reed is now ready, but the lips are closed because the reed is still dry.

To open the lips, put the reed in warm water (not hot) for about 3 to 5 seconds. It will take about half a minute, till the lips are open wide enough.

Now I try to put the reed into the Aulos and play it.

If it is not possible to make a tone although hard blowing, the reed is still too thick.
Sand again.
Adjusting the bridle can also help to reduce the distance between the lips.
For this, use a small flatnosed pliers.

Notice:
Thick reed ------ high pitch, hard to blow

Thin reed ------ lower pitch, easy to blow

After playing the instrument, put the wooden clamp on the reed again to keep its tension.

Good luck and much fun

Thomas Rezanka

P.S.: I´m not a native speaker and so, I maybe made some mistakes writing this instruction. I´m sorry. If you have some corrections, please let me know.

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