

## Cleaning and Care of the Panflute.

### *Materials*

- tuning rods
- old cloth rags (cotton)
- cleaning alcohol or luke-warm water
- adhesive tape
- (possibly fine steel wool)

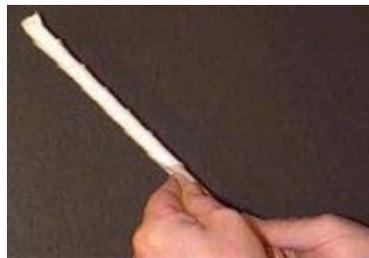
### *Cleaning*

Basically the DAJOERI Panflute doesn't need much maintenance care, as the bamboo pipes are treated inside and outside to keep humidity off.

However, in case of a build-up inside the pipe from intensive playing, it can be removed with alcohol (60%) or with luke-warm water.

### *Sequence of Cleaning*

Take a tuning rod and wrap a 1 inch cloth strip tightly from the top to the middle of it. Fix the end with adhesive tape. Now dip the wrapped part of the tuning rod in alcohol or warm water. Then rub the inside of the pipe with slight pressure. At the end, leave the instrument open so it can fully dry out.





### *Care of the Panflute*

#### *Rough Labium*

It is possible, that the mouth piece of the panflute could get rough after a while. The reason is, that the humidity from the mouth causes the fibers of the wood at the labium to stand up. In that case slide with a tuning rod several times over the labium. That flattens any roughed up parts.



#### *Stuffing*

As bee wax is depending on temperature, it extends from heat and contracts from cold. This can cause the sound response to diminish. Therefore, the pipes of a panflute should be newly stuffed as needed or about every 2 to 6 months in order to get optimum sound at all times. Specially just before a concert it would make sense to newly stuff the panflute.



#### *Sequence of Stuffing*

1. Take a tuning rod that fits loosely into the pipe.
2. Moisten the flat part of the tuning rod with your tongue in order to prevent the bee-wax from sticking to it.
3. Now push the rod with some pressure and a slight turning motion to the bottom of the pipe. Repeat this motion several times until the bottom (bee-wax) of the pipe feels smooth.
4. Take special care to flatten any ledges at the inside of the pipe wall. This is achieved by running the rod all around along the inside edge of the pipe.
5. At the end repeat the stuffing motion with slight pressure and turning motion.

# Tuning of the Panflute

Tuning of the panflute in in order

1. with panflute students starting to play in groups,
2. with panflute students after about half a year of playing, when they're no longer pressing the flute tensely to the lips,
3. when the embouchure has improved and play in higher position begins,
4. in the case of differences of pitch between panflute and accompaniment (for example an organ having a lower pitch in winter due to the cold temperatures).

## *Material*

- tuning device or a well tuned instrument
- bee wax
- Tuning rods for the relevant flute
- a drill bit if necessary (in case a lot of wax has to be removed)

## *Tuning*

Basically all Dajoeri Panflutes are properly tuned in our atelier. This particular tuning is adapted to a good panflute player. We call it the basic tuning.

Often a beginner is unable to create the correct pitch. He is missing the correct embouchure, which he achieves after strengthening his lip muscles.

In order to be able to play together in a beginner group or to play with accompaniment, the teacher can tune the panflute after a few lessons by adjusting the pitch according to the current abilities of the player and his embouchure. That could result in having to revert the adjustment at a later date, once the student has improved his embouchure.

One would always verify, if the student has the flute:

1. high enough on the lower lip (embouchure),
2. not pressed too much against the lower lip,
3. that his head is not tilted downward too much,
4. that the lower jaw is protruding enough,
5. that the flute is not too much slanted and
6. that the lower lip is not too much bulging, thereby covering the pipe.

If the student's pitch is still too low after half a year, despite improving the embouchure, then the instrument will get tuned higher. The flute should get adjusted on the highest possible position on the lip with the tuning device. Therefore one would always first control embouchure before tuning an instrument.

As beginners sometimes complain that the flute sticks because of humidity, we



recommend to put some talcum powder on the mouthpiece of a pipe. That improves the gliding if one is sweating more.

*Tip:*

Someone using talcum powder regularly is usually pressing the flute too hard against his lips. Before tuning the instrument one would first improve the above 6 points.

If verifying the embouchure results in having all 6 points above in, but the pitch is still too low, then one would take the following steps:

*Tuning a pipe higher:*

1. First one warms up the wax under a lamp. Then one forms small balls with it. If one has already wax pearls, one would keep them in one's hand to soften them. One would also form small soft balls with them.
2. Now put a half or a full wax ball into one pipe.
3. While blowing into that pipe one controls the pitch with a tuning device.
4. One puts as many small wax balls into the pipe until the pitch is correct. It is sensible to control the pitch of one sound by not only playing that note, but by approaching it on playing a scale. That results in a more natural, improved embouchure.
5. Once the pitch is correct, press the wax ball with the tuning rod flat inside the pipe.
6. Now control the pitch again using the tuning device.



*Exception:*

If one isn't currently able to improve embouchure enough to adjust the pitch to a group's,

as an emergency measure one could temporarily tune the flute higher and revert it later.

*Tuning a pipe lower:*

1. one takes the suitable tuning rod for the size of the pipe,
2. put the notched end of the rod into the pipe, press it against the wax at the bottom and turn it. That is how one removes wax from the pipe.
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*Purpose:*

Certainly it would be better to train a student to achieve a correct pitch on a standardly tuned panflute.

That requires a lot of work, improving embouchure, playing with the tuning device or a well-tuned accompaniment instrument or playback to continuously control one's own pitch.

# Individual pipes not sounding nice anymore

Here we are concerned with pipes which, when blown at

- don't give any sound at all
- give a 'foul' sound or
- give a 'frayed' sound

The reasons for this could be:

- badly stuffed pipes
- a foreign piece stuck in the pipe
- a crack in a pipe

How can I determine the real reason from the three above?

1. One stuffs the concerned pipe, see under "stuffing"
2. One looks if there is anything stuck inside by putting the tuning rod carefully inside and probes for any resistance. One could also use a flashlight to investigate the pipe for any foreign pieces stuck inside.
3. If the above two measures didn't give any result, then one has to test the pipe for a crack. The flutes don't take blows well! With one blow, by dropping it on the ground for example, a flute could get hairline cracks or fissures. One searches for the location of the crack. If one covers the whole opening of the pipe with the mouth, blows inside and finds that the air pressure diminishes, then one knows that the pipe is losing air somewhere. At the same time one touches the outside with a moist hand to find any escaping air (tactile). If one can't find anything one repeats the same with smoke (visual). Another variation is to cover the outside of the pipe with soapy water and while blowing into it, observe any possible soap-bubbles.

*How to repair the damage:*

- cover an obvious crack temporarily with adhesive tape
- on any cracks in the crevice: fill it up with bee wax.

Bring the panflute at the next opportunity to our atelier for repair. A repair is usually done very fast. Otherwise we will provide a substitute flute.

*Adjacent pipes 'rattle' or 'clatter'*

If two adjacent pipes cause trouble and one is unable to determine which one it is, the right action is to close one with adhesive tape and blow at the other. That clarifies immediately, which one needs repair.

This essay has been compiled by Werner Wettstein and Joerg Frei in the occasion of a Tuning-Workshop.