

## **Psychology and Mechanics in balance and harmony**

The first time any trumpeter witnesses another trumpeter playing double pedal notes in the Einsetzen lip position as Jerome Callet instructed, they are most often perplexed as to how this would in any way, shape or form, be a positive influence on normal playing. I was as sceptical as anyone the first time I witnessed it. Having kept an open mind, and immersed myself in the methodology, not only do I understand the mechanical and physical elements of why this works, but also the psychological.

To a certain extent learning the difference between the beauty of aesthetic and the beauty of efficiency is a very powerful tool for any musician to understand. Through the process of making aesthetically unpleasant noises we learn to accept we are aesthetically imperfect. But noises with a beauty of efficiency allow us to realise that the aesthetic ideal is just as much an illusion or trap as photo shopped images of models perpetuating a screwed body image. We begin to realize that our existence has an element of perfection to it. A fantastic example of an efficiently beautiful sound is Farting...! As children, we laugh and celebrate a fart, but are gradually socially conditioned to consider the sound and action disgusting and negative, it does not conform to the established models for an acceptable aesthetic. Ironically, just as playing in a way well matched to our physiology and accepting the resulting "noise" as a valid aesthetic, allowing oneself to fart when needed and accepting the resulting sound (and smell) as a valid aesthetic is actually a valid parallel to draw. If we truly want to learn how to play in a neutral/ relaxed and physiologically efficient way, we have to focus on the correct process and accept the resulting product as valid. It is first here when choosing equipment truly becomes a worthwhile safari to embark on. Before we get here, we are just stumbling around in the dark. This is the normal way choose equipment. Trial and error. It is very expensive and not very likely to truly lead to the most positive outcome.

Maggio - We blow the lips into the correct position for the lip engagement this embouchure type requires. Attacks are not as clear and hard due to the fact that the lips must be kept relaxed and take time to respond to the controlled release of pressurised air. Engaging the embouchure forwards prior to the release creates excess tension in the vibrating surface which negates the purpose of the forwards engagement. This style of embouchure relies on a large amount of vibrating material within the mouthpiece cup. The vibrating surface moves further into the mouthpiece dependant on air volume and pressure. Aperture control is governed by tooth gap. That is to say, that as we add more and more breath support (to increase the intra-oral pressure and raise pitch), we need to retain a tooth gap similar throughout all registers in order to keep the aperture the same size and attain a similar dynamic in the upper register. Overblowing will result in bottoming out/ mechanical impingement of the vibrating surface either by the side of the cup, or the bottom.

Lip Curl - We resist the pressurised air until we are ready to release it. the vibrating surface remains more or less in the same place and its position is considerably less affected by air velocity or pressure in this embouchure type. This technique allows for movement of embouchure independent from air pressure and aerodynamic conditions. It allows us to pre-create the required air pressure for a given note and use aperture control and breath support to determine the volume and pitch of the note. The immediacy of release of pressurised air and its momentary ignition of the vibrating surface results in a much clearer, harder attack. Overblowing will in most cases lead to an intuitive increase in lip clamping/ pinching/ lip to lip compression, which will eventually lead to excess tension in the vibrating surface and along with it cut off of vibration. This will be evident in a static/ hermetically sealed wind sound through the horn that will often sound in the triple register.