

DOES AN EXPERIENCED RECORDER PLAYER START NOTES DIFFERENTLY THAN A NOVICE PLAYER?

Augustin Ernoult, Benoît Fabre

Institut Jean le Rond d'Alembert, Université Pierre et Marie Curie, France

ernoult@lam.jussieu.fr

benoit.fabre@umc.fr

ABSTRACT

The attack transients are very important in musical context. They influence the perception of the sound and they are a tool of musical interpretation. Despite that, there are only few studies on attack transients in flute-like instruments. The influence of the geometry and the control of the musician are not yet understood. By measuring simultaneously the pressure control and the sound of a recorder played by a musician, it is possible to characterize the attacks produced by a recorder player in musical context. A first study has allowed us to determine the global characteristics of an attack transient of recorder: its typical duration, its harmonic content, etc. Because a trained musician may control the attacks to keep a strong homogeneity between all the tones, it is not easy to identify the features of the attack transient related to the instrument from those related to the player's technique. For example all the attacks obtained show a weak contribution of high harmonics, whereas the studies on organ pipes show that a sharper attack leads to an attack richer in high harmonics. By asking a novice to play the same recorder, we analyze the differences between the characteristics of a "controlled" and an "uncontrolled" attack transient. It allows to identify which characteristics are controlled by the experienced player and to understand some techniques used to control the attack transients.