

## **ACOUSTICS2008/753**

### **Does mass matter? Examining a concrete didjeridu**

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The influence of wall material on the acoustics of musical wind instruments has been debated widely. While this has been examined for some western instruments, it has been barely touched upon regarding the Australian didjeridu. This is very interesting, considering that didjeridus vary enormously in materials and dimensions. Indeed, musicians and manufacturers alike often have very definite opinions concerning the influence of material type and thickness on instrument quality. As a first step towards examining this issue, we conducted a blind test involving three cylindrical didjeridus of identical internal dimensions: all three shared a basic structure of identical plastic tubing. However, a cement casing was cast on the exterior of one of these, bringing its weight to 17 kilograms. The three instruments were fixed to a stationary wooden frame, then covered so that only the mouthpieces were visible. 32 players of varying expertise were allowed to play each instrument for as long as they wished, and then asked to judge which instrument was different from the other two. Results indicate that the responses were random, regardless of player level. Further research will be necessary to show whether this holds for noncylindrical bores and different internal finishings.