

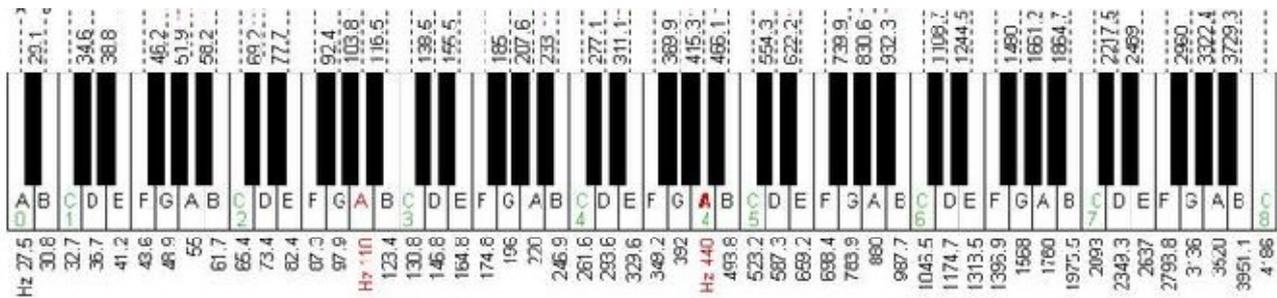


“DEEP INSTRUMENT DISGRESSIONS”

INTRODUCTION: *this writing is based on my practical experience and informal discussions with some musicians, without any study or research by means of electronic instrumentation. Please take it as a testimony and not as an academic text; at least for the beginners I assume it will be useful (both for didgeridoo players and for those who are intentioned to start playing instruments with not common note/length). I am aware that expert players and also some manufacturers will find several inaccuracies, as well as some topics deserving a deeper investigation.*

Who is totally unaware of musical theory should consider the piano keyboard here below.

I remind you the correspondence between the notes A=LA B=SI C=DO D=RE E=MI F=FA G= SOL.



In the very distant [referred to *Didgeridoo's world*] years 2006/2007 very clever and well known players often used to say: to create complex phrasings and/or to play fast, the didgeridoo's note should not be lower than D-73.4Hz. Instruments with note C-65.4Hz\B-61.7Hz were considered only for meditative pieces without any rhythm. An instrument with note A-55.0HZ was believed to be at playability limits, and a two metres long didgeridoo was taken as a freak of nature!

Then, two big European players came, the first was Ondrej Smeykal and later on Dubravko Lapaine (it was mainly thanks to the last one that the dogma was reviewed). Both showed how it was possible to create complex patterns and/or to play fast with instruments over two metres long, and/or with note C-65.4Hz or lower. Meantime the didge-community christened this kind of didgeridoos *deep instruments* (nowadays, wrongly enough, even instruments with note C-65.4Hz\B-61.7Hz and/or two metres long are considered deep).

Back to the undersigned, in September 2009 I started playing PVC tubes with note A-55.0Hz and in the space of 6 months I managed to play instruments with note G-24.5Hz or perhaps lower, up to seven metres long. At a distance of two years, I decided to share my experience, also trying to answer a question coming from several players: when an instrument can be considered a deep one?

First step is the definition of the parameters to be used.

I identified two of them. The leading one is for sure the note, and also the instrument's length, which may help to understand the potential playability. With regard to the shapes, to prevent too much complication, I always consider them as a mix, i.e. the first part is cylindrical, and the second part is slightly cone shaped.





Here following, you can find the 3 main categories of instruments I could identify:

common with note from G-97.9Hz to B-61.7Hz and with a length from 100cm to 250cm included;

middle with note from A-55.0Hz to E-41.2Hz with a length from 260/270cm to 380/390cm included;

deep, with note D-36.7Hz or lower. The minimum length is 4 metres.

Therefore I do consider *deep* only the instruments having a note D-36.7Hz or lower; in order to reach a good playability, and a pleasant sound, I suggest a minimum length of 4 metres.

Many people may – rightfully – object it is possible to get an instrument with a note D-36.7Hz 3 metres long only. You are right, but playability and sound quality would result affected. I now go on by recalling some answers to the questions risen from several players in the last years.

Which is the lowest note of a deep instrument?

Theoretically, shapes being equal, the longer is the instrument, the longer and lower will be the note. Considering the human ear is able to perceive sounds between 20Hz and 20000Hz, even if you might be able to play an instrument with a note C-16.3Hz, you would not hear the base note, but just the harmonics which form it. You should not forget that, to reproduce and record such frequencies, very sophisticated systems are necessary. My suggestion is not to go lower than A-27.5Hz or at highest to go up to G-24.5Hz.

Has a deep instrument a maximum length?

Practically, the limit is just given by the available room and by the manufacturing capabilities.

I reached 7mt, and after a month I decided to take a step backward and stop to 6 mt. Why?

Over 6.5 mt the sound starts to show something adulterated (probably because below 20Hz), the drone\toot take strange distances (also the high ones), everything is “out of sync” and in an odd way: that gives the feeling to ride a frightened horse in slow-motion.

Obviously, I do believe that by continuing the practice it is possible to tame instruments of any note and length, but I consider a 6 metres long instrument, with a note A-27.5Hz\G-24.5Hz, already very deep and the voice flows very fluently. It should not become a competition to determine who can play the longest. It might be pure coincidence, but the air column of the bass-tuba in “flat B” is 5,90 mt. Per information completeness, I report two videos where Dubravko Lapaine is playing an instrument of 10.3mt (per minute 2.40) <http://www.youtube.com/watch?v=J-IADt6PWxk> and one of 8mt <http://www.youtube.com/watch?v=X6ThPeprOSs>

As lips, cheeks, and diaphragm what are the differences between the three categories?

Playing a deep-instrument, lips and cheeks are very soft. The diaphragm is relatively low and relaxed; playing a deep requires a physical dedication remarkably less than using a common. The big challenge comes up when playing the middles: to get its 100% from a middle, it is mandatory to have a good mastery of both the deeps and the commons, because in some passes the lips are stretched like on the commons, then rapidly released, almost as with the deeps.

The diaphragm is absolutely the most stressed. When playing, the middles are “physically” the most demanding.





Which category offers the greatest possibilities?

The middles, but, beware, NOT because they are a compromise between the commons and the deeps. With regard to volume, base sound, resonance, they are the best. The emphasizing of low frequencies is excellent, nevertheless without demeaning the high frequencies; they have a back-pressure allowing not only to make complex rhythms/phrasings (they can be obtained also with the deeps) but also enabling to play pieces born on the commons. On the deeps it is very difficult to play tracks born on the commons, but the actual problem is that very often it makes no sense: even succeeding, they look like completely different pieces (at least, that happens to mine). Finally, on the middles the voice travels (almost) as with the deeps but definitely better than on the commons.

Can playing deeps be considered a matter of fashion?

No, until today (September 2011) in Italy the persons investing time and practice in the middles and in the deeps can be counted by the fingers of one hand. Excepted Dudo, very few players can play middles/deeps with acceptable results; even with regard to the same Ondrej Smeykal I could not find any video clip on Internet, where he plays deep or middles instruments.

Why start playing a middle/deep instrument?

I started to look for new ways of expression, curiosity, somehow the challenge to see what I could get out, and because I find the lower notes attractive, warm and hypnotic more than the high ones.

To come to an end, I strongly suggest to read the story of Oldhar The Celestial Traveller <http://www.duendedidgeridoo.com/oldhar-didgeridoo/> Oldhar and Siluro <http://www.jackazzara.eu/Instrument/ensilur.htm> are very different middles. Nevertheless I have to fully confirm what written by Lapaine about the playability, of which I report here below:

*In terms of playing the basic drone it means you have to be quite tense and quite relaxed at the same time. **Especially as this tension gives you the upper harmonics of the drone, and relaxation gives the fullness of bass. So as we all want both, it makes us learn this up/down, male/female, hard/soft, yin/yang principle of the lips.** But I would say the toots are the most unusual characteristic about playing this didgeridoo - they are not in the place where you are used to find them. Experience tells us it does not take long time to accustom, but it also does not take long time to lose it. **So Oldhar asks either for a super-state of your overall didgeridoo playing or a very strong relation to it - playing it on a regular basis, starting from the basics***

I remind you the introduction, and I kindly ask to anyone having deeper knowledge, suitable instrumentation, willingness, and time, to extend and/or to set up this article. As an alternative, you may send me an e-mail message to propose amendments, corrections, review, etc. See you soon!

Milan, 5/02/2012

Jack Azzarà
Jack.azzara@yahoo.it

