

## *Considerations and Applications of Using Upright Bass in Sound Healing Treatment Sessions*

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Different frequencies and ranges of frequencies, whether audible or out of the human hearing range, create different affects on body, mind, the emotional body, and spirit, and can therefore have different uses and implications in the field of sound healing. Low frequencies, or bass frequencies, including sub-bass frequencies, which are felt rather than heard, are extremely powerful. In healing, bass should be used with care, for as powerful as these long-wavelength vibrations are, they can be very damaging if used at too loud of a volume for the patient. In this essay I will explore the benefits of bass frequencies in general, and the use of the upright bass in particular, in sound healing treatment sessions.

### *Vibrational Properties of Bass*

The frequency range of bass as defined by the bass control on a stereo is 40 to 100 Hz. When measured in wavelength, this range translates to 28.25 feet to 11.3 feet, which are very long wavelengths compared to higher frequencies. On electric bass the frequency range in standard tuning is from about 41 Hz to 311 Hz, and on the double bass, this extends up to 392 Hz (or 2.88 feet in wavelength). Any frequency below 40 Hz is considered a sub-bass frequency, and below 20 hertz, which is the lower limit of human hearing, these subs are “felt” rather than heard. Many instruments can produce bass frequencies (piano or synthesizer, guitar, cello, gongs, etc.), but the electric bass guitar and upright or “double” bass are the instruments that are designed to produce low frequencies well, utilizing thicker strings, a larger resonant body, and so on.

The human ear is less sensitive to low frequencies, so in order for a low frequency to be perceived as the same loudness as a higher frequency (loudness is a measurement of perception), more amplitude, or volume, is needed. (Refer to Fletcher-Munson equal loudness contours.) This is why, along with the fact that bass has long wavelengths, we tend to think of the bass as being felt physically in the body – longer wavelengths of vibration will find larger resonant cavities (such as a person’s entire body) to resonate, and since bass is normally “turned up” in the mix to be heard by our ears, it is so powerful that we feel it, too. Another

result of long wavelengths to consider is that space is needed for very low frequencies to complete one cycle. For instance, to really hear the frequency of 80 Hz, you need to be standing 14 feet away from its source, which may affect the way a healer using this instrument will place the instrument in relation to the client. More importantly, though, because of the power of bass waves, one must be cautious not to use them too loud – not only can it damage one's hearing, but also as Randy Masters has pointed out in class, bass can “blow a whole” in one's auric field.

### *Upright Bass Properties in Sound Healing*

The above properties of low frequencies in general, as well as certain properties of the upright bass in particular, have certain implications in sound healing. Low frequencies in general tend to have a calming effect on the nervous system. I believe this may be due to the fact that longer wavelengths resonate the entire body, so that one's body is vibrating with itself – it is like a relaxing, whole-body massage. It also brings one's awareness into their body, which can be very grounding.

Upright bass also produces a very rich overtones series, especially when bowed, with relatively equal volume of odd and even harmonics. Odd harmonics can be used for activation, and equal harmonics can be used for a calming effect. Either set can be emphasized with a different playing style. The fact that there are many harmonics, whether odd or even, also is a calming property. Bowing the bass slowly would be a great way to begin or end a treatment session, to have the client bask in a calming “bass bath”. Not only are there many harmonics, they tend to also be quite loud compared to the overtone series of other instruments, and sometimes the second harmonic is even louder than the fundamental. A nice result of the fact that the overtone series of a bowed string is so easy to hear is that simply droning on one note with a bow is a great accompaniment and resting point for the voice in sound healing. The voice will naturally sing in key with nature if following the overtones of the sounding string.

Another aspect of the upright bass is a wide variety of possible tunings and playing styles. Since bass is a fretless instrument, the player is not confined to equal temperament tuning and can play in any tuning system, such as Just Intonation, that is harmonious with the harmonic series of the strings of the bass and therefore, the body and nature. Fretless also allows a smooth slide from one note to another. One can play very long legato sounds or very short staccato

sounds, pluck or bow a note, slap the strings, use rhythm or no rhythm, and so on. This makes it ideal in sound healing, as it is similar to the voice in that the instrument has few limitations. It is closer to “Source” and ideal for channeling, or using intuition to guide the session based on what the client needs to break up stuck emotional energy and heal.

And speaking of rhythm, not only can you play “notes” on the upright bass, it has a huge resonant body (about 3.5 feet tall) that can be played as percussion like a hand drum. Percussion can be used for grounding or inducing a trance-like, altered brainwave state that will allow the client to have a more effective treatment session.

The large resonant body is also a nice feature for the player (or listener) to put their body onto to feel the vibrations as the instrument is being bowed.

### *Other Sound Healers Using Bass*

Mark Deutsch is a sound healer and musician that David introduced to us in the class on tuning systems. He patented a unique instrument that starts with a 5-string upright bass, and has an additional set of low-frequency sitar strings (a classical Indian instrument) that vibrate sympathetically in a separate structure that sits underneath the neck of the bass. The result is what he has dubbed a Bazantar. The inspiration for him to build this awesome instrument came to him in a dream, as explained in one of his youtube videos. He plays in classical Indian musical scales, which are harmonious with the harmonic series of the bass strings, so that when the bass strings are played with a bow, the sitar strings vibrate sympathetically with the overtones. The sounds are beautiful and playing in natural scales is ideal for sound healing.

<https://www.youtube.com/watch?v=crSi9IxFYA>

I searched the internet for other sound healers using upright bass and only found one other person. Rozemarie Heggen in Germany offers private and group sound healing sessions, performance, and custom recordings. Her style utilizes the wide flexibility of sound and expression that the instrument allows, creating very interesting and varied sounds. For example in her “Matrix of the Whales” she creates high-pitched activating, dissonant sounds using the bow. Her pieces are not necessarily as “musical” or easy to listen to as Mark Deutsch, but may have uses in terms of sound healing if “activating” sounds are called for.

<http://www.rozemarieheggen.nl>

I discovered one other woman named Constance Demby who uses not the upright bass, but a steel instrument that she calls the “Space Bass”. The description of this experimental instrument is as follows:

*“The Sonic Steel Space Bass is a 10 ft sheet of mirror finish stainless steel with 5 octaves of steel and brass rods. The rods can be bowed, struck percussively, and the metal sheet can be rubbed to create various effects. Several tones can be created by bowing a single rod, resulting in a multi-tiered overtone series. A sound scientist determined that the sound waves on the lowest notes of the instrument are approximately thirty feet long.”*

Constance holds sound immersion workshops using this instrument – “A Chakra Clearing Healing workshop featuring the ultra low sub-sonic frequencies that has resulted in countless powerful healings.” The Space Bass can be heard on her website - [http://www.constancedemby.com/instruments\\_f.html](http://www.constancedemby.com/instruments_f.html).

#### *Visceral Vibrations – Sound Treatment Space Setup*

I experimented with the best way to get the client vibrating on a massage table, to essentially create a sound table using the massage table and the bass. I tried this with and without an amplifier. Without an amplifier, I was able to position the bass against the table to get it vibrating, but it had to be positioned a certain way that was very limiting for the player. With the amplifier, I used a 2x10 speaker at the foot of the table. Using the amplifier was definitely more effective. But what I found is that in either case, the strings need to be bowed very loudly in order for the table to vibrate enough to get a bass-massage effect. I would probably want to give the client earplugs, and do this in a space large enough where the bass could be played farther away from the massage table. I worked in a small space and the bass itself was very overpowering and took away from the relaxing effect I was going for. The other option would be to get an actual sound table that is designed for this.

Using upright bass in sound healing sessions has potential, but will take some trial and error to dial in the optimal ways to use it to have the right effect and to make sure the client has the best experience. I look forward to sharing this beautiful instrument and its healing powers with others!