

Sundrum™

TUNABLE WOODEN TONGUE DRUM
by VALTER



 **VALTER**
PERCUSSION

INNOVATIVE INSTRUMENTS DESIGNED IN SWEDEN

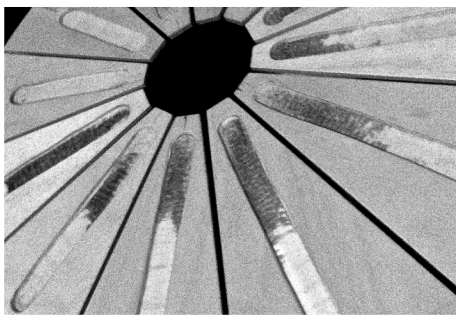


The idea for the SUNDRUM came to me from many different directions and it all started in 2008 when I inspired of a video about a Dominican instrument builder called Felle Vega started to make my first tank drum. I soon discovered that many people where experimenting with tankdrums but that most of them made pentatonic ones similar to for example the Hapi drum. I also was inspired of the african Kora and it's percussive playing technique where scales are played between the two hands and I wanted to create a percussion instrument where I could use my different percussion finger techniques to play melodic patterns. Since I as a percussionist was longing for playing more and more melodic/harmonic stuff and not only rhythmic.



The sound of steel tongue drums is very beautiful and the sustain very long. This makes it more suitable for slow, ringing

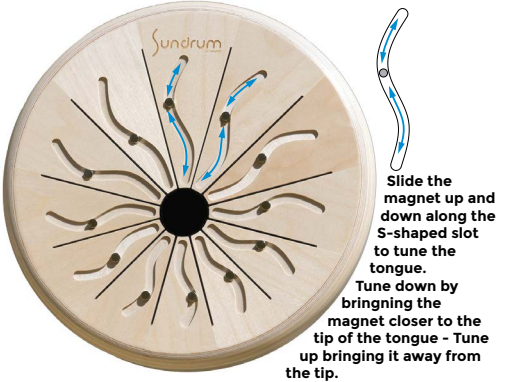
pentatonic playing, while faster diatonic playing demands shorter sustain so the notes doesn't blend together too much and creates dissonance between the ringing notes. So my thoughts soon went to the wood I use for my reknown Conga- and Batá Cajons. I started to experiment with that and soon I had a working prototype with very nice dry "earthy" wood sound.



Now the tuning work started and the shaping of the body to find the right dimensions. I soon understood that it would be very useful to find a way to make a tunable tongue drum to be able to play in different keys So I spent a lot of time

testing different ways of tuning and in 2012 I got the idea for the now Patent Pending Magnetic Tuning System.

The Tuning System is very easy to manage and requires no tools at all. It comprises a pair of magnets that slides in a slot on the tongue. Sliding them back and forth the mass of the tongue changes and so does the frequency. The Sundrum has **12 tongues** and each of them has a tuning range of more or less a whole octave. This is ground breaking since other tunable steel tongue drums can in most cases only be fine tuned (approx. 2-5 semi notes). **The magnets** are strong enough to stay in place while playing but if you play too hard with your hand or with too heavy mallets they might jump off. When they jump off they usually attach to

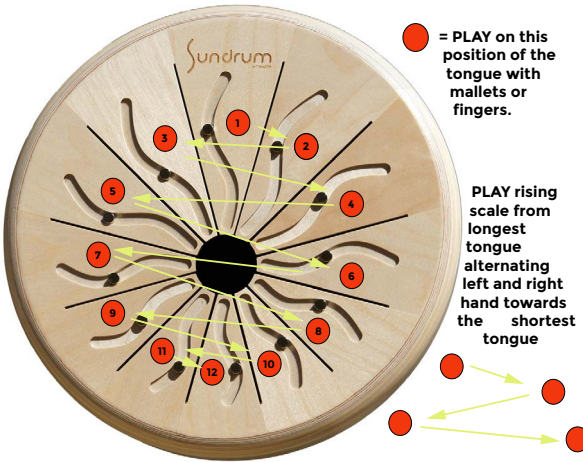


another magnet inside and you will have to locate it and take it out and put it together with the outer magnet again. This is the most tricky thing with the Sundrum, but you will learn how to do it after a while. Another reason to not play the tongues too hard is that they sound best when you play with their right strength. You will hear when they start to distort and that's when you've passed the limit. So listen to the instruments and it will tell you when you play hard enough. I've never experienced that a tongue breaks so you don't need to worry about that, but of course every piece of wood has its limits of durability also even if these tongues are made by 6 layer water boil proof birch plywood.

If the inner magnet gets lost on side the instrument you need another magnet to take it out. Just try to locate it by sweeping the other magnet around the bottom of the instrument and when they connect you drag it up carefully towards the hole. If you drag it to close to another tuning magnet it will stick to them and you will have to unmount that pair to separate them and put back the two pairs again. We will make an instruction video about how to do this asap. So please check our website frequently for updates!

Please keep the magnets away from kids since they can be very dangerous to play with.

Playing Sundrum is easy and fun! But it might seem a little tricky in the beginning and it helps if you are familiar with other hand drumming since you can use all types of hand drumming techniques from indian tabla and frame drum split hand techniques to conga/djembe style (but softer than if you would play on a conga/djembe)



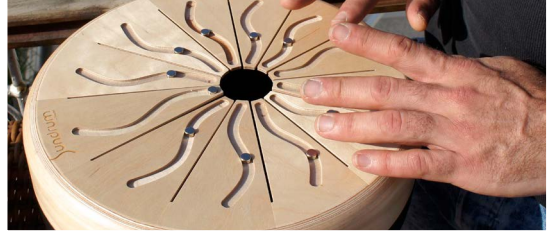
The most important thing you need to know is that if your finger/hand stay on the tongue it will not vibrate, so you need to bounce off the tongue immediately after striking. It might be easier to make it sound good with mallets for beginners but I assure that it's worth practising with the hands/fingers since it opens up more playing possibilities and a much bigger variety of sounds. To get the basic sound of each tongue you have to strike in the red marked area of each tongue in the picture.

We recommend to have the shortest tongue towards your body but of course it's possible to turn it in any direction. Start practicing with your index fingers up and down the scale to find the sound without dampening the tongues. You can also use your thumb and other fingers to play two or three tongues with one hand or use your whole hand to get bass drum like sounds similar of that of a kalebass if you have it connected to a PA system. Playing closer to the outer edge of the Sundrum will give more overtones to the timbre of each tongue. So there's a lot to explore. We hope you'll enjoy getting to know the Sundrum!

Tuning the Sundrum is easy and we recommend that you learn tune it by ear. The sustain is a little short to be captured by electronic tuner devices but you can use them if you continuously play one tongue at a time or if you just sing the note and try to find the right pitch that way. You can download a tuner app to your smart phone and use it for tuning. A piano or a piano app on your smart phone is maybe a even better way to tune it. Since **the tonal range of the Sundrum** is so big (comparing to other tongue drums - G1-C4) there are many different scales you can choose. And we recommend

down tuning the whole drum or starting from the lowest and go upwards. A string instrument or a piano can also be a good help if you want to tune it to a specific scale.

The design of the sundrum is the result of years of testing and prototyping. The positioning and pattern of the tongues gives maximal amount of notes and the biggest tonal range on the market of tongue drums in a very compact and light weighted nice looking instrument. Due to it's compact size it's physically impossible to amplify the deepest bass tones acoustically and as all acoustic instruments needs amplification in live situations we choosed to offer the sundrum with specially designed mic system.



There are **Two different Mic Systems** available for the sundrum. - one contact mic system with **12 individual piezo mics** and one Condenser mic system. The Piezo mic system gives a strong clear signal and captures the body of each note with lots of bass and mid with low risk for feedback. As all piezo mic systems our Piezo System doesn't capture the full presenece/treble/ so we recommend that you use a good condenser mic as a compliment when you record or performe live with the Sundrum. An external mic can though be difficult to place close enough for live performers since it will disturb your playing.

That's why we choosed to ad another **Condenser mic System** inside the Sundrum. This mic captures everything from 50Hz up to 20.000Hz and the frequency response is very even over the whole range. So the combinations of these two mic systems gives a powerful reproduction of the whole sound of the insturment and even more since the piezo gives a very deep punchy kick sound when you hit with the whole hand over the "sun hole". (a sound that is not heard acoustically)

Having the two mics you will need two channels in a mixerboard - one with phantom power for the condenser and one line for the piezo. You can also use a external blender pedal for accustic guitar (there are a few different on the market).

We recommend the ZOOM A3 pedal for this purpose! This device has one phantom powered XLR input and one Jack input for the piezo and it has lots of nice effects as compressor, reverb, delay, chorus and equalizers, and last but not least, the ingenious FEED BACK CANCELLATION which automatically eliminates the frequency feed backing by just one push of a botton.



We Hope you will enjoy this instrument as much as we do and we wich you a lot of fun and we would be happy to hear your feed back on it som please feel free to post a comment on our Face Book Page! Please also post a video with your music created on the Sundrum and help us spreading the word about this new insturment!



Thank you for choosing a Valter Percussion instrument and thereby investing in the development of many interesting future percussion products!

CHECK VIDEO HERE:



www.valterpercussion.com

