

Outline and Research Question **Diamond Marimba**

Since a couple of years I give music theory lessons for the sonologists, amongst others explaining overtones and their use in Just Intonation. A topic that is, albeit from a different perspective, also part of the second year curriculum for the composition department. When the ratios, lattices, tonalities/utonalities, harmonics/subharmonics, calculations in cents and hertz go into depth and become more complex, the connection with the sounding result can get lost easily.

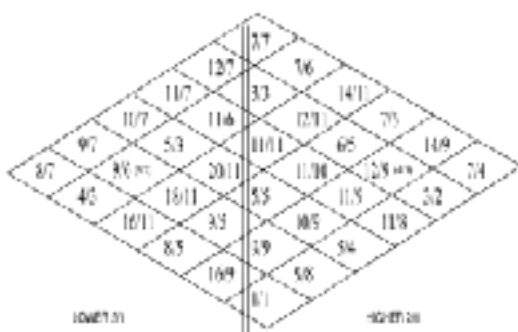
I want to investigate in how far the diamond marimba can be a valuable asset to address this issue. Due to its construction the instrument reflects limits and lattices and much that needs to be known for an understanding of ratios - can this instrument be (come) a tool to be able to train the sonic imagination in Just Intonation and microtonality?

I want to research this by rebuilding the instrument and applying the color scheme that Partch used to find an orientation on the Chromelodeon (a retuned, 41-tone harmonium). Besides the arrangement of the keys, based on the 11-limit diamond marimba, the colors serve a second visual aid.

Eller Porterman (Ensemble Academy) will perform a solo concerto on the marimba during the opening concert of the Spring Festival, he will be accompanied by 6x6 tubular bells corresponding to the keys, played by other members of the ensemble. The sets of chimes are subsets of the instrument, and can be studied separately.

Besides this performative approach, where I will organize feedback sessions with Porter during the building process, the study process and shortly after the premiere. Around the same time the instrument will be central in a 'college week' for all Aural Skills and Analysis students in the first three years of the bachelor. They're introduced to Partch's tuning system and will receive some 'ear training exercises' as a warm up for thinking in between the black and white keys.

Next to this class (and follow up classes I offer for the composition department) I want to use the marimba to investigate materialism in sound production with both sonologist and art of science students. Lastly I want to bring it back to the percussion department and (re)connect performers. In a collaboration between the various departments I want to reassess in how far the instrument became a worthwhile 'thinking tool' for both the creative and performance department.



The first step will be building the instrument (jan/feb 2022).

The second step would be the creation of a work for and with the Ensemble Academy (mar/apr 2022). A mini solo-concerto for percussionist Porter Ellerman to be performed on the Spring Festival in 2022.

The last step would be a serie (may 2022-dec 2022) of lectures made for various departments. Varying from music theory and music history to materiality in sound production. I would love to engage two students (from sonology and composition) afterwards to write new works for the instrument and two percussion students to perform it - all in close collaboration with the Art of Sound department. Writing, performing and recording the instrument will hopefully spark a renewed interest in this unique composer and his musical heritage and can above all be a gateway to widening internal artistic collaborations.

The outcome of this research is a new instrument, a series of lectures, a new work for the instrument+ensemble and one or two solo works written and recorded by students.