

## **The Analysis of Microtones in Ottoman/Turkish Maqam Music and Creating a Repertoire on Adjustable Microtonal Guitar**

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The Ottoman/Turkish *makam* music and Anatolian folk music are based on microtones which are pitches less than a half tone. According to an established but highly controversial theory on these microtones, there are 24 unequal tones per octave in Ottoman/Turkish *makam* music. Microtonal pitches are not standard as it is evident in all microtonal folk music traditions of the World. These pitches depend on the performer and instrument. Therefore, two methods have been used by the author: measuring cent values of microtones on traditional Middle Eastern instruments such as *kanun*, *tambur*, *bağlama* and using pitch histograms for specific melodies. By building up a microtone database from these two methods, a repertoire has been created on the adjustable microtonal guitar, which has movable frets on the fretboard. Analyzed melodies were arranged in a polyphonic way with the related microtones on the guitar. Three of these pieces are uploaded as media files during submission. The analysis of the traditional microtonal melodies, their adaptation into the microtonal guitar and the analysis of the resulting polyphonic pieces will be the focus of this paper.