h i v e m i n d

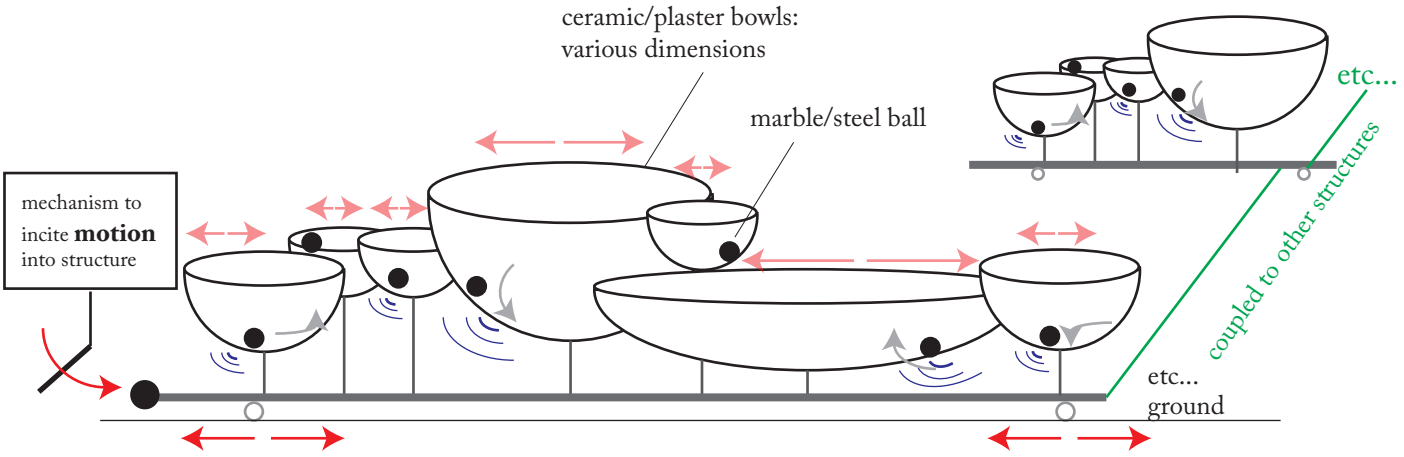
porcelain, white clay, reciprocating surfaces, motors, mechanical elements, microcontroller

HiveMind (2015) explores the sonic potentials latent in ceramic vessels by revealing the inherent resonances of porcelain, white, and red clay bowls through the interplay of movement and sound. Two recipricating platforms are populated by colonies of clay vessels with ceramic marbles rotating about the inner bowls. This structure recalls nested cellular formations and uses the concept of the "hive mind" as a paradigm from which to distribute sound into space.

This piece surveys the acoustic potential of ceramics by allowing different vessels to be resonated by modulating the speed of the applied pushing motion. When this motion matches the natural rotational speed of the marble in the bowl, the marble begins to rotate and loop with more velocity thereby amplifying the characteristic resonance of the bowl. Because each bowl contains a different resonant frequency (“pitch”), clusters of similarly sized bowls can be brought out to the auditor’s perceptual fore, creating densities of polyphonic mass. The visual motion induced by this effect is itself a type of resonance as the trajectories of the rolling balls illustrate the synchronous characteristics of coupled oscillations

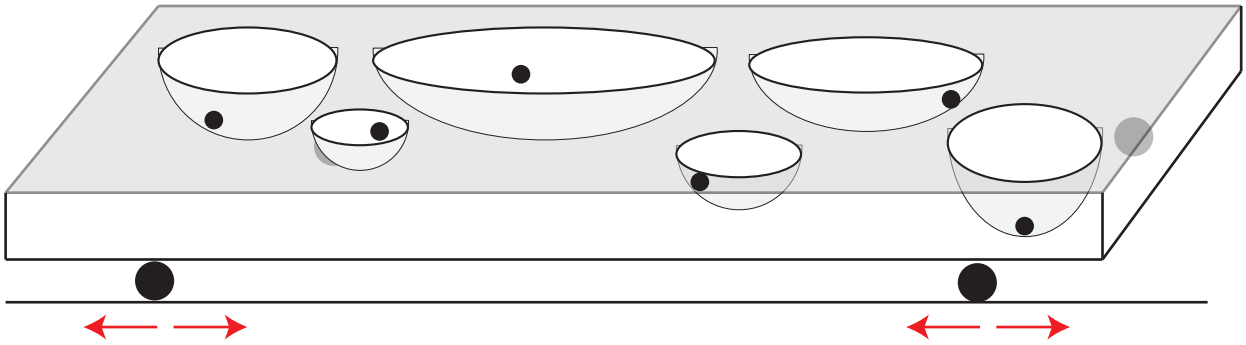
models of coupled oscillation structures:

ceramic bowls



variations:

coupled "inside" structure. Structure is one slat / piece...



working with lopsided shapes...