

Reciprocal Synchrony

Daniel Hill

2021, field recordings of cicadas, wooden boxes, speakers, electronics.

Dimensions variable.

Much the way contemporary architectural aesthetic is determined more by profit margins than by the potential cognitive influence of such aesthetics, the rhythms and cycles of our lives have become increasingly insular and detached from humanity's relationship to the natural world. From the perspective of geologic time, just yesterday we homo sapiens emerged from hiding in the shadows to complete domination of the entire planet. Yet we have alienated ourselves from our natural surroundings to the extent that our negligence and complacency may foretell our very extinction.

With *Reciprocal Synchrony*, I wanted to nurture both awareness of this detachment and to provide a possible sonic antidote. In this installation, the sound of cicadas is used as a manifestation and metaphor for the rhythm and synchronization of the natural world. As the science of synchronization has shown, oscillating patterns when close in frequency as well as proximity, have the remarkable tendency to synchronize. I am interested less in the single cicada's sound or the loudness they can achieve and more in the emergent possibilities of the interaction of a group of cicadas which can produce an audible phasing effect of the frequencies gently phasing in and out of sync. Musically, the cicadas used here have a beats per minute count of about 74, which is *adagio*, or slow. Interestingly, this is within the normal range of the human heart and consequently, the neural tissues of the brain. Concurrently, our brainwaves are also oscillators produced by synchronized electrical pulses from masses of neurons communicating with each other, not unlike groups of cicadas. We 21st century humans spend an inordinate amount of our conscious life in the *beta* brainwave state, missing the deeply creative flow states of the slower frequencies of *alpha* and *theta*. To develop a trajectory of slowing down, within the phasing cicadas I embedded 37, 18 and even slower beat per minute pulses by alternating when a speaker is activated. These pulses are mathematically edited into the loops and are experienced spatially as each speaker unit plays at a different time, immersing the listener in a punctuated, yet immersive sonic experience rooted within a foundational drone.

We all need reciprocity, not only with other human beings but crucially, with our natural environment, which we too often take for granted. Developing awareness generates an interstitial space where both the parts and the whole recognize each other in a kind of fractal relationship or integrated nexus of our extended mind and body. Knowing that the tendency to synchronize is perhaps the most pervasive force in the natural world toward spontaneous order, *Reciprocal Synchrony* might serve as sonic antidote to assist in this practice of slowing down and remembering who we are, where we come from and consequently, hopefully, where we are going.

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