Alternative Fields

At its base, sound vibrates. That which we call sound is merely just the push of air molecules transversing multiple media. The process of that transversal is transductive. In a short essay in the *Keywords of Sound*, Stefan Helmreich defines transduction, writing:

> In the received account, sound is a form of energy transmitted through a medium. Often, that energy moves across or between media--from an antenna to a receiver, from an amplifier to an ear, from the lightness of air to the thickness of water. With such crossings, sound is transduced. The word comes from Latin transducere, "to lead across, transfer," out of trans, "across, to or on the farther side of, beyond, over" + ducere, "to lead." A loudspeaker is a transducer. A microphone is a transducer. A telephone is a transducer. During the twentieth century, the human ear came itself to be described as a transducer.
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> Transduction names how sound changes as it traverses media, as it undergoes transformations in its energetic substrate (from electrical to mechanical, for example), as it goes through transubstantiations that modulate both its matter and meaning. When an antenna converts electromagnetic waves into electrical signals and when those are converted via a loudspeaker into patterns of air pressure, we have a chain of transductions, material transformations that are also changes in how a signal can be apprehended and interpreted. (Stefan Helmreich ,"Transduction")

The concept of transduction then offers us a term for bringing together both the material and the semiotic. Working with/through transduction, we are able to examine the many and multiple modulations of meaning and materials through the varied media that compose any one message while also attending to the messages as they transverse one medium after the next. With half-hearted apologies to Marshall McLuhan, the medium is not the message but both are shared vibrations that move across.

Today's workshop asks us to practice sound movement. Adopting the process and concept of transduction, we will use contact microphones, hydrophones, electro-magnetic field sensors, and traditional microphones to follow the vibrations.

Choose three locations in the outing today. For each location trace the vibrations across any given location/message. For each location, get at least 60 seconds of sound using the following microphones:

- At least two different traditional mics (onboard Zoom and an external)
- Contact Mic
- EMF Sensor
- Hydrophone (if possible, or creative use)