

Sound Lanterns

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<http://silvertone.princeton.edu/~skot/sunbeamsounds/>

Sound Lanterns is an interactive sound installation that is powered by the sun, and emits sounds based on the amount of sunlight available, as well as on the amount of light that falls on light sensors on each of the four lanterns themselves. Listeners can change the nature of the sound by casting shadows over the solar panel, or over individual sound lanterns. The piece relies entirely on sunlight available in the moment. In most PV applications, the solar panel is actually supplying current to a battery or a capacitor, thus “buffering” the power. In this piece, I wanted to experiment with using the sun’s raw energy directly, without regulating the voltage in any way. Therefore, these sound makers go through many changes as the sunlight waxes and wanes. Each lantern features a slightly different sound-making circuit, thus the four voices are unique and, when sounding together, create a chorus of sun-powered chattering, squealing, buzzing, and humming. Listeners should feel free to “play” the lanterns together by casting shadows, touching the solar panels, or slightly tilting the panels.

The performance of these devices depends upon the amount of sunlight available: if it is dark, they make no sound, in dim light, sound is non-existent, or very soft and subtle. In bright sunlight, they scream and wail loudly.