

Title: *Earth Whispering: Algorithms as Co-Creation Agents*

Abstract

Sound installations grounded in environmental practices often use field recordings as direct sonic material. To explore new modes of environmental representation, we present *Earth Whispering*, an artistic research project in which recorded audio is first transformed into data, enabling algorithmic processes to act as co-creation agents in shaping the resulting sound environment. Our method combines recordings from geothermal and coastal sites with data-driven procedures that translate microvibrations of the ground into algorithmic behaviors. While many approaches in data-driven sound art focus on the precision of sonic mapping, our framework integrates algorithmic indeterminacy as a generative and aesthetic principle. Through this approach, we examine how computational systems behave as autonomous collaborators, influencing form, texture, and spatial articulation within the installation. To evaluate this co-creative model, we developed iterative prototypes using recordings from Iceland and conducted preliminary observations on audience perception and engagement. The first iteration of the project demonstrated a positive impact on enhancing the awareness of environmental presence, suggesting that the inclusion of artificial agency can expand listening as a distributed cognitive act shared among human, machine, and landscape.

Keywords: artificial life, algorithmic agency, sound installation, Data Art

Disciplinary field: Creative practice in the age of algorithmic governance

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Mini-bio:

Miguel Angel Crozzoli is a composer, performer, and researcher exploring the intersection of sound, data, and artificial intelligence. A PhD candidate at the University of Iceland, his work investigates algorithmic agency, sonification aesthetics, and data-driven artistic processes. His research and installations have been presented internationally, including ICAD, Arctic Circle Assembly, and Climate Art Collection. Gonzalo Muruaga is a sound artist and composer with a Master's degree in Contemporary Music. He also works as project manager at Neural DSP, developing innovative hardware for musicians. Together, they explore ecological and algorithmic co-creation through sound installation, data art and art performance.