

Resonant Landscapes integrates ambisonic audio and GPS to create immersive soundscapes.

Resonant Landscapes

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1 Introduction

- Objective: Merge technology and nature.
- Concept: Overlay soundscape recordings from South Dakota state parks onto the DSU campus.

2 Key Features and Technical Implementation

- **Ambisonic Audio:** 2nd-order Ambisonic audio, captured with Core Audio OctoMic.
- **Body-oriented Tracking:** Leverages smartphone sensors to allow users to alter their listening perspective by turning their bodies.
- **Interaction Design:** Users navigate DSU campus, encountering various listening spots with dynamic soundscapes.
- **Platform Architecture:** Built with React, Tailwind CSS, Resonance Audio SDK, Omnitone, Turf.js, and Three.js.

3 Ecological and Cultural Significance

- Combines natural and urban soundscapes to foster ecological awareness.
- Maps environmental soundscapes onto physical locations, creating a "hybrid place".

Extra figures

- **Future Developments:**
 - Enhancing user interface and interaction methods.
 - Including longer audio file playback.
 - Expanding the range of soundscapes.
 - Engaging with ecologists, sound artists, and community organizations.
- **Visuals:**
 - User Flow Diagram
 - System Architecture Diagram
 - Key Interface Screenshots