Resonant Landscapes creates a **hybrid place**, merging natural soundscapes with urban spaces through **ambisonic audio** and GPS technology.

Resonant Landscapes

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1 Introduction

- Web-based app overlaying South Dakota state park soundscapes onto Dakota State University's campus
- Uses frugal innovation: existing smartphone sensors and open-source software
- 2nd-order ambisonic audio with GPS integration
- Body-oriented tracking and dynamic soundscapes based on user proximity

2 Significance

- Creates "hybrid place" of natural and urban soundscapes
- Promotes ecological awareness and attentive listening

3 User Experience

- Interactive campus map with listening spots
- Audio playback within 15-meter radius; body-oriented tracking at epicenters

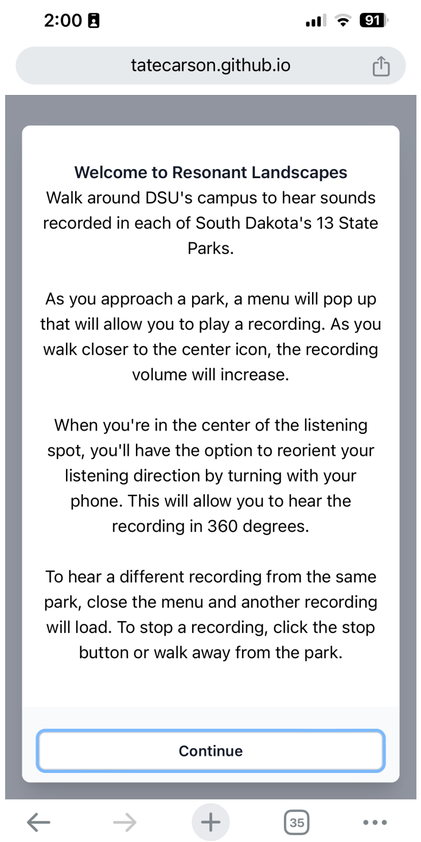
4 Technical Details

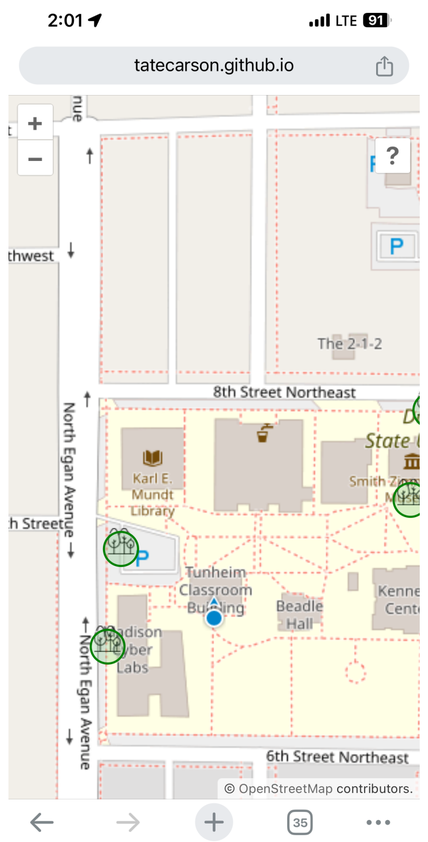
- Core Audio OctoMic
- Web tech: React, Tailwind CSS, Resonance Audio SDK
- Smartphone sensors: GPS, gyroscope, accelerometer

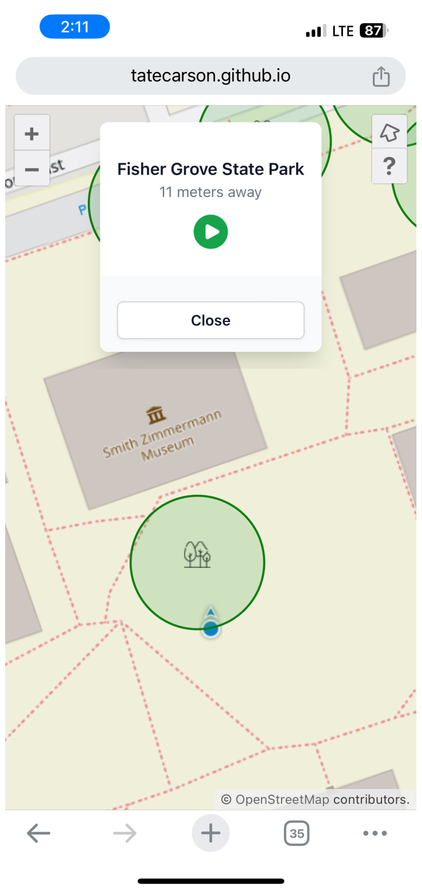
5 Future Work

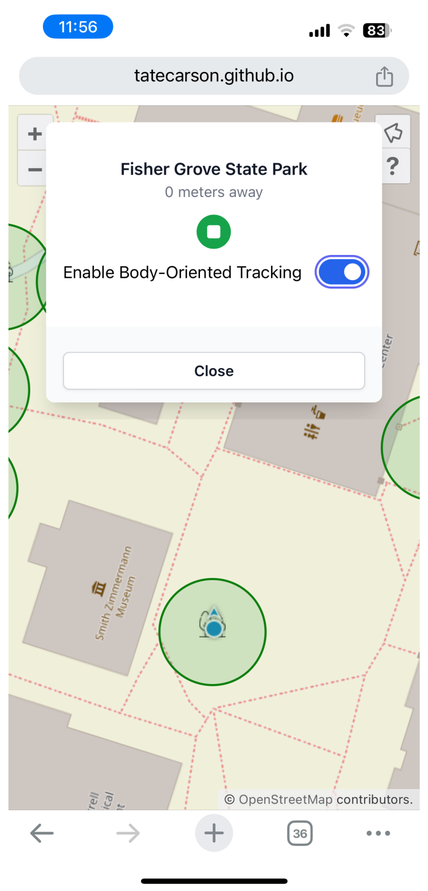
- Enhance user experience through iterative design
- Expand soundscape database for diverse ecosystems
- Longer audio playback

App Screenshots









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