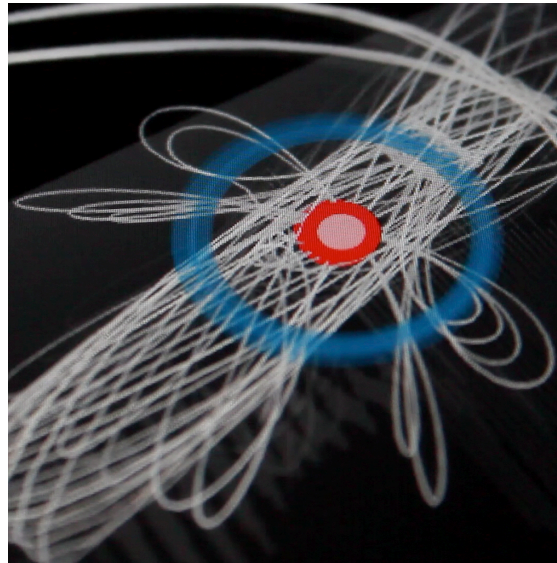
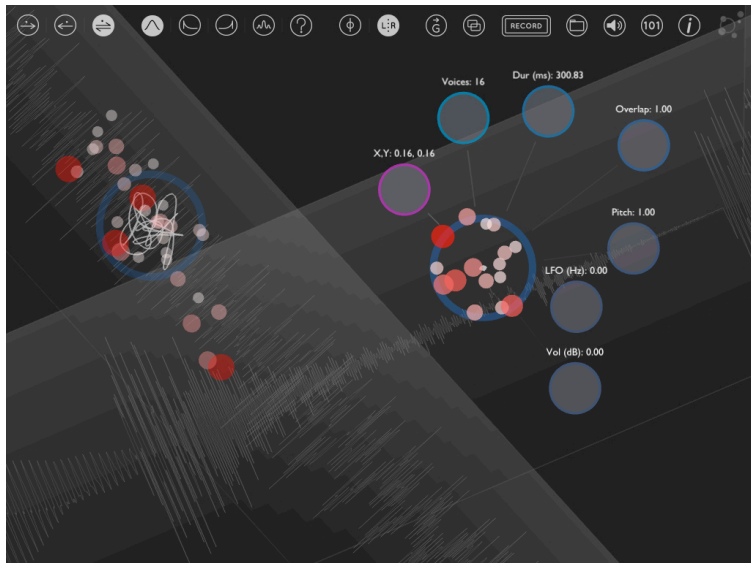


# Borderlands Granular - concept and execution images

Individual image files are available in the images.zip upload. This PDF is intended to provide some context for the provided images.

Borderlands Granular is a new musical instrument that allows users to explore, touch, and transform sound with granular synthesis, a technique that involves the superposition of small fragments of sound, or grains, to create complex, evolving timbres and textures. The software enables flexible, realtime improvisation and is designed to allow users to engage with sonic material on a fundamental level, breaking free of traditional paradigms for interaction with granular synthesis. The user is envisioned as an organizer of sound, simultaneously assuming the roles of curator, performer, and listener. The user interface emphasizes gestural interaction and visual feedback over knobs and sliders. Users create, drag, and throw pulsing collections of grains over a landscape of audio files, dynamically and polyphonically sampling the waveforms beneath their fingertips. Performers may also use the iPad's built-in accelerometer to sculpt sound with gravity and may record, save, and share their work via SoundCloud.

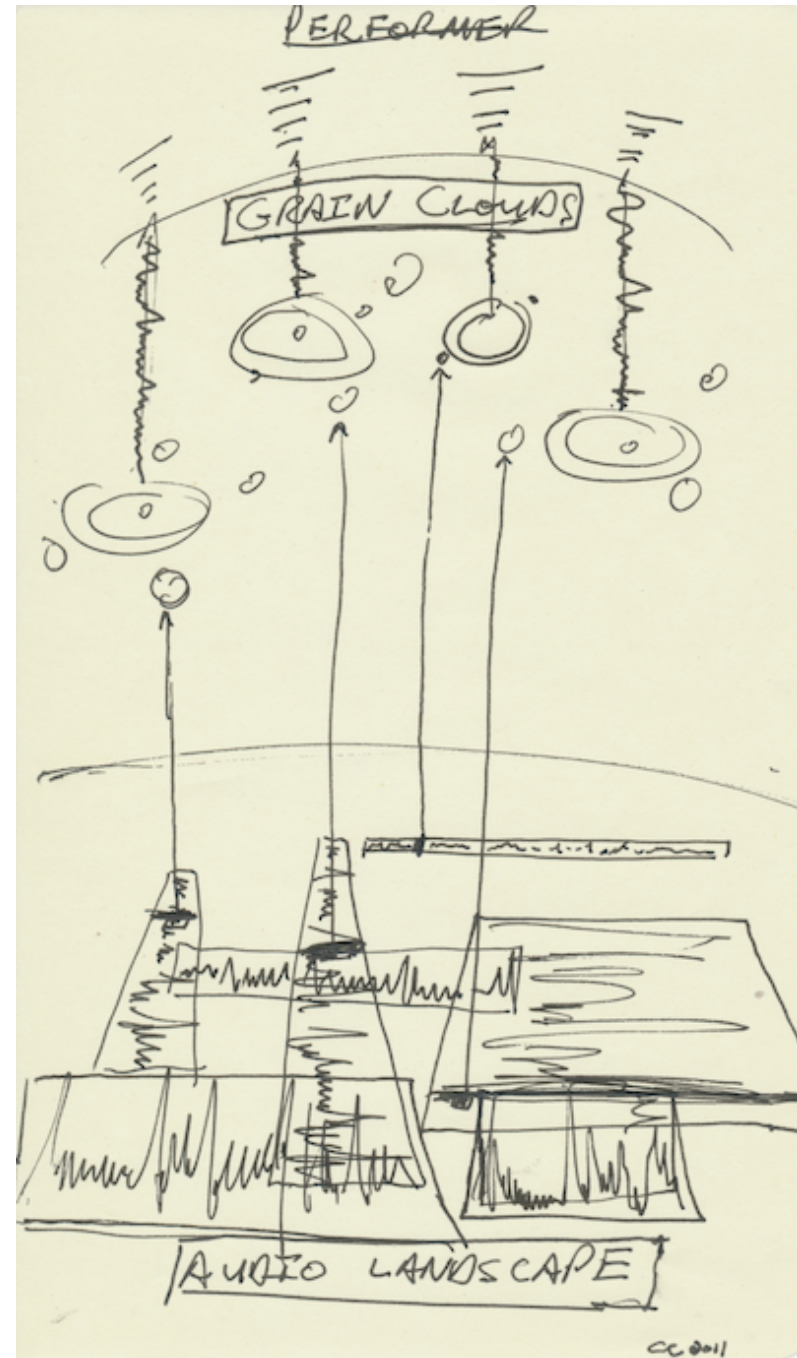


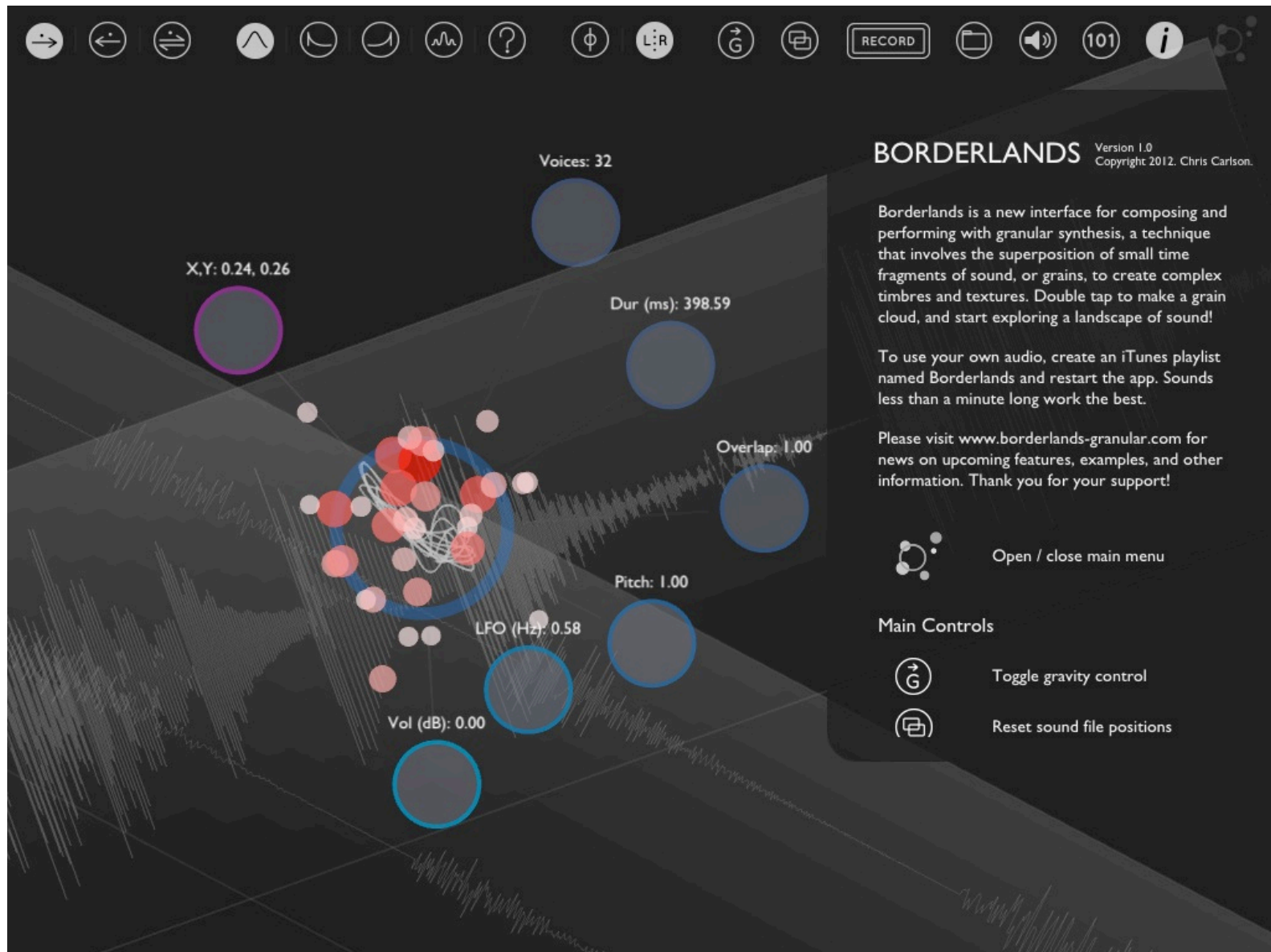
# Borderlands Granular

Early concept sketch of the iPad application

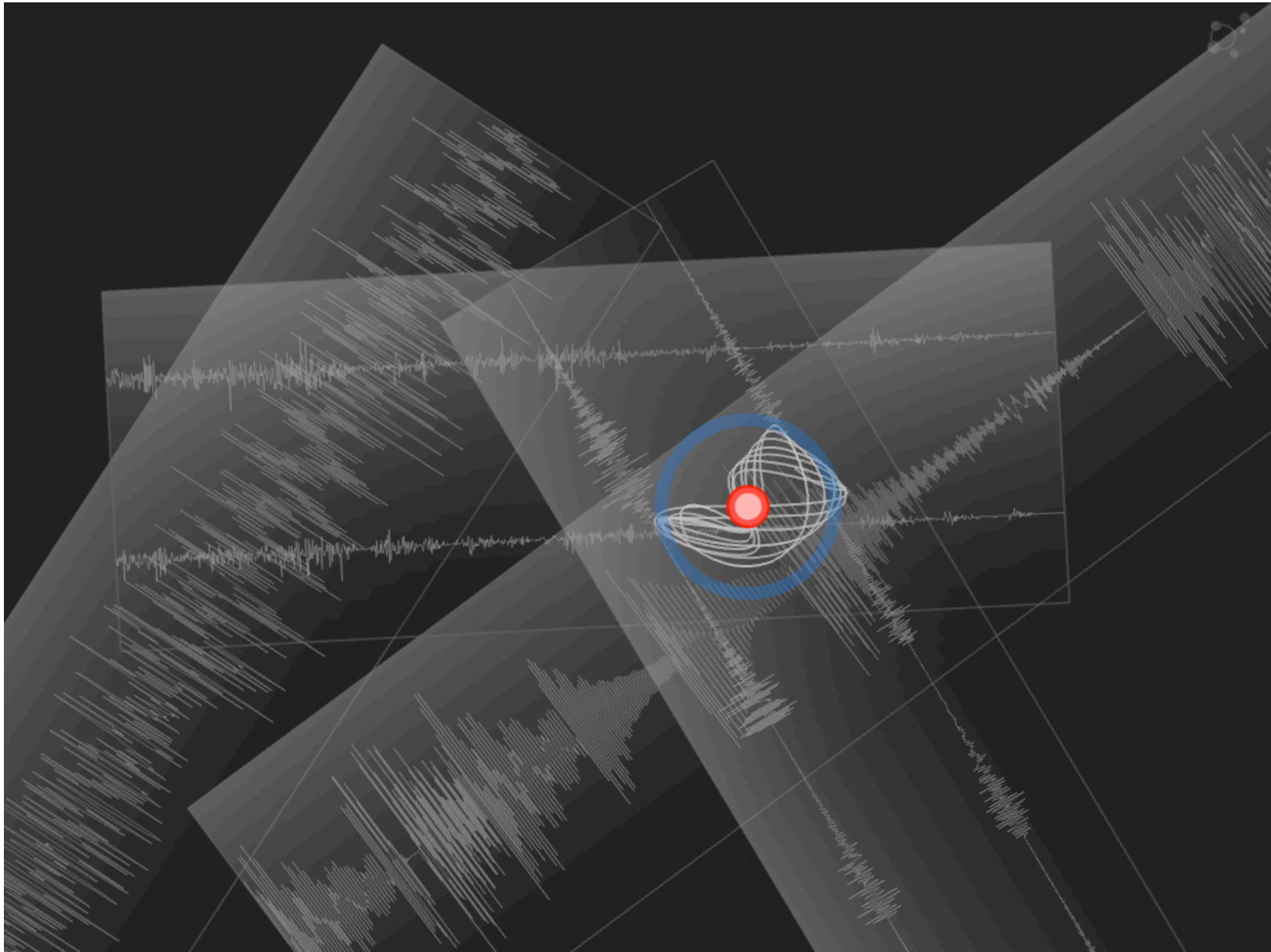
“Grain clouds” extract sounds from a dense audio landscape using granular synthesis

Performer sculpts sonic output by manipulating the grain clouds and audio landscape directly

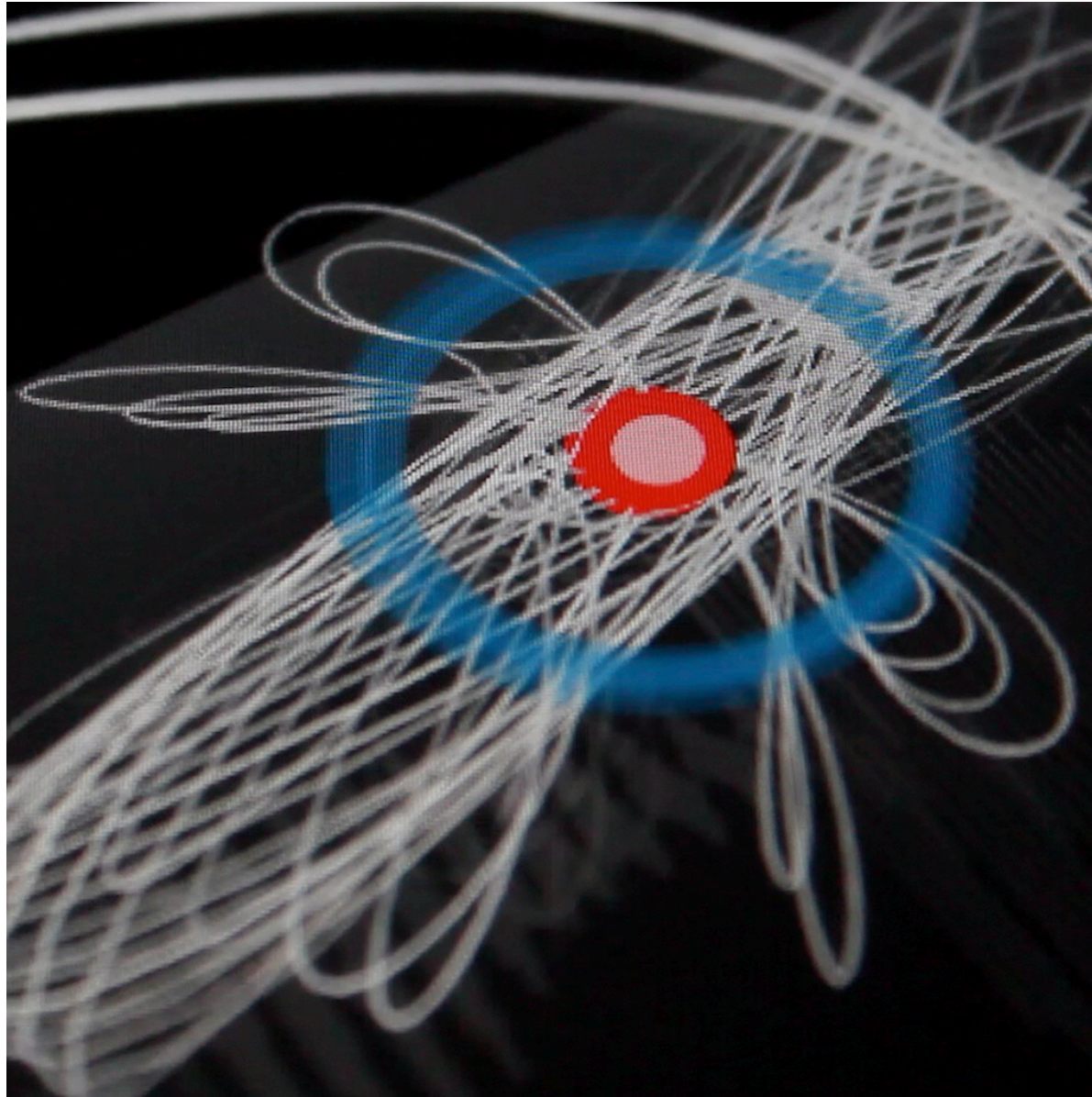




Screenshot of the iPad app. A single grain cloud samples two audio files. Customizable sonic parameters extend radially outward from the cloud. Please check out this video for a detailed demo: <https://vimeo.com/49586854>



Screenshot of the iPad app. Lissajous plots provide visual feedback for the sound being produced by each grain cloud.



Promotional photo of multiple overlapping grain clouds