Biological structure/natural architectures

- If there is a clear relationship with man made architecture there must be one with natural/biological

- [Biomorphic Structures](#)

- Natural Architectures

Voltages in Nature

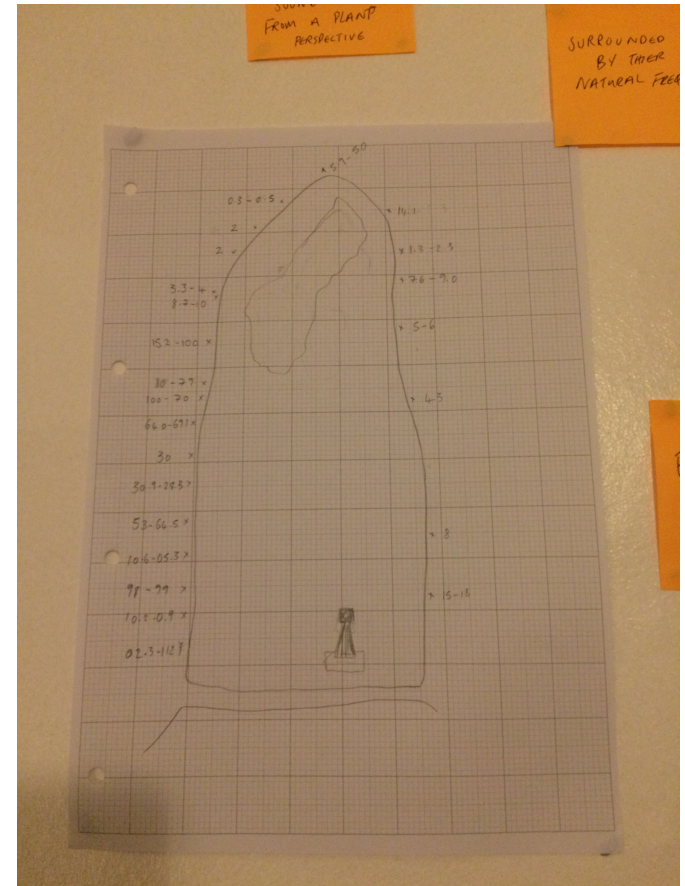How and what are artists/scientists musicians doing with this data?
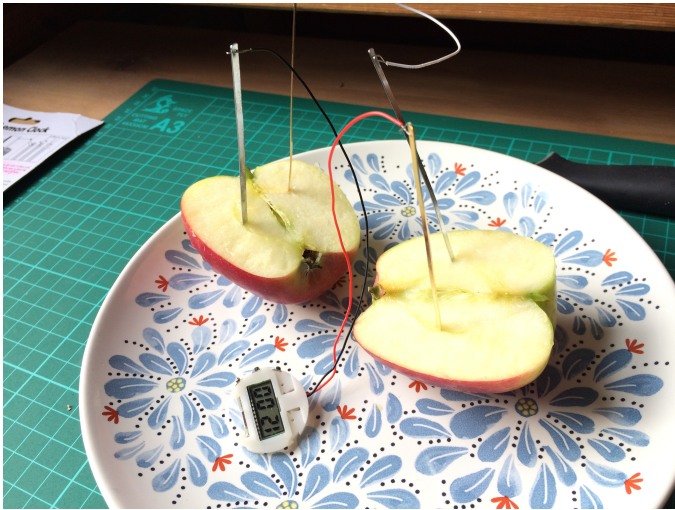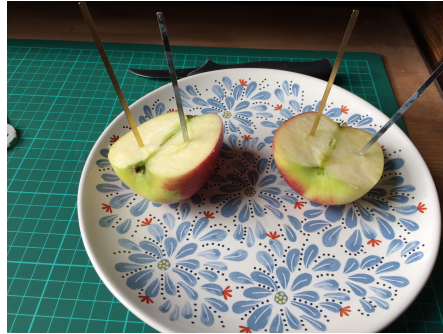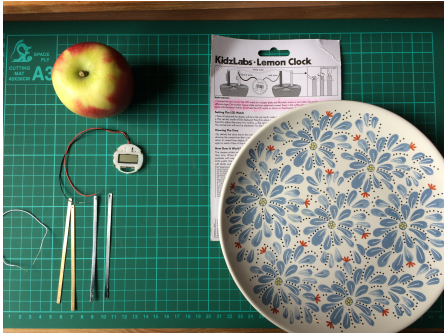
MIDI Spout
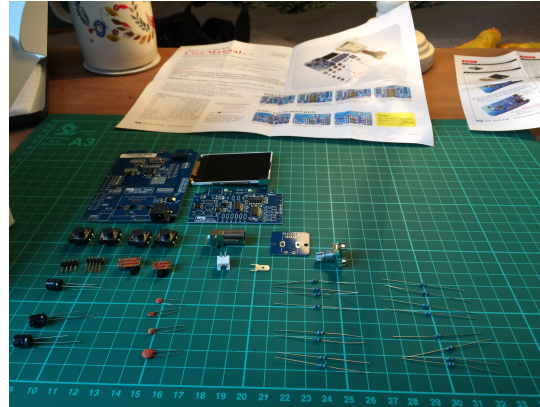Interactive installations
[Community projects](#)
Sound Walks

Multimeter + Roath Lake meter readings

Made a Lemon (apple) Clock

Built an oscilloscope
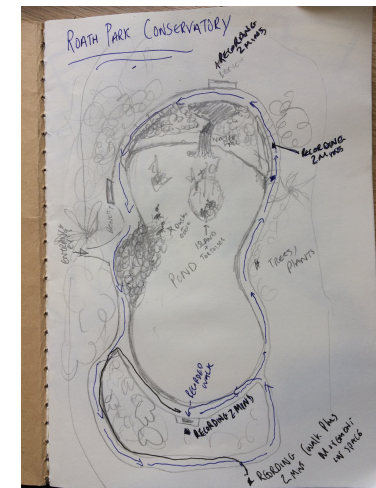
Frequency or Voltage?

Working in TC202

Loading up Symphonic Ecology Project Sound
Using LaunchPad
Mixing previous project sounds – Biophony, BlurBeach, Noctilucence of Festival

Ambisonic recording using Ambeo microphones
-Roath Park Conservatory

Roath Park Conservatory Field Recordings
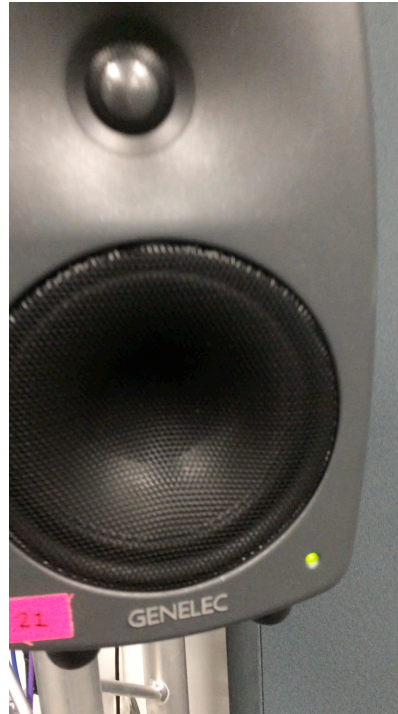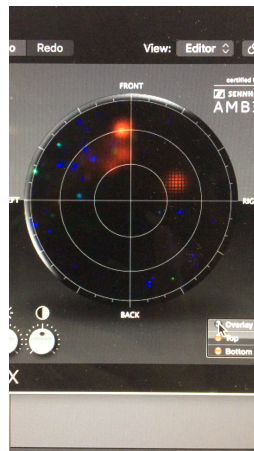
Logic

Pros
Easy to use/set up
Visual in how you can space sounds
Harpex Plugin - easy to input ambisonic sounds
Compose Soundscapes
Easy automation

Cons
No live aspect
Not full surround

Interesting visual element
of the plugin

Ableton

Pros
Connect to launchpad – trigger sounds
Max for Live
Full surround sound

Cons
A litte bit more difficult to use than logic

Using Ableton Push

BioSymphony

1. Is it site specific

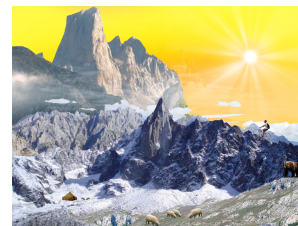Looking at the space from a plant point of view – what does it hear/respond to and how does it respond. Talk?

A mixture of sounds:

- Recordings of the space
- Recordings of the plant
- Computer/ambient/minimal/computer generated

2. Imaginary Soundscapes (sonic explorer?)

ROATH PARK CONSERVATORY

RECORDING 2 MINS

WATER FALL

RECORDING 2 M MINS

ROUND GATE

ISLAND + TORTOISES

POND

TREES/ PLANTS

ENTRANCE

BENCH

RECORDED WALK

RECORDING 2 MINS

RECORDING (walk thru) 2 MINS

MOVEMENT IN SPACE

SOUND FROM A PLANT PERSPECTIVE

SURROUNDED BY THEIR NATURAL FEED
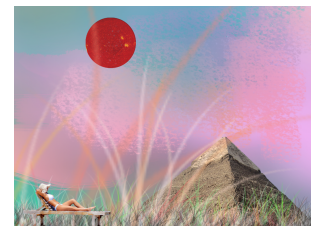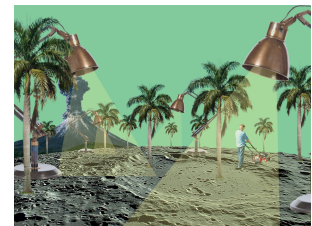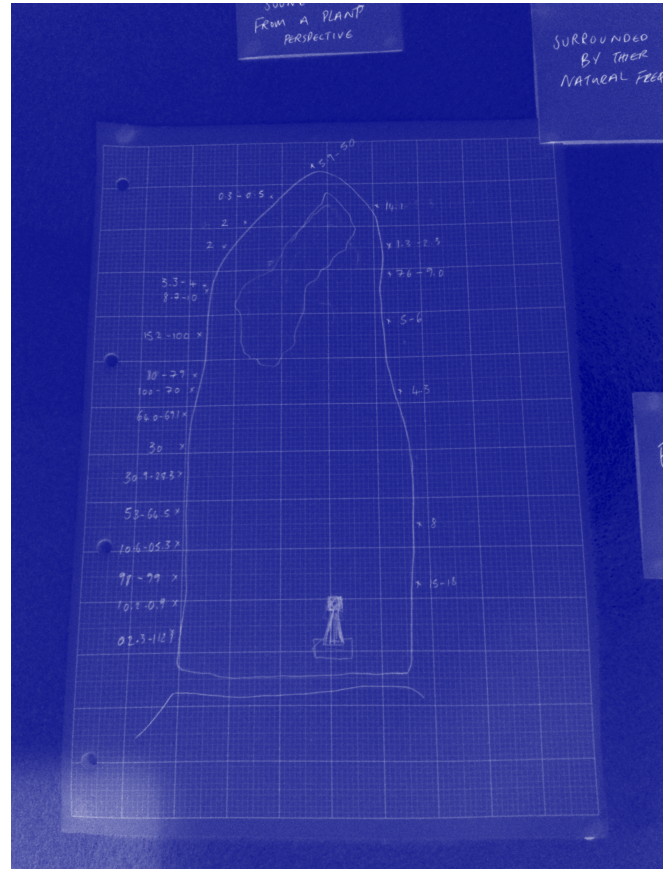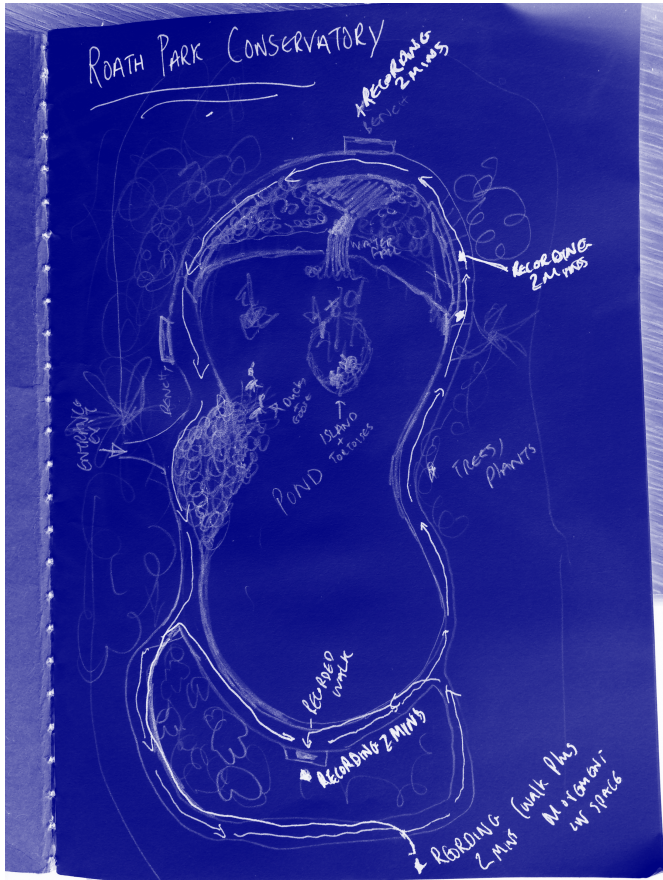
Sounds and Vibrations from Plants and Trees

Acoustic sensors measuring hydraulic emissions from plant leaves in a Duke University laboratory.

Credit: Dan Johnson, Duke University

Realised I'm actually just really interested in what plants produce at the moment

What can I do with this?

Final Submission Pitch

What do I like?

Field recording
Ambisonics & Binaural
Plants/Trees
Ableton
Using the launchpad
Using TC202

1. <u>Music controlled by actual biological processes of the plant</u>: this configuration would rely on the extra sensitive/likely expensive acoustic sensors to detect the hydraulic emissions of the plant matter. – this method is more expensive

2. <u>Music controlled using a plant as a vibrational medium</u>: More of a conceptual direction and would be easier/cheaper to achieve but wouldn't be 'true plant music'. Installation plant project powered via plants.

Conceptual ideas and things that are important to me

Environmental issues need to be addressed:

- Feel it should be in a subtle way
- My way of doing this is with the sonogram

How will it be subtle?

The sonogram will overdub itself slowly and in a subtle way. The vibrations and sounds are always around us whether we can see or hear them. Environmental problems have built up overtime and we can learn a lot from our surroundings. Our environments can be subtle in how they move and respond around us. It seems to me that the problems are only taken seriously when they become visually noticeable

To begin with the installation will likely be 'boring' in the sense of it may seem that nothing is happening but then there will come a time/stage in the installation where the sounds and imagery will have built up - to an extent of being noticed just like out climate/environment.

The idea within this installation is to allow the audience to have thinking time and to reflect on the subtle changes in the room – either through sound or through the visuals.

This would work well in a site specific place such as Roath Park Conservatory as the plants and trees are responding to each other with its surroundings – such as the birds, the waterfall, condensation, humidity, public interaction, it has it own ecology and cycle- one that cannot be reproduced in a clinical environment – in this case TC202.
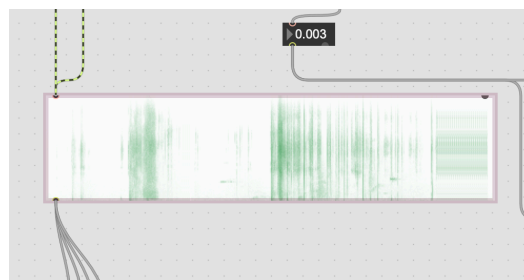
How To Reach My End Goal

- Using piezo pickups on leaves
- processing their signals via audio patches within Max MSP
- Process this signal to create tones (audio)
- Use TC202
- In Max there is a sonogram object –looking into over dubbing the sonogram
- Converting the signals from plants into MIDI to use for lightThink about what plants I will use and why
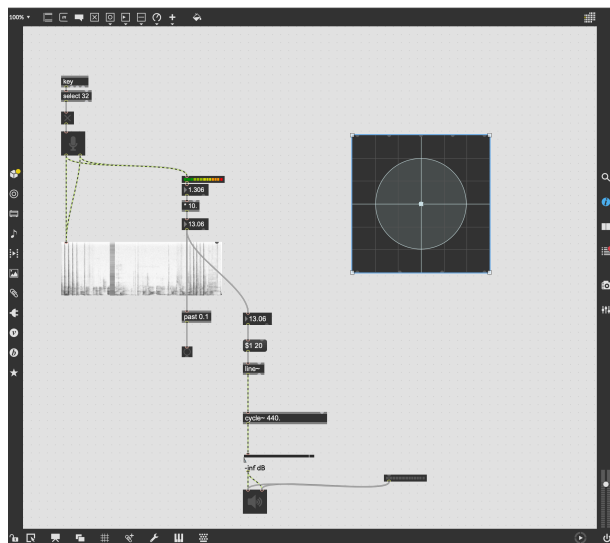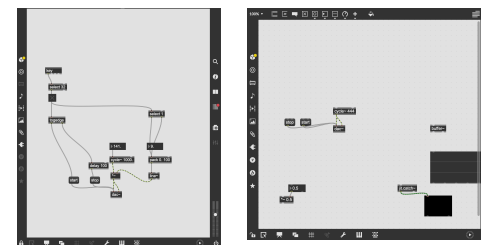
As a visual thinker - and how I see audiences responding to sound installation work - I think it is important that there is a visual output. For example:

A Sonogram

Sonogram object in Max MSP