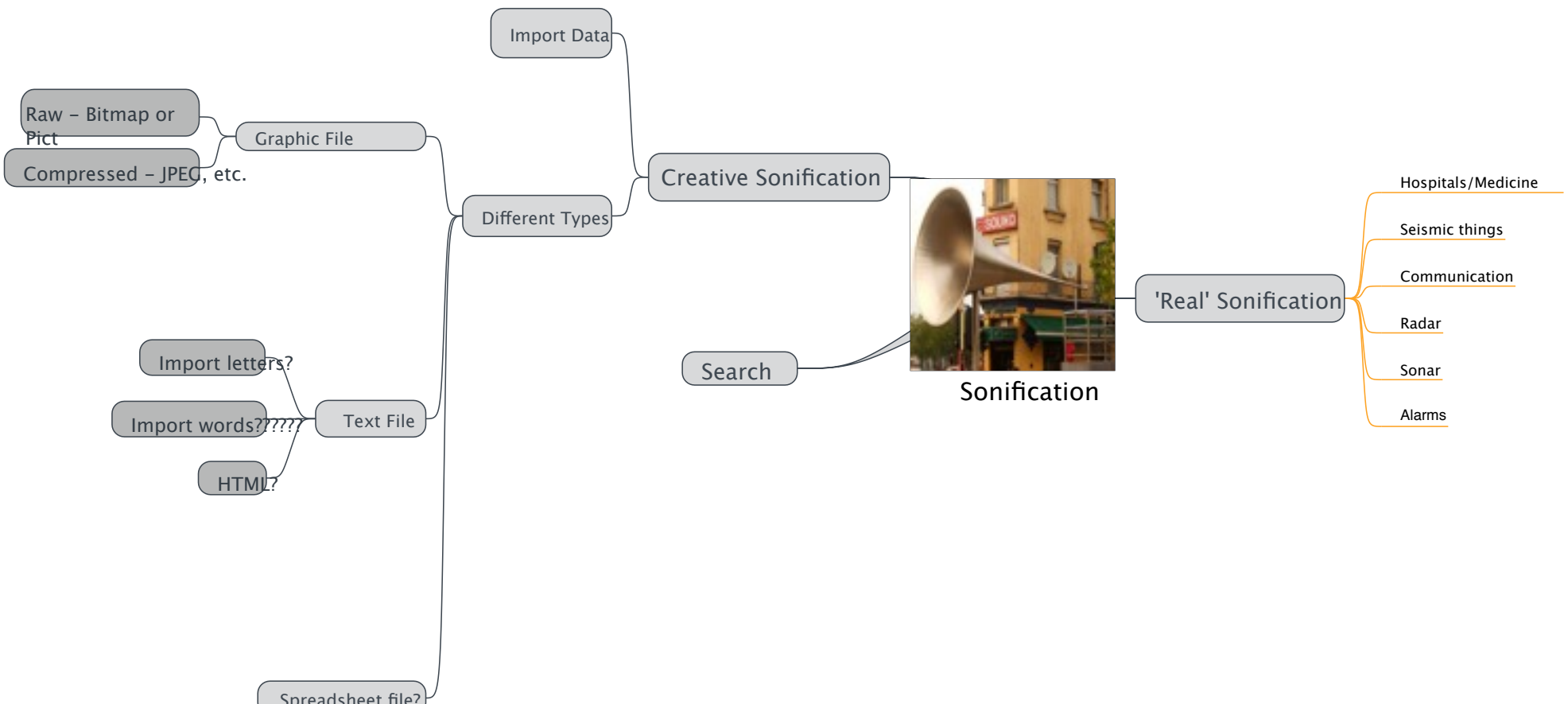
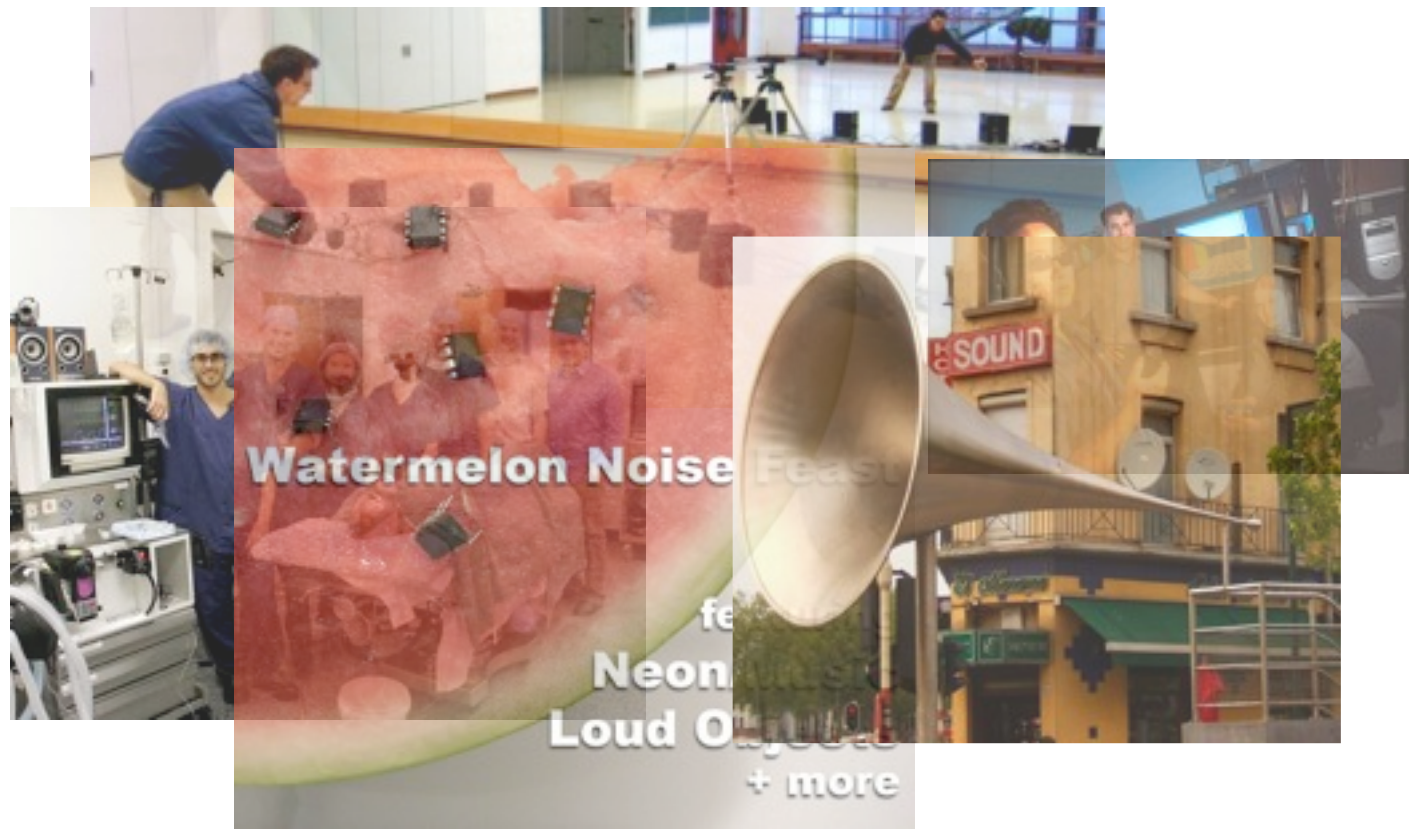
Sonification

Introduction



Richard Hoadley
2007–9
v0.4

Introduction



Examples

- Hospitals/Medicine
- Seismic things (earthquakes, etc.)
- Communication
- Radar/Sonar
- Alarms

Metaphor

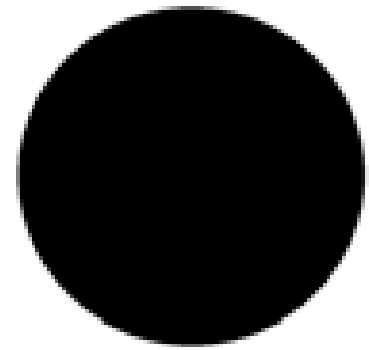
1. A figure of speech in which a name or descriptive word or phrase is transferred to an object or action different from, but analogous to, that to which it is literally applicable; an instance of this, a metaphorical expression. Cf. METONYMY *n.*, SIMILE *n.*

Dirk Gently's Holistic Detective Agency BBC Radio 4 7th November 2007

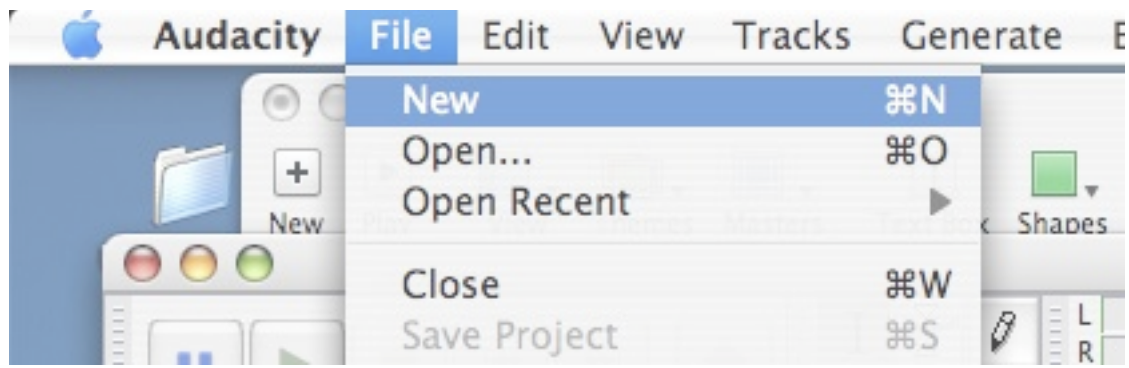
- How **convincing** is this? What do you think about it? What is the **motivation** behind the **desire** for this process? Why is it the desire for **sonification**, and not **visualistion**?

Black **Circle**

Black Circle - use any drawing software to do this, but it must be able to save the drawing in bitmap structures (not compressed), such as **pict**, or **bmp**. The form does **not** have to be startlingly accurate!



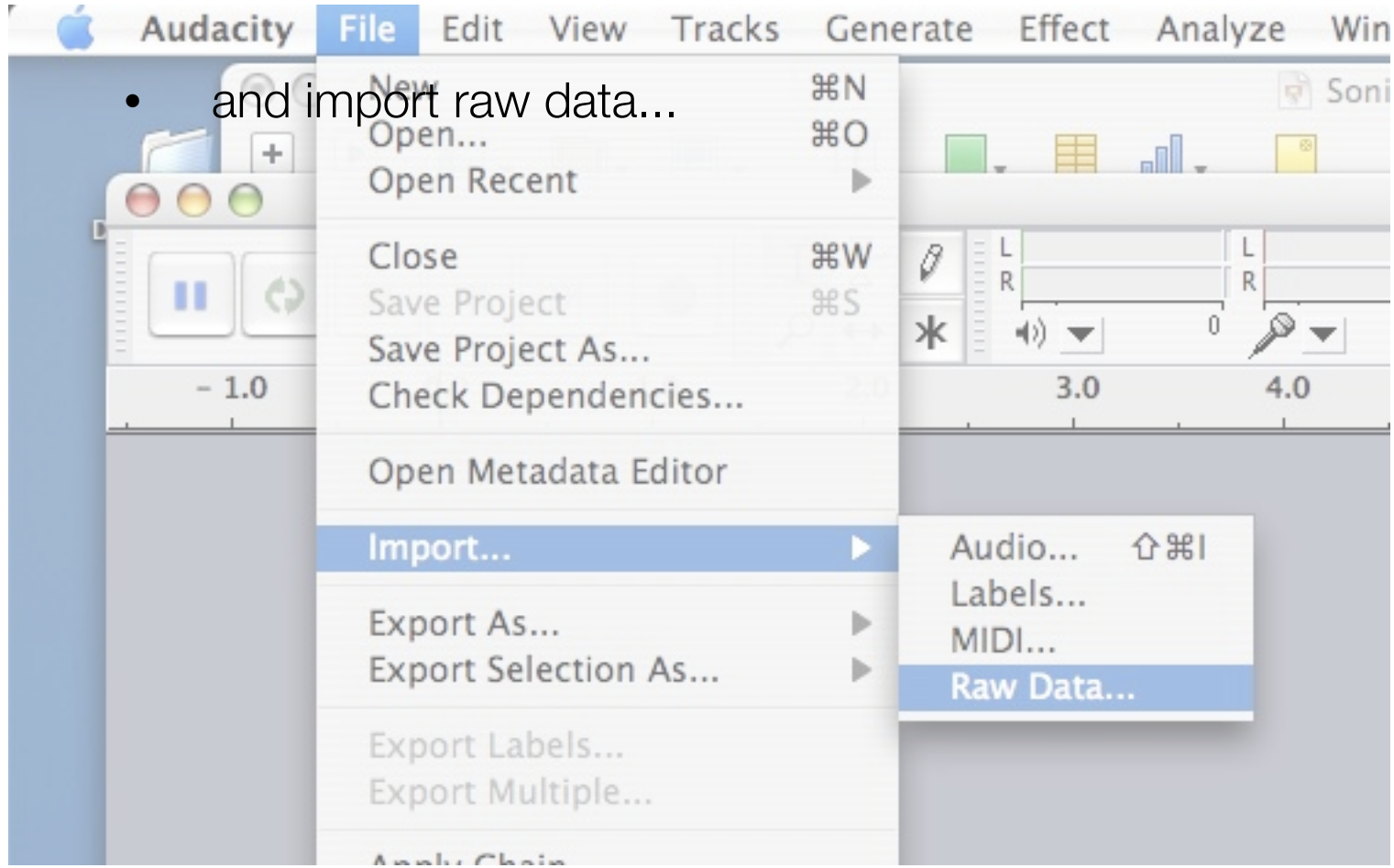
- Now open **Audacity**, or some other audio utility. Try a few if you like. I'm here using **Audacity 1.3.8**. You need the programme to be 'willing' to attempt to open any raw data.



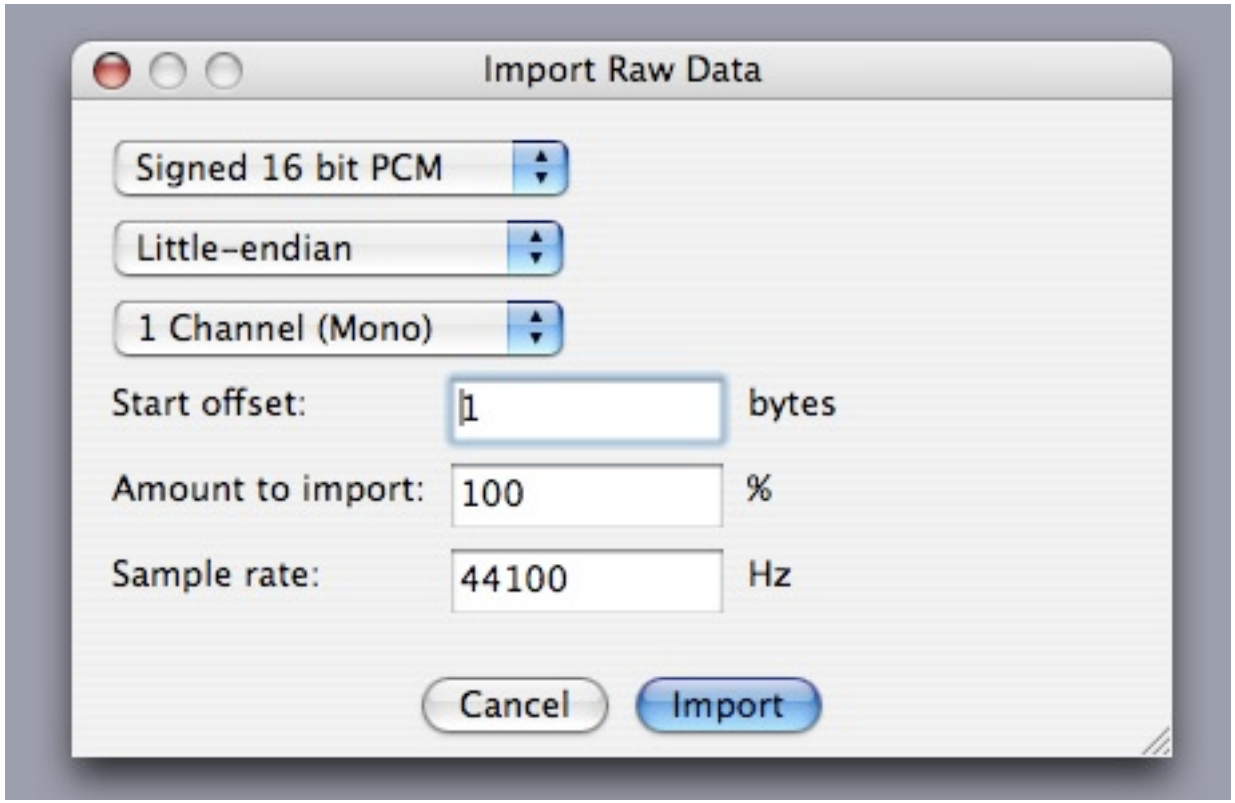
- Audacity should open a new project for you automatically, otherwise choose **File/New.**

Black **Circle**

- and import raw data...

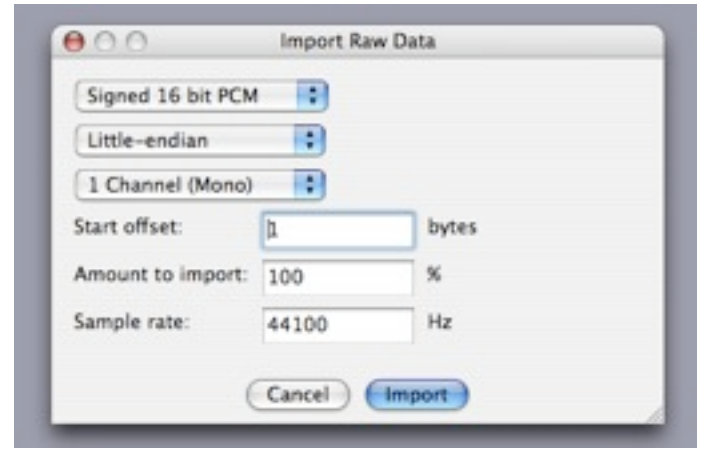


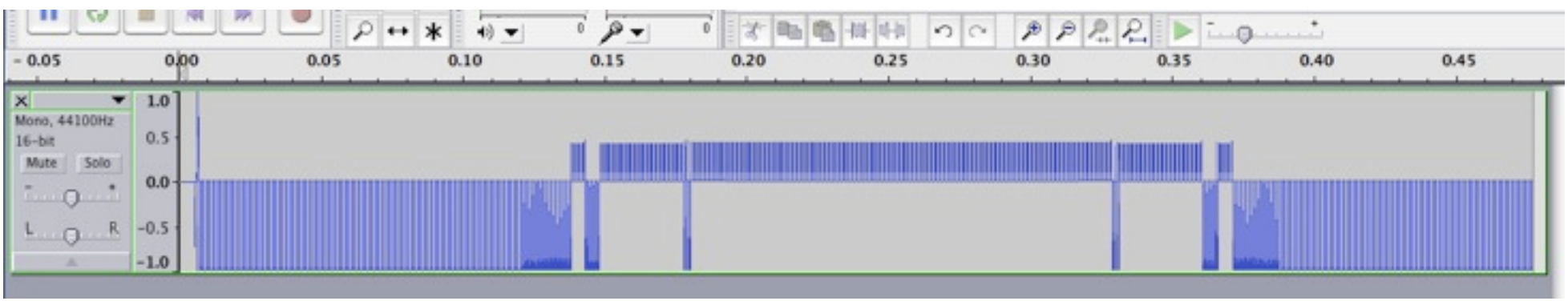
- There are some settings to choose



Examples

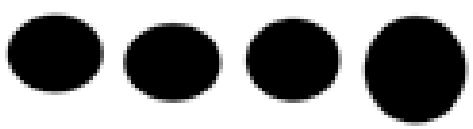
- This is ‘Black Circle.pict’ imported as:

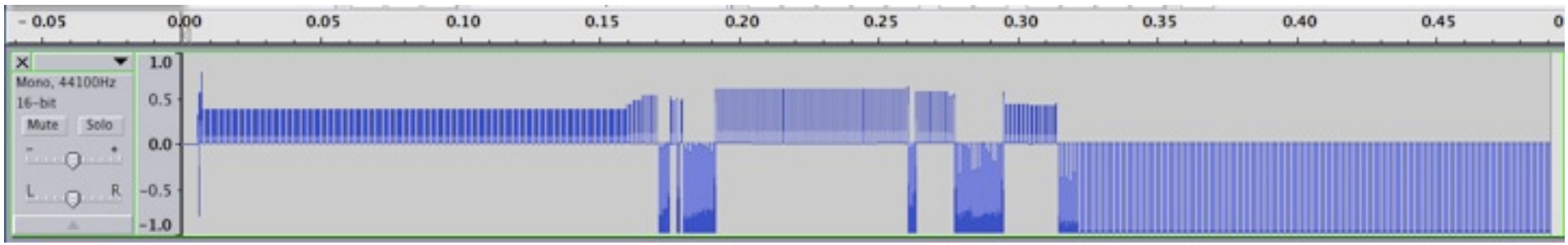




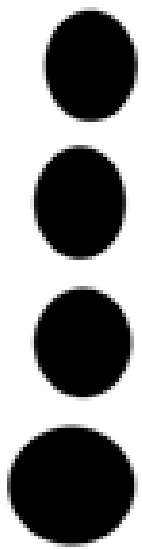
Examples

- Here's the same, but importing 'Black Circles Pict':



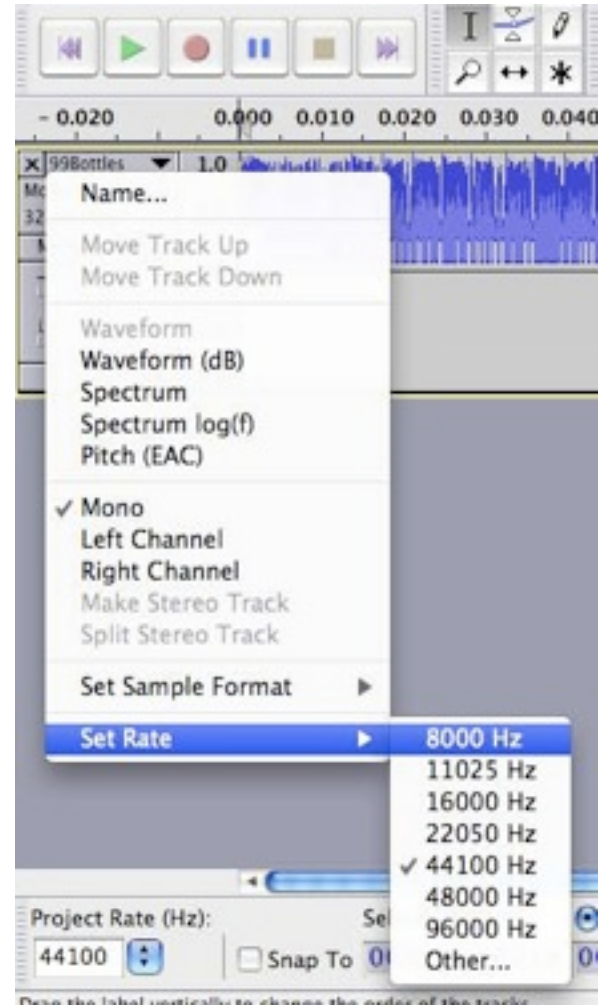


- Now try vertically...



Other Things to try

- Altering the sampling rate: in audacity, alter the sample rate and then export the result as a standard wav or aiff file. Then you can repeat the process. See what you can 'find' in the sounds.



Other **things** to try

- Import Data
- Different Types:
  - **Graphic File**
    - Raw - Bitmap or Pict
    - Compressed - JPEG, etc.
  - **Movie File** - try different formats
  - **Text File**
    - Import letters?
    - Import words??????
    - HTML?
  - **Spreadsheet file**?
  - **Presentation**?

Other Things to try

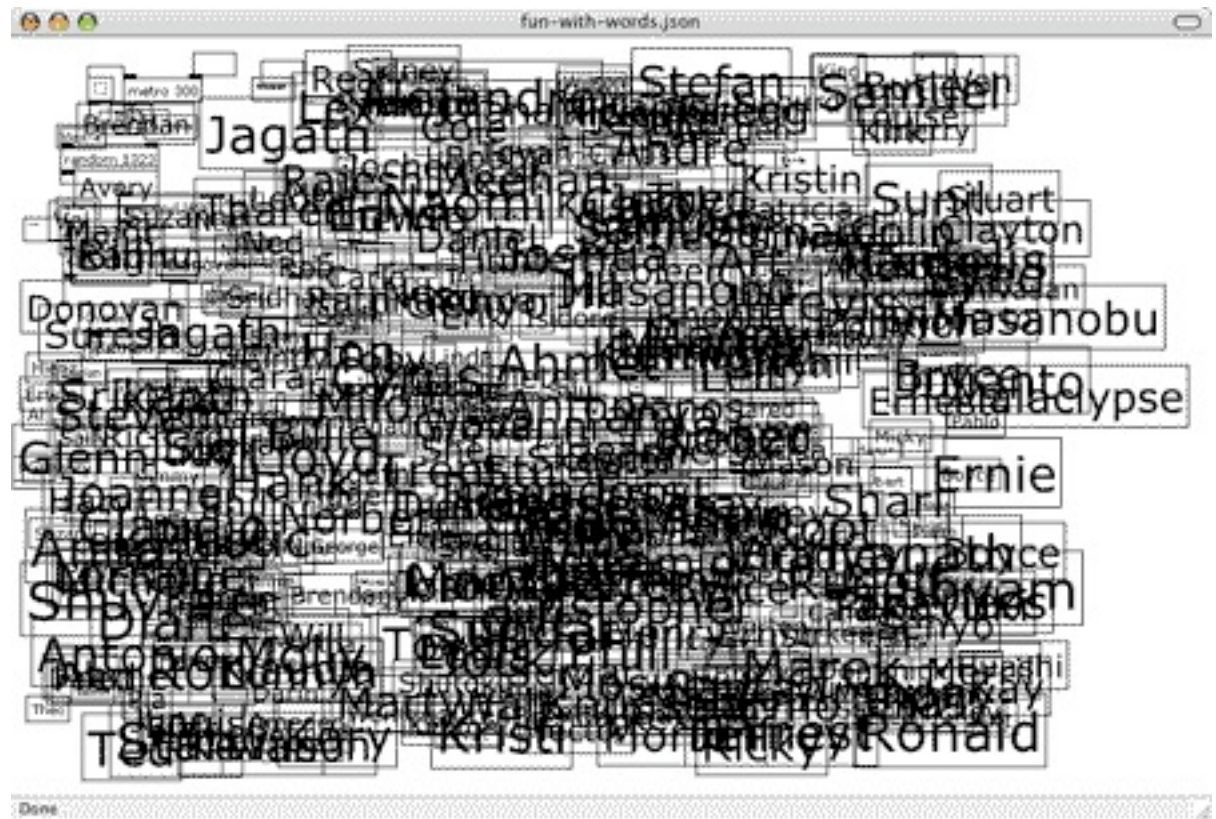
- See student examples

Text

- Anton's piece where he 'transposed' all the letters in a poem/passage into 'attractive' notes.
- Also piece where a performer 'subjectively' interprets the rhythms of speech in a poem into an actual percussive rhythm which is then used as the basis for (or a part of) an improvisation/something else.

Web

- Lily
  - **http://www.lilyapp.org/**



Examples

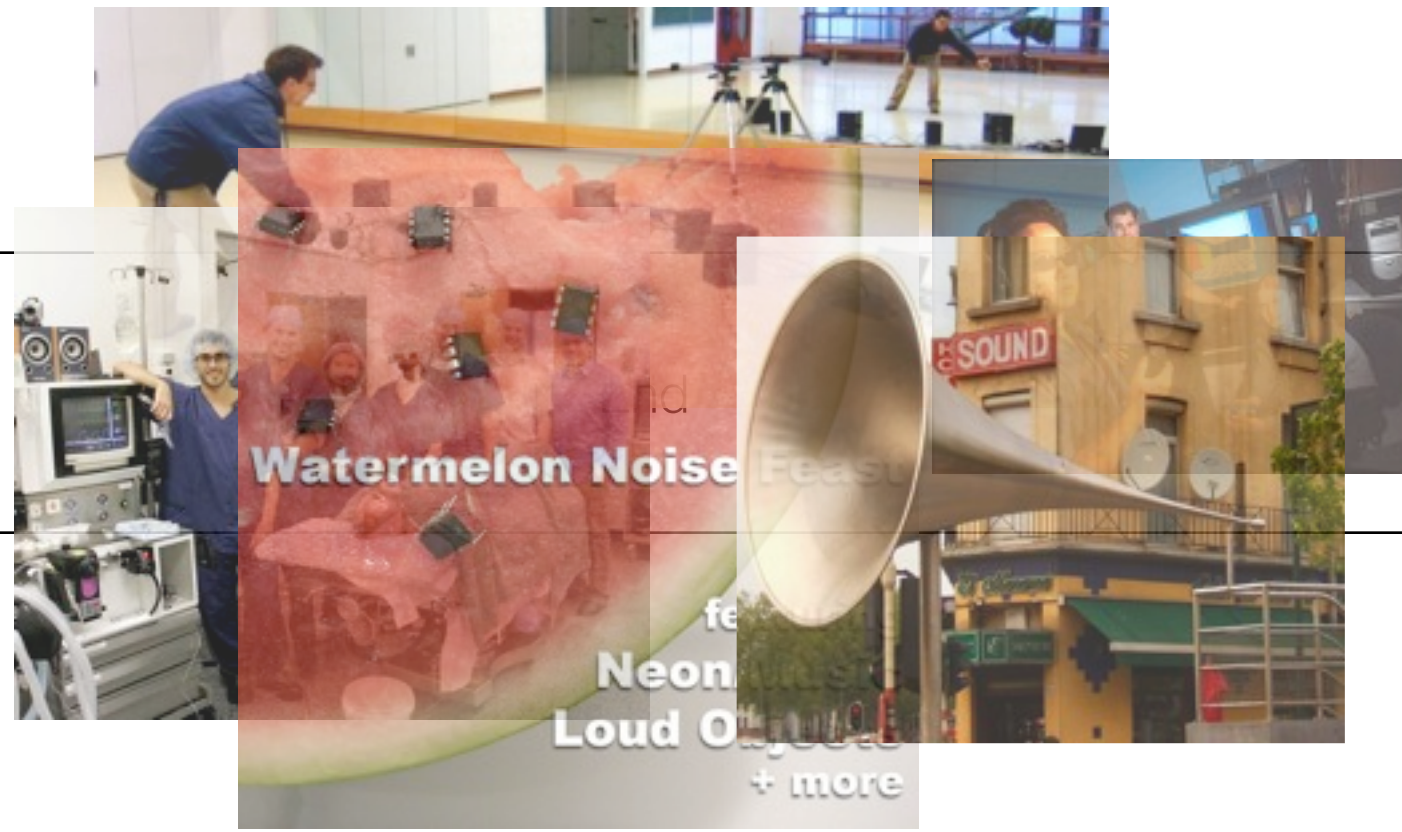
- Read Chapter 28 of Cottle: Music Driven by Extra-Musical Criteria, Data Files
- Try out these examples

Floodtide (2008)

Sonification of the Thames, by John Eacott

Sonification

Other Presentations

ACMP
Algorithms and Generative Music
Bioacoustics
Chance
CMP
Early Learning
Graphic Abstraction
Installation Art
Interface Design
Judge Proulx's Ruling
Live
Make Your Own
Metaform and Metaforming
Notation as Art
Painting Music
pTech
Sonic Art
Sonic Art Examples
Sonification
sTech
Synaesthesia

Sonification