

## Composition: Electronic Media I

Fall 2012

### Assignment 1

Due Sept. 17

1. Assignment 1 will be presented in class on Sept. 17.
2. Record one or several sound sources, considering the following:
  - a. Whether or not the sound source has conceptual or philosophical meaning for the final composition.
  - b. If the sound source does have meaning in the work, how will the source be revealed in the work?
  - c. Musical instruments and voices have excellent possibilities for transformation and manipulation.
  - d. Non-musical sources include: paper, books, wood, glass, water, ice cubes, metal, rubber, plastic, engines.
  - e. Consider that some sounds do not seem promising initially, but if transformed in the following ways, can become very musical:
    - i. Small pitch shifts can create melodic lines even out of non-pitched material.
    - ii. Extreme pitch shifts can bring out or suppress different sonic characteristics.
    - iii. Time expansion can make a short, uninteresting sound more interesting.
    - iv. In using time-stretching, it is not necessary (and often very cliched) to play the entire 20" second.
    - v. Time-stretching allows you to go into the attack and soundmine different parts.
    - vi. Some sounds are uninteresting in themselves, but are effective in a sound-mass.
    - vii. Some sounds may sound best as dominant within a sound-object, while others are most effective as non-dominant, shading sounds.
  - f. Musical instruments can be played in non-traditional ways, something a performer can demonstrate.
  - g. Consider using sounds that are very soft, like rubbing, scraping, whispering, etc. These should be recorded as hot as possible. Note that a very sound soft recorded at a normal level will usually require to be boosted through normalization or gain change. Normalizing a low-level sound means increasing the volume of the source, but also of the ambient noise.
3. Consider using pre-recorded sounds from the following sources:
  - a. The University of Iowa Musical Instrument Samples database, on our website at [www.theremin.music.uiowa.edu](http://www.theremin.music.uiowa.edu), has recordings of 22 orchestral instruments playing note-by-note at three dynamic levels. These were recorded in an anechoic chamber.
  - b. Recordings of your own, or other people's music. This is a tricky area, as will be discussed in class.
  - c. Dialog and sounds from movies or TV is another tricky area.
  - d. Sound effects and sound libraries from the Internet are also tricky.
  - e. Of these options, item 3a, above, is generally the most viable.
4. Prepare your recordings for sound-mining as follows:
  - a. Clean up the recordings by normalizing not just the entire soundfile, but segments as well.
  - b. Remove excessive silence.
  - c. Consider breaking a longer file into smaller files, possibly as short as 1 minute or 30 seconds.
5. Consider doing some experiments, as follows:
  - a. Extreme pitch-shifts and time-expansion can show how a bland sound can take on a completely different character.
  - b. Copy and paste some attacks into a new Peak file and experiment with speed and rhythm.
6. Listen to the recordings and identify how many types of sounds there are. Each type can be said to be a sound-class. Here are some examples:
  - a. Sounds with soft attacks, sounds with sharp attacks.
  - b. Pitched sounds, unpitched sounds.
  - c. Heavy vibrato, normal vibrato, non-vibrato.
  - d. Car crash sounds, pillow fight sounds.
  - e. Low pitched sounds, high pitched sounds.
  - f. First actor's voice, second actor's voice.
  - g. Sounds recorded on Monday, sounds recorded on Tuesday.

7. Sound-mine the recordings as follows:
  - a. Assign a capital letter A, B, C,.. to each sound-class.
  - b. Assign a lower case letter a, b, c,... to each instance of a sound-class.
  - c. Open the recording in Peak, find the first instance of a sound-class in the recording, copy, and paste into a new Peak file named Aa.
  - d. Find the next instances of the same sound-class and paste into a new Peak file named Ab.
  - e. Repeat Step 7d to create new soundfiles named Ac, Ad, Ae,...
  - f. In either the same recordings or a different one, find the first instance of a new sound-class and paste it into a new Peak file as Ba.
  - h. Keep going to Bb, Bc, ...
  - i. Find additional sound-classes Ca, Cb, Cc,..., Da,Db, Dc,...
  - j. You should have between 5-10 sound-classes and 3-15 instances of each.
8. Clean up either as you go along, or after all of the new Peak files have been created, as follows:
  - a. Normalize to 98% or so.
  - b. Fade in and out.
  - c. Cut out anything you like, then repeat Steps 8b-8b if needed.
  - d. Cut out silence, especially at the beginning, as discussed in class.
  - e. Experiment with fades in and out, as discussed in class.
9. Put everything into a clearly labeled folder and make a copy or two and store off-site.