MUSI 3070/4070: **Electro-Acoustic Orchestra**

Project 3: Genetic Orchestra (prelude)

Due in 6 parts, from
October 6^{th at} to October 19th, always at 11:59pm

Worth 9% of Total Course Grade

This project is the prelude of a set of pieces that I refer to as Genetic Orchestras. The core idea is that we will evolve a set of sonic objects from a population of sounds (noise?) that are defined by all members of the group. This activity is a combination of Cageian chance and Xenakis' stochastic processes with evolutionary theory. If EAO when improvising is an evolving organism of sonic shapes, then this is it's data-space double. Which (anonymous) compositional voices will persist? How will different threads be picked up, transform and evolve over the three generations? Will individual identities remain or a collective identity surface?

Instructions:

Part 1: Rating GEN0 (1% of grade), Due Thursday October 6th at 11:59pm

1) Please download the folder EAO-GEN0 from the class page.

2) Listen to all of the included short files, and rate them on a scale of 0-9, 0 being worst and 9 being best. You can use a metric of subjective preference, how interesting the sound is to use as a potential compositional element, etc.

3) Enter your ratings on the given template so that you enter ONLY the number 0-9 immediately after the underscore.

Important: do not add any additional formatting, spaces, characters or line breaks no matter what (even if they appear as one single line).

4) Save the ratings template as yourname-ratings0.txt and email it to me. Mac users please use text edit and save as plain text rather than rich text, and Windows users please use the most basic text editor that you have available.

Part 2: Crossover/Mutation 1 (2% of grade),
Due Sunday October 9th at 11:59pm

1) Please select two sound files from the list of "chosen ones" sent to you in email after ratings0 is complete, and "cross-breed" these files as shown in class:

      i. Load the two files into a digital audio workstation (DAW) of your choice (basic suggestion for those with no experience: Audacity).
      ii. Choose a point in each file and "split" the audio into two sections. This is a compositional decision.
      iii. You therefore have four sections. Apply any sort of transformation or effect to *one* of the four sections you have created. This is the "mutation" step, and is a compositional decision.
      iv. Take one of the two sections from one file, and concatenate it with one section from the other file.
      v. This leaves you with two unused section - concatenate these as well. Make sure there are no gaps in between either of the two joins between audio sections.
      vi. You now have two new and unique audio files, created by crossing-breeding the two files you have chosen, and mutating part of one.
      vii. Finally, export these two files separately as .wav files. Make sure you do no export both at the same time so that they are mixed into one file (i.e. if they vertically aligned in different tracks of the DAW). For example, in Audacity you could mute one file at a time while exporting the other. If possible, please save these as 44.1khz sampling rate, 24 bit resolution mono wav files.

2) Please name the files as follows:
1XX1.wav
1XX2.wav
where XX is your 2- digit secret ID number, which you will have been emailed.

3) Repeat this process again, choosing two more files from the chosen ones. You will thus have created four new files in total. Name this second batch as:
1X03.wav
1X04.wav

4) Please note the above sounds more complex than it actually is - it's one of those things you have to do once in order to fully understand. See the website where I will post the slides with visual info.

5) Gather these four files into a folder (compress into a .zip if possible) and send to me via your preferred method of file sharing.

Part 3: Rating GEN1 (1% of grade), Due Tuesday October 11th at 11:59pm

1) Please download the folder EAO-GEN1 from the class page.
2) Repeat part 1, but with these new files. Save file as yourname-ratings1.txt and email it to me.

Part 4: Crossover/Mutation 2 (2% of grade), Due Friday October 14th at 11:59pm

1) Repeat part 2, but using the new set of "chosen ones" that I will send after part 3 is complete.
2) This time you will name the files as follows: 2XX1.wav, 2XX2.wav, up to 2XX4.wav, where again XX is your 2- digit secret ID number.

Part 5: Rating GEN1 (1% of grade), Due Sunday October 16th at 11:59pm

1) Please download the folder EAO-GEN2 from the class page.
2) Repeat part 3, but with these new files. Save file as yourname-ratings2.txt and email it to me.

Part 6: Crossover/Mutation 2 (2% of grade), Due Wednesday October 19th at 11:59pm

1) Repeat part 4, but using the new set of "chosen ones" that I will send after part 5 is complete.
2) This time you will name the files as follows: 3XX1.wav, 3XX2.wav, up to 3XX4.wav, where again XX is your 2-digit secret ID number.