

Electronic Media I
Assignment 10
Due Friday Nov. 17

There are two parts to this assignment. Part I consists of creating a chromatic scale of pitches from C4 to B4 which are 10 seconds in duration and whose amplitudes and timbre are continually changing. Part II consists of using this sound material to construct 12-15 pitch cells.

Part I (estimated 2-3 hours of work)

- 1) Create the following mono soundfiles in **SoundEdit 16** (save as **SoundEdit 16** files):
 - a) "BJ.C4.saw", consisting of a 3 second C4 (middle C) **sawtooth** wave with @ one second fade in and @ one second fade out using the **Tone Generator** and **Fade in/out** commands;
 - b) "BJ.C4.sine", consisting of a 3 second C4 (middle C) **sine** wave with @ one second fade in and @ one second fade out using the **Tone Generator** and **Fade in/out** commands;
 - c) "BJ.C4.FM", consisting of a 3 second C4 (middle C) **FM** wave with @ one second fade in and @ one second fade out using the **FM Synthesis** and **Fade in/out** commands; this should have a recognizable pitch, yet also have noticeable inharmonic content.
- 2) Repeat Step 1 for all of the pitches from C#4 up to B4. Name the files accordingly.
- 3) Create the following 4-track soundfile in **SoundEdit 16** (save as **Sound Designer II** file):
 - a) paste any of the following into track 1: "BJ.C4.saw", "BJ.C4.sine", "BJ.C4.FM";
 - b) create @ 1 second (+/- .5 second) of silence in track 2, then paste in any of the following: "BJ.C4.saw", "BJ.C4.sine", "BJ.C4.FM";
 - c) create @ 2 seconds (+/- 1 second) of silence in track 3, then paste in any of the following: "BJ.C4.saw", "BJ.C4.sine", "BJ.C4.FM";
 - d) create @ 3 seconds (+/- 1.5 seconds) of silence in track 3, then paste in any of the following: "BJ.C4.saw", "BJ.C4.sine", "BJ.C4.FM";
 - e) use the **Amplify, Bender, and Envelope** commands on each track to create a timbrally interesting composite sound (keep pitch bend effects subtle so as not to lose pitch focus);
 - f) mix these 4 tracks into a mono track entitled "BJ.C4.short"
- 4) Repeat Step 3 for all of the pitches from C#4 up to B4. Name the files accordingly.
- 5) Create the following stereo file in **Sound Designer**:
 - a) paste "BJ.C4.short" into Ch. 1;
trim off any part of the sound you wish, give it a new envelope, and EQ as you wish;
 - b) paste "BJ.C4.short" into Ch. 2 @ 1-3 seconds after Ch. 1 begins;
trim off any part of the sound you wish, give it a new envelope, and EQ as you wish;
 - c) paste "BJ.C4.short" into Ch. 1 @ 1-3 seconds after Ch. 2 begins;
trim off any part of the sound you wish, give it a new envelope, and EQ as you wish;
 - d) repeat similarly to create @ 10 seconds of continuous sound whose amplitude, frequency, and timbre is always changing (again, basic pitch should not be obscured by frequency changes).
 - e) mix to a mono file entitled "BJ.C4".
- 6) Repeat Step 5 for all of the pitches from C#4 up to B4. Name the files accordingly and place them all into a folder titled "BJ.Source Pitches."
- 7) Clean up the disk by discarding the "BJ.....short" files. (You might place these into a discard folder which you will discard later).

Part II (estimated 6 hours of work)

- 1) Create a twelve-tone row and its magic square.
- 2) Compose on paper 12-15 cells of non-durational pitches (octave numbers included) whose pitch-classes may be found as ordered segments within any row transformation represented by the magic square. These cells should consist of 4-12 pitches each.
- 3) Use **SoundHack** to transpose any of the BJ.Source Pitches into the pitches used in your cells. Try to use a variety of Source Pitches rather than a single one to generate any cell. Place the pitches for Cell 1 into a folder titled "BJ.Cell 1" and similarly for Cells 2, 3, etc.
- 4) Create a new stereo file in **Sound Designer** and name it "BJ.Cell.1s".
- 5) Open the file for the first pitch of Cell 1 and copy any portion of the sound you wish to use (disregard envelopes at this point).
- 6) Paste the clipboard into Ch. 1 of "BJ.Cell.1s" and shape the sound as desired (fade in/out, amplitude, EQ, reverse).
- 7) Repeat Steps 5-6 for the second pitch of Cell 1, but now paste it into Ch. 2 sometime after Ch. 1 begins in order to create a single line melody (you may wish to overlap for legato effects, or leave gaps between the notes to create staccato or rests).
- 8) Repeat Steps 5-6 for the remaining notes of Cell 1.
- 9) Mix "BJ.Cell.1s" into a mono file, "BJ.Cell.1m", and normalize it.
- 10) Repeat Steps 4-9 to create "BJ.Cell.2m", "BJ.Cell.3m", etc.
- 11) Place "BJ.Cell.1m", "BJ.Cell.2m", etc. into a folder named "BJ.Assignment 10".
- 12) Copy this folder onto the class ZIP disk by Nov. 17.

Grading criteria: Each cell should be as distinct from the others as possible (note: if you get into a mode, go ahead and work with it--BUT, only turn in the very best one of its type). For rhythm, use steady notes, long and short notes, mixed durations, repeated rhythms, non-repeated rhythms, legato, staccato, rhythmic pointillism. For pitches, use narrow and wide registers, low and high registers, ascending and descending patterns, and pitch pointillism. Since you will be able to transpose, cut and paste, and overlap these cells in your final compositions, try to get as much VARIETY, VARIETY, VARIETY as you can at the cell level.