

Sketch No.1 - Notes

October 14, 2009

I have created this piece mainly using Logic as my digital audio workstation (DAW) and sound processing system. However I have also made use of applications Peak and SoundHack. While Logic is a very powerful software offering many possibilities, I realize that every software system suggests a way of doing things and while the general paradigm beneath most of the industry standard systems are similar and most of the standard capabilities are shared by almost all mainstream audio software, some software systems are stronger or more convenient to use in specific uses than others. There is also the issue of human factor involved in choosing the software to work with. The more experienced a user in using a system, the more convenient it would be for him or her to use and get the results they want more efficiently therefore being more productive and creative.

Since this was a sample-based project, I felt the need to be able to easily modify, edit or process each sound sample file separately. Peak is a really good application to achieve this. It allows the user to work directly on the sound file and at the same time it preserves a non-destructive environment so that the user doesn't need to worry about the original sound file being corrupted. While many multi-track DAWs like Logic offer the same capabilities as a single-track editing software like Peak, they often lack the quality of being lightweight. In Logic and ProTools for example, and I believe it would be the same for other such software, even if you want do a simple processing on a single file, you need to open a new "project" and deal with all the project files created along with the single sound outcome you actually want. Moreover in Logic, as far as we have learned in class, the way to do many of the processing on sounds is through the use of plug-ins and this usually means applying a process to the whole of a channel. When you work with multiple tracks each consisting of several parts of sounds that need different type of processing, this becomes very inconvenient. Therefore for most of the simple editing and processing of single samples like pitch and gain changes, I have used Peak. Then I imported the processed samples into Logic as I needed.

The techniques I mainly used include looping, delay-based effects including delays within rhythmic, timbral and phasing ranges, pitch changing to "stretch" the sounds, equalizing, filtering, panning, convolution and recording in real time from one track to another to dynamically control the parameters of the processes being applied to sounds. For looping I used the feature in Logic where you drag from one side of a sample to set the number of subsequent times the sample is going to play on the track. I have created two such loops for the underlying rhythmic parts of the piece; both from the same sample but with slightly different sections being looped. For the first loop I used the Delay Designer plug-in in Logic to create the rhythmic delay in 9/8 time, mimicking the rhythm of the subtle beating effect in the sound in relation with the length of the portion being looped. The plug-in also conveniently included filters and gain controls for each delay tap so that I could shape each

reflection to achieve the percussive sound resembling the traditional Turkish drum called davul. Then I recorded one track with this loop, adding further delay effects with Tom Erbe's +delay plug-in, controlling the parameters to vary the delay time, feedback amount, resonance, rate and depth of the modulating oscillator and the mix of the processed sound with the original. The changes in real-time caused the resonant sounds heard throughout the piece. I also recorded another track from the second loop where I used +delay plug-in again, this time keeping the delay time constant, slightly shorter than the looped sample and increasingly introducing feedback and some modulation towards the end. In the final mix I kept the three processed loops and I didn't include the raw version of the second loop.

With the other samples I used, I mainly made use of pitch changing without preserving the duration of the original sample. I usually transposed the samples down few octaves and this allowed for the exploration of the qualities of the sounds, which are hard to perceive when played at normal speeds. One other technique I used was auto-convolution. For this process I used Tom Erbe's SoundHack application and convolved two identical sound files with each other. This process brought out the stronger frequency components in the sounds and de-emphasized the weaker frequency components. This is another technique I used to explore the qualities of the sounds. I used this with the snare brushes sample and most of the time it resulted in resonant sounds. I have also used pitch changing and auto-convolution together to get different timbres. The original samples on which I have used these processes are also included in the piece along with the several processed versions. I have also used convolution to add reverb qualities to the vibraphone samples toward the end, using samples provided for the assignment as impulse responses. To do this I have used the Space Designer plug-in in Logic. For the minor filtering and equalizing I did, I have used the Channel EQ plug-in in Logic and I have also done volume and panning changes using automation.

I have made several configurations to the applications I used like changing the time representation from bars to minutes and seconds, setting up different routing arrangements to be able to do real time recording from one track to another, or setting the editing window not to follow the play head marker so that I can fine tune the loop selections and I have installed Tom Erbe's delay trio plug-in set. However, I did not do any major modifications to the applications themselves.

Apart from the idea of creation of complex rhythmic patterns using slight changes in loop timing, which we heard in John Cage's Come Out piece, I couldn't think of any piece or artist that this piece resembles. This is probably not due to the fact that there is no such music but rather due to my current amount of music intake. I also think that my creative process involved in creating this piece is largely guided by the act, itself, of processing the sound materials, exploring the qualities of individual sound samples as well as finding out relations between sounds that would be appropriate in the project at hand.

For this reason, naturally, the applications play a huge role in affecting my creative process. Being able to do fairly computationally intensive tasks in very short amounts of time and not having to worry about possibly damaging the material and/or the equipment is very encouraging of experimentation and exploration. The virtual mixer and playback model in Logic allows for intuitive modification of the signal path and almost everything can be routed to everything else. The media tab allow for easy import or export of sound files to the project. The tracks can be renamed so it is easy to keep track of the different layers of the project and the mixer view can be used when doing real-time recordings to control different parameters like gain and panning, without having to necessarily look at the editing window. There is also the ability to automate almost every parameter related to a track. These are the ways in which Logic assisted me in my creative process and I have already mentioned the specific advantage I found in using Peak – though my preference of Peak has probably more to do with being used to a certain way of working than the actual limitations of different software. However, there are also ways in which the applications hindered my creative process. For example, in Logic the looping in playback (cycling) is controlled by a single selection of time slot to be looped and the ends of the time selection and the sample to be looped is not linked therefore it is very difficult to fine tune the section of a sample to be looped. Having to go into a separate view (sample editor) to modify the individual samples is annoying. I would like to be able to modify the samples right where I see them in the overall mix. Also like many digital delay units, the delay plug-ins in Logic do not allow to go beyond %99 feedback. This may be a welcome precaution but occasional conscious use of feedback over %100 may create interesting sounds. This is one of the reasons why I used the +delay plug-in.

The timing in Logic is always in bars rather than seconds. It also tries to snap the sound files to specific bar slots when you move them and you often need to zoom very deeply in order to achieve the alignment you desire. Also the plug-in paradigm is generally only compatible with processes with same number of inputs and outputs therefore it is not easily possible to do real time convolution or ring modulation etc. where the process gets two inputs and has only one output for example. I would like to be able to route two channels directly into a ring modulator, for example and get one output. These are some of the assumptions about music and music making that are imbedded in the software.