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Interactive Soundscape Experience Report

Forest & City Environments

Hello Paul!

Here is an additional document including a quick artist statement and production sum up following the presentation on Wednesday November 28th. On the next day, we met up again with Louis and worked from 11am to 11pm. Louis focused on building additional patchers that we had agreed on having for populating the city soundscape. We have then 6 different patchers that he made. He has also worked on the abstraction with the Low-Res filter that you advised us to create, and the general fade in and out logic between both environments, as well as the Unity application, and the code in Unity and Max to communicate the user's x-y locations in the nodes window. On the other hand, Robin focused on designing both the forest environment and the city environment, creating the different nodes, modifying their sizes and locations within the window, as well as finding the samples and putting them into the logic of the nodes, hence creating the soundscape.

We ended up encountering an issue where we couldn't have both environments on the same node canvas because the maximum number of nodes per node canvas is 64. So, we decided to make two canvas, one for the Forest environment and another one for the City environment. Following this decision, we also thought about making a smooth transition that will happen every 2 minutes between the two environments. We decided to build those two environments because we considered them the most difficult to design and to populate with sounds because of the variety of sounds we deemed necessary to provide an interesting, diverse and stimulating soundscape experience.

We were first inspired to create a soundscape following the one we did during our class field trip. Then, we thought that it would be challenging to make an artificial soundscape using Max that would represent real-life environments such as a forest or a city. At the same time, we didn't want our soundscape experience to resemble too much the real environments because we wanted it to be filled with enough sounds to make for an overall interesting experience of discovering sounds. We were not particularly interested in making a simulated reality but rather an augmented one where a lot of options are available to the user's ears.

The artistic thinking behind the smooth transition idea is that we thought maybe a populated forest once occupied the space where the city now stands.

PS: We did it! I hope everything will work on your end, let us know if you encounter any issues. We have also included all our sources at the end of this document instead of within the Max patch. You should only have to follow the below instructions to get everything working.

"I want to know how you feel that working with Max/MSP has or has not expanded your understanding of audio, synthesis, audio processing and the creative process. If you feel critical of Max/MSP or of the class, I want to know why. If you are positive and feel that you've learned a lot, I want to know why. If you are neutral or indifferent, I want you to spend some time and think about what that is so that you can write it down and tell me about it."

Robin :

I was agreeably surprised by the content of this class and by the software used. I thought that it would have had more theoretical analysis of sound-related pieces like films, videos, installations and other content. Although, I didn't mind not having to deal with theoretical analysis too much for once. I really enjoyed the historical stories about how humans' perception of sounds changed over the years especially with the democratization of recorded sounds. So, I'm happy to say that I have learned a lot about the vocabulary of sound and some approaches to how it is being designed.

For some reason, I imagined us creating sound effects as well as learning how to be good at capturing specific sounds with high-end microphones whether outside or inside. I always imagined Sound Design as a creative process that was happening outside of the digital space, similarly to writing, before it was applied to the digital realm. Max/MSP surprised me with all its ways of creating interesting sounds and experiences. As I'm still new to programming as well as a pretty bad Math person, it wasn't easy to get my head around the software capabilities. So, I think my interest didn't lie in learning how to use the software but rather learning how to read it and see how far it could go with sound making.

Our presentation on sensors really helped me get a hold of the capabilities of this software, personally I thought it seemed to be rarely used alone but rather in combination with physical objects (sensors, instruments and more), visuals and/or other softwares. I think that I wish we had done those presentations a little earlier on because I was still confused at Max/MSP capabilities until then. Maybe a small sound installation made by the teacher with an Arduino and Max Patch would have been an interesting way of opening a discussion around Max/MSP capabilities' as well as giving students an early idea to what their final projects could look like.

My main issue with this class is that there are no other options than using Max/MSP as a final project as well as maybe looking too much at Sound Design from a Max/MSP perspective. Even though this software seems to be the pinnacle of how to make and design sounds digitally. I still believe that knowing how to design sounds with real-life material affords for an interesting hand-to-hand experience and allows for an immersive and real sound-hearing quality. I would have very much liked the option to make a short-film with a variety of sounds recorded by hand or a research paper on a specific sound-related subject, practice or piece. Nonetheless, I'm proud to have been able to construct a soundscape with Max/MSP, I'm pretty sure that I wouldn't have been able to create one with any other software that I know about. So, I'm still happy of having learned Max/MSP and being able to achieve what we had in mind for our final project with it. Thank you Paul!

Robin

Louis :

As an exchange student, I have been very happy to be able to take this course. In France, I study interaction design, and immersive design. The pedagogy in my School of Design, make the students work on projects for each course, sometimes single projects, sometimes team projects. This methodology enables us to acquire a variety of skills, whether they be technical, creative, social… and express ourselves and our ideas through the projects we develop. For this reason, I was very happy to discover that here too, at Concordia University, some courses require to go through this process. It has the strong advantage (talking about this course) to make you learn how to master a given software, open your skill palette in the specific field concerned (here audio), and make you apply immediately what you learn in each session of the course, to develop your own project. There, creativity doesn't simply appear, and lie, in the beginning of the project, to find an interesting idea; It is stimulated each week by deeply interesting readings (which were made available on the moodle, but hasn't really been discussed in class, or been the fertile subject of assignments!), incredibly well constructed and thought small units (here the patches presented or re-created in-class), and, for myself, home practice of the software: exploring, creating, developing my own patches that generated sounds, images and videos.

Here lies what I think would be the most effective/ strongly appreciated evolution of this course: people need to practice. People need to be involved, with attention, understanding, curiosity during the courses and tutorials, but also by themselves, outside the course. Assignments enable you to get a glimpse on a student progression, but they are very often considered as *one more thing to do*, something you can't really mess up with as it is graded (I see them more as an opportunity to test my skills/ knowledge). Hence, most of the time, they create a distance between the students and the incredible potential of a software such as Max.

As far as I am concerned, I would split this course in three parts, each of them very different, but strongly related. The first part, dealing with the readings, would enable each and everyone to debate freely on a given specific domain of interest in audio. This should be interactive, more than simply reading a text and discussing the ins and ends, It would feature demonstrations of audio related discoveries such as delay, reverb, feedback, etc, by artists that created installations or pieces in relation to that topic. Students need more today than the old fashioned book-related way of studying. Remember how you couldn't stop people in the class to talk and share about the different artists presented in class for the midterm presentations. Creativity is something that comes out of you, a gift to the world. If you don't have anything inside, or sufficient matter to process, a class will remain silent all the time. Maybe a weekly presentation by a student, with a little bit of thoughts on a reading (maybe maybe), expanding as a debate on the sound subject would launch this course to the moon.

The second part would be the tutorial session that we had every week. On this, I have to say thank you. Thank you Paul for all this incredible amount of efficiency, teaching skills, and explanations. I didn't know anything at all about Max prior to taking this course, and learned so much in so short time. Example patches and analysis patches were all amazing. You take your time to answer the questions and explain well (if the student is following).

The third part would be a time for self practice, or the development of the personal project. This project could start at the very beginning of the session, and grow each week

following the improvements in comprehension of the software made in the tutorial part, and progress without rushing more and more every week. The behaviour of the student could be evaluated there. Thus, a student would have the time to deeply search about his project, first in the ideas, trying to find inspiration in artistic works, then processing it through his own mind and knowledge of the software, to finally be able to express himself and create an installation, a piece or a tool with Max, through the 13 weeks of the semester. Several presentations would enable the student to get feedbacks from you and the rest of the class regularly, maybe every 4-5 weeks before the final presentation at the end of the semester. I think that this would benefit the student, that would have to work earlier on the project, and synthetize it's thinking no only at the end of the project. Sometimes, we forget to make a break, step back and try to see what is going on, where the project comes from, where it seems to be going, and think about it. Every student in the class would also benefit from the experience of each other and may be inspired, or have something triggered in their mind, during the other presentations. Creativity is a gift, that should be shared, It is chaotic, and rigorous at the same time. Do you know in advance when something incredible will come out? Like a panel on the side of the road, saying "Hey John, in 5 minutes, you'll have the greatest idea of your life". I am not sure it works like that, so the best thing we can do to help it happen and process, is to create a fertile ground into which the most beautiful plants will be able to show their flowers to the world.

Also, I am really pleased by this course and what I learned here. In my design school, we mostly focus on ideas and the visual sense. With this international semester, I wanted to get deeper into the subject of sound. I love music since I was a child, and recently began to build my own speakers. I have come up naturally in my life, with similar ways of thinking sounds as developed in what I discovered here as the World Soundscape project, and the notion of acoustic ecology. Thus, I took mostly classes dealing or related to sound (Digital Audio Editing, Programming for Artists…) and have learned so much interesting things. I now have a deeper understanding of sound and sounds. And might as well be using Max/msp software a lot in my future projects, enabling me to handle the sound part of the projects I am involved in back in France, which was the original will I made on the papers made to present ourselves at the first week class. Thank you Paul!

Louis

Instructions: How to

1- Within the main “Soundscape” folder you will find a folder named “external”

2- You will have to put this folder in your /Documents/Max 7/Library as well as put it in /Documents/Max 7/Packages and then delete it from within the “Soundscape” folder

3- Then you will have to launch the Max Main patch “Soundscape.maxpat” followed by the Unity Build (Unity.app)

4- Choose your resolution in the Unity Build Launcher depending on your computer’s capabilities (720p or 1080p recommended) and press Start.

5- Do not pay attention to the tables windows that open when opening the Max Patch, just close them down. (windows of table objects)

6- You are all set! You can choose to move around using your keyboard’s arrow keys within the Unity scene or just move the cursor in the Nodes with your mouse. Both trigger the walk sounds and there is a small delay when you stop moving/walking.

7- Enjoy the soundcape!

Sources

- Adapted from https://github.com/unriginal/Designing-Sound-Max-Patches?fbclid=IwAR02VCXiTDgjVKZwRW4VIr1FJoRqtR3oViVzvfnDRBhoYCd-n1-xob-sN6g
    - Insects1.maxpat, Insects2.maxpat, Insects3.maxpat, Pouring.maxpat, RiverWater.maxpat, SeaWave.maxpat
- Adapted from Renato Wind Code from Class n°9
    - Vent.maxpat
- Fade-in – Fade-out made with curve~ help file
- Unity to Max/MSP communication
    - https://thefunnybrain.com/2017/05/27/how-to-send-messages-between-unity-and-max-msp/
    - http://www.sadam.hu/hu/node/1
    - ftp://arts.ucsc.edu/pub/ems/lobjects/

- Forest Sound Samples:
    - Evil Woman Laugh & Footsteps: https://www.youtube.com/channel/UCSNZF9AHSU_76zG4HFd8zTw
    - Yellowstone Sounds: https://www.nps.gov/yell/learn/photosmultimedia/soundlibrary.htm
    - Bird Sounds
        - Most from here => http://www.web-ornitho.com/Chants.chant.cris.des.oiseaux.de.france.et.europe.htm
        - Woodpecker Sound : https://www.youtube.com/watch?v=Ue679f3ENe0
        - Owl Sounds : https://www.sound-fishing.net/sons/chouette

- City Sound Samples : https://www.youtube.com/channel/UCASiqmfYr9dXqZAdap8AfcQ
    - City Walk and Conversation: https://freesound.org/
    - carspassingby.wav recorded by Robin
    - ComeConcert.wav recorded by Robin : Concert of Côme de Bethmann and his band at Upstairs Bar
    - Highway Car Sound : https://youtu.be/WPzPcjfAfTc
    - Door Sound : https://www.youtube.com/watch?v=dghr1qclOS0
    - Dog Sounds : https://www.youtube.com/watch?v=FeRaDiSPb2c
    - Planes Sounds :
        - https://www.youtube.com/watch?v=PAnPjOTBZ8I
        - https://www.youtube.com/watch?v=c9dE7HIF-Mc