

Soundwalk

Spring 2015

This essay describes a soundwalk taken in class on Tuesday, March 3.

Prior to beginning the walk, I logged my expectations for the experience. I recalled my only previous experience with soundwalk from last year's 21M.065 class, and expected to identify the same prominent environmental features during this walk as I did previously. I expected to hear the hiss and clanging of the air conditioning systems as a pervasive and varied background noise, changing sharply between corridors. I expected to notice pressure changes when moving from small spaces to large, open spaces. I expected that traffic and construction sounds would dominate the outdoor environment with percussion.

I did notice these things again during the soundwalk, but the different path and longer experience allowed me to hear more things beyond these obvious items. Our path first brought us through the basements surrounding the classroom, an area I spent much time in during my previous soundwalk. This period allowed me to recall the hiss and clanking that the overhead pipes make constantly, but that are easily ignored during the normal course of a day. We walked past the open door to 6-001 to discover the loudest plumbing of the walk - a roaring hiss that could drown out nearby speech. There was a stark transition in pitch while walking past the door - the frequency became much higher, more shrill, and then faded back down to lower frequencies as the walls and door absorbed the higher frequency components.

From there, we travelled outside briefly along Vassar St. The sound of cars was not as loud as I expected as the traffic was calm on this morning, and there was very little construction noise - I only heard a few beeps of a vehicle

reversing. The wind was quite noticeable though, and the coldness of the air seemed to enhance the sound of the wind as I focused on my discomfort.

We then went to a sonically unique area on campus, the 32 parking garage. The peculiar geometry in that area of the building allowed one to localize vehicle noises in three dimensions, as the sound of friction between tires and concrete could be identified as coming from above or below according to the direction of the echoes. Cars coming from above would have echoes from the right first, bouncing off of the ramp, then the left, bouncing off of the wall. The opposite was true for cars coming from below. Because the space is massive and the walls are solid concrete, echoes were very clearly distinguishable. While in this area, we paused to listen to the fans in the air intake (or exhaust) along one wall. That area is unique because there is a long hallway behind the fans, open to the outside. The echoes could not be heard well in this area due to the loudness of the fans' rhythmic banging, so much of the environment was accessible only by sight - one could see headlights moving and determine directions of cars without hearing the sounds. A facilities worker was accessing the air intake at the time of our visit, and the opening of a hatch in the wall was accompanied by a wonderful sound - the long spring that holds the hatch closed rubbing against the hatch door. The spring's vibration had distinct pitches that changed as the door was opened and different lengths of spring were available to vibrate on either side of the hinge - this created a series of about ten "chords", separated by a sharp snap sound as the spring's position was adjusted.

Upon departing the basements, we entered the first floor of 32, which has a very peculiar architecture with odd angles all over. I did not notice anything very unique about the sound landscape in this area, despite the architecture, but it was obvious that this was a very large space as the air pressure diminished upon exiting the stairwell. We exited Stata by way of the Alumni Pool. That area was the first we entered that was carpeted, which had a dramatic effect on the echoes. Previous areas all had very loud echoes - the rooms had long impulse response trails as sounds bounced back and forth

off of concrete walls, floor, and ceiling. The Alumni Pool entryway was very quiet, even though it was adjacent to the noisy main Stata thoroughfare.

Our last location of note was Lobby 7. This space has very distinct echoes due to its size, the shape of the dome at the top that concentrates reflections, and the hard concrete that makes up all walls and floor. A monitor on one wall chants its usual refrain - some story about the history of MIT. The monitor is audible from across the room, as the voice is unnaturally loud and the speech is slow. Most other speech in the room is garbled by the echoes and general noise level in that area.

Upon completion of this soundwalk, I identified an unexpected result. I realized that I had become very aware of my classmates who were also walking around these areas - I identified who made each small sound (a sneeze, the click of a pen, the snap of jacket buttons against one another) without needing to look. The various shuffling footstep noises the other students made were also very identifiable and available for study in all areas. This was not a component of my soundwalk last year, but I think it adds to the experience as I was able to spend a long time listening to one noise.

While walking through the basements, I realized that I can probably identify basement hallways by the sounds of the pipes and ducts alone. As these sounds (a high-pressure hiss of water, the clanging of some distant machine being transmitted through the pipes, the roar of an open air duct) are available in every hallway and there seem to be sharp differences among them as one walks from one area to another - even if it's just from one hallway to an adjacent hallway. Since that activity, I have paid far more attention to these basement noises, attempting to identify characteristic sounds that would allow for identification of a particular hallway with no other sensory input. I will likely continue doing this as I spend a lot of time walking through basements and collecting this information subconsciously anyway - the soundwalk brought it to my attention so that I now listen consciously to these noises.

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21M.380 Music and Technology: Sound Design
Spring 2016

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