MUS 114 (FA21, Curtis)

Final Writing

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1 Éliane Radigue, *Kyema*

In *Kyema*, the piece begins with drawn out fade-in of a drone with a consistent interference beat. At a couple minutes in, overtones become evident—after some time, you start hearing melodic tones at the same octaves as the overtones harmonising and become discordant with the drone. The droning then changes pitch, you hear really high overtones, and the droning morphs into an almost static-like background. Sirens, buzzing, and a sort of "flitting" come into the fore, and the sound grows in size and intensity, until it abruptly stops and begins receding back into the static. After this, we hear a marimba note periodically, then the timing and the attack of the note become inconsistent until it starts fading back into the static. The flitting from before returns, and the droning decreases in intensity until it jumps to a higher pitch and then fades out.

What's interesting about this Radigue piece is that not much happens, and the evolution of the sound is quite slow and measured. The hearer is lulled into a sense of complacency, and even the slightest change to the droning causes the hearer to perk up. Changes in the underlying droning are perhaps the most clear and present transformations that occur within the piece, and it is these changes in the drone that mark out sections of the piece. This is crucial because without these changes that cordon off bits of sound, *Kyema* would meld together into a mostly homogeneous soundscape. Introducing sudden changes to the underlying drone is how Radigue keeps this piece moving forwards, albeit at a very slow rate.

Secondary to the drone changes are the small aural "spices" or treats that Radigue adds in from time to time: we'll begin by discussing the overtones and the harmonics. In the beginning, as the drone fades in, you can gradually hear a high-frequency drone join into the mix of sound. I began by thinking it was an overtone, until it started changing at the same octave melodically. Specifically, there began a melody in the same octave as the note that I thought was an overtone. This was actually quite surprising, as it was the first movement that occurred in the hour-long run time of the piece, and it served somewhat to indicate that the piece would be more than droning.

Furthermore, I also felt that the overtone melody drew a really interesting contrast to the background droning and static of the piece as a whole. Whereas a drone doesn't really have lyrical quality, the melody was surprisingly harmonic, in a major scale, and due to its high frequency sounded almost like singing. Because these lyrical and melodic nuggets were interspersed at certain intervals throughout the piece, they lent the piece an almost ethereal quality that you wouldn't expect just from listening to the static in the background, which, by contrast, sounded like something nearly mechanical (or at least very artificial).

One of the other bits that is thrown in to the piece is the periodic marimba note. It's introduced suddenly in the second half of the piece, and is played at constant intervals. Thus when Radigue suddently alters the intervals to make them uneven, the hearer is drawn to this change, since it's the most salient aspect of the piece (especially since the marimba note does not coincide with a change in the background static noise). The same effect is achieved when Radigue changes the attack of the marimba note to subtly influence its timbre, as well as when the note begins to steadily decrease in volume until it fades out, and becomes indistinguishable from the background droning of the piece. These ephemeral additional sounds keep sections of the piece alive at moments when the drone (or static) isn't changing.

A lot happens in the middle section when the droning first turns into something more similar to radio static than a tonal drone. First, the change from the drone to the static occurs extremely quickly: this (again) has the effect of signalling to the listener that a new section of the piece has begun. Secondly, this change coincides with the introduction of a background "flitting" noise as well as a sweeping siren sound, both accompanied by buzzing. Taken as a whole, this section sounds a bit like a bee being chased by police car, both drawing closer to the listener before receding back into the static of the background. Within the overall monotony of the droning, this is a comparatively large amount of change that occurs in a relative short amount of time (as the listener this section was actually faintly alarming to me, because of how suddenly it started compared to the droning that came before

it).

Overall, I think that this piece has the effect of calming down the listener and almost lengthening the perception of time: because the changes made in the piece are so sparse and protracted, the listener is forced to slow down the rate at which information is processed just to be able to keep pace with the slow, geologically-inspired process programmed by Radigue. Thus there is the sense in listening to this piece that it almost slows down how quickly time passes, to the point of making the piece feel nearly cozy in how it progresses.

For me, the artistic experience of listening to *Kyema* was reminiscent of falling asleep in front of a television with really bad reception. Not only was the background droning very similar to television static, but the periodic surprises that Radigue throws in, such as the marimba or the drone changes, are really similar to bits of good reception; it was exactly as if a television with staticky reception would suddenly get a good picture with good sound, and shake you from your fall into sleep because of how suddenly it occurs. Then the marimba would fade away, just like the good reception, and a return to a staticky, low-intensity background is effected until the next sudden change. ■

2 Terry Riley, *Purple Modal Strobe Ecstasy with the Daughters of Destruction, All Night Flight*

In Riley's *Purple Modal Strobe Ecstasy with the Daughters of Destruction, All Night Flight*, the piece begins with a rapid sort of warbling between a number of differently-textured voices. Over time, as the piece progresses, the warbling moves from texture to texture (or from voice to voice, depending on interpretation). It then suddenly cuts out, and the warbling begins anew with a single voice, one that is low and reedy, yet buzzy. It is cut in and out with the higher voices, until they all coalesce, drifting in and out of harmony as the warbling motions slow down and speed up. This continues for a protracted period of time, until the voices coalesce again at which point the voices cut out, and the warbling begins again with a single voice, which is then joined by the remaining voices. The voices then slowly harmonise and resolve into a pleasing major chord, which then slowly fades out to nothing.

I think the most important quality expressed by this piece is motion. Every voice and every bar scored by Riley appears to be nonstop motion, with the exception of brief moments of harmony. With this in mind, there are actually many levels of motion within the piece, occurring both at a melodic level as as well as at higher "textural" levels. In fact, the idea that Terry Riley performed this piece live implies that he had to juggle, live on stage, each voice that is in the piece—one can imagine that the composer running around on stage adds yet another meta level of motion to the experience of this piece. Because such frantic rapidity is the baseline for the majority of the piece's runtime, sections of the piece are delimited by periods of low motion. For instance, within the context of the piece, the brief sections of harmony between the voices stand out as being special as compared to the chaotic nature of what is immediately juxtaposed. Similarly, the brief sections where the music cuts out stand out, though this is perhaps less atypical.

The center of the piece is the warbling sound, which seems to be induced by a rapidly moving sequence of notes. This sound is nearly like a trill, except protracted for the entire length of the piece. Within the overall layout of the flow of the music, the warble seems to create a sense of nonstop, ever-frantic movement even if the piece as a whole is stagnant at that moment. This makes the piece feel quite action packed, since the movement caused by the warbling that occurs within the piece is salient enough for any listener to pick up on. This is in contrast to something like the static in the Radigue: while static is technically always moving, it's not moving in a predictable or recognisably moving manner, being more akin to a fuzzy carpet layer. Here, the warbling movement lays a background on top of which the rest of the piece lives, and the background in question feels almost spiky because of how continual the movement is. (One can even imagine on the paper score, that the warbling sounds form spikes of notes.) To the extent that the warbling is continuous, one can almost allow the voices and notes to blend together in such a way that the background becomes less of a discrete trilling and more of a nasally buzzing sound. This is again another characterisation of motion within the piece: buzzing is fundamentally just constrained periodic motion, which lends yet another sense of nonstop chaotic energy to the piece.

On top of this background, one can hear interleaved voices, each characterised by slightly different textures and tonal timbres. There is movement at this level as well, as Riley plays with removing, adding, and even replacing the voices with ones with different tonal qualities to them. At times it seems like the same voice is being played at slightly different speeds, bringing them in and out of sync alternately. The effect of this meta level of movement is actually surprisingly different from the effect of the note-level warbling movement as discussed before: while the warbling induces a baseline sense of chaos within the hearer, the textural movement induces more of a sense of unease. Because this piece doesn't adhere to a familiar musical form, the listener is often caught off guard when Riley decides to introduce a texture change to the mix, and it is this unpredictability that is generated by movement at this level.

Finally, it also appears that there is a chord progression as the piece goes on. This is actually made quite clear if you jump around the piece and scrub the playback to different locations: despite the constant motion of the individual voices, it is always clear that there is an underlying chord on top of which the small, spastic, and high chaos motions are con-

structed. The actual chord that is belied at any given point in the piece is pretty difficult to tell: I think that it depends on the motion of the individual voices at any given point, but the fact remains that the chords do in fact exist. The evolution of the chords as the piece progresses is equally difficult to track for the same reasons as above, since the changes in the individual motions of each voice are often nebulous and ephemeral. Yet, taking the piece as a vertical "slice" of a point in time, one can hear that the chord moves about with the piece. This movement is slow and subtle, which stands in contrast to the frenzied warbling movement of the individual voices, but it is movement nevertheless. This chord progression serves almost as an overarching outline of the piece: it is defined by the chaotic individual voices yet defines the piece as a whole. Thus, it is the highest level of movement within the piece, while still somehow being defined by the lowest level of movement within the piece, giving the overall nature of the movement a cyclic quality. ■

3 Alvin Lucier, *August Moon*

In the Lucier, we hear instruments bending pitch upwards and downwards in long and easy arcs that sound quite drawn out. The degree to which the pitches are bent increases as time goes on, which actually illustrates some very interesting properties about the three instruments that the piece is scored for.

Cellos are pure analogue instruments: the placement of a finger on the fingerboard exactly determines the pitch of the note that will arise. In particular, there are infinitely many finger placements, and so in effect every possible pitch (within range) is playable on a cello. A French horn, on the other hand, is somewhat pitch-bendable: the player can adjust their air flow and kick the slides (I'm not sure if this is true for the horn; it is certainly true for the trumpet) to force their sound to be sharp or flat, but only to an extent. Bending the pitch past a certain point will fail and the player will need to change their fingering to set the valves to the next semitone. Finally, and in contrast, a piano is a very discrete instrument: pushing a key will ring exactly the pitch that the key has been toned for.

Thus, we can hear that the cello and French horn successfully bend their pitch in the beginning of the piece (when the actual degree to which the pitch is bent is quite small), but the piano remains unchanged, at a static note. In subsequent bends, as the pitch bends more past a semitone, we can hear a different piano key being pressed, corresponding to the semitone that the pitch was just bent past. This showcases how the piano does not have access to a continuum of pitch in the same way that the other two instruments do, and as the pitch is bent to higher and higher extremes, we hear the French horn change notes too, as the player is no longer able to force the instrument to go flat or sharp.

These fundamental limitations of the French horn and the piano have the effect of making it seem as if the cello is the main driver of change within this piece, as it's the only instrument in the ensemble that is able to continually emit sound for as long as a single pitch bend lasts, especially without the need to change notes in a discrete way. While all three instruments are indeed moving around the scale, the steps in which they do so are drastically different in size. Thus it seems like the progression of the piece, which is to bend pitch, is actually physically constrained by the inherent abilities of the physical instruments comprising the ensemble. In a very novel way, *August Moon* seems to be exposing the sonic limits of the instruments, pointing out their weaknesses and their strengths by scoring them for the same pitch bends that ultimately only the cello can hit perfectly. ■

4 Sound and Music

Of the repertoire that we've engaged with in this course, the vast majority would likely seem to a third party to be so avant-garde as to not sound like music. Yet we are still able to appreciate and discuss their forms in a somewhat formal sense by analysing the subjective ebb and flow of sound: it's for this reason that I think that music and sound bear no material distinction. Sound is only music if we believe it is and treat it thusly; conversely music can be nothing more than sound if we as listeners don't pay it attention. The two are separated only in the listener's mind; sound is ambiance which the listener pays no real attention to, while music is that which the listener actively engages with.

A work we've covered in which this is exhibited quite saliently is be Kafka's *Josephine the Singer, or, The Mouse Folk*. Within Kafka's story, the masses are enthralled by the voice of a lonesome singer, Josephine, all the while failing to deem it as music. Despite this failure, the masses in the story are extremely incisive about the effects of the music on the emotions of the people. While Kafka's narrator struggles with reconciling the singer's voice with the definition or even archetype of music, the narrator still engages with it to a very large extent. To have made the narrator introspect so deeply Josephine's singing, her voice must have had a profound emotive impact: it is this, and the resulting engagement with the work, that inherently makes Josephine's voice a form of music. Suppose the contrary: had the people of Kafka's mouse world paid Josephine no mind, then evidently Josephine's singing would have had such minimal impact on them so as to no longer be music as much as it would be sounds which fade into the background of life.

I also don't believe that this boundary is binary—it is possible for a work to have musicality of different degrees depending on the extent to which the listener engages, or is immersed in, the work. Take, for instance, Wagner's totalitarian attitude towards his works, or *gesamtkunstwerken*: the

act of building a *konzerthaus* dedicated to the presentation of strictly his own works in a precisely prescribed acoustic and physical environment allowed Wagner to immerse his audience in the totality of the experience crafted solely by him. The experience of an audience member listening to the *Götterdamerung* in Wagner's performance hall is undoubtedly different from a student idly listening to it while studying for finals—in that sense, the same piece can at once appear to be the apex of the musical form, as well as simple and nondescript background audio.

One interesting aspect about this nebulous boundary is that it's possible for sound to transform into music when the listener becomes conscious of aspects of the sound. Take Alvin Lucier's *Criss Cross*: the point at which the two guitars are perfectly in sync is clearly evident, but prior to that, the degree to which the out-of-sync guitars are out of sync is quite ambiguous. Specifically, it's easy to tell when the guitars sync up, but not easy to tell how far they are from syncing up. Suppose a listener was not paying attention to this piece when it begins—it stands to reason that they would notice when the two guitars sync up because of how evidently that occurs. It's in this moment that *Criss Cross* transforms from sound into music within the listener's mind: the instant at which the hearer begins to engage with the sound is the instant it becomes music. An even more extreme example of this might be something mechanical and rhythmic: a sound as trivial as a repetitive knocking could be percussion music if we engage with it as if it were. (One silly example I can think of involves a faucet: `https://www.youtube.com/watch?v=MIgMeyW4TEM`.)

Another one of Alvin Lucier's pieces, *I Am Sitting In A Room*, is also an interesting example of when sound transforms into music: this piece begins with a clean recording of Lucier's voice reading a snippet of text. As the piece progresses, the recording is played in a room and re-recorded, until the reverberations caused by the acoustic qualities of the room have totally overpowered the original speech and the audio becomes less speech and more haunting drones. Nobody would really call the first few repetitions music, by simple virtue of the fact that reading out loud in a normal diction does not generally constitute music. If a listener skips over the middle of the recording and jumps to the end, they would likely find the last repetitions to be musical, because they are (in a tradtional sense) tonal, and engage with the piece as if it were music thusly. Yet it's unclear where this transformation from sound to music occurs in the middle, as the piece itself is a continuum with no evident demarcated location where distorted voice becomes music. It is worth noting, however, that this analysis is only concerned with snippets of *I Am Sitting In A Room*, and not the piece in its entirety. Because the whole piece encourages the listener to ponder the transformation Lucier's voice undergoes, it as a whole is undoubtedly music.

In this manner, we see that sound and music are really one, and the distinction exists not in the pure tonal quality, but in the perception of the listener. Sound is that which is disregarded by those who hear it, perhaps out of mundanity or preoccupation, while music is that which is at the forefront of the listener's thoughts, being actively parsed and deconstructed. ■