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21M.361 Composing with Computers I (Electronic Music Composition)
Spring 2008

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21M.361: Composing with Computers I (Electronic Music Composition)

Peter Whincop

Spring 2008 OCW

Listening Notes 1.2: More Musique Concrète

(A small portion of this is from Evan Ziporyn's notes, and used with permission.)

Holgar Czukay—Boat-Woman-Song (1968)

Mainly known through his work with krautrock icons Can (http://en.wikipedia.org/wiki/Can_%28band%29).

The following is paraphrased from somewhere.

In the first year that Czukay was in Can, he was enthused by the idea of “creating a musical situation that was impossible in real time.” His desire was to put together a piece of music “consisting of different parts and cultural developments, without the participants even knowing the other parts... The listener would know more than each performer, who was contributing but a single part to the new whole.” To him, this was an original idea. Without a notated score, he put together the voice(s), the medieval loop from a Pierre de la Rue motet, and at least one other sound. His primary aesthetic concern was how they might be combined, “though their cultural developments were completely incompatible.” He regarded this piece as one of the earliest purely sampled compositions ever—I’m assuming he meant without the samples being modified.

Given the relatively intact samples, what makes the music “impossible”? In other words, could there be a live performance of it? What does he mean by “cultural developments” being “incompatible”? Both musical traditions involve strong emotional affect, i.e., emotions that are meant to be associated with certain modes, chords, melodies. What is the effect of juxtaposing these culture-specific aspects? What do the extra-musical elements, e.g. the boat whistles, add to or take from the piece? Where do you think the the solo(?) vocal part come(s) from?

Stefan Helmreich—Matrix 12510-2 (from Xerophonics) (2003)

Stefan Helmreich—Xerox 5828 (from Xerophonics) (2003)

From the composer (courtesy of Stefan Helmreich, used with permission.)

“Xerophonics is a sound art/copy art project based on recombining the digitally sampled sounds of copying machines. Xerophonics documents the rhythms and noises of xerographic machines and transposes the visual logic of copy art into an auditory register. Tracks combine the sounds of individual

copying machines and filter these through the aural analogs of such techniques as copy motion, resizing, degeneration, and mirroring. While the sounds here are produced using brand name sources, the compositions swerve around the legal issues that often bedevil sampling proprietary sounds. These are noises no one thought to own, sounds considered incidental, except perhaps by the technicians who repair copying machines.

“But if Xerophonics attends to the cadences of machines in sickness and health, it also documents a dream of how xerography might sound. Tracks are based on programming copying machines for tasks that generate interesting sonic patterns, but each composition is also, importantly, digitally realized, using an Ensoniq EPS 16+, an early sampler workstation. Noises of image-copying machines are here processed through a sound-copying machine. Keeping one ear on the materiality of sound and the other on the world of Platonic sonic forms, Xerophonics respectfully rejects one of the ambitions of Chester Carlson, the inventor of xerography: ‘to avoid attachment to worldly things and also to heavenly things.’ With Xerophonics there is no neat mapping of sound onto sight. Picture yourself in the dark, hallucinating a phalanx of fevered photocopying machines, a herd of nightmare clones.”

Stefan Helmreich is an anthropologist tracking the radiation of digital representation into the practices of computer science, marine biology, and sound art. His first book, *Silicon Second Nature: Culturing Artificial Life in a Digital World* (1998/2000), is an anthropological study of biologists using computers to mimic the dynamics of living things; and his most recent book, about to be published, is concerned with marine biologists. He was Assistant Professor in Science and Society at New York University, and is now tenured as Associate Professor of Anthropology at MIT. He has recently taught a seminar on the anthropology of sound.

Helmreich has produced a Powerpoint version of Xerophonics, in which the visual–sonic analogies are made clearer, and a history of Xerographics is given. Very excellent. His latest project involves challenging copyright, through [...censored...]. (The Xerophonics disk is “copyleft”!) I’m lucky enough to be working with him on this one.

If you write about this piece, think of your own things to say about it. It’s kind of a staggering and bizarre CD.

Steve Reich—Come Out (1966)

Reich is one of the fathers of musical minimalism and is still active today. This piece is one of a series of ‘process’ or ‘phase’ pieces composed in the mid-60s; others include *It’s Gonna Rain*, *Piano Phase*, and *Pendulum Music*, which we will listen to later. All are based on the strict application of simple phase

processes to a single musical event. Reich built his subsequent music for large acoustic ensembles on the ideas developed in these pieces. The following is paraphrased from his Writings About Music.

Reich contrasts the recorded speech of the piece with words being set to music (as in a song) by the former having melody and meaning as they “naturally occur.” The composer was attracted to recording real sounds like speech, rather like a video camera doing its thing. He says: “If one could present that [recorded] speech without altering its pitch or timbre, one would keep the original emotional power that speech has while intensifying its melody and meaning through repetition and rhythm.” It strikes me that he is contradicting himself, or not explaining himself clearly. Anyway, I think he’s heading toward a justification of *Come Out* having an intensified emotional content, rather than it being lost through repetition and layered treatment.

He then goes on to say that “constant repetition through tape loops produces such a rhythmic intensification....” Okay, so he is justifying it. Does it really intensify the rhythm or does the rhythm eventually vanish, rather as happens when you repeat a phrase over and over again? Reich then discovers that the “most interesting music of all” resulted from allowing seemingly in-phase unison tape-loops slip out of phase. He says that by doing so, “a number of relationships between two identities”—whatever an “identity” is— occurred without there being any transitions. In other words, the phase change is linear, thus continuous.

Composers often say things like that. He then goes into a little background behind the piece, which I find both interesting, and provocative (and less vague than his technical description). The piece was played at a concert to benefit six boys arrested for murder during the Harlem riots of 1964; the proceeds were for a retrial with lawyers of the boys’ own choosing. The venue was grand: Town Hall in NYC. The voice is that of Daniel Hamm, now acquitted; at the time of recording and all that went along with it, he was 19. He was describing how the boys were about to be taken out by the police to be ‘cleaned up’ but were taking only those who were visibly bleeding. Why the clean up? Because they had taken a beating [I can’t find a source that explicitly states who dished out the beating, but we can make guesses] in Harlem’s 28th precinct police station. Hamm had no open bleeding, so he rectified that; then he could be taken to hospital. Hence, “I had to like open the bruise up and let some of the bruise blood come out to show them.” It should be noted that the riots, which started as a peaceful protest, were in response to the shooting of a 15-year-old African American by a police officer [who, just as a randomly added detail, was white].

Can you follow these processes all the way through? Does it matter? Can you hear distinct phases (bad choice of word) of the piece, even if the divisions are not clear? Do you think the underlying meaning of the words, which are political, is enhanced or blurred by turning the words into a musical work? Compare

it with the Ostertag from last week. Is there a kind of earnestness to this piece, rather than (or as well as) a gravity of the subject matter? (I'm really loading the question!) Could it be any other way? (Think, say, of English irony, at least in writing, film, and comedy.)

More information:

<http://www.steverreich.com/>

Evan Ziporyn—Postcard (w/ Ava, Simon, & Skyler) (2001)

From the composer (courtesy of Evan Ziporyn, used with permission):

“This is part of a suite called No Return. This was made for a multi-disciplinary art exhibition about the Salmon River for the Sun Valley Center for the Arts. All the other artists were realists of one sort or another—a photographer, a water-colorist, and essayist, and a poet—and I felt that my own contribution had to be ‘in kind.’ All natural sounds were recorded at river’s edge; and while they are not ‘unprocessed’ (I used various filters along the way) they are kept all-too-recognizable. I came home with hours of recorded water, wind, highway sounds, and interruptions by my baby daughter and the frisky dogs who terrorized her. Since that was the reality, that became the basis of the piece. I worked with the idea that the natural sounds and the musical instruments (clarinet and violin) were equal partners, and should retain their essential character as I understood them.”

This is our first piece that combines conventional classical music writing and sounds with virtually unadulterated recorded sounds. Does the combination work? Explain. Would a different style of instrumental writing work in the same way, or are the violin and clarinet so written to work with the recorded sounds? Is there a connection between the identity of the sounds and the instrumental parts?

More information:

<http://www.ziporyn.com/>

Peter Whincop—My red-haired girl (2005)

Sorry to put my own music on the compulsory listening.

Why is this piece on a musique concrète listening list? I don't think of it as musique concrète, but many of the sounds are, and were, recorded sounds. In fact, recordings, analog synthesis, convolution, and some Max/MSP algorithms account for every sound. It is perhaps best to listen to the work before reading about the sounds. [Listen now!]

Obviously the voice is recorded; it is from an old tape recording from a reading in the Harvard Poetry Room in Lamont Library of the American poet Robert Lax, who lived on Patmos, Greece, as a hermit for the last 30 years of his life. I visited him there a few times, and got to know him (through an ex-girlfriend, his grandniece). His works are usually minimalist, but there are a few beat poems or narratives among them, and some Zen-like aphorisms. This is an early poem, also the first full-length poem to be published in the New Yorker magazine. All I did to the voice was clean it up a little, compress the dynamic range, and 'excite' it.

The recorded sounds are: the wheels of an airplane being lifted back into their wells (illegally recorded, of course); the general hum of an aircraft from the inside; various air vents and heaters, the sources of which I cannot remember; except the Boston Public Library's main air vent on a side street recorded late at night. All these sounds are disguised, not so much as a matter of principle or not caring as a route to desirable sounds: recorded sounds can provide a kind of timbre and shape otherwise almost impossible to obtain. For example, a sampled violin will always have the irregularities of pitch, timbre, shape, etc., that are difficult to model by computer. The irregularities—which I believe contribute significantly to our liking of a sound—can be inherited by almost any modification of that sound, or when combining it with another, such as by mutation or convolution. (For the record, the BPL air vent sound became the chordal accompaniment after interacting with some strange sounds I phase-vocoded with hard-to-replicate Serge synth patches.) The interaction of the two rather harsh sounds (surprisingly for those who are not experienced with convolution) produced fairly sweet chords.

Is it useful or distracting to know all this? What is the line between musique concrète and music that uses found sounds but are not at all recognizable as such? Just say something about this piece, good or bad; I won't be offended.

Irrelevant link:

<http://www.mathpuzzle.com/dread15.html>

Forrest Larson—Urban Sanctuary (from Timbre Harvest) (1994)

Forrest is a composer who also works in the Lewis Music Library at MIT. From the liner notes (courtesy of Forrest Larson, used with permission):

"Ever since I can remember, sounds in the everyday environment have inspired me, the engine of the family Volkswagen bus, squeaky doors, crows, pot and pans in the kitchen. From early childhood I sought out ways of making and experimenting with new kinds of sounds from instruments as well as any object

around that might make some kind of noise. One does not have to go to a concert (or even listen to a CD like this one) in order to hear deeply moving sounds. The root of my music is attentively listening to the authentic quality of sound itself (the timbre or tone-color), and not using it to tell a story or be symbolic of anything in particular. I listen for a lyrical or singing quality even in sounds such as jack hammers and short wave radio noises. Traditional musical elements of melody, harmony and rhythm are not always necessary in my work....

“Urban Sanctuary (1994) is a summation of my way of listening to the ‘music’ that is all around me in the city. These sounds are worthy of our close attention and in appreciating their beauty, one may even experience them in a kind of ‘sacred’ manner. The sounds used in the piece were collected in my wanderings mostly in the city. Rural Vermont night insect sounds open and close the piece.”

Do any of the sounds sound synthesized? Do the sounds sound processed? Make some observations about the differences between the natural and human-made sounds, including reference to the actual process of recording (if you can think of something). How is this different from, say, the Schaeffer piece, which is also focused on everyday machine sounds? Is there a film analogy to this piece (like, is it akin to a teen chick-flick)? Can you think of a reason why the piece is framed by natural sounds (if that is a correct way of understanding the structure)?

Forrest Larson—Long Short Waves (from Timbre Harvest) (1999)

[See first two paragraphs of the notes for previous piece.]

“[This piece] originated on a late June night in 1999 when sounds on the short wave radio spectrum were particularly inspiring. This piece was realized by splitting the radio output and routing one channel to an oscillator and the other through various signal processors. Careful attention was paid to never lose the sound quality and character of the original radio broadcast sounds. The process of composition was a dialog between studio control of the sound material and the random changes of the radio signals.”

In what way is this musique concrète? In answering that, consider that radio waves all around us are mediated by an AM demodulator; the sounds themselves aren't ‘out there,’ as such. Do you think this piece has structure? Is it music (that perennial, or weekly, question)? Can you describe some of the processing that has been done to the original sounds? (You haven't learnt a whole lot of processing techniques, but some might be obvious.) And, can someone please tell how these sounds on short wave radio (3–30MHz, or 10–100m) come about? Meteors?