

Ideologies and Ethics in the Uses and Abuses of Sound
Koli, Finland June 16-19, 2010

Receiver: exploring soundscape through radio composition and audience improvisation

Scott Smallwood and Stephan Moore
(scott.smallwood@ualberta.ca) & (stephan@oddnoise.com)
<http://www.ecnedeive.com>
University of Alberta, Canada

ABSTRACT

In 2007, the authors embarked upon a residency in the northern Catskills in upstate New York at free103point9's Wave Farm. Our idea was to construct an installation/performance event that engaged with the natural soundscape through the use of radio transmitters and an audience equipped with portable radios. A multi-layered soundscape composition was created using local sound sources, and then each layer was broadcast on a separate channel using low-power radio transmitters, tuned to tightly neighboring frequencies, in order to ensure that interesting new sounds would emerge through the processes of radio interference. Live signals from nearby radio stations added further layers to the composition. The sensitive balance of each radio's electronics provided a medium for the interaction of adjacent radio frequency bands, mediated by the radio's controls, the local topography, and the audience/performer's bodily interaction with the radio's reception. Audience members wandered through the woods, exploring the sounds of tree frogs and crickets mixed with their own individual tuning performances on their radios, while engaging with their location through multiple modalities. This project has proven to be repeatable in different contexts, and has evolved into a portable performance scenario. This paper will describe in detail the process of composition, programming, and performance, as well as outlining future directions.

INTRODUCTION

Evidence is an ongoing collaborative project by sound artists Stephan Moore and Scott Smallwood. Over the past decade, we have performed, improvised, created studio compositions, and executed conceptual audio works in numerous locations and circumstances. In that time, certain musical values have played a recurring role in our work; our enthusiasm for harnessing naturally indeterminate or unpredictable processes, a genre-blind attitude towards musical style, and, in particular, our use of field recording to generate and/or inspire our primary musical materials. One of our particular interests in field recording is the unplanned, unexpected nature of the "sonic evidence" that can be discovered through focused listening to all kinds of sounds, from the mundane to the exotic. Evidence of what? Beauty, strangeness, sonic puzzles, musical structures

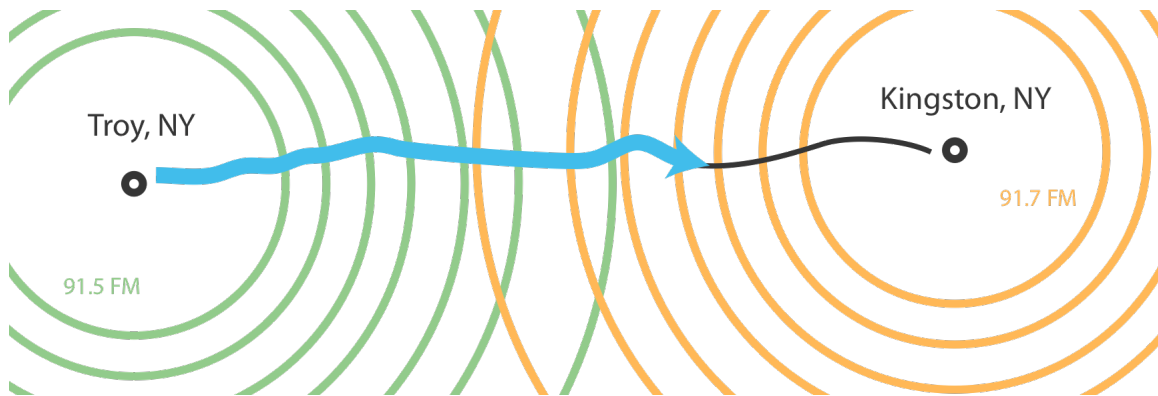
and motives, inspirational ideas – evidence of a layer of underlying meaning and expression that can be accessed through acute attention to the surface details of even everyday materials and occurrences. The “evidence” metaphor allows us to take a step back from our received understanding of what it means to be a musician, putting us instead in the position of sonic forensics researchers, listening closely for these sonic gems. Again and again, we discover sounds we might never think to create ourselves from scratch, but once discovered, lead us off in fruitful creative directions.

As close listeners, we have explored natural soundscapes, urban environments, small objects, speech, crowd sounds, machine sounds, and the sounds of radio transmission. In particular, we have both long been interested in the unintended artifacts of radio interference. It only took one road trip together for us to discover that we both enjoy purposely tuning a radio station “sour” so that it sits on the threshold of two stations, letting the passing topography around the car modulate the interference patterns, creating an interplay of sounds that seems as though planned by an inspired, alien intelligence. The beauty and strangeness of this common experience was the “evidence” that served as our impetus for *Receiver*. This paper details the creative process that produced this work.

BACKGROUND

Our first experiment with radio interference occurred in 2003, when we were working on a studio CD called *Out of Town*. For this release, we created five works, each of which focused on a particular set of sounds that we had gathered together on a cross-country road trip. It was during this road trip, a three-week marathon around and across the US, that we discovered our mutual fascination with FM radio interference. With a good analog tuning system (and some digital ones), you can easily tune into the spaces between adjacent frequencies and find fascinating sonic textures, as the stations weave in and out of each other in mysterious ways. We began wondering about ways to “compose” for this environment, and we got an opportunity to experiment when our friend and local DJ Jason Steven Murphy invited us to submit something for his program on the Troy-based community radio station, WRPI-FM. He gave us a generous half-hour of broadcast time. We decided to compose a block of sound that we could subject to the process of edge-of-reception degradation.

The sound materials for this composition originated from a particularly beautiful set of plumbing sounds recorded in the restroom of an inexpensive hotel room in Seattle. Using these sounds, we created a 25-minute long ambient piece – very wet with reverberation, having a spacious atmosphere and very slow rhythmic features – and gave it to Murphy for the broadcast. At the appointed time we made a recording of the broadcast as we drove a car southward on Interstate 87 for approximately 30 miles, starting from a spot 10 miles north of Kingston, New York, using a cassette-based FM stereo boom box. As we began to leave the sphere of influence of the powerfully-broadcast, Troy-based radio station (91.5 FM) we entered the broadcast range of Kingston-based 91.7 FM, which that night was broadcasting a religious sermon. The process of hearing the piece gradually disintegrate into static and unintelligible speech was quite fascinating, and we were excited by the results. In addition to generating some beautiful and sophisticated sonic shapes and textures, the sound was also possessed of an uncanny sense of location – the distilled essence of the character of a particular place. It seemed to come from the minister’s voice and its calmness, formal and fatherly, and the knowledge of its reception in the community. Even though the text can’t be understood, the context comes through powerfully. The recording sounded as though it were created on the edge of a specific somewhere, and for us this was a valuable and inspiring discovery.



We edited the recording down to its current 5' 34" time, which incorporates the most interesting portion of the transition, and at that point, *Out of Town* was complete. But the possibilities of working in this way wouldn't leave us alone, and we discussed many ways of exploring it further. One idea was to create several layers of sound that could be broadcast on closely-spaced frequencies, where interaction between them would be inevitable. We were quite fortunate to have a friend at WRPI that was willing to help us create "Out of Town," and we knew that we couldn't count on this sort of assistance in the future, particularly if we were looking to broadcast more than one simultaneous "stream" of sound. We needed a situation that would allow us to make use of radio transmission in an experimental capacity, where we could develop the idea and then have the geographical space to explore these transitions. Seeking such circumstances, we were fortunate to discover the residency program of the free103point9 Wave Farm. Located in the Northern Catskills of upstate New York, this facility is hosted on the property of Tom Roe and Galen Joseph-Hunter, for the purpose of creating works in the evolving field of "transmission arts" [1]. We applied for a residency to create an expanded version of our imagined work, which we called *Channel Surfing*.

THE MAKING OF *CHANNEL SURFING*

Our week-long residency at Wave Farm occurred in September of 2007. The basic arrangement was that we would use that week to research, conduct experiments, create sonic content, and prepare for a public presentation of whatever we came up with. We decided that the content for the compositional layers should be created, for the most part, on-site. We wanted to allow the environment of the Wave Farm site to influence the content as much as possible. We set up shop in an unfinished building near the front of the property, where we worked in a studio space that felt more like a tree house. This incomplete space, known as the Study Center and Residency Studio, lacked drywall and was completely open to the elements on one side. It turned out to be an inspiring place to work, and became both a composition studio and command-center/home base for the eventual performance.

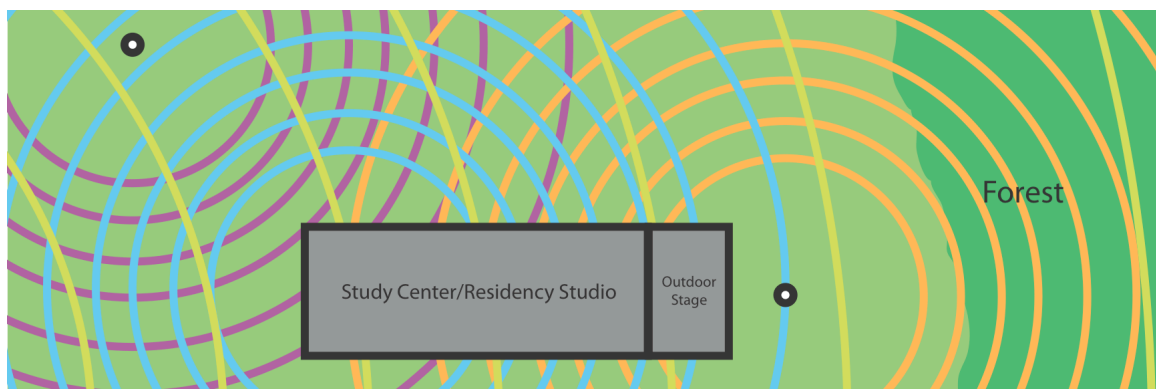
Throughout the first half of the week, we created sounds, made field recordings, designed software instruments, improvised, and eventually came up with dozens of layers of sound. We decided that each section of the piece would be about 12 minutes long, and the eventual form for the composition would be: six layers, each with seven of these sections, for a total length of 84 minutes. The six layers would be broadcast on six different-but-neighboring FM frequencies. In the latter part of the week, we experimented with a number of different kinds of low-power FM transmitters, trying out different placements and mixtures. This turned out to be the most difficult part of the process, but a workable system was eventually found, and we were soon ready for the performance, presentation, and installation of the piece.

	INTRO	Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
88.5	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1
88.7	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2
88.9	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3
89.0	Layer 4	Layer 4	Layer 4	Layer 4	Layer 4	Layer 4	Layer 4	Layer 4
89.2	Layer 5	Layer 5	Layer 5	Layer 5	Layer 5	Layer 5	Layer 5	Layer 5
89.3	Layer 6	Layer 6	Layer 6	Layer 6	Layer 6	Layer 6	Layer 6	Layer 6

In addition to the radio transmission equipment, the Wave Farm residency center also provided dozens of small portable radios, mostly of the boombox variety, equipped with built-in cassette tape recorders. We first prepared the Study Center by scattering some of these radios throughout its interior, all tuned to (or near to) the frequencies we were broadcasting on. The resulting sounds of this radio installation served as an underlying, home-base layer of sound; a noise floor which our audience could wander through, towards, and away from. The audience members either brought their own radios, or used the remaining ones from the Wave Farm supply. Each participant was encouraged to explore the piece by improvising with their radio's controls and antenna, exploring the complex of sonic phenomena that resulted from interference between our layers and also with local radio stations. Their individual voices added further information and spatial depth to the sound installation already underway, as each participant realized their role as an autonomous agent expanding the global whole of the work.

The local stations, of course, were vital to the process, and in fact provided some of the most interesting material, as their content melded, eviscerated, and was eviscerated by the layers of sound we were broadcasting. Station content included radio drama, talk radio, "classic hits" radio, and classical music. Audience members wandered through the woods with their radios, sat under trees, huddled on couches in the study center, and traversed their own sonic journeys through the darkened, rural space. Many honored our request to record their sonic explorations onto a provided cassette tape, and several field recordings of the event were created from various fixed and moving vantage points.

Although the threat of rain and the remoteness of the location diminished the size of our audience, the participants that came engaged with the piece enthusiastically, and we agreed that the piece – and the residency as a whole – had been successful, and a lot of fun to boot. Because we had gathered so much audio in the form of field recordings and cassette tapes, in addition to the large amount of source-signal we created for the broadcast layers of the piece, the next logical step was clear: we should sculpt a collection of compositions from this raw material.



RECEIVER

We have never felt shy about reusing and re-contextualizing our own materials, so making a studio CD from the *Channel Surfing* material was easy to imagine. The question lay in how we should approach the content. Did we want to create a purely documentary record, that is, a kind of “walk through” of the original? Or, did we want to treat the sounds as raw materials for a studio composition, aiming at a musical result completely abstracted from the original experience? Each of these approaches was certainly possible, and each felt promising. In the end, we decided to create an album that would function as an amalgam of these approaches, made up of a sequence of named pieces. These were often seamlessly connected to one another, moving easily between verbatim aural “snapshots” taken from the pool of recordings and studio creations that used the raw material from *Channel Surfing* as their point of departure.

The amount of audio we had to sift through was the most overwhelming aspect of the piece. We had at least ten different 84-minute recordings of the evening, plus the original tracks themselves. (84 minutes times 6 layers equals nearly 8.5 hours!) Some of the recordings were direct cassette tape captures of FM improvisations. Others were field recordings from various locations in the Study Center and in the woods. We threw all of these source tracks together into one big Pro Tools session, and lined them up so that they were together in time. We discovered some incredible sounds, including ones that revealed failing tape transport systems (warbling audio) as well as the sounds of other technological errors. We had so much material that our decisions about where to look and how to listen were very arbitrary and intuitive, since a thorough and exhaustive approach could have taken weeks.

This process, while it doubtless left some excellent occurrences undiscovered, led us to some truly inspired and inspiring audio gems, which called out to be worked into pieces. Some of the final tracks are literally just edited, unprocessed cuts from a participant’s cassette experience, others contain long, unprocessed field recordings of the event, and still others are highly composed and edited. Today, we see *Receiver*’s thirteen tracks as a testament to the strengths of this particular approach to composition and transmission art, not only in terms of participatory performance and installation, but as a richly rewarding method for generating unique and compelling audio material.

RADIO AND PLACE

The inclusion of local radio stations in the process emphasized the aspects of this work that are grounded in the location of the performance. *Channel Surfing* was tied directly and literally to the space, both in terms of its delivery method and its content. *Receiver* ultimately contains indelible sonic markers that identify an area (and era) of upstate New York in this work, without being too specific, through the media voices and the recognizable radio sound-print. More than our own layers of broadcast audio and field recordings, the radio layer of local information – pieces of radio jingles by local musicians for local business, three or four well-spoken words by radio personalities, snippets of local news, and a variety of other cultural layers – make this project feel very connected to the ground on which it was created. This is an obvious point today, but it is one that we only encountered when we started listening to the documentation carefully afterwards. As was the case for “Out of Town,” this layer contributed the most interesting material of all, turning the discovery of the countless juxtapositions and surprises awaiting us on those cassette tapes into sheer joy.

FUTURE DIRECTIONS

Since the creation of *Channel Surfing* and *Receiver*, we have attempted to re-stage *Channel Surfing* once, with mixed results. The setting was the Issue Project Room in Brooklyn, where we broadcast three of the original six layers using smaller FM transmitters, and invited the audience to bring their

own radios. Although this re-imagined concert version of the piece was itself successful, it lacked the openness and geography of the original, due to its being confined to a small room. This experience emphasized for us the important role that geographic freedom played in the initial performance. Having open spaces and larger transmitters was a real asset that we hope to be able to duplicate or surpass at some point in the future. We are very interested in finding a method to allow a larger audience to participate in such an event, hopefully in an outdoor setting, and perhaps with an even greater number of layers of broadcast frequencies.

ACKNOWLEDGEMENTS

The authors would like to acknowledge Galen Joseph-Hunter, Tom Roe, and the free103point9 organization for their generous support of this project.

REFERENCES

- [1] free103point9 Transmission Arts: <http://www.free103point9.org/> [accessed Feb. 6, 2010]