The February performance of *Artificial Space* displayed subtlety and wide variability in changes to the social topography and aural experience of the piece. The rehearsal process facilitated the emergence of subtle alterations in the power dynamics between participants. The analysis/synthesis programs, which removed words from the sonic texture, and the variable length delay, also enriched the interactive environment. In *Artificial Space*, processing worked differently with different people, emphasizing the degree to which personality remained an important contingency. Additionally, people altered their behavior and relationships in response to different processing, illustrating the significance of processing changes in changing the social topography of the artificial and performance spaces.

Skating Ice Rink Resonator

I took figure skating lessons for a number of years as a child. I remember while skating we would listen to music played over speakers mounted on the ceiling of the rink and that the sound would reverberate and echo off the walls and ice, creating a rhythmically complex and cacophonous sonic texture. This piece is designed with the resonance of an ice rink in mind. Two expendable speakers may be skated around the rink by interested onlookers for the duration of the installation, causing the pan, echo, and equalization to shift.⁸

Shortly after the end of winter break, I set up an installation on the Freeman Athletic Center ice hockey rink during a musical event organized there on a Saturday night. In this piece, *Skating Ice Rink Resonator*, a non-interactive SuperCollider synthesis patch sent loud echoing blips through a pair of speakers left on the ice. People at the event were invited to push the speakers around, twirling and shoving

⁸ This description is adapted from the comments in the SuperCollider code for *Skating Ice Rink Resonator*. See Appendix 2.



them across the rink, changing the sound's reverberation patterns and its equalization as it resonated in the echoic space.

In addition to changing the sound material by moving the speakers, participants could interact with the installation by changing their own location—by skating around the rink. When changing the positions of one's ears relative to the speakers and the ice rink walls, the echoing patterns and equalization of the sound changed accordingly. Unlike *Activated Sound*, the headphones pieces, and *Resolution*,



interaction in *Skating Ice Rink Resonator* was based on the physical arrangement of the installation and the specific character of the site in which it was deployed. Written for and installed in the Freeman Athletic Center ice hockey rink, *Skating Ice Rink Resonator* used site-specificity as a means of creating interactivity in the absence of sound modifying programs. I had spent



many years figure skating as a child. The opportunity to write a piece for the musical event on the rink reminded me of hearing songs blared over skating rink speakers, echoing around the rink as their rhythm became indistinct and they picked up the rink's resonant frequencies. This memory, and the thought that speakers could actually skate around the rink, in counterpoint to listening skaters, inspired the form and content of the installation. The site-specificity of the installation extended to include the interactive concepts in its realization, drawn themselves from notions of skating, and the acoustics of an ice rink.

Weapons Inspections

Pairs of speakers and video cameras document and engage with the UNMOVIC and IAEA weapons inspections in Iraq. Each pair represents a weapons inspection site in Iraq, and contains visual and aural documentation of the inspections process. Ceiling speakers replicate an anti-war protest environment in counterpoint to the inspections apparatus on the floor. After the inspection apparatus has been assembled the audience is invited to inspect the installation. Performers construct paired video and speaker 'sites' and the audience is invited on stage to conduct inspections.

After leaving topical specificity to explore social topography and interactivity in performance situations in the fall semester, my concern with political material reemerged when considering my thesis concert in February. After considering a number of topical ideas related to the motion of people between different locations, I decided to focus my second piece on the weapons inspections in Iraq. I intended to turn on the processing patch for Artificial Space after the conclusion of the concert as an informal installation and wanted to bring the audience on stage prior to the concert's conclusion. I designed Weapons Inspections in part to give the audience a good reason to get on stage, to make a piece that began as a performance and ended as an installation, and to get the audience interacting with each other, activated, and enjoying themselves. The timing of the thesis concert was topical for a focus on Iraq. The concert, held on 15 February followed intensely watched remarks made by Hans Blix and Mohammed ElBaradei the previous day to the United Nations Security Council. The piece also coincided with an international day of protest against the possibility of a war in Iraq, during which over 600 Wesleyan students attended a New York City protest, and which attracted the largest numbers of protesters in history all over the world. This coincidence proved an excellent opportunity for me to write a piece in solidarity with the growing anti-war movement.

In researching the progress of the Iraq weapons inspections, I came across a variety of aural and visual material to use in my installation. I located a recording of a January press conference by Blix and ElBaradei in which the inspections leaders commented on the progress of the inspections and answered a series of questions from reporters. After a long search, I was also able to find aerial photographs of

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inspection sites, released by the CIA and by the State Department after Colin Powell made his presentation to the United Nations on Iraq's suspected weapons program. After analyzing and categorizing the aerial photographs from the CIA and Colin Powell's presentation, I decided to organize sound and visual material for my installation around six specific locations in Iraq which had been periodically under U.S. Intelligence surveillance and which had been searched by UNMOVIC or IAEA inspection teams during the recent weapons inspections process.

For each site, I collected excerpts from the UNMOVIC and IAEA daily press statements mentioning the site, which I read into a recording device. I incorporated the text of the press statements as visual images as well. I also included any aerial photos I could find of the site in question. In addition to the cluster of directly related images and sound fragments for each site, I distributed sound fragments from the press conference to each of the six 'sites' along with a variety of other images, including PowerPoint slides from Colin Powell's presentation, photographs of inspectors on the ground in Iraq and analyzing materials in laboratories, as well as images of inspections planning meetings and the UNMOVIC board of directors. I also collected sound recordings of chants and songs from previous anti-war protests and a series of recordings of anti-war protesters explaining the signs they were carrying and their reasons for opposing the war.

Like Skating Ice Rink Resonator, Weapons Inspections featured interactivity generated by the physical manifestation of the installation. I represented each of the six specific sites of weapons inspection activities in Iraq with pairs of a loudspeaker and a digital video camera. The sound material I had assigned to each site played through its speaker very quietly, requiring listeners in the crowded, noisy installation space to place their ears close to the speakers in order to hear the sounds. The associated video cameras also provided points of interaction. With each camera pointing at its speaker, the installation set-up created the expectation that one would see the speaker through the camera lens. Peering through the eyepieces or looking at the folded-out panels instead revealed a slideshow of the images associated with the inspection site. Louder sounds from anti-war protests descended from the ceiling speakers. People walking around the installation could visit the different 'inspection sites' and look and listen to their own personal mix of anti-war sound and visual material pertaining to the different sites and the inspections process. Listeners thereby became active participants in piecing together chunks of narrative to create meaningfully different individual experiences of the installation. While the sound and visual material was not inherently interactive—cued by repeating CDs, video loops and simple check-box triggers, the material acquired meaning interactively, with each member of the audience composing their own improvised inspection through the installation's sonic and visual territory.

The unexpected images in the cameras also tied to my implementation of interactivity in *Artificial Space*. This disjoint with users' expectations mirrored the transformation of input signals in *Artificial Space*



and my fall preparatory installations. In *Weapons Inspections*, however, a simple denial of the expected result from looking through a camera replaced the direct interactivity in the headphones pieces.

In pieces such as Activated Sound and Artificial Space, interactivity was executed by a few individuals, but was perceptible by the entire audience. In Skating Ice Rink Resonator, interactivity was not programmed into the sound synthesizer, but by pushing the speakers around the ice rink, individuals could still interact with the piece in a manner that affected every witness' listening experience. The ability of audience members to interact with Weapons Inspections, however, operated on an individual level only. Like the skaters who chose to interact with Skating Ice Rink Resonator simply by moving around on the ice, every participant in this installation was included in the interactive system, but only in relation to their own experience of the piece.

Unlike Activated Sound, Weapons Inspections provided numerous incentives for participating. By playing quiet sounds through all six of the installation's floor speakers, audience members gained access to whole new swaths of sound material by approaching the speakers. The set up of the video material, requiring audience members to look at the LCD screens or peer through the eyepieces in order to see the slide shows also provided an incentive to go down to the stage.

Also unlike Activated Sound, the sound design of Weapons Inspections focused on a clear presentation of anti-war documentary material. While the interactivity in Activated Sound obscured the political songs in the piece, the configuration of Weapons Inspections enhanced the topical specificity of the project,



mimicking the inspections process and embracing the differences between individuals' experiences. The sound and visual information was organized and displayed so as to be comprehensible regardless

of audience members' decisions about how to experience the installation. *Weapons Inspections*' placement at the end of the concert was also important. While people felt pressed to find seats and retain their places and were thus dissuaded from participating in *Activated Sound*, audience members in this case was eager to stand up, talk, and move around.

Social topographic concerns were represented in *Weapons Inspections* through my desire to shift the event from a concert environment to that of a relaxed postconcert installation during the piece's performance. In getting everyone to get up on stage during a piece that began as a performance, *Weapons Inspections* shifted the social topography of the concert. At its opening was the residue of *Artificial Space*, but by its conclusion, audience members were talking to each other and walking around the installation actively shaping their experience of the music.

While the piece got people to leave their seats, the large audience created a few problems for the subtle balance of sound and visual information in *Weapons Inspections*. In mobbing the installation space the area became congested obscuring the view of the installation in its entirety and creating too much noise to hear the sound coming out of the quiet floor speakers without placing ones ear right by the speaker grills. While the congestion caused the piece to recede, it encouraged spontaneous discussions of the then-impending war with Iraq.

While the political material in *Weapons Inspections* came off clearly, I had not provided a channel for people's raised consciousness. There was no additional information about the conflict or action I wanted audience members to take. Had I set up laptops with online petitions, brought flyers advertising anti-war events such as the weekly Middletown anti-war vigils, used the opportunity to record more viewpoints on the war, or even just taken people's contact information, the piece could have become more effective.

Spring 2003 Topically Specific Community Recording Projects

Through late February and into March I worked on a series of installations and radio projects on political issues. In these pieces I attempted to involve communities in accumulating and presenting documentary material connected with the topic. As war loomed and I became increasingly engaged in anti-war activism I started to work on a sound project to promote the field recording of anti-war events and cycle that sound into use promoting and enlivening future anti-war events. I also worked with Joanne Alcantara, Laura Neuman, and Heather Wieler in conceiving, recording, and producing a sound environment for a Wesleyan production of the Vagina Monologues. In creating these pieces I hoped to intensify and personalize the experiences of those attending the events at which I recorded or presented sound by making interaction with a recording device or static sound installation a meaningful part of the experience of the project.

In enabling dozens of individuals to record interviews, speeches, lectures, teach-ins, ambient sounds, and protests, these recording projects produced new interactivity by mediating people's experiences through the imposition of a recording device. For some of the individuals who recorded sound at the anti-war protest in New York City on 15 February, bringing a tape recorder along intensified their experience of the event, leading the individuals to approach others asking questions like "How do you feel about the possibility of war in Iraq?" and causing one person to speak self-consciously whenever recording. In gathering material for the Vagina Monologues sound environment, the sole purpose of carrying a recording device was to accumulate responses to questions for a sound collage. Conversations about vaginas that would not have otherwise taken place were precipitated by the presence of a tape recorder. The little red lights on these people's recording devices traced paths among crowds, contributing to and vitalizing a social environment.

Even people who were less purposeful about recording, who hardly noticed the tape recorder they carried around or who sat and listened quietly while monitoring a MiniDisc or Digital Audio Tape recording of an anti-war event, participated in an interactive project. These individuals, while less direct about experiencing their time as 'recording,' monitored devices that nonetheless mediated their time. In addition, by preserving the sound material for distribution over radio and the Internet, and for uses in future sound installations, the act of recording, of preserving a sound for further playback, sustains the interactive and political life of a signal that would otherwise decay irreversibly.

Vagina Monologues Sound Environment

The Vagina Monologues sound environment includes vagina-friendly music and recordings of Wesleyan students talking about their vaginas in a two channel sound collage. The piece welcomed audience members to Wesleyan's four-night February production of the play, creating a politicized and vaginafriendly context for the show.

Like *Weapons Inspections*, The Vagina Monologues sound environment I created for a production the weekend after my thesis concert consisted entirely of topical material. The thirty-minute, two-channel installation featured excerpts from vagina-friendly music by artists such as Ani DiFranco, Erykah Badu, and Tracy Chapman selected by the organizers of the production. The remainder and majority of the sound was recordings of people at Wesleyan talking about their vaginas in response to some questions asked of interviewees in the play—what your vagina would say if it could talk, what it smells like, and what it would wear.

Acquiring this material for the sound environment involved a communityrecording endeavor of some scale. Heather Wieler, who had previously performed in Wesleyan's annual production of the play, interviewed students around campus, especially in the university Campus Center. Asking these questions encouraged discussion about vaginas and also created publicity about the production. Even the university paper, the *Argus* reported on the recordings, for which Heather conducted short interviews with nearly fifty students.

In a supportive context, the sound environment provided a good warm up for the show and contributed to the political atmosphere of the performance space, which also included tables representing several vagina-related Connecticut political organizations. The songs, especially, were audible even in the crowded room where the play was performed, but the tape recorded sound, with its poor signal to noise ratio, often blended with the ambient sound in the space, contributing additional narratives to the set of conversations in the room.

The sound installation, full of intermingling responses and songs, interacted with itself and with listeners, building personal narratives in the minds of individuals as they listened in to the interplay of voices and songs. In the pre-show setting, engulfing numerous conversations, the installation mingled with other ambient sounds and contributed additional conversations to the sound space of each listener. In this sense, the piece followed the interactive model of *Weapons Inspections*, though here, as ambient sound, rather than a central focus of a concert environment.

Channel Surfing

Channel Surfing is a radio artwork created by recording seven minutes of haphazard television channel surfing on the day of the piece's broadcast. Through broadcasting snippets of a variety of stations over a single radio show, and through replacing radio with television, *Channel Surfing* places familiar sounds in an unexpected context.

In writing *Channel Surfing*, a short piece of radio art I composed with Curtis Yee for a 28 February broadcast on R.A.T., I focused on the specific features of radio as a site for art, designing the piece so that radio listeners flipping through stations or tuning in for a longer period of time all had access to the piece's meaning and content. This content of this project also engaged with site-specificity by substituting sound from one set of broadcast media, television, for another. Comprised of distinct, intelligible television sounds, *Channel Surfing* was also subtly topical, transmitting a message about television culture decipherable by radio listeners flipping through stations or locked on WESU.

Channel Surfing was simply constructed in an attempt to circumvent any negative characterization of the music as 'experimental' in the hope that the piece could exist on the radio as a slice of experience, or a joke to potential listeners. I designed *Channel Surfing* so that even hearing a small slice would transmit something integral to the composition's conception. At the same time the piece consisted of a seven-minute sequence of sounds that read well from start to finish. In taking into account the different ways in which a person could listen to the radio, I wrote with the unique context for performance it presents in mind.

While the piece was broadcast in the midst of a show devoted to radio art, the majority of listeners may not have known the name of the show, or had any

familiarity with the WESU schedule. I wrote with this context in mind, and attempted, through presenting material recorded off of a television, and by broadcasting rapidly flipping channels over a fixed signal, to play with the possibility that a listener would happen upon the piece accidentally, creating interesting disjoints and connections between the expectations of listeners and the material of the piece.

Channel Surfing consisted of a seven-minute indeterminate sampling of material on the television, selected by haphazardly channel surfing while recording the sound coming out of the television. The resulting snippets of what was on during that time period were broadcast over the radio on the same day. The piece was intended in part as a comic gesture toward listeners who tune in for only a few seconds while scanning for a station that corresponds to their taste. By broadcasting a similar sort of 'scanning' over a single radio signal, *Channel Surfing* contributed an additional level of depth to such an experience. By substituting television channel surfing for radio, and by replacing a single signal with a sequence of different channels, the piece also creates a strange disjoint between experience and expectation.

Channel Surfing also created an interesting experience for those who listened to a longer portion of the piece. Stripped of corresponding visual information, and removed from its usual context, heard over the radio, the television sounds presented themselves in a less mediated fashion. A variety of clichéd TV subject matter, which happened to be on when we recorded, was separated from the context in which audiences come to expect and non-critically accept it as inevitable. Sounding disjointed and out of context over the radio, the discussions about plastic surgery,

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twisted relationships on talk shows, the quotes of President Bush saying something horrible, and the cartoon show sound effects all came off as strange and unsettling. While not engaged with any political project, the incorporation of topical material in *Channel Surfing* created a break in the pattern of strong culture-enforcing messages on television—creating a sense of unease about the messages one would expect to receive and be less likely to question in their ordinary context.

Books Not Bombs National Student Strike Sound Project

The Books Not Bombs sound project represents an ongoing initiative to record and instrumentalize sound and video from anti-war events and coverage of the war in Iraq. By organizing recordings of anti-war rallies, teach-ins, and speeches, Books Not Bombs seeks to sustain and reuse powerful anti-war messages. By creating anti-war installations and radio art, and building an archive of anti-war sound the project seeks to enliven anti-war activism and amplify the political power of anti-war sounds.

In addition to preparing *Artificial Space* and *Weapons Inspections* leading up to my 15 February thesis concert, I also attempted to organize a number of individuals to record sound at the New York City anti-war protest held the same day. I hoped to use the material in an installation I was planning to create for the 5 March Books Not Bombs national student strike against the impending war. I planned to recycle the piece into a radio art project for broadcast later in the month. My goal was to meld topical sound recording with other anti-war organizing efforts through a community approach to creating the piece. The sound material, which I planned to locate in accessible and politicized contexts, was aimed at maximizing the social mobilization potential of anti-war sound in installation and radio formats.