



RADIATION LIMIT

“Radiation Limit” commemorates the human radiation experiments sponsored by the Atomic Energy Commission from 1943 until at least 1974. The site-specific installation for the grounds around the Department of Energy, successor to the AEC, consists of plantings of spiderwort, a plant native to North America that is used to detect the presence of radiation, and contact microphones buried slightly underground and connected to mixer and low power FM transmitter.

The highly sensitive contact microphones pick up soil movement around the spiderwort plants and the vibrations of passing footsteps and vehicles. The sounds are mixed together and broadcast via low power radio to the surrounding area. Viewers are provided with portable radios to detect the sonic activity, much as the original experimenters used Geiger counters and other instrumentation to measure exposure to otherwise invisible radiation.

During the Cold War, thousands of people were exposed to radiation in scientific experiments without proper informed consent. Many of these experiments were conducted on prisoners, semi-literate people, terminally ill patients, people of color, and the disabled. Some of the most significant universities and medical centers in the country conducted the studies for the Atomic Energy Commission as well as the Department of Defense, the CIA, NASA, and the National Institutes of Health. In all, the government funded some

4,000 radiation experiments prior to 1974, when rules were adopted to govern the treatment of human subjects in federally-sponsored research. In 1995, President Bill Clinton issued an official apology “to those of our citizens who were subjected to these experiments, to their families, and to their communities. We will no longer hide the truth from our citizens.”

Spiderwort is known as “nature’s radiation detector” because its stamens change color from blue to pink in the presence of radiation, according to independent studies at Brookhaven National Laboratory and Kyoto University. It has a long history of medicinal use by Native Americans, who crushed the leaves to treat insect bites and brewed it into a tea to alleviate menstrual symptoms. The plant’s flower, shoots, and leaves are also edible. A close relative of sedges, lilies and other wetland species, spiderwort requires a semi-shaded, relatively damp location. As such, it is well-suited to rain gardens at the dripline of trees and near footpaths.

Transmissions between Memory and Amnesia: The Radio Memorial in a New Media Age

Sarah Kanouse

In 2005, the U.S.-based arts organization free103point9 founded a residency program and performance series in support of its mission of “establishing and cultivating the genre Transmission Arts” [1]. The events take place at the organization’s rural campus, Wave Farm, and are designed to support the creative exploration of the electromagnetic spectrum as both site and material for contemporary art. Wave Farm is notable not just because it is the first retreat campus dedicated exclusively to the medium of “transmission,” rather than to music, sound or new media art, but also because of the distinctly organic ring to its name. Wave Farm evokes a home-spun, handmade metaphor in its cultivation of a transmission art form. On this 30-acre property in New York’s Hudson River Valley, radio waves are seeded, watered, weeded and ultimately harvested by loving artist-farmers (Color Plate C).

While artists have used radio since shortly after the technology’s adoption, free103point9 is the most visible and active group in the United States pushing to catalog, research and theorize these efforts in order to establish transmission and radio as distinct forms with their own histories and theoretical currents. This approach seems significant at a point in time when some artists are increasingly wary of the unfulfilled utopian rhetoric surrounding new media. The graphical user interface dominant over the past generation has rendered ever more complex manipulations of data ever simpler, but it has also meant a greater mystification of basic technological processes; “personalized media” such as blogs and RSS feeds have blurred the lines between producer, distributor and consumer while also fracturing the public into ever smaller niche markets; digitization and indexing of the world’s data promise untold riches for future researchers, but the rapid pace of obsolescence constantly threatens digital data with the special oblivion of incompatibility. Perhaps in reaction, many artists are reworking and re-examining media popularly written off as obsolete—celluloid film, magnetic audiotape, analog video and FM radio all spring to mind. The name Wave Farm evokes

the sort of physical tinkering these technologies invite, rather than the digital tinkering of cut-and-paste, and suggests a connection to an early moment of radio culture when garage enthusiasts built hand-made crystal sets and DX-er chatter popped up across the dial.

The transmission art promoted by organizations like free103point9 does not preclude engagement with computer-networked technologies, and many of the projects the organization has supported rely on hybrid transmission models that use analog FM broadcasts as well as digital and networked uses of the electromagnetic spectrum such as Bluetooth and wireless Internet. Tellingly, free103point9 calls its campus “Wave Farm,” not “Radio Farm.” The name emphasizes the space, materiality, interactivity and poetics of transmission, rather than focusing primarily on content or reducing the medium to a single form. Wave Farm invites us to think about “radio art” as something *made from* rather than *received by* radio waves. Galen Joseph-Hunter, executive director of free103point9, explains, “The ‘transmission art’ nomenclature was carefully selected to encompass not only linear works made for radio dissemination, but multifaceted and interdisciplinary works created through the full radio spectrum in its broadest definition” [2]. free103point9 invites artists to think about what is irreducible about the transmission form, consider how that space has been theorized and utilized and create works that push against those limitations.

Of course, attention to the implications of radio-as-material certainly does not preclude critical engagement with content and politics. Indeed, the association of do-it-yourself, experimental approaches to radio with left and anti-authoritarian politics dates back at least to Bertolt Brecht and tends to dominate any discussion of the medium [3]. free103point9 itself has consistently used its transmitters and webstreams for political purposes, most notably during the 2004 protests against the Republican National Convention in New York. Yet even as an artist skeptical of the sort of modernist project implied by the charge to find the formal essence of a material, I still find something valuable about the invitation to think about the unique materiality of radio while also considering what it might contribute to politics and cultural production more generally.

ABSTRACT

In light of constantly exploding bandwidth and nearly limitless digital storage, FM radio may appear an anachronistic means of communication. However, many new media artists are using this most ephemeral, unindexable, “old” medium instead of or in addition to digital technologies. In this paper, artist Sarah Kanouse discusses three of her own projects that use radio transmission as a unique public material to create ephemeral monuments to difficult moments in American history. By using an analog and dissipating material, these pieces suggest that the struggle to remember is more meaningful than the total recall promised by the digital archive.

Sarah Kanouse (artist, teacher), 829 N. Dodge St. Iowa City, IA 52245, U.S.A. E-mail: <sarah-kanouse@uiowa.edu>.

Article Frontispiece. *Radiation Limit*, 2009. (© Sarah Kanouse)
Poster design by Becky Nasadowski.



Fig. 1. Photographic documentation of *UnStorming Sheridan*, 2004. (© Sarah Kanouse) Left: transmitter bicycle at Haymarket Square; right: at Fort Sheridan.

Over the course of several years, I made work that hinges upon radio's peculiar materiality, as well as its association with left politics, to create memorials to difficult, violent, yet largely forgotten moments in American history. As a material, radio is eternal and ephemeral; profoundly elemental, yet invisible and unstable. Electromagnetic radiation, of which radio is a type, can move infinitely through the vacuum of space. On earth, however, transmissions are limited temporally and geographically. Radio waves dissipate, can be blocked by objects and are distorted by the interference of solar radiation. Taken as metaphor, these material characteristics echo the selective and hazy processes of cultural memory. In contrast to the heroism and permanence of 19th-century monuments and the minimalist memorial landscapes of the late 20th, the radio memorial functions as what James Young has described as a "counter-monument" in that it refuses to fix historical meaning. Instead, it performs the contingency and instability that is characteristic of all acts of memory [4]. Using radio as a form for public commemoration requires reexamining and integrating ideas about radio as public, political space with cultural associations about its ontological properties. In this paper, I use several of my own radio memorials to explore the transmission monument in light of cultural memory studies.

On 12 November 2004, one day after the 117th anniversary of the execution of the Haymarket Martyrs, I strapped a 1-watt transmitter onto my bike rack and rode 27 miles (Fig. 1). My path roughly reversed the journey taken by the U.S. army in 1895 to occupy Chicago in order to quell a railroad strike that threatened

to turn revolutionary. The ride took me from the site of the famed Haymarket Affair, over the streets of present-day Chicago, past housing projects in various stages of demolition and condos in various stages of construction, up the shore of Lake Michigan, and over some of the most valuable residential real estate in North America (Fig. 2). I ended at the fort that had been built following the 1886 Haymarket affair to permanently station troops within a day's march of the city to "deal with" any further labor unrest the memory of Haymarket (or the abysmal industrial conditions of the 19th-century United States) might unleash [5]. I flicked off my transmitter near the foot of the martial statue of General Philip H. Sheridan at the heart of the fort, which had long since been decommissioned and turned into a luxury housing subdivision. My transmitter had been inscribing 103.5 FM with a distorted, mournful "Internationale" throughout the 3-hour trip. This transmission performance piece, called *UnStorming Sheridan*, figuratively reversed not only the historic army march into Chicago but also the sense of linear time that holds Haymarket, the railroad strike and present-day housing and labor issues in the city as part of different stories, as unrelated as they are unchangeable [6].

A few months later, I began traveling to unmarked sites of other labor uprisings and strike violence in order to transmit the same distorted "Internationale" out of a suitcase [7]. Although I could not myself hear the 2-minute broadcast, the space surrounding me was bathed in invisible radio waves. As in *UnStorming Sheridan*, I transmitted over a frequency used by a major radio station, interrupting its signal with a memorial to past struggles

against capital and the world it would create. The series of invisible actions, which I collectively call *Don't Mourn*, does not make heroes of the fallen, does not fix the story and does not rewrite the ending—of the strike, the labor movement or capitalism—into an uplifting lesson to be learned. These performances were each documented by video in a single long take that enabled a gallery and on-line audience to examine the contemporary condition of the sites, which are often semi-abandoned and contaminated or else completely absorbed by the same industrial giants once battled by strikers (Fig. 3). I was interested in the broadcasts' ghostly presence in these spaces, in how they inscribed them invisibly with the memory of their violent pasts while pushing against what Walter Benjamin called "left-wing melancholy" by emphasizing the present-day conditions of the media and landscapes in which these pieces took place [8].

Influenced by *The First Five Miles*, a 1998 radio performance by Mike Pearson and Michael Brookes that commemorated resistance to the 19th-century enclosure of the Welsh countryside, these two pieces used the trope of the pilgrimage to map alternate trajectories for memory work. Rather than marking space with a physical memorial *object*, the pieces inscribed the electromagnetic spectrum with intangible memorial *sound*. The sound was unstable, ephemeral and almost certain to be overlooked. It emphasized the fragile and shifting nature of memory rather than masking it in the apparent permanence of marble or bronze. The choice of music was also significant. Even before its adoption by the Soviet Union in the 1920s, the "Internationale" was an anthem of working class struggles across

the globe, and it remains a significant song for social democrats, socialists, communists and anarchists internationally. Literally hundreds of arrangements and variations on the lyrics abound. My version—based on an orchestral recording from the 1950s—was tonally distorted and slowed to a dirge that underscored the ultimate failure of the various strikes being commemorated while also questioning whether the upbeat, victorious, almost military tone taken by so many arrangements is appropriate or even desirable. Because any “audience” present for the original performance was unwitting and would encounter the sound as a ghostly interruption of the Top 40 playlist on their car radios, it was also important that the music immediately strike the right emotional tone.

Since these first experiments with transmission as a memorial form, the conceptual and formal links among

invisible, energetic radio waves, sonic interruptions and imperfectly remembered events have only become stronger to me. More recently, I proposed a politically impossible monument to Cold War-era human radiation testing for the grounds of the Department of Energy in Washington, D.C. Exploiting the associational slippage between radio and “atomism, radiation, irradiation, molecular transformation, disintegration, explosion, catastrophe,” noted by artist and theorist Frances Dyson, *Radiation Limit* (Article Frontispiece) would commemorate the 4,000 government-funded human radiation experiments that took place from 1947–1974, usually without proper informed consent, often on women, people of color and those with disabilities [9]. Perhaps making literal the artist-farmer metaphor suggested by free103point9’s Wave Farm, the monument would consist of plantings

of spiderwort; shallowly buried, weather-resistant contact microphones; and a low-power FM transmitter. Spiderwort, a plant whose stamens change color in the presence of radiation, is used as a symbolic atomic monitor. The contact microphones would pick up vibrations of human activity that would sound muffled, distant and distorted, punctuated with Geiger counter-like clicks and rhythmic pulses like electronically distorted heartbeats. The FM transmitter would broadcast this spontaneous, site-generated sound to anyone caring to listen [10].

Although the radiance metaphor Dyson identified has dominated radio’s cultural associations, radio memorials also rely on a second metaphor: the tension between immersion and resonance [11]. Artist and media theorist Anna Friz suggests that resonance potentially resolves radiation’s problematic center-periphery dynamics and violent undercurrent with “an experience of co-presence within immersive conditions” [12]. Taken together, radiation and resonance become migratory metaphors, describing equally well radiophonic ontology and the conditions and experience of cultural memory. The dominant radiation metaphor emphasizes point-source transmissions spreading out from a central tower; it is both the authoritarian, one-to-many broadcasting model assailed by media activists and the pebble-in-the-pond image used to describe the lingering effects of past events. The underemployed resonance metaphor suggests a relationship with distant voices and times that is far less linear and much more intimate, inchoate and full of unpredictable possibility.

This notion of temporal and spatial co-presence with the past animates my own work with transmission memorials. *Radiation Limit*, for instance, transforms present-day sonic events into an energetic presence lingering around today’s Department of Energy, haunting it with the cautionary memory of a not-so-distant history. If spatial monuments and official apologies, such as the one former President Bill Clinton made for human radiation testing in 1995, try to close the historical record on a troublesome past, then transmission monuments’ persistent dissipation suggests that the past cannot be so easily settled.

Friz’s proposition of radio as a space of resonant co-presence also echoes some of the work on memory undertaken by historians and literary critics. The noted French historian Pierre Nora describes premodern cultural memory in strikingly

Fig. 2. Map of the route of *UnStorming Sheridan*, 2004. (© Sarah Kanouse)

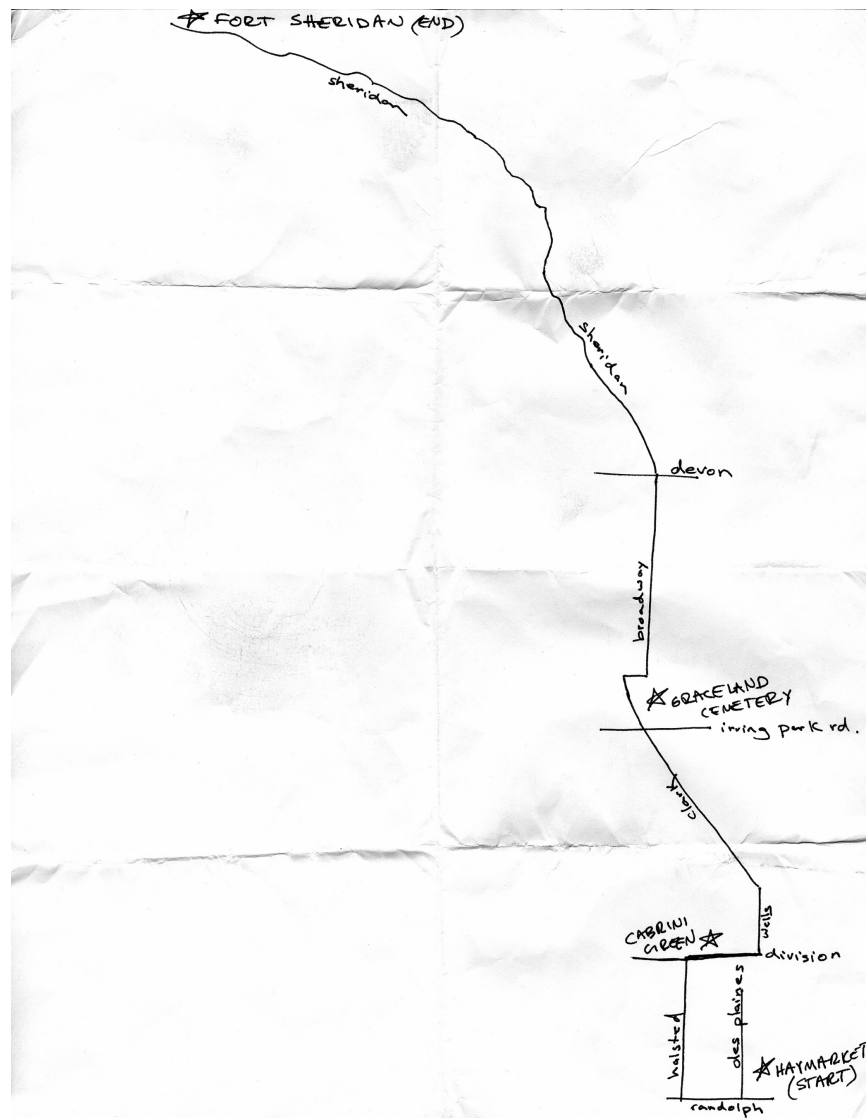




Fig. 3. Tiled stills from documentation video of *Don't Mourn*, 2005–2007. (© Sarah Kanouse)

similar terms, emphasizing its communal, cyclical nature. In contrast, modern memory is archival and exhaustive: “It relies entirely on the specificity of the trace, the materiality of the vestige, the concreteness of the recording, the visibility of the image” [13]. Yet for Nora, this archival impulse is not really memory at all but its opposite. He sees commemorative rituals as *lieux de memoire*—places where history is emotionalized, concretized and personalized because everywhere else emotive, communal forms of memory are suppressed by modernity. He writes, evocatively:

The memory we see tears at us, yet it is no longer ours: what was once sacred rapidly ceased to be so, and for the time being, we have no further use for the sacred. We feel a visceral attachment to that which made us what we are, yet at the same time we feel historically estranged from this legacy, which we must now coolly assess. These *lieux* have washed up from a sea of memory in which we no longer dwell: they are partly official and institutional, partly affective and sentimental [14].

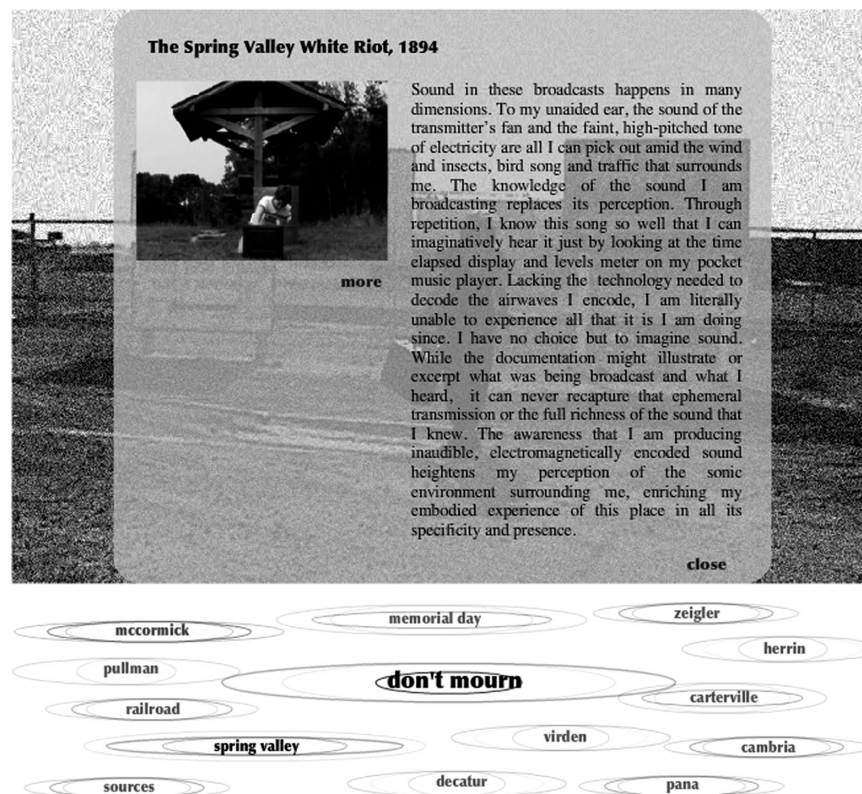
Nora’s work has been criticized for presenting a binary view of traditional and modern memory with too-tidy oppositions between past versus present, false versus authentic, and authoritarian versus organic [15]. Yet it is easy to see

how Nora’s different modes of memory bleed together in practice, and the paradox of Friz’s metaphors of transmission is instructive here. If radio can be both a radiation from one point to many listeners and a resonant co-presence of listeners, then the commemorative impulse can simultaneously seek to relate the past precisely and experience it as an ever-slipping, ever-present now. In-scribing the electromagnetic spectrum with memorial content and transmitting it to the world are deeply bound up in the one-to-many communication model and the modernist project of mastering space, time and physics. Yet at the same time, radio offers nothing to the exhaustive and archival side of the modern memory process, especially in light of present-day digital storage capacities that promise total recall and instant access. Radio memorials therefore perform a series of instructive reversals—memory and forgetting are both/and as well as either/or. The events commemorated by pieces such as *Don’t Mourn* and *Radiation Limit* are not precisely forgotten: the digital and print archives on both the labor movement and government-funded medical human rights abuses are extensive, but the information they contain rarely spills out into lived space. My pieces try to effect this spilling, transmitting slip-

pery traces of these events into the world while leaving the naming and telling to the archive. *Don’t Mourn*, for instance, is documented both as video and via a web site (Fig. 4) that supplements the performance videos with descriptions of the labor conflicts and discussion of radio as a memorial form. On their own, however, the radio memorials exist in the liminal place between remembering and forgetting, perpetually flickering at the edge of comprehension, both suspending time and succumbing to it, always offering the possibility of reception, but never providing an authoritative narrative.

Beyond the ideas of resonance and radiance, the literature on radiophonic ontology echoes other metaphors employed by scholars of cultural memory. Specifically, the notions of the gap, void and silence emerge as significant in both fields. Douglas Kahn reminds us that radio cannot be reduced to sound that can be perceived: “Sound existed at either end(s) [of the transmission], but in between there was nothing but silence, reduced to the trajectory of a signal” [16]. Radio artist Gregory Whitehead concurs, “Radio happens in sound, at a perceptual level, but the guts of radio are not sounds, but rather the gaps between sending and receiving, between transmission and audition . . . radio is essentially a gap medium” [17]. The gap between transmitting and receiving mirrors what Andreas Huyssen has called the “voids” of memory—spaces of abandonment or demolition that become pregnant and damning in their emptiness, spaces that materialize through absence an incommensurability of time and experience, spaces that speak silently but with authority on that which has been deliberately erased but for which there is no substitute [18]. Indeed, architectural voids and absences became significant features of late-20th-century memorials designed to circumvent the tendency of physical monuments to veil conflict and violence in what W.J.T. Mitchell called “the stasis of monumentalized and pacified spaces” [19]. When employed as a material for memory, the ontological gap of radio takes on an alarming dimension—a testament to the impossibility of reconciling with the past, of cosmetically undoing past injustices. By extension, it points to our powerlessness to fully anticipate the consequences of our own present actions. Like the abstract forms and voids often employed in physical counter-monuments, radio’s dissipating, disjunctive and self-effacing characteristics allow the radio memorial to function with historical and material re-

Fig. 4. Screenshot from *Don’t Mourn* web project, 2007. (© Sarah Kanouse)



flexivity about the nature of memory and forgetting.

At the same time, radio is an inscription on what used to be called the ether, and there is unquestionable bravado about modulating the electromagnetic spectrum for one's own purposes. This is not solely—and never neutrally—a poetic act. Electromagnetic waves are politically situated and ostensibly publicly owned, but access is tightly restricted and content privately managed, usually for profit. The free radio movement is predicated on the proposition that liberating “the airwaves and [breaking] the corporate broadcast media's stranglehold on the free flow of news, information, ideas, cultural and artistic creativity” is an act of civil disobedience against an illegitimate hijacking of public sovereignty over a communal resource [20]. Moreover, the often (though not always) progressive or radical content transmitted by free radio runs counter to the overwhelmingly conservative orientation of most commercial radio that has so marginalized the voices and stories of the American left. Inscribing the airwaves as an act of memory, then, makes an oppositional claim not just for the public status of the radio spectrum but also, by extension, for the broad, public significance of events usually remembered only by trade unionists, socialists and anarchists. The consonance between radio's performative existence and the transmitted memorial both asserts centrality by appropriating the public airwaves and, by being subject to interference and immediately dissipating, poetically enacts its own marginal status in the public imaginary.

What Joe Milutis observed of radio could be said equally of public memory:

Many times the desire to reveal the invisible, immaterial, and essentially unrevealable substance of radio . . . takes the form of a struggle to manifest the radiophonic as reality itself, as part of our basic make-up. Even though radio's ethereal and vaguely metaphysical aspects might seemingly relate it more to superstition and false ideology than to true matter, radio is a thing of matter, even if it is a matter that struggles to be known, always to be suppressed [21].

The radio memorial performs and makes perceptible the impossible struggle common to all memory: to transform the one-way march of time into some-

thing more circular, more immersive, more malleable. By performing the shifting and imperfect nature of public memory, the radio memorial foregrounds what is true of all monuments: that their significances shift with time, distance and the accretions of use. Unlike the monument, however, radio makes no pretense that memory could function otherwise.

Acknowledgments

A very early version of this paper was presented in 2006 at the conference Technologies of Memory in the Arts at Radboud University Nijmegen, the Netherlands. Many thanks to the reviewers for their thoughtful comments and assistance in developing the paper for publication.

References and Notes

Unedited references as provided by the author:

1. I was a resident artist at Wave Farm in the fall of 2007. More information on the organization's programming is available at <www.free103point9.org/aboutwavefarm> [cited 2 January 2010].
2. Galen Joseph-Hunter, “Transmission Arts: The Air That Surrounds Us,” *PAJ: A Journal of Performance and Art* 93, vol. 31, no. 3 (September 2009), pp. 34–40.
3. Brecht wrote both about and for radio during the 1920s and 1930s. Many of these pieces are anthologized in Marc Silberman, ed., *Brecht on Film and Radio* (London: Methuen, 2000).
4. James Young, “The Counter-Monument: Memory against Itself in Germany Today,” *Critical Inquiry*, vol. 18, no. 2 (Winter 1992), pp. 267–296.
5. The Haymarket Affair is one of the signal events in American labor history and has broad significance for leftists and unions around the world. On 3 May 1886, during a demonstration demanding an eight-hour work day, two strikers were killed when police opened fire on a picket line that had surged toward the gates of the McCormick Reaper Works in Chicago. Outraged strike organizers called for a rally the following evening in Haymarket Square. Although the rally was peaceful, an unidentified person threw a pipe bomb into the police line after the gathering had begun to disperse. The police charged, firing wildly into the smoke and darkness. A few protesters were armed and fired back, but most of the 60 wounded officers and eight who lost their lives were likely killed by friendly fire. At least four protesters were killed and an unknown number wounded. The event was quickly dubbed a riot and used as a pretext for arresting prominent anarchists and major organizers of the eight-hour-day movement, who were convicted in a show trial despite no evidence connecting them with the bombing. Five of the Haymarket Martyrs, as they were dubbed by sympathizers, were executed in 1887 and posthumously pardoned in 1893 by Illinois Governor John Peter Altgeld, who cited gross procedural errors and bias in the trials. The Haymarket Affair became an international rallying cry for the burgeoning trade union movement and was one of the reasons why 1 May was selected as International Workers' Day by the Second International in 1890. For more on Haymarket, see Paul Avrich, *The Haymarket Tragedy* (Princeton: Princeton University Press, 1984).
6. Sarah Kanouse, *UnStorming Sheridan* (Chicago: 2004). For documentation on this project, see <www.readysubjects.org/projects/unstormingsheridan/unstormingsheridan.html> [cited 12 January 2010].

7. Sarah Kanouse, *Don't Mourn* (various sites in Illinois, 2005–2007). For more documentation and a discussion of this project, see <http://liminalities.net/3-3/dontmourn.html> [cited 2 January 2010].

8. Walter Benjamin, “Left-Wing Melancholy” [1931], in *The Weimar Republic Sourcebook*, ed. Anton Kaes, Martin Jay and Edward Dimendberg (Berkeley: University of California Press, 1994), pp. 304–306.

9. Frances Dyson, “A Philosophonics of Space,” *Sound Culture*, 1994. See <www.soundculture.org/texts/dyson_philosophonics.html> [cited 23 April 2010].

10. Sarah Kanouse, *Radiation Limit* (proposal for Washington, D.C.: 2009). See also <www.readysubjects.org/projects/radiation_limit/radiation_limit.html> [cited January 2, 2010].

11. Anna Friz, “Transmission Art in the Present Tense,” *PAJ: A Journal of Performance and Art* 93, vol. 31, no. 3 (September 2009), pp. 46–49.

12. Friz [11], p. 48.

13. Pierre Nora, *Realms of Memory*, trans. Arthur Goldhammer, vol. 1 (New York: Columbia University Press, 1996), p. 8.

14. Nora [13] p. 7.

15. Diana Taylor, *The Archive and the Repertoire: Performing Cultural Memory in the Americas* (Durham, NC: Duke University Press, 2003).

16. Douglas Kahn and Gregory Whitehead, eds., *Wireless Imagination: Sound, Radio, and the Avant-Garde* (Cambridge, MA: The MIT Press, 1992), 21.

17. Allie Alvarado, *An Interview with Gregory Whitehead* (2005); available from <http://archive.free103point9.org/2007/07/13.alvarado_whitehead.pdf>.

18. Andreas Huyssen, *Present Pasts: Urban Palimpsests and the Politics of Memory* (Stanford, CA: Stanford University Press, 2003).

19. W.J.T. Mitchell, “The Violence of Public Art: ‘Do the Right Thing,’” *Critical Inquiry* 16, no. 4 (1990), p. 890.

20. Free Radio Berkeley, *About Free Radio Berkeley* [Web site] ([cited January 12, 2010]); available from <www.freeradio.org/index.php?pagename=frb/about.html>.

21. Joe Milutis, “Radiophonic Ontologies and the Avantgarde,” in *Experimental Sound and Radio*, ed. Allen S. Weiss (Cambridge, MA: The MIT Press, 2001), p. 58.

Glossary

ontology—The study of an object or creature's being; the forms, characteristics and categories of being.

radiophony—the practice of converting sound to radiant energy and back again; the transmission and reception of sound across distance.

transmission arts—a term coined by the arts organization free103point9 to describe work made by, with, and/or about transmission as cultural practice or the properties of the electromagnetic spectrum.

Manuscript received 13 January 2010.

Sarah Kanouse is an artist and Assistant Professor in the Intermedia Program in the University of Iowa's School of Art and Art History.