

Telematic Tape: Notes on Maryanne Amacher's *City-Links* (1967–1980)

AMY CIMINI

ABSTRACT

Reel-to-reel recordings and 15 kilocycle telelinks converge in Maryanne Amacher's telematic installation series *City-Links* (1967–81). As long-duration recordings of urban sites, *City-Links* queries the musicality of ambient sound on tape, a question of critical importance to many composers of the period. But as expressly telematic tape, *City-Links* embeds these recordings within a transforming US telecommunications industry where expanded long-distance dialing relied on the high-tech labour and gendered discipline of telephone operators, enrolling tapes' ambient sounding in broader questions about the technological mediation of gender, listening and long-distance embodiment during *City-Links*' late 1960s and 1970s span. An extended reconstruction of one *City-Links*'s tape's tactile qualities interprets this complex interimplication as a kind of telematic 'weave', with a spatiotemporal warp shuttling between the weft of environmental sounds and their technical traces.

I am listening to a tape that belonged to US experimental composer Maryanne Amacher. Many tapes belonged to Amacher and this one has been recently digitized. At once both transfixing and boring, drips, drops, exhalations and whirs gently punctuate its thirty-five minutes, though nearly half its duration offers little more than hiss-filled stasis – near silence – perhaps, 'almost nothing'. Labelled 'Pier Six Edited 1976', this tape seems to find Amacher in the middle – a tiny sliver of the middle – of an extreme duration listening project: between 1973 and 1978, Amacher treated herself to a fourteen hour/day dosage of the Boston Harbor's sounding life, courtesy of a dedicated, open-air 15 kcl telelink connecting her Cambridge studio with a Neumann microphone perched in the window of the Boston Harbor's 'Fish Pier'. The feed was FM quality, in mono. Poised to commit any – whatever – incoming sounding moment was Amacher's ReVox B77 reel-to-reel tape machine, coupled with the mixer and telelink. This interval of hiss-filled stillness she will call a 'long distance music' (see [Figure 1](#)).

Email: acimini@ucsd.edu

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Figure 1 (Colour online) Maryanne Amacher in her Cambridge Studio with phone blocks. Courtesy of the Maryanne Amacher Archive.

Amacher's Harbor tapes – and other tapes, too, from a series she called 'Life Time and its Music' made during her tenure at SUNY Buffalo as a Creative Associate (1966–7)¹ – criss-crossed the United States between 1967 and 1980 as she developed the twenty-two installations that came to comprise the series *City-Links*. Each part in the series was a little different. In US cities across the Northeast, Southeast, and Midwest, *City-Links's* telelinks connected one to as many as eight meticulously placed remote microphones to radio stations, galleries, or museums, where Amacher mixed the live-feeds – sometimes cinched by the Harbor material,

1 For a detailed account of Amacher's work at the Center for Advanced Studies at MIT, see Renee Levine-Packer, *This Life of Sounds* (Oxford: Oxford University Press, 2010).

'Life Time' tapes or accented with an instrumentalist – for broadcast or performance. As though indexing her long-term Harbor cohabitation, these durations were typically expansive: a twenty-eight-hour broadcast (*City-Links #1* at WBFO Buffalo 1967), a six-week long telelink transmission (*City-Links #9* at the Walker Art Center, 1974), and two-months' worth of live feed (*City Links #12* at the Museum of Contemporary Art in Chicago, 1974).²

If, as this volume's introduction suggests, 'tape bears witness to history', *City-Links* underscores that tape cannot be a modest witness: tape's standpoint is at once situated, partial and insistently embodied, as Donna Haraway might insist.³ Implicated in Cold War technoscience and in struggles against its imperial consequences, Haraway's analysis finds 'Home, Market, State, School, Clinic, Church' and other places of paid work idealized from the perspective of advanced capitalist societies transforming amid new technologies, high-tech capital needs and dispersed social relations. The connective logics of *City-Links*, too, register these implications. *City-Links*'s tapes and telelinks interleave sounds of discipline, production, exchange, and consumption across heterogeneous social and institutional locations careening, differently, amid the violence of deindustrialization during the 1970s: Exchange National Bank (Chicago) and Carson Pirie Scott (Chicago); Bethlehem Steel (Buffalo); General Mills (Minneapolis) and many, many others.⁴ Less concerned with analytics of storage or a Kittlerian mnemotechnics so often cleaved to phonography, this article interprets Amacher's tapes in and as the long distance wagers in which the telelink enrolled them – a meditation on social location and 'high-tech' embodiment and 'geometries of difference'.⁵

To adapt Ken Wark's sharp commentary, the 'messy business of making science' – or with Amacher, connecting musics, tapes, links, phone calls – embraces its implication in nets of power, processing and reinforcing of metaphors not of its making, and its dependence on a vast cyborg apparatus, according to Haraway.⁶ While the tape-telelink coupling is surely a mechanical wager – the ReVox B77 reel-to-reel connected to the mixer and the mixer to the phone block's incoming feed – it also proffers what she calls a 'figuration': a 'performative image that can be inhabited'.⁷ If a nexus of critical media operations – cutting, splicing, looping, rewinding, spooling – articulate tape within the phonographic regime's attenuation,

2 Tobi Maier, Micah Silver, Robert The, and Axel Wieder, 'Maryanne Amacher: City-Links.' Booklet for exhibition 'Maryanne Amacher: City-Links' at Ludlow 38 Kunstlerhaus Stuttgart Goethe Institut, New York. 20 October–28 November 28, 2010.

3 Andrea F. Bohlman and Peter McMurray, 'Tape: Or, Rewinding the Phonographic Regime', this issue; Donna Haraway, 'A Cyborg Manifesto: Science, Technology and Socialist-Feminism in the Late Twentieth Century', in *The Cybercultures Reader*, ed. David Bell and Barbara Kennedy (London and New York: Routledge, 2000), 307. McKenzie Wark, 'Blog-Post for Cyborgs: McKenzie Wark on Donna Haraway's 'Manifesto for Cyborgs, 30 Years Later', www.versobooks.com/blogs/2254-blog-post-for-cyborgs-mckenzie-wark-on-donna-haraway-s-manifesto-for-cyborgs-30-years-later.

4 Donna Haraway, *Modest_Witness@Second_Millennium.FemaleMan_Meets_OncoMouse* (New York: Routledge, 1997); Haraway, 'A Cyborg Manifesto', 307.

5 Haraway, 'A Cyborg Manifesto', 307.

6 Wark, 'Blog-Post'.

7 Cited in Tara Rodgers, "'What for Me Constitutes Life in a Sound?': Electronic Sounds as Lively and Differentiated Individuals', *American Quarterly* 63/3 (2011), 513.

this article proposes contrasting figures, culled from this tape's long distance adventures in *City Links*. The telelink surely conjures the ideological image of the network in and through its point to point connection.⁸ Yet, an analysis that takes seriously the standpoint of the cyborg apparatus also discerns in *City Links's* tapes, shuttling restlessly between the telelinks' networked point-to-point warp, a weft suggestive less of networking than *weaving* – at once a contested and complicit mesh of dispersed social locations, high-tech capital and heterogenous logics of connection and long-distance embodiments.

And so, more than a framing gambit, this essay makes a sustained and experimental effort to materialize Amacher's Harbor tape within its writing, redoubling tape in the place of the long-duration Harbor feed-in but also, more broadly, performing some of the temporal intrusions and material dispersions convened by the tape–telelink couplet on the page (as Amacher's own writing also attempts). This experimental inhabitation passes relentlessly between 'tape' and 'telelink', sounding their differential weave in multiple registers of analysis: the aesthetic, embodied, social, political, economic. Attuned to a critical poetics of locational dispersion and manoeuvre, this lyrical article plays Amacher's Harbor over (sometimes behind, sometimes against) six short and allusive scenes.

* * *

This tape – as gulls squawk amid the recording's hissy stillness – casts me into the warp and weft of *City-Links #13* ('Incoming Night – Blum at Pier 6'). Amacher's in-studio Harbor feed has been temporarily re-routed to 40 Massachusetts Avenue – the Center for Advanced Studies at MIT (hereafter 'CAVS') – where she helmed the live mix for a late night performance, 11:30pm–3am on 8 May 1975.⁹ Eberhard Blum – flautist, vocalist and signal interpreter of Feldman, Cage, and Schwitters – has joined Amacher's Neumann at the Pier, where he improvises.¹⁰ Another tape, likely recorded in MIT's anechoic chamber and woven, live, with this mix, draws Blum – sighs, whistle tones, breaths pressed through pursed lips – very, very close.

The installation series that follow *City-Links*, starting in 1980¹¹ – *Music for Sound Joined Rooms* and the *Mini-Sound Series* – extended the modular usage of pre-recorded material that indexed social and institutional weave, in many *City-Links* projects. No longer telelinked, these two series turned towards sound's dramatic architectural staging, subordinating musical

8 Haraway, 'A Cyborg Manifesto', 307. Haraway's embeds her critical account of 'network' within discourses around industrial and technoscientific management, contrasting its association with 'corporate strategy' to the 'weaving' as an ironic, cyborg prerogative. This usage should be distinguished from more recent work on actor-network theory in music studies, exemplified in Benjamin Piekut 'Actor-Networks in Music History: Clarifications and Critiques', *Twentieth-Century Music* 11/2 (2014).

9 Maier et al., 'Maryanne Amacher: City-Links'.

10 Maier et al., 'Maryanne Amacher: City-Links'.

11 Under the moniker 'City-Links #22 (Big City on the Beach)', Amacher produced what she called a 'variant' of the City-Links Series for New Music America in Miami in 1988. 'Big City' features live sound from remote sound environments in South Florida mixed live with re-recorded material that Amacher's treated like recurring characters in a mini-series, fusing strategies from the earlier City-Links pieces with the multi-part Mini-Sound Series installations that occupied her through the 1980s.

material to three-dimensional sonic shapes and contours – ‘sound characters’, as Amacher called them, that might quiver, coil, or slither in air – as her primary horizons of narrative and dramaturgical possibility.¹² *City-Links*’s decade-plus interval also braced the psychoacoustics research programme she called ‘Additional Tones’, whose paradigmatic representative ‘Head Rhythm & Plaything’ opens the first of only two commercial releases, *Sound Characters: Making the Third Ear*.¹³ ‘Head Rhythm’ is bracing: patterned, sinusoidal tone bursts coax pulsing difference tones from the basilar membrane, sharpening a biomechanical divergence between stimulus (incident sound) and reception (frequency analysis) for radical contrasts in auditory dimension, a contrapuntal prerogative in which tessitura becomes inextricable from sounding location on the auditory pathway.¹⁴

Amacher wrote voluminously and her archive teems with stunning unpublished work.¹⁵ The especially aphoristic text ‘Long Distance Music’ appears nested in a works list spanning 1967 to 1971, which includes project descriptions of *In City* (also known as *City-Links #1*), flanked by a series of Fluxus-style text pieces that differently extend and complicate this text’s account.¹⁶ Unfolded unevenly in short paragraphs, single sentences and the odd stand-alone fragment across just two and half pages, Amacher’s tone is poetic, but her explication of ‘long distance music’ is systematic. A few excerpts, from the text’s first paragraph sets up not one but three proposed practices of ‘long distances music’:

Right now we do not make music unless we are in the same room together. Music is made ONLY between men and women in ONE room, ONE field, or in ONE building between rooms through loudspeaker and microphone transmission.

[. . .]

The music we make is confining us to ONE PLACE situations ALL THE TIME. Receptive to our own structure ONLY as we are making them.

[. . .]

12 My description owes much to Bill Dietz’s particularly vivid account of in ‘Notes Without Ears’, www.tutorialdiversions.org/Documents/MA%20BD.pdf.

13 Maryanne Amacher, *Additional Tones Workbook*, date unknown. Maryanne Amacher, *Sound Characters: Making the Third Ear* (CD, Tzadik, TZ 7043, 1999).

14 Manuel Arturo Abreu, ‘Hearing Hearing: A Review of Jacob Kierkegaard’s *Labyrinthitis* (2008)’, <http://fonik.dk/pressarticles-english.html>. See also Chris Haworth, ‘Composing with Absent Sound’, *Proceedings of the International Computer Music Conference*, University of Huddersfield, 2011, <http://hdl.handle.net/2027/spo.bbp2372.2011.070>.

15 Thanks to the efforts of Bill Dietz, Robert The, and Bob Bielecki, the Maryanne Amacher Archive has been catalogued and is currently housed in Kingston, New York. I am grateful to the ongoing digitization efforts of Bielecki and The, especially, which afforded my access to this tape amid a very much ongoing, open-ended process of understanding not only Amacher’s tape collection but also how she used them in her. For a series of talks and workshops, ‘Intelligent Life’, at the DAAD Galerie (Berlin, Germany, 14 July–25 August 2012), the Archive produced the ‘Supreme Connections Reader’, a work summary and collection of writings, documentation, correspondence, and scores. Anthologized in *Arcana III* and delivered at the Radcliffe Institute in 1979, ‘Psychoacoustic Phenomena’ seems to have been persistently under revision throughout the 1970s, alongside many other texts. Maryanne Amacher, ‘Psychoacoustic Phenomena in Musical Composition: Some Features of a Perceptual Geography’, in *Arcana III: Musicians on Music*, ed. John Zorn (New York: Tzadik, 2008).

16 I am grateful to Bill Dietz for this observation.

Long-distance music is developing occasions where boundaries of ONE PLACE situations can vanish, bringing spaces distant from each other together in time.

These ‘ALL CAPS’ interruptions initiate a suggestive interpretive itinerary. Throwing ‘ONE’ into relief throughout the text’s first half isolates the point-like locations that it aspires to connect in and as a ‘long distance music’. A second interruption, however – ‘ALL THE TIME’ – clarifies that this connection is also a question of socially conjugated time. To become a ‘long distance music’, Amacher’s ‘ONES’ must also be drawn into the same durative present.¹⁷ After proposing three such musics at the text’s mid-point, her provocative ‘ONES’ recede into a lowercase flow and more speculative phrasings take up their ‘ALL CAPS’ energy: ‘OUTSIDE OUR OWN STRUCTURES . . . WE ARE HEARING IN MOTION AND IN STILLNESS’, she writes, ‘WE BEGIN TO HEAR EACH OTHER MUCH BETTER IN THE PLACE WE ARE IN.’ Once linked, the ‘ONES’ of Amacher’s ‘ALL TIME’ imaginary conjure a listening that lingers near the subjective mood: conditional and open-endedly ongoing.¹⁸

Amacher’s first ‘long distance music’ relies on ‘remote circuitry’, presaging the Harbor feed’s technical protocols. *City-Links* streamed over ‘leased lines’, ad hoc point-to-point connections that wired many different transmissions throughout the 1970s: Muzak, live sporting events, on-site radio broadcasts, and amateur radio, to name a few.¹⁹ Comprising a movable, inconspicuously placed ‘phone block’ – designated by the ‘2MT-4461’ at the top of the Special Service Order (see [Figure 2](#)) and coupled with a Shure 668 microphone mixer – Bell field engineers installed and removed leased lines, rentable on the cheap. Amacher paid \$30 for her Harbor-side phone block installation, plus a tariff for non-commercial transmission across eleven nautical miles, according to working notes for *City-Links #9* (1974).²⁰ Amacher’s feed linked her studio with the Harbor alone, a dedicated connection that admitted no incoming calls and secured the ‘ALL THE TIME’²¹ protocol that structures the first half of the ‘Long Distance’ text.

17 Elizabeth Povinelli, *Economies of Abandonment: Social Belonging and Endurance in Late Liberalism* (Durham: Duke University Press, 2011). See also Amy Cimini and Jairo Moreno, ‘Inexhaustible Sound and Fiduciary Auralities’, *Boundary 2: An International Journal of Literature and Culture* 43/1 (February 2016).

18 For complementary account of Amacher as a ‘composer in the subjunctive’, see also Dietz, ‘Notes Without Ears’.

19 Malcolm McCullough, *Ambient Commons: Attention in the Age of Embodied Information* (Cambridge, MA: MIT Press, 2013), 182–6. See also Ronald Radano, ‘Interpreting Muzak: Speculations on Musical Experience in Everyday Life’, *American Music* 7/4 (Winter, 1989).

20 *City-Links #9* was titled *No More Miles – An Acoustic Twin* and resounded through the Walker Arts Center between 28 September and 3 November 1974, with visuals by Luis Frangella. Amacher describes the project: ‘Because of my interest in making pieces that are particular to the space they are experienced in, I was asked to design several sound pieces for the Walker Art Center in Minneapolis. One of the spaces was a gallery, open to a balcony overlooking the entrance lobby, with hard floor surfaces, and much echo, from footsteps and voices in surrounding areas, as well as from the lower lobby. This was a difficult space to think about. I solved the problem by discovering an indoor Arcade in downtown Minneapolis having similar acoustic characteristics to those of the gallery space at the Walker. The Arcade was small with similar number and grouping of people passing through: voices, footsteps, and other sounds in the Arcade corresponded acoustically to those heard in the gallery space. The Arcade was the acoustic double!’

21 I am grateful to my UCSD colleague Tom Erbe for guidance in developing and improving this section.



Figure 2 Maryanne Amacher places a protective box for the microphone mixer at Pier 6.

Perhaps surprisingly, Amacher's second and third 'long distance musics' both excise the telelink entirely, confabulating two additional linkless listenings that traverse both much vaster and much smaller distances (respectively) than her intracity Harbor lines. The text piece 'Green Weather' is named but not cited at any length in the 'Long Distance Music' essay, though it directly follows the essay on Amacher's typewritten page. An excerpt from the first of 'Green Weather's' three brief paragraphs:

There are no electronic links. We make a special occasion to listen for each other, even though we are at distance points in the world. Playing music in our own places, New York, Los Angeles, Rome, Tokyo.

Though 'Green Weather' could readily fit Amacher's first remotely circuited long-distance protocol,²² its emphatic linklessness underscores that all three protocols unfold in concert and in conflict with what Avital Ronell calls a pre- or para-technological techne.²³ While Amacher's punctual 'ONES' dramatize 'Long Distance Music's' pressures on socially conjugated time, 'Green Weather', performs a differently nuanced long-distance linkage on the page. 'Green

22 Her working notes document meticulous research for transatlantic performances along 15 kcl lines, between New York City and Linz in 1989. The cost per line per hour was \$734.

23 Avital Ronell, *The Telephone Book: Technology, Schizophrenia, Electric Speech* (Lincoln: University of Nebraska Press, 1989), 202.

Weather' intrudes on 'Long Distance Music', yet 'Long Distance Music' also extrudes 'Green Weather', a relay (or delay) that links the two by dramatizing the impossible timing of their interimplication, etched into both Amacher's writing and the hissing tape it presages prior to hooking up the Harbor feed in 1973.

The point-to-point connection roils with broader questions about the materialization of bodies and mind-body relations across an uneven high-tech social and political field. Amacher's third 'long distance music' remains, also, linkless but traverses much smaller ('long') distances than 'Green Weather': 'hearing and seeing 10 blocks away', she specifies, means hearing 'what is sounding far-away and close up at the same time'.²⁴ Here, listening *in situ*²⁵ aims not for a verisimilar imprint of the site – that hallmark of soundscape composition – but for a listening modelled on the point-to-point connection secured by the leased line.²⁶ Unlike the interleaved (but suggestively underdetermined) bodies of 'Green Weather', this listening seems to clasp both ends of the leased-line at once and a body at once dispersed and rematerialized in concert with the speeds and durations of an 'ALL THE TIME' networked imaginary.

Lingering with Amacher's text, homologies between long-distance *music* and long-distance *dialing* become suggestive (and, to me, nearly irresistible). This homology, in other words, summons 'the telephone' as a tantalizing interpretive horizon for 'Long Distance Music' and for *City-Links*, more broadly. The variable social and bodily geometries roiling Amacher's text, however, make different demands on this interpretive gambit. To speak of 'the' telephone is to always-already mistake one for two. One telephone conjures another, poised and waiting on the other end of the line. With this, 'the' telephone admits otherness at its core, with a 'call' necessarily late to a connection it reveals to have been (always)-already in place: not 'yes' or 'hello', but *yes-yes, hello-hello*.²⁷ If telephone conjure commingling, it is 'only ever almost there'.²⁸

Dissimulating its two-in(or as?)-one, 'the telephone' is insolent. Telephonic redoubling – the phone call – interrupts, all the ruder for its impossible timing. Yes, Amacher is not taking calls on her dedicated 15 kcl line, but in artworks, Avital Ronell suggests, redoubled telephones summon not only the caller on the other end of the line, but also by so doing

24 Maryanne Amacher, 'Sound and the Environment'. A background description accompanying a proposal, ANYWHERE CITY, submitted to the National Endowment for the Arts, City-Options Program with architects Juan Navarro Baldeweg and Luis Fangella, co-investigators. Museum of Contemporary Art, Chicago Archive. Part of the Press Materials for *City-Links #12* (Chicago, 1976).

25 This locution I borrow from Micah Silver and Bill Dietz, drawn from 'Maryanne Amacher: Life and Work Overview', collaboratively authored by Amy Cimini, Bill Dietz, Dustin Hurt, Thomas Patteson, and Micah Silver for presentation to Special Collections at the University of Pennsylvania Library proposing institutional placement for the Maryanne Amacher Archive.

26 Brian Kane, *Sound Unseen: Acousmatic Sound in Theory and Practice* (Oxford: Oxford University Press, 2014), 123–33.

27 Jacques Derrida, 'Ulysses Gramophone: Hear Say Yes in Joyce', in *Acts of Literature*, ed. Derek Attridge (New York: Routledge, 1987).

28 Ronell, *Telephone Book*, 213.



Figure 3 Pier Six at the Boston Harbor. Courtesy of the Maryanne Amacher Archive.

also query text's 'veiled receiver'.²⁹ Film is Ronell's preferred exemplar.³⁰ Disembodied voices might sometimes direct the diegesis by roving, uncanny and horrifying, over telephone lines, but the telephonic aperture also 'makes felt a connection with reception history' that cannot be fully claimed in and as the *acousmètre's* thingified authority.³¹

The hiss-swathed breaths that accompany my writing surely materialize Amacher, their receiver, at the ReVox, in the studio or behind the mixer at the CAVS Gallery. And yet, inhabiting their tethers in the mono field also conjures the other end of the long-distance 15 kcl transmission, holding open the line for other receivers – a dense, overlay of differential geometries. Green Weather's linkless gambit, for example, conjures an earlier

²⁹ Ronell, *Telephone Book*, 214.

³⁰ Ronell, *Telephone Book*, 213. See also Carolyn Abbate, *In Search of Opera* (Princeton: Princeton University Press, 2001), 145–84.

³¹ Ronell, *Telephone Book*, 213.

twentieth-century entanglement of telephony with telepathy,³² twinned as both features and figures of a ‘pace of communication that was both more rapid and more efficient than that of language.’³³ Querying a physical process ramified, at both ends, as identical psychic content³⁴ – in Green Weather’s case, copacetic (or, just close enough) musical sensibilities – continues querying not only a gendered and racialized materialization of bodies but also their long-distance interimplication, conjugated between telephony’s untimely timings and Amacher’s ‘ALL TIME’ protocols. The tape – another (barely) veiled receiver, for this feed, with its hums, whirs and long silences – weaves these queries through another redoubling, another connective *mise en scène*.

* * *

The *City-Links #13* tape’s gentle droplets and sighing vessels might evoke something like ‘ambient music’. But, like the leased line, the ‘encircling embrace’ of *City-Links’s ambire* also dissimulates a separation, an ‘*ambi*’ that both conjoins and distinguishes, like the two-sides-at-once of ‘ambivalent’ or ‘ambiguous.’³⁵ This tape’s drips, drops, thuds, and thumps index its telephonic coupling, opposite Amacher’s studio-side ReBVox, with a phone block and microphone mixer at the Pier.³⁶ Here . . . there . . . or both (but not quite): the crumbling walls, boarded windows, and torn-up floor capture an infrastructural neglect – a ‘modern gothic’ – that catch the Harbor careening amid not just economic change, but also economic change as a kind of social change that entails the obsolescence of the past (see [Figure 3](#)).³⁷ After the seaport’s sharp decline during the 1960s, the Moran Terminal introduced container shipping to the region in 1971, initiating a massive resurgence of trade and reconfiguring ‘the Harbor’s heterogenous patchwork of civic, state, and federal lands as a new prerogative for expansion and development that prioritized private shipping concerns’ (see [Figures 4](#)

32 Entertaining telepathy in three unusual essays from the 1920s and early 1930s, Freud wagers a distinction between psychoanalytic transference and what he calls thought-transference to prevent confusing the former with suggestion. Thought-transference, he explains, includes ‘the transfer of mental processes [such as ideas, emotional states, conative impulses in one person] through *empty space* without employing the familiar means of words and signs’. In Sigmund Freud, ‘Dreams and Occultism’, in *New Introductory Lectures on Psycho-analysis*, standard edn (London: Hogarth, 1933), 39. Freud proposes two explanations for this direct transport of energy: the communication of ‘common purpose . . . in the great insect communities’ and ‘the material transformations of the telephone’. See also Alan Bass, *Interpretation and Difference: The Strangeness of Care* (Stanford: Stanford University Press, 2006), 115; Jacques Derrida, ‘Telepathy’, *Oxford Literary Review* 10 (1988); Akira Lippit, *Electric Animal: Toward a Rhetoric of Wildlife* (Minneapolis: Minnesota University Press, 2008); Patricia Thurschwell, *Literature, Technology and Magical Thinking, 1900–1920* (Cambridge: Cambridge University Press, 2004).

33 Lippit, *Electric Animal*, 23.

34 Thurschwell, *Literature, Technology and Magical Thinking, 1900–1920*.

35 McCullough, *Ambient Commons*, 17–21.

36 See Kit Galloway and Sheila Rabinowitz’s pioneering telematic video project ‘A Hole in Space’ (1980) for comparison.

37 Steven High and David W. Lewis, *Corporate Wasteland: The Landscape and Memory of Deindustrialization* (Ithaca: Cornell University Press, 2007), 26.

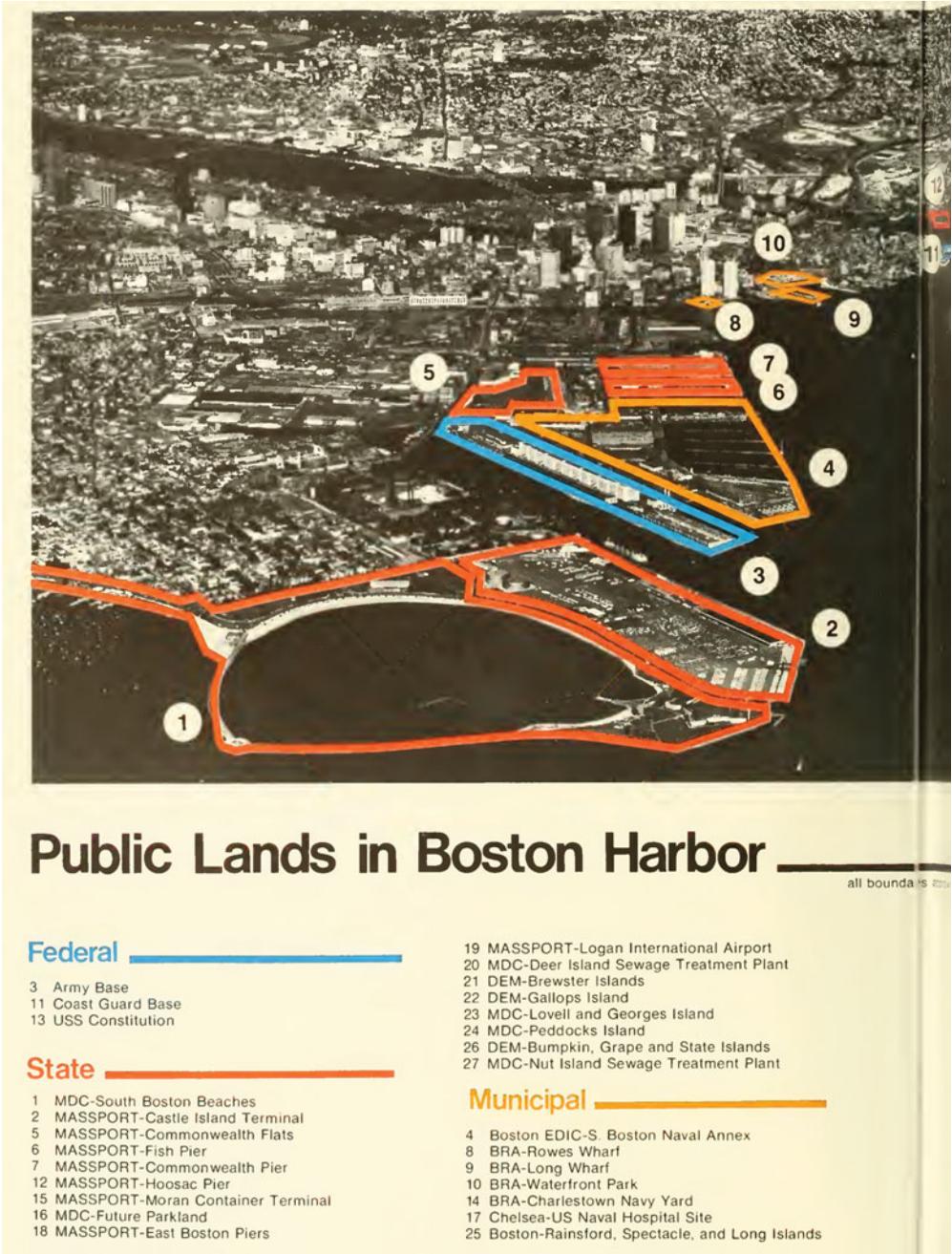


Figure 4 (Colour online) Map of Public Lands in the Boston Harbor, 1978. Amacher’s microphone was placed at State location #6, also known as ‘Fish Pier’.

and 5).³⁸ That same year – and two years before Amacher placed her microphone Pier-side – one of this tape’s (many) institutional locations, MIT’s Center for Advanced Visual Studies, had trained its environmental art focus on Harbor and Charles River-based projects, recruiting artists specifically to ‘revitalize the deteriorating river environs as a public open space.’³⁹ While abandoned infrastructure provoked debates about an ethics and politics of memorialization across a deindustrialized Midwest and (some of the) Northeast, Amacher’s microphone catches the Pier amid a rearrangement of social tense whereby its contaminated water, floating debris, and rotting vessels could be newly narrated as horizons of both aesthetic and economic possibility.

Insofar as inhabiting the tape–telelink couplet has so very briefly tarried with the uneven sectoral dislocations transforming Amacher’s Harbor, its two parts have placed my listening there (or here) somewhat differently, suggesting further, unlikely groupings of music practices that thread tape – and especially environmental field recording – with and against further long-distance experiments. In an expert reading of Luc Ferrari’s *Presque Rien* (1968), Brian Kane discerns how the Dalmatian Coasts’s social sounds are ‘brought to audibility’ in and as a mix that redoubles the flat surface – tape – on which it was recorded; a flat mix, in other words, that cannot disavow precisely its recorded character.⁴⁰ Amacher’s mono transmission, too, cannot dissimulate a ‘spatial imprint of site’. Her mix eschews soundscape’s paradigms of verisimilitude and instead points back at the facticity of its transmission (not its recording) for a dense, holographic interleave of social geometries and conjugations conjured by the project’s many different notions of long-distance, as this essay’s final vignette will demonstrate.⁴¹ Yet, the ‘almost nothing’ that hisses behind this writing is no closer to *Presque Rien* (1967–70) than to projects that resound ‘high-tech’, long-distance desires more explicitly. Lingering on tape, Alvin Lucier’s *North American Time Capsule* (1967)⁴² proffers the voices of the Brandeis University Chamber Chorus made ‘alien’, in and as the gurgling chatter, robotic irruptions, and beam-like tones of a vocoder in glitched-out ecstasy, hardware that frayed a path for compression, that political economic ‘recipe for fitting more calls on the line.’⁴³ And finally,

38 The Boston Harbor Associates, ‘The Boston Harbor: An Uncertain Future’ (December 1978). For the location of the then-newly constructed Terminal, see circle 12 on the map.

39 Keiko Prince, ‘Keiko Prince’, <http://web.mit.edu/keiko/www/> (accessed 1 June 2016). Prince would later collaborate with Amacher on the ‘Charles River Project,’ but also see her own ‘symphonic experiment’ titled Harbor-THEATER transmuted into the Department of Environmental Management’s ‘guiding themes’ for their 1984 ‘Master Plan for the Harbor Islands’. The Boston Harbor Islands were brought under state stewardship in 1983.

40 Kane, *Sound Unseen*, 131–3. See also Eric Drott, ‘The Politics of *Presque rien*’, in *Sound Commitments: Avant-Garde Music and the Sixties*, ed. Robert Adlington (New York: Oxford University Press, 2009).

41 Kane, *Sound Unseen*, 131.

42 See Christoph Cox, ‘The Alien Voice: Alvin Lucier’s North American Time Capsule, 1967’, in *Mainframe Experimentalism: Early Computing and the Foundation of the Digital Arts*, ed. Hannah B. Higgins and Douglas Kahn (Berkeley: University of California Press, 2012); Robert A. Moog, ‘An Introduction to North American Time Capsule 1967’, in *Mainframe Experimentalism: Early Computing and the Foundation of the Digital Arts*, ed. Hannah B. Higgins and Douglas Kahn (Berkeley: University of California Press, 2012); Alvin Lucier, ‘North American Time Capsule 1967’, in *Mainframe Experimentalism*, ed. Higgins and Kahn. See also Jonathan Sterne, *MP3: The Meaning of a Format* (Durham: Duke University Press, 2013).

43 Sterne, *MP3*, 20.

getting on the phone at Billy Kluver's Evenings of Art and Technology, the John Cage of *Variations VII* placed calls on the public network – to sites a lot like Amacher's (the ASPCA, the 14th Street ConEd Plant, Luchow's Restaurant, for example) – and, leaving, the receiver off the hook at both sites aspired to the leased lines' open, dedicated connection. In extant documentation, these calls are lost in a seething miasma of sine tones, Geiger counters, and other electronics.⁴⁴

If Lucier's glitched-out vocoder and EAT's specially rigged handsets suggest yet another weave-like scene, that scene might also query 'fitting more calls on the line' much differently: not only a US telephone network within which long-distance dialing's expanded spatial reach could supplant industry as a symbol of US imperial power amidst a 'generalized insecurity about economic change', but instead the high-tech embodiments that materialized – eyes, ears, fingertips, backs and shoulders – in and as the speed at which calls could be processed on computerized consoles.⁴⁵ In contrast, Amacher's Harbor tape convokes less genealogies of compression than telephone operators disciplined along gendered and racialized lines and deskilled amid switchboards' computerized beginning in the early 1960s.

At once intimate and remote, the operator's body – 'her voice, gestures and fatigue commingled with the message delivery system' – had long been a fraught locus of discipline, desire, fantasy, and anxiety.⁴⁶ Indeed, between the early 1960s and mid-1970s, the music practices resounded above coincided with the introduction of new switching technologies, in the Bell system, whose twinned logics of deskilling and discipline reconfigured gendered and racialized spheres of work, as Venus Green's *Race on the Line* has richly shown.⁴⁷ On computerized consoles, Direct Distance Dialing drastically reduced the number of calls requiring operator assistance. Renamed the 'service specialist', the operator at the unprecedentedly fast console inhabited a harsh disciplinary enclosure: constant, controlled and repetitive movement, eye and ear strain, acute stress and extremely detailed manager surveillance, afforded by the console itself.⁴⁸ Continually restructuring fraught paths linking deskilling to automation, Green shows, new technology opened new opportunities – particular for African-American operators – only to close them through 'computerization and occupational segregation.'⁴⁹ Lingering with Amacher's claim to 'long distance music' dramatizes broader genealogies concerning how 'new technologies have historically designated what kinds of labour are considered replaceable and reproducible versus what kind of creative capacities remain vested with privileged populations and spaces of existence.'⁵⁰

44 Ronell, *The Telephone Book*, 217. For video documentation of *Variations VII*, see www.numeridanse.tv/ (accessed 4 April 2015).

45 John Durham Peters, *Speaking into the Air: A History of the Idea of Communication* (Chicago: University of Chicago Press, 1999).

46 Peters, *Speaking into the Air*.

47 Venus Green. *Race on the Line: Gender, Labor, and Technology in the Bell Network*. Durham: Duke University Press, 2001.

48 Green, *Race on the Line*, 218–20.

49 Green, *Race on the Line*, 227.

50 Neda Atanasoski and Kalindi Vora, 'Surrogate Humanity: Posthuman Networks and the (Racialized) Obsolescence of Labor', *Catalyst: Feminism, Theory, Technoscience*, 1/1 (2015). For a stringent critique of how racialized and gendered

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Amacher plies much from the ‘almost nothing’ that’s been hissing along behind this writing.⁵¹ Her working notes cajole the Harbor’s ‘inner melody’ onto the five-line stave. Poised between F♯s one and two octaves below middle C, these bass staves appear, scrawled, in notes for *City-Links #7* (Chicago, 1974) and *#10* (Minneapolis, 1974), suggesting a centrality for parts of the entire series, resounding in and as the Harbor tapes or perhaps, like ‘Green Weather’ lodged, in the series, securing connections that never quite coincide.⁵² On the *City-Links #13* tape, Blum reliably focalizes D♯, with an anacrustic fall from F♯, referencing the Harbor’s F♯ ballast, but guiding it towards a vaporous, melancholic minor orientation.

Blum’s contributions unfold, on this tape, within a delicate five-part symmetry. Blum is at the Pier with Amacher’s microphone streaming the Harbor’s mono nuances, as usual. Yet, Blum’s improvised activity also opens the excerpt, on a different tape and in a different space. Here . . . or there . . . (but not quite), he plays very, very close to a stereo pair, as though to the mic, for the mic. Spongy-mouth sounds nestle in the left channel while whistles, breaths, tones, and flutter tonguing arch through the right, nearly redoubling the left-to-right arrangement of the mouth and then the hands across the instrument. Staked on Blum’s comportment with the instrument, the stereo image dissolves after about five minutes into a mono expanse of hiss-filled stillness, as droplets, thuds and thumps creep across the telelink. A second cluster of bolder contributions from Blum coincides with sparse whirs of vessels and planes and then, like the first, gives way to another long, static interval.⁵³ The tape concludes with the Harbor, alone: pulsing multiphonics effloresce – almost glow – towards audibility, and then shear apart in and as the corrugated whir of machinery. Velvety hums become spit and sputter as vessels draw close to the mono mic. In and as this passage, smouldering low-mids resolve into texturized, metallic rotations. Wending in and out of the mono field, this fuzzy thirty-five minute excerpt feels balanced, composed.⁵⁴

From end to end, the excerpt makes a point-to-point connection of sorts, arching from Blum to Amacher, like the networked link along which her Harbor Feed streamed. The excerpt’s opening gambit indexes Blum’s remote location, but concludes by conjuring Amacher at the mixing board, the feed’s (partially) veiled receiver. There, she is subtle. In

labour underwrite the analytic of the cyborg – with which this article tacitly dialogues, see the work of Alexander Weheliye. As Weheliye writes, ‘Critical discourses in the humanities and social sciences that have relied heavily on the concept of the cyborg and post human largely do not take into account race as a constitutive category for thinking about the parameters of humanity’ (cited in Atanasoski and Vora, ‘Surrogate Humanity’, 8).

51 At 15 kcl, Amacher’s link fell short of the eighteen typical for music transmission, but exceeded AM quality’s eight, compressed for voice only. The Shure M688 microphone mixer was the standard guarantor for broadcast-quality transmission.

52 ‘Intelligent Life’, DAAD Galerie (Berlin DE, 14 July–25 August 2012).

53 I am grateful to Andrew Munsey for assisting with this analysis. We monitored the recording through a Mid-Side decoder, listening for differences between the centre and stereo content, identifying at least two sound sources, and a mono sound source in addition to a stereo sound source. In addition, we observed the spectral content on a spectrogram in the iZotope’s application RX.

54 I am grateful to conversations with the audience of the ‘Long Distance Music’ seminar I presented as part of Blank Forms’ seminar series on 4 June 2016 at the Emily Harvey Gallery in New York City for elaborating this observation.

this fifth and final interval, comprised exclusively of Harbor activity, levels remain consistent, she seems not to ride the potentiometers. And she intervenes only subtly in panning space, nudging approaching vessels from right to left, but no more than fifteen degrees from centre. If Blum is still on the Pier, he's not playing. And Amacher does not, again, reprise his stereo contributions in her edit.

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Yes, this article often becomes too poetic with its experiments in hearing from the perspective of the tape–telelink couplet. Tacking restlessly between the standpoint of tape and that of the telelink and back again, this article has perhaps left more lines open – more differentially connective scenes – than it has drawn conclusions. These locational manoeuvres have dialogued, tacitly, with Haraway's 1983 provocation – a full three years after Amacher's last *City-Links* project: 'there is no place for women in the integrated circuit'.⁵⁵ Maybe not a place, but rather unevenly overlaid geometries of difference, contestation, and complicity. And even that, well, depends. Broadly, the article's experimental, even wild contours retake this query as a project of feminist musicology, extending critical genealogies of 'the body' that have oriented the field since the 1990s with refocused attention – not just constitutive frameworks for life, labour, and creativity, but also their uneven distribution in and as 1970s US historical coordinates. Rather than a dispersal or dematerialization of the body, this article has tried to sound out what aspects of long-distance consubstantiality are implicated – and unevenly (in)audible – in different registers of aesthetic, technological, social, and political analysis. This writing effort moves towards articulating questions of social content, power, and resistance that have long been central to feminist musicology to an emerging sound art discourse – that often claims Amacher as an originary figure – struggling to extend its interpretive horizons towards the social, the cultural, and the political.

Like the tape hissing behind this article's many weave-like efforts, this effort, too, remains ongoing.

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55 Haraway, 'A Cyborg Manifesto', 306.

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