Our Format: PennSound and the Articulation of an Interface for Literary Audio Recordings

M. Nardone
Université de Montréal

Le goût de l'archive est visiblement une errance à
travers les mots d'autroi, la recerche d'un langage qui
en sauve les pertinences.

[The allure of the archives entails a roaming voyage
through the words of others, and a search for a
language that can rescue their pertinence.]
Arlette Farge

Aт тне university of pennsylvania's kislak center for Special
Collections, with the material contents of PennSound spread out in seven
boxes before me, I am uncertain where or even how to begin. Although
I have been listening to the audio recordings on the digital repository's
website (writing.upenn.edu/pennsound) for years, each recording I pull
out from the archival boxes seems cast in a new light by its sheer mate-
riality, more complex with the traces of the many hands involved in its
recording and circulation. Inside the main collection boxes, there are
more boxes, cardboard ones with cassette tapes lined within, plastic ones
containing stacks of compact discs. There are envelopes of all sizes, with
more tapes and discs, with the occasional DAT cassette or floppy disk,
and, sometimes, a reel in the mix. Hand-scrawled stick-it notes adorn the

Michael Nardone is a postdoctoral fellow in the department of French Literature at the University of Montreal and an affiliated faculty member at the Centre for Expanded Poetics, Concordia University. The author of two books of poetry, *The Ritualites* (2018) and *Transaction Record* (2014), his writings on poetics, media, and sound are collected at soundobject.net.

coverings of individual recordings and detail their contents. Occasionally, I find personal messages written on a recording's sleeve that signal toward an ongoing exchange between poets. There are elastics so old and ossified that sometimes, when I pick up whatever objects they bundle together, the rubber crumbles to pieces. The boxes are "unprocessed," as Lynn Farrington and John Pollack of the Kislak Center explain. By this, they mean that they have not organized the materials in any particular way and have kept them in relatively the same groupings as they arrived at the Kislak Center seven years earlier. In fact, they admit, they aren't exactly certain what "processing" this collection should mean.

Over these last years, I have learned that I am one of many for whom PennSound has served as a main introduction to the expanded practices of contemporary Anglophone poetry and, more generally, to listening to poetry audio recordings. In ongoing dialogues with peers throughout my own transition from occasional listener to graduate student to teacher, I have also learned that I am one of many who uses PennSound as a core resource for teaching contemporary poetry and poetics. Launched by Charles Bernstein and Al Filreis in 2005, PennSound's online repository of mp3 audio recordings has made a significant contribution to the recent critical turn toward sound as "a material and materializing dimension of poetry" (Bernstein, "Introduction" 4). Assembled from numerous personal and institutional collections of poetry audio recordings—ones that were, generally, not publicly accessible prior to PennSound—the digital repository has established a new set of standards for archiving, accessing, and engaging with literary audio recordings. A large part of its impact is the emphasis Bernstein and Filreis have put on access and distribution as core elements to the project's design and protocols. One of the site's core credos is, after all, "Make it free," adapting Ezra Pound's modernist dictum to "Make it new" so as to apply to poetry and poetics in an era of digital networks. Another important aspect of the digital repository's impact is its commitment to exploring and expanding the many spaces of production and use that inform the site's interface. Here, interface defines both a technical object and shared boundary between electronic media and human users (Kirschenbaum), as well as a zone of activity, of processes that transform the material states of media (Galloway). In Bernstein and Filreis's attention to these components of PennSound's interface—as a technical object and its effects—they have developed a unique mode of pedagogical exchange concerning poetry and poetics, one that Filreis describes as "our format" (Nardone 422).

Part of what I am attempting to do amid the archival materials at the Kislak Center is to better understand their articulation via PennSound's interface and, thus, to more thoroughly assess the modes of use and pedagogical approaches that have mutually informed the digital repository's development over its fifteen-year existence on the Web. By "articulation," I mean to echo Stuart Hall's sense of the term defining the process or "the form of the connection that *can* make a unity of two [or more] different elements, under certain conditions," a linkage that "is not necessary, determined, absolute and essential for all time," one in which the different, distinct elements could "be re-articulated in different ways because they have no necessary 'belongingness'" (Grossberg 53). Hall uses this term to address how distinct ideological elements and scholarly discourses fuse together in new ways within particular groups of individuals, in movements, and in institutions. Jonathan Sterne expands on Hall's precedent to convey a sense of cultural connection through both meaning and, importantly, practice, thus including the array of media and technological apparati that are an integral part of discursive formations (Sterne, *The Audible Past* 23–24). In taking up articulation as a way to negotiate the ongoing formation and uses of PennSound, I aim to emphasize the sets of practices the digital repository privileges**.** In beginning from the archival materials in the Kislak Center, it is possible to imagine a PennSound articulated in numerous different formations off-line and online. Yet, as I illustrate below, the particular decisions that PennSound's developers have made in the site's construction reveal important biases for negotiating literary history, theory, and culture in the classroom and beyond.

In studying an archival infrastructure and the cultural techniques involved in PennSound's development and use, I follow the precedent of Arlette Farge and her crucial meditation on the material form and formation of archives. For Farge, the progression from "the event to history" takes place not only through the content printed upon the array of archival documents; it occurs via the modes of inscription and processes to organize, store, access, and disseminate those inscriptions over time (*The Allure of the Archives* 80). Her engagement with the physical articulation of archival spaces expands on the conceptual exploration of the archive put forward by her interlocutor and collaborator Michel Foucault. To Foucault's theoretical overview of the archivization of knowledge (*The Archaeology of Knowledge*), Farge asserts material context. Her investigation begins by situating her own body amidst the archive, sensing and questioning what takes place there so as to comprehend the traces, systems, individuals, and techniques that organize the space. Farge questions: What

are the material media present in the space, what are their formats, and how are they inscribed? What are the processes of inscription that lead from event to document to the making of history? How are the various documents stored and used? Who is involved in these processes, and where is power located and enacted? What kinds of futures become viable not only in the inscriptions themselves but in the processes involved in their ongoing preservation, access, dissemination, and use?

Beginning with these questions, amid the Kislak Center's archival boxes and the various recording collections that the digital repository articulates, this essay is a material media and cultural analysis of PennSound's formation and implicit pedagogy. It combines archival research and interviews with an examination of the repository's social-technical protocols and infrastructure in order to map out the assembly of people, perspectives, and media that produce PennSound. I focus on four distinct phases of this production: the making of Bernstein's earliest personal recordings, their organization into an index, his collaboration with Filreis to construct an initial framework for the digital repository, and the ways they have integrated its materials into different communities of practice. It is my hope that this present articulation of PennSound's development will be of use to those who teach contemporary poetry and poetics, those who seek to critically engage the digital objects that have become central to humanities research over this last decade, and to the growing number of individuals who themselves develop digital initiatives such as publications, collections, and media laboratories.

A phonopoetics

In honouring Charles Bernstein with the Bollingen Prize for American Poetry in 2019, the judges—Claudia Rankine, Evie Shockley, and Ange Mlinko—wrote in their statement how Bernstein "has shaped and questioned, defined and dismantled ideas and assumptions in order to reveal poetry's widest and most profound capabilities" and that his work "interrogates, restlessly, seemingly word by word, language and its performative nature" (Yale News 2019). Although scholarship abounds with assessments of the provocations and interventions his poems and essays make, there has been considerably less attention given to the extent to which these writings work in partnership with Bernstein's longstanding efforts to foster spaces where entire ecosystems of new poetic activity might thrive. These spaces have included: publications (such as the journal L=A=N=G=U=A=G=E, edited with Bruce Andrews, and numerous edited

critical volumes), reading and lecture series (such as the Ear Inn Reading Series in New York City and the Wednesdays at 4 Plus in Buffalo), literary studies programs (such as in his role as co-founder and director of the State University of New York (SUNY) at Buffalo's Poetics Program), and digital infrastructures dedicated to poetry and poetics (such as the Poetics List, the Electronic Poetry Center, and UbuWeb). Through the scope of these efforts, Bernstein's poems and essays figure less as rarefied or autonomous aesthetic objects and stand, more significantly, as his contributions to a cacophonous collective discourse that is complex, ludic, rigorous, and variegated.

One of the primary means by which Bernstein has interrogated "language and its performative nature" has been to decentre the primacy of a poem's singular text in favour of a practice of poetic composition that is multimodal and, therefore, variable according to its context. Although he has written abundantly on the performative, gestural, and sculptural elements of poetic composition, a continuous thread in both Bernstein's poetry and critical writings has been their emphasis on the sonic. As he writes in *A Poetics*:

> When poetry averts conformity it enters into the contemporary: speaking to the pressures and conflicts of the moment with the means just then at hand. By which I mean I care most about poetry that disrupts business as usual, including literary business: I care most for poetry as dissent, including formal dissent; poetry that makes sounds possible to be heard that are not otherwise articulated. (2)

This statement's final phrase—making sounds possible to be heard that are not otherwise articulated—could be the core credo behind the PennSound project. The spirit of that phrase also serves as the chief subject of his edited collection of essays *Close Listening: Poetry and the Performed Word*, which focuses on "one of the most important sites for the dissemination of poetic works in North America" since the 1950s, the poetry reading (5). Bernstein's concern with the sonic permeates his material media analyses of sound in poetry that are central to his two most recent critical volumes, *Attack of the Difficult Poems: Essays and Inventions* and *The Pitch of Poetry*. Underlying Bernstein's explorations of sound in poetry and poetics is his extensive audio recording practice, the products of which form the main central collection of the PennSound materials.

This statement's final phrase could be the core credo behind the PennSound project.

When asked about the origins of his recording practice, Bernstein admitted he was "a pre-adolescent taper" (Nardone 411).[1] Beginning somewhere around the age of eleven or twelve, he began to make recordings of the theme songs from television shows and then collected them into a single tape anthology. "One of the first things that I did was to tape all the theme songs, one after the other," he states, "and inside the reel-to-reel box, I'd have a track list of all the themes with their footage indicator number. And I've always kept a tape recorder close, that's one thing I remember from that time." Bernstein's earliest poetic work, "1–100," a three-minute recitation of the numbers one to 100 in that order, dates from 1969, when Bernstein was nineteen, during his second year at university. Then, in 1973, Bernstein was living in Santa Barbara, where he hosted a radio show called "Mind and Body" on the University of California, Santa Barbara college radio station. "I was working in the alternative health care movement as a health education coordinator," he recollects, "and one of the things that I did in that role was the radio program. We were involved with groups like Planned Parenthood. It was also a kind of proto-gay-male-health center, pre-AIDS, and I would interview people about issues regarding prostitution and drugs, and to discuss the programs we ran at the center" (411).

In the mid-1970s, when Bernstein returned to New York City, he directed his ability to record and edit audio toward creating the number of artistic recordings of sonic poetic works that are now archived on PennSound as his "Early Recorded Works: Homemade Tapes, 1975–1976." On the composition of these works, Bernstein states: "That was really before I was writing poetry. I mean, I was writing poetry, but in a certain way I was making these recordings as much or more than I was writing poems in that period. […] The tape works I made were pre-L=A=N=G=U=A=G=E magazine" (411–12). On these recordings, Bernstein performs many of the poems that would end up being included in his first two books of poetry, *Asylums* (1975) and *Parsing* (1976). It is thus worth noting that a significant compositional element of Bernstein's earliest published works is the degree to which they are inextricably bound to his sound recording practice.

In discussing the tape works, Bernstein reflected on the machine he used to make the recordings: "At that time, I had one of the most common

1 All quotations from Bernstein, unless otherwise cited, are sourced to a series of dialogues he and I conducted in 2015. I have transcribed and edited these discussions and published them within the appendixes of my doctoral dissertation, "Of the Repository: Poetics in a Networked Digital Milieu," Concordia University, 2018.

early recorders—a rectangular one, about half the size of a laptop—that made simple mono recordings. It cost maybe thirty-five dollars. It had four buttons that made big clunky sounds when you pressed them" (410). This would be the device that, in September, 1978, he would take with him to record readings by poets John Ashbery and Michael Lally, the first event of a reading series at the Ear Inn that would continue for nearly twenty years. Founded by Bernstein and poet Ted Greenwald, the weekly reading series at the Ear Inn was a central site of poetic activity in New York City, one that functioned as a staging ground for the community forming primarily around language-centred poetics. On that tape recorder, Bernstein would make over three hundred cassette tapes of Ear Inn readings, as he and Greenwald welcomed a number of poets to curate the series' program over twenty years. The tapes from the Ear Inn readings, all together, make up a significant sub-collection within Bernstein's personal audio collection and form a major node in the network of audio collection in constellation through the construction of PennSound.

When Bernstein began to develop and teach in the Poetics Program in 1990, he began using a Sony Walkman Professional—which, he noted, had Dolby C noise reduction that allowed greater fidelity for capturing the live exchanges—to record poetry-related events there. Between 1990 and 2003, he would make over two hundred recordings, and, as another subset within his personal audio collection, it is remarkable for its variety of modes: readings, lectures, and seminars on poetry and poetics. It documents a culture of poetry in which the reading of poems is only one genre of public exchange among many. Introductions, conversations between poets, classroom discussions, and more informal talks feature prominently in the collection. In the live event of the reading, the ways in which poets discuss and frame their own poems and the ways in which their audiences—often composed of other poets, scholars, artists, students, and admirers of poetry—respond to the works is an important component of the transmission of poetics. These exchanges serve as a space where those interested can collectively think with and respond to works, comparing them to prior precedents and imagining future works and practices. Such exchanges establish the greater contexts of poems. In recording these exchanges, the impact they can have on compositional practices and also on the pedagogy of poetry expands, in that they become a potential object of study to learn about the premises behind works and also their reception.

For two years in the midst of these events in Buffalo, 1995 and 1996, Bernstein returned to the format of radio broadcasting to host thirty-minute programs called LINEbreak. Produced and directed by Martin Spinelli,

each episode of LINEbreak featured a poet in dialogue with Bernstein about their poetry and practice and would feature readings from their works. Several of these programs were made in the New York apartments of the poets (for example, Bruce Andrews, Susan Howe, Hannah Weiner), some were recorded at the SUNY Buffalo Music Department (Robert Creeley, Jena Osman, Jerome Rothenberg, Fiona Templeton), and several were recorded at the Charles Morrow and Associates Studio in New York (Madeline Gins, Barbara Guest, Jackson Mac Low, Cecilia Vicuña). Notable for broadcasting the poetry of experimental postmodern poets, the LINEbreak series received distribution from the Public Radio Satellite Systems to play on public and college radio stations across the United States. Additionally, the programs became the first audio recordings to go up on the Poetics Program's Electronic Poetry Center in the early days of World Wide Web.

From the personal poetry tape experiments of the mid-1970s to the programmed public readings and lectures of the late 1990s, the content of these recordings share in common an exploration of the questions of what poetry might be and what the figure of the poet might do. Each work, exchange, and assembly of poets documented in the recordings serves as a specimen from the broader culture of poetic production; each serves as an occasion to radically alter their listeners' sense of what is possible within such a culture, and thus imbue them with a poetics. The recording, then, too, becomes a means for such poetic works, perspectives, and points of exchange to resonate beyond the space of the reading event and the classroom, both spaces with their own unique barriers to access. Yet, in order for this larger-scale resonance to begin, the recordings required a certain degree of systematic organization for listeners to access their contents.

The tapes index

Prior to arriving at SUNY-Buffalo, Bernstein's collection of poetry audio recordings resided in a series of plastic bags piled atop one another in a closet in his apartment. Such a destination, I have learned, is not uncommon for collections of analogue literary recordings. Over these last years researching the material existence of poetry audio collections in North America, I have encountered numerous instances in which important collections received little to no interest from libraries or institutions and thus linger in personal offices on the verge of being thrown out. Or, if the recordings do make it into a library or memory institution of some kind, their existence there is often precarious, unprocessed, and, more often than not, in a far-from-ideal storage scenario and difficult to access. For both individuals and institutions, it takes a sustained and substantial

effort to produce a collection of recordings; it takes another, equally, if not more, sustained and substantial effort to store, organize, and make them accessible to other listeners.

In developing the Poetics Program in the early 1990s, Bernstein was able to move the mound of recordings out from the closet and organize them as part of multimedial poetry library in his Buffalo office space. That space, 438 Clemens Hall at SUNY-Buffalo, became a significant hub for the Poetics Program during Bernstein's tenure there. "Having that space was crucial to what we were doing there," he recalls (email 2016). Deb Sica, one of Bernstein's students at Buffalo, describes 438 Clemens during Bernstein's tenure as an "office / classroom / archive / coffeeshop / salon / thinktank / language poetry war room," and noted that "[i]t was the best place to be on campus. Always a hive of activity" (email 2016). She continues:

> Charles had zines, rare publications, small press titles, etc. The recordings were part of his larger private collection [kept in his office]. […] The tapes were on library shelving as you walked into his office to the left. They were stacked up in the cases with the metadata facing outwards. […] They all had minimal metadata included; the name of the poets, reading location, dates were usually given, sometimes a note or two about the publication source. (email 2016)

Sica became familiar with the materials Bernstein collected at 438 Clemens when she took up a work-study position to catalogue his recordings as he brought them, bag by bag, from Manhattan to Buffalo. The document she would produce during this cataloguing process, "tapes_index.doc" (1996), would, over fifteen years later, go on to form an important basis for PennSound's bibliographical organization and form the basis for the digital repository's on-site presentation of its materials.

Sica began the compilation of the index by removing each tape from Bernstein's plastic bags and arranging them on a table according to the reading series they were a part of and their chronological date within that series. Once they were in order, she began to draft the index, first organizing it by author name, from Acker to Zukofsky, and then by reading series in chronological order. Each recording in the index received a particular marking showing its originating series: for example, "EI" for Ear Inn, "UB" for University at Buffalo, "NYT" for New York Talks, and "A" for recordings Bernstein collected but did not make and its chronological placement in that series. So, for example, Rae Armantrout's first Ear Inn reading in 1979,

during the second season of readings in the series, is marked as "ᴇɪ 25," the twenty-fifth recorded Ear Inn reading. Armantrout's Ear Inn reading in October 1992 is marked as "ᴇɪ 115." Sica then created a link between the index and the tapes themselves by applying small circular stickers to each cassette with the series initial and number so that a researcher could track it down in the index and thus find other recordings by that same author or other readings presented in the reading series. Then, finally, in listening to as many tapes as possible over her two-year work-study, Sica began to notate each recording's contents in the form of a time-stamped track listing. For example, Lorenzo Thomas's November 1978 Ear Inn reading (ᴇɪ 11) has the following information:

1. "Summer Stock" time: 15″
2. "Happy New Year" time: 40″
3. "Lady Looker" time: 1′25″
4. "Al Green's Broken Heart" time: 7′15″
5. "Anuresis" time: 3′
6. "Perry Coma" time1: 2.2′ time2: 6.0′
7. "Healing Joke" time: 1′10″
8. "My Office" time: 2′
9. "The Fine Clothes of the Year Before Last" time: 1′30″
10. "The Leopard" time: 1′30″
11. "Home by Eleven" time: 35′
12. "ᴍᴍᴠᴄᴄɪɪ ½" time: 1′
13. "Hat Red" time: 6′ (Sica 94)

Of her time compiling the 105-page annotated index, Sica wrote, "Listening to the tapes was an education in itself," and she credits the undertaking for influencing her career as a librarian and archivist (email 2016).

By organizing the index so that it is navigable by both its author name and its reading series placement, and by breaking down a reading into its singular poems and their durations, Sica provided the initial groundwork for PennSound's model of audio-textual relations. Deanna Fong describes this model as *constellatory*, for the way that it is composed of "discrete, constitutive units—in this case, either 'single' or 'record'-length audio artifacts—[that are] grouped in taxonomic categories," and create multiple browsing paths for accessing the digital repository's materials (np). Sica's approach to indexing the materials would serve as a model that PennSound's developers would use to create an austere bibliographic-centred presentation of its recordings on the site, choosing that information to be central to the collection as opposed to, for instance, including images of the original media of the recording, background information

on the authors, or textual description of the event that is documented in the recording. Expanding on the benefits of the constellatory model, this bibliographical information would serve as the primary information that travels with the recordings as they are integrated on to digital publications (such as *Jacket2*), course syllabi, and into other digital collections.

The index articulates a formal unity to the collection of recordings. In connecting a constellation of poets, events, and sites, the index consolidates and, in its consolidation, identifies a literary and cultural history that would, without the index, remain dispersed across a few hundred tape cassettes that listeners could access, in all probability, at most in part. To a certain extent, the index creates the collection or, at the very least, initiates the conditions for their public access and consumption.[2] Furthermore, it systematizes a progression of mediations from event (reading) to media (sound recording) to text (index). Here, I mean to emphasize that the recording is, of course, a rendering of the embodied, interactive reading event, transfigured into sonic inscriptions. The index, then, documents the readings by organizing a particular field of descriptive terms related to the event's sonic recording; the event is there, documented in the index, by means of its metadata.[3] Studying the processes and contexts of these mediations is a point of crucial pedagogical importance for considering contemporary literary production. This study, as I detail below, serves as a basis for students to participate in such literary production. To this extent, the index also impacts the constitution of future reading events once one

2 As Jeremy Morris shows with regard to digital music files, the use of audio recordings online did not flourish until the communities exchanging them first confronted the issue of organizing and standardizing metadata protocols.

3 This progression—from event (reading) to media (sound recording) to text (index)—is a fine example of what Latour and Woolgar, in their ethnography on the production of scientific knowledge in laboratory settings, define as an *inscription device*: "any item of apparatus or particular configuration of such items which can transform a material substance into a figure or a diagram which is directly usable by one of the members of the [laboratory] space" (51). In his commentary on Latour and Woolgar, John Law focuses on the example of an inscription device that begins with rats: these rats are killed to produce an extract that is placed in small test tubes; those test tubes are placed in a machine; the machine produces an array of figures or inscriptions on a sheet of paper for the scientists to read. Law notes: "These inscriptions would be said—or assumed—to have a direct relation to the 'original substance.'" In the machine's report sheet, "*the materiality of the process gets deleted*" (20). Yet these inscriptions are what one examines in order to interpret the data the original materials offer and to form scientific fact. In terms of the index, the sound recording's bibliographical information stands in for the "original substance" of the reading event. It becomes the means by which one can properly organize, store, locate, and access that event's archival media.

works with the foreknowledge that the reading event is a part of process that includes the audio recording and the indexing of its bibliographical information. In generating the conditions for an event's archiving, one's understanding of and set of cultural techniques for producing the reading event shifts. One figures the system of mediations into the event itself.

Preservation in transmission

When Bernstein interviewed for the professorship at the University of Pennsylvania in November 2001, PennSound was one of the projects he envisioned initiating during his tenure there. The idea struck a chord with Al Filreis, a professor of English and Faculty Director of the Kelly Writers House (KWH). During Filreis's previous fifteen years as a professor at Penn, he had established for himself a reputation for innovative pedagogy and for re-imagining the literary studies classroom. In developing his survey course on Modern & Contemporary American Poetry, English 88,[4] Filreis had consistently experimented with the design and orientation of the classroom, creating multiple sites of engagement inside and outside of it. The networked digital infrastructure of the class—the English 88 Web page, the links to hundreds of sites and streamable media files (audio and video) related to the course materials, the class electronic mailing list, and other online discussion forums—make up only a part of this design. In establishing the KWH in 1995, Filreis created a physical space, one outside any particular department and that functions in a manner that is, according to Filreis, "semi-autonomous" to the university (Nardone 430). There, students interested in writing and publishing were able to convene to hold seminars and classes, organize and attend readings, meet informally with peers, develop text and media projects in a publications studio, and welcome writers from outside of the university. Filreis's emphasis on creating a deep interrelation between virtual and physical spaces where mentors, students, and materials meet would serve as a pedagogical basis for the articulation of PennSound's interface.

In January 2003, Bernstein writes that he is "so pleased to be coming to Penn just at the inception of '[Center for] Programs in Contemporary Writing,'" which Filreis initiated during that semester, "and to be able to become a part of your program from the onset, both with 'experimental

---

4 This course would become, in 2012, Filreis's popular massive open online course (MOOC) on Modern & Contemporary Poetry, or ModPo. The great success of this course (as detailed in Bicher) would not be possible without an underlying digital infrastructure such as PennSound and the ensemble of digital collections, publications, and course materials with which it interacts.

writing' and visiting writer seminars" (email 7 January 2003). The two begin a rich exchange imagining the construction of a physical space they will link to their "digital projects": a seminar room that could be used for "events 'in conversation,'" and to do formal and impromptu recording sessions. They discuss this space right down to its details for the audio equipment involved and the balancing levels of its microphones. The space, as they imagine it, will be designed to teach sound recordings of poetry and also to facilitate people producing their own recordings.

They also begin to develop the networked infrastructure for PennSound. During these first two months of 2003, they establish a number of components for the project: the server, run by PennSound's first technical advisor, John MacDermott; a work-study position devoted to working with the initial audio materials as well as helping Bernstein organize a readings and talks series with invited poets and scholars; possible organizational structures for the media files, including their naming protocols; and the ways in which they will be able to edit and circulate the materials. They discuss the possibility of having the sound files stored on a "dedicated library machine that would handle the streaming. If that is the case, we might simply give the library our materials on CD-Roms and let them actually upload them." Yet, Bernstein writes, "the spontaneity of immediately putting up sound files on a server that we have direct access to is important." It would be good if they could "add files to it all the time." So, with this in mind, going the route of the library could be difficult. Therefore, they will have to "figure out a way to collaboratively manage the site, [and the] issue[s] of permissions, access, etc" (email 16 February 2003).

Bernstein's outline of the project in early March of 2003 to the team he and Filreis assembled to work on the project is worth quoting at length since it provides the earliest and most developed overall description of the project. Bernstein begins:

> As a kind of general preface, I want to emphasize that none of what I propose here needs to be done on any particular time- table and we should only pursue what we think is aesthetically and bibliographically interesting. I am as much interested in the model we would create as the final archive, although I do think the potential for the latter is substantial. Still, it's impor- tant that you actively note limits, practicalities and preferences. What I am presenting are possibilities; nothing is fixed.
>
> Ideally, all the sound material we put on the web should be cleared for copyright to be distributed free. Users of the site will be able to download the MP3s to their own computers or

players or play them in a streaming fashion. Teachers could make course CDs or add the MP3s to their on-line syllabi. Other web sites and libraries could recollect the material, but we would ask for credit as to source. The credit would also be embedded into each file.

Practically, we will probably need some kind of restricted site for material for which we do not have clearance. This would be for use only for virtual library patrons. I would like to keep this material to the minimum, but there will be some items that we are processing that may fall into this category and others for which we will not get permission.

I am a strong believer in editorial selection. We don't need to digitalize everything and we don't need to break all the readings we digitalize into individual poems. We should prioritize based on value and interest.

All the items in the archive will be indexed as part of the library collection and some up on library author and title searches. This point, which you made, is potentially one of the most interesting parts of the projects. It will encourage individuals to donate their sound materials to us to be included in our collection.

In addition PENNsound itself should have a web index listing all poems by author and titles: a simple HTML index page. This could grow to be a meta-list of selected sound resources on the web. The first place to go if you are looking for sound files. This itself i[s] a big project and one we could pursue independently of the other projects. (email 3 March 2003)

Bernstein then begins to focus on the site's protocols for dissemination, permission, and naming of files based on the materials they presently have at hand:

For ou[r] archive of recorded poetry there are several categories of materials involved:

I have about 175 cassette tapes made at the Ear Inn and sequel series from 1978 to the 90s. These are each two-person readings, about 30 minutes each. On the older tapes, I have cassette dubs already made. Add to this tapes of reading[s] at the University of Buffalo, maybe 100 readings by single authors. These are all indexed and labelled and for some I have a list of poems read. I will be able to send you a text file of the index of all the tapes fairly soon, I am in the process of bring the

list up to date. I can give these tapes to the library as part of the project.

We will have to write for permissions to put them on the web […] but I think in most cases we can get that with a single email or form letter. Still, we need to explore the permission issue.

For each tape I would like to create an archival .wav or CD (I am not sure what is the current archival quality for sound); this is of secondary importance, but probably something we will want to do anyway. For each tape I want to make an MP# of the whole and put this up on the web.

For SOME of these tapes I would like to break this up to have MP3[s] of single poems or possibly of selected poems. We could in many cases work with the author in determining the poem titles and sources (after we get their permission we can send them a digital copy of the reading); in some cases we may be given text to accompany the readings, but this can be supplemental.

File naming standards need to be established as well as protocols for embedding textual information within the file.

For file name I proposed: lastname-firstname_poem-title_place_date.mp3.

For embedded file information, I propose the same plus any additional info we have on the textual source of the poem. We also want to embed the Penn credit for our work and as our collection. (email 3 March 2003)

Integral to Bernstein's conception of PennSound is the fact that they will learn how to archive the materials better through the production of materials for it. "By making new audio materials," he writes, "we will better understand how to do everything else." He asserts that by beginning with the materials at hand and learning how best to process them they will develop a model that will be important to other individuals and institutions with similar poetry audio materials: "New tapes we will acquire once it becomes apparent the kind of digitalization we can provide" (email 3 March 2003).

Bernstein concludes the project description by bringing up the issue of format:

At our meeting, Al raised the issue of RealAudio versus MP3. Up until recently, I strongly supported putting up files in RealAudio, since it is easier for those with tel[e]phone connections. At this stage, thinking ahead, I am reluctant to make

any investment in a proprietary format that will surely be outmoded in a few years.[5] I think for front end material, like NEW Writer's House program, we should continue to support RealAudio for the moment, but for all else MP3 alone should do. MP3 allows users to download and have very high quality audio; I am assuming that the proliferation of the format will allow us to upgrade if necessary in some systematic way. It could be argued that MP3, since it is [a] compression format, loses some of sound. But to my ear, for spoken word, I think the MP3 preserves a sufficient amount to make it viable in the long-term. Still, this is an issue we should consider carefully and ask for advice about. (email 3 March 2003)

For a repository that prioritizes access and circulation, decisions concerning format are fundamental to its overall construction. Although in the early days of PennSound's development the RealAudio format allowed users connected to the Web via telephone lines to more easily access the recordings as streaming media, Bernstein anticipates the limits of that access. In making a digital repository of media files, one always risks the obsolescence of those files in various ways. For example, formats are superseded by other formats, or software supporting the format stagnates and the files fail to be compatible in current networked environments. Using a proprietary format like RealAudio would mean that PennSound would have to rely on the standards and their continued implementation set by the format's commercial developer, RealNetworks. If the company were to alter its terms and conditions of use, or develop files that can only be played through their own proprietary audio player media, it might mean that for many users the files would be unlistenable. To invest the time and resources into constructing PennSound using RealAudio would therefore mean risking the possibility of costly and labour-intensive redevelopment of the site and its materials on account of such unanticipated changes.

Yet the decision to use the MP3 as the primary format for PennSound is not without limitations. One of the core components of the MP3 is its use of lossy compression, an encoding method that reduces file size through inexact approximations of and discarding redundant elements of a file's data. "To make an MP3," Jonathan Sterne writes,

5 Here, it is worth noting that the MP3, at the time of Bernstein's writing, was a proprietary format. The majority of MP3 patents expired in the U.S. between 2007 and 2015.

a program called an encoder takes a .wav file (or some other audio format) and compares it to a mathematical model of the gaps in human hearing. Based on a number of factors—some chosen by the user, some set in the code—it discards the parts of the audio signal that are unlikely to be audible. It then reorganizes repetitive and redundant data in the recording, and produces a much smaller file—often as small as 12 percent of the original size file. (*MP3* 1–2)

The MP3's compression model has allowed it to become "a triumph of distribution" (Sterne, *MP3* 1), yet it is far from an ideal format for traditional archival needs**.** Even if the elements of the sound file that the MP3 discards or approximates are not audible to human listeners, the augmentation of the original recording's data makes the MP3 a lesser quality recording and therefore a poor format choice for archival purposes. Archivists working with digital audio have set a clear precedent for preferring WAV files, which do not compress or discard data in the sound file.[6] In selecting the MP3 as the primary format for PennSound, Bernstein prioritizes access to the recordings and their continued distribution over a higher fidelity and more data-rich acoustic experience. It is important to note here that, while prioritizing the MP3 as the main format of the repository, Bernstein planned to establish a WAV depository of each file on PennSound. While acknowledging the archival importance of this backup, Bernstein has wondered if the effort would be of any use to future listeners:

> I like the [depository of WAV files] as a back-up in case recordings get lost or something else happens. I like redundancy. Yet, in terms of listening, it seems uncertain to me what the value of the WAV file would be compared to a high quality MP3, which sounds perfectly professional. There's no additional information that is not included in the MP3 but is in the WAV that really anyone would seek out. Audio people tend to disagree with what I am saying, and I've often been nervous about making the wrong decision about this because the implications are large. In certain ways, the MP3 is actually a better method of archiving than a WAV file because the latter format is difficult to circulate and access. Inaccessibility doesn't preserve. It depends on how you think of preservation. (Nardone 405)

6 See, for instance, the U.S. Library of Congress's "Recommended Format Statement" or the International Association of Sound and Audiovisual Archives's "Key Digital Principles" regarding file formats. Both of these institutional bodies recommend .WAV quality files or greater for archival purposes.

In these remarks, again, we see the particular affordances of the digital repository as a unique archival genre. Beginning from Bernstein's apt yet controversial viewpoint that "inaccessibility doesn't preserve," he has organized PennSound's protocols to privilege access and transmission. In a fashion that is resonant with his disposition toward supporting entire ecosystems of literary production as opposed to rarefied aesthetic objects, he envisions PennSound's materials as being of significant use as part of a thriving culture of listening to and interaction with poetry.

Following from Bernstein's descriptive overview of the project, the infrastructural work on PennSound begins. The Bernstein–Filreis correspondence maps this development as the two begin to work out each detail between themselves and the PennSound team members. In the late spring of 2003, they determine the core bibliographic information for each individual recording: author name; poem title; date of recording; place of recording; text source (for example, book or other print publication, album); web source (if text is online). They plan for these data fields to be embedded on each file, into the URL for each file (lastname-firstname_cut_title_place_date_mp3.), and serve as the terms by which one can search for recordings on the site. Then, in the autumn of 2003, following Bernstein's arrival at the University of Pennsylvania, they were able to develop a number of the site's protocols and overall design, setting up the site's URL, its 125 gigabyte server, and a general outline for the organization of pages focused on individual authors and reading series following from the Sica index. The site's infrastructure co-evolves with its affiliated spaces: the Center for Programs in Contemporary Writing, the KWH, the English Department, as well as the various sites, syllabi, and online media collections related to courses held within these spaces. Throughout, Bernstein and Filreis's group are attentive to how PennSound's materials could play a part in these spaces and, mutually, how the spaces can support and participate in the development of PennSound.

One of the richest exchanges during this time that would go on to significantly define the PennSound model concerns copyright and permissions to circulate the recordings. In looking to include recordings of the poet George Oppen (1908 to 1964) on the site, Bernstein reached out to the poet's daughter, Linda Oppen. She offered her support for PennSound to circulate her father's recordings but directed him to be in contact with her father's publisher, New Directions, who own the publishing and electronic rights to Oppen's books. Considering this response, Bernstein wrote to Filreis: "I have taken the view that the publisher does not own rights to a voice recording, only to text. So if [New Directions] owns electronic

rights, it owns the text rights for that, not the recording. But this is just my theory. I could propose that to Linda Oppen, or go to New Directions. But I think we need to have a policy" (email 9 December 2003). With the help of Robert Creeley, they were able to develop a policy. In conversation ten years after the launch of PennSound, Bernstein recounts:

> When we first announced PennSound, Lawrence Lessig wrote us a note and said, "This project is great. You should use the Creative Commons licenses that specify different kinds of permissions." We toyed with doing that initially, but Creeley said something very simple: "Get the copyright from the copyright author, who in all these instances is the poet. Don't make any special licenses that will confuse people, whereas they understand copyright. Simply say: 'We are getting copyright for you for people to access the recording for non-commercial and educational purposes. People can download it in the sense of listening to it. Everything will be downloadable. But we are not giving any other permission of any kind. You own the copyright just as if it was broadcasted on the radio or in a book. We are simply making it available.' Any questions with regard to permissions would go back to the copyright holder."
>
> And that's worked well because it's easy to understand. For instance, presently, strangely, I'm working with the [Robert] Frost Estate, as well as with the estates of Langston Hughes and [Ezra] Pound, and with New Directions, and it's simple to explain to them: They continue to own the copyright. We just make it available. The other main thing is that we pay nothing and we charge nothing. That has to be universal. You can't make an exception. On the other hand, we will put some funding into preserving and making the digital copies of recordings. But we will never charge or pay anybody for any kinds of rights.
>
> The copyright is simple. We take the view that nobody has any permission to give us except the author or the author's estate. We don't have these long contracts one signs to be published in a small magazine in which you assert that nobody else has rights over the work. Our permission is simpler. I think the more elaborate permissions are, the more problematic they become because they usually take rights away from the poet. Publishers will insist they can use a poet's work for this and that. We can't use it for anything. We don't have permission to use our materials for anything other than letting people listen to the recording. (Nardone 396)

Following Creeley's suggestion, Bernstein and Filreis were able to define a clear protocol for all the PennSound recordings they began to acquire: "These recordings are being made available for non-commercial and educational use only. All rights to this recorded material belong to [poet or poet's estate.] © [poet or poet's estate]. Used with permission of [poet or poet's estate. Distributed by PennSound." They planned to include the information at the bottom of each author page, as well as embed it in each file's ID3 metadata so that it travels with the files as they circulate.

These instances from PennSound's early development point to the importance of *feedback* in the digital repository's design. In beginning from a conception of what spaces will use PennSound's materials and which will, in turn, contribute materials to the repository, and in the development of the repository's protocols to emphasize circulation in terms of format, metadata, and permissions, Bernstein and Filreis's team modeled the use of PennSound to expand through systems of feedback. As David Novak writes, "Output is always connected back to input in transformative cycles of feedback. Seeing the cultural power of media *in* circulation means recognizing the mediation of culture *by* circulation. Feedback, in turn, shows how circulation always provokes something else." PennSound's capacity for feedback—to mutually inform its users and be informed by them, to absorb collections of audio recordings and to be integrated in part into other collections, to establish a pedagogy around its materials and to develop new ones based on the use of those materials—emphasize the particular affordances that are unique to the digital repository as an archival genre.

Our format

In December 2010, I visited the KWH at the University of Pennsylvania for the first time. I had become aware of the location through listening to a number of PennSound recordings that had been recorded inside the house. Over the computer, I had even participated in a few prior events held there that I streamed online while living in a remote village in the Northwest Territories. In entering, I began to recognize the extent to which the KWH materialized in a physical space what Loss Pequeño Glazier called a "subject village," a locale that created access to and interaction with poetry and its related materials through a peer-to-peer or many-to-many model (3). Glazier imagined this utopian site as existing on the Web, that it would allow for a mode of free exchange between vastly different places and thereby facilitate the circulation and discussion of poetic materials held in common interest between them. At the KWH, I saw the traces of

Glazier's envisioned hub in numerous ways: in the stacks of poetry collections, recent literary journal issues, and chapbooks displayed on the table, free for the taking upon walking in the front door, and in the list of upcoming author events broadcasted on a chalkboard. Then, as I walked toward the back of the house, between the house's library of poetry editions lining the walls, I confronted a group of people preparing and eating food in a kitchen while discussing the night's event: a symposium featuring a dozen poets and scholars on a series of poetic works all published in the year 1960. When I mentioned to a person that I was visiting from northern Canada, we set off on an impromptu tour of the house so that I could see the two classrooms on the second floor (one of which people often used to design and make publications of all kinds) and, at the back of the house, a sound recording studio where they made a number of recorded interviews, dialogues, and podcasts.

Everyone then gathered in the ground floor's front room, a space with forty or so chairs set up and a lectern at the front. A space for readings, lectures, group discussions, and classes, the room was remarkable for its technological set-up, how it had been designed to transmit. An in-house technician could control a small video camera perched in the room's upper back left corner so as to zoom in on a speaker then pan out on the whole room, and then zoom in on an audience member when they asked a question. A speaker at the lectern was able to play media for the room during a talk or reading on a screen beside the lectern. A series of microphones recorded the main speaker or speakers at the front of the room and in the audience. Everything was set up to be broadcast in real time over the Web. Those listening over the Web were able to call or write in and ask questions of those in the room. As soon as the event came to a close, the technician was then able to move the audio and video files of the symposium to the Writer's House media servers, where, just days after the event, Bernstein and Filreis could segment the files, add in the basic fields of metadata, and make them accessible on PennSound. There, PennSound's users could listen to them privately, add one or several of the files to syllabi or other sites online, provide commentary upon them in text, audio, or video with the files integrated within, or even edit them to create new media files.

Filreis describes the KWH as "an ad hoc salon-styled entity" and "DIY world" that takes its precedent from small press literary production from the mid-twentieth century in North America (Nardone 425). In particular, the modes of conviviality that poets involved in small press communities have developed—the collaborative effort to publish ephemeral journals and editions, to curate reading series and conferences, and to arrange

multimedia events and works—contribute to modeling the KWH's programing and lend an implicit bias toward peer-to-peer organization and self-defined clusters of activity. With this model, too, there is an implicit on the *making things public* aspect of *publication*. Underlying Filreis and Bernstein's experimentation with the spaces and resources afforded by an elite institution like the University of Pennsylvania is their common desire to extend the interactions they situate there to beyond its walls. Thus, the classroom becomes a site of hospitality to engage with visiting writers and scholars, as well as a place of broadcast to relay those interactions outward into the world.

If PennSound's technical interface as articulated through the site's organization and protocols is responsible for the repository's exceptionality among archival infrastructures, its social interface as articulated through the KWH is what contributes to the digital resource's ongoing vitality. These two aspects of the repository's overall interface mutually constitute one another in an ongoing feedback loop. To this extent, PennSound sets an important precedent for humanities computing projects in an era of media laboratories, online education, unprecedented funding for digital innovation, and the uncertain viability of past platforms into the future. The social protocols that combine collaborative production with online and off-line participation support the cultivation of the technical interface among various communities of practice; the technical protocols geared toward access, dissemination, and use support the possibility of that social interface to expand beyond a main hub of production to new spaces of engagement.

One of the primary aims and accomplishments of small press activity since the mid-century has been to redefine poetic practice in terms of its compositional commitments and the constitution of its communities. Whether a pedagogy premised upon such a vast and multi-faceted undertaking can create similar results for the composition and constitution of university settings remains to be seen. Yet the PennSound model, in the fifteen years since its founding, has had a definite impact on the status of the audio recording and the poetry reading event in contemporary literary studies. With the support of this infrastructure, researchers can negotiate the rich and variable terrain of the sonic elements of poetic practice on a granular level while also being able to reference a wider cultural frame of production. To this extent, the PennSound model hails a new kind of subject, one well-versed in the history and aesthetics and particular works of the robust genealogies of twentieth and twenty-first century poetic practices, which is also committed to the creation and cultivation

These two aspects of the repository's overall interface mutually constitute one another in an ongoing feedback loop.

of scholarly commons that foster the transmission of this culture of poetry into the future.

Acknowledgements

Works Cited

Bernstein, Charles. *A Poetics*. Harvard UP, 1992.
———. "Introduction." *Close Listening: Poetry and the Performed Word*. Oxford UP, 1998. 3–26.
———. *Attack of the Difficult Poems: Essays and Inventions*. University of Chicago Press, 2011.
———. *The Pitch of Poetry*. University of Chicago Press, 2016.

Bicher, Kirsten. "The Web Poet's Society." *The Atlantic* (online), 7 January 2015. theatlantic.com/education/archive/2015.

Farge, Arlette. *La Goût de l'archive*. Seuil, 1989.
———. *The Allure of the Archives*. Trans. Thomas Scott-Railton. Yale UP, 2013.

Fong, Deanna. "Spoken, Word: Audio-Textual Relations in UbuWeb, PennSound and SpokenWeb." *Amodern* 4 (2014).

Foucault, Michel. *The Archaeology of Knowledge*. Trans. A. M. Sheridan Smith. Routledge Classics, 2002.

Galloway, Alexander. *The Interface Effect*. Polity, 2012.

Glazier, Loss Pequeño. *Digital Poetics: Hypertext, Visual-Kinetic Text and Writing in Programmable Media*. University of Alabama Press, 2002.

Grossberg, Lawrence. "On Postmodernism and Articulation: An Interview with Stuart Hall." *Journal of Communication Inquiry* 10.2: 245–60.

International Association of Sound and Audiovisual Archives. 2009. "Key Digital Principles." iasa-web.org.

Kirschenbaum, Matthew G. "Editing the Interface: Textual Studies and First Generation Electronic Objects." *Text* 14 (2002): 15–51.

Latour, Bruno, and Steve Woolgar. *Laboratory Life: The Construction of Scientific Facts.* Second edition. Princeton UP, 1986.

Law, John. *After Method: Mess in Social Science Research*. Routledge, 2004.

Morris, Jeremy. *Selling Digital Music: Formatting Culture.* University of California Press, 2015.

Nardone, Michael. "Of the Repository: Poetics in a Networked Digital Milieu." PhD dissertation, Concordia University, 2018.

Novak, David. *Japanoise: Music at the Edge of Circulation*. Duke UP, 2013.

Sica, Deb. "The Tapes Index: An Annotated Bibliography." Unpublished document, 1996.

Silliman, Ron. 2005. "Wednesday, January 05, 2005." *Silliman's Blog*. ron-silliman.blogspot.ca.

Sterne, Jonathan. *The Audible Past: Cultural Origins of Sound Reproduction.* Duke UP, 2003.
———. *MP3: The Meaning of a Format.* Duke UP, 2012.

United States Library of Congress. "Recommended Formats Statement," 2016. loc.gov/preservation/resources.

Yale News. "Charles Bernstein is awarded Yale's prestigious Bollingen Prize." 22 January 2019. news.yale.edu.