Chapter 14. From Cylinders to WordPress: Using Digital Sound Archives for Short-Form Radio Programs

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The Phono Project was inspired by an assignment I originally taught in a required, sophomore-level, research-writing course at Syracuse University back in 2012. That course focused on remix and copyright, and as such it opened with an expansive unit that framed digital writing and information as largely assembled, networked, ecological, and multimodal; needless to say, it was an ambitious course. Students used WordPress to blog about their reactions to watching Brett Gaylor's (2008) documentary *RiP!: A Remix Manifesto*; read Lawrence Lessig's (2008) *Remix: Making Art and Commerce Thrive in the Hybrid Economy*; and practiced working with sources using Joe Harris's (2006) *Rewriting: How To Do Things with Texts*. (Note: In an attempt to make up for this lack of context in my revised version of the course, instructors will notice that I front-load a basic definition of multimodality in the actual assignment.)

The second unit, and the one that inspired The Phono Project, was based on my class's partnership with a nationally syndicated radio program called *Sound Beat*, a short-form podcast that focuses on the history of recorded sound. *Sound Beat* is sponsored by the University—and Syracuse Libraries Special Collections, in particular—since its programming source comes directly from The Belfer Audio Laboratory and Archive, a building that houses over half a million sound recordings and related items. In each 90-second episode of *Sound Beat*, host Brett Barry narrates a story about one of the items found in the archive, focusing on anything from historical events and pastimes to unique achievements of individual performers.

The archive is also home to the Belfer Cylinders Digital Connection, a database that includes more than 1,600 digitized versions of the archive's 20,000 cylinder recordings. Such recordings are some of the most vulnerable phonographs in existence, since cylinders, invented by Thomas Edison in 1877, were not only primarily made from less durable materials (tinfoil in early cases) but also predated disc phonographs, which were easier to mass produce. As a result, recordings that have been carefully digitized by their laboratory's resident sound engineer are shared publicly on their website as high-quality MP3s. Students in my class, then, searched the Belfer Cylinders Digital Connection for potential recordings to be used in future *Sound Beat* episodes. They toured the space, looking at various devices for playing and recording sound and meeting with writer Jim O'Connor to get a sense of *Sound Beat*'s genre and tricks to his process and work-

ing with subject-specialist librarians like Patrick Williams, who co-wrote a study guide for the partnership. (I interview Jim and Patrick in my reflection below.) Students then wrote multiple drafts of scripts, cutting them down and recording demos of their episodes in Audacity.

Such an exciting and tightly woven unit, however, poses a challenge. How might a project that relies on a world-class sound archive or an NPR-sponsored radio program export to institutions that have neither of those resources or contexts? How might such an idea be adapted for different institutions and unfamiliar curricular contexts? Although recordings from the Belfer Cylinders Digital Connection and episodes from *Sound Beat* are publicly available, I began to wonder what other archives and resources might be utilized and how I might approach revising this unit for myself and other teachers, who were working with students in these divergent, multiple contexts.

What follows, then, is an assignment that is meant to be taught in eight to ten class meetings and that replaces *Sound Beat* with a self-published podcast series I call The Phono Project (housed at phonoproject.com). The Phono Project opens up students to virtually any publicly archived recording that has been digitized, or one that students want to digitize themselves. However, the assignment has increasingly drawn from The Great 78 Project, a collection of 78s hosted and organized by the Internet Archive (https://great78.archive.org/). This has led to recent collaborations with stakeholders who have both digitized these 78s in nearby Philadelphia and advocated for their usage at the Internet Archive (Adams, 2021). I have used the assignment with students taking Rowan University's introductory course to the major (called Introduction to Writing Arts), which is a module-based course, cotaught with two other faculty who focus on different aspects of our major. Although the course enrolls 60 students, cohorts of 20 students rotate every eight class meetings so that faculty actually teach their curricula three times per semester. Because my module focuses on writing technologies and is taught in a lab equipped with 20 state-of-the-art iMacs, the assignment below is framed through a lens of multimodality, where students tinker with a variety of tools the lab offers, including Audacity. Students also blog using WordPress, which gives them some experience with the interface that they will ultimately use for their contribution to The Phono Project. Throughout the unit, students practice writing with and about sound by composing audio essays, describing popular podcasts, and reviewing contemporary songs that interest them, mimicking techniques from critics who write about singles (e.g., P*itchfork*'s track reviews).

While I was initially concerned about designing this assignment so that it would respond to local soundwriting exigencies for my students at Rowan, which is located in southern New Jersey, the shift to Rowan from Syracuse afforded a serendipitous moment. Rather than frame the unit around an on-campus archive, I considered The Phono Project as an opportunity for students to connect with New Jersey's unique contributions to the history of recorded sound. After all, Edison's famous laboratory in North Jersey, which is now a national park, is con-

sidered the birthplace of the phonograph; and perhaps more significantly, it was in nearby Camden where the founders of the Victor Talking Machine Company, Eldridge R. Johnson and Emile Berliner, fused their patents to re-engineer Edison's cylinders to discs, thereby increasing fidelity and preparing the phonograph for mass consumption. Finally, many of the 78s hosted at the Internet Archive have been digitized locally in Philadelphia, at George Blood Audio LP, who have offered my students and me tours of their facilities (GeorgeBloodAudio, 2016).

In my reflection, I look back on my partnership with *Sound Beat*, interviewing Jim and Patrick, thinking about the choices I made in the revision, and making predictions about potential sticking points.

A final note on accessibility: While The Phono Project may present unique challenges for students who are D/deaf or hard-of-hearing, it also requires all students to approach sound textually and historically, researching the context of the recording and finding a narrative worth telling to public audiences. While some students may require accommodations via peer collaboration or voice actors, the project is, at its heart, multimodal, as the work requires all senses. This is, in part, reflected in the way that final projects are hosted on a website that includes transcripts of the audio.
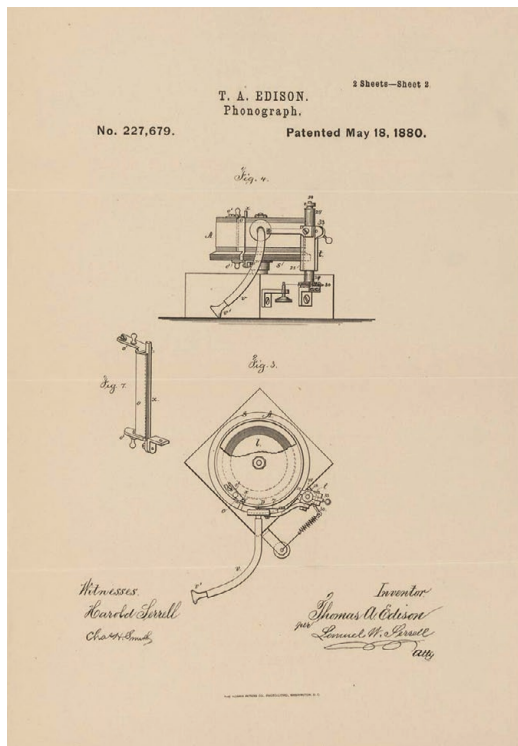

Figure 14.1. Thomas Edison's (1880) patent for the phonograph, whose media was originally cylinder based and not the flat vinyl discs we now see.

The Assignment

Introduction

In "'Convince Me!' Valuing Multimodal Literacies and Composing Public Service Announcements," Richard J. Selfe and Cynthia L. Selfe (2008) provide four compelling reasons why writing in the 21st century requires authors to go beyond composing sentences, paragraphs, and pages. Increasingly, as Selfe and Selfe argue, writers are multimodal (literally "many + modes"), drawing from a range of communicative resources—including sound and video—as they design, craft, and share compositions across various forms of media, both in person and through digital networks. This is especially true for writers who are offering up their work to public audiences, audiences who are also increasingly accessing information using these multiple modes; as Selfe and Selfe put it, "we learn about, act in, and understand the world using multiple channels of communication" (2008, p. 84).

One of those modes or channels is online radio. According to Edison Research (2020), 68% of all Americans listen to online radio at least once per month; that number jumps to 86% when accounting for 12–34-year-olds. In addition to streaming music services like Spotify, serialized radio programs like WBEZ's *Sound Opinions*, WXPN's *World Cafe*, KUTX's *This Song*, or Radiotopia's *Sound Exploder* let listeners choose how to play them—from their computer or on-the-go from a mobile device. Moreover, podcasts are reaching younger audiences. As Edison Research notes, almost half of Americans ages 12 to 34 say they've listened to one in the past month—a number that has nearly doubled since 2017.

And yet, the ubiquity of digital media has also led some consumers to turn to analog media, buying print books and vinyl records. According to the Recording Industry Association of America, sales of LP vinyl records have grown for 14 consecutive years, recently outpacing CDs for the first time since the 1980s (Brown, 2020).

Enter The Phono Project. In this four-week assignment, I'm asking you *to draw from multiple modes—text, sound, html—and several tools, to create a very short demonstration of soundwriting ("demo," in music industry parlance): a 90-second MP3 file that is a recording of you speaking over a sample of sound that was reproduced by a phonograph.* Your demo will then be published with the other 175 episodes on phonoproject.com.

A digitized phonograph recording is a digital recording of a vinyl record—as in, someone hooked up a record player to a computer and recorded the sounds using audio software. As you'll learn in this unit, phonograph recordings have existed in a variety of formats since the beginning of recorded sound more than 140 years ago—first as cylinders, then later as discs, which gradually changed size and slowed their rotation from 78 RPMs to 45 and finally, the most common, 33 1/3. You will engage this history, critically listen to recordings in the public domain through their digital archives, and experiment with the translation of sound through time and space to make new meaning.

This assignment will likely present you with two new challenges: First, you'll need to obtain a digitized phonograph recording that "speaks" to you and your audience. Although you'll only write about 125–150 words of copy for your script, you'll need to do quite a lot of research to make those words worthy of a public listener. Second, you'll need to learn how to use a free, open-access audio recording program, called Audacity, to record your voice and mix it successfully with the recording. This is essentially what 21st century multimodal composing is all about.

In the end you'll submit a Word file of your script and bibliography, an MP3 of your digital recording, and a 600-word doc file that reflects on the successes and challenges of this project.

Finding the Story: Researching Recordings

Once you have some experience writing about contemporary music, I'll introduce you to a digital archive of phonographs called *The Great 78 Project* where you can download tens of thousands of recordings. Hosted at archive. org (aka The Internet Archive), The Great 78 Project has 50,000 78s (3+-minute records that spin at 78 rpms) that were recorded mostly from 1898 to the 1950s. A variety of digital audio formats (MP3, FLACs, OGG, and more) can be downloaded directly from the site.

Since The Great 78 Project contains tens of thousands of digitized recordings, how do you go about finding one that "speaks" to you? In class we will talk about several ways you might both search and browse them, but mainly what you should keep in mind is that this process takes time. First, you'll want to spend some time browsing these archives, noticing how they use genre, topic, language, and dates to organize themselves. Of course, you can also search them, experimenting with certain keywords that reflect your own learning goals and interests. But most of all, you'll want to listen to them. What do they sound like? What do you notice? What instruments, lyrics, or voices, or noises jump out at you? What questions does this recording raise for you? Once you've narrowed your interests down to two or three recordings, it's time to do some research.

Whether it's a feature on NPR or a sound bite on *Sound Beat*, much of what you hear on public radio is a story—a narrative that audiences remember and appreciate. But in order to find a compelling story and tell it with the kind of efficiency this project requires, you need to know as much about it as possible. In class we'll talk about strategies for getting started and mapping the various ways you can approach the recording, whether in terms of the artist or speaker, the format or genre, the exigence or culture at the time, and so forth. For example, while the name "Vernon Dalhart" is barely recognizable to most people in 2020, he was a household name in 1926 with the recording of "The Wreck of the Old 97" and forged a lucrative path for the entire genre of country music. While this is interesting, it doesn't really tell a story, so you could keep pushing to find more out by reading about Dalhart, the music scenes he belonged to in the early 20th century, the history of country music, the lyrics and genre of

"The Wreck of the Old 97," and more until you get to a story that is interesting and works for the project.

Scripting and Soundwriting

As you research, you'll be taking notes and drafting your scripts. Since it's difficult to stick to 125 words in your first script, you'll instead work with a limit of 500 words, citing sources as you go. We'll workshop these in class and try to cut your draft down to a few shorter possibilities that are still faithful to the narrative you're trying to share with the world.

Meanwhile, you'll also begin to record your voice, reading drafts of your script and mixing it over your chosen recording using a free, open-source program called Audacity. We'll read about writing for sound and workshop some of these demos in class using SoundCloud, looking at aspects such as timing, volume, and sampling, and using effects like amplification, normalization, and fading in and out.

Reflection

Finally, you'll include a 600-word reflection wherein you introduce me to your project—why you chose your cylinder, the processes you went through during the selection, research, writing and revision phases of the project, noteworthy successes and challenges you faced, and what you learned.

Sample Student Projects

The first two samples are from my partnership with *Sound Beat* at Syracuse University in 2012.[1] Each sample was selected and lightly revised by both the student and lead writer, Jim O'Connor, and then read and recorded by the host of *Sound Beat*, voice-over professional Brett Barry. Like all *Sound Beat* programs, they are all hosted publicly on their website (and these two are reproduced on the book's companion website). The third sample was produced for *The Phono Project* and made by a student in my Introduction to Writing Arts course at Rowan University.

1. In "Der Graf von Luxemburg," theatre major Craig Kober discovered an interesting story about a German operetta and its author, Franz Lehar, who thought it would be a failure. (http://soundbeat.org/episode/der-graf-von-luxembourg/)
2. In "The Unknown Soldier," Dennis Bitetti wrote a script that spoke to his dedication as a former U.S. soldier. (http://soundbeat.org/episode/the-unknown-soldier)

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1.   Three student examples (audio files and descriptive transcripts) can be found on the book's companion website.

3. In her program on Bing Crosby's "White Christmas," Paige DeMarco chose to focus on the recording technologies that made Bing Crosby's song a holiday classic. (http://www.phonoproject.com/2018/10/04/white-christmas-by-bing-crosby)

Reflection

[Plays 30-second recording of Victrola being operated, which include sounds of the lid opening, a disc being placed on the turntable, multiple cranks of the machine, and the rotation of the turntable, which fades into the background (a remix of Thaighaudio, 2016a, 2016b, 2016c).]

Jason Luther: My name is Jason Luther, and I'm Assistant Professor of Writing Arts at Rowan University in Glassboro, New Jersey.[2] Those sounds you hear are from a digital recording of Victor's classic phonograph machine, the Victrola VV-XI or VV-eleven. You can hear its mahogany lid being opened, the machine's crank being yanked and spun, and its two-spring motor cantankerously animating the heavy, felt-lined turntable. The Victor Talking Machine Company made nearly a million of the VV-elevens between 1910 and 1921 in Camden, New Jersey. This particular invention helped birth and sustain a musical public eager to purchase and play 78 rpm discs of brief, acoustical recordings. All across America, living rooms played the likes of proto-country artists like Vernon Dalhart . . .

[Plays sample of Dalhart's (1926) guitar and vocal accompaniment on "The Wreck of the Old 97" with lyrics that sing, "It's a mighty rough road from Lynchburg to Danville in a line on a three-mile grade" which fades quickly into background.]

. . . classical pianists like Sergei Rachmaninoff . . .

[Plays 5-second sample of piano solo (Rachmaninoff, 1920) which also fades quickly.]

. . . and early blues singers like Mamie Smith.

[Plays sample of horns and vocals from "Crazy Blues" (Mamie Smith & Her Jazz Hounds, 1920) with lyrics that sing: "I can't sleep at night, I can't eat a bite, 'cause the man I love, he don't treat me right," which fades quickly.]

The digitization and historicizing of phonograph recordings is the essence of my assignment, The Phono Project. As I mention in the introduction to this chapter, the idea for The Phono Project began in 2012, when I was a graduate stu-

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2. The audio version of Jason Luther's reflection can be found on the book's companion website.

dent at Syracuse University. It was there where I taught a required, research-writing course that partnered with a radio program called *Sound Beat*.

Sound Beat was, and still is, a 90-second show about the history of recorded sound. Its selections come from the Belfer Audio Archive, one of the largest audio archives in the world, which is housed within the special collections at Syracuse University Libraries.

While *Sound Beat* draws from an archive of over 400,000 recordings, students in my class had to pull from the digitized archive at Belfer, which housed Edison cylinder recordings in the public domain. Once they found a recording in that archive, my students researched the recording for a 90-second narrative, writing several scripts, the final of which they committed to a recording through Audacity. From these demo recordings, writer and producer Jim O'Connor selected five to revise and produce for the show, which then aired in over 350 markets, reaching millions of listeners in the US, Canada, and the Philippines. Here's one from one of my students, about the Jubilee Singers of Fisk University:

> *[Fisk Jubilee Singers singing the peppy chorus of "Peter on the Sea," which fades out.]*

>> **Brett Barry of Sound Beat**: You're listening to the Jubilee Singers of Fisk University sing "Peter on the Sea," from 1927, and you're on the *Sound Beat*.

> *["Peter on the Sea" fades in and back out.]*

>> Fisk University struggled financially from its very founding just six months after the end of the Civil War. On the verge of closure, the Singers began a series of fundraising tours in 1871. By appearing in many venues in the US and embarking on a visit to Europe where they sang for Queen Victoria, the Jubilee Singers broke color barriers and made an enormous impact on the world of music. Oh, and they saved the university. As a matter of fact, the Jubilee Singers continue to sing today.

> *["Peter on the Sea" fades in and back out.]*

>> In their words, "We stand on the shoulders of the original Jubilee Singers, continuing their legacy, as we sing Negro Spirituals." This episode was written in part by Syracuse University student Tesia Elder as part of the *Sound Beat* Class Partnership. For more on the Jubilee Singers past and present, check out Sound Beat dot org right now.

> *["Peter in the Sea" cuts out and* Sound Beat *theme plays.]*

>> *Sound Beat* is produced at the Belfer Audio Archive, Syracuse University Library. I'm Brett Barry. (Elder & O'Connor, 2018)

Jason: At the time of our partnership, my research-writing students and I were the first and only class working with *Sound Beat*. Six years later, the class partnership is going strong as *Sound Beat* works with students in music journalism and ethnomusicology classes. As I prepared to redesign this course for students at Rowan University in the spring of 2018, I wanted to reflect on the 2012 partnership by interviewing both Jim O'Connor and subject specialist librarian, Patrick Williams. Both Jim and Patrick helped build the original curriculum, and so we talked about key strategies and ongoing challenges with an assignment like The Phono Project, six years after.

One of the first challenges is deciding which recordings students can choose and where they come from. While I've provided several sites to use for The Phono Project,[3] the partnership with *Sound Beat* was limited to its archive. That said, "limited" is a misnomer as the Belfer Archive has nearly half a million recordings. One of the first things I learned in talking with Jim is how he specifically limits students' choices when it comes to this process.

Jim O'Connor: The pool we have to choose from—the large pool—is obviously almost, you know, for our purposes limitless. In terms of the demands that we want to put on staff and the work that they're kind of doing there anyway, what we've taken is equal parts of cylinders, 78s, and vinyl. What I do basically now—and I can't remember if this is how we did it?—I select a larger pool. The typical class size will be 20 and so I'll give them 40 choices and try to make it kind of representative of a month of *Sound Beat* episodes. Where it's, you know, that spectrum-wide range of genres, and also formats.

Jason: Even with these imposed limitations to the archive, another challenge quickly emerges: how does a writer find a story worth telling in 90 seconds? A helpful place to start, Jim suggests, is the recording itself.

Jim: What I always, always say to everyone when they're writing these is to play that recording throughout, while you're writing. Because, you know, personally, I feel that music is so transformative that it automatically puts you right in that time and place when you're listening to that music. And when you hear certain, you know, when you hear the trill of violins or something that accentuates your point, you can really nod to that in your piece. Part of it is direction obviously as well, so you have to see yourself as the writer, the producer, and the voice artist. The most important thing for me has been putting headphones on and playing the song while I'm writing about it—you're locked in.

Jason: Once students are aurally familiar with a track and notice particular sounds or lyrics coming from the recording, they can begin to raise questions. That's when additional outside sources begin to play a role in the project. As Pat-

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3.   While I currently draw only from The Great 78 Project in order to simplify this assignment for students, I have used a range of other archives of 78s in previous iterations, including those stored on the Smithsonian's website, the National Jukebox from the Library of Congress, and the Belfer Cylinders Digital Collection at Syracuse University.

rick notes, those sources can be invaluable not only for understanding an artist's legacy or a song's resonance, but also for the larger cultural contexts that shape genres. Here he refers to Vernon Dalhart's "The Wreck of the Shenandoah," comparing the disaster-song genre of the 1920s to more contemporary diss tracks.

Patrick Williams: Getting some of that historical context is really difficult. The example I still almost without fail use in classes is Vernon Dalhart's "Wreck of the Shenandoah" because it's like the collision of this thing that we think of as strange, you know, this blimp crash, and if you start looking at his catalog and you start looking through the magazines of that era, you see that this is a type of song, one of many songs—whether the crash of a train or a blimp or whatever—and so looking at those historical resources that have lists of songs, or have reviews or something like that, can give students that context that helps them pick out what's interesting. And maybe it's not interesting that this is a song about a blimp crashing, but what's interesting is it's a song about one of many blimps crashing in our music and recorded sound. We know that there's a bunch of diss tracks are a thing for us, we understand that, but we don't see . . . like somebody coming in in 25 years picking out some particular diss track might not necessarily recognize that it's a part of this cultural currency that exists. And I think that if you just look at information around an artist or information around a particular track, you lose some of that and you're sort of forced to encounter it when you are in these historical periodicals.

Jason: As Patrick's comparison suggests, researching and historicizing genres of sound are helpful for writing a strong script; however, as Jim notes, your audience and the very format of *Sound Beat* and soundwriting are important considerations too.

Jim: The format is 90 seconds and you've got music in the background. It's radio, so it's not like you have a captive audience—people could be driving their car and a dog walks across the street, as we say in class all the time. You know, people need to be able to recoup, so complex points that you're making at the beginning of the episode to tie in at the end don't typically work. The episodes we write, some of them are autobiographical, so you have to come at it from that perspective. You wouldn't say in a *Sound Beat* episode, "Elvis Aaron Presley was born in Tupelo, Missouri." [Note: he surely meant to say *Mississippi*.] People will know that dude. When it comes to a performer like Elvis it's more about telling—not even a story, you know, you've got 150 words. It's more about telling a little chapter of the story.

Jason: Jim, Patrick, and I discussed other components of the assignment—how intellectual property structures the show's format, how students respond to their writing when they hear it on the radio for the first time, and writing for things like tone; however, it is the short form that is perhaps one of the assignment's best and most challenging aspects. I look forward to revisiting this again as I teach the assignment to a new group of students this spring at Rowan University.

[Rachmaninoff (1920) piano solo fades in and plays in background.]

Thanks for listening. Once again, I'm Jason Luther, and you've heard a reflection on The Phono Project, featuring an interview with Jim O'Connor and Patrick Williams, both of Syracuse University. I'd like to thank Jim and Patrick for speaking with me and encourage you to check out *Sound Beat* online at soundbeat.org, where you will find several great examples of short form podcasts, written by Jim, that you can use with your students. *[Rachmaninoff piano solo fades out]*

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