A Documentary History of Early Phonograph, Cinema, and Radio

MUSIC, SOUND, AND TECHNOLOGY IN AMERICA



Timothy D. Taylor, Mark Katz, and Tony Grajeda, EDITORS

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Edited by **Timothy D. Taylor**, **Mark Katz**, and **Tony Grajeda**

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Like water, like gas, like the electrical current coming from afar into our homes responding to our needs in return for almost no effort, so we will be supplied with visual or audible images, appearing and disappearing with the least gesture, almost a sign, only to leave us again the same way as they came.

—Paul Valéry, "La Conquête de l'ubiquité,"

in Pièces sur l'art, 1928-1934

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General Introduction Timothy D. Taylor

Music Technologies in Everyday Life

Few films or novels better capture the transition from quiet, small-town American life in the early twentieth century to the hustle and bustle of urban life in the 1920s than King Vidor's silent film The Crowd (1928). The film opens in a small town on Independence Day 1900 with the birth of Johnny Sims. The baby's proud father tells the doctor, "There's a little man the world is going to hear from all right, Doctor. I'm going to give him every opportunity." The next scene is set in 1912: "Johnny Sims reached the age of twelve. He recited poetry, played piano and sang in a choir . . . so did Lincoln and Washington!" Young boys sit on a fence, discussing their aspirations. Johnny says, "My Dad says I'm goin' to be somebody big!" But then a horse-drawn ambulance appears in front of the Sims house. The boys run there, finding that the whole town has turned out because of the death of Johnny's father. Young Johnny is told he will have to be the man in the family now. The film then cuts to New York City in 1921, where John has come to realize his potential. Vidor's camera cranes dramatically up a skyscraper and through an office window, revealing at first a sea of identical desks before zooming in to show John at his. Life in the demoralizing, homogenizing city takes its toll on John: he is ruled by the clock in his drab office as he struggles to be "somebody big." He gets married and endures both the death of his daughter and his wife's threats to leave him. To win her back, he buys her a bunch of flowers, all he can afford. Bereft of words, he puts on a phonograph recording of "There's Everything Nice about You." His wife relents, and the two go to a vaudeville show with their son. The last shot of the film begins with a medium close-up of the couple's happy faces, slowly zooming out until they are lost in the crowd.

The Crowd depicts many of the transitions and anxieties Americans experienced in the early twentieth century: the shift from rural or small-town life to cities; the fear of being lost in the crowd; the fear that opportunity will never really present itself; the rise of mass culture. Such feelings and anxieties were produced or exacerbated by many of the great technological changes that were occurring in America in this period, changes that contributed to a general sense that Americans were living in a new era with a faster, even bewildering, pace—the "modern tempo." Electricity, the airplane, the automobile, the telephone, the phonograph, the radio, and the motion picture all helped contribute to a sense that modernity was exhilarating, frightening, and wholly new.

As Vidor's film shows, the decade that best represented these changes was the 1920s, for it witnessed the modernization of cultural forms and communication technologies in the meteoric rise of radio and the advent of sound film.¹ For people living in the 1920s, the decade represented a greater break with the past than anyone could remember. The writer and historian Frederick Lewis Allen began *Only Yesterday*, his history of the 1920s, with a comparison to the previous decade, devising a fictitious couple, Mr. and Mrs. Smith, and describing what their lives were like in 1919. Women's dresses extended to ankle length, they wore their hair long and rarely smoked, and most automobiles were open rather than covered and had to be started with a hand crank. When Mr. and Mrs. Smith went to a tea dance at a local hotel in 1919, they might have heard a new jazz band instead of the usual orchestra, though there were no saxophones in those orchestras yet. When the Smiths stayed home, they might have read one of the latest novels of the day, but they most certainly did not listen to the radio—for radio was something only hobbyists were tinkering with at the time.²

Commodification, Consumption, and the Rise of Mass Culture

While the decade of the 1920s was probably the most tumultuous of all those represented in this collection, it was part of a broader shift that Americans were experiencing in the late nineteenth century and the early twentieth: they were entering a world of mass culture, in which goods—including cultural goods such as sound recordings, films, and more—were produced and consumed

on a scale previously unknown. The transition to a consumer economy was facilitated by the rise of new forms of payment, or deferred payment, such as credit and installment-plan purchasing ("buy now, pay later" was a slogan introduced by the automobile industry around 1915),3 by new forms of retail, such as department stores and chain stores, and by the rise of the advertising industry.4 The slow conversion of the American economy from being primarily production-oriented to consumption-oriented was described by a distributor of packaged meat this way in 1920: "Mass selling has become almost the universal rule in this country, a discovery of this decade of hardly less importance than the discovery of such forces as steam and electricity." 5 This volume captures the slow transition toward a consumer society by focusing on the modernization of sound in general and music in particular, describing the processes by which music evolved from something that people primarily made for themselves or heard live to a commodity and object of consumption.6

Music and sound technologies were part of this shift, and indeed the phonograph (preceded by the player piano) introduced a new mode in the commodification of music: it became something that one purchased as sound.⁷ Musical sound as a commodity was of course aided by devices to reproduce or transmit it. In the mid-1920s sales of phonographs and radios increased greatly; sales of radio sets rose from \$60 million in 1922 to \$358 million in 1924.8 Movie attendance was similarly on the rise. A survey by the Bureau of Labor Statistics on the cost of living among working families in Chicago found that more than half of the family amusement budget was spent on movies; even people in that city receiving public assistance attended movies regularly.9 By the mid-1920s fifty million Americans went to the movies each week, about half the population at the time, and attendance doubled by 1930 with the advent of the talkies.¹⁰

Along with the wide-scale adoption of these new technologies in the 1920s, this decade also witnessed the rise of new popular magazines for radio fans, phonograph record buyers, and film buffs. This massive popular press, well represented in the readings, gave listeners information about their favorite musicians and stars, sponsored contests and conducted polls to survey the preferences of audiences, and printed fan letters about their favorite stars, music, and films. These magazines helped create a star system that we now take for granted but in fact was a historical construction of the early twentieth century.

The advent of the phonograph, the sound film, and the radio played an important part in this larger shift in American life. Families and neighbors listened together to records; large audiences convened many times daily in movie houses; nationwide thousands, eventually millions, shared live musical or theatrical performances over the radio. Perhaps more than the other technologies represented in this volume, radio imparted a feeling of connectedness, since everyone listening in knew that others were hearing the same programs at the same time. As one commentator wrote in 1923, "How easy it is to close the eyes and imagine the other listeners in little back rooms, in kitchens, diningrooms, sitting-rooms, attics; in garages, offices, cabins, engine-rooms, bungalows, cottages, mansions, hotels, apartments; one here, two there, a little company around a table away off yonder, each and all sitting and hearing with the same comfort just where they happen to be." The writer goes on about members of the far-flung audience, united in time and in their pleasure at hearing music coming out of their radios. 12

The phonograph, the sound film, and the radio emerged around the same time as Frederick Winslow Taylor's "scientific management" techniques that rationalized work and Henry Ford's assembly-line manufacturing that made work repetitive, alienating, and dull, as in *The Crowd*. This banalization of work heightened the importance of consumption as a leisure activity and an escape.

Additionally, the movement from rural to urban areas, where the majority of Americans had come to reside by the 1920s, meant that many Americans were living in an environment in which they were surrounded by a crowd of strangers, a condition that was compounded by unprecedented waves of immigration. The anonymity of existence in the city, like that of Vidor's John Sims, coupled with the rising importance of consumption over production and the growth of mass culture, provoked a good deal of anxiety among many Americans, who feared that they were losing their individuality to the masses. As early as 1909, a magazine writer despaired, "We *are* a mass. As a whole, we have lost the capacity for separate selfhood." ¹³

The advertising industry, becoming a major force in American culture in this period by selling not only goods but a new consumption-oriented mode of existence, took seriously its role as an arbiter of this new, mass national culture: *Printers' Ink*, the main trade magazine for the advertising industry before the Second World War, wrote in 1938 that in the 1920s advertisers had failed to realize just what their power was, for mass production had "made it not only possible but imperative that the masses should live lives of comfort and leisure; that the future of business lay in its ability to manufacture customers as well as products." The distinct but overlapping developments of the recording industry, the movie industry, and broadcasting all fueled the modern notion of mass audiences as great multitudes of customers, and the advent of radio in the 1920s

especially proved a huge boon to advertisers, who were quick to sponsor programs that hawked their products.

At the same time, however, many intellectuals and artists were disturbed by the rise of mass culture and the threats to individuality that they thought it represented, fearing that the repetition of great works of music on the radio or phonograph would lead to their trivialization through superficial listening, as many represented in this volume argue. But they were in the minority. As we all know now, with our infatuation with iPods, TiVo, and other gadgets, the culture industry was successful in recruiting people into the world of purchasing music, educating them to relate to music as consumers more than as producers.

Mediated Music in Everyday Life

Consuming music as sound meant that people were making music less while permitting it to enter their homes with the newest devices. This was a long transitional period, in which people would interact with the phonograph and radio as though they were musical instruments. Many Americans greeted the advent of these devices with mixed feelings in the first half of the twentieth century. What we have captured in this volume are the attitudes of everyday people toward these new technologies, particularly when they began to employ them in their everyday lives. The questions that concern us, among others, are the following: How did people find uses for the new technologies? Are those uses the same that scientists and engineers envisioned? How did a technology that seemed at first like a strange gadget or a fad become so integral to everyday life? Other questions concern the controversies surrounding new technologies. How were they championed or opposed? Finally, we investigate music and people's relationships to it. How did people react to music when they could no longer see the musicians? How did these technologies change the way people learned music, whether as listener or performer? How was the previously clear distinction between the production and consumption of music blurred by these new technologies? How did the phonograph and radio change people's relationship to live music? How did the combination of music and film introduce and inflect new meanings to familiar musical works?

To address these and other questions, our collection brings together primary sources chronicling the development and subsequent uses of technologies, primarily in America, that profoundly shaped people's relationship to music before the Second World War. It begins in the late nineteenth century with the rise of the phonograph and moves through the growth of radio and talking pictures in the 1920s, thus covering roughly seventy years in the development of these three important music and media technologies.

The volume concludes with the end of the Second World War, by which point all three technologies had matured and been integrated into everyday American life. By the time of the arrival of television in the late 1940s and early 1950s (or, for that matter, the World Wide Web in the 1990s), American culture had already been shaped by and had adapted to the phonograph, radio, and sound film. It was these earlier technologies that had helped to introduce the notion that one didn't have to make one's own music or go out to hear it, but could enjoy it at home when one wanted. Furthermore, both radio and the phonograph established new economic and legal standards regarding broadcasting and copyright law. More recent technologies, such as television and the Internet, rather than representing communication revolutions, instead were built upon existing structures formed alongside earlier technologies. Indeed, we would argue that these early years of the phonograph, radio, and sound film are in some ways at least as important socially and culturally as many developments afterward.

For any technology, people may find uses that its inventors didn't foresee. It is striking, for example, that neither the phonograph nor radio was developed primarily for musical purposes. The radio grew out of telephone technologies, and the phonograph was originally used as a dictation device. That these inventions became important musical devices speaks to what Jonathan Sterne has called "plasticity," the use of technology for purposes not imagined in the laboratory. ¹⁶

Additionally, we believe that it is essential to view new technologies not so much as foreign to social or private life but as devices, when they gain a foothold, that help people continue to do what they have always done, but perhaps in new ways, whether faster, slower, or more efficiently. The idea that people adapt technologies to their own uses is found in the sociologist Claude Fischer's study of the telephone, which makes insightful arguments about how new technologies do not change everything, do not "determine the basic character of [American] life." "The telephone," he writes, "did not radically alter American ways of life; rather, Americans used it to more vigorously pursue their characteristic ways of life." Or as the anthropologist Marilyn Strathern writes more generally, "However transformative and innovative [new technologies] are, they work on what is already there, what already gives shape to people's lives." 18

And it is the same for the music technologies represented in this volume: people often use them to do what they were already doing. A woman recalling life in Little Sicily in Chicago in the 1920s said of the phonograph that on Saturday nights her neighbors would "play all these Italian records and they would dance."19 In other words, the phonograph helped these immigrants be Italians in America, not merely passive consumers of American mass culture. At the same time, however, just as one could argue that the telephone did play a significant role in changing people's communicative relationships to each other, sound technologies also played a role in changing people's relationships to music. The point here is to try to conceptualize the introduction of these new technologies not as "changing everything" on the one hand or as simple tools for listening to music on the other, but as entering social life in the first half of the twentieth century in a complex and ever-changing dynamic.

By adopting these and other perspectives, this volume contributes to a small but fast-growing body of literature by musicologists and ethnomusicologists that is shedding light on the development of important music and audio technologies.²⁰ In addition, there are two new fields that study sound in general, sometimes including music: Science and Technology Studies (STS) and Sound Studies.²¹ This volume is part of the new interest in sound reproduction technologies, and is especially indebted to those works concerned with what not only inventors and musicians but everyday users made of new music technologies.22

Reading What Follows

This collection is divided into three parts: sound recording, cinema, and radio. The documents were chosen not only for their descriptions of new technologies, but for what they reveal about music and how it was mediated to everyday users. To this end, a variety of sources are used, including those written by inventors or composers; other publications and genres are also represented, such as the popular press, advertisements, fiction, sheet music, fan letters, and business documents—whatever illuminates people's changing relationships to music. Since this volume is primarily about how these technologies gained acceptance in real people's lives, it begins with the advent of these technologies and concludes with their maturation, their full-fledged participation in Americans' everyday lives. For the most part, the documents are thematically rather than chronologically arranged, which helps highlight the various issues surrounding the introduction and use of these technologies.

While most of the documents contained here can be read for the information they purvey, we believe that they should all be read ethnographically—one can read them for what they reveal about people's attitudes and ideas about a particular technology and music, with questions such as the following: Why did a publication see fit to publish a story on a particular subject? Who was the intended audience? What were the underlying assumptions of the article? By reading this way, it is possible to begin to understand just how people were feeling and thinking about these technologies and the changes they were bringing to everyday people's lives. Just as we have our own reactions to, and discussions of, the latest and most pleasurable kind of technology, so too did people in the 1920s or other historical periods long before our own.

We believe that a volume of documents on these technologies serves two important purposes. The first is to make these fascinating and diverse sources—many little-known, unpublished, or difficult to find—easily available to students, scholars, and other interested readers. The second reason is more intellectual. We have gathered these writings to demonstrate that these three technologies—and the songs, symphonies, and movies produced with them—are profoundly shaped by social, cultural, and historical forces. We believe that these technologies cannot be understood without also understanding their relationship with real people in real places in real historical moments. Given that sound recording, radio, and film are still with us today and as deeply influential as ever, these documents not only open a window onto the past but can help us understand our continued and close relationship with mediated sound and music.

Editorial Note

For ease of reading, all spellings and punctuation have been modernized (e.g., "to-morrow" is spelled "tomorrow"). Typographical and spelling errors in original publications have been corrected; in unpublished materials such as fan letters, original spellings and punctuation have been retained.

PART I. SOUND RECORDING

SOUND RECORDING

Introduction Mark Katz

Imagine encountering recorded music for the first time. Say, for example, that you enter a room that is empty except for a smallish box sitting on a table, and emanating from it is a human voice—singing. In the world of this thought experiment, music had always been—until now—experienced live; this is therefore a wholly unprecedented encounter. What, then, might your reaction be? How would you explain a voice without a body? You might believe yourself the victim of a ventriloquist's hoax. You might conclude that you are in the presence of magic, whether good or evil. You might question your sanity. Perhaps you would be, in the words of the composer Arthur Sullivan, "astonished and somewhat terrified." This is how Sullivan (of Gilbert and Sullivan fame) described his reaction to a demonstration in 1888 of Thomas Edison's still relatively new invention, the phonograph, which he fittingly preserved on a recording cylinder that night, well over a century ago.¹

Amazement and even fear were not uncommon reactions to the technology of sound recording in the late nineteenth century and the early twentieth. The reason is simple, but crucial: recorded music is very different from live music. Live music exists only in the moment; recordings, however, capture those fleeting sounds and preserve them on physical media. With recording technology, music could be disseminated, manipulated, and consumed in ways that had never before been possible. When recorded, music comes unmoored from its temporal origins. It can be heard after its original performance and repeated almost indefinitely. The technology is therefore a kind of magic, for it grants immortality and allows the dead to communicate with the living. It is these distinctive aspects of recorded sound—these changes in the materiality and

temporality of music—that early users of the technology responded to; their reactions, in turn, led to profound changes in the way music came to be created and experienced.²

The advent of sound recording can be understood, according to the scholar Patrick Feaster, as "one of those moments of crisis . . . in which the preexisting constellation of technologies of communication is thrown out of equilibrium and then gradually reconfigured as a stable niche is carved out for the newcomer." That loss of equilibrium is exactly what makes the early history of sound recording (and indeed, radio and film) so fascinating, and the documents reproduced here reveal how users of the technology struggled to make sense of wholly new ways of experiencing sound and, in particular, music.

The first three documents reproduced here are the oldest in this volume, and offer early predictions about the phonograph when its possibilities were as open as they were unsettled. I give the first word to Thomas Edison, who, although speaking as the phonograph's inventor, understood that he had no privileged information when it came to the future of his creation. When reading this document it is important to understand that Edison did not set out to invent a device for recording and reproducing music.4 Working with two existing technologies, the telephone and the telegraph, he and his assistants were seeking a way to preserve spoken messages.5 The first working phonograph, which assistant John Kruesi built in 1877 from Edison's sketches, was an elegantly simple device that used no electricity. Recordings were made by (necessarily) shouting into a mouthpiece (or "speaking diaphragm") while turning a crank attached to a metal cylinder. A needle, conveying the sound vibrations of the voice, inscribed a thin sheet of tinfoil wrapped around the cylinder. The tinfoil "record" could then be played back by turning the crank as the needle tracked the grooves indented in the foil; this action reversed the conveyance of sound from the foil to the needle to the "reproducing diaphragm," essentially a small speaker (see figure 1).6

What might strike us today as particularly remarkable about the earliest phonographs (and most phonographs built before the mid-1920s) is that no electricity was involved—for the most part sound was captured and reproduced mechanically. The years between 1877 and 1925 mark a distinctive period in the history of sound recording, known collectively as the acoustic era. In 1925 the acoustic era was effectively brought to a close with the widespread introduction of microphones, which ushered in what came to be known as the electrical era. (It was not until the 1970s that the technology entered yet a new phase—the digital era.) Most of the documents that follow come from the acoustic era, and this is no accident. The demands of listening to and creating music in the

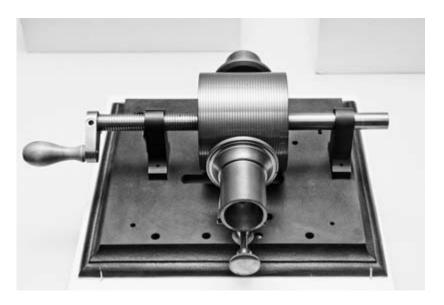


Figure 1. Thomas Edison's tinfoil phonograph, 1877. Photograph courtesy of the Thomas Edison National Historical Park, West Orange, New Jersey.

acoustic era were considerable, and it is during these years that we see most clearly how users came to terms with the phonograph. In fact, roughly half the documents here come from the decade between 1916 and 1926, a period that we might consider the technology's adolescence, and it was indeed a time that combined rapid growth with frequent introspection and anxiety.8

As Edison makes clear in his article from 1878, "The main utility of the phonograph [is] for the purpose of letter writing and other forms of dictation."9 Specifically, he was thinking about business correspondence, the idea being that the phonograph—essentially a dictation device—would render secretaries and clerks redundant, with sheets of tinfoil (later, wax cylinders) replacing old-fashioned paper letters. 10 In general, the recording of speech was seen as the main function of the phonograph, and indeed it was commonly referred to as a "talking machine." Edison, however, did allow that his invention might have other uses. Music was one of them, though it placed fourth on Edison's list of possibilities. It might seem odd to us today that he did not see music as a more obvious avenue, but he was hardly alone. The article from the New York Times in 1877 that follows Edison's essay here fancifully explores the metaphor of bottling human speech, comparing record collecting to the stewardship of fine wines. It envisages "a well-stocked oratorical cellar" of cylinders preserving the speeches and sermons of prominent figures of the day. Music is not even mentioned. It was more than a decade before music came to be considered a viable option for the technology. This was due to a number of factors, including the failure of Edison's business phonograph venture, the development of coin-operated machines (which encouraged the use of the phonograph as an entertainment device in public gathering places),11 and technological advances such as Emile Berliner's invention of the flat disc and its player, the gramophone, patented in 1887.¹² (At first, the term "gramophone" specifically referred to a disc-playing machine as distinct from the cylinder-playing phonograph. Later, after disc machines became standard, the terms became more or less interchangeable, generically referring to record players.) Music was more difficult to record than speech, and it was not until 1889 that the first commercial recordings were produced. When Philip Hubert (see item 3) predicted in 1893 that the phonograph would play a "tremendous role . . . in the future of music and musicians," he was making a fairly new claim, though of course he could not have guessed just how prominent this role would be. As Edison admitted in his essay, "In the case of an invention of the nature and scope of the phonograph, it is practically impossible to indicate [its potential] today, for tomorrow a trifle may extend it almost indefinitely."13

The documents that follow reveal a variety of perspectives on the musical potential of sound recording as users explored its possibilities in this period of disequilibrium. Except for the first and final groups, all the documents fall into categories connected with one of three musical activities: listening, performing, and composing. In music scholarship, composing is traditionally privileged above performing and listening. Listeners, however, were by far the largest group of phonograph users, and the group most deeply affected by recorded music, so it is with them that we begin.

A century ago it was necessary to learn how to listen to the phonograph. This process entailed both emulating certain aspects of the experience of live music and exploiting the distinctive possibilities of phonographic listening. Early commentators delighted in imagining unusual uses of the phonograph, whether playing recordings at weddings or funerals, using the machine as a ventriloquist to fool bystanders, or surreptitiously recording conversations. An example of the last is given in the comic song "Susan, Dear Sue (The Phonograph Song)" (1901, item 8), in which a secretary holds her fickle employer to his promise of marriage when she confronts him (in court!) with phonographic evidence that he cannot refute (see figure 2).

Such uses of the phonograph were uncommon, and in reality most listeners







Figure 2. "Susan, Dear Sue (The Phonograph Song)." Words by Jas. O'Dea and Arthur Gillespie. Music by Herbert Dillea. New York: Witmark, 1901.

took a more cautious approach to the technology. Consider the simple fact that with recordings one hears music but does not see musicians. This was an unsettling experience for many early listeners who, as a music critic explained in 1923, "cannot bear to hear a remarkably life-like human voice issuing from a box. They desire the physical presence. For want of it, the gramophone distresses them." The industry, of course, wanted to avoid producing such cognitive dissonance and often used advertisements to convince the public that the visual experience of music was not completely lost in the process of recording. Some ads boasted that their recordings were so lifelike that listeners could practically see the performers; many depicted the recorded musicians standing next to the machines, sometimes in ghostly outlines, sometimes in miniature, sometimes as life-size figures mingling with listeners (see figure 3).16

Another suggestion for visualizing live performance is found in an instruction sheet given to visitors of Edison phonograph shops (1916, item 4). Customers were asked to take the "Edison Realism Test," the purpose of which was to recreate the emotional impact of live performance for the phonograph listener. Such painstaking directions for listening to a record seem unnecessary, even comical. But it is clear from Edison's instructions, and from many phonograph ads of the time, that sightless listening was far from the "natural" activity we now take for granted.

Solitary listening was another facet of the phonographic experience that challenged early users. Consider the question posed by Orlo Williams in an article in the British journal *Gramophone* (1923, item 6). How would you react, he asked, if you were to discover a friend listening to recorded music alone? His answer, which will likely strike modern readers as fanciful, was this: such an activity would be evidence of an unwell mind, whether caused by mental instability or substance abuse. To make sense of this statement we have to understand that before the days of sound recording, it had been for the most part neither practical nor desirable to hear music alone. Music had always accompanied social and communal events; solitary listening, therefore, contradicted centuries of tradition and challenged long-held notions about the function of music. Williams, however, was exhorting readers to accept and even embrace solitary listening, and in this tension between tradition and novelty we witness the process by which listeners came to terms with what was often called "canned music."

Not all listeners immediately accepted these new possibilities, and many resisted. One was W. C. Shott of New Philadelphia, Ohio, who complained to Thomas Edison in 1921 that representatives of his phonograph company were



The best friend of a hostess is the Victrola

The hostess who has a Victrola never need worry about how the evening will "go".

Is there an awkward moment after the guests leave the dinner table?

A Victrola will "break the ice".

Do the young people get tired of general conversation? A Victrola will furnish the latest dance music and set their feet to sliding.

Does someone mention a melody from the latest opera? Let us try it on the Victrola.

Always there is the Victrola—the treasure house of entertainment in reserve—never obtrusive but always ready.

. Is your home like this? It might be-so easily.

There are Victors and Victorlas in great variety of styles from \$10 to \$500, and any Victor dealer in any city in the world will gladly demonstrate them to you.

Victor Talking Machine Co., Camden, N. J., U. S. A.



offering public demonstrations of secular music on Sundays, and thus "disregarded the divine command to keep the Lord's day" (item 10). Generally, however, instead of resisting the technology outright, listeners adapted to this new mode of musical experience by drawing upon existing practices and traditions. In the earliest years, phonograph owners often enjoyed listening to recordings of their own making. Cylinder machines were typically capable of both recording and playback, and the industry even encouraged amateur recordings, as in the National Phonograph Company's charming pamphlet How We Gave a Phonograph Party (1899, item 7); thousands of such recordings still exist as evidence of these gatherings.¹⁷ Group listening was practiced in other ways as well. For example, in 1905 Grinnell Brothers Music Parlors of Detroit invited patrons to evening musicales, with music furnished by a phonograph; such concerts were not at all uncommon in the first decades of the century.¹⁸ Phonograph societies, which arose in England in the second decade of the century and later spread to the United States and continental Europe, sponsored concerts that brought music lovers together to listen to recorded music.¹⁹ These concerts were much like traditional ones: they were held in recital or concert halls, programs were distributed, the dress was formal, and the pieces were greeted with applause. The only striking difference was that in these concerts the audience sat facing machines rather than musicians. Outdoor phonograph concerts were also in vogue for a time. In 1909, for example, an audience of over forty thousand gathered in Heaton Park in Manchester, England, for a free concert of recordings by the tenor Enrico Caruso.20

Phonograph concerts were also given in private homes. In 1905 a writer in the *Talking Machine News* told of hosting a well-attended "phonograph entertainment" at his home. He described a varied program—much like the typical potpourri concert of the time—and noted that encores were demanded of several pieces. In 1912 the German phonograph journal *Die Stimme seines Herrn* suggested several thematic phonograph programs for home gatherings, including birthdays, confirmations, weddings—even stag parties (*Herrenabend*). And in 1921 an American literary magazine reported that home concert impresarios would even "go to the length of . . . maintaining as rigid a discipline against talking during the music as if Caruso or Rachmaninoff were there in person." Note that all the examples of phonograph concerts cited above took place in the first two decades of the century. Such formal events became less common in the 1920s and beyond, suggesting that listeners were becoming sufficiently accustomed to the phonograph to explore new ways of using it.

As evidence of the phonograph's increasing assimilation into the modern

home, we can also point to the great popularity of dancing to recorded music. In fact, the so-called dance craze that pervaded the United States and Europe from 1910 to 1930 was often attributed to sound recording. As the American journal Music Monitor and World argued in 1914, "The revival of dancing is undoubtedly due in large measure to the influence of the player-piano and the phonograph."24 The British magazine Gramophone made the claim even more strongly a few years later: "Few people will deny that the dance craze, which now holds everyone literally in its grip, owes nearly everything to the gramophone." ²⁵ The connection was fairly simple: with recordings it was possible to dance at home, cheaply, and at one's convenience. As Pauline Partridge explained in her article "The Home Set to Music" (1924, item 9), "An informal dancing party can be given with no preparation more difficult than rolling up the rugs and calling in the neighbors." Moreover, those who wanted to learn to dance but feared public embarrassment could practice their steps in private, whether alone or with a trusted partner. Countless advertisements encouraged home dancing, and as early as 1914 the Victor Talking Machine Company published pamphlets that served as dance manuals-cum-record catalogues.²⁶ The appeal of domestic dancing was even reflected in popular songs of the day, such as "They Start the Victrola (And Go Dancing around the Floor)."27 (Victrola was a brand name of a variety of phonographs made by the Victor Talking Machine Company. Victrolas were so popular that the name came to be used generically to refer to any type of record player.)

In the second decade of the century the phonograph began to spread from the home to the school, and particularly in the United States educators quickly embraced the possibilities of recorded music. At the time, American music education was undergoing a revolution, one that promoted a new ideal known as appreciation — generally understood as the intelligent enjoyment of music, typically classical music, as a listener.²⁸ Recorded music was seen as an excellent way to promote music appreciation, for by this time sturdy, portable, and relatively cheap phonographs were available, making it possible to bring the classics (or "good music," as it was often called) to all the nation's children. (Later, as we will see in part II of this volume, radio was to assume an important role in the music appreciation movement.) Two articles reproduced here (items 11 and 12) give a sense of the phonograph's role in primary education and the enthusiasm with which the technology was generally received. Annie Pike Greenwood's "The Victor in the Rural School" shows how one young teacher brought music (and discipline) to the children of Milner, Idaho. The article so impressed the prominent educator and longtime editor of the Journal of Education, A. E. Winship, that he visited Greenwood and later wrote this in praise of the phonograph: "I yield to no one in my appreciation of the rural mail service, and of the rural telephone, but I place above either and both of them in the service for God and humanity the possibilities of the instrument which will evermore thrill country life with the richest music of the greatest masters." ²⁹ The second article explains the phenomenon of the music memory contest, which C. M. Tremaine introduced in 1916 as a way of using sound recordings to help children learn the masterworks of classical music. The music memory contest quickly caught on, and by 1926 schools in more than fourteen hundred cities were participating. ³⁰ While the phenomenon seems to have peaked just before the Depression hit, contests are still being held today, their goals and format much the same as they had been in the early twentieth century. ³¹

As recorded music came to have an increasing presence in the lives of millions of men and women, we see issues of gender coming to the fore in the phonographic discourse.³² An article in 1931 in the American journal *Disques*, for example, repeats two stereotypes that to the author and apparently many others were entirely unproblematic: "That men are notoriously fascinated by small mechanical details is a securely established fact. Women, as everybody knows, take little or no interest in mechanical things." The upshot of these "facts" is quite clear: "Well, then, is it any wonder that hundreds of men suddenly became profoundly interested in the phonograph?" ³³ Yet the facts were not quite so clear. As the documents reprinted here reveal, many early-twentieth-century women were deeply interested in the phonograph, while men often had to be coaxed into accepting the technology.

The industry clearly recognized the importance of women customers. In 1919 a study commissioned by the Sonora Phonograph Company showed that women purchased players more than twice as often as men and, when accompanied into stores by men, remained the primary decision makers.³⁴ Gladys Kimmel's article for the trade magazine *Talking Machine Journal* (1919, item 15) divides women customers into three categories, offering detailed suggestions to phonograph dealers for interacting with each type. Phonograph companies were major advertisers in the first decades of the twentieth century, and every significant American magazine carried ads, often full-page and in color. Many were clearly aimed at women, appearing in publications like *Good Housekeeping* and *Ladies' Home Journal*. Some touted the convenience and versatility of the phonograph, which could be used for educating children and entertaining adults. Others claimed that the technology could add a touch of culture and class to the average home. A full-page Victrola advertisement in 1913 in the

weekly *Collier's* sent this message through text as well as image (see figure 3). The illustration offers a glimpse into a luxurious salon that few readers would have ever encountered. A group of opera characters comes to life to form a receiving line, greeted by the elegantly dressed hostess standing near a conspicuously placed high-end Victrola. The text, however, addresses women of more modest means, who would likely not wear gowns to entertain and were certain to take an interest in knowing that they too could—through the magic of the Victrola—have a taste of the good life for as little as ten dollars.

Fewer phonograph advertisements were aimed specifically at men. While it may have been, as the earlier-cited Disques article suggested, that men of the time were often mechanically inclined, the phonograph industry seemed to believe that fewer were musically inclined as well. Perhaps for good reason: in the early twentieth century devotion to music was hardly thought to exemplify manliness—to show too great an interest in music was often to risk being seen as "sissy" or "soft." 35 Ads directed at men often attempted to convince them that it was acceptable to enjoy music through the phonograph, particularly as a form of socializing with other men. According to an ad in 1905, "Every young man should have an Edison Phonograph." "Here is your opportunity," it explained, "to become a good fellow, and make your rooms the merriest rendezvous in town."³⁶ An Aeolian-Vocalion ad in 1916 offered another approach (item 14). It touted the Graduola, a simple volume control device operated by pulling or pushing a knob attached to a cable; the "slender tube terminating in a handle," as the ad describes it, in turn opened or closed a set of internal shutters inserted within the machine's horn. The protagonist of the advertisement goes with his wife to play bridge at the Joneses, after which he is introduced to the Graduola. Upon trying it out while a record of the sentimental song "Ben Bolt" plays, he immediately loses his prejudice against phonographs and miraculously becomes a musician. Whether intended or not, there seems to be a homoerotic subtext here, as the unnamed businessman handles the swelling, phallic Graduola with glorious trembling. At a distance of more than ninety-five years, however, one can only speculate on how such copy might have been interpreted at the time.

The letters that appeared in the British journal *Gramophone* and its American counterpart *Phonograph Monthly Review* (items 16–19) capture an early episode in a continuing conversation about women as phonograph and record enthusiasts. The opening salvo, from the pseudonymous Scrutator, poses the question "Where are the ladies?," asking for women readers to contribute their "charming prattle" to the magazine. Following this condescending but appar-

ently well-meaning letter comes true misogyny from a phonograph dealer writing as T.A.F. Several women, all using their full names, responded with varying degrees of indignation. One of them, Dorothy Fisher, was an American reader who wrote not to *Gramophone* but to the *Phonograph Monthly Review*, sparking further letters and generating a transatlantic debate. Taken together, these documents reveal a complex gendering of the technology in the early twentieth century, one that both reinforced and resisted common stereotypes.³⁷

At the same time the phonograph found itself in the middle of the so-called battle of the sexes, it also played a role in less metaphorical battles, as soldiers fighting abroad brought record players and discs with them by the thousands. Items 20-22 offer a look at the role of the phonograph in the Great War, specifically from the American perspective.³⁸ "Talking Machines Are 'Essentials'" (1917), the title of an article from the trade magazine Talking Machine Journal, offers an impassioned plea on behalf of the industry in the early days of America's involvement in the war. With factories from across the manufacturing spectrum being repurposed for the war effort, the author argued that phonographs and recordings (and thus the factories that produce them) were in fact essential for the morale of the soldiers and those on the home front.³⁹ The anonymous author needn't have worried. Although many record plants were converted or partially converted, the war years saw a tremendous boom in sales. According to census figures, between 1914 and 1919 the value of America's phonograph production rocketed from just over \$27 million to just under \$159 million; as one historian of the phonograph observed, "Americans had gone on a phonograph binge."40

Mr. Vivian Burnett, composer and lyricist of "When I Hear That Phonograph Play" (item 21), was not a career composer but rather a journalist and, for a time, an associate editor at *Talking Machine Journal*. (He may well have been the author of "Talking Machines Are 'Essentials.'") Illness kept him out of the war, but he found another way to serve. In 1918 he organized a "National Phonograph Records Recruiting Corps" of fifteen thousand volunteers to collect "slacker" records to send to soldiers in the training camps and overseas.⁴¹ At the time, a slacker was someone who evaded military service, so this was a clever way to encourage patriotic phonograph owners to donate discs. (Figure 4 reproduces one of the posters advertising the record drive.) That same year he articulated his support for the necessity of recorded music during wartime in another way: through song. "When I Hear That Phonograph Play" is a sentimental piece for voice and piano that invokes the power of recorded music to connect distant loved ones. Burnett's work on behalf of the soldiers drew a good deal of positive



Figure 4. "Poster exhorting Americans to donate unused ("slacker") records to soldiers," 1918. Courtesy of the University of North Carolina, Chapel Hill, Rare Book Collection.

press, though it likely never overshadowed his real claim to fame. As a child he was the inspiration for the main character of a wildly popular book written by his mother, Frances Hodgson Burnett: Little Lord Fauntleroy. 42

Although Burnett did not write his song from firsthand experience, the accounts of soldiers listening to records on the front, even in the trenches, reveal that for many, records were indeed "essentials." The article "Phonographs on the Firing Line" (1919, item 22) vividly relates the value that soldiers placed upon their battered record players and their worn and scratched discs.

While the primary literature richly documents the attitudes and practices of consumers, whether mothers, teachers, or soldiers, there is much less material from the perspective of those who made the records. (For example, there are few if any guides or manuals analogous to those that later appeared for performers and composers involved with radio.) From what accounts we do have, however, it is clear that the recording studio of the early twentieth century was not a congenial venue for making music. The room was usually cramped and hot, with the musicians playing for an audience of engineers and, before the ad-



Figure 5. Rosario Bourdon conducting the Victor Salon Orchestra, c. 1920. Photo courtesy of the Behring Center, Smithsonian Institution, Washington.

vent of the microphone in 1925, a large acoustic recording horn (or many such devices—sometimes up to a dozen horns were used in a recording session). We can understand, then, why even very experienced performers sometimes suffered "phonograph fright" in their recording sessions.⁴³ The insensitivity of the horn and the short recording time of cylinders and 78 rpm discs (generally between two minutes and four-and-a-half minutes) significantly affected how the musicians performed. Seating for ensembles was dictated by how well or poorly the instruments projected sound; the results, as can be seen in figure 5, rarely resembled what one might see on a concert stage.

Some instruments did not project well enough and were often altered or replaced. Figure 5 shows several Stroh violins, the most noticeable being played by the performer in the foreground. Patented in 1899 by Augustus Stroh, the instrument dispensed with the wooden body of the violin, replacing it with a conical metal horn; a second smaller horn pointed toward the musician's left ear (in a way presaging the use of headphones by studio musicians). The sound was quite powerful and hard to distinguish from a traditional violin when heard on early recordings. There were no Stroh basses, and in the early years of recording the tuba often sat in for the big fiddle. Jazz recording sessions rarely used snare or bass drums; percussion was often limited to woodblocks, cowbells, or

washboards, which had a concentrated, easily distinguished sound. Soloists, whether singers or instrumentalists, stood right in front of the horn and had to rein in their fortissimos, lest they "blast" the needle out of the groove, and had to replace their pianissimos with mezzofortes simply to be heard. As Yvonne de Treville notes in her article "Making a Phonograph Record" (1916, item 24), some recording sessions included what she called a "gentle pusher," a studio employee who, standing directly behind her, pushed her toward the horn or pulled her away when she sang too softly or too loudly.

Because of the permanence of recordings and their limited playing time, a session in the studio was often a tense, carefully planned affair. In the days before magnetic tape became widely available (c. 1948) there was no splicing or patching—if a cylinder or side of a disc was to hold a whole piece or movement, it had to be played from start to finish without interruption. The musicians were required to start and end exactly on cue, with absolute silence before and after. As the vignette from *Violinist* magazine makes clear (1910, item 23), recording sessions demanded an extremely low tolerance for error. In her memoirs, the Australian soprano Nellie Melba recalled a session in 1906: "After making what I believe would have been the most beautiful record, I stumbled backwards over a chair, and said 'Damn' in an all too audible voice. That 'damn,' when the record was played over, came out with a terrible clarity, making me feel much as a sinner must on the Day of Judgment." 45 Many an early recording was ruined by similarly intemperate exclamations. Jazz players had a further concern: as the drummer Baby Dodds explained in his memoirs (excerpted in item 25), musicians recording in the acoustic era could never play in the studio exactly as they did in a club, where they could extend their solos and play multiple choruses as they saw fit. Dodds also recounts the now legendary story of the 1923 recording of "Dippermouth Blues," in which the banjoist Bill Johnson yelled, "Play that thing!" when Dodds forgot to come in, immortalizing the line that later became part of the song in their subsequent performances.⁴⁶

As Dodds and the American conductor Edwin McArthur explain (1941, item 26), not all of the differences between live and recorded music arose from the technical limitations of the equipment. As mentioned, one fact of recording is that the performers and listeners cannot see one another. Dodds lamented this and wondered how it could be that recordings became so popular given this mutual invisibility. McArthur, in his article, argued that the lack of the visual component required slightly faster tempos and tighter phrasing. Given all the travails the musicians describe, it seems a wonder that so much music managed to make it out of the recording studio alive. Yet even the most famous and respected musicians of the day—the opera star Enrico Caruso, the violinist Fritz Kreisler, or the pianist Ignacy Paderewski, for example—quickly accepted the technology, seeing its value to their careers, and left recordings that are cherished to this day. Perhaps it is true, as McArthur suggested, that the harsh conditions forced musicians to rise to the occasion.⁴⁷

While a certain wariness about sound recording characterizes the writings of professional performers, commentators were generally more sanguine about the technology when it came to teaching young musicians. In 1916 the influential American music journal *Etude* asked prominent educators to discuss their experience with and opinion of the use of "mechanical instruments" in music pedagogy (item 27). ("Mechanical instruments" included not only the phonograph but the player piano, and it should be noted that the latter had a more prominent role in the musical life of the early twentieth century than is generally realized today.) Ten responses were published, and collectively they reveal the excitement, and to a lesser extent trepidation, that many felt about the pedagogical impact of technology. Several of the respondents spoke of using records to inspire their pupils and to serve as models for their performances. The noted voice teacher Oscar Saenger went further and published a course of vocal study in which the student listened to and then imitated various exercises on several specially made discs; item 28 reproduces instructions and photographs from the volume for soprano.48 Although one of the repeated criticisms of the phonograph was that it would discourage performance (more on this below), for these teachers, at least, there was nothing mutually exclusive about music appreciation and musical activity.

While even the most famous performers of the early twentieth century quickly accepted the phonograph, this was not the case with composers, particularly of classical music. Turn-of-the-century catalogues listed only a few recent works of popular music, such as Joseph Flanner's "A Hot Time in the Old Town" (composed 1896), Joseph Howard's "Hello, Ma Baby" (1899), and several marches by John Philip Sousa. New classical music was even scarcer, and most of the best-known composers were not represented on disc until after about 1910.⁴⁹ With the exception of Sousa's famous critique of mechanical music (1906, item 33, discussed below) and some brief positive comments from the English composer Edward Elgar,⁵⁰ few composers wrote publicly about sound recording before the 1920s, another indication of their relative lack of engagement with the technology. When composers started publishing their thoughts on recording, their opinions ran the gamut. The French composer Vincent d'Indy, for example, argued in 1927, "Music and machines can have no rapport,

for music draws its life from expression whereas the machine is fundamentally inexpressive," while his Swiss colleague Arthur Honegger offered the opposite opinion in 1928: "I am sincerely convinced that the future of music lies in the development of mechanical instruments."51 Others, such as Béla Bartók and Igor Stravinsky—classical composers who recorded a number of their own works were more ambivalent (see Stravinsky's account in item 30 of his experiences in the recording studio).⁵² In item 29 the American experimentalist composer Henry Cowell suggests ways in which composers could use the phonograph as a creative, and not simply re-creative, tool. The documents that follow Cowell's essay (items 31 and 32) explore the idea of the phonograph as a compositional tool in greater depth. They offer intriguing possibilities: Carol-Bérard encourages composers to incorporate recorded noises into their works, an idea that anticipated both musique concrète and digital sampling,⁵³ while Stravinsky calls for future composers to write specifically for the phonograph. At the time these were written (1929-30), the technology was simply not capable of realizing such far-seeing ideas. Yet these articles offer more than optimistic speculation, for they reiterate two common themes in the discourse of modernist composition: first, the notion of giving composers control over the execution of their works, while conversely reducing or eliminating the role of the independent performer, and second, the idea of using technology to expand the sound resources available to composers. Thus, while the specific proposals in these writings might have been ahead of their time, the goals and values they represented certainly expressed the zeitgeist.54

The final documents in part I (items 33-37) represent the debate over the value of recorded music, particularly in the United States. John Philip Sousa, the famous bandleader and composer of march music, saw the phonograph as a direct threat both to musical amateurs and to professionals: the former would have no incentive to make music themselves, while the latter would find their livelihoods threatened (especially given the vagueness of copyright laws at the time).55 Writing almost twenty-five years later, Joseph Weber, the president of the American Federation of Musicians, echoed many of Sousa's concerns but addressed newer technological threats as well, such as the recent introduction of sound film, a development that led to the practical extinction of the cinema orchestra in fairly short order. The Portland City Council document from 1907 offers an example of the many ordinances that sought to circumscribe the use of phonographs and graphophones (another type of record player), machines that many (like Sousa and Weber) saw as destroyers of the peace. The ordinance, however, did not pass.

Sousa's article was much discussed at the time and remains the most oftcited writing from these debates. Yet while the phonograph had its detractors, its proponents were numerous, varied, and vocal, espousing the belief that this technology, as Etude magazine claimed in 1922, would "help America become a truly musical nation." ⁵⁶ From a modern vantage point the rhetoric of both sides may seem overheated, but neither should be dismissed, for they reveal deeply held values. For many detractors, recorded music represented the loss of the old ways and the attendant dehumanization of American society, while champions of the phonograph exhibited a common strain of utopianism, one that endowed technology with the ability to achieve a perfect society. Thus, these last documents—and indeed, all those reproduced here—open a window into a time of disequilibrium that the phonograph both reflected and helped create.