Captive Voices: Phonographic Recordings in the German and Austrian Prisoner-of-War Camps of World War I

Monique Scheer

On the territory of the Central Powers, World War I provided the cultural sciences with new venues in which to launch large-scale research projects: the prisoner-of-war (POW) camps, in which the relatively new technologies of photography, film, and phonographic recording could be implemented on a mass scale. The subject of this chapter is this intersection of wartime space and data-producing devices and their impact on the scientific approach and fieldwork methods among researchers gathering audio data: anthropologists, comparative musicologists, and linguists. When researchers entered German and Austrian POW camps, they made sense of this new venue by fitting it into a pattern familiar to them. The camps were seen as a living museum of the "world of peoples" united in battle against the Central Powers.[1] Anthropologists likened the camps to the ethnographic spectacles of the metropole where they were accustomed to taking measurements on "natives" and perhaps interviewing them on their home culture. For researchers primarily interested in audio data, the camp was an enormous archive of sounds waiting to be transferred onto media where they could be preserved and reproduced at will, for study, teaching, or entertainment. Furthermore, they construed the camp as a space providing optimum conditions for recording the voices of the prisoners. This encouraged them to bring in the best possible technology, and to focus

1 On the characterization of the Allied forces as a "world of peoples" surrounding the Central Powers, see Aribert Reimann, *Der Große Krieg der Sprachen: Untersuchungen zur historischen Semantik in Deutschland und England zur Zeit des Ersten Weltkriegs* (Essen: Klartext, 2000), 214–215. This phrase is often found in the publications of the scientists discussed in this chapter.

their attention on the quality of the reproduction. In the space created by the camp, the archive mentality could flourish. In this sense, the war did not cause innovation as much as it facilitated a familiar paradigm, delivering it more quickly and definitively to its own limits.

In the following, this argument will be fleshed out in an account of the recordings made in POW camps by German and Austrian scientists. First, the significance of recording technology before the war for the emergence of comparative musicology as a scientific pursuit as well as for comparative-historical linguistics and phonetics will be sketched out in order to make clear why the camps could be viewed as the perfect setting for collecting sound recordings, the subject of the second section. Then, the specific characteristics of recording technologies used in the camps and their relevance to fieldwork methods will be discussed. The details of each of the two large-scale data-gathering projects in the camps, one led from Vienna, one from Berlin, will then point to the role of technology and research setting in the execution of each.

Archives Waiting to Be Filled: Phonography in Cultural Sciences Prior to World War I

Histories of the introduction of the phonograph into the ethnographic disciplines have noted that the response to the potential of Thomas Edison's 1877 invention was generally quick and positive.[2] It was not until 1888 that an affordable device, practical for use in the field, was available, and American ethnologists were the first to try it out. Whereas some saw the phonograph simply as a mechanical supplement or replacement for the notebook, using the wax cylinders to derive written transcriptions and subsequently discarding them,[3]

2 On German-speaking ethnographers' use of the phonograph, especially in Vienna, see Burkhard Stangl, *Ethnologie im Ohr: Die Wirkungsgeschichte des Phonographen* (Vienna: WUV Universitätsverlag, 2000), esp. 68. On early American ethnography, see Erika Brady, *A Spiral Way: How the Phonograph Changed Ethnography* (Jackson, MS: University Press of Mississippi, 1999). On the use of the phonograph in the POW-camp studies, see Britta Lange, "Ein Archiv von Stimmen: Kriegsgefangene unter ethnografischer Beobachtung," in *Original/Ton: Zur Mediengeschichte des O-Tons,* vol. 34, *Kommunikation audiovisuell,* eds. Harun Maye, Cornelius Reiber, and Nikolaus Wegmann (Constance: Universitätsverlag Konstanz, 2007), 317–342*;* see also Britta Lange, *Playback: Wiederholung und Wiederholbarkeit in der frühen vergleichenden Musikwissenschaft* (preprint 321, Max Planck Institute for the History of Science, 2006).

3 See Brady, *A Spiral Way*, 62. The Bureau of American Ethnology made thousands of recordings which were eventually stored at the Library of Congress, Archive of Folk Culture. The Federal Cylinder Project subsidized by the

this was decidedly not the case among ethnographers on the European continent. From the beginning, the idea of recording music and languages for ethnographic purposes was connected with the intent to collect and preserve. A report on recordings of Zuni music in 1890 immediately inspired Carl Stumpf, professor of experimental psychology at the university in Berlin with an interest in cross-cultural comparisons of aural perception,[4] to collect such recordings himself, and he obtained copies of the American material. By 1900, he and Otto Abraham, a medical doctor with an interest in musical psychology, were able to make recordings of their own and established the Berlin Phonographic Archive, marking what is considered to be the birth of comparative musicology in Germany.[5] At the same time, scientists in Paris and Vienna were also keen to be the first to found phonographic archives,[6] and, like in Berlin, these efforts made resources available to European anthropologists, musicologists, and linguists to collect sound recordings in the field, beginning in the first decade of the twentieth century.

An archive is generally thought to house documents which have already existed for many years and are to be deposited elsewhere for safekeeping, but the phonographic archives were founded *before* there was any material to put in them; the technology of the phonograph alone seemed to dictate the necessity of their formation.[7] The very use of the term "archive" for these collections

Smithsonian Institution began in 1979 to catalog, preserve, and disseminate these recordings.

4 Carl Stumpf (1848–1936) began studying tone psychology and acoustics in 1875 as a young professor in Würzburg, publishing the first volume of his main work, Carl Stumpf, *Tonpsychologie,* vols. 1–2 (Leipzig: S. Hirschel, 1883–1890), in 1883 and the second in 1890. He was working on a planned third volume, which never materialized, at about the time of the founding of the phonographic archive. For an autobiographical sketch by Carl Stumpf, see Carl Murchison, ed., *A History of Psychology in Autobiography,* vol. 1 (New York: Russell & Russell, 1961).

5 Artur Simon, "History of the Berlin Phonogramm-Archiv (1900–2000)," in *Das Berliner Phonogramm-Archiv 1900–2000: Sammlungen der traditionellen Musik der Welt,* ed. idem (Berlin: Verlag für Wissenschaft und Bildung, 2000), 25–46.

6 See Stangl, *Ethnologie im Ohr,* 134–136. Plans for the Vienna Archive became official in 1899; the first recordings, however, were not made until 1901. The archive in Paris was initiated by the anthropologist Leon Azoulay, who made some four hundred cylinder recordings of native performers at the World's Fair in Paris in 1900. See also Leon Azoulay, "L'ère nouvelle des sons et des bruits: Musées et archives phonographiques," *Bulletins et Memoires de la Société d'Anthropologie de Paris* 1 (1900): 172–178.

7 This point is well made by Christoph Hoffmann, "Vor dem Apparat: Das Wiener Phonogramm-Archiv," in *Bürokratische Leidenschaften: Kultur- und*

belies the salvage mentality motivating their creation, the assumption being that they were storing away documents of cultures destined for extinction. For Stumpf's assistant professor, Erich M. von Hornbostel, given the job of running the Berlin Archive in 1905,[8] time was of the essence. Unlike polar research, archaeology, or literary studies, "studies whose object are the so-called primitive peoples do not […] tolerate being put off for decades or even for a matter of years," he wrote in 1911. For even as one must hurry to collect objects of near-extinct cultures in ethnological museums, the sounds of language and music are lost even more quickly:

> The lingua franca of the South Seas, Pidgin English, threatens the languages of the native dwellers […] Christianity spreads church hymns everywhere; the introduction of schooling, our folk songs; the colonial troops, our military marches; and the gramophones of the colonials, our worst popular hits.[9]

Stumpf and Hornbostel began cooperating closely with the director of the Ethnological Museum in Berlin and later professor of anthropology, Felix von Luschan, making sure that nearly every German anthropologist who went into the field took an Edison phonograph along to make recordings for the archive. By 1914, the Berlin Archive housed approximately nine thousand phonographic recordings, most of which came from the German colonies in Africa and the South Pacific.[10] Funding for this project, however, was a constant problem. Some financial resources came from the archive's location in the university's Department of Psychology, but additional money had to be supplied by scientific research foundations, by the Academy of Sciences (of which Stumpf was a member) and even directly out of Stumpf's own pocket.[11]

By contrast, the Viennese Archive, located in the university's Institute for Physiology, where a similar interest for questions of aural perception was be-

Mediengeschichte im Archiv, ed. Sven Spieker (Berlin: Kulturverlag Kadmos, 2004), 281–294.

8 Erich M. von Hornbostel (1877–1935) was born in Vienna, where he acquired a doctorate in chemistry before moving to Berlin in 1900 where he became involved in Stumpf's institute and was appointed head of the phonographic archive in 1905. He remained in Berlin until forced into exile in 1933. Already ailing, he spent the last two years of his life in New York and Cambridge, UK. See Sebastian Klotz, ed., *Vom tönenden Wirbel menschlichen Tuns: Erich M. von Hornbostel als Gestaltpsychologe, Archivar und Musikwissenschaftler; Studien und Dokumente* (Berlin: Schibri-Verlag, 1998).

9 Erich M. von Hornbostel, "The Preservation of Unwritten Music," in Simon, *Das Berliner Phonogramm-Archiv 1900–2000*, 90–95, esp. 90–91. Originally published in *Berliner Tagblatt,* October 22, 1911, Beiblatt 2 (in German).

10 Susanne Ziegler, "Erich M. von Hornbostel und das Berliner Phonogramm-Archiv," in Klotz, *Vom tönenden Wirbel menschlichen Tuns*, 146–168, esp. 156.

11 Ibid., 155–156.

ing pursued by Professor Sigmund Exner, was relatively generously supported by the Imperial Academy of Sciences, of which Exner was a member. Its scope was considerably broader than in Berlin, including European as well as non-European sound material, music as well as spoken language.[12] Far from being coterminous with the founding of this archive, as in Berlin, the beginnings of comparative musicology in Vienna lay further back in time and were not connected with the experimental sciences, but with the philosophy of musical aesthetics. Guido Adler, later to become the highly influential chairman of the Music Department at the University of Vienna, had determined as early as 1885 that "systematic musicology" was to be an integral part of the discipline of music history and include comparative musicology, the study of non-Western music.[13] The first scholar to teach this subject in Vienna was Richard Wallaschek, beginning in 1897.[14] Neither Wallaschek nor the Music Department participated in the establishment of the Academy's phonographic archives,[15] nor did they appear to have any interest in doing so. Like the British school in which he studied anthropology,[16] Wallaschek was sceptical of the uses of phonography in musical ethnography. According to Hornbostel's report on his contribution to an anthropological conference in Vienna in 1908, Wallaschek criticized the notion that effective musical study could be aided by recordings, believing that only a long stay in the field could provide the basis for a reliable judgment by the scholar on what was "typical" for the people under study.

12 Cf. Stangl, *Ethnologie im Ohr*, 137–141. The petition to the Academy for the founding of the archive of April 1899 states a threefold objective: (1) the "acoustic documentation" of European languages and dialects, and all other languages in the world, by sending a phonograph along on future research expeditions launched by the Academy; (2) the "fixation" of significant performances of European classical music as well as the music of "savage peoples" for the purposes of comparative musicology; and (3) the recording of the voices of famous individuals, beginning, of course, with Kaiser Franz Joseph.

13 Guido Adler, "Umfang, Methode und Ziel der Musikwissenschaft," *Vierteljahrschrift für Musikwissenschaft* 1 (1885): 5–20.

14 Richard Wallaschek (1860–1917) was named associate professor *[außerordentlicher Professor]* in the Musicology Department in 1908, where he stayed until his death in 1917.

15 This is also noted by Gerda Lechleitner, "Much More Than Sound and Fury! Early Relations between the Phonogram Archives of Berlin and Vienna," in *Music Archiving in the World: Papers Presented at the Conference on the Occasion of the 100th Anniversary of the Berlin Phonogramm-Archiv*, eds. Gabriele Berlin and Artur Simon (Berlin: Verlag für Wissenschaft und Bildung, 2002), 173–180, esp. 175.

16 For observations on British folklorists' lack of enthusiasm for the phonograph, see Brady, *A Spiral Way*, 84.

Researchers who visited a village for just a day or a week, recording a few random musical offerings by the locals, risked archiving completely "untypical" material, in his view.[17] Wallaschek also criticized the Berlin school's method of precise measurements of sound waves and frequencies in non-European music, "filling long tables which no one reads." Such precision was superfluous, Wallaschek felt, as a performer's own imprecision in intonation created an enormous source of potential misinterpretation.[18] Wallaschek's views echo those expressed by American ethnologists, such as Ralph Vaughan Williams, who considered meticulous transcriptions of individual performances "mad" and "a waste of time," since every performer made minor alterations and it was therefore necessary for the ethnologist to determine what they "meant" to sing.[19] Hornbostel, on the other hand, advocated phonographic recording precisely to eliminate the subjectivity of the ethnographer from the fieldwork equation, especially his or her sense of musical aesthetics:

> He who leaves his European prejudices at home—which is usually easier for those without much talent for music than the musically inclined—and wins the trust of the natives—a precondition for any successful fieldwork—can collect […] excellent phonographic recordings.[20]

Phonography could allow for the collection of large amounts of data, and the determination of what was "typical" would then not be left to the individual judgment of the "expert," but rather become a function of calculations that other scientists could follow.[21]

17 Erich M. von Hornbostel, "Musikalisches vom XVI. Internationalen Amerikanisten-Kongreß in Wien," *Zeitschrift der Internationalen Musikgesellschaft* 10 (1908/09): 4–7.

18 Ibid. Wallaschek illustrated his point by recounting the story of an Indian musicologist he had met in London: This scholar had difficulty understanding the European musical system, because he took each individual variation in the intonation of his informants—that is, when they were singing "off-key"—to be intentional.

19 Brady, *A Spiral Way*, 63–64. Perhaps this congruence is due to Wallaschek's own Anglo-Saxon training: After studying philosophy and musical aesthetics in Vienna, he studied ethnology in London, where he spent five years at the British Museum before publishing his groundbreaking *Primitive Music: An Inquiry into the Origin and Development of Music, Songs, Instruments, Dances, and Pantomimes of Savage Races* (London: Longmans, Green, and Co., 1893), and then returning to teach in Vienna.

20 Hornbostel, "Musikalisches vom Amerikanisten-Kongreß," 7.

21 In these remarks, Hornbostel reiterated the view he and Abraham had expressed in a programmatic article on the work of the archive: Otto Abraham and Erich M. von Hornbostel, "Über die Bedeutung des Phonographen für die Vergleichende Musikwissenschaft," *Zeitschrift für Ethnologie* 36 (1904):

Hornbostel's arguments echoes the nineteenth-century "antihumanist" critique described by Andrew Zimmerman: The study of humanity, purportedly the domain of the humanities, was too Eurocentric to meet the demands of a world which colonialism was making increasingly smaller. The objective methods of the natural sciences were thought to bring a greater understanding of what it meant to be human, and anthropology saw itself as optimally positioned to deliver this knowledge.[22] The marriage of scientific positivism to a kind of cross-cultural historicism, or an appreciation of the necessity to understand cultural phenomena within their own context, is a legacy of nineteenth-century German anthropology which has been characterized as more "liberal" than its French, British, and American counterparts of the same era.[23] Stumpf followed in its tradition of inductive methodology, striving to collect enough evidence to account for what he and his students saw as a development from simple to complex forms of music.[24] Only the centralized collection of as many musical "documents" as possible through the collaboration of many ethnographers delivering material to the archive would give comparative musicologists access to enough non-European material to address the questions that interested them most: those of the origins of music in what was understood to be a universal psychic foundation of all humanity. Their method was comparative, comparison being, as Hornbostel explained in 1905, the "noblest means of acquiring scientific knowledge." However,

[…] comparison on a scale that would allow us to approach the solution of the most general questions will not be possible until we have available at the very least some

222–231. The anthropologist Luschan, in his instructions to fieldworkers on using the phonograph, also explicitly points out that they should fully disregard their own Eurocentric judgments of the music they encounter, but "aesthetic judgements by the natives on their own music as well as on European music (sung to them or played on a phonograph) should be collected." Felix von Luschan, *Anleitung für ethnographische Beobachtungen und Sammlungen in Afrika und Oceanien, Abschnitt L, Musik* (Berlin: Königliches Museum für Völkerkunde, 1908), 14.

22 Andrew Zimmerman, *Anthropology and Antihumanism in Imperial Germany* (Chicago, IL: University of Chicago Press, 2001).

23 See the introduction by the editors to H. Glenn Penny and Matti Bunzl, *Worldly Provincialism: German Anthropology in the Age of Empire* (Ann Arbor, MI: University of Michigan Press, 2003), 1–30. Whereas the latter became more and more liberal in the course of the twentieth century, however, German anthropology turned ever more illiberal, culminating in the collaboration with the racist politics of Nationalist Socialism.

24 For the most part, this development was assumed to correlate with the development of societies from "primitive" to "civilized." See Eric Ames, "The Sound of Evolution," *Modernism/Modernity* 10, no. 2 (2003): 297–325.

samples of musical expression from all four corners of the earth. Until then, we must be satisfied with writing up the material monographically in the haphazard order in which it comes to us.[25]

Musical ethnologists of the Berlin school were "collectors and observers," who were to document ephemeral material "whose final evaluation might well be left to future generations of researchers."[26]

Missing from the Berlin Archive, compared to the Viennese Phonographic Archive, were collections of spoken languages from inside Europe as well as outside. These areas were covered by a second archive, whose realization was made possible by World War I. Wilhelm Doegen, an English teacher in Berlin who had helped pioneer the use of audio recordings in language instruction in Germany, was the driving force behind the commission founded to collect primarily spoken language in the POW camps and, secondarily, examples of the music and folk songs of all peoples.[27] Doegen had no apparent affinity for studies on non-Europeans per se, having no connections to anthropology or the study of non-European languages. His interest in the global scope of the recording project stemmed from his background in areas of applied linguistics, language instruction, and phonetics.[28] He was interested in the "material basis" of language, the sounds, inflections, and intonations of speech. In this way, he shared with the founders of the other archives an orientation toward positivism and natural sciences, adding palatograms and X-rays to his archive which would capture the physical basis of the articulation of certain—especially "exotic"—phonemes.[29] Unlike in comparative musicology, where the

25 Erich M. von Hornbostel, "Die Probleme der vergleichenden Musikwissenschaft," *Zeitschrift der internationalen Musikgesellschaft* 7, no. 3 (1905): 85–97, esp. 85 and 87.

26 Hornbostel, "Musikalisches vom Amerikanisten-Kongreß," 7.

27 Wilhelm Doegen, ed., *Unter fremden Völkern: Eine neue Völkerkunde* (Berlin: Otto Stollberg Verlag, 1925), 9–16. In the footnote on page 9, Doegen cites a memo dated February 27, 1914, to the Prussian Ministry of Culture proposing the idea of establishing a Royal Prussian Phonetic Institut which would include a *"Phonographisches Lautarchiv"* [phonographic "phonetic" or "sound" archive] that could contribute to understanding the "culture and intellectual life" of different peoples *["zum Zwecke des mittelbaren Verständnisses des völkischen Kultur- und Geisteslebens"]*.

28 Doegen's teacher was the English professor Alois Brandl, who studied under the legendary British phonetician Henry Sweet, after whom the fictional character of Henry Higgins (of Shaw's *Pygmalion* and Broadway's *My Fair Lady*) was—at least loosely—modeled.

29 Doegen, *Unter fremden Völkern*, 16. Very few of these images still exist in the *Lautarchiv*, now located at the Humboldt University in Berlin, and it is not quite clear how many were made to begin with.

invention of the phonograph is seen as having made the discipline possible, this technology does not appear to have been seen as revolutionary for the discipline. Linguistics seems to have integrated recording technologies alongside others more or less as a matter of course, primarily for the study of unwritten languages, including European dialects.[30] The field of comparative linguistics was hardly distinguishable from historical linguistics at this time, both being primarily concerned with reconstructing the "family trees" of languages, first and foremost the Indo-European; the study of non-European languages was primarily the domain of Africanists, Orientalists, and anthropologists.[31] The opportunity that World War I represented brought these diverse groups together.

POW Camps as Ethnicized Societies

As Hornbostel repeatedly noted during the first decade of the twentieth century, comparative musicologists and linguists urgently required access to large numbers of non-European peoples in the shortest time possible. World War I was to create such access in the form of POW camps. Two and a half million soldiers were imprisoned in Germany, another 1.3 million in camps on the territory of the Austro-Hungarian Empire. Fully 70 percent of these prisoners were from the Russian army alone, another 25 percent were from French divisions, some 185,000 from the British forces, and tens of thousands more from each of the smaller countries fighting the Central Powers.[32] Since the French and British employed large contingents of troops from their colonies on the European frontlines, and since the Russian army recruited soldiers from almost all parts of the Eurasian continent, German and Austrian POW camps

30 There is, to my knowledge, no systematic study of the impact of the phonograph in the field of linguistics comparable to the studies in ethnomusicology. Histories of the discipline focus on the development of theory and the influences of ideology, but little on technologies and practices used by the discipline's practictioners. For an overview, see E. F. K. Koerner and R. E. Asher, eds., *Concise History of the Language Sciences from the Sumerians to the Cognitivists* (Oxford: Pergamon, 1995), 195–232. See also more specifically the German context: Clemens Knobloch, *Volkhafte Sprachforschung: Studien zum Umbau der Sprachwissenschaft in Deutschland zwischen 1918 und 1945* (Tübingen: Max Niemeyer Verlag, 2005).

31 Cf. N. E. Collinge, "History of Comparative Linguistics," in *Concise History of the Language Sciences from the Sumerians to the Cognitivists*, eds. E. F. K. Koerner and R. E. Asher (Oxford: Pergamon, 1995), 195–202.

32 These estimates are taken from Uta Hinz, *Gefangen im Großen Krieg: Kriegsgefangenschaft in Deutschland 1914–1921* (Essen: Klartext Verlag, 2006), 10.

began filling up with hundreds of thousands of soldiers of non-European origin beginning in late 1914. By the spring of 1915, the Viennese Anthropological Society was determined to take advantage of this opportunity to study peoples otherwise very difficult to reach by travel and sought financial support from the Imperial Academy of Sciences. Rudolf Pöch, who had just been named the first professor for anthropology at the university in Vienna in 1913, was chosen to conduct the camp studies, and members of the Phonographic Archive Commission in the Academy requested Pöch's funding be made contingent upon his agreement to make phonographic recordings in the camps.[33] Pöch readily agreed, viewing this excursion into the camps as essentially equivalent to an expedition to a foreign country. This meant that he planned, in addition to his main occupation of measuring and photographing the bodies of soldiers to determine the racial composition of a given population, to collect ethnographic data by filming prisoners performing their native folk dances and prayer rituals, as well as demonstrating their skill at various crafts, and by making phonographic recordings of languages rarely heard in the metropole, as well as folk songs.[34]

The POW camps not only brought together a large variety of non-European ethnic groups, but also prisoners from neighboring European countries. Their military identities were closely linked with their ethnic identities, as military units were often created along ethnic lines (Scottish, Polish, or Algerian battalions within the larger Allied armies). When the prisoners retained their uniforms, their affiliations and ranks were immediately visible. In the multicultural society into which the prisoners were suddenly forced, the significance of ethnicity as a source of identity was magnified, especially since, as they were utterly displaced and decontextualized, they were stripped of sources of identity other than those the military and their own origins offered: officer or enlisted man; European, Asian, African. The camp societies were thus strongly "ethnicized" communities, and the cultural hierarchy of the prisoners that existed in the minds of their German and Austrian captors appears to have been intensified and reified in combination with the situation of everyday life in the camps. On top were the British, "who in their confident behavior always showed they were the *Herrenvolk* [ruling nation] of the camps," as Doegen phrased it,[35] and with whom the Germans had long considered themselves racially related,[36]

33 Archives of the Austrian Academy of Sciences, Subventionen, mathematisch-naturwissenschaftliche Klasse, No. 411/1915.

34 Rudolf Pöch, "1. Bericht über die von der Wiener Anthropologischen Gesellschaft in den k.u.k. Kriegsgefangenenlagern veranlaßten Studien," *Mitteilungen der Anthropologischen Gesellschaft in Wien (MAGW)* 45 (1915): 219–235.

35 Doegen, *Unter fremden Völkern*, 13.

36 As Alois Brandl put it, they were a "cousin people" *[Vetternvolk];* in Doegen, *Unter fremden Völkern,* 362.

and the French, whom the Germans saw as their closest neighbors.[37] At the bottom were Black Africans or, where they were present, the small numbers of Australian and Melanesian Aboriginals.[38] In between were Russians and the eastern European and central Asian subjects of the Czarist Empire, North Africans, and Indians. This imagined hierarchy—largely constructed by the evolutionary paradigm of the anthropological sciences—was materialized in representations of the ethnic variety in the camps in anthropologist-supported publications, such as *Unsere Feinde* [Our Enemies] and *Deutschlands Gegner im Weltkriege* [Germany's Opponents in the World War],[39] as well as in internal military reports.[40] Particularly the introduction to *Unsere Feinde*, a book of photographs taken of prisoners by Otto Stiehl, reveals the extent to which his daily observations of prisoners had been conditioned by ethnic categorizations and flat-out racism.[41] Presenting himself as an authority by virtue of his service as the commander of a POW camp in which Muslim prisoners were incarcerated,[42] Stiehl presents an overview of the many ethnic groups

37 Otto Stiehl, *Unsere Feinde: 96 Charakterköpfe aus deutschen Kriegsgefangenenlagern* (Stuttgart: Verlag Julius Hoffmann, 1916), 7.

38 Doegen, *Unter fremden Völkern,* 15.

39 On the interconnections between these publications and the anthropological sciences in Berlin and Vienna, see Monique Scheer, "'Völkerschau' im Gefangenenlager: Anthropologische 'Feind'-Bilder zwischen popularisierter Wissenschaft und Kriegspropaganda 1914–1918," in *Zwischen Krieg und Frieden: Konstruktionen des Feindes*, ed. Reinhard Johler (Tübingen: Tübinger Vereinigung für Volkskunde, 2009), 69–109.

40 See, for example, "Bericht über die Kriegsgefangenen in den sächsischen Kriegsgefangenenlagern in Form einer Darstellung nach Staatsform, Volkstum und Rasse" [Report on the POWs in the camps in Saxony in the form of a presentation according to the form of government, ethnicity, and race], submitted by a camp physician in August of 1918 as part of a larger report on the use of prisoners for hard labor in the *Inspektion der Kriegsgefangenenlager XII u. XIX A-K Br.-B-Nr. 6600 III* (Stuttgart: Bibliothek für Zeitgeschichte).

41 To cite an example: "For a lack of an inner connection and probably also due to their basic sense of tribality from the wild, [the Black Africans] usually separated themselves strictly from the other prisoners, and it was a strange thing to observe how through the strict dignity of their authentic, proud nature, the better among them, in spite of all their savagery, were able to lift themselves to their advantage above the backdrop of the Frenchmen swirling about them, constantly opportunistic and changeable." (Stiehl, *Unsere Feinde*, 14)

42 Stiehl was the commander of the camp in Zossen, near Berlin, one of two camps set up specifically to hold Muslim POWs separately from the rest of the Allied prisoners and to supply them with pro-Turkish propaganda. For background on these camps and this publication, see Gerhard Höpp, *Muslime in der Mark: Als Kriegsgefangene und Internierte in Wünsdorf und*

at war against the German Reich, whose representatives he has had opportunity to observe in the camps. Generalized descriptions of Frenchmen, Arabs, Afghans, Serbs, and Russians, to name a few, are placed in a text next to each other—just as the photographs of the prisoners representing each group in the main section are juxtaposed—for the purpose of highlighting differences, "unique" traits, and national "characters." Doegen takes the same approach in his introduction to *Unter fremden Völkern* [Among Foreign Peoples] a collection of essays written by the linguists who had participated in the camp studies.[43] "From the Belgian people the hot-blooded, easily inflamed Walloons of the French tongue and down-to-earth Flemish […] fiery, sentimental Serbs […] dull but good-natured Russians […] magnificent Estonians […] honorable Finns […] conscientious Mordvins […]."[44] The list goes on for several pages, creating, for the reader, the impression that each and every ethnic group can be distinguished from the other by fairly obvious physical and character traits.

Comparison, which Hornbostel had lauded as the "noblest means of acquiring scientific knowledge," was an everyday practice in the "laboratory" of the POW camp. But whereas the liberal anthropological enterprise ultimately conceived of comparison as bringing out similarities between peoples, revealing the universal structures underlying all humanity, the comparisons between ethnicities in the camp setting served to identify what was specific about each and to essentialize their differences. Stiehl asserts his authority as a person knowledgable about "foreign peoples" in the closing of his introduction:

> Even if I have made an effort to also do justice to the good sides of the savages and semi-savages which the hatred of our enemies has set upon us, I must not forget to emphasize that in my impression of these exotic masses as a whole, roughness and barbarity outweigh the rest by far. Anyone who has had the opportunity to get to know these assorted crowds *[diese bunten Scharen]* would agree with all his soul […].[45]

Life in a POW camp seemed to make a person knowledgable about the vast variety of "national characters," just as if one had taken a trip around the world.

Since their inception, the phonographic archives in both Berlin and Vienna had taken the opportunity of recording the songs and languages of

Zossen, 1914–1924 (Berlin: Verlag Das Arabische Buch, 1997); Margot Kahleyss, *Muslime in Brandenburg: Kriegsgefangene im Ersten Weltkrieg; Ansichten und Absichten,* Veröffentlichungen des Museums für Völkerkunde Berlin N. F. 66 (Berlin: Staatliche Museen zu Berlin—Preußischer Kulturbesitz, 1998).

43 Doegen, *Unter fremden Völkern*.

44 Ibid., 13.

45 Stiehl, *Unsere Feinde*, 31.

non-Europeans traveling through the capital,[46] very often performers in ethnographic "shows" *(Völkerschau).* Pöch was referring to such practices when he exclaimed with obvious delight in a 1916 article that the POW camps were, in fact, a "*Völkerschau* beyond compare!"[47] They were "beyond compare" not only because of the unprecedented number of different ethnicities incarcerated in the camps, but also because, while there was often doubt about the "authenticity" of the performers in professional ethnographic shows,[48] he assumed there could be none whatsoever about the soldiers brought to Europe by the war.[49] They were not professionals accustomed to the European metropole, but more or less "fresh off the farm," making their folkloristic performances, in his view, examples of a truly authentic folk culture. The camps could thus be construed as "living museums" of folk culture, with all the breadth an ethnologist could wish for, examples of humanity from all four corners of the planet.[50] Again, the prisoners were viewed less in terms of what they had in common with the researchers or their fellow combatants on both sides of the front, and more decidedly from the point of view of what made them interesting for research: as carriers of ethnic and racial traits, waiting to be recorded by German and Austrian scientists.

Two Types of Technology

By 1915, two types of recording technology were available. The phonograph developed by Thomas Edison recorded onto cylinders by transferring the sound waves into a vertical, "hill-and-dale" pattern in the groove in the wax. The device itself was relatively easy to transport and to operate, which seems to be one of the reasons that Hornbostel and the Berlin Archive preferred it. It was crank-driven, requiring no electric current or batteries, and was about the size and weight of a typewriter, therefore, easy enough to carry with one hand in its wooden case by the handle. Hornbostel could instruct anthropologists

46 The first recording Stumpf made for the Berlin archive was of a Thai orchestra giving a concert in the city; soon afterwards, Hornbostel and Abraham recorded Japanese and Indian musicians making guest appearances in Berlin.

47 Rudolf Pöch, "Anthropologische Studien an Kriegsgefangenen," *Die Umschau* 20 (1916): 988–991, quote from p. 989, emphasis in the original.

48 Cf. Zimmerman, *Anthropology and Antihumanism*, 30.

49 Researchers in the camps in fact did often have difficulty determining the "true" ethnic identities of the prisoners they examined, as Britta Lange discusses in her contribution to this volume.

50 On the philosophy behind Berlin's Ethnological Museum, see H. Glenn Penny, "Bastian's Museum: On the Limits of Empiricism and the Transformation of German Ethnology," in Penny and Bunzl, *Worldly Provincialism*, 86–126.

preparing for fieldwork on how to use the device within just a few hours and then send them on their way. When in the field, the phonograph had another quality that made it very useful: It was possible to listen to the recording, immediately after having made it, simply by exchanging the cutting stylus for a playback needle, allowing the sound just previously projected into the horn to reemerge from it, or be listened to via ear tubes connected to the device. Luschan recommends in his guidelines for recording in the field that every recording be played back immediately in full. "This usually pleases the natives and encourages them to make more recordings."[51] Pöch had had this very experience in Papua New Guinea in 1904. He writes in his report,

> […] as soon as someone had decided to sing into the horn and then I had played back the singing before the astounded listeners, one after the other volunteered to sing into the device. I was then happy to put on a "performance" with the Edison phonograph every evening for several days, and to make trial recordings; I was then able to select the best ones [to keep for the archive]. I consider this procedure—playing back for the people themselves what had been sung and spoken into the device—to be very advantageous. They lose their shyness, become interested in the thing themselves, and most of all, learn to distinguish between a good and a poor-quality recording and then know after that which mistakes to avoid.[52]

Equally important for the anthropologist, therefore, was that immediate playback gave him or her the opportunity to check the quality of the recording. Furthermore, it allowed for transcription of the recorded text and/or music into European notation while still in the field, enabling the informants to take part in this process as well. There was, however, one serious drawback to playing back the wax cylinders: Each playback reduced the quality of the recording. Pöch was only able to so generously put on "performance evenings" in the field because he had indeed taken two phonographs with him, the other one being reserved for the archive recordings, which were carefully preserved and not played back. Otherwise, archivists interested in the quality of the recording itself warned the anthropologists not to unnecessarily diminish it by playing back too freely. The requirements of the archive thus intruded into the fieldwork interaction.

The other recording technology available, and rapidly overtaking the Edison cylinder during the first decade of the twentieth century, was the gramophone developed by Emile Berliner in 1895. It recorded onto wax discs

51 Luschan, *Anleitung für ethnographische Beobachtungen*, 2.

52 Rudolf Pöch, "Bericht über die Aufnahmen mit einem Archivphonographen der kais. Akademie der Wissenschaften in Wien, unter den Monumbo auf Neu-Guinea vom 28. Juli bis 24. November 1904," *Mitteilungen der Phonogrammarchivkommission* 5 (1905): 897–904, here 900–901, quoted in Stangl, *Ethnologie im Ohr*, 158.

by reproducing the sound waves in a horizontal direction, creating a wavy groove which spiraled from the edge into the center of the disc. A metal negative was then made from the wax disc. From this negative, multiple copies could be made in shellac and later vinyl. The devices mass-marketed to the public were designed only for playback, as the record producers began to realize that they could protect and expand their market by offering prerecorded discs, which consumers also found easier to handle and store than the cylinder. By 1913, even Edison gave in to the market pressure and discontinued production of the cylinder recording devices for home use, manufacturing them only for offices as dictaphones. Cylinder blanks continued to be produced into the 1930s, and anthropological fieldworkers were among the few remaining customers who required them.[53] Whether or not the gramophone technology produced recordings which were inferior to the Edison cylinders in terms of sound quality, they were superior in terms of conservation and duplicability, which were soon deemed the more important criteria for a mass market. For fieldwork, however, the gramophone recorder's size and expense were prohibitive: Even as late as the mid-1930s, so-called "portable" devices required batteries weighing half a ton.[54] As a result, gramophone technology was hardly used in the field. The relatively small number of shellac records collected by the Berlin Archive (371 by 1933) were, for the most part, prerecorded discs that had been purchased.[55]

The archivists shared commercial manufacturers' concerns regarding conservation and duplicability of recordings. Upon founding the archive in Vienna, the Academy commission immediately concerned itself with these questions and determined that, though their inscription was superior, the wax cylinder technology was lacking, since, at that time, copies could not be made from them.[56] Wanting the best of both worlds, the Viennese Archive invented

53 See Brady, *A Spiral Way*, 24–26.

54 Ibid., 26.

55 There are thirty-one discs referred to in the inventory as "originals," but this appears to refer to the fact that they were gramophone duplicates of recordings originally made on cylinders. See Susanne Ziegler, "The Wax Cylinder Project in Rescue of the Largest Collection of Old Sound Documents of Traditional Music from Around the World: Wax Cylinders and Shellac Records of the Berlin Phonogramm-Archiv," in Simon, *Das Berliner Phonogramm-Archiv 1900–2000*, 200.

56 The Berlin Archive did not develop a method for making durable copies of their wax cylinders until 1907. Copper negatives of the recording were made (during which process the wax original was destroyed), from which multiple copies in hard plastic could be produced. Both negatives and copies make up the majority of cylinder holdings in the archive today. See Ziegler, "Das Walzenprojekt," 196.

its own special "archive phonograph" using the Edison-type "hill-and-dale" inscription, but on disks rather than cylinders. It was initially somewhat heavier than the Edison, but this problem was greatly improved by 1915, and like the Edison, the archive phonograph could be made to play back right away, a feature not available with the gramophone.[57]

These issues do not appear to have been serious concerns for linguists in the field at this time, who still preferred paper and pencil in the field. However, a dialectologist mostly concerned with accurately grasping the phonetic nuances of the spoken word could view recording technology as a chance to shortcut this process. Alois Brandl, English professor at the university in Berlin and, as Doegen's former teacher, a major supporter of his projects, recalls in his memoirs that when he began to study English dialects in 1903, visiting farmers in southwestern Scotland, he was hampered by their lack of stamina.

> I would pick out one of them and have him repeat a few sentences until I could say them myself and write them down in precise phonetic notation. But he would always repeat them in a different way and was exhausted after an hour anyway, calling out "Oi feel oncommon droy," that is, asking for liquor, and soon he had no time for me at all anymore.[58]

In the face of such difficulties in the field, he viewed the advent of recording technology as a great help, because it could immediately preserve the first version of the spoken material—not solving the issue of which particular utterance should be viewed as "typical," but at least maximizing the amount of material one could acquire before an informant lost interest. Apparently, he did not use an Edison phonograph, noting that speakers of dialect were recruited to come to London, where they would speak into a gramophone. This suggests that the gramophone was the technology of choice in linguistics from the beginning,[59] making it clear why it would be chosen for the work in the camps.

Researchers working too far from the metropole to bring their informants to a recording studio had to make do in the field, but nevertheless strove to achieve the highest possible recording quality. Concerns about the placement of the phonograph affecting it seem to have plagued them, the more philologically oriented Viennese perhaps more intensely than the ethnomusicological Germans. Luschan only mentions in his guidelines that the phonograph should be placed somewhere where it could not be moved during the recording session.[60] The special Viennese archive phonograph, being considerably

57 See Stangl, *Ethnologie im Ohr*, 158–159.

58 Alois Brandl, *Zwischen Inn und Themse: Lebensbeobachtungen eines Anglisten* (Berlin: Grote'sche Verlagsbuchhandlung, 1936), 326.

59 Ibid.

60 Luschan, *Anleitung für ethnographische Beobachtungen*, 2.

heavier, had led its first users in the field to leave it in their hotel room and attempt to coax informants to join them there to make recordings, often with little success.[61] Even after the device was made lighter, it was still believed that recordings should always be made indoors, in order to protect the discs from attracting dust or moisture. Pöch recommended this himself, though, in practice, he made all of his Papua New Guinea recordings outdoors to avoid another problem: that of the echo in the recording created by the sound bouncing off interior walls.[62] In the summer of 1915, however, Pöch was in a situation to dictate the terms of the field in a way he hadn't been able to before, raising his expectations of what fieldworkers could achieve.

The Viennese Project

For the camp studies, the Viennese Phonographic Archive provided Pöch with one of their phonographs and a set of wax discs, on which, by the end of the summer of 1915, he delivered sixty-five recordings made in three POW camps, twenty-five of which were of spoken text, thirty-seven of song, and three of instrumental music.[63] In the first camp, Pöch came upon two Hungarian linguists from the Academy of Sciences in Budapest who were also conducting research among the prisoners and were willing to offer their help for the first sixteen recordings. Based on their previous experience with the informants, the Hungarian scholars chose the individuals, texts, and songs they deemed worthy of recording, providing written transcriptions and translations.[64] In the next two camps he visited in 1915, Pöch did not have such assistance and relied instead on Russian prisoners who could transcribe the Georgian or Finno-Ugric texts more or less phonetically into Latin letters and translate them into Russian and sometimes even German. Here, however, the informants themselves seem to have chosen what to speak or sing into the device,

61 Stangl, *Ethnologie im Ohr*, 154, relates this telling anecdote from the linguist Paul Kretschmer, who took an archive phonograph to Greece: He wrote to Sigmund Exner in 1901 that the informants' "hesitancy was greater than their curiosity […]. A young boy who had been brought all the way to my house ran away at the last minute, and when people tried to stop him, he began to cry."

62 Ibid., 154–156.

63 Rudolf Pöch, "Phonographische Aufnahmen in den k.u.k. Kriegsgefangenenlagern," *Mitteilungen der Phonogrammarchivs-Kommission der Kaiserl. Akademie der Wissenschaften in Wien* 41 (1916): 21–26, esp. 25. Pöch was first and foremost concerned with measuring the bodies of prisoners, as the number of recordings shows, which averages to little more than one per working day.

64 Ibid., 23–24. See also Pöch, "1. Bericht," 228–229.

often choosing the themes of nostalgia for home and family.[65] One Armenian prisoner used the opportunity to dictate a message to his parents in verse form.[66]

These recordings represent some of the last that Pöch was to supervise, and, in an article written for the Viennese Phonographic Archive a year and a half later, he summarizes what he had learned from his experiences recording "on expeditions," to which he also counts his stays in the POW camps but a few hours from home. To Pöch's mind, fieldwork represented a less than desirable setting for gathering acoustic data. He notes at the beginning that the gold standard is the studio recording, and, while such conditions can never be reached in the field, they must be approached in order to acquire recordings of scientific value.[67] His views seem to have been influenced by his most recent experience in the POW camps, since only there was he himself able to fulfill the standard he now recommends: setting up the recording device indoors while avoiding poor acoustics, and acquiring a perfect transcription of the recorded text in phonetic notation on site. Pöch assumes that the fieldworker does not speak the language of his informants and goes into great detail on how to ensure that the transcription nevertheless perfectly matches the recording, without which, he claims, it is scientifically useless. In the end, it comes down to the choice of the informant, which Pöch considers the single most decisive factor in the quality of the recordings, "and this choice is that much more difficult, since the individual in question must have a combination of quite a number of certain characteristics,"[68] such as clear articulation and the ability to repeat a spoken text verbatim a second time, so that it will correspond with the notation of the text as spoken in the dry run. Due to problems with the latter, Pöch remarks that the most efficient method of acquiring a recording with a perfect transcription is for informants to write down what they wish to say and then read it into the phonograph. Where this is not possible (because the informants cannot read and write), they should speak only single words and short expressions as examples of their mother tongue.[69] Pöch is aware, however, that, due to these restrictions imposed by

65 Idem, "Phonographische Aufnahmen," table to p. 24: For example, disc no. 19, two Russian tenors sing a Ukranian folk song called "When Two People Part"; disc no. 22, a Wotjak tenor sings a military song, taking leave from the homeland; discs nos. 24/25, Armenian folk song about a prisoner asking a swallow to tell him about the hills and flowers of his homeland.

66 See ibid., disc no. 27.

67 Idem, "Technik und Wert des Sammelns phonographischer Sprachproben auf Expeditionen," *Mitteilungen der Phonogrammarchivs-Kommission der Kaiserl. Akademie der Wissenschaften in Wien* 45 (1917): 3–15, esp. 3.

68 Ibid., 14.

69 Ibid., 8.

the technology, the "living language" in its natural "melody" is not captured in the recordings and thus recommends a final recording of untranscribed, completely spontaneous speech which more accurately represents the natural cadences of the language.[70]

After the first summer of research in the camps had gone well and the funding for the next summer had been secured, Pöch sought to delegate the work of audio recordings to other scientists. In a letter to the Academy written in July 1916, he indicated that the potential for collecting myths and legends as well as folk music was so extraordinary that he recommended the Academy dispatch experts for these tasks, naming specifically the "mythographer" Wolfgang Schultz and the comparative musicologist Robert Lach. Schultz was unable to accept the commission offered by the Academy, as he himself had become a POW in Italy.[71] Lach, however, already exempted from military service due to a health condition, could quickly organize the necessary leave of absence from his position at the Royal Library's Music Collection and obtain the War Ministry's permission for entry into the camps. In August of 1916, he took over the musicological data-gathering from Pöch, following the anthropologist's lead in focusing on ethnicities located at the periphery of the Russian Empire which had not yet been the object of intense anthropological investigation. There is a striking correlation between the application for further funding submitted by Pöch to the Academy in May of 1916[72] and the structure of the multivolume work Lach would eventually produce from his data. Both name three main ethnic categories of interest to them: (1) the "eastern Finnish" peoples whose homelands are located just west of the Ural mountain chain and along the Volga, among others, the Komi, Udmurts, Mari, Chuvashes, and Mordvins.[73] Pöch emphasizes that these groups in particular must be studied now, as they have been "violently denationalized" by the Russians and will soon become "extinct";[74] (2) ethnic groups from some of the same areas who speak Turkic

70 Ibid., 11. It does not appear that he made any untranscribed recordings in the POW camps, however.

71 Archive of the Austrian Academy of Sciences, file "Gesänge russischer Kriegsgefangener (Robert Lach)," Akt.-No. 496/1916, esp. letter from the Academy to the War Ministry on August 1, 1916, in which Schultz's imprisonment is noted.

72 Archive of the Austrian Academy of Sciences, Subventionen, mathematisch-naturwissenschaftliche Klasse, Akt.-No. 367/1916. Pöch application of May 18, 1916, attachment 2.

73 Pöch and Lach refer to them by their German names: Syränen, Wotjaken, Permiäken, Tschuwaschen, Mordwinen.

74 Archive of the Austrian Academy of Sciences, Subventionen, mathematisch-naturwissenschaftliche Klasse, Akt.-No. 367/1916. Pöch application of May 18, 1916, attachment 2, p. 3.

languages, including Bashkirs and Volga and Crimean Tatars; and (3) peoples of the Caucasus region, particularly Georgians and Armenians.

Lach was not a natural scientist by training, but a musicologist and musician who composed operas in his free time.[75] What seemed to qualify him for the research in the camps was his study of musical development, *Studien zur Entwicklungsgeschichte der ornamentalen Melopöie*,[76] a cross-cultural and historical study of ornamentation in melodies and *tour d'horizon* of all known musical cultures past and present, ordered in a strict hierarchy of lower to higher development. Wallaschek had also postulated developmental hierarchies, but he was an opponent of Charles Darwin's theory of the origins of music in the courtship behavior of animals, denying that animals even *had* music, thus drawing a clear distinction between human culture and the animal world.[77] Lach, on the other hand, defended Darwin's theory and, with the aid of Freudian psychology, expounded upon on the link between animal and human musical behavior.[78] Lach argued that musical development followed natural laws and therefore should be studied with the same comparative methods as the natural sciences.

Thus, in Vienna, it was the war which brought the comparative musicologist and the phonographic archive together for the first time. Lach had had little to no experience with ethnographic fieldwork or phonographs and required the assistance of a technician from the phonographic archive in order to operate the device.[79] Based on what he had read, Lach judged the music of many of the people he was going to come face to face with in the camps to be "approximately at the same level" as the music of native Americans, which, following Stumpf's assessment, he considered "belonging not at all to an archaic or even primitive state of music," but in fact closer to the highest point

75 Robert Lach (1874–1958) came to musicology somewhat late, having first studied law. After acquiring his PhD in 1902, he left Vienna for health reasons for several years. In 1911 he took a position at the Royal Library *[Hofbibliothek]*, where he was employed until being appointed Wallaschek's successor at the university in 1920.

76 "Studies on the Developmental History of Ornamental Melopoeia" was an expanded version of Lach's dissertation, submitted in Prague to Heinrich Rietsch in 1902. It was published in Leipzig with the assistance of Guido Adler and the Viennese Music Department in 1913, but Lach makes no mention in the preface of any personal debt to Richard Wallaschek.

77 Wallaschek, *Primitive Music*, 237–250.

78 Robert Lach, *Studien zur Entwicklungsgeschichte der ornamentalen Melopöie: Beiträge zur Geschichte der Melodie; mit zahlreichen Notenbeilagen* (Leipzig: Kahnt, 1913), 524–640.

79 Lach's assistant was Hans Pollak, later Leo Hajek, see Archive of the Austrian Academy of Sciences, "Gesänge russischer Kriegsgefangener (Robert Lach)," Akt-No. 496/1916.

on the scale of development (i. e., Western music) than to its lowest.[80] The scientists spent eight weeks together in the camps, alongside the prison camp guards and administrative officers, in whose barracks they were housed. The cooperation that ensued was deemed fruitful and positive by both sides. Lach was aided by Pöch and his assistant, who integrated the choice of prisoners to perform for the musicologist into their selection process for somatic measurements and photography.[81] That is to say, Lach was presented with "material," as informants were routinely referred to, who had been selected based on racial criteria by the physical anthropologists. They had determined that the person in question was "typical" enough of his ethnic group to provide reliable musical data.[82] Lach saw this collaboration as providing a great deal of support, relieving him of the need to determine the "true" ethnic identity of his informant based on the music he produced—which he might have picked up somewhere outside his "homeland." Furthermore, the musicologist could correlate racial and ethnic statistics with physical characteristics pertaining to musicality, for example, the ability to hear and discern different tones and intervals.[83] Lach did not construct ethnicity from the music produced by the informants, but rather took it—and its place in the imagined hierarchy of cultures he, as an evolutionist, worked with—as a given. Pöch wrote in his report to the Academy in November of 1916 that working together with a music historian meant exchanging findings in their respective areas about connections between peoples and, in particular, informing the musicologist "to what

80 Lach, *Studien Melopöie*, 102–103.

81 Idem, *Vorläufiger Bericht über die im Auftrag der kaiserlichen Akademie der Wissenschaften erfolgte Aufnahme der Gesänge russischer Kriegsgefangener im August und September 1916,* Mitteilungen der Phonogramm-Archiv-Kommission 46 (Vienna: Alfred Hölder, 1917), 5.

82 See Walter Graf, "Österreichs Beitrag zur Musikethnologie," in *Beiträge Österreichs zur Erforschung der Vergangenheit und Kulturgeschichte der Menschheit mit besonderer Berücksichtigung Mitteleuropas: Bericht über das erste Österreichische Symposion auf Burg Wartenstein bei Gloggnitz 8.–12. September 1958*, ed. Wenner-Gren Foundation, Emil Breitinger, Josef Haekel, and Richard Pittioni (Horn: Berger, 1959), 148–161. In the minutes of the discussion following Graf's presentation, Josef Weninger is quoted as remarking: "I would like to add that R. Lach always conducted his recordings in the prisoner-of-war camps together with R. Pöch and myself, so that for his work he was always provided with individuals who had been precisely categorized according to race and ethnicity. In this way, his ethnomusicological studies were greatly facilitated."

83 Cf. Robert Lach, *Die vergleichende Musikwissenschaft, ihre Methoden und Probleme,* Akademie der Wissenschaften in Wien, Sitzungsberichte 200, 5 (Vienna: Hölder-Pichler-Tempsky, 1924), 112–113.

extent connections in the purely somatic area or in cultural achievements have already been uncovered."[84]

Lach and his technician made about fifty recordings that summer—no more than Pöch had produced "on the side" the summer before—but Lach could capitalize on his musical training by transcribing some seven hundred song performances directly onto paper in Western musical notation.[85] The following summer he collected another 837 written transcriptions and thirty-three recordings for the archive.[86] He had so much material, in fact, that it took him thirty years to finally complete the writing up of the data,[87] which was published by the Academy of Sciences in bits and pieces over the years: first, two preliminary reports directly from the camps, published in 1917 and 1918, and then, between 1926 and 1952, three volumes, each with several parts, of the full analyses of the music of the Finno-Ugric ethnic groups, the Turkish-speaking Tatars, and peoples of the Caucasus.[88] Having been drawn into an unusual fieldwork setting by the anthropologist Pöch proved advantageous to Lach's career,[89] a debt he acknowledged in his dedicated inclusion of the issue of race in his work. Ethnomusicology under Lach hardly cooperated with the Viennese cultural anthropology school under Pater Wilhelm Schmidt,[90] which was to become synonymous with the "theory of cultural circles" *[Kulturkreislehre],* of which, in fact, the Berlin school later made extensive

84 Rudolf Pöch, "3. Bericht über die von der Wiener Anthropologischen Gesellschaft in den k.u.k. Kriegsgefangenenlagern veranlaßten Studien," *MAGW* 47 (1917): 77–100, esp. 96.

85 Lach, *Vorläufiger Bericht 1916*.

86 Idem, *Vorläufiger Bericht über die im Auftrag der kaiserlichen Akademie der Wissenschaften erfolgte Aufnahme der Gesänge russischer Kriegsgefangener* im *August bis Oktober 1917,* Mitteilungen der Phonogramm-Archiv-Kommission 47 (Vienna: Alfred Hölder, 1918).

87 Archive of the Austrian Academy of Sciences, Personalakte Robert Lach, Autobiographical sketch submitted on Februar 22, 1941.

88 These three volumes were published in several parts each, in varying order, in the series *Mitteilungen der Phonogramm-Archivs-Kommission* of the Austrian Academy of Sciences, vols. 54, 55, 58, 61, 65, 66, 68, 74, and 78, between 1926 and 1952: Robert Lach, *Gesänge russischer Kriegsgefangener,* vol. 1: *Finnisch-Ugrische Völker* (in four parts), vol. 2: *Turktatarische Völker* (in three parts) and vol. 3: *Kaukasische Völker* (in two parts) (Vienna: Hölder-Pichler-Tempsky, 1926–1952).

89 Not only did Lach succeed Wallaschek as associate professor for systematic musicology in Vienna in 1920, but one year before, largely due to his work in the POW camps, Lach was appointed a corresponding member of the Academy of Sciences. In 1927, he was made full professor and Guido Adler's successor as department chair.

90 See also Stangl, *Ethnologie im Ohr*, 81–83.

use.[91] Rather, Lach remained close to the physical anthropologists, his reports to the Academy and the Anthropological Society displaying a clear interest in collaborating with the natural sciences and in exploring what he called "The Race Problem in Comparative Musicology." In a lecture with this title which Lach gave after the war,[92] however, he laments that the musicologist still does not have the necessary methods to determine exact reliable criteria and characteristics of musical styles that would correspond with races, nations, or tribes. His desire to find them shines through his texts quite clearly, yet he repeatedly states his conviction that musical style does not correspond to the racial composition of a people, but rather adheres to the laws of evolution. Put plainly, it meant that when similarities are found between the music of the Bashkirs and that of the Chinese, then it is not due to a common "Asian/racial" heritage, but instead to the fact that these peoples' musical systems were at equivalent levels of development. Building on his findings in his dissertation, Lach asserts that the lower the level of development, the more monotonous and repetitive the music is, but that these characteristics are found in all cultures in different times in history—in medieval Christian chants as well as the music of various "primitive" cultures—so that it cannot be linked to physical evolution.[93] Although Lach's interest in race and the biological basis of music seems to suggest an affinity for essentializing musical cultures and styles, reifying their differences, in his writings, it seems as if he continued to find commonalities between them which undermined clear racially connoted hierarchies. Considering his own anti-Semitic convictions, which he publicly displayed on several occasions, one could say that, in his own work, Lach supported liberal notions in spite of himself.[94]

91 See Albrecht Schneider, *Musikwissenschaft und Kulturkreislehre: Zur Methodik und Geschichte der vergleichenden Musikwissenschaft* (Bonn: Verlag für systematische Musikwissenschaft, 1976).

92 Robert Lach, "Das Rassenproblem in der vergleichenden Musikwissenschaft," *Berichte des Forschungsinstitutes für Osten und Orient* 3 (1923): 107–122.

93 Ibid.

94 There is a great deal of evidence pointing toward Robert Lach's open anti-Semitism, not least his opposition to the granting of an honorary doctorate by his department to Richard Strauss, as the composer had collaborated with Jewish librettists. Lach joined the National Socialist party in Austria in 1933, when it was still illegal to do so, and when the *Anschluss* corresponded with the year he was to retire from his post, he petitioned the Ministry of Culture in Berlin, asking for an extension of his appointment and citing his loyalty to the party (Nationalbibliothek Wien, Musiksammlung, F 17 Lach 329 "Kaukasische und ural-altaische Gesänge," letter dated May 13, 1939). See also "Warum Richard Strauss nicht Ehrendoktor werden durfte," *Neues Wiener Journal*, September 30, 1927, 5; Pamela M. Potter, *Most German of the Arts:*

The Berlin Project

The presence of so many different ethnicities in the POW camps in Germany seemed to Wilhelm Doegen a golden opportunity to stock up the *Lautarchiv* ["phonetic" or "sound" archive] he had been dreaming of creating, and, in the summer of 1915, he convinced key members of the Ministry of War of the necessity of the venture. By October, the Royal Prussian Phonographic Commission was created, funded in large part by the Kaiser's personal budget, with Doegen as its technical and logistical director.[95] His academic credentials were not sufficient to be named chairman of such a commission; this office went to the head of the already existing phonographic archive, the highly respected Professor Carl Stumpf. The rest of the commission was composed of a group of scholars from Berlin and Hamburg, some of which were members of the Prussian Academy of Sciences, which also provided some of the funding for the POW-camp project. They were mostly philologists: Orientalists, Africanists, as well as scholars of English, Celtic, and the Romance languages.[96] The anthropologist Luschan was also a member of the commission, and through it, he received funding for physical anthropological studies in the camps.[97] Stumpf was the only musicologist included. It is not clear how many, if any, recordings the archive director Hornbostel himself made in the POW camps.[98] While the members of the commission viewed wartime as an opportunity for their own studies, Hornbostel actually interrupted his musicological research and put his knowledge of the psychology of hearing directly in the service of the military: Together with Max Wertheimer, he developed a method for determining precisely the direction from which enemy artillery fire was coming and apparently also did military duty on submarines.[99]

Musicology and Society from the Weimar Republic to the End of Hitler's Reich (New Haven, CT: Yale University Press, 1998), 242.

95 On the history of the *Lautarchiv*, see Kirsten Bayer and Jürgen Mahrenholz, "'Stimmen der Völker'—Das Berliner Lautarchiv," in *Theater der Natur und Kunst*, exhibition catalog, ed. Horst Bredekamp, Jochen Brüning, and Cornelia Weber (Berlin: Henschel, 2000), 117–128.

96 The members of the commission are listed in Doegen, *Unter fremden Völkern*, 10–11. Some of these scholars came from Hamburg, where they were affiliated with the "Phonetic Laboratory" founded in 1910 at the Colonial Institute.

97 These were conducted in large part by Egon von Eickstedt; see the article by Britta Lange in this volume.

98 Doegen mentions that he was briefly involved (*Unter fremden Völkern*, 10), but he is not named in any of the reports or minutes of meetings of the Phonographic Commission preserved in the *Phonogrammarchiv* at the Ethnological Museum in Berlin. See Ziegler, "Erich M. von Hornbostel und das Berliner Phonogramm-Archiv," 146–168, esp. 156–157.

99 Ibid.

In the spring of 1916, Stumpf sent an archive assistant, Georg Schünemann, into the camps to make musical recordings with an Edison phonograph. Schünemann had a background in Western music history and had until then showed no particular interest in comparative musicology. However, he had become ill during his military service on the frontlines and, through various connections, was able to obtain a release which allowed him to work for the commission for the duration of the war.[100] The list of the over one thousand recordings that Schünemann made of POWs' performances corresponds exactly to the itinerary of Doegen's visits,[101] suggesting that Schünemann must have traveled with Doegen's team between the end of April 1916 and early September 1918, visiting a total of twenty-five different camps in visits never lasting more than a few days at a time. In a total of less than one hundred days, Schünemann collected as many recordings as the archive had previously acquired in a whole year. The recordings were mostly of songs sung by the prisoners and were by no means limited to non-Europeans, though this was the general focus of the phonographic archive in Berlin. Like Doegen, Schünemann recorded whoever was available in the camp and thus gathered recordings of folk songs from some African and Asian soldiers, but just as many, if not more, from eastern and southeastern Europeans, as well as a few French and Basque samples. Shortly after the war, Schünemann wrote his *Habilitation* on one set of these recordings—those of the Volga Germans, analyzing how German folk music had fared after a few hundred years in the diaspora.[102] Other than one article on the music of the Tatars,[103] Schünemann did not shift his focus from European music, nor was he interested in using the comparative method to find similar "levels" of development among peoples. Similarities between "uncivilized"

100 See Heike Elftmann, *Georg Schünemann (1884–1945): Musiker, Pädagoge, Wissenschaftler und Organisator: Eine Situationsbeschreibung des Berliner Musiklebens,* Berliner Musik-Studien 19 (Sinzig: Studio Verlag, 2001), 26–29. Stumpf was contacted by Max Friedländer to help Schünemann escape frontline duty. Paul Bekker wrote Schünemann a year later that "perhaps coincidence has led you to an area in which you can make a very special contribution."

101 Thanks are due to Dr. Susanne Ziegler of the *Phonogrammarchiv* at the Ethnological Museum in Berlin for providing a list of Schünemann's recordings as well as access to the notes he made on each of the camp visits. Doegen's itinerary is preserved in the *Lautabteilung Aufnahme-Journal* (3 vols.) in the *Lautarchiv* at the Humboldt University in Berlin. Thanks to archivist Jürgen Mahrenholz for his assistance.

102 Georg Schünemann, *Das Lied der deutschen Kolonisten in Russland: Mit 434 in deutschen Kriegsgefangenenlagern gesammelten Liedern,* Sammelbände für vergleichende Musikwissenschaft 3 (Munich: Drei Masken Verlag, 1923).

103 Georg Schünemann, "Kasantatarische Lieder," *Archiv für Musikwissenschaft* 1, no. 4 (1919): 499–515.

peoples and earlier stages of Western music were not necessarily, in his view, proof of a universal line of development. Similar musical figures might have developed out of completely different preceding types, for different reasons, so that it was necessary to understand each music in its own right and not as a step on an evolutionary ladder.[104] After this interlude working for the commission, Schünemann returned to his emphasis on Western music and became the acting director of the conservatory *(Hochschule für Musik)* in Berlin.

Doegen himself, who traveled in his capacity as technical director to every recording site, accompanied by the scholar whose "peoples" were being recorded as well as a technician who operated the gramophone, visited thirty-two different camps from December 1915 to December 1918, some of them several times.[105] A total of about 1,650 recordings were made for the Phonographic Commission, which had its offices in a spare room in the university's Art History Department chaired by Adolph Goldschmidt.[106] The Art History Department also provided the services of their photographer, who traveled with the commission to the POW camps to take pictures of the prisoners participating in the recording sessions as well as other scenes in the camps.[107] The photographs were not attached to the files documenting each recording, and it appears that, after

104 See Schünemann's response to Lach's evolutionary thinking on music in *Das Lied der deutschen Kolonisten*, 29. See also Georg Schünemann, "Über die Beziehungen der vergleichenden Musikwissenschaft zur Musikgeschichte," *Archiv für Musikwissenschaft* 2, no. 2 (1919/20): 175–194.

105 As a result of his many visits to many different camps, the *Reichswehr* Ministry later asked Doegen to write a book reporting on the treatment of POWs in German camps during the war. Doegen jumped at the opportunity to perform this patriotic duty, finishing his *Kriegsgefangene Völker: Der Kriegsgefangenen Haltung und Schicksal in Deutschland* (Berlin: Verlag für Politik und Wirtschaft, 1921) before completing work on *Unter fremden Völkern*.

106 This is mentioned by Adolph Goldschmidt in his memoirs. Idem, *Lebenserinnerungen*, ed. Marie Roosen-Runge-Mollwo (Berlin: Deutscher Verlag für Kunstwissenschaft, 1989), 186. On Goldschmidt's own experiences visiting the POW camps, see also the article by Margaret Olin in this volume.

107 It is not clear whether photos were actually made of every single prisoner who was audio-recorded. Doegen does not mention this in *Unter fremden Völkern*, and in *Kriegsgefangene Völker* he notes only that photographs were made in the camps with the aid of Goldschmidt's photographer. As Goldschmidt recounts it, photographs were apparently only to be made of the more "exotic" ethnicities; when he visited the camp in Dürotz, he remarks that it was mostly filled with French, English, and Russian soldiers, so "there were relatively few photographs made of races (Basques and Cheremis [Mari]), and thus relatively many made instead of all kinds of other scenes and also interiors" (Goldschmidt, *Lebenserinnerungen*, 187), whereas the visit to the Muslim camp in Zossen provided "more opportunities to make photographs of [racial] types" (ibid., 188–189).

Figure 1. Wilhelm Doegen stands to the right of a Gurkha prisoner speaking into the horn of the gramophone. Behind the partition, the technician operates the recording device. To the left of the prisoner is Heinrich Lüders, professor of ancient Indian languages and literature, member of the Academy of Sciences in Berlin. Source: Wilhelm Doegen, Jahrbuch des Lautwesens 1931 *(Berlin: Lehner, 1930), 33.*

the war, they were more or less scattered among the former members of the commission, kept as Doegen's personal possessions, or simply lost. Very few are left in the *Lautarchiv*, but they, like the ones printed in Doegen's book, show that they were taken in the anthropological style, with a frontal and a profile view, underlining the commission's understanding of its task as a broad comparative ethnological study which encompassed language and race.

Though Doegen did record some instrumental music and, more often, folk songs, the majority of the recordings were of spoken language. To ensure the highest recording quality possible, a studio environment had to be created in each camp. A room was chosen—often one connected with the cultural program offered the prisoners in the camp, a reading room, theater barracks, or chapel; sometimes the common room for the officers running the camp was the site chosen to set up the equipment and bring in the prisoners selected to speak or sing for the German scientists.[108] The performer stood before the gramophone's horn, which was mounted into a partitioning board, behind which the techni-

108 The rooms in which the recordings were made in each camp are noted in the *Lautabteilung Aufnahme-Journal*.

cian operated the recording device itself, thus isolating the speaker from the recording equipment (Figure 1). For each of the recordings, a file was created containing a data sheet on the prisoner whose voice was recorded, the text of what each prisoner was asked to read out in his own dialect or language, followed by a phonetic rendition of the text based on the recording, and often a German translation of the text. A common method of linguists in the field was to have different language or dialect groups read out the same text, so that a direct comparison could be made. In the camps, the Christian parable of the prodigal son was used for many of the recordings from the European prisoners.

The recordings and their transcriptions served as the basis for publications which some of the linguists of the commission produced during the interwar years.[109] As Pöch had already noted, a written transcript of exactly what was on the recording was considered indispensible for the scientific usage of the recordings. With the Edison technology, it was no problem to create this transcript after the fact, allowing the informants to improvise during their performance. Later, as we saw, Pöch had informants write down and read out their own texts. With Doegen's gramophone recording, however, any divergence from the text the informants had been instructed to read was seen as a disturbance and cause for considerable irritation. Brandl's account suggests that, in order to avoid this problem, the texts were practiced by the informants several times in advance, making the recording even more a staged performance and far less the fixation of "natural speech" which the technology was supposed to provide.[110]

The scholarly commission had authority over Doegen, whom they considered to be in charge only of the logistics of the enterprise. The truly scientific work, in their view, was their own, the working up of the data gathered in the camps. This was also somewhat hindered by the gramophone technology. Because the researchers could not listen to the recordings directly after they were made in the camps, they were required to wait until the shellac records had been manufactured. In practice, it appears that they relied as much on their own notebooks as on the recordings, if not more so.[111] Furthermore, the working relationship between Doegen and the university scholars, in particular the chairman Carl Stumpf, can only be described as tense. Doegen apparently felt

109 See the series *Lautbibliothek: Phonetische Platten und Umschriften* published by the *Lautabteilung* of the *Preußische Staatsbibliothek*, the interwar successor institution to the Prussian Phonographic Commission and the *Lautarchiv*. The pamphlets in the series appeared at irregular intervals from 1926 to 1952. Many publications based on research done in the camps were most likely published elsewhere, possibly without specific reference to the origin of the material presented.

110 Alois Brandl, "Der Anglist bei den Engländern," in Doegen, *Unter fremden Völkern*, 362–383, esp. 366–367.

111 See the remarks in the essays in Doegen, *Unter fremden Völkern*.

himself to be the real initiator and genius behind the POW-camp enterprise and resented the condescending attitude of some of the university professors. On the other hand, many of the letters from the scholars involved reveal that they were annoyed by Doegen's overweening attitude, leading Luschan to recommend to his researchers to plan their stays in the various camps such that they would *avoid* running into Doegen and his team.[112]

Thus, neither the musicologist Schünemann nor the linguists worked under the auspices of an anthropologist, as in the Vienna case. Whereas Pöch and, under his influence, to a certain extent Lach, attempted to recreate a sort of fieldwork environment by actually living in the camps for several weeks in a row, focusing on the non-European informants, and recording and transcribing with their help, Doegen's commission recreated a recording studio environment. Their data-gathering plan was not an extension of a preexisting fieldwork paradigm, but entirely dependent on the camp environment and the fact of the proximity of the informants from the outset. Doegen and his team descended upon a camp only for the day or two necessary to make the recordings. While attempting to create an aura of scientific and anthropological rigor, including the filling out of data sheets and taking frontal and profile photographs of each informant, their style of work was so anathema to the anthropologist's methodology that Luschan collaborated with the rest of the commission as little as possible. Doegen's choice of title for his postwar publication showcasing the commission's work, "Among Foreign Peoples," claimed to be "A New Ethnology" in the subtitle, but this was not a result of intense interdisciplinary cooperation with anthropologists.

It might have had more to do with a shift in the focus of linguistic studies. As in musicology, the methods of the natural sciences had been gaining prestige in linguistics for some time prior to World War I. The dominant school, known as the *Junggrammatik* [Neogrammarians], had reformed linguistic study along more empirical lines since the mid-nineteenth century and oriented comparative linguistics toward the search for universal laws of language. Since the late nineteenth century, an "antipositivist" and "idealist" opposition to this school had been forming which sought to associate the study of language more closely with the study of national character.[113] The ethnicized society of the POW camp lent itself to this latter option, leading Doegen to appropriate

112 See the correspondence between Luschan and his doctoral student, Egon von Eickstedt, in Staatsbibliothek zu Berlin, Handschriftenabteilung, Nachlaß Felix von Luschan, Korrespondenzmappe Eickstedt, in particular the letters and postcards from the camp in Ohrdruf in March of 1916, in which Doegen's behavior toward the camp commanders is described.

113 On this development in particular and how it developed over the course of the Third Reich in Germany, see Knobloch, *Volkhafte Sprachforschung*.

anthropological terminology ("race," "ethnology") and symbols (frontal and profile photographs of informants) without so much as lip service to the liberal paradigm to which anthropologists were still, for the most part, obliged and which made clear distinctions between race and language, between physical and cultural attributes. The "understanding among peoples" *[Völkerverständigung]* which Doegen claimed his project would promote,[114] consisted for him, it seems, in essentializing their differences rather than seeking their commonalities, a confrontational model that reflected the conflict surrounding them.

Conclusion

The introduction of the phonograph into the study of music made possible the establishment of ethnomusicology as a field in which music was examined as an object of scientific analysis rather than aesthetic appreciation. The comparative method associated with this kind of musical science—as it was practiced, by and large an inductive method—required large amounts of data from diverse areas of the world. The POW camps seemed to provide the ideal source for this kind of data right at the beginning of the endeavor to build up archival collections, not only because of the diversity of individuals incarcerated there, but also because of the controlled and controllable setting, which the scientists compared to a "laboratory," further underscoring the natural-science approach. This setting was also attractive to linguists interested in building up archives of spoken language which, like music, could then be transcribed and used for study, comparison, performance, or teaching, or simply preserved for future generations interested in observing changes in language over time. This combination of scientific interest and "salvage mentality," like the evolutionary theory which underpinned it, were legacies of the late nineteenth century. The POW-camp setting appeared at first glance to facilitate and optimize the conditions this kind of science required. The universalist option of the evolutionary paradigm, however, was severely undermined in the camp setting, leading scientists away from a comparative method which sought similarities and toward one which desired to explicate and reify differences.

The recording technology promised—like photography and film—to capture performances "as they actually were" without any shaping or rendering by the data-gatherer. This conformed to an ideal of the inductive method from natural sciences which promised a high level of objectivity. However, in the camps, the sheer amount of potential data that scientists could have gathered forced them to select their informants, not only based on preconceived ideal types, but also based on the imperatives of recording quality. As the need for

114 Doegen, *Unter fremden Völkern*, 9.

archivable material gained more weight than the desire for participation by informants in the creation of the data, the device placed itself more and more firmly between the scientist and the informant, culminating in the partition set up in front of the gramophone. Not only the space of the POW camp itself, but also the archive indirectly impinged upon the data-gathering process, as did the technology which framed every recording as a performance.

It is striking how much and yet how little came from the POW-camp projects in the scholarly fields involved in them. On the one hand, many doctoral theses, scientific articles, and a few books emerged from the masses of data gathered in the camps. Several careers were made because of the POW-camp studies. But they do not appear to have brought, in any field, the kind of breakthrough that the scientists had assumed in the beginning that such an opportunity would provide. The comparative method, so highly lauded by many scientists of culture as the royal path to forming general laws about all of humanity, did not rise to this task in the setting of the POW camps, but rather succumbed to the pressures of its ethnicizing milieu, generating knowledge about human diversity, about essential differences. In the end, much of the data gathered there languished in the Viennese and Berlin Phonographic Archives for decades, unused by anyone for scholarly purposes. Whether this was because the personnel necessary to work up the vast amounts of material could not feasibly be mobilized, or because research questions and methods had shifted over time, making the data less useful or interesting, the point remains that the POW-camp project was, in the final analysis, a project of collection and preservation, an archival project. As such, it may yet have purposes to serve in the present and future.