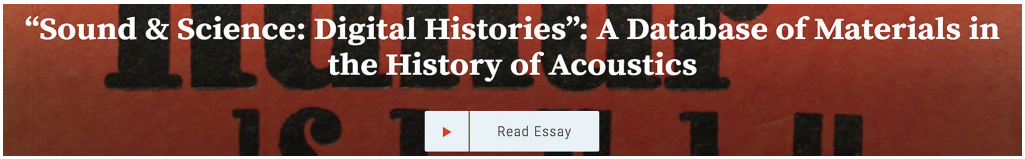
Research Topics

MAX PLANCK INSTITUTE FOR THE HISTORY OF SCIENCE

SEPTEMBER 2018



"Sound & Science: Digital Histories": A Database of Materials in the History of Acoustics

By Joeri Bruyninckx, Fanny Gribenski, Xiaochang Li, and Viktoria Tkaczyk

The Max Planck Institute for the History of Science (MPIWG) has launched its database "Sound & Science: Digital Histories," an initiative of the Research Group "Epistemes of Modern Acoustics." The resource provides unprecedented access to sources in the history of acoustics, including a multimedia archive of primary source material, documentation of surviving technology, and historical reenactments of experiments in acoustics.

Berlin saw the establishment, between 1900 and 1930, of several institutions that interacted with each other through a novel interest in acoustics. The electrical engineering company Siemens & Halske flourished, building the "Siemensstadt" settlement in Berlin's northern district of Charlottenburg, and Carl Lindström AG, headquartered in the Kreuzberg district, developed a global market for gramophone technology. At the same time, Carl Stumpf's Institute for Psychology, with its focus on tone psychology, expanded from its tiny university venue in Dorotheenstrasse to a large-scale research center in the Berlin City Palace. During World War I, Stumpf and the phonetician Wilhelm Doegen also founded the Royal Prussian Phonographic Commission to record the languages and music of "colonial" prisoners of war interned near Berlin. This opportunistic research initiative during the Weimar Republic eventually led to the formation of two sound archives: the Berlin Phonogram Archive and the Lautabteilung ("sound department") of the Prussian State Library. Later, during the 1920s, Berlin also witnessed the creation of an experimental radio laboratory—the Rundfunkversuchsstelle—at the Academy of Music, supervised by an advisory board with representatives of the Imperial Post Department, the Heinrich Hertz Institute for Research on Oscillation, and the two Berlin radio stations Deutsche Welle and

Berliner Funk-Stunde. Bound by politics, industry, science, art, and technology as these endeavors all were, they facilitated the formation of long-lived infrastructures, technological heritage, and entire research fields—including electroacoustics, experimental phonetics, linguistics, phoniatrics, language studies, musicology, radio studies, bioacoustics, and tone psychology.

The Max Planck Institute for the History of Science's new sound database "Sound & Science: Digital Histories"—the fruit of archival research and conceptual work by the Max Planck Research Group "Epistemes of Modern Acoustics" —aims at disentangling these complex institutional networks. Research projects within the group trace the genealogy of acoustic knowledge throughout the modern era, charting the making of the discipline of acoustics and exploring the historical conditions that allowed acoustic knowledge to be turned into scientific knowledge—and back into the practices of musicians, architects, engineers, or everyday listeners. They unpick sonic strategies of knowledge production in various scientific and humanistic disciplines, strategies—sometimes manifest, but often implicit—that have previously been largely overlooked by historians of science.

Connected to these research themes, the "Sound & Science" database, currently in its beta version, provides valuable access to a diverse range of sources in the history of acoustics—many of them previously unavailable in digital format. The resource includes a multimedia archive of primary source material, documentation of surviving technology, and historical reenactments of crucial experiments in acoustics. Visualization tools open up large-scale and longue durée views on the history of sound and science, allowing users to explore and assemble material in unprecedented ways. The database includes sound files, texts, and images, which can be browsed using a full-text search function or via curated collections, or can be viewed on a map. Examples include curated collections "Carl Stumpf's experimental records" or the "Cornell University Laboratory of Ornithology's Recordings of Birdsongs." Go to the map, fo-

Fig. 1: Object "Versuchswalze," from the curated collection "Carl Stumpf's experimental records" (URL: acoustics.mpiwg-berlin.mpg.de/audio/experimental-record-carl-stumpf-versuchswalze).

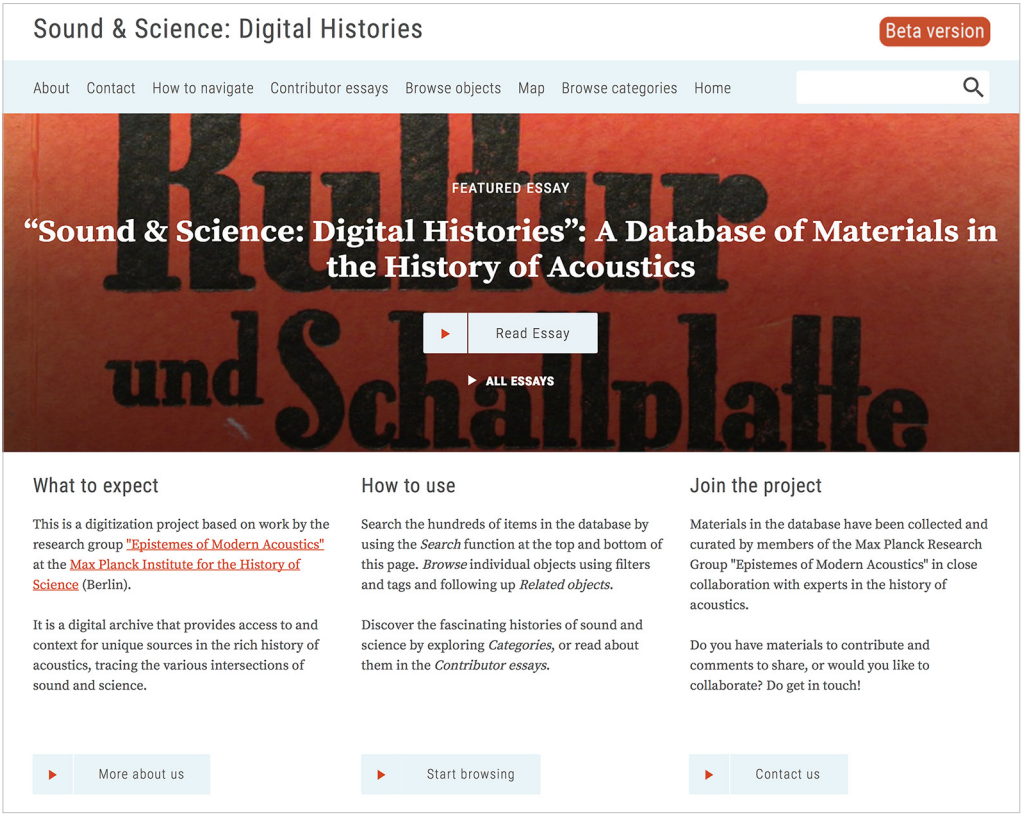


Fig. 2: Home page of the newly launched database “Sound & Science: Digital Histories” (URL: acoustics.mpiwg-berlin.mpg.de).

cus on “Berlin,” narrow the slider to “1900–1930,” and you will find primary sources on the local network of institutions described above.

Additional analysis tools of the database reflect the variety of people, places, scientific disciplines, practical fields, technologies, building materials, and theoretical topics that have shaped acoustic history. Its tagging system connects all holdings that—for example—mention technologies such as “tuning forks” or “sirens,” materials such as “metal” or “wood,” or topics like “speech/voice” or “noise.” These instruments, all equipped with short explanatory textboxes, are anticipated to turn the database into a research tool in its own right, aiding scholars in the identification of new connections and sites of inquiry.

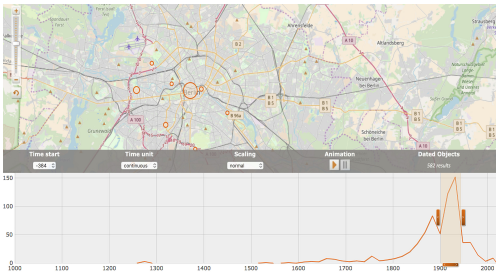


Fig. 3: Map showing a search result.

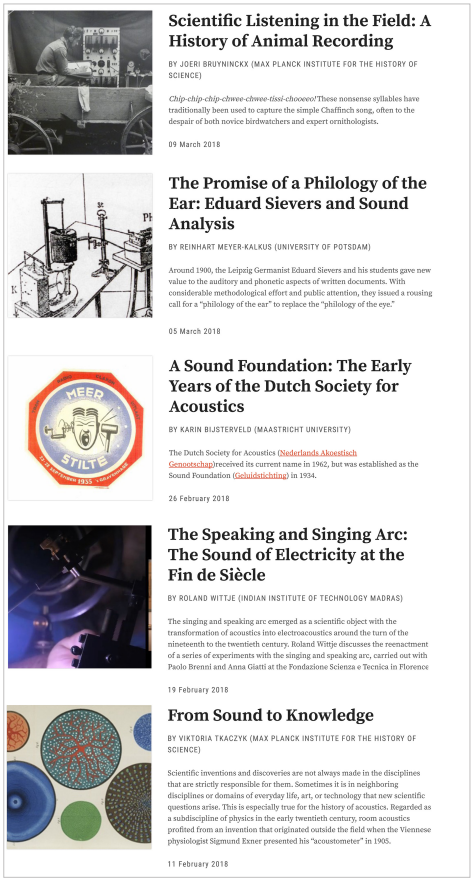


Fig. 4: Collection of contributor essays (URL: acoustics.mpiwg-berlin.mpg.de/contributor-essays).

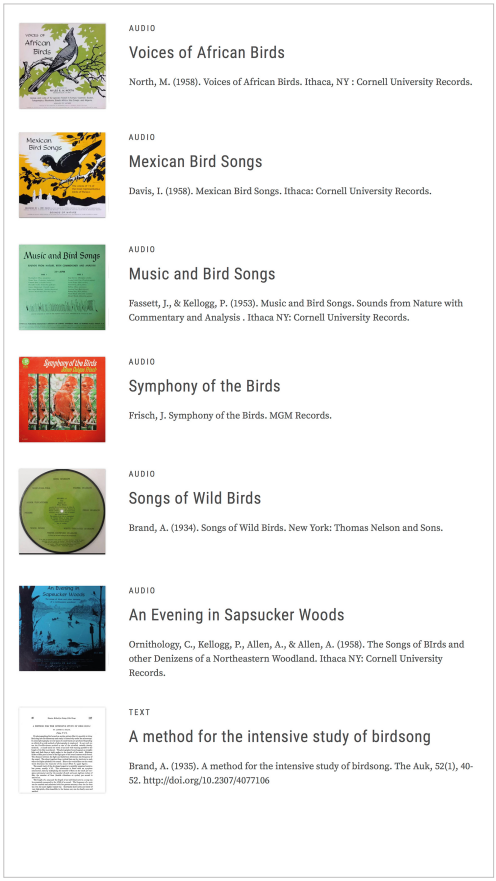


Fig. 5: Collection of material related to the keyword "Bird Song" (URL: acoustics.mpiwg-berlin.mpg.de/browse-objects?fulltext=Bird+Song).

Joeri Bruyninckx, Fanny Gribenski, and Xiaochang Li (officeacoustics@mpiwg-berlin.mpg.de) are researchers in the Max Planck Research Group "Epistemes of Modern Acoustics," led by Viktoria Tkaczyk.

The full version of this feature and more research topics are accessible on the Institute's website ("/researchtopics").

MAX PLANCK INSTITUTE FOR THE HISTORY OF SCIENCE
Boltzmannstraße 22, 14195 Berlin, Phone (+4930) 22667–0, www.mpiwg-berlin.mpg.de