



Hochschule der Künste Bern
Haute école des arts de Berne
Bern Academy of the Arts



THE UNIVERSITY OF
SYDNEY



Global Piano Roll Meeting

Prelude #11

Online

6 December 2025, 21:00 (CET)

[Check for your own timezone](#)



Program

Saturday, 6 December 2025

Zoom-Link after [free registration](#)

21:00 (Bern, CET) [20:00 (London, GMT), 12:00 (San Francisco, PST), 07:00 (Sydney, AEDT)]

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21:00 **Welcome**

21:10 Hermann Gottschewski, Tokyo

Statistical Analysis of Welte-Mignon Roll Copies: Distinguishing Types of Punchings Across Periods and Locations

This presentation examines technical features of Welte-Mignon roll copies identified through a statistical analysis of all "raw MIDI files" published at *supra.stanford.edu*. I began this investigation after observing that different copies of the same recording often show notable deviations – particularly when punched at different times. These differences appear, at least in part, to reflect repeated, deliberate revisions of the rolls' musical effect. Regardless of whether such revisions brought the rolls closer to or farther from the pianist's original performance, they must be considered if we wish to treat the rolls as historical documents. Consequently, one of the first steps toward a source-critical study of Welte-Mignon rolls should be determining the time (and place) of punching.

Many Welte-Mignon roll copies bear a handwritten or stamped date – likely the "control date" before sale – at the end of the roll, but a substantial number do not. Thus, the rolls can be divided into those with known and those with unknown production dates. My current research aims to infer the dating of undated rolls by identifying characteristic features from those with known dates.

While certain visual features – such as paper color, label design, or hole size – offer additional clues (to be discussed on another occasion), this presentation focuses on features not readily observable to the eye or through simple measurement, but revealed in the structure of the raw MIDI data. These files record the beginning and end of every single hole in the roll. Using statistical methods, I analyze subtle fluctuations in the perforation patterns of sustained tones. Although these minute variations are irrelevant for playback, they carry information about the punching machines and methods used to produce the rolls. Ultimately, such fluctuations provide insights into when and where the rolls were punched.

Hermann Gottschewski studied piano, musicology, mathematics and Japanese studies in Freiburg (Germany) and achieved his doctoral degree with

a dissertation on Welte Mignon piano rolls from the Freiburg collection, published in 1996 as [Die Interpretation als Kunstwerk](#). In the first part of the book he investigated technical questions, for instance the necessary paper speed acceleration for an authentic reproduction of Welte recordings and the occurrence of and reasons for an editing of tones after recording, and in the second part he developed a theory of musical timing and a practical method for an analysis of timing through graphical representations. New ways to understand and create musical timing is also the central theme in his [compositions for machines and human players](#) and in his own performance practice. So composition, performance and analysis of performances form a triangle where new questions arise and new ideas mutually fertilize each other. Recently Gottschewski is interested in the part that editors took in creating the piano roll as an art work, especially in concern to the dynamics control. Here for the first time in history the profession of an "editor of recorded music", a job that is called "Tonmeister" today, came about. Gottschewski is Professor of Musicology at the Graduate school of Arts and Sciences, the University of Tokyo, since 2004, and he teaches also regular courses at the Tokyo University of the Arts and the Open University of Japan.

21:40 Artis Wodehouse

Gershwin Unknown – The Unreleased Piano Rolls

Between 1916 and 1925 George Gershwin made roughly 140 piano rolls. Most were 88-note, non-expression rolls, though toward the end of Gershwin's roll recording career a small number of his renditions were captured using the Duo Art and Welte systems.

Over the course of the vinyl and CD era, audio recordings of a select few of Gershwin's rolls were recorded and commercially sold. However, the most prominent of these was Nonesuch's 1993-95 2-CD release of 27 Gershwin piano rolls. I initiated and was an active participant in the project, overseeing all aspects but most significantly, serving as pianolist for those of Gershwin's 88-note rolls that required expression for a musicalized performance. My pianolized renditions were captured using a 1918 Aeolian pianola vorsetzer that was mated to a Disklavier. The Nonesuch production also featured roll scanning and pioneering Duo-Art emulations in the MIDI realm created by Richard Tonnesen and Richard Brandle.

At the time of the Nonesuch recording were made, I recorded 68 Gershwin rolls. These I culled from the 140 for their notable musical and historical value. I specifically asked that all 68 be recorded, and my request was written into my Nonesuch contract at the time. However, the company has not issued any of the remaining 41 despite repeated requests in recent years that they do so.

Thus, in 2018 I decided to re-record the remaining 41 (they were in my

personal collection) plus several other of Gershwin's rolls with high musical and historic value that had surfaced since the 1990s. I decided, however, to return to the original type of roll-playing instrument that Gershwin himself would have been familiar with, and acquired a fully restored 1912 Bush & Lane 88-note player piano for that purpose. During the summer of 2018 I pianolized over 50 of Gershwin's rolls on the Bush & Lane player piano in a resonant acoustic environment using professional audio engineers. These historic piano roll recordings — sitting in the can — are awaiting an appropriate method of distribution.

My Zoom presentation will feature samples from these recordings and possible live renditions of same using my Bush & Lane player.

Pianist, harmoniumist, pianolist and MIDI editor **Artis Wodehouse** has devoted her career to preserving and disseminating neglected but valuable music and instruments from the past, with an emphasis on American music. Cited by the *NYTimes* as “savior of the old and neglected”, she received a USA National Endowment grant that propelled her into production of CDs and published transcriptions of recorded performances and piano rolls made by George Gershwin, Jelly Roll Morton and Zez Confrey. Her 1993-95 “Gershwin Plays Gershwin” on the Nonesuch label has sold over 500,000 copies. Beginning in 2000, Wodehouse began performing on a representative group of antique reed organs and harmoniums and two antique pianos she had restored to concert condition. She has developed an extensive [footprint on YouTube](#) that features her live and studio performances, as well as interviews and tutorials. Wodehouse presented American music for the reed organ at the International Harmonium Festivals in Bern, Switzerland and Cremona, Italy. Her academic print essays and papers can be read [online](#).

22:10 News and updates from the roll community

22:30 End of the Meeting