Conference Report
The Keyboard as a Musical Interface: Materiality, Experience, Idiom
Deutsches Museum, Munich, Germany 12-13 January 2018

In the second weekend of January, a diverse group of scholars and practitioners came together for a conference exploring the myriad models, meanings, and manifestations of that most iconic of musical interfaces: the keyboard. Over the course of a stimulating and productive two-day conference, a lively conversation unfolded among musicologists, organologists, instrument makers, and performers from across Europe and North America, under the auspices of the Deutsches Museum in Munich. The museum, as curator Silke Berdux reminded the delegates in her tour of the vast musical instrument collection, was born of a singular idea: to showcase ‘masterpieces of science and technology.’ In 1903, the year of the Deutsches Museum’s founding, this was a rather unusual mission statement. Museums, after all, tend to evolve in the service of precious objects already in possession. Nonetheless, in their bid to acquire some of the most technologically innovative musical instruments, the original curators at the Deutsches Museum came up with a ‘wish list’ in which the keyboard featured prominently. Since the acquisition of a Jankó keyboard, one of its first instruments, in 1906, the collection has grown to encompass more than 1800 instruments, 200 musical automata, 3000 piano rolls, and the first of its kind Siemens-Ton-Studio—all of which raise new and intriguing questions about the richness and possibilities of the keyboard.

The museum was thus the perfect venue for the conference The Keyboard as a Musical Interface: Materiality, Experience, Idiom, the brainchild of Leon Chisholm and Katharina Preller. Chisholm and Preller are members of the research group The Materiality of Musical Instruments: New Approaches to the Cultural History of Organology. Led by Rebecca Wolf and supported by the Leibniz Association, the group aims to expand the bounds of traditional organology to encompass the social, cultural, historical, and aesthetic dimensions of musical instruments in dialogue with their material and mechanical bases. In that vein, the conference explored how the interface of the keyboard imports a musical perspective into not only various aspects of music-making and conceptualizations of music, but, moreover, everyday life, from calculating the shopping bill to playing video games to typing a letter. As Chisholm discussed in his introductory remarks, the keyboard’s iconic status—and its unmistakable black-and-white appearance—is practically metonymic for Western music writ large, but especially the classicism of the First Viennese School. Yet the keyboard is also the product of a feedback loop, where the concept of idiom is both the outcome of the embodied negotiation of the material constraints and affordances of the interface, and the regulator of material change, ensured through its establishment of ‘rules of engagement’.

Such rules permeate all the way down to even the smallest of bit components. Building on his application of the concepts of the digital and the analog to theories of musical play, Roger Moseley (Cornell University), the first of two keynote speakers, explored the potential of ‘aliasing’ as a critical lens onto Romantic piano aesthetics and practices. In the realm of visual projection, Moseley explained, aliasing is a process whereby pixels are eliminated in the reconstruction of a signal transmitted across resolutions or formats. At the piano, similar choices must be made, as the ‘gridwork’ of the keyboard enforces a binary logic onto musical ideas. For Moseley, the chromaticism, tactility, and programmatic evocations of Chopin’s piano music exemplify the ambiguity and misidentification brought forth by aliasing, a concept that sheds new light on the tension, engendered by the keyboard, between discrete input devices and continuous musical output.

Another small component—this time of the body—is the primary agent in this negotiation of the interface: the finger. The relationship between the finger and the key was illuminated in a presentation by Franz Körndle (University of Augsburg), who tracked historical usages of the term ‘clavis’ (key) in connection with organs from the 11th to the 18th century. The label, Körndle argued, indexes shifts in keyboard
conventions and understandings of the body-keyboard relationship. Similarly, reading Girolamo Diruta’s *Il Transilvano* (1593) through the lens of David Sudnow’s theory of embodied improvisation, Massimiliano Guido (University of Pavia), highlighted the ways in which historical keyboards dictate fingering patterns and digital (i.e. ‘of the finger’) practices. Variability in key size and distribution of keys across the console, Guido showed, can be mapped onto styles and aesthetics of improvisation.

Throughout history, the musical negotiation of the keyboard—and the keyboard’s reciprocal negotiation of music—has prompted the reimagination of the keyboard configuration. Such novel adaptations were the subject of presentations by Johannes Keller and Martin Kirnbauer (Schola Cantorum Basiliensis) and Daniel Walden (Harvard University). After Kirnbauer’s exploration of keyboards with split or additional keys, Keller brought his experience as a performer to the discussion, describing—and demonstrating—the relative ease with which he has adapted to the enharmonic keyboard. Walden, on the other hand, invoked the idea of ‘defamiliarization’ to describe the affective quality of just-intonation instruments created by Tanaka Shôhei, whose subversion of sensory expectations served an acoustical, pedagogical, and nationalist agenda.

All keyboards—be they expressly enhanced or simplified, bespoke or factory-manufactured—generate specific modes of bodily engagement. But some keyboards really are one of a kind. For example, James Davies (University of California, Berkeley) discussed the environmental and ideological implications of the modifications made to a piano destined for the equatorial rainforest: a Gaveau piano lined with zinc presented by the Paris Bach Society in 1913 to the humanitarian and Bach scholar Albert Schweitzer. Some modifications embed themselves, spawning a long and persistent lineage: on the evening of the first day, the delegates were treated to a performance by Christopher Hammer on the Steinway-Helmholtz piano, a particular highlight of the Deutsches Museum’s collection. As Preller explained in her introduction to the instrument, this was one of the first Steinways to include the duplex scale—what would become the standard design for the piano manufacturers—and was presented to Helmholtz as a gift—which he gave away 17 years later having received his second of what would become a total of three Steinway gifts in the coming years!

The keyboard is tenacious, remaining stubbornly ingrained even as its influence is rejected. Ralph Whyte (Columbia University) introduced the conference delegates to Mary Hallock Greenewalt and Thomas Wilfred, pioneers of light-producing instruments, which, despite the removal of their original keyboard interfaces, struggled to shed the designation of ‘color organ’. But the idea of the keyboard might be easily mistaken as self-sustaining, the physical endurance of keyboard instruments relies on the unwavering diligence of documentation and conservation, and continued performance. Pessimistic about the future of historical instruments—due to global warming, the rise of populism, and technological advancements rendering traditional instruments obsolete—Laurence Libin (Metropolitan Museum of Art, New York) called for a reinvigoration of the language of organology. If reconstructions of lost instruments are to recreate the historical experience of the performer, it is necessary, Libin propounded, to enrich our vocabularies to capture the ‘feel’ of the instrument. More optimistically, Catalina Vicens (Leiden University), Winold van der Putten (Orgelmakerij van der Putten) and Jankees Braaksma (Ensemble Super Librum) demonstrated the important role iconography can play in the (re)construction of historical instruments, through an ‘experimental account’ of a newly-constructed version of the Ghent Altarpiece organ (1432) built by van der Putten and a team of researchers.

While the classical piano might be (and often is) perceived as a ‘black box’, the harpsichord, as Walden pointed out, is more amenable, more susceptible, to situated influence and exchange. So too the organ. In her discussion and performance, Vicens drew our attention to the dynamism of the organ—the expressive potential of the bellows, the lack of uniformity across key mechanisms, and, in the case of the Ghent
Altarpiece organ, the affective quality imbued in the black keys through their physical separation from the diatonic keys. Although, as Tiffany Ng (University of Michigan) discussed, the image of the organ propagates the idea of ‘efficient human control of maximalized parameters’, and thus, appeals to various militaristic settings, the organ, in fact, engenders both collaborative and individualistic modes of interaction simultaneously. Hans Fidom, the chair of the Organ Studies program at the Vrije Universiteit Amsterdam and the conference’s second keynote speaker, foregrounded the organ as a site of music-making and nuanced musicianship, where the organist and calcant work together to ensure an evenness of wind pressure and tone; where the instrument maker expands the timbral capacities of the instrument with more stops and by diversifying the materials used for the pipes; where the composer can imagine new hyper-organs, which bring together the dynamic flexibility of pre-Renaissance organs and the aesthetic possibilities of the digital realm. For Fidom, the organ is an instrument of potentialities, generated through its inherent contradictions—fixity and dynamism, sacred and secular, collaboration and individualism, analog and digital.

In a concluding fishbowl conversation (imagine four participants in the middle of a room of spectators, who can swap into the conversation at any time, but by doing so, push one of the speakers out), the pervasive challenges of the conference topic were thrown into relief. Most fundamentally perhaps is the surface or aesthetic incompatibility between a systematized input device and what has, for much of its documented history, been understood as an ineffable expression of emotion. In other words, a certain incompatibility between the keyboard and its own music. The reconciliation of this encounter lies with the performer; but as they strive to mediate, their actions are simultaneously determined from both sides. While Keller emphasized the creative productivity engendered by the limitations of the keyboard—limitations, as Kirnbauer pointed out, that have ensured its persistent use as a training instrument in schools—Walden and Guido argued against the hegemony of the keyboard and for the authority of the performer and instrument maker. For Vicens, there must always be a balance, between the restrictions of the instrument and the control of the performer, while Davies removed the performer from the equation altogether, replacing subjective action and experience with the pre-determining power of materials. Berdux emphasized the role played by societal context in sculpting the nature of one’s relationship with a keyboard, citing the domestic setting of the eighteenth-century female pianist as a paradigmatic example. For the conference organizers, the context of keyboard negotiation must always be musical, the qualifier ‘musical’ in the conference’s title betraying their ultimate ambition: to conceptualize all keyboards as fundamentally musical devices.

The conference was brought to a close with a carillon recital by Tiffany Ng. By Ng’s own declaration, the interface of the carillon is especially indifferent to its operator and its music. The pervasive indifference of the keyboard broadly conceived is the quality, which, according to Moseley, makes it well-suited to a vast range of music and music-making settings; the indifference of the carillon, though, has marginalized its cultural function, limiting its reach to church and college settings. Ng’s short program, therefore, consisted primarily of commissions, by female composers, made with a view to expanding the diversity and representation of carillon repertory: materiality, experience, idiom in action. As the conference delegates shivered in the square of the Mariahilfkirke, the peals of the carillon echoed through and around them, uniting them with the invisible performer and her keyboard at the top of the bell tower, and I was struck once again by the nature of the keyboard’s presence. For the keyboard is so ubiquitious as to be simultaneously hypervisible and overlooked, a default and an anomaly. It was a useful reminder that our understanding of the keyboard, seemingly so robust (in that the very idea of it can stand in for the entire history of Western music), is deeply contingent. In its function as an intermediary between performer, listener, composer, instrument-maker, and musicologist, the keyboard remakes history with every performance.

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