The Deaf Composer and His Broadwood: A Working Relationship

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When it comes to Beethoven, deafness is a subject we deftly tiptoe around, as though the ripples it caused did not affect every aspect of his creative activity. Everybody knows Beethoven was deaf—although ideas about when he became deaf and to what degree vary widely. It is generally understood that he stopped playing the piano in public for this reason during the last part of his life. But the relationship of his deafness to his work as a composer has not been widely explored. Thus, my path to writing the book to which Tom Beghin alludes in his Foreword was wide open.[1] I recall our conversation in Waco in the fall of 2014 as a turning point in my own research as well.

Like most people, I had assumed that if Beethoven really did prefer his Broadwood to the Viennese pianos he was accustomed to, it was because the Broadwood had a bigger sound and was easier for him to hear, or at least to imagine hearing. Tom pointed out that the clear, articulate sound of those Viennese pianos would actually have been far easier for someone with hearing loss to

1. See *Beethoven Composing Deafly: A History and Memoir* (working title, subject to change) (Chicago: University of Chicago Press, forthcoming).

hear and understand. What must have intrigued Beethoven about the Broadwood was the tactile experience of playing an instrument with deeper, more resistant keys and a frame that vibrated in tandem with the instrument's sound board, bringing the entire instrument to life beneath his fingers. This confirmed a hunch I had already begun to develop: that everything having to do with touch became more, not less, important to Beethoven as his hearing declined. This was why he spent more time than ever sketching and revising as he grew more deaf. The physical process of putting pen and pencil to paper was not just a way of recording ideas that originated in his mind; it was a way of creating them. So, too, was the process of playing at an instrument to which his entire body was responsive, even as his ears increasingly failed him.

While researching my book, I became convinced that Beethoven began to compensate for his hearing loss, perhaps unconsciously, in his early twenties, years before it is usually assumed to have begun. Many people who gradually lose their hearing begin to read lips and use other visual cues to aid in understanding before they realize they are doing so; my late wife, Barbara, was a perfect example. She was not aware of how much hearing she had lost until she got a hearing aid and realized what she had been missing. Before that she had unconsciously made up for much of the deficiency by reading lips. Beethoven had begun to sketch in an unusually systematic way by the early 1790s, and he carried his sketchbooks around with him for the rest of his life. They clearly served him as a visual repository of ideas that he could draw on at will, but I theorize that they began as visual reinforcement to

his ears: a stratagem that paradoxically allowed him to ignore and then minimize his growing deafness.

Beethoven also developed close physical relationships with the pianos he owned. When he acquired a French Erard piano in 1803, its fuller sonorities and coloristic possibilities, including the availability of multiple pedals, spawned some of his best known works, including the "Waldstein" Piano Sonata and the Fourth Piano Concerto, both of which exploit these qualities to the fullest. Beethoven did not envision an ideal piano sound; he responded directly and immediately to the pianos at his disposal.

When Beethoven unpacked his Broadwood in late spring 1818, he was at a crucial stage in his progressive hearing loss. The previous year friends had begun to communicate with him in writing; he was not yet carrying conversation books around with him, although he would begin doing so sporadically later that year. He was still using ear trumpets, although their usefulness, which was initially much greater than has often been suggested, was starting to decline.[2] He had not played in public in three years, but he would continue to do so in private up to the end of his life. Someone encountering him today would probably describe him as extremely hard of hearing, not deaf.

He was also at work on what would be by far his largest piano

2. See my discussion of my personal experience with Beethoven's ear trumpets in *Beethoven Composing Deafly* (working title), chapter 5. See also Heft 2 of Theodore Albrecht's forthcoming edition of Beethoven's conversation books, covering mid-March through mid-May 1819; Albrecht states that "The chronological gaps evident in this Heft [notebook] suggest strongly that Beethoven was not yet dependent upon the conversation books, even in public, to carry on business and social interactions." Theodore Albrecht, trans. and ed., *Beethoven's Conversation Books*, 12 vols. (Martlesham, Suffolk: Boydell and Brewer, forthcoming).

sonata, the dauntingly named “Hammerklavier,” Opus 106. (The fact that the more gentle Opus 101 was originally also described as “für das Hammer-Klavier” is usually forgotten.) The new instrument arrived just as he was preparing to embark on a formidable technical challenge: composing an enormous fugue that would form a satisfying conclusion to a sonata whose first three movements already ran for at least thirty minutes, more than half of that time taken up by the enormous slow movement he was in the process of completing.

In the popular imagination, Beethoven’s working method in his later years consisted of writing things down on paper that he heard in his head. In fact, as Tom argues in the essay that follows this one, the fugue of the “Hammerklavier” proves the exact opposite: that he continued to work at the piano and was affected by its limitations. From the very beginning of the improvisatory introduction that precedes the fugue, Beethoven restricted himself to the six-octave compass of the Broadwood, which did not go above c^4.[3] The first three movements, which all take advantage of the extra half-octave available on contemporary Viennese pianos, could not be played on the Broadwood. Beethoven does not seem to have cared; what mattered was the music he was working on at the time and the instrument currently at his disposal.

So he quickly launched into the fugue of the “Hammerklavier”—one of the most technically demanding pieces ever written for the piano, with the assistance of his new instrument. It was, as

3. These essays adopt a Helmholtz-like pitch notation: CC refers to the lowest key of the Broadwood, and c^4 to its highest, with middle C corresponding to c^1.

Tom has argued, a somewhat unfulfilling relationship.[4] The fugue is a technical tour de force, featuring a long and unwieldy subject that begins with a large jump and a trill, followed by vigorous 32nd-note runs that go on for nine full measures before the first imitation begins. One senses that Beethoven was more interested in exploiting every nuance of this material than in finding out what his new piano could do. The latter challenge would have to wait until he began work on the Diabelli Variations, Opus 120, the following year. These, along with the last five bagatelles of Opus 119, those of Opus 126, and the last three piano sonatas, were the terrain in which he let the Broadwood reveal its voice, simultaneously adjusting himself to the instrument's unique qualities.

The Diabelli Variations present a confusing case because Beethoven began composing them in 1819, before beginning work on Opus 109, then he set them aside for several years and only completed them in 1823, after finishing Opus 111. Because the variations written later are interspersed throughout the set (the first two variations were written later, for example), it is difficult to listen to the work as a record of Beethoven's growing understanding of his new instrument.[5]

Nevertheless, it seems providential that Beethoven received Diabelli's waltz in early 1819, shortly after completing the "Hammerklavier." The 32-measure snippet on which he wrote the variations, which Beethoven is said to have initially dismissed as a "Schusterfleck," or cobbler's patch, begins with a melody that takes shape

4. Tom Beghin, "Beethoven's Hammerklavier Sonata, Opus 106: Legend, Difficulty, and the Gift of a Broadwood Piano," *Keyboard Perspectives* 7 (2014), 81–121 (esp. 114–19.)
5. The most authoritative study of the variations, including the order of their composition, is William Kinderman, *Beethoven's Diabelli Variations* (Oxford: Clarendon, 1987).

simultaneously in the right and left hands, and thus spans a range of three and a half octaves in the first eight measures alone. Its second half concludes with a passage in contrary motion that at its most extreme spans four and a half octaves, with a nearly three-octave gap between the highest note in the left hand and the lowest one in the right. Beethoven must have realized that this unusual theme gave him unique opportunities to experiment with registral contrasts and unique textural effects: to put his new instrument through the paces. The variations contain one piece after another in which he does exactly that, showing that the feel of the keyboard was now at least as important to him as the sound it produced.

Thus, by the time Beethoven began work on Opus 109 in the spring of 1820, he had considerably more practical experience with the way the Broadwood responded to his touch than he did when he wrote the finale of the "Hammerklavier." He seems to announce this at the very beginning of Opus 109, which commences not with a theme but with a harp-like prelude, as Adolf Bernhard Marx immediately recognized,[6] followed by a contrasting section in which Beethoven moves repeatedly from one end of the keyboard to the other and back again. A familiar criticism of Beethoven's published works, dating back to his middle period, was that they frequently sounded like written-down improvisations. Here Beethoven seems to be thumbing his nose at such criticisms, not just imitating a harp prelude but preluding at the piano—the word was synonymous with improvising—in this

6. Adolf Bernhard Marx, "Recensionen. Sonate für das Pianoforte componiert etc. von L. v. Beethoven. Opus 109. Berlin bei A. M. Schlesinger. Pr. 1 Thlr.," *Berliner allgemeine musikalische Zeitung* 1 (February 4, 1824): 37–38.

opening movement, showing his listeners that the new instrument was capable of extreme contrasts of range, rapid filigree, powerful full sonorities supported by the bass, and delicate fading ones in the extreme upper register, all within the space of a few minutes. “My fingers know this instrument,” he proclaims. “Hear what it can do.” After writing twenty-three Diabelli Variations, he is confident that his touch will yield effects to which a hearing audience can respond.

As Tilman Skowroneck’s painstaking research has made clear, it was just before he began work on the variation movement that concludes this sonata that Beethoven received his Broadwood back from Matthäus Andreas (“André”) Stein, to whom he had relinquished it during the summer of 1820 for installation of the final version of the hearing machine—the large resonator that Stein designed in order to improve Beethoven’s experience of the instrument.[7] As the other essays in this booklet show, it was while composing this movement that Beethoven seems to have become newly and directly attuned to the way the instrument could vibrate throughout its frame in a way that Viennese instruments could not. It is hard to resist the conclusion that the hearing machine, though designed to help Beethoven hear, helped him feel things more acutely as well. Touch had now become his primary vehicle for interacting with his instrument, and underneath the hearing machine the Broadwood’s deep keys and responsive frame became an echo chamber in which that experience was intensified.

7. See Tilman Skowroneck, “A Brit in Vienna: Beethoven’s Broadwood Piano,” *Keyboard Perspectives* 5 (2012): 41–82 (esp. 53–60).

By the time he began writing Opus 110 in 1821, though, it is entirely possible that Beethoven's hearing had slightly improved as well, after several months of experimenting with the new device and its possibilities. I witnessed this kind of improvement with Barbara. After she suddenly lost all but a tiny amount of residual hearing, she was able to improve her understanding of speech dramatically by practicing extensively with a pocket talker, a hand-held amplification device that fed into headphones, binding speaker and listener together much as Beethoven was bound to his piano and amplifier. The benefit she received was not simply intellectual. A test in a soundproof booth after she had used the pocket talker for several months confirmed that she was able to hear and identify phonemes that were inaudible to her before. Although the process is not fully understood, it appears that the hearing centers in her brain rewired themselves in order to make better and more effective use of the data they were receiving from her ears. It is easy to imagine something similar happening with Beethoven as he worked "inside the hearing machine."

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In any case, Opus 110 begins with the kind of sustained melody with simple harmonic accompaniment that Beethoven must have yearned to coax out of his still-new instrument. He pursues this lyrical bent throughout the sonata, whose emotional high point is an arioso (so marked by Beethoven himself) and variation consisting of sustained notes over a throbbing series of chords, the top notes of which are sometimes more than three octaves below the melody, and whose bass notes create measures that span most of the keyboard. There is no precedent for this in any earlier Beethoven sonata; Beethoven must have been responding to the unique sonic,

vibrational environment that the Broadwood and the hearing machine created.

Then after the variation and before the inverted repeat of the fugue that separates it from the initial arioso, Beethoven comes to a pause on a G-major chord that he repeats ten times, with only small changes in voicing, the damper and una corda pedals both held down, a steady crescendo rising to an unspecified dynamic high point. Beethoven is apparently experimenting to see how loud he has to play in order to hear himself, and he is doing so, as Tom has pointed out, in the harmonically resonant key of G Major, which had purer intervals than the tonic A-flat in the well-tempered tuning systems of Beethoven's time.

Like Opus 109, Opus 110 is also full of imitations of the harp. They follow immediately after the opening melody in the first movement, and they permeate the final fugal section and bring the piece to its powerful conclusion. A. B. Marx, ever the astute critic, recognized these harp-like passages immediately, just as he did in Opus 109.[8] Beethoven is still preluding powerfully at this sonata's conclusion.

In his final sonata, Opus 111, Beethoven then did something entirely characteristic: he turned to a sketchbook that was more than twenty years old—part of the personal, inviolable treasure trove of ideas that he had carried from residence to residence for the previous two decades—and extracted a theme.[9] That theme

8. Adolf Bernhard Marx, "Recensionen. Sonate für das Pianoforte von Ludwig von [sic] Beethoven, 110tes Werk. Bei Schlesinger in Berlin. 1 Thlr. 4 Gr.," *Berliner allgemeine musikalische Zeitung* 1 (March 10, 1824), 87–90.
9. Lewis Lockwood, *Beethoven: The Music and the Life* (New York: W. W. Norton, 2003), 389.

then worked its way from top to the bottom of the Broadwood's keyboard in a frenetic, quasi-fugal first movement. Beethoven had done this before, returning to material he had drafted years earlier as though reaching into a cellar of aged wines and extracting one that was now fully ready for his sensitive palate to enjoy. This time, though, he became intoxicated on the results, plunging repeatedly from one end of the keyboard to another within mere measures and cavorting with frenetic runs and sequences that hardly stop through 142 measures of *Allegro con brio ed appassionato.* Tom calls this a return to the rambunctiousness of the Opus 106 fugue—which also has a logical explanation in Beethoven's deafness.

Short, memorable motives like the one Beethoven used in the first movement of Opus 111 are found throughout the music he wrote from his late twenties on. In its most famous instances, like the Fifth Symphony, Beethoven's motivic obsessiveness is considered a defining feature of his style. His reliance on a decades-old sketchbook, though, shows that it was something more: it was a result of his having kept a visual file of his best, most pithy ideas handy for years. Having reached back in time for a visual record of an idea, he then let that idea—in this case, the three-note motive on which the theme centers—take over his field of vision, making the manuscript of the first movement of Opus 111 its written apotheosis. Meanwhile, since the theme also contained scurrying runs, he scurried with all his might across the Broadwood's full compass. Then he turned his full attention back to the instrument to conjure up the contrasting sonic world of the last movement.

That world is foreshadowed by the concluding chord of the first movement, which ranges from the lowest note on the Broadwood to the C five octaves higher. The movement that follows contains many fascinating sounds and textures, but I want to focus on just one: the pulsating bass triplets that fill the first sections of the fourth (double) variation, punctuated only by sporadic, off-beat chords in the right hand. Coming after the frenetic activity of what is often called the "jazz variation" (No. 3), these are moments of profound calm. The *sempre pp* marking, though, makes it unlikely that Beethoven ever heard these notes, or even felt their vibrations. It was simply the feeling of his fingers on the Broadwood's deep keys, undulating back and forth, that stimulated his imagination here. Intriguingly, he returned to this effect for a few measures of his final bagatelle, Opus 126, No. 6: the very last thing he ever wrote for piano. Beethoven seems to have been determined to leave his touch on these final works. That touch was a response to the Broadwood's touch; composer and instrument had become one.

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