

The Adagio of Beethoven's Hammerklavier Sonata when understood as a Ballade

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Introduction¹ to the Hammerklavier

Known by the somewhat harsh-sounding nickname *The Hammerklavier*, this piano sonata is arguably the most important one out of Beethoven's last four great works in this genre². It was composed between 1817 and 1818, when Ludwig van Beethoven (1770 – 1827) was already profoundly deaf, and he himself considered it to be his “greatest sonata”.

The great first movement has all the attributes of a piano concerto, minus the orchestra³. Beethoven, probably influenced by his inability to actually hear it, has specified an impossibly fast tempo, and some pianists insist on playing it this way, thereby making the movement sound angry and downright ugly (and usually being very proud and self righteous about it)..

The brief second movement consists of playful variations on the first two bars of the first movement. When played lightly, it can sound like a somewhat irritating folk dance.

The final, fourth movement is the famous, extremely difficult fugue. It starts with an elaborate, lovely introduction that has been compared to a depiction of a “birth of the counterpoint”, in a style marked by the “gigantism” of the 9th symphony. The fugue itself is breathtaking, but it confirms the difficulties Beethoven was always having with fugues. He was aware of this, he had a very high opinion of Bach's counterpoint and he tried several times to master the idiom, but he was never able (or willing) to overcome the tortured nature of his own fugues. And after all the fireworks, the ending of the fugue, i.e. the ending of the sonata itself, is disappointingly, even painfully old-fashioned.

1 I strongly suggest to ignore the footnotes until second reading (if any) of the essay.

2 These last four Beethoven piano sonatas also include his last Sonata No. 32 Op. 111 so eloquently described by Thomas Mann in his *Doktor Faustus*. A whole chapter in the book describes an imaginary lecture on : “*Why Beethoven has not written a 3rd movement to Op. 111*”. It is an unforgettable *tour de force* in musical aesthetics by the famous humanist (and Literature Nobel Prize winner). I have read the whole book twice, but this chapter alone at least twenty times ... Very strongly recommended to everyone really interested in Music.

3 Some misguided (and misguiding) critics (including Friedrich Nietzsche!) have claimed that the Sonata should in fact have been a Symphony. I cannot resist quoting Nietzsche *in toto*:

“*In the lives of great artists, there are unfortunate contingencies which, for example, force the painter to sketch his most significant picture as only a fleeting thought, or which forced Beethoven to leave us only the unsatisfying piano reduction of a symphony in certain great piano sonatas (the great B flat major). In such cases, the artist coming after should try to correct the great men's lives after the fact; for example, a master of all orchestral effects would do so by restoring to life the symphony that had suffered an apparent pianistic death.*”

And the Sonata has indeed been orchestrated – with what I believe has been a disastrous result. This is an inherently *pianistic* piece!!!

The Adagio as a Ballade

It is in the huge, slow (Adagio) 3rd movement where the greatness of this work lies. In the form⁴ and spirit of a ballade reminiscent of the famous four ballades of Chopin, it is written with a remarkable inventiveness, consistency and attention to the smallest details. The Adagio would greatly benefit from being performed as an independent concert piece – it surely is long enough - in fact longer than any of the famous four Chopin ballades. Technically, movements 1, 2 and 4 are written in B^b major, but the Adagio stands out, somewhat awkwardly, in f[#] minor. Also, to perform all four movements takes 40 – 60 minutes, which many listeners find excessive⁵. But most importantly: as great as the rest of the Sonata is, the Adagio deserves to be heard and appreciated as a unique, self-contained, deeply spiritual experience⁶.

However, most pianists perform the Adagio in a thoroughly depressing way. Some have written that the piece “*represents the mausoleum of humanity's deepest sorrows*”, or “*the apotheosis of pain, of that deep sorrow for which there is no remedy, and which finds expression not in passionate outpourings, but in the immeasurable stillness of utter woe*”, etc. Accordingly, usually it is being played much too slow, milking every phrase and micromanaging the rubato in much too short segments, as well as exaggerating the pianissimo⁷. The inevitable result is the feeling that the piece is too long – at places one even feels impatient for the music to stop already :-)

In my opinion, the main aspect of the piece is not tragic despair, not wallowing in self-pity, but profound wisdom and kindness, taking leave of this life and preparing to meet one's maker, with music heavenly at places and not without humor at others. When interpreted properly, I believe the listener should wish “may this meditation go on for ever” ...

4 The most obvious formal similarity to Chopin's Ballades is the 6/8 meter ... The similarity in spirit is discussed below.

5 This is perhaps related to the otherwise inexplicable ambivalence of Beethoven himself towards the way the Sonata should / could be presented. In a letter written before the first performance of the Hammerklavier in London he writes: “*Should the sonata not be suitable for London, I could send another one; or you could also omit the Largo and begin straight away with the Fugue, which is the last movement; or you could use the first movement and then the Adagio, and then for the third movement the Scherzo, and omit entirely No. 4. Or you could take just the first movement and the Scherzo and let them form the whole sonata. I leave it to you to do as you think best.*”

6 In fact, in my lectures I first play an abridged version of the movements 1, 2 and 4. Then I say: “*Masterpieces, no doubt. But now comes the incredible ballade – otherworldly and deeply humanistic at the same time*” and I play the Adagio from the first note to the last.

7 Warning: a rant coming up: The exaggerated pianissimo is often accomplished by an artistically tasteless post-recording processing by the sound engineer. Sometimes it makes it impossible to listen to the recording at a single volume setting. Similar abuse of the possibilities provided by modern technology is the artificial enhancement of the solo instrument in a Concerto for piano, violin etc. The result is often a solo instrument with a faint sound of the orchestra in the background, quickly increased in volume when the soloist has a break. The balance of the composition is lost by spoon-feeding the listener.

Technically, there is in this piece an amazing anticipation of musical styles of periods yet to come – some passages might have been written by a Chopin, some others by Schumann. This was well expressed by Ted Libbey: "*An entire line of development in Romantic music - passing through Schubert, Chopin, Schumann, Brahms and even Liszt - springs from this music.*"

An overall and overwhelming aspect of the work is the truly “balladic”, narrative nature of the music. Neither Beethoven nor any subsequent editors have specified any “text” or a story, and will not do so either (with one exception, below). In general, leaving the specific details to the imagination of the listener is best. Even when the performer is not overdoing the doom and gloom criticised above, this is not a piece for an impatient person, and one must invest a great deal of empathy to fully appreciate the extraordinary beauty and complexity of this music. The modern ear, spoiled by the extravagant “special effects” in the music of a Wagner, Mahler or Stravinsky (or in Beethoven symphonies, for that matter) is forced here to rediscover the “complexity in simplicity”.

Everything of course depends on the way the performer hears[sic] the work. As mentioned above, the standard interpretation is a uniform gloom and sorrow lasting some 18 – 25[sic] minutes. My interpretation is very different. Because of my fateful encounter with the Dupuytren's contraction, my performance is just to show how I would play this if I could.

The Structure of the Adagio

To help the listener to appreciate the remarkable structure of this piece, I have produced a piano-roll-like display (see Appendix) of a version of the work simplified to make the structure intelligible without undue effort (and, it is hoped, without any prerequisites on the formal music education of the reader).

The four main, large parts are:

- 1) first exposition (bars 2 – 69; the extra bar 1 is very special; see below)
- 2) short interlude (bars 70 - 87)
- 3) a bar-by-bar reprise (bars 88 – 154) of the exposition with many “minor” (relatively speaking) and one major variations of the first one
- 4) A magnificent Coda (bars 155 – 187).

In the piano-roll printout, the order of the music follows the rows in the order of row 1,3,5,2,4,6. This means:

- row 1: 1) Exposition
- row 3: 2) Exposition continued
- row 5: 3) Interlude
- row 2: 4) Reprise
- row 4: 5) Reprise continued
- row 6: 6) Coda

This way, the Exposition and Reprise parts are comparable bar by bar, except for a single bar (# 38) in the Exposition that does not have an equivalent in the Reprise. The Interlude (row 5) and the Coda (row 6) are not directly related with each other.

Before going on a brief tour of the piece, we should mention its remarkable *harmonic* structure. It starts⁸ in f[#] (and therefore ends in F[#]) and in between we find ourselves in c[#], D, B^b, b, G, and many brief excursions to other keys. Again, very few if any other Beethoven Sonatas involve such a bewildering richness of modulations.

A Brief Tour of the Adagio

I mentioned above that the first two notes are special. They create an ambiguous introduction and, as the generally insufferable but at times great Donald Tovey writes, “*they leave it to the full chord [that follows] to reveal what they mean.*” and “*These 2 notes constitute one of the most profound thoughts in all music*”. It is interesting to note that this first bar has been a last-minute addition, sent via a messenger to the engraver just before the whole sonata was printed.

In any case, at bar 2 it all begins. In the first part of the Exposition, the Main Theme is presented in multiple forms. Immediately, I can hear Beethoven telling me the story of his life, with repeated sighs that go more intense as they repeat – a ballade indeed! The long structure in f-minor is twice interrupted (bars 15-15 and 22-23) by a brief detour into G-major, to a great effect.

This is followed, from the bar 27 on, by a most remarkable development. It starts as a simple or even a simplistic waltz, but when the second voice comes in, it sounds off beat, and when the real melody begins, it all becomes a sophisticated and emotional “valse noble and sentimental”. The runs in the upper register sound like Chopin (who is just 7 years old at the time ...). This is followed in bar 44 by another transition, this time to a passage of intense wisdom and reflection in the motive going back and forth between the deep bass and the soprano. The “duet” nature continues with a passage that is pretty to listen to as well as to look at (bars 52 - 56).

At bars 63 – 67 we come to music that is perhaps the most touching embodiment of the ballade form. Beethoven directly talks to the listener in a way that seems to call for lyrics, perhaps something like

*All right,
trust me
all will
be well*

*We should
go now
I hear
the bell.*

⁸ I use the convention that major chords are represented by upper case letters, minor chords by lower case. So “f[#]” means f-sharp minor, “B^b” means B-flat major etc.

The brief Interlude that follows is most remarkable for the passage that is again romantic, but in a different way from the previous Chopin anticipation, yet follows strict rules at the same time. At bar 77, the beginning of the Main Theme (bar 2) is quoted, but in the Major key. The effect (at least on me) is dramatic – I feel as if I suddenly came upon a mighty river in a sunny countryside. And then, for 10 consecutive bars the right hand proceeds in a descending sequence of nothing but thirty four(!) 3rds, Major and minor⁹. Such a sequence would run out of the range of the piano, so it is broken up by jumping into higher octaves at appropriate times. At the same time, the accompaniment by the left hand does something similar, but ascending instead of descending¹⁰.

One might expect that something dry and non-musical would emerge from such a mechanical procedure. But I said: Beethoven jumps at “appropriate times”, and those jumps are so appropriate that the resulting melody – starting from that sunny E^b Major(!) arpeggio - is beautiful, moving and most unusual for the period – it sounds almost like something by one of the modern Romantics.

But Beethoven is not quite finished with the 3rds – after a transition consisting of a single diminished seventh chord¹¹ (and therefore all minor thirds) there comes an uninterrupted sequence of the same thirds, all minor and fast, in one swing of down and then up (bar 87). So again: here is a sequence of basically just four notes (D, E#, G# and B), some 30 of them in total over two bars, and it is beautiful!

9 I am sure that Beethoven knew what happens when you run too many 3rds of the same kind in the same direction. There is some simple but an amusing math involved (as well as a lesson on tunings and temperaments) so I cannot resist assigning a little homework. Can you determine what happens (in terms of semitones and musical cents) when you start at a B and create from there a downward chain of 32 minor 3ds? And what happens you then continue by an upward string of 24 Major 3rds. Do the calculations both in the Equal Temperament (where it is easy and trivial) as well in the Just Tuning where a Major third corresponds to the ratio of frequencies of the top and bottom tone of $f_2/f_1 = 5/4$, and minor third has $f_2/f_1 = 6/5$. Recall the definition of musical cent = $1200 * \log_2(f_2/f_1) = 3986.31 * \log_{10}(f_2/f_1)$ (this means 12 semitones per octave, 100 cents per semitone).

There you have it: a good part of Physics of Music in one footnote :-)

Note: for the solution of this “Homework” please see footnote 13.

10 Notice the preparation/anticipation of the accompaniment by the last bar (#76) preceding the section starting in bar 77. Throughout the whole piece, the attention Beethoven devoted to even the slightest details is almost Bach-like. But as argued above, the piece covers a much larger period. As an example, note, in bar 156, the solemnly triumphant G Major chord accompanying the “main motif” (first occurring in f# minor in bar 2) . This magnificent moment has been prepared by the same combination at bar 69 (in D Major), at bar 73 (in C# Major), and at bar 154 (in b minor). Wagner, anyone?

11 Speaking of the diminished seventh chord: the harmony of the entire Adagio is practically built on it. The chord consists of a sequence of three minor 3^{rds} on top of each other, and I have counted no less than 94[sic] instances of its use in the Adagio. Technically, it is a dissonance (it contains not one but two different dissonant tritones) but to the modern ear used to the Tristan chord, Petrushka chord and even more dramatic sound effects of twenty's-century music, it sometimes sounds a little simplistic (Glenn Gould wrote some quite unpleasant comments on this issue). But Beethoven knew what he was doing. He is reported as saying: “.. the startling effects which many credit to the natural genius of the composer, are often achieved with the greatest ease by the correct use and resolution of the diminished seventh chord.”

When the smoke settles, the air clears suddenly and the Reprise of the Main Theme begins. And here we are – recalling Exodus 3:5 – entering the holy ground. The long exposition of the Main Theme is repeated, almost not recognizable but following the Theme (from bar 2 on) bar by bar, in variations of heavenly transparency¹². And quoting again from the same great book, it all comes to a “small, still voice” (1 Kings 19:12) in bars 100 – 101 corresponding to the first two-bar insert in the key of G in the Exposition (bars 14 - 15). This is a moment to be grateful for a gift to be able to hear and appreciate Music¹³.

Then the structure simplifies quite suddenly so that the melody becomes clearly audible, and the second version of the two-bar G Major sequence (bars 108 – 109, corresponding to 22 – 23 in the Exposition) is heartwarming or heartbreaking, depending on the mood I am in, and I am always struck by the similarity of the f[#] f[#]gg statement to a passage of Morten Lauridsen's (contemporary[sic] American composer) *O Magnum Mysterium*.

The variations in the rest of the Reprise (in respect to the Exposition) are less dramatic but still remarkable – it just takes repeated listening and perhaps inspection of the piano roll to appreciate the differences from the Exposition. The main new event is the beginning of the second version of the “waltz” at bar 113. It starts in a Major key rather than minor. Correspondingly I believe it should be played forte, and I even attempt a little bit of a pompous, circus-like verve. But this changes, suddenly, with a single change of a single note in the middle of the left hand accompaniment in the middle of bar 117. That changes the key from D Major to B minor, and gone is the circus-like verve. Instead there is a passionate song soaring above the valse-like accompaniment in the bass. Pure magic.

The sheer drama returns in the first 1/3 of bar 153 , with a false ending, in pianissimo. The abrupt, heroic “resuscitation” is brief, and the mood reverts instantly to abject resignation. However, in just a couple of bars, the abject resignation is replaced by a peaceful resignation – “it is all over, I am free and unafraid to go”. In bars 158 – 161, a shortened and determined reminder of the “wisdom” package (heard twice before) leads, in a dramatic transition, to the first instance of bell ringing¹⁴ (as in “for whom the bell

12 Every recording I heard plays this passage much too fast and mechanically, ignoring the admonishments of “esspressivo” and even “molto esspressivo” in the score.

13 And for those who might be interested in the math of tuning and temperament, here is the solution of the “assignment” from footnote 9: In 32 in Equal Temperament, minor 3rds correspond to $32 \cdot 3 = 96$ semitones = 8 octaves, and 24 Major 3rds span $24 \cdot 4 = 96$ semitones = 8 octaves again. So you end up at the note (B) where you started. But in the Just tuning, you overshoot by about 5 semitones going down and undershoot by about 3 semitones going up, and you end up at

$$3986.31 \log[(6/5)^{32} \text{ times } (4/5)^{24}] = 829 \text{ semitones}$$

i.e. approximately at the G above the original B. This illustrates that the microtuning issues are not limited to pianos, organs and other instruments with quantized pitches. It also shows that choral directors often need to exert some effort to keep the overall pitch from drifting when singing *a capella*.

14 As far as I know, this interpretation is novel. In my view, bars 162 – 165 prepare the final “bell ringing” at the very end (bars 184 – 187) . For what it is worth, I have not seen this concept anywhere else. And since I am at it: there are quite a few additional novel or unusual aspects of my interpretation: I have not seen anyone interpreting the Adagio as a ballade. I play the “Chopin-esque” passages slowly, the reprise of the Main Theme *very* slowly and deliberately etc. I point it out here in case some connoisseurs complain that I am “taking liberties”. Yes, I do, and I can do what I want because I am just a physicist, not a professional pianist. :-) but also :-(

tolls?) in bars 162 – 165. After a dramatic pause, another repeat of the Main Theme comes, this time in the form of a funeral march ending in a yet another fortissimo/pianissimo semi-coda. When *yet another* rendition of the Main Theme seems to begin at bar 181, one might think: this begins to be a little too much of a good thing. But no – this is just the final goodbye, with bells tolling at the end. I play the final arpeggio very slowly, emphasizing the 1st and the 5th notes (both are F[#] which are the tonic foundations) and play the final sixth note (a 5th above the tonic) to function as the final sound of the bell, leaving the whole resulting chord sound until it becomes inaudible.

Coda (of the Essay)

I discovered this *Adagio* rather late in life, but as they say – better late than never. For me, it now joins the Unfinished fugue from Bach's *Kunst der Fuge* at the very pinnacle of the accomplishments of the species of *Homo Sapiens*. And as Bach in *KdF*, Beethoven goes beyond Music in this piece, making us reflect on life and death, torment and peace, and sorrow and happiness.

