

Observations on tuning a fortepiano...

A string player friend of mine tells me that when he was a child his teacher always admonished him, "Remember, whatever virtues you may have as a player, if you don't play in tune, you have nothing." Similarly, Robert Winter, in his article on 19th-century pianos in the February 1984 number of *Early Music* reminds us that our enthusiasm for the sound of these earlier instruments may not be shared by the general public, "for whom out of tune is simply out of tune." I have been playing early pianos for about 15 years, and this means that I have been tuning them for the same length of time. I demand that my instruments always be in tune, even when I am practicing, because tuning is part of what I do. If in a concert, my scales are messy or my octaves sloppy, that seriously affects my performance: the same is true if my unisons are out of tune. When practicing I must be in tune just as when practicing I must play clean octaves. Thus I have probably had as much experience as anyone on this planet tuning fortepianos, since I have to practice my scales and octaves so much...

It has been my experience that different types of keyboard instruments require different tuning techniques; this has nothing to do with one's ear. In my early years of giving concerts, I would often allow the local tuner to tune the instrument; these were sometimes very experienced tuners of either modern pianos or harpsichords or both. I quickly abandoned this practice, as the results were often disastrous. Indeed, it took me several years to learn the following "tricks", and I believe they have served me well with all types of wooden-framed pianos, both originals and replicas. I will speak here uniquely of tuning techniques, neither of pitch nor temperament; there are many fine sources on those subjects, and they need not be gone into here.

There are only two basic aspects of tuning any keyboard instrument: making the strings go where you want them, and making them stay there. On a modern piano the first is made considerably easier by the fact that all the tension is supported by the iron frame; although a raising or lowering of $1/2$ step is not usually achieved in one tuning on a modern piano, the movement of the instrument is still considerably less than it would be on a harpsichord or a wooden-framed piano, where the tension is carried entirely by wood. Generally speaking, a fortepiano will be harder to lower in pitch than it will be to raise; I believe this to be due to the fact that as we lower the pitch we are allowing the wood to expand; it will then want to expand a bit further, and that will raise the pitch once again. I will however, presume that the reader keeps his instrument at a constant pitch, tuning it frequently from the same tuning fork. But those of us who take our instruments out to play concerts, or those of us (as many of us on the North American continent) who live in climes that can change humidity levels in the space of a few hours, know that our instruments can "move" even if they are never lifted off their legs. The kind of movement we generally encounter (except with brand new instruments) is a raise in the treble combined with a sinking of the bass, or vice-versa. My method of dealing with this phenomenon is the following:

Treat the instrument as roughly as possible; don't baby it. If the concert is in a hall with strong lights, and

if you have not been able to dissuade the management from using them, put the instrument under them several hours before. Then, when you arrive to tune, it should be quite out-of-tune. If the treble is high and the bass low (for example) set your bearing octave (for orientation—it might need a little correcting later) and then simply go through the treble and lower it, *at random*. This can be a one-to-two minute process; no checking of octaves or even of unisons. If the treble is high this means it has a *tendency* to go up. I will therefore want to tune it from slightly *below pitch* if I want it to stick. I have learned, over the years, to be more or less fearless in this pre-tuning process; I don't go more than $\frac{1}{4}$ step in the wrong direction, but it took me a long time to have the courage to go even so far. Then I go back and check or correct my bearing octave, and tune the piano normally. This pre-tuning step does not seem to be necessary for the lower register of the instrument, and I generally tune it last, contrary to what may tuners seem to prefer. I have found that it is the treble that usually causes the most trouble, regardless of which register is tuned first, and I like to have the time to go back and check it after I am finished with the whole instrument. I don't know, however, whether this is really preferable, or merely something to which I have become accustomed over the years. If the bass is high and the treble low, I will pull the treble up at random, somewhat higher than I will eventually want it.

The worst offender in the concert, however, is the out-of-tune unison, regardless of temperament. Even if the treble has gone a bit sharp, an out-of-tune unison is what strikes the ear most horribly. In-tune unisons must be considered the most important single criterion in tuning. Once again, the “merciless” treatment is necessary I hold the tuning wrench in my right hand and I strike the key with my left hand; thus I feel I tune *principally* with my left hand. I move the tuning pins with the wrench, while at the same time giving a very sharp blow to the key. The reason for this is that the string has to go around several bridge and nut pins; there is friction at these points, and strings do stretch to a certain extent. It is very important to *equalize* the tension at all points on the strings. Now a sharp blow (no sledge hammers please, but a good sharp jab), while excellent for the equalization of the tension, will generate too much extraneous noise for the ear to tune comfortably by, so I generally follow it by striking the key *mp* or *mf* for listening purposes. This can be done very rapidly, and does not involve a serious loss of time (we do want to tune as quickly as possible, of course). Finally, when I am completely finished, I check all octaves up and down the keyboard, play my favorite piece for checking the tuning (as every good piano tuner always did at our house when I was a boy), and then I go through the entire instrument again (mostly the upper half, actually) giving each note several sharp blows (harder than anything I might do in the concert). In past years, using this method I have rarely had to tune a unison during a concert. Interestingly enough, this final “pounding in” is recommended by Andreas Streicher in his directions for tuning in 1801. (*Kurze Bemerkungen über das Spielen, Stimmen und Erhalten der Fortepiano*; Andreas Streicher, Wien mit Albertischen Schriften, 1801. This work is now available in an English translation by Preethi da Silva from Early Music Reprints, Ann Arbor, Michigan.)

Malcolm Bilson
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