



A Work That Harnesses Nature's Harmonies Classical Music

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From would-be cultural pundits to desperate music marketers, nearly everyone in the arts grapples with the question: What is the next big thing? Looking back seldom provides answers. Where were the clues that might have predicted the shimmering brush strokes of Impressionism or the stark allure of atonality as composers transcended the habits of their time?

Yet it's hard to keep from guessing, and from noting when something sounds genuinely new. Michael Harrison's 90-minute "Revelation," which will be presented on February 10 by World Music Institute and Thomas Buckner in a performance at Merkin Concert Hall by pianist Joshua Pierce, is that sort of revolutionary work; it sounds as novel and astounding to our ears as "Prelude to the Afternoon of a Faun" must have to its first audiences.

Part of what makes it revolutionary is the way it looks to the past. For one thing, Mr. Harrison builds on a foundation of ancient tunings that have qualities radically different from those of our modern, equal-temperament system. Other musicians have turned to unequal tunings, especially for the performance of early music. But "Revelation" creates its entirely new world of musical expression by embracing possibilities in tunings that no early music practitioner would seek or even countenance.

The work truly expands the expressive range of the acoustic piano. At one performance of an earlier incarnation of this piece, I could hear high "ghost" tones floating high above rapidly drummed chord clusters in the bass end of the piano, as if a choir of angels had entered the space to sing along. The piano's sounds can also take on strange and wondrous properties, from bell-like or vaporous to fiercely explosive.

All this takes some explaining. Premodern musical tunings exploit the rich, magical consonance that results when the vibrations of two tones form certain simple ratios. To produce an octave, for example - the combination of a musical "Do" (as in "Do-Re-Mi") and the "Do" above it - the higher tone must vibrate twice as fast the lower one. More

harmonious combinations are reflected in other simple ratios, such as 3:2, 4:3, and 5:4, to form musical fifths, fourths, and major thirds, respectively.

In the natural world, the same simple harmonies are produced by every vibrating object. That is, in addition to the main, or fundamental, tone emanating from a string that has been set in motion by a bow or a pluck or a hammer strike, these and other "overtone" sound, no matter how faintly. Yet naturally resonant harmonies contain a paradox when applied to an instrument like the piano, which has inflexible, fixed pitches. They refuse to get along.

Tune the strings so that from any note you can find a partner that is a mathematically perfect fifth ("Do" to "Sol," say), and it will be impossible to find a mathematically pure major third (from "Do" to "Mi"). These limitations bring about sour-sounding clashes, referred to as "wolves" by early musicians because they reminded listeners of the howling of wild animals. Our modern way of tuning, equal temperament, works around this problem by adjusting the proportions of these harmonies - forcing their asymmetries into an agreeable coalition, like the pruned branches of a wild bonsai tree.

From its inception, many objected to this compromise, accusing it of having robbed music of its real power. Mr. Harrison, who has worked with pioneering microtonalist La Monte Young, as well as with Indian master musicians Pandit Pran Nath and Mashkoor Ali Khan, has resurrected the pure, "just" proportions of natural harmony.

Some of the marvelous effects occur because, in this tuning, the faint overtones of vibrating strings are free to reinforce one another, as they cannot do in equal temperament. But the composer has also done something thoroughly unique in welcoming the clashes that occur when those non-pruned tunings quarrel about what the pitch of the piano's "Do" or "Re" or "Mi" should actually be.

Mr. Harrison's aesthetic aim is to "emancipate" these clashes, in the way Arnold Schoenberg "emancipated" dissonance. The music can thus encompass a huge emotional range, sometimes serene and wondrous, at other moments brutal and penetrating. Near the end of its 90 minutes the piece builds to a shattering climax, after which silence suddenly seems more like a powerful, temporary coda than an end.

There will be noteworthy aspects to the execution of the piece. This music's intricate textures are impossible to elicit from a modern grand piano, and so Mr. Harrison has created an instrument called a "Harmonic Piano," replete with mechanisms for controlling the strings - and the tuning - that will be allowed to vibrate at any given moment.

And in Joshua Pierce, Mr. Harrison has found a wonderful collaborator - a Grammy-nominated pianist whose 35 recordings range from the Liszt, Brahms and Beethoven concertos to the music of John Cage, with whom he worked closely. In past performances, this virtuosic music and its interpreter were as one: by turns tender, fierce, thoughtful, and soaring. The achievement is worth experiencing.

