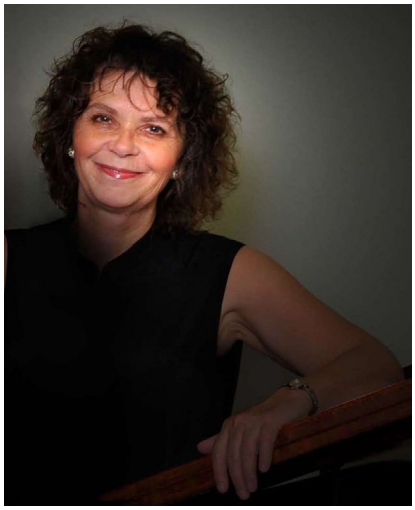
Oregon Musician

Sharing ideas about music and the teaching of music

Musical Thresholds

The Editor's Comments



About the Editor

Diane Baxter, pianist, educator and consultant, is the new editor of *Oregon Musician*. She is currently Professor of Music at Western Oregon University where she has received the *Faculty Honors Award for Outstanding Creativity* and the *Pastega Award for Excellence in Teaching*. Diane teaches studio piano and courses in Ethnomusicology, Performance Anxiety, and Research Methods. Off campus Diane consults and performs far and wide, often giving workshops on doing our best under pressure. "The Science of Artistry: The Fourth String" was published in *Clavier Companion* in Nov/Dec 2013. She lives, writes, plays and thinks in Brownsville, Oregon.

A threshold is a point of entering or of beginning. We cross literal thresholds, of course, when we enter spaces. To my mind, however, thresholds seem to go only one way: they take us in. I don't think of thresholds as exits. Perhaps this is because once we have entered a realm and experienced what it has to offer, we are no longer the same as we take our leave. In essence, thresholds represent continual entries, a continuum of becoming. Metaphorical thresholds lead us into music, poetry, painting, thinking, being. Sometimes we recognize that we have crossed a threshold after the fact. We look back and say "Oh yes, that's when things changed, all right".

I was talking with my brother-in-law recently, a retired aeronautics engineer who specialized in safety for new aircraft. We were in California, discussing this in temperatures well over 100 degrees. Somehow the notion of "critical field length" came up in our discussion about high temperatures and aircraft function. He used this term to represent how long the runway must be for any particular aircraft to have both a safe take-off AND a safe aborted flight if necessary (I've also seen the term "balanced field length"). I started thinking about this in terms of thresholds and creativity. If only we could recognize at the moment of accelerating into a project with all systems go that there is always enough space for the entire thing to just come to a halt! This might remove the notion of "failure"—if we could recognize that we can simply stop the process at a critical juncture, and no harm will be done. Maybe we would feel freer to enter into new territory, to cross new thresholds, if we lived with an internal "balanced field length".

In this edition, you will read the thoughts of several wonderful people. Jill Timmons speaks eloquently of being in the present moment as a performing artist, "existentially forever on the threshold of the future . . . I've thought a

lot about this concept of time and why music as a temporal art form is actually one of the few realms that offers us a creative experience in the space/time continuum that can never be duplicated. The paradoxical saying, 'there is no preparation for the concert', speaks to this. The performance is what it will be in that moment and then it is gone forever. Even a live recording is a facsimile. So through our creative, temporal activities in music we have the rare and precious opportunity to be fully engaged in the present moment, our continuously unfolding *threshold*."

Michael Coolen delves into some thought-provoking ideas around music and time. He writes, "Actually, I believe Time does not exist, other than that thing we measure with clocks. That's all it is. The word comes from the Latin word *tempus*, the origin of the English word "tempo." For us humans, Time consists of a multitude of different tempi; slow ones when we are suffering, stopped-time during the first blush of love, fast ones as our children grow and leave us, endless ones if we have to watch our child die. And all of this Time occurs in the context of the *aevum*, my favorite Latin word. It refers to the mean between what we think is Time and what we think is Eternity. *Aevum* could very well be a synonym for threshold."

Writer Henry Hughes contributes a fine essay on the complexity of music, acupuncture, and healing. There are many invisible "thresholds" in his retelling of the experience. He begins, "I turned up the car stereo, driving through the sprawl of East Portland toward the old College of Oriental Medicine with my friend, Lisa. She was battling cancer, and music sometimes cheered her up, it certainly helped palliate the atonal dirge of traffic and jackhammers, the wind whipping trash along the street. There's the environment, the body, and the mind's metaphoric connections. Then there was Lisa, looking out the window, softly singing to a Sarah McLachlan song as I pulled into the clinic's parking lot on Cherry Blossom Lane."

Thomas Enman understands what it takes to forge an artistic partnership with other musicians. His sensitivity is beautifully expressed. " As a voice coach, I am aware that every new singer who comes to me requires a new partnership, a new awareness, which requires that we cross the creative threshold together as a unique duo. Establishing a common vocabulary is paramount, since there are many terms used by singers and their teachers which are loaded with meaning and can be easily misunderstood. A primary example is the use of the words "open" and "closed". These can be applied to vowels or to vocal production, and it is essential that when I use these types of descriptive words the singer understands exactly what I mean. This takes time and is a threshold both of us must cross at the same time. Each new singer provides a new entry to a new language. While it is a challenge, it is the principal reason that coaching is so rewarding."

Daniel Immel provides a fascinating perspective on the development of "artleticism," the phenomenon of pianist-athletes, and the nearly inhuman demands placed on them in the 21st century. "Artleticism is redefining the 21st century artistic landscape," he

writes. He calls upon Bartók and his famous statement: *Competitions are for horses, not artists*. "The proliferation of piano competitions since Bartók's death has gone viral, as the 21st century musical milieu paints a horizon filled with an infinite number of unfathomably talented artists . . . The Hungarian composer notoriously refused to sit on any piano juries as a result of his personal creed. Bartók's prophecy proved to be a critical musical crossroads: at what point in time did "art" morph into athletics? Yet in 2018, the threshold of "artleticism" is not only recognized, it has long-replaced Bartók's invective. The days of score study and advancement of one's pianistic abilities for the pursuit of enjoyment and betterment has been superseded by a ferocious culture of competition, where only the superior athletes realize careers, prizes, and ultimately, the coveted recognition and acceptance by a closed-circle elite of legendary pedagogues and peers."

I hope you enjoy this edition of *The Oregon Musician*. As always, I welcome your feedback, your thoughts, your questions.

Diane Baxter, Editor
The Oregon Musician

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Musical Thresholds

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Music and Threshold

by Dr. Jill Timmons, NCTM

About the Author

Jill Timmons performs internationally as a solo and ensemble artist and has recorded on the Laurel, Centaur, and Capstone labels. With some thirty years in higher education, she continues to prepare pianists for competitive auditions and successful performances. Her best-selling career guidebook, *The Musician's Journey: Crafting Your Career Vision and Plan*, is published by Oxford University Press. Timmons is the artist/teacher affiliate with Classic Pianos at their flagship Portland store and in their satellite locations in Seattle, Denver, Cleveland, Anchorage, Las Vegas, and Albuquerque.

Through the very act of creation in music, whether it is performing, teaching, or composing, we are fundamentally brought to the present moment. And in fact this is a kind of "threshold." We are existentially forever on the threshold of the future. We move from one present moment to the next, neither trapped in the past nor breathless in a future that has yet to be. Of course the past and future *can* live vividly in our imagination but in reality, the only *time* we actually experience is the present moment. Far better minds than this writer have articulated the veracity of the present moment, that Zen experience that allows us to be fully alive with what is.

I've thought a lot about this concept of time and why music as a temporal art form is actually one of the few realms that offers us a creative experience in the space/time continuum that can never be duplicated. The paradoxical saying, "there is no preparation for the concert," speaks to this. The performance is what it will be in that moment and then it is gone forever. Even a live recording is a facsimile. So through our creative, temporal activities in music we have the rare and precious opportunity to be fully engaged in the present moment, our continuously unfolding *threshold*.

All of this is evident but in our current society, and particularly with our overscheduled, overstressed lives, we can often get stuck in ruminating over the past, or obsessing over future imaginary scenarios. Both of these perspectives prevent us from actually doing all that we are capable of in the present. When

we wander out of the present, essentially, nobody is really "home." We may be aimlessly picking over some slag pile of the past (usually its failures, disappointments, and the like), or worried about how to control future outcomes (which are always illusive).

I am firmly convinced that the successful management of one's life is in direct proportion to how fully one is involved in the present moment. This doesn't guarantee a stress-free journey, the elimination of disappointments, failures, or shortcomings. We are simply better equipped to navigate those rocky shoals and to produce our best work as musicians, thereby creating better "futures." The light's on and we are home.

Let's face it, if you are essentially "somewhere else," you can't wander happily into the right brain for inspiration, for a self-referenced non-linear journey into the creative act. Moreover, being absent from the present moment can create havoc in our lives. Just think back to a performance where your mind wandered. I rest my case. Everything is peachy as you soar through your Chopin Etude . . . then suddenly you start worrying about that treacherous spot on page 5—boom, out you go. If you are well prepared you may only lose a measure or so, but your composure and focus are another story.

As music educators we are frequently challenged with how well our students are able to focus. I have no statistical data on this but my experience confirms what I see today with many young players—often they have short attention spans, easily distracted minds, and the belief that they can multitask. To prove my point, I'll bring in the big guns. Dr. Earl Miller, a professor of neuroscience at the Picower Institute for Learning and Memory at MIT, breaks down why you shouldn't multitask. "Don't try to multitask. It ruins productivity, causes mistakes, and impedes creative thought. Many of you are probably thinking, 'but *I'm* good at it!' Sadly, that's an illusion. As humans, we have a very limited capacity for simultaneous thought—we can only hold a little bit of information in the mind at any single moment. Our brains, however, delude us into thinking we can do more. When we toggle between tasks, the process often feels seamless—but in reality, it requires a series of small shifts. Your brain has to expend valuable mental energy refocusing, backtracking, and fixing errors. Not only does this waste time, it decreases your ability to be creative. Innovative thinking, after all, comes from extended concentration, i.e. the ability to follow an idea of thought down a network of new paths. When you try to multitask, you typically don't get far enough down any road to stumble upon something original because you're constantly switching and backtracking."[1] Miller's narrative speaks eloquently as to how the brain works, and with a fully sustained focus in the present moment we have a chance at achieving our full potential as creative artists.

Understanding the power of Now (Eckhart Tolle's brilliant notion of the present moment)[2] requires an artful leap into application. I may very well grasp the theory of present time and its permanent threshold into the future, but *remaining* in the moment is quite another story. The mind is squirrely and can easily wander into the weeds of past or future narratives. With my own work as a performing artist I have wrestled with focus for many years as I surf the temporal stream. But over time I came up with a simple yet

powerful tool to call me back into the present. It's counterintuitive but here it is: I focus in the moment of performance on playing the right notes. It's just that simple. This "sight point" quiets my mind and continually guides me in staying present to the music that is unfolding—I remain fully engaged in the music at hand. There is no room in my mind for distraction, random thoughts, images of some future that has yet to unfold, or regrets from past errors.

I have used this tool in my teaching as well. One common student response to this idea, however, is that somehow by focusing on "the right notes," we will no longer be paying attention to such things as: phrasing, musicality, dynamics, tempo changes, articulations, pedaling, etc. But this doesn't hold water since in preparation for a performance we have vetted the music with countless hours of practice. In entering into the performance we presumably know what we want to do and how we are going to do it, and we have drilled in that detail and fluency. If we actually have to focus on managing all the elements of a performance, it may well be premature to walk on stage.

Two components support a fine performance. The first is preparation. Without it, nothing can be achieved in the way of fluency and command. As one of my former teachers reminded all his students repeatedly, you have to know the music! The second is what I call "availability of self." This is being fully engaged in the present moment to bring your thorough preparation forward. These two components work hand in hand and are non-negotiable.

There is much to ponder about the present moment, this Now that is so precious, this timeless *threshold*. I encourage you to exam your own relationship with the present. It can be a kind of awakening and gateway into a richer more creative life. It is, after all, the only time we actually have. In closing, I'll leave you with one of my favorite Zen phrases from Alan Watts:

This is the real secret of life—to be completely
engaged with what you are doing in the here and now.
And instead of calling it work, realize it is play.

[1] Earl Miller, December 8, 2016. Fortune, Tools of the Trade
http://fortune.com/2016/12/07/why-you-shouldnt-multitask/

[2] Tolle, Eckhart. *The Power of Now.* Vancouver, BC: Namaste Pub, 2004.

The Pattern Which Connects: The Inner Worlds of Music and Mathematics

by Michael Coolen

About Michael

Michael Coolen is a pianist, composer, actor, performance artist, and writer living in Oregon. He taught in the Music Department at Oregon State University for thirty two years. He's a published composer, with works performed around the world, including at Carnegie Hall, New England Conservatory of Music, Museum of Modern Art, and the Christie Gallery. In addition to three Fulbright Fellowships and four National Endowment for the Humanities Fellowships, he has won awards from the Oregon Poetry Association and the Oregon Writers Colony. His essay "Let Me Tell You How My Father Died" was awarded first prize in the 2017 national "Ageless Authors" competition. He's been published in dozens of journals and online publications.

What pattern connects the crab to the lobster and the orchid to the primrose and all the four of them to me? And me to you? And all the six of us to the amoeba in one direction and to the backward schizophrenic in another? What is the pattern which connects all the living creatures?

—From Gregory Bateson's book
Mind and Nature

In the beginning, at the threshold of the universe and all its life, was a tone . . . and probably a rhythm, too, but I think the tone came first. Way back, before time, before there was a once upon a time, back when the Big Overture began with the Big Tone. It was a big, multi-octave D flat, up and down and around the overtone series. The Mother of all D flats. The Big Overture began with a Big D flat as the tonic. It was the D flat from hell, and from heaven as well.

I first thought about the D flat in the 1960s, when I read about it in high school. Two scientists earned a Nobel Prize in physics for isolating and explaining the background

radiation that still resonates in the universe. After I read about it, I whipped out my slide rule, did some calculations and determined that if the frequency of that background radiation was converted into a musical pitch, it would be a D flat. Now it's true I was a better musician than mathematician, and for all I knew, it could have been a C sharp. But I doubt it, because a C sharp isn't quite as evocative. It was a D flat.

During my career as an ethnomusicologist, I have studied, performed, and researched different kinds of music from around the world, concluding that the best way to understand music is to see it as a tool of sonic patterns designed to achieve some goal or goals. Consider lullabies, for example. The text is sung for the benefit of the parent, while the soft voice and rocking motion are designed to calm the baby. If the child understood the consequences of falling asleep in a tree whose branches break at the slightest breeze, sleep would be very slow in coming.

There is no end to examples that human beings have used, organizing sound (music) to celebrate, procreate, disseminate, inseminate, pollinate, sew, reap, go to war, proclaim peace, welcome the newly born and say farewell to the newly dead. In most cases, the human voice is central to that expression. Purely instrumental music is proportionally less common among cultures.

A common definition of music is "sound organized in time," though it could just as easily be defined as "time organized using sound." It has been suggested that the Western concept of linear time was invented by medieval musicians (studying the quadrivium at universities) who needed to develop a method of notation pitch, text, and duration so that several vocalists could read from the same score at the same time.

In addition to its functional applications, however, there are deeper connections between music and other forms of human expression. During the late 1990s as a Professor of Music at Oregon State University, I spent a lot of time with faculty from the Department of Mathematics who were also musicians. On three different occasions, at three different locations, months apart, I shared with three of them my definition of *music:* a five-letter word in the English language for a lot of different things that people do with sound and silence for a lot of different purposes. After sharing my definition, I then asked them to complete the following sentence. "Mathematics is an 11-letter word in the English language for a lot of different things people do with . . ." Months apart and in different contexts, all three answered with the same response.

"Pattern," responded each of them.

Their response resonated deeply in me because I had just recently finished Gregory Bateson's book *Mind and Nature* which included several observations that touched deeply on my lifelong exploration of connections between music and other forms of human expression.

Philosophers, musicians, and composers have long been fascinated with mathematics, beginning even before the time of Pythagoras (570 to 495 BCE) in the West. Pythagoreans divided mathematics into four sections, half devoted to quantity and half devoted

to magnitude. Arithmetic focused specifically on quantities, while music explored the relationships between quantities. In his *Republic*, Plato laid out a curriculum composed of four parts: arithmetic, geometry, astronomy, and music. Fifteen hundred years later, this curriculum was formalized into the medieval university as the *quadrivium*. The philosophical foundation for the quadrivium was that it was the study of pure number (arithmetic), number in space (geometry), number in motion (astronomy), and number in time or applied number (music).

As for the use of number and mathematics by musicians, composers like J.S. Bach used mathematics not only in the creation of melodies, but also in the formal construction of his compositions. Three years before he died in 1750, Bach met with King Frederick II who challenged him to write a 6-voice fugue-based on a theme the king had written.

Two months later Bach published the "Regis Iussu Cantio Et Reliqua Canonica Arte Resoluta." The title itself demonstrates Bach's interest in pattern and structure. The first letter of each of the original title spell out the word "Ricercar," which is the name for a contrapuntal instrumental form popular at the time. Known better by the title "The Musical Offering," Bach's work is a collection of fugues, canons, and other movements based on Frederick II's theme, but taken far beyond the simple request made by the King. For example, Bach created a movement whose theme is meant to be played forward and backward simultaneously.

Bach also had a profound fascination with the number 14. It occurs in many of his works, including one whose theme consists of four notes based on his last name (the "h" in German is a B flat). Interestingly, if you replace each letter of his last name with its number in the alphabet, Bach's name translates into 2+1+3+8=14.

Wolfgang Amadeus Mozart once described himself as a "friend of the house of numbers." His compositions are filled with mathematical connections, and his workroom was often filled with numbers written on walls in chalk. His sister Nannerl once mentioned that her brother was always playing with numbers and even scribbled mathematical equations for probabilities in the margins of some compositions. It has often been suggested that Mozart may have used both the Fibonacci Sequence and the Golden Section in various compositions. Bela Bartók used the Golden Section in several of his compositions, for example the Music for Strings, Percussion and Celesta.

Popular musicians have also demonstrated the incorporation of mathematics into their music. For example, in the song "Lateralus" from the album by that same name, the inventive and frequently controversial rock band *Tool* uses the Fibonacci sequence symbolically in the verses of the song. The syllables in the first verse count 1, 1, 2, 3, 5, 8, 5, 13, 13, 8, 5, 3.

Whether using the Fibonacci Series, the Golden Mean, Pi, Fractals, the harmonic overtone series, the Sierpinksi Triangle, tetratonic and decatonic scales, etc., musicians continue to be fascinated with numbers, music, and mathematical relationships.

The Pattern Which Connects: The Inner Worlds of Music and Mathematics

For almost two decades I have been incorporating mathematics into some of my own compositions. One of my first attempts involved using the following equation that deals with the vibration of a string. A string oscillates in time and space, and as it oscillates it sweeps out a two-dimensional surface in space time we call a world sheet. In certain cases, we must consider the world sheet of the string as a two-dimensional space time of its own, where the division between space and time depends on the observer.

$$\frac{\partial^2 X^\mu(\sigma,\tau)}{\partial \tau^2} = c^2 \frac{\partial^2 X^\mu(\sigma,\tau)}{\partial \sigma^2}$$

The equation above states that

the second partial derivative of x-mu with respect to tau is equal to c squared times the second partial of x-mu with respect to sig-where tau and sig-ma are coordinates on the string world sheet representing space and time a-long the string, and c squared is the ratio of the string tension to the string mass per unit length the length.

I used this equation and another in a composition titled *In the Beginning* for mixed choir, piano, percussion, cello, and CD of manipulated sounds from nature, including spherics. The second one is based on equations of motion derived from Euler Lagrange equations from an action based on the string world sheet, and it states

s is equal to one over 4 pi alpha prime times the integral of the square root of the determinant of h times h-m-n times the partial derivative of x-mu with respect to tau times the partial derivative of x-mu with respect to sigma, d sigma, d-tau.

$$S = -\frac{1}{4\pi\alpha'} \int d\sigma d\tau \sqrt{h} h^{mn} \partial_m X^\mu \partial_n X_\mu$$

One does not need to understand these equations; just read the descriptions. The equations are beautiful both in their form and in their content, especially when contrasted and juxtaposed with the more traditional sounds of the Latin text from the *Dies Irae*. *In the Beginning* examines the concept of the Big Bang from both religious and scientific viewpoints.

The Pattern Which Connects: The Inner Worlds of Music and Mathematics

In another composition I explored the relationship between music and mathematics when I decided to setting the first several thousand numbers generated by *Pi* to music. My motivation was primarily curiosity. *Pi* is a transcendental number that continues without ever repeating itself or creating a pattern. What I wanted to do was to create a "sound of *Pi* and determine if I could hear any kind of repetition that I could not see. The first thing I did was to generate all the numbers in *Pi* to several thousand places.

Next, I had to solve the problem that Western music has 12 notes to the octave but there were only 10 different numbers generated by *Pi*. I tried for months to get a computer programmer to develop an algorithm that would provide me with ten equidistant pitches in the octave (instead of 12), but nobody seemed interested, even when I offered to pay them!

In the end, I decided to arbitrarily choose a ten-note scale that left out E flat and A. Then, I assigned each of the pitches to a different number and a different musical instrument generated on a music notation program known as Finale. Thus, the number 1 was assigned to the pitch F3 and was played by the Oboe.

1 Oboe - F
2 Bass clarinet - G
3 Music box - A flat
4 Koto - B flat
5 Steel drums - B
6 Xylophone - C
7 Mbira – D flat
8 Banjo - D
9 Sitar - E
0 Harmonica – F

The music program Finale permitted me to experiment with this score in a variety of way. I could assign the numbers to only one instrument, such as a harp. Or I could assign them to different numbers, as I did above. I could alter the tempo from very slow to very fast. And, most wonderfully, I could take the audio files generated, import them into an editing program known as Pro-tools, and experiment with a variety of effects, including equalization, reverberation, etc. The most satisfying version of all was one that not only sounded like a very gifted rock band, but which also gave the occasional illusion of repetition.

During the past couple of years, I have been experimenting with creating music that reflects the concept of Time and Quantum Entanglement, which Einstein referred to as "spooky action at a distance."

The Pattern Which Connects: The Inner Worlds of Music and Mathematics

T.S. Eliot's thoughts on Time express beautifully the "spooky-ness" of time

Time present and time past
Are both perhaps present in time future
And time future contained in time past.
If all time is eternally present
All time is unredeemable . . .

—Excerpt from *Burnt Norton*,
the first poem in T.S. Eliot's *Four Quartets*

Towards the end of his book *Mind and Nature,* Gregory Bateson indicates that the next step in exploring "the pattern which connects" would be to write about the "two great untouched questions," aesthetics and consciousness". Unfortunately, he died before completing his quest. Certainly, though, his exploration would have involved the Platonic concept of music as the expression of "number in time" . . . whatever Time is.

Actually, I believe Time does not exist, other than that thing we measure with clocks. That's all it is. The word comes from the Latin word *tempus*, the origin of the English word "tempo." For us humans, Time consists of a multitude of different tempi; slow ones when we are suffering, stopped-time during the first blush of love, fast ones as our children grow and leave us, endless ones if we have to watch our child die.

And all of this Time occurs in the context of the *aevum*, my favorite Latin word. It refers to the mean between what we think is Time and what we think is Eternity. *Aevum* could very well be a synonym for threshold.

The use of music and mathematics to explore "the pattern which connects" will always be an exciting and revelatory process not only for me, but also for others seeking a deeper understanding of life, meaning, and music—"number in Time." We are engaged in a universal quest to understand the patterns of existence (the meaning?) through mathematics and music, and dance, art, physics, et al. It is a quest to connect more deeply with the *Aevum*, the endless threshold in which we live.

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time

—From *Little Gidding*
by T.S. Eliot.

Needles and Notes

by Henry Hughes

About Henry

Henry Hughes is the author of four collections of poetry, including *Men Holding Eggs,* which received the Oregon Book Award, and the memoir, *Back Seat with Fish*. He teaches literature and writing at Western Oregon University.

I turned up the car stereo, driving through the sprawl of East Portland toward the old College of Oriental Medicine with my friend, Lisa. She was battling cancer, and music sometimes cheered her up, it certainly helped palliate the atonal dirge of traffic and jackhammers, the wind whipping trash along the street. There's the environment, the body, and the mind's metaphoric connections. Then there was Lisa, looking out the window, softly singing to a Sarah McLachlan song as I pulled into the clinic's parking lot on Cherry Blossom Lane. "Are you up for this?" I asked. "I think so," she said.

The last few months had been very difficult for Lisa, for us, and that Saturday we wanted to escape into a Chopin concert at the Schnitzer. "Maybe we can still make it," Lisa offered. She loved music and played piano, but her energy and spirit for art had diminished. After hearing an NPR radio show on acupuncture, she called the college's clinic and got the first available appointment. While she filled out forms, I walked around the waiting room and picked up a pamphlet on music therapy, which claimed to be a "good complement to acupuncture." I read a bit to Lisa: "Your organs and systems have a certain frequency. Exposure to the right music brings them into balance."

"Sounds nice," she smiled.

"Better than needles? I asked."

"Come on, let's be open minded"

After only ten minutes a man in white coat and embroidered cap walked up and introduced himself as Reed. Handsome, in

his late twenties, he squinted in a discerning way behind rectangular glasses. Reed led us down a clean, carpeted hall past a jar-lined herbal dispensary smelling of ginseng and mentholated bark to a small room, very much like an ordinary examination room. A gently plucked melody—maybe a zither—played at low volume. The walls featured Chinese brush paintings of waterfalls and willows, and a yellowed antique diagram indicating the *Auriculotherapy Points of the Ear*. Lisa backed onto the table with the familiar crinkle of white paper. Reed sat on a stool and looked at Lisa's forms. The cuffs of his white coat were slightly soiled and there was the faint odor of garlic.

"How are you feeling today, Lisa?"

"Not bad," she said. "Tired. And my knees ache."

Reed nodded. Lisa's young smile and the trim sway of her body belied a battle-scarred medical history. Sixteen months ago, at thirty-three, she was diagnosed with breast cancer. The two surgeries, four chemotherapy treatments and forty radiations probably saved her life. Her hair was slowly growing back, she could walk a mile. But few people ever feel completely *cured* of cancer. "I just don't feel myself," she said.

"You've been through a lot," Reed replied, moving his eyes from Lisa's to my own, taking us in together. "What's giving you the most trouble right now?" he asked.

"Night sweats—and just not sleeping well. Then I've got no energy for the day. I used to draw and play piano."

"Do you still listen to music?" he asked.

"Yes, sometimes. But it can make me sad."

"You passed some big thresholds in your body," Reed explained. "Everything's been shocked, damaged. Things like music can make you sad because they remind you of the way you were. But you need to go back there and restore yourself, open yourself."

It sounded more like psychology than internal medicine. "What does this have to do with acupuncture?" I asked.

Reed laughed politely. "You'll see."

What followed was a careful examination of Lisa's tongue. "If tongues could speak," Reed joked. Without a penlight or probe, he looked over the outstretched pink muscle. "There's some scalloping, which indicates a deficiency. The purple tells me there's some stagnation. Do you sing, Lisa?"

"Not really. Not in a while."

"Yellow will show heat," Reed went on. "A thick coating says things about the stomach. A thin white coat is considered optimal. But that's rare." I wanted to ask about the chromatic influences of merlot or coffee, but I promised Lisa I'd behave myself.

Reed then asked Lisa to turn-up her palms. She sat on the table with her hands out like the Buddha, and Reed—without a watch—held her right wrist and took what he called a "radial pulse."

Needles and Notes

"Your hands are warm," Lisa smiled.

Reed smiled back. "Well, your pulse is a little wiry. Kind of soft."

"Soft?" I asked.

He nodded, turning to Lisa. "That's to be expected." He then took the left wrist. "Soft, yes. And your kidney's a little deep. This is common after chemo."

Although patients are asked to write down their average pulse rate, weight and blood pressure, no one has retaken these vitals or listened to Lisa's heart and lungs with a stethoscope. And though the Chinese recognized the concept of circulation two thousand years before England's William Harvey, I wonder how one quantifies a wiry pulse? What does it mean to feel the throb of a deep kidney?

Lisa was very eager to try Oriental medicine, the accepted term for this therapy, and she thought I'd be thrilled because I lived in China for a couple years.

"What do you think of acupuncture?" she asked me after making her appointment.

"Well, I think it works for some people. There's just not much scientific evidence for it."

"So?" she challenged.

"Well, it's hard to prove. I mean, these *meridians* flowing with *qi*—you can't really see or measure them." To practitioners of Oriental medicine, however, *qi* is very real—a life force flowing through fourteen identifiable channels that is responsible for the dynamic harmony of yin-yan, the Tao. Illness is a result of an imbalance—your *qi* is out-of-tune.

This basic philosophy, expressed beautifully in *Huang Di Nei Jing, The Yellow Emperor's Manual of Internal Medicine,* from the Han dynasty in the second century B.C., posits that an individual's health and happiness are intimately connected to one's internal and environmental harmony. Illnesses are described as imbalances between cold or heat, moisture and dryness, even noise and music. Classical Chinese medicine places great emphasis on the "energetic roles" of the body's organs. The kidney is said to govern the bones, joints, hearing, hair as well as motivation. A person complaining of knee pain or a lack of ambition may be needled along the kidney meridian to restore that *qi* flow.

Music also plays a serious role in Chinese medicine. The very character for medicine or drug, *yào*, (藥), is comprised of the radical for *grass* and the word for *music* or *delight*. Grass denotes the herbal essence of medicine, while music speaks to the rhythms and frequencies of *qi*, which directly affects wellbeing. *The Yellow Emperor's Manuel* describes the Chinese pentatonic scale and its corollaries in the body. In this five element theory of music therapy, the *jiao* note (corresponding to the E in Western notation) functions in therapies aimed at the liver and headaches; the *zhi* note (G) may assist heart patients with poor circulation; *gong* (C) affects the spleen, appetite and depression; *shang* (D) influences the lungs and sleep; and the *yu* note (A) may aid in reviving the kidney and a person's overall energy. Oriental medicine may seem more artistic and philosophical than scientific, in part, because it attempts to describe things that defy empirical analysis.

Needles and Notes

"Okay," Reed said. "I think we've got a good plan for you. We're gonna try and open things up a bit. Try to move the *qi*."

"All right," Lisa said with an abandon she has only grudgingly offered her other doctors. A shoe dropped to the tile floor and she asked if she needed to undress. Reed looked her over and paused for a moment. She's wore a close-fitting sleeveless blouse and skirt.

"No," he finally said, turning to his chart. "Just lay down on your back and relax."

"Okay," she sighed, smiling.

Reed took off his jacket and began swabbing sites with alcohol, kneading his fingers into the medial pods of her left wrist, telling us this is a point helpful for sleep. He tore a stainless steel needle from its wrapper, the point and foreshaft encased in a little plastic cylinder that he placed at ninety degrees over the target. "Okay," he said. "Breath out." He tapped the extended handle-end of the needle, driving the point into her wrist. I thought of arteries, veins and delicate nerves, but at that moment I had to trust Reed's knowledge of anatomy. A small bead of lymph collected at the needle's base. I asked Lisa how it felt. "There's a little burning, but it's fine."

Reed tapped another needle into a point below her knee and one in her ankle, the kidney channel. "It's just like music. We're going to hit the right notes." He then gently pulled up her blouse. "And here, above the pubic bone, the vessel of conception. This can move stagnation through the CV channel." He pushed a needle into the middle of Lisa, clasped it between his thumb and pointer, and rotated it in small circles. I looked sharply at Reed and turned to Lisa. "Are you okay?"

"I'm okay," she said.

"It's the opposite of compression. Like in audio production. We need to widen the thresholds. Bring back the natural sounds of your body. That's where the real balance is." Reed dimmed the lights and selected a new music track. "Here's a flute piece in A major—slow tempo," he moved his right hand like a conductor. "About sixty beats a minute. This will mellow you out." Lisa closed her eyes. Her face looked achingly satisfied.

While Lisa bathed in needles and notes, I thought of another waiting, back in 1995, in the cold, concrete corridor of a Beijing hospital, while a friend was treated for serious injuries after a bicycle accident. I had lived in China over a year but that was my first visit to a hospital. The chipped and stained walls and scruffy, ungloved interns parking gurneyed, groaning patients in the hallway did not foster confidence. The was certainly no music. Then a tall, well-dressed older man stood before me and asked in perfect English, "Are you waiting for Alex?" Alex was all right, Dr. Zeng Duo told me. He offered a cup of instant coffee and invited me into the staff lounge, another paint-chipped concrete space where men and women sat around drinking tea and smoking cigarettes. Dr. Zeng had done much of his training in the States and he was eager to exercise his English.

"Alex is your teacher friend?" he asked.

"Yes," I said.

"Don't worry. We will do our best for him."

A woman in a sooty white robe came up and spoke to Dr. Zeng about Alex. I understood an important word: *tong*, pain.

"We'll give him something," Dr. Zeng said.

"You're not going to use acupuncture, are you?" I asked.

"Of course not," he laughed. "He's an American."

Alex's set and suturing were mercifully dulled by a shot of morphine because, as Dr. Zeng speculated, "Alex doesn't believe." Although increasingly rare, anesthetic acupuncture is still used in China—and is even possible in the United States. Beginning in the 1970s, American visitors to the People's Republic marveled over operations performed while patients were anesthetized by needles inserted into their hands and ears. "Anesthetic acupuncture can work," Dr. Zeng told me. "But it's not consistent."

Acupuncture has, however, proven to be consistently effective for moderate pain relief. "That's the main thing. Endorphins, you know," Dr. Zeng said. "You shock the body, go over a threshold, and it releases chemicals that make you feel better. Quite simple." Exceeding thresholds seems to produce both positive and negative results in the realm of Oriental medicine. And Dr. Zeng wasn't exaggerating when he said "shock." Much of analgesic acupuncture, both in China and the U.S., relies on needles electrically stimulated with frequencies ranging between 2 and 150 Hz. Music electrotherapy is also gaining popularity. Patients not only listen to carefully selected instrumental music, but speakers or electronic tuning forks are applied directly to the ailing parts of their body. Although dubious of the benefits of this melodious ultrasound, I agree with the Doobie Brothers that "Music is the doctor of my soul," and that listening can make us feel better.

When Dr. Zeng learned that Alex was a violinist, he asked what he liked to play.

I told him Alex was practicing a Brahms' concerto. And something by Paganini.

"Brahms?" the doctor lit up. "I have some Brahms."

Without a single comment regarding hospital policy or the other patients in Alex's room, Dr. Zeng grabbed his personal boom box, walked us into Alex's room, popped in a worn cassette tape, and turned up something from the *Hungarian Dances*. It seemed anything but soothing, but Alex smiled and mouthed Thank you. He was back playing in a couple months.

Indeed, the psychoactive effects of acupuncture and music are especially powerful in a culture with over two thousand years of fairly uninterrupted trust in their effectiveness. In the West, related ancient Greek notions of the body's four humors and the diseases linked to their imbalance, like melancholy caused by too much bile, were seriously challenged during the scientific revolutions of the eighteenth and nineteenth centuries. Similarly, the writings of Plato and Socrates, along with passages from the Bible that speak directly about the healing powers of music were deemed unscientific and relegated to

"emotional advice." And though American physicians value the *will to heal*—whatever its source—many doctors also fear that practitioners of unconventional medicine are unqualified in diagnosing potentially serious conditions. When Lisa and I visited Reed the following fall, he complained of a serious respiratory infection that took months to overcome. "My sister's a PA and she told me I needed antibiotics," he admitted. "But I put it off and treated myself with acupuncture and Leonard Cohen. That was a mistake."

Nonetheless, thousands of Westerners from Marco Polo and the Beatles to Byron Janis and Celine Dion have sought the health secrets and spiritual promises of the mysterious Orient. Complementing over two centuries of American fascination with Eastern philosophy, today's science and technology-minded West shows growing participation in Asian forms of meditation, *qi gong*, yoga, martial arts, and a variety of medical practices including herbalism, cupping, acupuncture, and music therapy. Although some of this interest may be based on superficial idealizations of a wise, ancient Orient—call it positive Orientalism—there is also a genuine sense that the East knows more about the mind-body connection.

Following a soft knock on the door, Reed gently reentered the room. He turned down the music, touched Lisa's arm and asked how she was doing. One-by-one, he extracted the needles, collecting two or three in his hand and then placing them in a translucent waste receptacle on the counter. There was only one spot of blood at the site on her ankle and Reed dabbed it with a cotton ball.

"There's an herbal formula I'd like to prescribe," he said. "And we have some excellent CDs of healing music. I used flute today because it's very relaxing. But if you like piano, you should listen to our Healing Keys Mix. That will help decompress the thresholds. You have headphones? Listen for at least an hour every day. No interruptions. And you should come back next week."

"How often should I do this?" Lisa asked.

"I'd like to see you once-a-week for at least a couple months. I know it's a long drive up to Portland."

Lisa looked directly into my eyes. "It's up to you," I said, urging myself into a smile. I felt skeptical about the science, but I was encouraged by Lisa's reaction. She felt good—and that was enough.

"I'll make another appointment," she smiled.

"Great," Reed said. "You'll see. It works. And don't forget the music." He shook our hands and turned down the hall.

What works? I wondered then and still wonder. Lisa went to the desk and paid the $50.00 fee and bought a CD for another $15.00. We walked out under a surprisingly sunny sky. A gentler wind filled the trees. "I feel so relaxed. So loose," she said, squeezing my arms and kissing me.

Needles and Notes

"We've got plenty of time to make that concert," I tilted my head.

"Sure, let's go," she said.

The yard behind the college had been landscaped into a simple Chinese garden, and walking toward our car we stopped for a moment to watch students practicing *qi gong*, one guiding the circling hands of the other, while an elderly Asian man sat on a bench with an old black boom box—the kind you don't see much these days. He adjusted the silver antenna, stirring the sky and listening. "Maybe he's trying to get China," Lisa joked. "Some old love song he remembers." Suddenly a station came in—classical violins, loud and clear. The man smiled, set the radio on the bench beside him, leaned back and closed his eyes.

Creative Thresholds

by Thomas Enman

About Thomas

Thomas Enman is a pianist, coach, and music director who has performed and given master classes internationally. At the Longy School of Music of Bard College, he has prepared a great many operas, including world and American premieres of works composed by Nancy Van de Vate (Cocaine Lil) and the New England premiere of Amy Beach's Cabildo. As a solo pianist he has toured Central America three times for the U.S. State Department. Mr. Enman is in his fifteenth season as a vocal coach for the University of Miami Frost School of Music Salzburg Program in Austria, where he is highly regarded for his success in working with young singers.

The Oxford Dictionary's second definition of threshold is "the magnitude or intensity that must be exceeded for a certain reaction, phenomenon, result, or condition to occur or be manifested." I will address a few crucial thresholds that I think most musicians and teachers encounter.

Perhaps the most obvious threshold we pass as musicians is learning a new piece. My experience crossing this threshold has been varied. Sometimes it is easy, but more often it is not. Some works make sense to us, almost at first sight, while others require considerable effort. In my rash youth, I thought the lieder of Schubert were easy, and that I could sight-read them. I no longer feel that way, and I am so aware of their difficulties that I break into a cold sweat when I know I will be performing a group of them. Sometimes crossing that threshold into a new work can be daunting. I remember preparing Nancy Van de Vate's chamber opera *Where the Cross is Made* with a young baritone, who was learning it for the first time as well. Daily for nearly two weeks we shared the experience of coming to the score and having it look new each time. Fortunately with time and repeated serious effort we created successful performances of the work.

Creative Thresholds

As a voice coach, I am aware that every new singer who comes to me requires a new partnership, a new awareness, which requires that we cross the creative threshold together as a unique duo. Establishing a common vocabulary is paramount, since there are many terms used by singers and their teachers which are loaded with meaning and can be easily misunderstood. A primary example is the use of the words "open" and "closed." These can be applied to vowels or to vocal production, and it is essential that when I use these types of descriptive words the singer understands exactly what I mean. This takes time and is a threshold both of us must cross at the same time. Each new singer provides a new entry to a new language. While it is a challenge, it is the principal reason that coaching is so rewarding.

I am sure that every musician is aware that the first public performance of a work is a major threshold we all must cross. Once we experience a successful performance, those works become ours. We no longer have any doubt or fears, and indeed look forward to the next time we can perform them. I compare this experience to the forging of steel. In a sense both are "trials by fire," absolutely necessary, and strengthening at the same time.

In his book, *Solitude*, Anthony Stone expounds on the idea of an artist having three periods of production; thresholds if you will. "The significances of the first two periods in the life of an artist is not difficult to determine. Even the most gifted men and women have to learn their craft, and they are bound to be influenced by their teachers and predecessors. The first period, therefore, although it may be characterized by works of undoubted genius, is one in which the artist has usually not fully discovered his individual voice. The second period may occupy the greater part of an artist's life, and many of the greatest geniuses have not lived long enough to enter upon a third period. Beethoven lived until the age of fifty-seven, not an advanced age by modern standards, but sufficiently so for his works to provide a good example of the three periods referred to." As musicians we recognize these three thresholds in Beethoven's work. By so doing we must inform our interpretation of the works from each period in stylistically appropriate ways. Then there are those thresholds a composer crosses once and only once. I have in mind the Wagner opera, *Tristan und Isolde* which is an exercise in obsessive and intensive chromaticism. While an obvious work of genius, and one of his most successful operas, it represents an experiment Wagner abandoned in his final work *Der Meistersinger.*

With the exception of "the Celestial Divide," the final threshold we all must cross, there looms the threshold known as retirement, which many of us prefer to defer. The comedian, Billy Crystal asked George Burns when he was going to retire and Burns replied: "retire to what?" Those of us so fortunate to have made a life in music and teaching can undoubtedly relate to his words, and I for one plan to delay the crossing of that threshold as long as I can!

The Bartók Prophecy: The Evolutionary Threshold of "Artleticism"

by Daniel Immel

About Daniel

Daniel Immel, pianist, is currently Associate Professor of Music at Kutztown University of Pennsylvania, where he teaches applied and class piano, as well as courses in Music Appreciation and Film Music. He is a frequent lecturer for the "Know Your Symphony" Reading Symphony Lecture Series, and advocates for the performance practice of rarely-performed piano literature. He lives in Fleetwood, Pennsylvania and is wholeheartedly devoted to gym workouts, recreational sports, new tattoo designs, and his beloved Shih-tzu Samson.

The Avengers franchise has cast a hypnotic spell over audiences worldwide, not to mention the apocalyptic power it has been able to wield at the box office. Children (as well as adults) leave the theaters with a pervasive sense of awe and contemplation of what it would be like to possess an immortal power that could save humanity. However, the worship of gods in human or deity form is hardly a cinematic concept. In the annals of classical music, the superhuman compositional feats of Beethoven, who was slayed by the insidious monster Anacrusis, still defied logical possibility and were worthy of a beloved Hollywood feature. Chopin was perhaps the most perplexing god; revolutionary music which emanated from a delicate and fragile soul; Schumann, despite his schizophrenic tendencies, adorned his musical creations with the power of hypnotism. His works, filled with innocence and rapture, were undoubtedly a by-product of his fantastical visions.

However, the *true "Infinity War"* began with a generational changing-of-the-guard in Eastern Europe, where the balance of future power was emerging as both sunset and sunrise, simultaneously. In one corner was the indefatigable and imperious Franz Liszt, the Hungarian superhero who singlehandedly revolutionized the definition of virtuoso pianism. Liszt was the 19th century equivalent to the Hulk; a devilish caped-phantom,

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shattering limited pianos with his crushing strength and virtuosity, and urging a disbelieving world to culturally and technologically evolve with his abilities. As the twentieth century approached, the landscape of musical power proved transformative. As Liszt embraced and embodied the Hulk's persona, Béla Bartók personified his alter-ego, Bruce Banner. Bartók was the laboratory scientist whose musicological equations created a folkloristic formula that proved metamorphic in the 20th century. And even though Liszt's transcendental etude titled it, it was Bartók's superhero power of *Vision* that defied his predecessor's legacy with one shattering formulaic and archery-worthy arrow: *"Competitions are for horses, not artists."*

The proliferation of piano competitions since Bartók's death has gone viral, as the 21st century musical milieu paints a horizon filled with an infinite number of unfathomably talented artists. The Leeds, Rubinstein and Van Cliburn have long been the pianistic Triple Crown for aspiring thoroughbreds; now the undercard is peppered with unlimited racing opportunities to win, place or show. The Hungarian composer notoriously refused to sit on any piano juries as a result of his personal creed. Bartók's prophecy proved to be a critical musical crossroads: at what point in time did "art" morph into athletics? Yet in 2018, the threshold of "artleticism" is not only recognized, it has long-replaced Bartók's invective. The days of score study and advancement of one's pianistic abilities for the pursuit of enjoyment and betterment has been superseded by a ferocious culture of competition, where only the superior athletes realize careers, prizes, and ultimately, the coveted recognition and acceptance by a closed-circle elite of legendary pedagogues and peers.

Artleticism's full-court press has been championship worthy, yet its natalogical birthmark is rooted in the fertile ground of ancestry. The center of attention and the father of subsequent generations of artleticism's progeny was Liszt himself. Supernaturally-talented with incomprehensible pianistic abilities, Liszt turned playing the piano into an athletic assault; destroying contemporaries and rivals who not only marveled at his demonic Thanos-like powers, but were similarly revolted by the virtuosic vulgarity that had dawned upon the age. Admittedly, if we're going to volley during the blame game, the nemesis on the other side of the net has been a necessary evil. Manufacturers have jockeyed for position at every turn to supply the greatest pianists with instruments that attempt to ace one another in creating a prototypical instrument unrivalled by their foes. For over a century, Steinway has been Wimbledon's Centre Court for pianists who have hopes of completing career grand slams. However, that hasn't stopped others from entering the arena. *Yamaha, Bösendorfer,* and *Fazioli* have thrown their proverbial hats into the ring, the latter in particular throwing down the gauntlet, as the only piano manufacturer who has created a piano over 10-feet, "dwarfing" the others mere monolithic nine-foot models. Perhaps the blame should also be dealt to Claude Debussy, who impressionably stated "Pleasure is the law" when considering music's ultimate power,

which he believed lay in sonic and acoustical expression, rather than its mere theoretical and metaphysical trajectory. It stands to reason that pianists must be equipped with the most technologically advanced instrument to realize their capabilities; in a parallel sense, *Nike, Adidas* and *Under Armour* are constantly and consistently upgrading their designs, models, apparel and logos to become more attractive to the world's elite athletes across all sporting disciplines. Jordan transcended Nike's "Air" brand into mythological status, while Federer and Nadal's epic tennis rivalry has been a game set for the ages, and a marketing match worth millions for the marketing juggernaut. Suddenly, in both artistic and athletic arenas, the game's afoot.

History favors the nostalgic, and in the horse race for greatness, the pianistic equivalents to Secretariat, Seattle Slew and Affirmed fill the museum as immortal gods we have grown to admire and cherish. *Rachmaninov . . . Horowitz . . . Ashkenazy . . . Argerich . . . Perahia . . . Gould* . . . the champion blue-blood thoroughbreds that have inspired yet the new generation: *Andsnes . . . Kissin . . . Lisitsa . . . Wang*. However, the problematic issue at hand lies neither in stylistic preference or favoritism in comparison of artists; it lies at the heart of artleticism: who is an ARTIST, and who is a PIANIST-ATHLETE, and can one be both? Perhaps the most compelling argument in favor of artleticism is the ironic and uncanny cosmetic parallel that exists between athletes and pianists: the lonely, solitude-filled journey to the summit of hopeful perfection when no one is watching.

The case to be made in court for Artleticism doesn't need much of a defense. As Steph Curry launches unlimited three-point attempts in a darkened gym at dawn, and Federer and Nadal unleash innumerable serves in a scorching sun by the hour that will eventually ace one another—pianists spend hundreds if not thousands of hours on the bench, in the hopes of chasing perfection that might thrill audiences in the world's greatest concert halls. Athletes and artists alike understand one fundamental principle: practice doesn't make perfect, it makes permanent. The arena is the gladiator's home, and houses the athlete's prowess. Artists, in hopes of displaying their considerable deft virtuosity, align themselves to the Shakespearean aphorism: "All the world's a stage." In both cases, and in combination, the element of the theatrical is omnipresent. Artleticism's greatest irony is contained in the fact that isolation creates applause from the masses for both entertainment and validation purposes.

The genesis of careers for both athletes and artists is created in infancy. Sports camps and instrumental lessons pave a possible road to avatar status, yet if careers are eventually realized, the journey proves equal parts acclaim and survival. In both instances, the rigors require a special prototypical creature. However indestructible their mutant-like abilities, the X factor for both is solving the a+b=c formula: *can the mind and body create physiological alchemy to equal eventual greatness?* As with athletes, concert pianists travel the globe with exacting schedules to perform back-to-back concerts in

successive nights, in disparate time zones and countries. An almost Cerebro machine-like ability is needed to keep the contagion of fatigue and illness on ice. Will the body remain healthy when riddled by lack-of-sleep and living out of suitcases and airports? Additionally, will both provide the momentary synergy needed to execute fatally difficult programs to remain impossibly perfect in front of unforgiving critics? Artleticism is a non-discriminatory creature, and one not relegated to the clinically-defined concert pianist. The ivory's power beckons to the tower as well, as professors at universities and colleges seek to balance a demanding individual and collaborative concertizing schedule with the pressures and expectations of teaching and research.

International piano competitions are a cultured petri dish in our society now; virally-competitive microorganisms hoping to emerge as the microbial selection. However, for those who aren't fortunate enough to make the laboratory cut, there are thousands of students flooding the academic job market in hopes of obtaining a position as an artist-teacher that will assist them in sustaining a career that will take them to a comparable summit. Years of juries, scholarship auditions and degree program hurdles require a steely mental fortitude, with physical and innate talents required to navigate the competitive waters. In this sense, Bartók was prophetic in perhaps viewing music's art as sacrificial to a vocational dragon, however necessary for the genre's evolutionary longevity.

The philosophical debate of artleticism's origin and ancestry will be debated for generations to come. Perhaps the blame and/or gratitude for its inception doesn't fall with the evolutionary culture or the performers themselves. Composers have been on the front lines of the inferno for centuries, fueling the fire with pyrotechnical works that have only grown more incendiary with time. If musical scores have been the bonfire, then the need for inhuman virtuosity has been the gasoline to cause the explosive backdraft. The evidence in the crime lab is thoroughly documented from the Baroque to present-day. Depending on preference (not to mention experiential perspective), each artist (or pianist-athlete, depending on which side of the argument you fall) will offer strong opinions as to which composer's music (and specific pieces) turned pianistic art into an athletic apocalypse.

As a concert pianist myself (and artist-teacher at a university), it's a premature miscalculation that artleticism's chronological transformation is solely indebted to time's advancement. There is no denying that Beethoven's *Hammerklavier* Sonata, a 50-minute behemoth with a massive and unforgiving fugue in the final movement, is not only one of the great hallmarks of the literature, but a maelstrom with the capability to sink any seasoned pianist's battleship. If you're seeking art for purity sake, there is no need to look any further than the magnificent and deadly fugues of Bach. Contrapuntal lines woven at difficult rates of speed is naturally-problematic from a kinesthetic point of view; but with Bach, harmonic motion and clarity are spiritually-sacrosanct, and one false move and the mistake is sonically amplified with no hope of camouflage.

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If you're a fan of beautiful simplicity one need look no further than Mozart's piano sonatas. The concerti are widely-considered his greatest pianistic works; yet all of the composer's piano oeuvre are testaments to crystalline perfection. Inherently, therein lies the fundamental artleticist factor of Mozart's music: the sparkling perfection we've come to treasure in his music is also the suffocating quicksand that has buried many pianists in live performance. Like Bach, a false step in the wrong harmonic or rhythmic direction, and its cruel exposure is the equivalent of a nuclear blast without warning. In both instances, artleticism is revealed in a beacon of transparency, and the artist must display a bravery forged-in-fire to traverse its rewarding, yet menacing conditions.

The pianist-athlete is perhaps the most at home in the Romantic era, where the etudes of Chopin, Liszt, Brahms and Rachmaninov are the symbolic equivalent of K2 and Everest. Fraught with diabolical leaps, thirds, frenetic rates of speed, and a hypnotic number of notes to learn, these composers essentially captured what 21st century composer John Corigliano idealized in his outrageously brilliant wind symphony: a seductively-chaotic *Circus Maximus*. In yet another composer-successive changing-of-the-guard, Mily Balakirev's *Islamey* was considered a physically impossible composition to realize; yet over time, it was conquered and has secured a place in the annals of pianistic literature. However, a fundamental precept of existence shows that all seasons change, and Balakirev's creation would be supplanted eventually by Maurice Ravel's horrendously difficult *Gaspard de la Nuit.* Ravel intentionally had sought to break Islamey's legendary spell by creating the most transcendentally and technically impossible composition to date . . . and he succeeded. Pianists who have played it (such as myself) know that its three poems are pianistic nightmares, and each takes months to achieve a fluid technical security, let alone comfort in execution. *Ondine's* seductive allure is due to its fragile and delicate sound, which requires superior sound and tone manipulation, while *Scarbo* is a 10-minute diabolical hallucination that pushes physical reflexes to the point of muscular and digital hysteria.

As literature has transformed throughout the 20th century, and is in its infancy in the 21st century, artleticism's existence has reached the point of checkmate, as the idea of man vs. machine now occupies compositional forethoughts when considering the mere element of possibility. Ligeti's *Etudes pour piano* (I have performed several of them from memory) are pure mental torture, as both hands can be written in completely separate keys AND time signatures simultaneously. Ligeti himself was influenced by the Mexican composer Conlon Nancarrow's *Studies for Player Piano,* which rely entirely on automation, and finally rids the concert stage of the human performer (and our subsequent limitations) in favor of superhuman accuracy, velocity, and technical (as well as technological) perfection. Suddenly, "art" is at the point of extinction, as the need to show the magnificent capabilities of artificial intelligence and athleticism has produced a disturbing yet dazzling new genera.

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One doesn't need to be Cyclops or have the powers of Professor X's telekinetic and abilities of premonition to deduce that artleticism's mystique has indeed gone rogue. Bartók's revelation has transmogrified into a civilization of superhuman pianists who seemingly vault even higher over the latest discoveries. Liszt's transcendentalist footsteps are still heard and echoed two centuries later by a succession of artists hoping to etch their names in the pantheon of immortality. Artleticism is redefining the 21st century artistic landscape and begs one final question: What's the secret behind the artist's ability to successfully wield its considerable powers?

A will of iron, man.

The Poet Speaks

Being a person

Be a person here.
Stand by the river, invoke the owls.
Invoke winter, then spring.
Let any season that wants to come here make its own call.
After that sound goes away, wait.
A slow bubble rises through the earth
and begins to include sky, stars, all space,
even the outracing, expanding thought.
Come back and hear the little sound again.
[Come back, and hear that call.]
Suddenly this dream you are having matches
Everyone's dream, and the result is the world.
If a different call came there wouldn't be any
world, or you, or the river, or the owls calling.
How you stand here is important.
How you listen for the next things to happen.
How you breathe.

William Stafford
http://juliegabrielli.com/lifesaving/poetry/being-a-person/

At Cascadia Cave (photo by Diane Baxter)

Don't go back to sleep

The breeze at dawn has secrets to tell you.
Don't go back to sleep.

You must ask for what you really want.
Don't go back to sleep.

People are going back and forth across the doorsill
where the two worlds touch.

The door is round and open.
Don't go back to sleep.

Rumi