On Collaborating

The Journal of the International Keyboard Collaborative Arts Society

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On Collaborating is the journal of the International Keyboard Collaborative Arts Society (IKCAS). This multi-media platform is the nexus between performance and research in collaborative piano. It aims to bring together our international community of researchers and performers to further scholarship in this collaboration. As a multimedia journal, *On Collaborating* offers contributors the opportunity to showcase their work in written articles, lecture-recital presentations, or a blend of different media within the same submission. We welcome your feedback via email at collabpianosociety@gmail.com.

Article Submission Deadlines	*On Collaborating*
October 27, 2023 for Vol. 1 No. 3, December 2023 February 23, 2024 for Vol. 2 No. 1, April 2024 June 24, 2024 for Vol. 2 No. 2, August 2024 Link to article submission **HERE**	**Nico de Villiers**, Editor-in-Chief **Katie Hughes,** Associate Editor **Paul A. Lee,** Associate Editor **Claire Marquardt,** Associate Editor **Luis Vallés**, Associate Editor

Letter from the President

Elvia Puccinelli

Superhero, do you ever think about the passage of time? I do.

One of the things I love about the organization of time into months and years is how it offers a way to conceptualize and remember our past experiences, just as it can anchor us in the present or orient us to the future. I still keep a paper calendar. I love the promise of the future that a blank calendar page represents and the documentation of being alive that a completed page holds.

I also love the natural cycle of the year. Like a classical rondo, the seasons offer a returning theme within which my life's activity unfolds. This evokes in me a sense of hope and comfort, stemming from the renewing possibility of (always!) being able to begin again—daily, monthly, annually...

And through this, I am reminded of "shoshin," the Zen Buddhist principle known in English as "beginner's mind," which—to my novice understanding—is the concept of approaching a situation with fresh eyes and without preconceived ideas. Both articles in this second issue of *On Collaborating* offer readers this fresh perspective, suggesting new ways to consider some key fundamental concepts of our craft: the essentials of effective partnership and the piano lid's role in balance. These are wonderful core topics for us to consider and reconsider in our playing and teaching.

Alongside organizing time, calendars also help me remember things, be they appointments, activities, or important dates in my life or in the lives of those dear to me. With great sadness for the loss and profound gratitude for the person, I reflect on the passing of several leaders in our collaborative piano community: Carolyn Hague in 2021, and, within the space of a short few months in 2023, Paula Fan, Margaret Singer, and IKCAS superhero Russell Miller, whose contributions to our organization were many and vast. We will honor these superheroes, their impact, and their legacy at CollabFest 2023 and in future journal issues. Your recollections, reminiscences, and ideas on how to honor these heroes—as well as information about others—are very welcome!

And so we continue on, making music despite challenges and loss, consistently learning along the way, and carrying the best from the past forward into our future.

Thank you for your work and thank you for being here, Superhero. We are stronger together.

Onward!

Elvia Puccinelli
Founder and President, IKCAS
Artistic Director, CollabFest

Letter from the Editor-in-Chief

Nico de Villiers

Dear Superheroes,

A summer break always holds a lot of potential. For some it is to reunite with old friends and to make new ones at summer programs. Others might spend the time writing a dissertation or monograph, or working away at recital programs to prepare for the new concert season. Some might relish dialing it down to find rejuvenation in a quiet summer at home. Whether you identify with one or a combination of these summer scenarios, I hope that this edition of *On Collaborating* finds you well, wherever you might be.

As the summer comes to a close in the northern hemisphere and a new academic year is looming, our second edition focuses on issues that could be helpful to the solo pianist venturing into the world of collaborative piano and also provides a resource for the experienced collaborator in the studio and on the concert platform. In our feature article, "Does Lid Height Really Matter? This Is What the Numbers Say," Dr. Paul Allen Lee, one of the *On Collaborating* associate editors, shares insight into the scientific research that sets out how much full-stick, half-stick or indeed, no stick influences the piano sound.

While you probably have heard of the "Law of Gravity" or "Murphy's Law," have you come across the laws of collaborative piano? Dr. Jaime Namminga sets out the most important aspects of collaborative piano playing in her article, "What Does It Take to Be A Good Collaborative Pianist? Introducing the LAWs of Collaborative Piano." This will be a resourceful read for all fledgling collaborative pianists and the mentors who guide them.

Would you like to contribute an article to *On Collaborating*? The floor is open and we would welcome submissions on any topic related to collaborative piano. This invitation is including but not limited to submissions from choral pianists, repetiteurs in opera or musical theater productions, and music coaches across the vast range of genres. If you are due to present a session at CollabFest between October 12-14 and might like to publish in the November edition of *On Collaborating*, feel free to get in touch. We gladly accept submissions of written articles, lecture-recital presentations, or a blend of different media. The deadline for the December 2023 edition is October 27. Please visit the *On Collaborating* page for more details.

Whether you are in the northern hemisphere about to start a new chapter, or in the southern where you are in the midst of passing the halfway mark of the academic cycle, I leave you with the words of our colleague Dareion Malone at the University of North Carolina at Charlotte: "Take the risk, accept the challenge, and go forth and make music."

Nico de Villiers
Editor-in-Chief, *On Collaborating*

ANNOUNCEMENT: Join us for CollabFest 2023!

CollabFest

TeamWork Makes DreamWork

Oct 12-14, 2023

Presented fully virtually to allow globally accessible participation

Our keynote speaker and master clinician is the fabulous Rita Sloan, internationally renowned teacher of collaborative piano and chamber music. She leads our roster of collaborative superheroes who will offer sessions on topics about maintaining pianistic health, navigating orchestral reductions in a variety of settings, working with a conductor, building a career, developing curriculum, and much more!

For conference schedule and to submit recordings for Collabaret (deadline of September 15), please visit the IKCAS website.

FEATURE ARTICLE
Does Lid Height Really Matter?
This Is What the Numbers Say

Dr. Paul Allen Lee

I am sure there is not one among us who has not been told, "Oh, the piano is too loud. Let's put the lid down," or worse yet, had a well-meaning teacher come and unilaterally close the lid for a student, thinking that all balance issues will be solved by lowering the lid on the piano. This phenomenon is so ubiquitous that concerns and complaints about the practice are frequently brought up in some large collaborative piano groups on social media. An ancillary problem is the inherent lack of respect shown to pianists when a non-pianist comes to our instrument and makes changes to it. Could you imagine the horror if a pianist were to get up from the piano and physically take the instrument out of a partner's hands and start adjusting things on it?

The Physics of Musical Instruments

During my doctoral work at Arizona State University, I became interested in the physics of musical instruments and acquired several books that detail how instruments produce their particular sound. These books, primary among them being *The Physics of Musical Instruments by Neville Fletcher and Nicholas Rossing,* discuss in detail how each instrument (or family of instruments) sounds, showing equations, graphs, charts, and pictures that explain the production of sound from a scientist's viewpoint. Unfortunately for many musicians, books like *The Physics of Musical Instruments* are often written to an audience with many years of training in science and mathematics. The several pages of equations involve complicated time domain and frequency domain calculations, calculus, and differential equations; I have an undergraduate degree in mechanical engineering, and some of the math involved made even my head spin.

In reading through the piano section in *The Physics of Musical Instruments*, I came across a sentence that immediately piqued my curiosity: "Raising or lowering the lid causes surprisingly little change in the overall sound level, although it causes rather marked changes in the strength of the high-frequency sound in certain directions."[1] After consulting various databases and academic libraries, I found that while there is considerable research on the acoustic properties of piano soundboards and how they respond, there is very little evidence to support that one sentence. I decided to make this question the focal point of my doctoral research. In this article, I will summarize my research and findings (spoiler alert: just keep the lid open!), which will hopefully be of use to our community of collaborative pianists.

A variety of woods and metals are used in the construction of the modern grand piano. According to Steinway's website, the rim is made of rock maple, the "ribs" of sugar pine, the soundboard of Sitka spruce, the keybed of quarter-sawn spruce, and the keys of European spruce. The cast iron plate for the Model D carries a tension of over 45,000 pounds (20,400 kg).[2] Cast iron is a logical choice for the plate, as it can carry immense compressive loads (up to 365,000 pounds per

[1] Neville H. Fletcher and Thomas D. Rossing, *The Physics of Musical Instruments*, 2nd ed. (New York: Springer, 2010), 392.

[2] "Concert Grand Piano," www.steinway.com/pianos/steinway/grand/model-d. Accessed June 26, 2023.

square inch or 2,520 megapascals), while the rock maple used in the rim of the piano provides excellent strength without absorbing sound or vibrational energy (more energy kept within the piano means less energy leaves as sound).[3] In short, the materials sourced for everything except the soundboard are chosen with an eye towards minimizing sound loss (vibrational energy loss), while the soundboard's wood is chosen for the greatest possible transmission of vibrational energy from the strings and bridges to the air.

Once we strike a key, the action transmits that motion to the hammer and strikes the strings; the strings begin to vibrate in a regular sine wave pattern. While we may think that most of the sound energy comes from the vibrating strings themselves, the opposite is true: very little of the piano's sound emanates directly from the strings, primarily because the strings themselves are quite small and cannot transmit much energy directly to the air. However, the strings cross over a wooden bridge that is glued to the soundboard, and the vibrational energy from the strings makes the soundboard vibrate. In turn, the soundboard vibrates, displacing air both above and below the board, creating sound waves that propagate from above and below the piano to radiate outwards in all directions as the primary source of sound. Thus, approximately half of the piano's sound comes from underneath the instrument and is not affected by the lid at all.

What of the sound energy emanating from the top of the piano then? It would seem logical that lowering the lid *would* serve as something of a crude volume control for the piano, correct? Recall, however, that the wood for the rim and lid of the piano are chosen because these species of wood do not absorb sound energy—rather they reflect it. You may remember that the law of conservation of energy states that energy is neither created nor destroyed. If the rock maple for the lid and rim of the piano is chosen, in part, because that wood does not absorb sound, lowering the lid on the piano would not make the piano noticeably quieter because that sound energy is not being absorbed within the piano. Rather, the sound waves emanating from above the soundboard would be redirected.

"But wait!," you may be thinking to yourself, "he just said that the sound is being redirected with closing the lid. That means the sound isn't heading towards the audience anymore." It is true that redirecting the sound reduces the direct-path intensity of sound. Those of us that play for our brass colleagues are very much aware that a trumpet has a strong directional intensity to its sound. The difference between a piano and a trumpet is that the piano has less directional intensity to its sound, which is diffused more by the three-dimensional effect of sound propagation. Knowing how sound propagates through air, we have another piece of evidence to support leaving the lid open.

Testing the Hypothesis

In the preceding paragraphs, I have laid out an intellectual argument for why the lid should stay open. Without evidence and experimentation to support this argument, we do not have as strong a case to argue. In my doctoral research, I designed an experiment to test whether my hypothesis about the piano lid was potentially valid. The methods, materials, and designs can be found in my doctoral thesis, "Concert Hall Acoustics and Piano Lid Height: A Study of Five Arizona Concert

[3] "Overview of materials for Cast Iron," Material Properties Data, www.matweb.com/search/datasheet_print.aspx?matguid=6291a24572754cae94ff365ed99b96f9. Accessed June 26, 2023.

Halls," via the online database of the Arizona State University library.[4] My method, in short, was to build a wooden frame that would play the same F major chord with the same force repeatedly while using a noise dosimeter to record peak loudness and a Zoom H4N recorder to record the sound of the piano and response of the hall. To achieve greater breadth in my results, I tested five of the six music performance spaces at the three public universities in Arizona with seating ranging between 90 and 500 audience members.[5] In each hall, I took measurements of peak loudness and recorded the sound of the piano at the same seats in each hall on full stick, short stick, and no stick, as well as testing the loudness and sound at the bench and in front of the piano on stage.

What the Numbers Say

Now for the important part: the results! It was gratifying to see that, as the evidence of the testing suggested, my hypothesis was indeed valid: the lid height makes a negligible difference in the piano's loudness from the audience's perspective. In mine and the committee's opinion, a well-trained pianist on a properly maintained instrument should have the technique to control their volume and not resort to lowering the lid on the piano. The ear is an incredibly sensitive organ, but the vast range in which it can hear makes a linear scale for pressure practically useless, as the lower limit of hearing is around 10^{-5} pascals and the upper is about 100 Pa.[6] To use a scale that better approximates how the ear hears, a logarithmic scale is used, where doubling the power of a sound results in a 3-decibel increase. Similarly, the use of the decibel scale shows roughly the limit of the ear's ability to differentiate degrees of loudness. Across all the halls tested in Arizona, there was an average drop of three decibels from full stick to no stick. Interestingly enough, in a hall such as Arizona State University's Recital Hall, which has a short stage height and a more steeply raked audience seating area, lowering the lid to the short stick actually increases the piano's volume to the audience. Of the five halls tested, four were traditionally shoebox shaped with a raised stage where a considerable number of seats are not as high as the piano. Recital Hall at Arizona State University, pictured in Figure 1, in contrast, is a semicircular space with a low stage that is also quite small, making for an intimate musical experience between performers and audience. Table 1 shows the percent difference in loudness data from the five halls.

Figure 1. Recital Hall at Arizona State University is the only hall of the five tested with a small stage and a very intimate environment between performers and audience.

[4] Paul Allen Lee, "Concert Hall Acoustics and Piano Lid Height: A Study of Five Arizona Concert Halls" keep.lib.asu.items/155920.

[5] In each case, the hall was empty, as measuring the responses took several hours in each hall. The Ardrey Auditorium, Northern Arizona University's largest performing space, seating 1,350, was not included in my study as it is only used as a recital space for performances involving the pipe organ.

[6] The metric unit of pressure, abbreviated Pa; atmospheric pressure in pascals is 101,325 or 14.7 pounds per square inch.

Hall[7]		Full Stick	Short Stick	No Stick
Ashurst Auditorium (Northern Arizona University)	Sound Pressure Level (db-A)[8]	73.4	72.1	71.9
	Percentage difference from full stick		-1.8	-2.0
Recital Hall (Arizona State University)	Sound Pressure Level (db-A)	79.7	86.8	78.6
	Percentage difference from full stick		+8.9[9]	-1.4
Katzin Concert Hall (Arizona State University)	Sound Pressure Level (db-A)	73.9	72.7	71.6
	Percentage difference from full stick		-1.62	-3.11
Holsclaw Hall (University of Arizona)	Sound Pressure Level (db-A)	73.1	70.6	70.0
	Percentage difference from full stick		-3.4	-4.2
Crowder Hall (University of Arizona)	Sound Pressure Level (db-A)	69.3	68.1	66.6
	Percentage difference from full stick		-1.73	-3.90

Table 1. With the exception of Arizona State University's Recital Hall, sound measurement average levels in each hall's audience seating area show comparably small levels of sound pressure level difference between full stick and lowering the piano lid.

An additional reason to keep the lid on the piano fully raised in performance comes from a frequency analysis of the sound of the piano to the audience. Every pianist with whom I have ever discussed this problem of lid height agreed that lowering the lid on the piano makes for a dramatically different timbre of sound and a lack of clarity. In analyzing the recordings from my data collection, I found that lowering the lid on the piano changes the timbre of the instrument and decreases the relative prominence of the higher overtones. This results in a sound perceived both by the audience and performers as lacking in brilliance or clarity, described also as muddy.

[7] Hall capacities: Ashurst Auditorium: variable seating, tested 100 of 100 chairs in place; Recital Hall: 125 seats, tested 94 locations; Katzin Concert Hall: 347 seats, tested 183; Holsclaw Hall: 204 seats, tested 133; Crowder Hall: 544 seats, 225 tested.

[8] Sound pressure level can be measured using several different weightings. An A-weighted scale most closely mimics the response of the ear. Other weightings are C and Z.

[9] The intimate and semicircular nature of Recital Hall with a low stage presented uniformly higher sound pressure level readings for the audience seating area with the piano on short stick, presumably due to a focusing effect that did not diffuse in the room.

While I tested the volume and quality of sound for the audience, I also tested the volume and quality of sound onstage for all five halls. I collected this data by standing in the crook of the piano where vocalists and many non-string instrumentalists stand, and sitting in front of the leg on a piano bench where cellists and tubists tend to sit. The data pertaining to volume as summarized in Table 2 show results that tend to align with general expectations: standing in the crook of the piano with the lid lowered reduces the loudness, while sitting in front of the piano can make the piano seem louder with the lid lowered.

Hall		Full Stick	Short Stick	No Stick	Full Stick	Short Stick	No Stick
		Standing in the crook of the piano			Sitting in front of the piano's front leg		
Ashurst Auditorium (Northern Arizona University)	Sound Pressure Level (db-A)	83.0	78.7	77.4	80.6	79.7	79.1
	Percentage difference from full stick		-5.18	-6.75		-1.12	-1.86
Recital Hall (Arizona State University)	Sound Pressure Level (db-A)	81.4	81.4	82.4	83.1	84.1	81.7
	Percentage difference from full stick		0.0	+1.2[10]		+1.2	-1.7
Katzin Concert Hall (Arizona State University)	Sound Pressure Level (db-A)	80.1	76.0	76.4	78.3	79.2	75.8
	Percentage difference from full stick		-5.1	-4.6		+1.1	-3.2
Holsclaw Hall (University of Arizona)	Sound Pressure Level (db-A)	77.0	75.5	74.2	73.8	76.9	70.8
	Percentage difference from full stick		-1.9	-3.6		+4.2	-4.1
Crowder Hall (University of Arizona)	Sound Pressure Level (db-A)	80.6	76.1	74.2	75.4	76.5	75.3
	Percentage difference from full stick		-5.6	-7.9		+1.5	-0.1

Table 2. Lowering the piano lid has some contradictory results in loudness for a pianist's partner, which can give false observations about balance.

I also analyzed each strike for relative overtone strength in addition to analyzing loudness data for each of the data points collected while testing each hall and conditions onstage. As noted in many sources, the strongest overtones in a piano tone are the fundamental and octaves above it,

[10] Similar to a trumpet's highly directional response, sitting in front of the piano at close range shows a not-unexpected increase in loudness when the lid is lowered to short stick. This near-field, highly directional phenomenon is generally neutralized from the myriad directions that sound travels and reflects in the audience seating area of a hall.

as well as perfect fifths, roughly descending in relative power ascending through the harmonic series. In evaluating the first 15 overtones in an F major chord, the data suggested that lowering the lid drastically lowers the relative power of the upper overtones of the piano, those that are responsible for the richness and color of the sound. Further, the perception of harmonic richness onstage is most similar to the audience perception of richness when the lid is fully open. For in depth results regarding the sound quality testing, I refer readers to "Concert Hall Acoustics and Piano Lid Height: A Study of Five Arizona Concert Halls."[11]

Conclusion

While more research is needed to validate my hypothesis further, the combination of research, data collection and its analysis, as well as my empirical experience as a collaborative pianist of almost two decades, concludes that we as pianists should insist, as diplomatically as possible, to keep the lid of our instrument open. Balance is of course not a one-way street as both pianist and partner are responsible for maintaining clear balance by for instance paying attention to the tessitura of the clarinet, the number of notes a string player plays in a double or triple stop, or the wordiness of a singer's aria. The list goes on of course. But in the first instance, whether it is a partnership made up of a mix of performers at different levels of their development or those already maintaining a professional collaboration, the main principle would be to always listen intently to establish both clear balance and ensemble.

As a small contradiction, there are pianos that are so incredibly bright and loud that there is no good solution other than to lower the lid; let us hope those are the exception rather than the rule! While it is true that closing the lid can affect the overall volume to some degree, the impact to harmonic richness and color is quite large. Similar to us not expecting or asking our colleagues and partners to play with mutes unless called for in the score, having the piano lid open allows us as pianists to explore the full potential of the tonal range and timbre of our instrument. This makes us not only better collaborators but enables us to present the best possible performance to our audience.

Sources

Fletcher, Neville H., and Thomas D. Rossing. *The Physics of Musical Instruments*. 2nd ed. New York: Springer, 2010.

Lee, Paul Allen. "Concert Hall Acoustics and Piano Lid Height: A Study of Five Arizona Concert Halls." Unpublished doctoral iss., Arizona State University. keep.lib.asu.items/155920, 2017.

Material Properties Data. "Overview of materials for Cast Iron" www.matweb.com/search/datasheet_print.aspx?matguid=6291a24572754cae94ff365ed99b96f9. Accessed June 26, 2023.

Steinway & Sons, Model D Specifications. www.steinway.com/pianos/steinway/grand/model-d. Accessed June 26, 2023.

[11] Paul Allen Lee, "Concert Hall Acoustics and Piano Lid Height: A Study of Five Arizona Concert Halls" keep.lib.asu.items/155920.

Dr. Paul A. Lee *is currently Assistant Professor of Piano at the University of West Alabama, where he teaches courses in music theory, history, and class piano, in addition to teaching lessons in the piano and organ studio. Outside UWA, Dr. Lee also collaborates with the faculty and graduate students at the University of Alabama, particularly in the trombone, violin, and viola studios. His recent engagements have included multiple recitals in Arizona, string and chamber recitals in Alabama and Mississippi, Schubert's Winterreise, and performances in New York City with the Litha Symphony Orchestra. With long-time collaborator Dr. Alex Lapins, Associate Professor of Tuba and Euphonium at the University of Tennessee, Knoxville, the two have performed throughout the Southwest and South. Dr. Lee holds undergraduate degrees from Virginia Tech (piano and mechanical engineering), a master's degree in collaborative piano from the University of Tennessee, and the Doctor of Musical Arts degree in collaborative piano from Arizona State University.*

What Does It Take to Be A Good Collaborative Pianist? Introducing the LAWs of Collaborative Piano

Dr. Jaime Namminga

It was a Tuesday afternoon in the middle of spring semester, and I was partnering with several students, including singers and different instrumentalists, at our weekly forum performance. All was going very well, and the next performer was to be a first-year violin student. She was a polished player who particularly excelled in memorizing repertoire. About halfway through the piece, as I was responding to the beauty of her lyricism through my playing, I suddenly noticed that we were not together. She had jumped in the score, but to where? While I did my best to remain composed and vamp the harmonies based on her melody, my eyes scurried to find the right spot. She kept playing as though nothing was wrong and thankfully, it wasn't long before we were literally back on the same page again. Afterwards, she approached me with a relieved smile and said, "Thank you for taking care of me."

Any collaborative pianist who has ever been asked what it takes to be a good collaborative pianist knows that any proper response is not straightforward, as there are many components involved in effective partnering. As coordinator of a collaborative piano area, I have discovered that these many components can be intimidating and overwhelming for undergraduate students to understand and execute. While to an extent, the answer to the question depends on the pianist and musical partners—their personalities and priorities, I have broken it down into two "LAWs," separated into three components each. The first LAW is an acronym for Listening, Anticipating, and Watching, while the second includes Leading, Answering, and Waiting. This article introduces these LAWs and gives a broad scope of each of their components. Some of the points apply more to working with those early in their musical training, while others apply to those of any level.

While there is individuality to each LAW component, there is also a great deal of overlap and connectivity between them, and these components build on one another to define a well-rounded collaborative pianist in the end. The aim of this article is to advise those teaching collaborative piano introductory courses or studio lessons, and those collaborating with lesser experienced partners.

LAW #1: Listening, Anticipating, Watching

Listening, the first part of LAW #1, is at the heart of what collaborative pianists do. Before even a single note is played or sung, they listen in conversation with musical partners to help them feel welcome and comfortable in the rehearsal or performance environment. In the music-making context, pianists listen to a partner's timbre, articulation, and dynamics to match their sound, thus helping to create the character and atmosphere appropriate to the piece. Pianists also listen in an aim of achieving perfect ensemble. While there are several elements that go into ensemble accuracy, this section will broadly cover three main elements, using a different instrument category for each.

Listening

When working with singers, pianists must listen closely to the consonant sounds so they can synchronize with the vowel. Martin Katz, Arthur Schnabel Collegiate Professor of Collaborative Piano at the University of Michigan, confirms in his book, *The Complete Collaborator*,

> "Even when the preceding consonant is expressive or voiced, it is not the official attack of the note in question. As collaborators committed to perfect ensemble, our own notes must be synchronized precisely with those of our partners, and thus we always play on the vowel sound, never before it."[1]

While good ensemble requires the pianist to watch the other performer's bow whenever performing with string players, listening is equally important, particularly for synchronizing with their four-note chords, broken into two parts. Pianists must listen for the bottom part of the chord, which typically sounds before the beat, and then line up with the top part, which lands on the beat. If there are too many notes leading up to the chord for string players to start breaking the chord before the beat, pianists must create space for the chord to be placed late. Katz connects this idea to lining up with a singer when there are multiple consonants before the vowel, saying,

> "The responsibility for perfect ensemble shifts to the pianist, who must postpone the beat if the synchronization is to be ideal. This situation is completely analogous to its vocal equivalent of too many consonants and too little time."[2]

When working with wind players, pianists must listen to their partner's articulation and match it by adjusting their key speed accordingly, as the piano's percussive quality naturally results in an immediate sound. If, for example, an oboist plays with a lyrical, *legato* sound, the pianist should use a slow key speed, staying very close to the keys. Contrastingly, if the oboist plays with a short, *staccato* sound, the pianist should use a quick key speed, being more detached from the keyboard.

Pianists also listen for the purpose of balance. The dynamic level at which they play is not solely determined by what is marked but also by their partner's dynamic level, which depends on their experience and instrument. A young or inexperienced instrumentalist may lack air control or stamina, may be insecure in certain registers of the instrument, and/or may have inconsistencies in their tone which would result in the pianist's need to adjust their sound. Regarding instruments, the way a pianist plays *forte* with a flutist is going to be very different from how they play the same dynamic level with a trumpeter, for example. Regardless, a pianist should strive to play with a healthy, supportive sound, but never covering whomever the partner is.

Anticipating

There are times when listening is not enough for a musically satisfying collaboration. The second part of LAW #1 is Anticipating. By anticipating various aspects of the music in addition to listening, pianists can immediately be in sync with their partners on every musical level, rather than responding to what they hear, as when they solely listen. Breathing is a major aspect of music that

[1] Martin Katz, *The Complete Collaborator: The Pianist as Partner* (Oxford University Press, 2009), 22.
[2] Katz, *The Complete Collaborator*, 265.

requires anticipation from the pianist. If pianists wait to hear the partner's breath, it is too late to create space to accommodate that breath. Sometimes, it is clear when singers and wind instrumentalists will breathe, i.e. rests, punctuation within the text in vocal music, and breath marks in instrumental music. Other times, it might be unclear because of few or no rests, or longer phrases without commas or breath marks, such as in melismatic passages. Collaborative pianists must anticipate when singers and wind instrumentalists need to breathe by both observing the phrasing and determining their amount of air supply. Pianists should then create space by subtly expanding time shortly before the breaths. Katz refers to this concept as "Permit and Preserve":

> "The pianist chooses a point in the accompaniment after the soloist's last note and before the first note for her next phrase. Having chosen this point, the pianist phrases here—earlier than his partner—and proceeds in tempo."[3]

Another aspect that requires anticipation from the pianist is color change. Common occurrences that call for color change are sequences, exact melodic repetitions, dynamic shifts, and new sections. Tempo shifts also require anticipation from the pianist. An *accelerando* or *ritardando* is so much more effective when the pianist is already anticipating and moving with their partner, rather than merely listening and responding, thus being late to the action. The more pianists can anticipate these various aspects of the music to be musically one with their partners, the more efficient and rewarding rehearsals and performances will be.

Watching

No matter how well collaborative pianists listen and anticipate in their collaborations, there are times when their eyes are most effective. Watching, the third part of LAW #1, is a vital part of being a collaborative pianist on multiple levels.

First, pianists need to know when to watch their score and when to watch their hands. Of course, there are always several details for which to be on the lookout in the score, but there are some specific instances in which the necessity of watching is heightened. The first instance also connects back to Anticipation. In passages where musical partners are rhythmically insecure or may be prone to a memory slip, the pianist should not only watch in the moment but look ahead in the score, being ready to jump measures or help secure the ensemble. Kurt Adler, author of *The Art of Accompanying and Coaching*, confirms:

> "The eye, reading the music and especially the solo line, must always be a few beats or measures ahead of the hands. The mental anticipation of the measures following may also help him to detect mistakes and compensate for them quickly."[4]

Next, if there is a measure or phrase in which their partner's part is rhythmically contrasting with the pianist's, the pianist should follow their partner's part intently to line up. Also, if there are cuts, such as in a concerto reduction, pianists need to watch the score to make fluid transitions. Alternatively, pianists may need to temporarily watch their hands or more specifically the keyboard during a virtuosic or pianistically challenging passage. I continue to discover that my accuracy

[3] Katz, *The Complete Collaborator*, 15.
[4] Kurt Adler, *The Art of Accompanying and Coaching* (New York, New York: Da Capo Press, Inc,1965), 225.

during challenging passages increases when I look at the key where a strong finger, typically the thumb, will need to land. Adler adds, "[The pianist] must know where the most dangerous leaps are, and his eyes must, for a split second, leave the music to glance quickly at the key or the keys on which the hands are to fall."[5] Aside from it being a challenging passage, it may also be a soloistic passage, in which the pianist is perhaps more exposed and would want to pay extra attention to their hands.

The two main purposes of pianists watching their partners are for clear ensemble and character. There have been numerous occasions in which my partner and I were not quite together at a cadence point, for instance, because that moment required more than listening or anticipating—it required watching. Pianists should pay close attention to the bow of a string player or the concluding gesture of a wind player or singer. Regarding character, it is important for musicians to have eye contact with one another during their performance, thus communicating to the audience the story or appropriate mood of the piece while demonstrating that they are a team.

LAW #2: Leading, Answering, Waiting

Leading

"You follow so well." How many times have collaborative pianists heard this statement? Of course, there are times when pianists are to "follow" their musical partners, but there are plenty of times, as the first part of LAW #2 suggests, in which the pianist is "leading." Pianists "lead" during introductions as they introduce the atmosphere for the piece. They also "lead" during interludes, which function as both a response to what has just taken place and a preparation for the next part of the piece. In both instances, pianists' primary objective as a leader is to inspire their partner to join them in what follows. Pianists can also "lead" pacing, encourage dynamic expression, and ask musical questions as in typical question-and-answer phrases. Occasionally, I have had musical partners say, "I was uncertain how I wanted to express that phrase until I heard you play it." That is the pianist "leading."

These concepts are again connected to the earlier mentioned notion of Anticipation: the more pianists take a leadership role in a piece, the more they are in sync with their partners, making music together, rather than solely listening and responding. There are a couple factors that may affect how much the pianist "leads": the experience level and personality of the musical partner, and the nature of the piano part. An inexperienced vocalist or instrumentalist may not know the piece as well as the pianist does and therefore may not have as clear an understanding of how to perform it. Or, they may not have an assertive personality and therefore, benefit greatly from the pianist taking the "lead." Regarding the piano part, if it is more accompanimental and most or all the melodic interest is in the other part, the partner will likely take on a larger leadership role in the ensemble. Regardless, in a well-balanced performance, the audience should not see a leader and a follower but rather a collaboration, a team. Adler puts it well: "[The pianist] must be willing to do teamwork. As in all teamwork, he will have to lead at times, follow at times, and be one with his soloist most of the time."[6]

Another way that pianists express leadership is to play with support, which often entails giving more weight in the bass. In some cases, pianists may raise their level of support to challenge

[5] Adler, *The Art of Accompanying and Coaching*, 225.
[6] Adler, *The Art of Accompanying and Coaching*, 224.

their partner's sound. While it is important for pianists to adjust their sound according to the volume singers and instrumentalists can produce, if a pianist knows their partner is capable of more sound, they may play out with the hope of encouraging and inspiring their partner to match their sound. This in itself would help partners to build confidence in their abilities. Vocalists and instrumentalists will perform most confidently when they feel grounded, secure, supported, in other words when they sense the pianist's leadership.

Answering

Similar to how pianists can lead by musically asking questions during question-and-answer phrases, the roles are sometimes reversed, in which they give answers, leading us to the second part of LAW #2: Answering. It may be a very brief answer, consisting of a short musical motif, or instead a longer piano solo. The quality of the pianist's answer is as important as the answer itself. If the expressive markings stay the same as during the question, the quality of the answer is determined by listening and matching their partner. However, if there is a change in expressive markings, then the composer intended the answer to contrast the question, and the pianist should adjust their sound accordingly. Of all the many important components to being an effective collaborative pianist, Answering, just as in Leading, is significant: it demonstrates the pianist's equal role in the ensemble. Answering goes far beyond question-and-answer phrases. Pianists are constantly "answering," when they respond to what they hear, connecting more broadly to Listening. And these "answers" may go outside what is written in the music. For instance, if the music is marked *pp*, but my partner is caught up in the moment and plays *mp* instead, I am going to "answer" with the same dynamic so as to sell it to the audience. Collaborative pianists should always be ready to "answer" in whatever way is needed.

Waiting

And then there are those unplanned situations: "I finished the interlude, and my singer (or instrumentalist) didn't come in! What now?" The third part of LAW #2 is Waiting. Sometimes, pianists may need to wait for their musical partners to enter, in the event of a memory slip, miscount, or tempo discrepancy. Waiting, in this type of situation, is an example of when pianists "follow," as alluded to above.

Another instance in which pianists might wait is during the rehearsal period: when a musical partner is still learning a piece and working it up to tempo, pianists can support and encourage them by rehearsing regardless of the learning phase they are in. There are times when students come in for a rehearsal and say something to the effect of, "I considered canceling our rehearsal because I do not feel prepared and don't want to waste your time," to which I think: nonsense!" There is always something to be accomplished, work to be done, learning to take place, and music to be made. Waiting is really a metaphor for taking care of one's musical partners. No matter the situation, collaborative pianists must be ready to respond in whatever way their musical partners may need, whether it is waiting in the literal sense or demonstrating patience and flexibility.

A Caretaking Conclusion

Of the collaborative pianist's many roles, being a caretaker might arguably be the most important. In my experience as a rehearsal coach and performer, several of my collaborative partners have echoed my first-year violin partner's words "Thank you for taking care of me" in one way or

another. An example of a good collaborative pianist would be one who provides a calming presence and has a nurturing manner, and who encourages their partners and helps to ease their nerves and anxiety. A supportive collaborative pianist in many ways lets go of any soloistic ego and is ready to musically support their partners and help them perform their best. A good collaborative pianist Listens, Anticipates, and Watches, Leads, Answers, and Waits. Abiding by the LAWs of collaborative piano can result in becoming the best collaborative pianist one can be, ready to join other musicians in experiencing and delivering a beautiful, authentic, and meaningful performance for all to hear.

Sources

Adler, A. *The Art of Accompanying and Coaching* (New York, New York: Da Capo Press, Inc, 1965).

Katz, M. *The Complete Collaborator: The Pianist as Partner* (Oxford University Press, 2009).

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