The Multifunctional Pianist: The Recipe for Orchestral Color and Playing

Lucas Wong

As vocal pianists throughout our studies and careers, we all work with piano reductions encountered in choral and operatic repertoire. Singers, who study these works through the lens of a piano score or reduction, depend on accompanists’ or coaches’ expertise in realizing these scores, while adapting accordingly to different needs in their preparation: learning notes, hearing underlying harmonies and counterpoints, consolidating the playing/singing with a stronger rhythmic sense, drilling a difficult passage, and preparing for the first rehearsal with the conductor and orchestra.

In the twenty-first century, we still struggle to find a partition (reduction) that satisfies one’s taste and practical use. Personal editing work on a reduction is still commonly done with pencils and erasers (or pens and whiteout). Influenced by the technology boom in the last decade, especially with the rise of tablet devices and sheet music apps, pianists might, in the near future, achieve their personal reduction versions without the use of paper and writing utensils (and save time in doing so). What makes someone’s playing more orchestral and colorful than another’s at the piano? In emulating an orchestral sound, one must resist using the readily percussive ability of the piano as a basis. Orchestral instruments, besides percussions and loud brasses, often paint a much more horizontal image of the music, where attacks are often softened due to the nature of the instruments, and to the blending of a number of players that smoothes out the rough edges of the overall sound. Even a staccato or pizzicato in the orchestra, especially when executed by more than a few players, would have a slightly wetter effect than a dry staccato on the piano. Fortunately, the device of the damper pedal lets pianists overcome this dryness problem. In addition, the degree or amount of the damper pedal can help to create a spectrum of textures, from highly transparent to fully dense.

In searching for an orchestral palette on the 88 keys, the following discussion will draw, from time to time, on certain variables and terminologies that can be found in other piano pedagogy literature, such as my mentor Boris Berman’s Notes from the Pianist’s Bench. Let us focus on timbre with the assumption of a natural tone of the instrument, without the effects of acoustics, dynamic manipulations, and extreme registers.

Solid rhythm is the most important aspect of all piano reduction playing. Professional orchestral musicians often undergo very rigorous auditions, which typically consist of playing excerpts unaccompanied in rhythmic and
metronomic precision. Being a member of an orchestra is analogous to being a part of a large machinery. The individual members must interact and be in sync with each other in such a way that would benefit the overall machine as a whole. Orchestral musicians are trained to subdivide; the subdivided beat makes the common currency for agreement of the tempo. Impeccable intonation and solid rhythm are foremost for instrumentalists in a successful audition for an orchestra. At the piano, intonation of each of the 88 keys is thankfully fixed and (one hopes) well maintained by the piano tuner. Hence, the exactness and objectivity of an orchestral player’s rhythm is a major goal for most pianists in adjusting from solo repertoire to orchestral reduction.

Many orchestra conductors liken the act of conducting to driving a large truck, pulling its heavy cargo along. This analogy, which suggests irresistible rhythmic precision and power, has many implications and reasons behind it. Orchestra players are trained to always subdivide rhythm in absolute precision. As a result, any rubato in rhythmic cells is not conceivable (for the practical purpose of keeping the players together). The conductor, analogous to the driver of the truck, has to expect considerable resistance from the vehicle, either accelerating or braking, because of the law of inertia in physics: the larger the object, the greater the force of the object wanting to maintain a constant velocity. It takes time for every player in the orchestra to react. The physical space between players spread out in the orchestra increases the traveling reaction time of the players’ response, because the speed of sound (the instruments’ sound waves) travels much slower than the speed of light (the conductor’s baton). This delay in the expectation of sound constantly puts the conductor in the driver’s seat of the truck. In addition, although it has been more extreme in the past, American and European orchestras still play slightly behind the beat. Conductors feel more in control when the orchestra doesn’t play exactly on the beat (ictus), when it arrives at the bottom of the gesture, but prefer to feel the orchestra’s arrival on the rebound from the ictus.

Timbre is like the magic wand, the palette that each pianist should carry in imitating colors of an orchestra, while not sacrificing rhythmic integrity. First and foremost, before one executes any sound on any instrument, one must have an image of that sound. This image could be related to instrumentation, color, and timbre. In order for this imagined sound to be realized naturally, one must have gained aural familiarity with various instruments by listening to recordings or learning their basics. The essence of tone production in direct contact with a vibrating element is a foreign topic for pianists. When the key is depressed, multiple mechanisms react and transfer the force of the key finally to the hammer, which strikes the piano’s strings within a split second. All instrumentals, except percussionists, have to sustain the pitch by controlling the bow or breath support. The physical sensation of direct contact to sound cannot be more apparent than when one actually attempts it firsthand.

Developing sensitivity and facility in producing orchestral timbre is a quality that many singers and conductors admire in a vocal pianist. A vocal pianist makes soloists aware of orchestral variety in texture and musical consistency of pulse. This skill would transfer very well, even when the pianist studies songs and chamber music.

As a player performs a piano reduction along with the recording of a soft section in a slow movement, one notices how the piano playing wants to get ahead of the orchestra’s ictus. Most ideally, the pianist should watch video clips or live performances of similar music—in soft and slow sections—and assess how much more time instrumentalists take, compared to fast and loud sections, before the music is actually heard by the audience. As a general rule, the softer and slower a tempo is, the more delay.

Executing different touches at the piano is a highly subjective artistic matter. Orchestrally speaking, the different timbres to which we aurally identify are basically differentiations of peaks and non-peaks of the overtone series. A pianist can tweak the overtone series, within limits, by the manner of attack at the keys, causing the strings to vibrate in relative differences to each other. How each note relates to another gives an impression of differentiation and tricks the listener’s ear into translating these as differences in timbre.

What techniques should a pianist possess to execute bowed string sonorities on the piano? The piano is a stringed instrument where strings naturally vibrate synthetically or after hammers hit them. In order to avoid percussiveness of playing, the fingers should slowly descend into the keys. Analogous to the bow glued onto the string, the finger should stay close to the keyboard,
while maintaining a free “bow” arm. One should aim shallow, not deep, maintaining what Boris Berman would refer to as the “perception of depth”—the point where the sound is actually created while the finger is still in motion during its descent into the key. In lower strings, this perception of depth can be adjusted deeper, as if laying the bow deeper into the thicker strings. In general, the less finger articulation, the more successful the string-like effect. Flat fingers, overlapping-legato playing, pedaling, and the use of the arm in a pulling fashion are important considerations for achieving a bowed sound at the piano. There is naturally more space between the key and the pianist than between the key and the fallboard. In order to emulate the bow stroke with the arm, the “out” approach can help draw sound away from the fallboard of the piano to the direction of the pianist. The opposite of this sensation is the “in” approach, where the pianist pushes the hand toward the direction of the fallboard (like pushing a drawer) and away from the pianist.

The woodwind family is often doubled in the orchestral texture, although with fewer players per part than strings. Its natural timbre is distinctive to all reed instruments. Tonguing is the norm for woodwind playing and training; it translates to a certain pointiness in the sound. A curled finger would allow the pianist a pointier and faster attack into the key. Depending on the register and the timbre, one still may execute a light and shallow touch for the piccolo, flute, and clarinet. Double reed instruments have a more biting quality in the sound; therefore, a slightly higher altitude in releasing the pianist’s finger, and a greater forearm contribution, would provide more density to the sound. Flute and clarinet are considered the most airy of all woodwinds, especially when they are played softly. Clarinetists can produce an effect, called niente, in which the note appears from, and disappears to, nothingness. I would keep the flute and clarinet part executed at the piano with a low-height stroke (i.e., fingers glued closely to the keys). The piccolo, on the other hand, is a highly articulated instrument—the finger’s quick speed of attack and a higher altitude drop would create a more penetrating sound that could compete with the percussion section.

How would one differentiate between French horn and bassoon sounds at the keyboard? The horn is a non-reed brass instrument, even though it sometimes is included as part of the woodwind ensemble (woodwind quintet). The horn also has a rounder and fatter tone in general. I would experiment with the finger starting from a bassoon sound, then I would gradually shape the fingertip to a flatter position on the keyboard and draw it deeper into the bottom of the key to transition to a more horn-like sound. For other brass instruments, keep a medium speed of attack, medium altitude above the key, and deep in terms of the perception of depth. Maintain a general forearm, flat finger approach. The sound should not be too pointy and bony like woodwinds. The arm weight is proportional to the range of the instrument from the upper register of trumpet to the lowest note on tuba.

Finally, let us consider the common percussion instruments, such as timpani and drums. Fast attack from high altitude, deep with heavy curled finger, and lots of arm movement, would be ideal. Imagine a gesture in which a timpanist would approach the instrument. Sharpness and pointiness of sound can be reinforced by the use of a curled finger, like the hardness of a hammerhead or drumstick.

The reference chart provided in Table 1 can be tweaked according to the subjective opinion of any pianist. Nevertheless, it serves as an interesting study to maintain certain constants while fluctuating set variables within each instrument group. It should serve only as a starting point before one starts taking into account the dynamics, range, size of orchestra, acoustics, and the mechanical condition of any piano itself.

The two main variables of orchestral piano playing are velocity and weight. Velocity can be further enhanced by the height of the finger being dropped; the higher the altitude, the more natural acceleration caused by gravity. The perception of depth can be proportional to the depth of sound. The airier or the smaller the instrument, the shallower the perception of depth. The height of stroke is often proportional to the articulateness of the instrument. Weight can be further achieved by releasing different sizes of muscle—finger, forearm, and arm—into the key. A flatter finger approach helps to release a bigger part of the muscle, such as the forearm.

Multiple chords in quick succession might impede the steadiness of tempo. In an orchestra, each part is usually responsible for one line, whereas each pianist’s hand is responsible for multiple lines. Even with the best
pianistic technique and many hours of practicing (which is not advisable for orchestral reductions due to the sheer length of repertoire that a seasoned collaborative pianist often faces), one may find it awkward and discomforting to execute dotted rhythms in orchestral precision (Example 1). The goal is to be able to achieve simplicity, efficiency, fluency, and sustainability, but without sacrificing intent, character, emotional impetus, phrasing, and musicianship, in one’s delivery of the music.

Convenience and economy of hand position are important considerations in achieving the most objective rhythmic pulses in a piano reduction. Octaves and

---

**TABLE 1.**

<table>
<thead>
<tr>
<th>INSTRUMENTS</th>
<th>Speed of Attack</th>
<th>Height of Stroke</th>
<th>Perception of Depth</th>
<th>Weight</th>
<th>Shape of Finger</th>
<th>Arm-Finger Spectrum</th>
<th>In versus Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violin arco</td>
<td>Slow</td>
<td>Low &amp; Shallow</td>
<td>Light</td>
<td>Flat &amp; Arm</td>
<td>Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viola arco</td>
<td>Slow</td>
<td>Low &amp; Medium</td>
<td>Light</td>
<td>Flat &amp; Arm</td>
<td>Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cello &amp; Bass arco</td>
<td>Slow</td>
<td>Low &amp; Deep</td>
<td>Medium</td>
<td>Flat &amp; Arm</td>
<td>Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pizzicati</td>
<td>Medium</td>
<td>Low &amp; Shallow</td>
<td>Medium</td>
<td>Curled &amp; Finger</td>
<td>Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harp</td>
<td>Fast</td>
<td>Low &amp; Shallow</td>
<td>Light</td>
<td>Curled &amp; Finger</td>
<td>Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piccolo</td>
<td>Fast</td>
<td>High &amp; Shallow</td>
<td>Light</td>
<td>Curled &amp; Finger</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flute</td>
<td>Medium</td>
<td>Low &amp; Shallow</td>
<td>Light</td>
<td>Flat &amp; Finger</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarinet</td>
<td>Medium</td>
<td>Low &amp; Shallow</td>
<td>Light</td>
<td>Flat &amp; Forearm</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oboe</td>
<td>Medium</td>
<td>Medium &amp; Medium</td>
<td>Light</td>
<td>Curled &amp; Forearm</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bassoon</td>
<td>Medium</td>
<td>Medium &amp; Medium</td>
<td>Medium</td>
<td>Curled &amp; Forearm</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>French Horn</td>
<td>Medium</td>
<td>Medium &amp; Medium</td>
<td>Medium</td>
<td>Flat &amp; Forearm</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trumpet</td>
<td>Medium</td>
<td>Medium &amp; Deep</td>
<td>Light</td>
<td>Flat &amp; Forearm</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trombone</td>
<td>Medium</td>
<td>Medium &amp; Deep</td>
<td>Medium</td>
<td>Flat &amp; Forearm</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuba</td>
<td>Medium</td>
<td>Medium &amp; Deep</td>
<td>Heavy</td>
<td>Flat &amp; Forearm</td>
<td>In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timpani, Drums</td>
<td>Fast</td>
<td>High &amp; Deep</td>
<td>Heavy</td>
<td>Curled &amp; Arm</td>
<td>In</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

chords can become very cumbersome, especially when a pianist is trying to execute with legato and/or in a fast tempo (Example 2). However, pianists might find the music too bare to be appreciated when all the octaves get edited down to single notes. There are creative ways to balance having the illusion of a thicker sound with making the passage more playable, without losing strong rhythm.

Half pedaling (i.e., depressing the damper pedal not all the way down but somewhere in the middle) can be useful to balance the dominant forces in the orchestral texture and to maintain a more transparent texture. After understanding this “halo” effect, the pianist can execute the modified version, while experimenting with the degrees of pedal appropriate for the situation. One should let one’s ears be the judge (Example 3).

Percussion instruments are some of the loudest in an orchestra. They offer a sense of macro-rhythm in any phrase. The pianist can develop symbols to mark percussion cues, as well as explore creative options for the left hand to create this effect. In addition, depending on the magnitude of this percussive effect (along with the speed of its decay), the little notes may not be audible in a practical sense. These little notes can be left out in the piano reduction, in order to maximize a pianistically strong execution of the loud chords and cues (Example 4).

Sometimes, tremolos need to be created to overcome long crescendo on a sustained note/chord (Example 5).

An experienced collaborative pianist must be aware of listening to the ensemble from multiple imagined perspectives—at the piano, next to the instrument(s), and in the audience. A pianist playing an opera rehearsal also should evaluate what singers might and might not hear on the stage, as not all orchestral sounds from the pit below reach all stages. The goal of playing a reduction with sensitive awareness of timbre, rhythm, and texture should not neglect the fact that the pianist may inevitably respond to the natural acoustics of the room, the quality of the instrument, and the various needs of the actual operatic production.

The recipe of orchestral color and playing is only one important facet over the course of an “A-to-Z” approach to collaborative piano study. “A” is perhaps a piano
Example 3. “Sempre libera,” from Act I of Giuseppe Verdi’s La traviata: mm. 29–30 from Andantino.

major with some formal functional keyboard training, while “Z” is the keyboard wizard, at the graduate level, who possesses a great functional capacity as a successful collaborative pianist. With the help of personal editor Carmen Siu, I have uploaded my textbook, complete with links and videos, onto an online platform called “The Multi-Functional Pianist” (teachable.com). The purpose of this text is not to reiterate what has already been written, but rather to encourage new approaches and a heightened understanding of what it takes to be a multifunctional classical pianist by today’s industry standards. The more the diversity of functional keyboard skills is introduced in schools, the more doors will be opened for students in their postgraduate studies and for jobs down the road.

The author of “The Multi-Functional Pianist” and inventor of “4D Piano,” Canadian pianist Lucas Wong is earning a diversified career as a soloist, chamber musician, pedagogue, and vocal coach. Praised for “his gifts for colour, nuance and tasteful dynamic contrasts” (Gramophone), he has performed in many prestigious venues across a dozen countries on four continents. Career highlights include multiple engagements at the Carnegie Hall, innovative recital programs like “Beyond 88” and the “Mostly Debussy” series, a complete performance of Des Knaben Wunderhorn at the Shanghai Conservatory, directorship of the complete Duparc melodies at Songfest in LA, and collaborations with American composers such as William Bolcom, Jake Heggie, Libby Larsen, and John Musto. Wong’s academic achievements include his Yale doctoral thesis, “Perspectives on Claude Debussy’s Douze Études;” and the article, “Humour in Late Debussy: Multiple Perspectives on Douze Études,” published on the Musical Times.

Dr. Wong has collaborated with world renowned artists such as trombonist Joseph Alessi, violinist Soovin Kim, mezzo soprano Susanne Mentzer, bassoonist Frank Morelli, clarinetist David Shifrin, and Erhu artist Fei Song. A versatile partner for both instrumentalists and vocalists, he is also a superb opera coach and assistant conductor. He has appeared on professional rosters of the New York City Opera, Opera America, and Metropolitan Opera National Council Auditions in Connecticut. He is the founding artistic director of Liederfest in Suzhou. As an educator and administrator, Lucas Wong was a founding faculty member at the Soochow University School of Music (China), where he served as piano professor and coordinator for chamber music, collaborative piano, and staff accompanists.

Lucas Wong began his early training at the Hong Kong Academy for Performing Arts. He is a graduate of the University of British Columbia (BMus) and Yale School of Music (MM, MMA, DMA). His key mentors include Boris Berman, Frank Corliss, Claude Frank, Peter Frankl, Michael Friedmann, Margo Garrett, Martin Katz, Warren Jones, Julian Martin, Edward Parker, Tak Poon, Richard Rephann, Rena Sharon, and Robert Silverman. He holds a Postgraduate Associateship from the Yale Institute of Sacred Music, a Postgraduate Collaborative Piano Fellowship from Bard College Conservatory of Music, and a Teaching Fellowship at the Yale Department of Music.

New Year met me somewhat sad;  
Old Year leaves me tired,  
Stripped of favourite things I had  
Baulked of much desired:  
Yet farther on my road to-day  
God willing, farther on my way.

New Year coming on apace  
What have you to give me?  
Bring you scathe, or bring you grace,  
Face me with an honest face;  
You shall not deceive me:  
Be it good or ill, be it what you will,  
It needs shall help me on my road,  
My rugged way to heaven, please God.  

from “Old and New Year Ditties,”  
Christian Rossetti