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The piano has long been a fundamental base for the study of music and musical theory. As undergraduate students pursuing music degrees progress through their respective programs, they study the piano and use it as a tool to conceptualize music theory and practice ear training skills. Music degrees also require a basic piano proficiency sequence which is arguably the most challenging hurdle students encounter with the instrument, particularly if they have had little or no formal training. In the author's experience, the piano has been an invaluable resource in the contexts of solo trumpet practice, teaching, and rehearsal. The versatility of the piano's keyboard provides opportunities for musicians to study musical passages, emphasize phrasing ideas, and reinforce intonation. Collaborative practice is a growing trend and features multiple benefits for each musician involved. However, none of the existing methods involve extensive use of the piano, as most students do not possess the necessary skill to play formal accompaniments. In an effort to support students in their musical development and pursuit of piano proficiency, the author is creating a duo practice method for trumpet and piano. The exercises for the trumpet come directly from standard pedagogical texts, and the author has composed simple piano accompaniments for these exercises. The accompaniments directly reflect the skills and concepts learned in class piano, which will provide the students with three distinct opportunities: applying their developing piano skills, practicing trumpet with harmonic support from the piano, and engaging in the collaborative process itself.

A METHODOLOGY AND OVERVIEW OF *KEY COLLABORATIONS*:
A DUO PRACTICE METHOD FOR TRUMPET AND PIANO

by

Anthony Richard Sanders

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Approved by

Dr. James Douglass
Committee Co-Chair

Dr. Garrett Klein
Committee Co-Chair

DEDICATION

This dissertation is dedicated to my parents, Samuel and Carol Sanders, for introducing me to music as a child, raising me to be a confident, thoughtful, independent person, and supporting my ongoing musical career. And to my grandmothers, Hannah Sanders and Elizabeth Herbert for their support of my childhood piano lessons and additional musical exposure.

APPROVAL PAGE

This dissertation written by Anthony Richard Sanders has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Co-Chair

Dr. James Douglass

Committee Co-Chair

Dr. Garrett Klein

Committee Members

Dr. Kevin Gerald

6/21/2021

Date of Acceptance by Committee

6/14/2021

Date of Final Oral Examination

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TABLE OF CONTENTS

LIST OF FIGURES	viii
CHAPTER I: INTRODUCTION AND LITERATURE REVIEW	1
Introduction.....	1
Literature Review.....	4
Rudd: Collaborative Practice Concepts for Trumpet.....	5
Samayoa: Dueling Fundamentals	6
Guggenberger: Basics Plus	8
CHAPTER II: UNDERGRADUATE PIANO PROFICIENCY CURRICULUM.....	10
Class Piano Textbook	10
Getting Started: Pentatonic Melodies	11
Learning the Grand Staff	12
Pedagogical Applications in <i>Key Collaborations</i>	13
CHAPTER III: TROUBLESHOOTING COMMON TRUMPET AND PIANO ISSUES	15
Benefits of Score Study	16
Communication Between Musicians	17
Intonation	18
CHAPTER IV: USING <i>KEY COLLABORATIONS</i>	21
Partner Practice	21

Accompaniments for Fundamental Exercises.....	23
Solo Practice	27
Accompaniments for Etudes.....	29
Pedagogical Applications.....	32
CHAPTER V: SUMMARY AND CONCLUSION	35
BIBLIOGRAPHY.....	36
APPENDIX A: SELECTED EXERCISE SAMPLES FROM <i>KEY COLLABORATIONS</i>	37

LIST OF FIGURES

Figure 1. Clarke <i>Technical Studies for Cornet</i> , Exercise No. 2, Intermediate Piano	14
Figure 2.1. Clarke <i>Technical Studies for Cornet</i> , Exercise No. 2	21
Figure 2.2. Clarke <i>Technical Studies for Cornet</i> , Exercise No. 2	22
Figure 3.1. Schlossberg <i>Daily Drills and Technical Studies for Trumpet</i> , No. 13	23
Figure 3.2. Schlossberg <i>Daily Drills and Technical Studies for Trumpet</i> , No. 13	24
Figure 4.1. Schlossberg <i>Daily Drills and Technical Studies for Trumpet</i> , No. 52	24
Figure 4.2. Schlossberg <i>Daily Drills and Technical Studies for Trumpet</i> , No. 52	25
Figure 5.1. Schlossberg <i>Daily Drills and Technical Studies for Trumpet</i> , No. 59	25
Figure 5.2. Schlossberg <i>Daily Drills and Technical Studies for Trumpet</i> , No. 59	25
Figure 6. Arban <i>Complete Conservatory Method for Trumpet</i> , No. 46	26
Figure 7.1. Clarke <i>Technical Studies for Cornet</i> , No. 4	28
Figure 7.2. Clarke <i>Technical Studies for Cornet</i> , No. 4	28
Figure 8. Wurm <i>40 Studies for Trumpet</i> , No. 3	29
Figure 9.1. Wurm <i>40 Studies for Trumpet</i> No. 3, m. 26–28, Beginner Piano	30
Figure 9.2. Wurm <i>40 Studies for Trumpet</i> , No. 3, 26–28, Intermediate Piano	30
Figure 10. Wurm <i>40 Studies for Trumpet</i> , No. 3, m. 38–40, Intermediate Piano	31
Figure 11. Arban <i>Complete Conservatory Method for Trumpet</i> , No. 47, m. 1–4, Trumpet	31
Figure 12.1. Arban <i>Complete Conservatory Method for Trumpet</i> , No. 11, m. 1–5	32
Fig. 12.2. Arban <i>Complete Conservatory Method for Trumpet</i> , No. 11, m. 1–5	32
Figure 13. Schlossberg <i>Daily Drills and Technical Studies for Trumpet</i> , No. 9	33
Figure 14. Arban <i>Complete Conservatory Method for Trumpet</i> , No. 46, m. 1-4, Trumpet	34

CHAPTER I: INTRODUCTION AND LITERATURE REVIEW

INTRODUCTION

The piano proficiency component of an undergraduate music degree can be a source of frustration and anxiety for many trumpet students. While piano skills are an essential part of their musical training, it is not common for undergraduate trumpet students to possess a significant background in piano. This typically results in many hours of diligent work just to keep up with the piano requirements. Some students have to invest in piano lessons at the college all four years of their degree for the sole purpose of passing piano proficiency exams. After navigating the rigors of the piano program, very few trumpeters find a practical use for these piano skills upon graduating. The question is: When is a trumpet major with minimal piano skills going to utilize their piano training in real life?

Perhaps the reinforcement of music theory aspects during piano proficiency is beneficial, but not many trumpet players deliberately sit down at a piano and employ the skills they have developed. These piano skills satisfy a specific requirement and are rarely applied to something concrete despite good intentions. Another important aspect of undergraduate musical training is the preparation and performance of music in a recital setting. Whether this is for a jury, a studio recital, or a full-length solo recital, trumpet students are often unfamiliar with the collaborative process. They tend to be focused upon their solo part, unaware of the piano's role in the music, and are unaccustomed to playing in tune and balanced with a piano. Disproportionate amounts of time are spent simply navigating these issues. Other than these performance rehearsals, when do trumpet majors ever perform or rehearse with pianists?

Undergraduate trumpet players need an outlet for their piano proficiency skills and more opportunities to make music with a pianist. A concrete application for their piano training could

encourage more students to take the piano proficiency process more seriously and with increased enthusiasm.

This document outlines the construction of a collaborative practice method for trumpet and piano called *Key Collaborations*. The method will be constructed for use by two undergraduate trumpet students simultaneously. One student plays trumpet for a standard exercise while the other plays a simple piano accompaniment created to match the sequence learned in class piano, taking turns at the keyboard. *Key Collaborations* will serve to create a relevant outlet and practice opportunity for piano proficiency skills and provide students with structured collaborative practice to increase their experience in playing with a pianist.¹

A piano score inevitably contains far more notes than the trumpet solo, features complex harmonic and rhythmic elements, and requires a high level of artistry to perform. The two musicians should work together, know each other's role, and listen when playing. The piano score usually includes the trumpet part, but the same is not true for the trumpeter's music. This leaves the trumpeter at somewhat of a disadvantage unless they have taken the initiative to study the piano score separately. Through engaging in the collaborative exercises, the students will practice thoughtfully making music with another person and be able to focus on playing with accurate time, intonation, balance, and rhythm.

Intonation is often the most overt problem during the collaborative process. Tuning with a piano is not like tuning with another trumpet player. Brass players employ "just" intonation, but the piano is tuned to equal temperament with fixed intonation. This means that the trumpeter

¹ The author is uniquely suited to writing this book. Though trumpet is their primary focus, the author studied classical piano for nine years as a child, entered college as a competent pianist, and has continued employing this skill in professional contexts as an adult. The author's doctoral cognate was collaborative piano and they spent three years studying and performing standard trumpet literature with undergraduate trumpet students. In addition to the piano collaboration itself, the author has found the keyboard to be effective as a pedagogical tool in this context.

is solely responsible for adjusting the pitch. In addition to intonation, this document will address other considerations including score study and awareness while playing with another musician.

The scoring of the music offers opportunities for either musician to emphasize musical elements the other person may have missed. By boldly changing dynamics, the pianist can signal the trumpeter to make a corresponding adjustment. The same effort can be directed towards the pianist by the trumpeter if they wish to communicate a change in tempo or style. With more deliberate piano articulations on downbeats or subdivisions, the trumpeter can hear the specified tempo and perceive their fluctuation. If there is a sustained note from the trumpeter that is out-of-tune, striking a low root or the matching pitch in the piano exposes the intonation to their ears and prompts an adjustment. Small actions can encourage musical development in the moment and reduce the time spent discussing the issue.

Key Collaborations will not only give the students more opportunities to practice playing together but will specifically encourage rehearsal dialogue that will help them to be more engaged, thoughtful musicians when they hire a professional pianist for their performance. Some students may have had experiences performing a solo with a pianist during high school under the supervision of their band director, but for others, the fall semester jury is their first collaborative performance. In the author's experience, undergraduate students are often unclear about how to conduct themselves in their initial rehearsals with a pianist. A professional collaborative pianist should possess sufficient performance knowledge to help coach the trumpeter if necessary, but a student pianist may not be prepared to assume that responsibility. It is a performance situation for the pianist as well, and they may experience anxiety of their own.

Though engineered for student use, *Key Collaborations* can additionally serve as a teaching tool for the trumpet professor. Instructors are often responsible for preparing the student for the collaborative process, but this conversation might not happen until the pianist comes to a trumpet student's lesson. How much time of that lesson (and the pianist's time) is spent trying to get the trumpet player to listen to and play *with* the piano? Limited time with the pianist is better spent rehearsing the music and developing the product. The trumpet professor can also use *Key Collaborations* during a lesson to help prepare the students for their first meeting with a pianist. The rudimentary piano exercises are likely well within the teacher's abilities as they once had to complete piano proficiency themselves. They could also use it as the second undergraduate student would: to play along with the trumpet student and discuss balance and intonation.

LITERATURE REVIEW

While the idea of trumpeters practicing together for duets is not new, the idea of collaborative practice itself is a rising paradigm. Playing duets is an enjoyable and beneficial exercise for both students and teachers, and collaborative practice also involves taking turns. This encourages players to rest for as long as they play, which is crucial for healthy practice and for building endurance. From hearing each other play, the trumpeters can incorporate positive aspects of their partner's playing and even inquire as to their approach to a specific element. Friendly competition can be a powerful motivator for students, so collaborative practice can generate a challenge that drives students to work diligently and improve their skills.

Another positive aspect of collaborative practice is similar to that of an exercise partner. Not everyone has the natural motivation to exercise regularly but having a partner that agrees to meet at the gym creates some accountability and can improve one's consistency. A single trumpet student can easily skip a morning practice session to get that extra hour of sleep,

especially after a late night of studying. If the same student has someone who has agreed to practice with them in the early morning, both may feel more inclined to meet that commitment.

RUDD: COLLABORATIVE PRACTICE CONCEPTS FOR TRUMPET

Wiff Rudd, Professor of Trumpet at Baylor University, created a self-published book entitled *Collaborative Practice Concepts for Trumpet*.² The introductory text offers some thoughtful commentary on the purpose of the book and sets the tone for the music, which centers on fundamental techniques. Exercises are comprehensive, featuring buzzing, flexibility, articulation, range, and intonation. While some examples are original, many include standard material from Arban, Clarke, and Stamp, and orchestral excerpts.

Rudd creatively pairs the two trumpet lines to play back and forth, trading roles between sustaining a tuning drone or echoing the other player. In an effort to apply more than one concept to a given exercise, Rudd has modified some of the exercises and included ample suggestions for the user. New sections begin with directions that encourage healthy playing and deliberate musicianship. The word “games” is used to identify a section of the book which breaks away from the idea of “practicing” and implies a fun activity for two friends to enjoy. These games involve conversational exercises and duets to promote active and reactive listening; the students can attempt to mimic each other’s techniques and implement them into their own playing.

Once the musical material has concluded, the text features further reading on practice methods and detailed pedagogical concepts that are relevant for both young players and seasoned professionals, as well as teachers working with beginners in their first lesson. Fundamentals are

² Wiff Rudd, *Collaborative Practice Concepts for Trumpet* (Waco, TX: WR Enterprises, 2013).

the key to success, and Rudd emphasizes this throughout the book, citing both his own experiences and quotes from other notable teachers.

As *Key Collaborations* is for two students, the aforementioned ideas of accountability and partner practice come into play. When students meet, both have opportunities to practice their trumpet skills, piano skills, and collaborative listening skills. The piano makes an appearance in the first exercise of *Collaborative Practice Concepts for Trumpet*, which instructs the players to use the piano to establish and double the indicated notes of a simple buzzing exercise.³ While this moment features an ingenious and beneficial application of the piano, piano playing is not specified past this point. A student could theoretically play one of the trumpet parts on piano and practice their transposing, but as some of the trumpet material is advanced, transposing would be feasible for certain exercises only.

SAMAYOA: DUELING FUNDAMENTALS

Dr. Raquel Samayoa developed a duo routine called *Dueling Fundamentals for Two Trumpets*, published by Mountain Peak Music in 2020.⁴ The book encourages students to work together and practice fundamentals. Samayoa's exercises feature two distinct lines, but not necessarily for student and teacher; they are equal in difficulty and challenging in scope. Her approach centers on five aspects of trumpet playing: long tones, flexibility, scales and arpeggios, articulation, and range. While some examples are in duet format, others are call and

³ Wiff Rudd, *Collaborative Practice Concepts for Trumpet* (Waco, TX: WR Enterprises, 2013).

⁴ Raquel Samayoa, *Dueling Fundamentals for Trumpet* (Flagstaff, AZ: Mountain Peak Music, 2020).

response. The duet design promotes listening and intonation as well as trading roles, which is a particularly relevant skill in chamber music. The call and response idea factors in equal rest opportunities and allows each player to hear the other. Individual strengths from one musician can positively influence the other, who can attempt to incorporate these qualities into their playing.

The first section of *Dueling Fundamentals*, which features long tones, is quite accessible in terms of range and technical facility. However, as the book progresses, the exercises move into the upper register, extending as high as F above second ledger line C. Multiple tonguing is explored in the fourth chapter. Both double- and triple-tonguing are approached in static and stepwise exercises, and the section concludes with two pieces that utilize the skills developed in the previous pages. The idea of “dueling” from the title comes into play as many of the back-and-forth exercises create a desire to at least match the other trumpeter, if not surpass them in some way. Whether the example is extending into the upper register or requiring rapid articulation, the two players can challenge each other to enhance their musicianship in a healthy way.

Exercises within *Key Collaborations* incorporate fundamental playing for both the student at the trumpet and the student at the piano. The piano skills of both players will not necessarily match their trumpet abilities, but the exercises still feature conversational playing and the “dueling” aspect comes into play when the musicians switch roles and try their hand at the other half of the music.

GUGGENBERGER: BASICS PLUS

Wolfgang Guggenberger authored a trumpet book called *Basics Plus: Studies for 1 or 2 Trumpets*, published by Rundel Music Publications, which emphasizes listening as a critical skill.⁵ From the beginning the text encourages the player(s) to hum the buzzing exercises. The first examples are simple but include harmony when buzzing, which demands excellent listening from both players. When the trumpet is added, the same concepts are applied. Guggenberger suggests transposing exercises in various keys which serves not only the skill of reading but of hearing the alternate keys. In the duo context, the second part includes an extra variation that is static and allows for focused intonation practice. An additional feature is the inclusion of practice and performance concepts from renowned pedagogues strategically placed throughout the book. The exercises include articulation and flexibility and expand from the pedal register to the extreme upper register. The book provides players with a wide range of practice tools and allows them to customize its usage for their ideal approach.

Key Collaborations incorporates these collaborative skills of listening, musicality, and healthy playing with the critical addition of the piano accompaniment. Some trumpet publications come with compact disc accompaniments, such as Giuseppe Concone's *Lyrical Studies*⁶ and James Thompson's *The Buzzing Book*.⁷ The latter is also available as a digital download since CD players are not as commonplace as they used to be. Also, numerous apps provide accompaniments for trumpet music such as SmartMusic®, as well as applications like

⁵ Wolfgang Guggenberger, *Basics Plus: Studies for 1 or 2 Trumpets* (Germany: Rundel, 2004).

⁶ Giuseppe Concone, *Lyrical Studies for Trumpet* (Vuarmarens, Switzerland: The Brass Press and Editions BIM, 1972/1999).

⁷ James Thompson, *The Buzzing Book* (Vuarmarens, Switzerland: Editions BIM, 2001).

Drum Beats+ and iReal Pro that generate drum set beats or jazz rhythm sections to play along with. The robotic nature of these tools offers stability, but the accompaniment will keep playing regardless of human error, and the students must choose to utilize them in the first place.

Despite all the existing collaborative practice materials currently available to trumpet students, no resource like *Key Collaborations* exists. The deliberate combination of trumpet fundamentals with keyboard proficiency uniquely positions this method within the current market. *Key Collaborations* places the trumpeter on the piano bench where they must simultaneously read and play music on the keyboard while collaborating with their partner on the trumpet part. In the effort to accomplish this musical feat, trumpet students can enhance their listening prowess and peripheral awareness, aiding in their development as collaborative musicians. *Key Collaborations* is a needed resource with tremendous potential to enhance the skills and overall musical experiences of undergraduate trumpet students.

CHAPTER II: UNDERGRADUATE PIANO PROFICIENCY CURRICULUM

The piano keyboard is at the very core of concrete music theory. It is an essential tool for the music educator, and piano proficiency exams are a staple in undergraduate music degree programs. During their four years as an undergraduate, students must develop basic piano skills necessary for varying contexts of music education, and the reinforcement of musical theory benefits their professional performance abilities. In the author's experience, it is rare for freshman trumpet majors to enter their college degree with any background in piano, much less a significant one. The students are typically obligated to enroll in class piano or private lessons to learn the skills necessary to pass the exams.

As an example, the piano final examinations administered by the University of North Carolina at Greensboro include prepared repertoire, scales and arpeggios, triads and inversions, harmonization and transposition, sight-reading, score reading, and improvisation. This examination accounts for 30 percent of the class piano course grade and requires a minimum score of 80 percent to pass.⁸ The specific playing expectations may vary from institution to institution, but the proficiency examinations are a degree requirement that students must complete before graduation or even student teaching.

CLASS PIANO TEXTBOOK

The University of North Carolina at Greensboro's Class Piano sequence utilizes *Alfred's Group Piano for Adults*, which is divided into two volumes.⁹ This large, comprehensive textbook

⁸ Annie Jeng, *UNCG Piano Proficiency Guidelines* (University of North Carolina Greensboro, 2020).

⁹ E.L. Lancaster and Kenon D. Renfrow, *Alfred's Group Piano for Adults, Book 1* (Van Nuys, CA: Alfred Publishing Co., Inc., 1995).

specifically targets the skills necessary to navigate proficiency exams and is conducive to learning in a group situation. While the initial approach to learning the keyboard and basic playing position aligns with the pedagogy for young beginners, the ascension to reading musical staff progresses more rapidly as the undergraduate music major is expected to be able to process and execute this material quickly. Each chapter is designed to be completed in one week.

As stated in the foreword of *Alfred's Group Piano for Adults*, "Repertoire, harmonization melodies, technical exercises, and sight-reading examples are carefully fingered to aid the student in developing good technique. Harmonization skills are developed using single tones, open fifths, full chords, and various accompaniment styles. Harmonization examples use a mixture of Roman numerals, letter symbols, and melodies with no symbols given."¹⁰

GETTING STARTED: PENTATONIC MELODIES

For the beginner, the eighty-eight keys of a piano may appear as a broad, meaningless sea of black and white levers, but the distinctness of the black keys grouped in two's and three's makes them easier to identify and recognize. The first exercises taught to students take place only on the black keys to aid in their orientation of the keyboard and developing individual dexterity for the five fingers of each hand. The pentatonic nature of these five keys invites the application of simple American folk songs such as "Mary Had a Little Lamb," "Hot Cross Buns," and "Amazing Grace."

A common inclusion in beginning piano method books is teacher-performed accompaniments for these early melodic exercises. While the student can enjoy playing a melody

¹⁰ Ibid.

they are learning by themselves, the accompaniment adds rich, full harmony that might bring special delight to the student and enhance their musical experiences. The result of these pentatonic black-key melodies is that the teacher accompaniment is in the keys of G-flat major or D-flat major with six flats and five flats, respectively. Reading and playing an accompaniment in these keys may be rather difficult, which makes them primarily accessible to teachers and does not encourage student collaboration.

The piano accompaniments in *Key Collaborations* are written specifically for beginning piano students. Since the B-flat trumpet is a transposing instrument, considerations have to be made when pairing it with piano. In order to utilize an easy piano key signature such as C major, the trumpeter has to play up one step in written D major, which, due to fingering combinations, can present some distinct intonational challenges compared to other keys. However, if the trumpet exercise is written in C major, it obligates the piano to play one step lower in B-flat major, which is one of the odd keys in terms of scale fingerings.

LEARNING THE GRAND STAFF

Once the students have mastered playing the black keys, they begin to learn the white keys, starting on middle C. This key becomes their primary device of keyboard orientation, allowing them to derive the starting point of their exercises. As with the black key exercises, the students begin to learn simple melodies that guide their practice of using each finger for a specified note. The exercises alternate hands so that students can equally train their digits and learn both treble and bass clef. Staff lines have not been introduced yet as the students are developing the fine motor skills necessary to accurately play the correct notes with steady tempo. From here the treble clef, bass clef, and grand staff begin to appear and students are weaned from the large, labeled notes they have been using. Where young students have separate texts for

technique, repertoire, and theory, the class piano book is comprehensive in this regard and further reinforces what undergraduate students are learning in the theory and ear training sequence.

One element that comes into play is reading two different clefs. Bass clef in particular tends to be reserved for low wind instruments, low strings, and male vocal music. Not all students enter college with experience using this clef and must learn it during their piano and theory classes. As the textbook exercises progress, playing with both hands simultaneously is introduced through call-and-response music and unison-hand playing. Articulations are then introduced and students learn how to press the keys of the piano to achieve longer or shorter notes in succession.

PEDAGOGICAL APPLICATIONS IN *KEY COLLABORATIONS*

The study of this beginning pedagogy is crucial to the design of *Key Collaborations*. The piano accompaniments are a synthesis of the types of exercises seen in *Alfred's Group Piano for Adults* and the necessary harmonic support for the trumpet exercise. Students are provided with the essential information at appropriate skill levels to prepare them for success at the piano. The accompaniments are not composed to require practice and should be easy to sight read.

Fingerings are marked for each note in the beginner exercises, voice-leading and chord inversions keep the hands more stationary in intermediate exercises, and simple, slow rhythms give the students enough time to process and prepare for the next note change. In an effort to foster the development of specific skills for piano proficiency exams, elements such as harmonic realization and improvisation are included in certain accompaniments. The full score is included for most exercises so that the students can see both parts simultaneously (Figure 1). Ideally, *Key Collaborations* will further inspire trumpet students to invest more in the authentic piano scores

of the repertoire they perform, which is crucial for the preparation for their first rehearsal with a pianist.

Figure 1. Clarke *Technical Studies for Cornet*, Exercise No. 2, Intermediate Piano

The image displays a musical score for two instruments: Bb Tpt. (B-flat Trumpet) and Pno. (Piano). The score is for Exercise No. 2 from Clarke's *Technical Studies for Cornet*, Intermediate Piano.

The Bb Tpt. part starts at measure 12 with a treble clef and a key signature of one sharp (F#). The notation shows a series of eighth-note runs, starting with a whole note rest in the first measure, followed by six measures of eighth-note patterns. A large slur covers the entire eighth-note run from measure 12 to measure 17, ending with a whole note.

The Pno. part also starts at measure 12 with a grand staff (treble and bass clefs) and a key signature of one sharp. The first measure contains a whole note chord with a '4' below it. The second measure has a '3' above it, indicating a triplet of eighth notes. The piano accompaniment consists of chords and single notes in both hands, providing harmonic support for the trumpet line.

CHAPTER III: TROUBLESHOOTING COMMON TRUMPET AND PIANO ISSUES

For many students, the first time they work with a collaborative pianist is a daunting experience. Players in middle and high school who are preparing to perform for a local festival or competition may be intimidated at the idea of collaborating with a professional who is two or three times their age, especially when meeting them for the first time. The student has likely been focusing entirely on the preparation of their solo and is oblivious to what the piano accompaniment consists of.

Because of this, multiple problems can surface in the first rehearsal, including intonation flaws and rhythmic or counting errors. Precious rehearsal time is often wasted in the attempt to guide the soloist towards basic functionality instead of the creation of a musical experience. The problem is further exacerbated if the student has developed some incorrect rhythmic or metric interpretations that result in a divergence from the accompaniment and changing that habit can take some time. Depending on the skills of the pianist in question, they can just as easily commit errors that throw off the trumpeter. Ideally, teachers will only hire pianists that are reliable, but not all districts have access to professional musicians.

Until a trumpet student first attempts to play piano music with another musician, they are unlikely to be able to fathom the collaborative pianist's perspective. Though the pianist is ultimately in the employ of the trumpeter, they are an independent artist. The trumpeter should be mindful of the virtuosity and preparation required to perform difficult piano scores, and that it may be proportionally more challenging than their solo part. When designating a starting point during a rehearsal, the student should consider their own part in conjunction with the piano and seek to find a starting point that is comfortable for both musicians. Since the exercises in *Key Collaborations* involve deliberate usage of the piano, trumpeters can develop not only an

increased appreciation for the professional pianists they collaborate with, but a newfound ability to perceive the piano when playing trumpet.

BENEFITS OF SCORE STUDY

The trumpet solo is only one half (at most) of the collaborative performance. Whether it is an original work for trumpet and piano or a reduction of a concerto for trumpet and orchestra, the piano normally has drastically more notes to play and is responsible for creating the texture and harmony of the music. Together, the trumpet and piano are the whole product. One cannot perform without the other. How can the trumpeter make informed musical decisions if they have not studied all of the music? The trumpet solo music does not include the piano score, with the exception of occasional cues for what may be awkward entrances. By practicing with the score instead, the student can see how the music fits together, determine the member of the chord they are playing, and identify the rhythmic relationships. Preparatory actions such as these can help the trumpeter to aurally anticipate entrances and lead to more confident playing overall. The soloist needs this piano perspective to avoid placing additional pressure on their collaborative partner. The pianist not only has to play their own part but is obligated to adjust to compensate if the trumpeter makes a rhythmic or metric error. In the case of virtuosic music for the piano, this represents a significant threat to the integrity of the performance. Without guidance and/or supervision from their professor, many less-experienced players enter their first rehearsal unprepared not just musically, but logistically, putting the productivity of the rehearsal at risk.

Live performance variables can mean that if the pianist makes a timing error and adds or loses a beat, the trumpeter may come in at the correct time from their perspective but not in accordance with the music. Some entrances are almost impossible to miss because of an obvious cadential moment, but others may require prior score study to anticipate and execute. Ideally, the

musician who has done their homework will be prepared to both play confidently and comfortably and deliver a quality product.

COMMUNICATION BETWEEN MUSICIANS

Using the trumpet to give cues in an ensemble setting is a basic skill. When a conductor leads the group, these cues made by individuals are minimal and primarily promote section unity. Repertoire for trumpet and piano, however, is often more challenging on an individual level than the average band or chamber work. There is no conductor, so the musicians must cue themselves. The trumpeter should take the initiative to cue entrances, show tempo alterations, and conduct releases, but these simple cues often fall by the wayside in an effort to execute the music. Through using their breath and deliberate motion of the trumpet, the soloist can communicate with the pianist and achieve musical cohesion.

Eye contact is a critical factor in chamber music and can be established through thoughtful placement of the music stand. In a standard stage setup, the trumpeter stands near the crook of the piano, facing the audience. By positioning the music stand to their lower right, the soloist can have the pianist in their peripheral vision without obscure the audience's view. The pianist can also cue the trumpeter with a simple head nod to confirm an entrance after a long rest. Ideally, both musicians will move in sync for entrances and releases, which transcends basic musical performance and presents unified artistry. The instructions within *Key Collaborations* encourage the musicians to engage in these non-verbal communication techniques, reminding them to establish eye contact and cue each other when appropriate.

INTONATION

Intonation is one of the more exposed issues when performing a trumpet solo with piano. Advancements in modern technology, combined with increasing knowledge of instrument construction, have produced trumpets that are relatively in tune from note to note, but due to sound physics and the idiosyncrasies of different valve combinations, some notes are more noticeably out of tune than others and require adjustment. Brass players learn to tune with “just” intonation, seeking a pure, resonant sound. Musicians in a section or ensemble can learn to make miniscule pitch adjustments to achieve just intonation. Trumpeters use basic solutions such as moving their first and third valve tuning slides to alter specific notes and pitch-bending to play in tune with other wind instruments. This same strategy applies when performing with the piano, but the piano’s equal temperament system has slight differences from “just” intonation, and the instrument is unable to tune in the moment. As a result, the trumpeter is solely responsible for making intonational adjustments. They must learn the nuances of playing in tune with the piano and how to anticipate where each of their notes will land in relation to the piano in order to be as in tune as possible.

Depending on the solo piece, intonation exposure can vary. Fast passages with complex harmony or a lack of triads offer a little wiggle room, as the listening ear does not perceive the intonation as clearly. However, diatonic music and any moments of sustained pitch will quickly reveal whether the trumpeter is in tune with the piano. This situation is further reinforced if the piano score and trumpet feature the same pitch in unison.

Hearing and perceiving one’s intonation takes practice, and listening to recordings can be an effective strategy for identifying areas for adjustment. An undergraduate trumpet student may or may not yet be able to perceive when they are out of tune in relation to the piano. Depending

on the preparation process and the involvement of the teacher, the student may not discover intonation problems until they listen to the recording of their performance. While this recording can be informative and perhaps guide their approach for the next collaboration, earlier efforts can rectify the intonation before the performance. Simply recording a rehearsal with the pianist can help the student identify intonation tendencies, but unless they either use the piano when practicing or have the pianist present, solving the intonation is not a quick fix.

An additional challenge can be one of tone color. Tuning with another trumpet, brass section, or even wind ensemble is easier because of the natural blend of standing wave-based frequencies. The percussive attack of the piano differs from the trumpet's sound production, and it also varies on the tessitura. The sound colors influenced by string thickness, length, and groupings may be more or less difficult to perceive against the sound of the trumpet. Another variable is the instrument in question. A full-size concert grand piano sounds different from the spinet and upright pianos commonly found in practice rooms or studios, particularly in the extreme low and high registers. These tend to be more clear and resonant on grand pianos due to the longer strings, and the open lid creates a clearer, more exposed sound than a piano whose sound board is tucked against a wall.

This acoustic factor is important when considering a rehearsal venue. If students do not have access to a grand piano when rehearsing with a collaborative pianist, they face a different experience when they get to the performance space.

While the adjustment of the trumpet's main tuning slide is important for basic intonation and grounding with the fixed-pitch piano, a single tuning note before a collaboration is ultimately ineffective if the student is unable to listen to and perceive their intonation with the piano from note to note across the instrument. This challenge only increases in extreme registers

and as the trumpeter begins to experience fatigue during the performance. Temperature and humidity can alter a trumpet's intonation within seconds. While these factors can affect a piano's tuning as well, the results of this take time to manifest, and unless the trumpeter is deliberately adjusting their instrument, the trumpet's fluctuating pitch can become dramatically exposed. A wind ensemble is also subject to changes in instrument temperature, but may be unanimously affected by this phenomenon. Even if the group is ultimately sharp or flat to the established pitch standard, as long as the tuning is beatless, the sound can remain beautiful.

Pianists can only do so much to alter the sound and sustain of a note played on the piano once struck. Woodwind and brass instruments, through breath-control and staggered breathing, can sustain a pitch's volume and tone as long as they are required to, and string instruments can do so indefinitely. But even with the individual keys or the damper pedal depressed, the piano string's vibration begins to decay immediately after being struck and cannot be sustained like that of a brass instrument. A trumpet student may think that they are playing in tune with the piano but in reality could be several cents off in either direction. If the note they are dependent upon for tuning is fading, it will only become more difficult to hear and adjust unless that note is struck again.

Key Collaborations encourages students to play with the piano more regularly. As they meet to practice in a variety of rehearsal spaces during the school year, the increased frequency of exposure to different instruments and seasonal climates will aid in the development of their intonation perception. Through the included exercises, many of which involve playing in all chromatic keys, students have the opportunity to practice their tuning with piano in each register and valve combination to learn their tendencies and anticipate adjustments.

CHAPTER IV: USING KEY COLLABORATIONS

PARTNER PRACTICE

Key Collaborations is optimally engineered to be used by two undergraduate trumpet students working together in a space that has a piano. One student plays the trumpet exercises while the other plays the corresponding piano accompaniment. The students can switch roles as often as they like to facilitate rest and equal opportunity. Through doing so, the trumpeters are able to practice matching their intonation to the piano, reinforce their growing piano skills, and engage in the collaborative process. Rudimentary piano exercises can feel dull and tedious, but by having an opportunity to use these skills when playing piano with a trumpet colleague, the connection between piano homework and genuine application can be made, ideally generating appreciation for the piano instead of resentment.

In Figure 2.1, the second study from Herbert L. Clarke's *Technical Studies for Cornet* is set with a beginner-level piano accompaniment. This trumpet exercise is widely used and for good reason. Air flow, efficiency, finger technique, flexibility, and evenness of tone are all exposed in this single exercise.

Figure 2.1. Clarke *Technical Studies for Cornet*, Exercise No. 2

The image shows a musical score for two instruments: Trumpet in B♭ and Beginner Piano. The score is in 4/4 time and consists of six measures. The Trumpet part is written in a treble clef with a key signature of one sharp (F#) and a tempo marking of *p*. It features a continuous eighth-note pattern. The piano accompaniment is written in a grand staff (treble and bass clefs) with a key signature of one flat (B♭). The right hand plays a simple melody with fingerings 1, 2, 3, 1, 2, 1, 2, 3, and a final note with a fermata and a '2' below it. The left hand plays a bass line with fingerings 3, 2, 1, 3, 2, 4, 3, 2, and a final note with a fermata and a '3' below it.

The piano accompaniment in Figure 2.1 features only four different pitches, moving mostly by step. The included finger markings are to encourage efficient note changes and to set the student up for success when playing the exercise. Beginning piano pedagogy often anchors students by their thumbs (finger no. 1) and pinky fingers (finger no. 5), but eventually deviates from this and allows the students to choose the most practical fingerings. Fingerings are marked to reflect both styles, as well as including consideration for specific scale fingerings in different keys. In exercises like Figure 2.1, students are encouraged to play right hand (RH) alone, left hand (LH) alone, or both hands together. The pitches in the piano ultimately represent the root, third, and fifth of the harmony over the course of the exercise, giving the trumpeter opportunities to practice hearing all three chord members while providing the pianist with a simple lyrical line.

Figure 2.2. Clarke *Technical Studies for Cornet, Exercise No. 2*

Trumpet: Sing your part on a nice, open "ah" vowel. Sing through the line, then play it on trumpet.
Piano: Feel free to improvise some rhythms using the notes provided.

The musical score for Figure 2.2 consists of two staves. The top staff is for Trumpet in B \flat in 4/4 time, key of D major. It features a melodic line starting on D4, moving in eighth-note patterns: D4-E4-F#4-G4, G4-A4-B4-C5, B4-A4-G4-F#4, and F#4-E4-D4. The bottom staff is for Intermediate Piano in 4/4 time, key of B \flat major. The right hand plays a simple harmonic line: B \flat 3, D4, F4, G4, F4, D4, B \flat 3. The left hand plays a simple harmonic line: B \flat 2, D3, F3, G3, F3, D3, B \flat 2. Fingerings are marked above and below notes: 3, 2, 3, 3, 2, 3, 2 for the right hand; 1, 5, 5, 1, 1, 1, 5, 5 for the left hand.

Figure 2.2 features the exact same trumpet material with an enhanced piano accompaniment. All three pitches of each triad in the harmony are present in the piano score, and hand independence is required. Through the use of common tones and inversions, the pianist's finger movements to change chords are minimized. If the student chooses to use the damper

pedal, they can give themselves more time to prepare for the next chord. Though more challenging than the beginner accompaniment, the intermediate level is no more difficult than the basic hymn chorales seen in proficiency exams.

ACCOMPANIMENTS FOR FUNDAMENTAL EXERCISES

The piano exercises in *Key Collaborations* have a mixture of scoring in which the trumpet acts as a sole member of a given triad, and moments where the piano intentionally doubles what the trumpet is playing. This allows the students to practice both tuning scenarios and train their ears in preparation for their future rehearsals with a professional pianist.

Exercises like Figure 3.1 offer multiple opportunities to address tuning. Each starting pitch in the trumpet exercise is matched in the piano and doubled down the octave. The fingerings for the descending chromatic scale in the piano directly reflect the chromatic fingering patterns used in *Alfred's Group Piano for Adults*. Further into the exercise, the trumpet part shifts up, and the piano pattern repeats, providing the pianist a chance to reinforce their chromatic fingerings.

Figure 3.1. Schlossberg *Daily Drills and Technical Studies for Trumpet, No. 13*

The image shows a musical score for a trumpet and piano exercise. The trumpet part is in Bb and 4/4 time, featuring a descending chromatic scale. The piano part is in 4/4 time and provides accompaniment for the trumpet. The piano part consists of a series of chords, each corresponding to a note in the trumpet's scale. The chords are: C3 (octave), B2, Bb2, Ab2, G2, F2, E2, D2, C2. The piano part uses fingerings 3, 1, b3, 1, b3, 2, 1 for the notes. The trumpet part starts on C4 and descends chromatically to C2, with a final C4 note. The piano part starts on C3 and descends chromatically to C2, with a final C2 note. The piano part is labeled 'Beginner Piano' and the trumpet part is labeled 'Trumpet in Bb'.

In Figure 3.2 the LH features descending parallel fifths that are continuously executed by the first and fifth fingers. This provides the trumpet player with a more substantial tuning foundation through the addition of the fifth of the chord and a lower octave.

Figure 3.2. Schlossberg *Daily Drills and Technical Studies for Trumpet, No. 13*

The image shows a musical score for Figure 3.2. It consists of two staves: a top staff for Trumpet in B \flat and a bottom staff for Intermediate Piano. The key signature has two flats (B \flat and E \flat) and the time signature is 4/4. The trumpet part is a melodic line with slurs and fingerings: 1-3 and 1-2-3. The piano accompaniment features descending parallel fifths in the left hand, with fingerings 1 and 5. The right hand of the piano part has chords with fingerings 3, 1, and 2.

Varying time signatures and styles are explored in *Alfred's Group Piano for Adults*. Meters like 3/4 and 6/8 are included to practice both playing music and using correct style, such as for waltzes or giges. Schlossberg No. 52 involves an ascending octave exercise in 3/4 time, which offers an opportunity to benefit the pianist as well. The beginner accompaniment (Figure 4.1) doubles the trumpet part down an octave. It encourages dexterity and clef-reading as the hands trade off playing the whole step figure. A waltz style accompaniment is offered for the intermediate level (Figure 4.2) and simply moves up stepwise throughout the exercise.

Figure 4.1. Schlossberg *Daily Drills and Technical Studies for Trumpet, No. 52*

The image shows a musical score for Figure 4.1. It consists of two staves: a top staff for Trumpet in B \flat and a bottom staff for Beginner Piano. The key signature has two flats (B \flat and E \flat) and the time signature is 3/4. The trumpet part is a melodic line with slurs. The piano accompaniment features a whole-step figure in the right hand and a descending octave exercise in the left hand, with fingerings 3, 4, 3 and 2, 3, 2. The right hand of the piano part has fingerings 2, 1, 2 and 1, 2, 1.

Figure 4.2. Schlossberg *Daily Drills and Technical Studies for Trumpet*, No. 52

The musical score for Figure 4.2 consists of two parts: a Trumpet in B♭ and an Intermediate Piano accompaniment. The time signature is 3/4. The trumpet part features a melodic line with eighth-note patterns and slurs. The piano accompaniment is divided into two staves (treble and bass clef). The right hand plays chords and eighth-note patterns, while the left hand plays a bass line with quarter notes and slurs. Fingerings are indicated with numbers 1, 2, and 3.

The Schlossberg book contains many exercises for flexibility, and Figure 5.1 involves 6/8 time. Another waltz-style accompaniment is provided in the intermediate version (Figure 5.2).

Figure 5.1. Schlossberg *Daily Drills and Technical Studies for Trumpet*, No. 59

The musical score for Figure 5.1 consists of two parts: a Trumpet in B♭ and a Beginner Piano accompaniment. The time signature is 6/8. The trumpet part features a melodic line with eighth-note patterns and slurs. The piano accompaniment is divided into two staves (treble and bass clef). The right hand plays chords and eighth-note patterns, while the left hand plays a bass line with quarter notes and slurs. Fingerings are indicated with numbers 1, 2, 3, and 4.

Figure 5.2. Schlossberg *Daily Drills and Technical Studies for Trumpet*, No. 59

The musical score for Figure 5.2 consists of two parts: a Trumpet in B♭ and an Intermediate Piano accompaniment. The time signature is 6/8. The trumpet part features a melodic line with eighth-note patterns and slurs. The piano accompaniment is divided into two staves (treble and bass clef). The right hand plays chords and eighth-note patterns, while the left hand plays a bass line with quarter notes and slurs. Fingerings are indicated with numbers 1, 2, and 3.

Technical exercises for piano, such as scales, are conceptually simple to approach, but abstract concepts can be more difficult to develop. Within the piano proficiency requirements, harmonic realization and improvisation tend to stand out in this regard. For a trumpet student who has only ever needed to play one note at a time and who is still learning piano finger dexterity, spelling chords without indicated notes can be overwhelming. Figure 6 (Arban No. 46) features an arpeggio exercise that eventually moves through each chromatic key area. While the beginner piano part is fully written out, the intermediate version features harmonic realization. The chord progression is the same through each key area. A sample voicing gets students started, and after two chord progressions the music is reduced to a bass line with Roman numerals.

Figure 6. Arban *Complete Conservatory Method for Trumpet*, No. 46

The image displays two systems of musical notation for Arban No. 46. The first system is for 'Trumpet in B \flat ' and 'Intermediate Piano'. The trumpet part is a single melodic line in 2/4 time, starting with a tempo marking of quarter note = 120. The piano part is in two staves (treble and bass clef). The first five measures show a chord progression: B \flat :I, I, V7, V7, I. The second system is for 'B \flat Tpt.' and 'Piano'. The trumpet part continues the melodic line. The piano part shows a key change to E \flat major in the first measure of the second system, followed by a chord progression: E \flat :V7, I, V, I, I.

SOLO PRACTICE

Key Collaborations, though designed to be for duo practice, can ultimately be used by a single musician with many of the same benefits. The warm-up process for trumpet often involves mouthpiece buzzing. In the absence of a partner, a lone trumpet student can use the piano in the room to play either a single pitch, a perfect fifth, or a perfect octave with one hand, and hold the trumpet mouthpiece in the other hand. The piano provides a specific pitch reference for the student when buzzing on the mouthpiece. This action can aid in their ear training, and the skill of fine-tuning their mouthpiece buzz to the piano will transfer when the student returns to playing the trumpet.

It could be argued that using a digital drone and metronome could achieve the same desired result, but the critical point of using the piano is to reinforce hearing and matching the distinct tone color on an equal-temperament instrument. The solo trumpeter can play the piano accompaniments in *Key Collaborations* that pertain to the trumpet fundamental exercise they are practicing. The exercises benefit their own piano practice, and they can also record themselves playing an accompaniment. After recording the piano line, the student can use headphones and play trumpet along with their own recording. Reversing this order can also be effective. By recording the trumpet exercise first, the student can then accompany their trumpet track and practice collaborating from the keyboard. This can have an interesting tuning effect since the piano has fixed pitch. If the piano part is recorded first, the student has the benefit of being able to adjust pitch when playing along on trumpet. But if they record the trumpet first and have intonation flaws, they cannot adjust to compensate when playing piano, and the tuning imperfections will be that much more exposed, ideally drawing further awareness to the student.

The piano accompaniment in Figures 7.1 and 7.2 serves as a drone of sorts, and the use of quarter notes in this example also provides an opportunity to hear subdivision. The single pitch in the piano gives the trumpeter a tuning reference for Clarke No. 4 (Figure 7.2), and the repeated pitches provide a solid beat for aligning their sixteenth notes. The goal of this Clarke exercise accompaniment is to encourage listening both for tuning and rhythmic subdivision.

Figure 7.1. Clarke *Technical Studies for Cornet*, No. 4

Figure 7.2. Clarke *Technical Studies for Cornet*, No. 4

This skill of listening to the piano’s rhythm in comparison to one’s own is vital when performing with a piano. Works like the *Trumpet Concerto* by Alexander Arutiunian feature moments with fast runs of sixteenth notes, but the piano subdivision is only eighth notes or less. In their haste, the trumpeter can easily “outrun” the pianist if they are too focused on executing their own fast passages and not locking in with the solid rhythm in the piano. Other

examples of this can be found in the *Concert Etude* by Alexander Goedicke and the third movement of the *Trumpet Concerto in E-flat* by J.N. Hummel. The piano reduction of the orchestra score is fast and virtuosic, and if the trumpeter is playing aggressively through the sixteenth-note passages, the pianist may have to compromise the material to keep up and maintain the integrity of the performance. Working with the accompaniments in *Key Collaborations* trains the trumpet student to increase their awareness of the piano when performing.

ACCOMPANIMENTS FOR ETUDES

Figure 8 is the opening of the third etude from Wilhelm Wurm's *40 Studies for Trumpet*.¹¹ The modest harmony is clearly perceivable from the trumpet part and reinforced by triadic relationships in the piano accompaniment.

Figure 8. Wurm 40 Studies for Trumpet, No. 3

The musical score for Figure 8 consists of three staves. The top staff is for the Trumpet in B \flat , written in 4/4 time with a key signature of two flats (B \flat major). It begins with a piano (*p*) dynamic and features a series of triplet sixteenth-note passages. The bottom two staves are for the Beginner Piano, also in 4/4 time with two flats. The right hand plays a simple triadic accompaniment, and the left hand plays a bass line, both starting with a piano (*p*) dynamic.

One difficult passage occurs at m. 26 (Fig. 9.1) where the music goes through a sequence. This tessitura of the trumpet can be fraught with intonation problems due to sharpness of 1-2 and

¹¹ Wilhelm Wurm, *40 Studies for Trumpet*. Edited by Roger Voisin. (New York, NY: International Music Company, 1963).

1-3 valve combinations and frequent use of the flat fifth partial. If the trumpeter blazes through it thinking only about the fingerings, they may not achieve particularly accurate intonation.

The piano accompaniment seeks to resolve this by moving in a half stepwise motion where each pitch represents either the starting root or the third of the triad, which acts as a tendency tone leading to the next root. These notes allow the trumpeter to reference their intonation with the piano and also anticipate where their next notes will need to be. The intermediate version (Figure 9.2) features full chords to realize the progression.

Figure 9.1. Wurm 40 Studies for Trumpet No. 3, m. 26–28, Beginner Piano

The musical score for Figure 9.1 consists of two systems of staves. The top system is for the B♭ Trumpet, starting at measure 26. It features a melodic line with triplet markings (indicated by a '3' above the notes) and a key signature of two flats. The bottom system is for the piano accompaniment, also starting at measure 26. It consists of two staves: the right hand (treble clef) and the left hand (bass clef). The right hand plays a half-note line with notes corresponding to the trumpet's pitch classes, with fingerings (1-4) indicated below. The left hand plays a half-note line with notes corresponding to the piano accompaniment, with fingerings (4-5) indicated below.

Figure 9.2. Wurm 40 Studies for Trumpet, No. 3, 26–28, Intermediate Piano

The musical score for Figure 9.2 is similar to Figure 9.1, but the piano accompaniment is more complex. The trumpet part remains the same. The piano accompaniment, starting at measure 26, features full chords in both the right and left hands. The right hand (treble clef) plays a half-note line with notes corresponding to the trumpet's pitch classes, with fingerings (1-4) indicated below. The left hand (bass clef) plays a half-note line with notes corresponding to the piano accompaniment, with fingerings (4-5) indicated below.

Figure 10 comes from near the end of Wurm No. 3 and utilizes triplets in m. 38 that reflect the trumpet part, and the piano part resembles a Classical orchestral accompaniment.

Figure 10. Wurm 40 Studies for Trumpet, No. 3, m. 38–40, Intermediate Piano

The image shows a musical score for Figure 10. It consists of two systems of staves. The top system is for the B-flat Trumpet (B \flat Tpt.) and the bottom system is for the piano. The music is in 4/4 time and the key signature has two flats (B-flat and E-flat). The trumpet part starts at measure 38 and features a series of triplet eighth notes. The piano part also starts at measure 38 and features a bass line with chords and a treble line with triplets. A forte (f) dynamic marking is present in the piano part.

Solo practice with *Key Collaboration* further provides opportunities to practice general musicianship and transposition skills. A practical component of collaborative practice is taking turns to promote resting. However, without a partner, the automatic rest period is lost. In this instance the single trumpeter can play the exercise then repeat it at the keyboard. Thus they are reinforcing their familiarity with the music and expressing it on a different instrument. If the exercise (Figure 11) is newer to the student, this can be a great way to learn the music without sacrificing energy on the trumpet while doubling as practice of their piano skills and ear training.

Figure 11. Arban Complete Conservatory Method for Trumpet, No. 47, m. 1–4, Trumpet

The image shows a musical score for Figure 11. It consists of a single staff for the Trumpet in B-flat. The music is in 4/4 time and the key signature has two flats (B-flat and E-flat). The exercise consists of four measures of eighth notes.

Since the B-flat trumpet is a transposing instrument, any trumpet exercise they play on the piano is going to sound one whole-step too high. If the student wishes to make efforts to hear exactly what they will produce on the trumpet, they will have to transpose the piano exercise. Certain exercises in *Key Collaborations* (Figures 12.1 and 12.2) will specifically encourage the students to transpose the exercise by the intervals most common to the trumpet.

Figure 12.1. Arban *Complete Conservatory Method for Trumpet, No. 11, m. 1–5*

1. Both musicians: Play as written
2. Both musicians: Transpose up one whole step

The musical score for Figure 12.1 consists of two staves. The top staff is for the Trumpet in B \flat , written in 4/4 time with a key signature of one flat. The melody consists of five measures of eighth-note patterns. The bottom staff is for the Beginner Piano, also in 4/4 time with one flat. It provides harmonic support with chords in the right and left hands, including fingerings (3, 2, 3) for the right hand and (3, 2, 3) for the left hand.

Fig. 12.2. Arban *Complete Conservatory Method for Trumpet, No. 11, m. 1–5*

1. Both musicians: Play as written
2. Both musicians: Transpose up by perfect fourth

The musical score for Figure 12.2 consists of two staves. The top staff is for the Trumpet in B \flat , identical to Figure 12.1. The bottom staff is for the Intermediate Piano, in 4/4 time with one flat. It provides harmonic support with chords in the right and left hands, including fingerings (3, 2, 3) for the right hand and (5, 1, 5) for the left hand.

PEDAGOGICAL APPLICATIONS

Renowned trumpet pedagogue and author James Stamp was known for using the piano to support his students during their private lessons.¹² The students attested to the dramatic difference this made in the effectiveness of the exercises, as it drew immediate focus to any issues. In the spirit of Stamp’s work, *Key Collaborations* can benefit a teacher in the context of a

¹² James Stamp, *Warm-ups for Trumpet* (Vuarmarens, Switzerland: Editions BIM, 1978).

lesson. Trumpet professors should possess the necessary skills to use the accompaniments in this method book.

Figure 13 features an excerpt from Schlossberg exercise No. 9, which involves harmonic series descent, moving down chromatically. The piano accompaniment for the intermediate exercise adds logical harmony and has an extra measure that obligates rest from the trumpeter and further aids in preparing their ear for the next interval. If the teacher is primarily interested in studying the technical progress of the student, they may prefer to observe their embouchure, posture, and finger work, which may be difficult to do while playing piano. But if these skills do not require direct observation, the teacher may use the accompaniment to provide harmonic support and discuss listening to the piano towards the larger goal of piano collaboration.

Figure 13. Schlossberg *Daily Drills and Technical Studies for Trumpet, No. 9*

The image shows a musical score for Trumpet in Bb and Intermediate Piano. The score is in 4/4 time and consists of five measures. The Trumpet part is written in a single staff with a treble clef and a key signature of one flat (Bb). The piano accompaniment is written in two staves (treble and bass clefs) with a key signature of two flats (Bb). The piano part includes fingerings: 1, 5, 1, 5, 1, 5 in the bass staff for the first three measures. The piano part has an extra measure at the beginning, which is a whole rest for the trumpet.

Teachers are often responsible for not only teaching students their craft but guiding their practice. Through using *Key Collaborations* with a student during a lesson, the teacher can demonstrate and encourage the use of the piano in their independent practicing as well as with a partner. Arban No. 46 (Figure 14) is an excellent example for this kind of work, as it navigates through basic triadic arpeggios. As the melody is nearly the same in each key area of the exercise, students can practice piano playing, pitch memory, and transposition. If the student plays Figure 14 as written for Bb trumpet on the piano, it will sound one whole step too high. To

hear the correct pitch that the trumpet plays, they will need to transpose down one whole step, which applies the same intervallic change as when using a C trumpet. This same idea can be extrapolated within any of the given exercises. A student could choose to practice their F trumpet transposition and use the piano to play the first (C major) exercise up by a perfect fourth. They could look at the very next variation of Arban No. 46 that is written in F major to check their note accuracy.

Figure 14. Arban *Complete Conservatory Method for Trumpet*, No. 46, m. 1-4, Trumpet



Students that are not ready to play both accurate pitches and rhythm at the same time can play only the notes to practice hearing and anticipating the intervals. Through repetition of the pitches, they can gradually apply the correct rhythm. When they return to the trumpet, the passage in question improves, even though they did not specifically practice it on the trumpet.

CHAPTER V: SUMMARY AND CONCLUSION

The piano is a musical keystone for undergraduate students, supporting and reinforcing their skills in music theory and ear training. Despite the plethora of benefits that can come from piano proficiency, trumpet players have not traditionally had structured guidance in how to apply these keyboard skills after graduation. However, by embracing piano in their trumpet practice, students have the opportunity to enhance their sense of intonation, knowledge of a piano score, and perspective of the musicians with whom they collaborate. *Key Collaborations* addresses each of these elements and further provides students with an opportunity to utilize their developing piano skills. The method is useful for a pair of students, the solo musician, and the instructor, strategically designed to encourage listening and musical conversations.

Through the study of *Alfred's Group Piano for Adults*, the accompaniments in *Key Collaborations* are engineered to be accessible and sight-readable for beginning piano students and provide harmonic and rhythmic support to the trumpeter. *Key Collaborations* is intended to be the first volume in a longer endeavor to create more collaborative practice methods with piano. In addition to expanding the original concept to other wind instruments, the author intends to develop further trumpet volumes that include solo repertoire and orchestral excerpts, all with simplified accompaniments. *Key Collaborations* has the potential to support and guide trumpet students through their fundamental exercises, piano proficiency sequence, and ultimately promote the skills that they need to flourish as musicians.

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APPENDIX A: SELECTED EXERCISE SAMPLES FROM *KEY COLLABORATIONS*

Arban No. 11

Trumpet: Focus on consistent, crisp note-fronts. Listen to the piano.
Piano: Play with RH alone, LH alone, or with both hands as able.

1. Both musicians: Play as written
2. Both musicians: Transpose up one whole step

Trumpet in B \flat

Beginner Piano

B \flat Tpt.

Pno.

B \flat Tpt.

Pno.

Arban No. 11

Trumpet: Sing your part with piano before playing it.
Piano: Feel free to improvise some rhythms on the notes provided.

1. Both musicians: Play as written
2. Both musicians: Transpose up by perfect fourth

Trumpet in B \flat

Intermediate Piano

Detailed description: This system contains the first four measures of the piece. The Trumpet part is in B-flat major, 4/4 time, with a melodic line starting on G4. The piano accompaniment consists of four chords: G4 (3), G4 (3), F4 (2), and F4 (2) in the right hand, and G4 (5), G4 (5), F4 (5), and F4 (5) in the left hand.

B \flat Tpt.

Pno.

Detailed description: This system contains measures 5-8. The B-flat Trumpet part has a melodic line starting on G4. The piano accompaniment consists of four chords: G4 (3), F4 (2), E4 (1), and F4 (2) in the right hand, and G4 (5), G4 (5), F4 (5), and F4 (5) in the left hand.

B \flat Tpt.

Pno.

Detailed description: This system contains measures 9-13. The B-flat Trumpet part has a melodic line starting on G4. The piano accompaniment consists of five chords: G4 (3), F4 (2), G4 (3), F4 (2), and G4 (3) in the right hand, and G4 (5), G4 (4), G4 (5), F4 (5), and G4 (5) in the left hand.

Clarke No. 2

Set A

Trumpet: Sing your part on a nice, open "ah" vowel.
Sing through the line, then play it on trumpet.

Piano: Use left hand alone, right hand alone, or both together as you're able.

Trumpet in B \flat

Beginner Piano

This system contains the first three measures of the piece. The Trumpet part is in G major (one sharp) and 4/4 time, featuring a continuous eighth-note scale. The piano accompaniment is in F major (one flat) and 4/4 time. The right hand plays a simple harmonic accompaniment, and the left hand plays a bass line with fingerings 3, 2, 1, 3, 2, 4 indicated.

B \flat Tpt.

Pno.

This system contains measures 4 through 6. The B-flat trumpet part continues with the eighth-note scale, with a fermata over the final note of measure 5. The piano accompaniment continues with the harmonic and bass lines, including fingerings 2, 3, 2, 1, 2, 3, 1 in the right hand and 3, 2, 3, 2, 4, 5, 4, 3, 5 in the left hand.

B \flat Tpt.

Pno.

This system contains measures 9 through 11. The B-flat trumpet part continues with the eighth-note scale, with a fermata over the final note of measure 10. The piano accompaniment continues with the harmonic and bass lines, including fingerings 2, 1, 2, 3, 2, 2, 1, 2 in the right hand and 3, 5, 4, 3, 4, 4, 5, 4 in the left hand.

Clarke No. 2

Trumpet: Sing your part on a nice, open "ah" vowel.
Sing through the line, then play it on trumpet.

Piano: Feel free to improvise some rhythms using the notes provided.

Trumpet in B \flat

Intermediate Piano

Detailed description: This system contains measures 1 through 6. The Trumpet part (top staff) is in 4/4 time with a key signature of one sharp (F#). It begins with a piano (*p*) dynamic and a melodic line of eighth notes. A slur covers measures 1-6, with fingerings 3, 2, 3, 3, 4, and 2 indicated below the notes. The Intermediate Piano part (bottom two staves) features a bass line with chords and single notes, with fingerings 1, 5, 5, 1, 5, and 5 indicated below the notes.

B \flat Tpt.

Pno.

Detailed description: This system contains measures 7 and 8. The B-flat Trumpet part (top staff) continues the melodic line with a fermata over the final note of measure 7, marked with an asterisk (*). The Piano part (bottom two staves) continues with chords and single notes, with fingerings 1, 5, 5, 1, 3, 5, 1, 5, and 5 indicated below the notes.

B \flat Tpt.

Pno.

Detailed description: This system contains measures 9 and 10. The B-flat Trumpet part (top staff) continues the melodic line with a slur over measures 9-10. The Piano part (bottom two staves) continues with chords and single notes, with fingerings 4 and 5 indicated below the notes.

(*Use the fermata as a rest, or continue straight into the next key.)

Schlossberg No. 9

Trumpet: Sing your part the first time--match the piano
Piano: Continue shifting down chromatically

Trumpet in B \flat

Intermediate Piano

B \flat Tpt.

Pno.

B \flat Tpt.

Pno.

Wurm Etude No. 3

Trumpet: Listen to the piano and cue your entrances
Piano: Focus on tempo integrity

Trumpet in B \flat

Measures 1-5 of the score. The Trumpet part (top staff) features a melodic line with triplets and slurs. The Piano part (middle and bottom staves) features a bass line with triplets and slurs, and a right-hand part with single notes and slurs. The key signature is B-flat major (two flats) and the time signature is 4/4. Dynamics include *p* (piano).

B \flat Tpt.

Measures 6-10 of the score. The B-flat Trumpet part (top staff) features a melodic line with triplets and slurs. The Piano part (middle and bottom staves) features a bass line with triplets and slurs, and a right-hand part with single notes and slurs. The key signature is B-flat major (two flats) and the time signature is 4/4. Dynamics include *p* (piano).

B \flat Tpt.

Measures 11-15 of the score. The B-flat Trumpet part (top staff) features a melodic line with triplets and slurs. The Piano part (middle and bottom staves) features a bass line with triplets and slurs, and a right-hand part with single notes and slurs. The key signature is B-flat major (two flats) and the time signature is 4/4. Dynamics include *p* (piano).