NORTHWESTERN UNIVERSITY

AN ARGUMENT AND PEDAGOGICAL GUIDE FOR INTRODUCING CONCEPTS OF MUSIC THEORY INTO INTERMEDIATE LEVEL HORN PEDAGOGY

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By
Valerie Whitney

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ABSTRACT

Ever since Jean-Baptiste Lully welcomed the horn to the stage as an instrument capable of producing music suitable for indoors, a tradition of horn methodology and pedagogy has been developed and expanded over the centuries.

Despite the volume and variety of pedagogical materials available to the horn student and pedagogue today, there is still one area of horn pedagogy that is lacking: an approach that integrates horn pedagogy with adequate music theory training. I will make a case here for why such a resource is necessary and present suggestions and samples of lesson material. This resource is aimed at the student horn player of intermediate level and their private lesson instructor, with the assumption that such a player between the ages of late middle school to early high school.

INTRODUCTION

Ever since Lully's *La Princesse d'Elide* welcomed the horn to the stage as an instrument capable of producing actual music beyond outdoor hunting signals, a tradition of horn methodology and pedagogy has been developed and expanded over the centuries. The research literature reviewed in this paper identifies over 300 various method and etude books, and this number does not include warm-up guides, orchestration tutors, band methods, or performance pieces written to teach and test skills, such as Eugene Bozza's *En Foret* or Paul Dukas' *Villanelle.* There is a substantial amount of pedagogical material available to the horn player and teacher today.

With this wealth, one might wonder what else can be added, what new approach can be taken, or what could be left to say. Despite the volume and variety, in my view there is still one approach to horn pedagogy that has not been developed, and that is a methodology which integrates horn pedagogy with music theory training beyond rudimentary understanding. This paper will make a case for why such a resource is necessary and present suggestions and samples of how one might go about integrating music theory concepts into standard horn pedagogy.

This resource is aimed at the student horn player of intermediate level and their private lesson instructor, with the assumption that such a player is between 12-16 years of age. This age group was chosen because by this time the student has ideally grasped the rudimentary aspects of music and horn playing such as reading music notation and rhythm, can produce a reliable sound on the horn and knows the fingerings, and has developed a reasonable range on the instrument. At this stage, the student's repertoire is starting to become more complex, and concepts of music theory will be more apparently applicable based on that repertoire.

This document is organized into two main sections: the first is a written discussion of the rationale for a pedagogical approach that integrates music theory into intermediate level horn instruction, including a review of current research literature and of a selection of widely used horn method books; the second is the presentation of the sample lesson units which provide guidelines for how an instructor might use existing horn repertoire to address specific topics of music theory. Each lesson is preceded by an introduction and rationale for why I have chosen the topic and how the lesson is laid out. In the closing chapter I suggest areas of further development within the topic of music theory integration into horn pedagogy.

CHAPTER ONE

ARGUMENT FOR INTEGRATED PEDAGOGY

Rationale from Personal Experience

I have spent the better part of a decade teaching private horn lessons to students whose ages range from ten to eighteen. One significant observation that I have made during this period is that while students are usually able to read the notes on the page of music before them, there is often a lack of understanding of how those notes fit together, why they are arranged in the manner they are, and how to use that information to draw conclusions about other musical concepts.

For example, students are often able to recite key signatures but may not fully understand the relationships the keys have to one another. Students may be able to approximately parrot how a dotted-eighth sixteenth rhythm sounds to the ear, but often do not have a framework understanding of the division of a beat and therefore never fully understand how to put rhythms together. This lack of understanding often prevents them from being able to independently produce a rhythm which they have not yet "learned" in band class. Students are often required to learn and play scales as part of earning their grade for band class, yet this can be a daunting task, especially to the younger students, as they are often learning each scale as a separate entity rather than the result of a standard pattern of intervals or in relation to surrounding keys. If a student were to understand the sequence of half-steps and whole steps which comprise a major or minor scale, learning scales could be a more intuitive process. Likewise, seeing an unfamiliar piece of music placed in front of them can be overwhelming to a young player. A basic framework for organizing the musical form before the initial sight-read through could help to alleviate some of this anxiety.

Gaps in students' musical understanding such as these have led me to believe that students of the horn need to be introduced to concepts of music theory earlier in their experience of learning music. The purpose is not to distill a college-level textbook into intermediate pedagogy. An in-depth venture into advanced theory concepts is possibly beyond the comprehension of the intermediate-level student.

My argument is that terms and concepts such as tonic and dominant, major and minor, and binary and ternary can and should be organically worked in as a part of the vocabulary in the same way that learning a new dynamic marking or a pitch with an extra ledger line might be. Students should not have to wait until they are able to take an AP theory course to learn basic theoretical concepts. If these concepts can be introduced casually as part of the whole music learning process, the horn student would have a deeper and more thorough understanding of the musical language.

Considerations Regarding Age and Skill Level for Introduction of Music Theory

Arguably, music theory cannot and should not be divorced from the performance side of musical learning, and one may ask, Why wait until a student has reached intermediate level rather than starting with the beginning student? There are two reasonable answers to this question.

The first is that in learning to read music notation, beginning students are in fact learning rudimentary music theory concepts implicitly. Although the ability to read notated music is not critical to music making (considering the number of musicians who have forged successful careers without it), students' understanding of harmonic structure and musical form will be greatly enhanced by possession of this skill. The second reason is that, in order to play the music

in which theoretical concepts can be best illustrated and understood, a certain amount of technical skill is necessary.

In this paper, “intermediate level” will refer to the student whose skill level has exceeded the first one or two volumes of beginning horn and/or band method books, but who may not yet be ready to enter fully into standard etude collections. Similarly, “intermediate” in this paper assumes that a student enters beginning band during the late elementary years and takes two to three years to move past “beginner” level, and so refers to students in the age range of 12-16 years.

The argument and content of this paper is not intended to discredit the learning that happens in school band classes, but rather to build upon and supplement that learning. School band and orchestra directors have much work before them with the sheer number of students in their care. Because school band directors have limited classroom time and even more limited opportunity for one-on-one instruction of the students, concepts of music theory can easily fall through the cracks.

Piano Methods and the Music Development Program as Models

Beginning piano method books have served as partial inspiration for the argument of this paper. Standard piano method series contain multi-volume sets for each level of learning. For example, a popular series in current use, and one which I myself have used with success at times when I have taught private piano lessons, is the *Piano Adventures* series by Nancy and Randall

Faber.[1] Each of the eight levels of the *Basic Piano Adventures* series have integrated volumes covering the categories of—"Lesson", "Technique and Artistry," "Theory," and "Performance"—each of which "work together to support the whole musician."[2] The Alfred Basic Piano Library series published by Alfred Music also contains correlated books of lessons in theory, repertoire, and technique.[3]

Established music curriculums have also served as a loose model in building this argument. Programs such as the *Music Development Program* from the Royal Conservatory provide a standard curriculum for all instrumental learning, which includes performance training and examinations as well as those in music history and theory. The *Music Development Program* "provides a recognized national standard of musical success through an effectively sequenced course of study from beginner to advanced levels."[4] The categories of musical training are comprised of repertoire, technique, musicianship, and music literacy,[5] the latter being of main interest here. The course description states that "theoretical levels are tied to practical

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[1] "Piano Adventures," Faber Piano Adventures, accessed April 19, 2017, https://pianoadventures.com/browse/libraries/piano-adventures.

[2] Ibid.

[3] "Piano Methods," Alfred Music, accessed April 19, 2017, http://www.alfred.com/AlfredPiano/PianoMethods.aspx.

[4] "Overview," Music Development Program, accessed April 19, 2017, https://www.musicdevelopmentprogram.org/program/overview

[5] Ibid.

(performance) levels, *reinforcing concepts encountered in repertoire*, technique and musicianship studies"[6] (emphasis mine). While this approach is certainly not limited to this program in particular, this statement supports my own view that concepts of music theory are best addressed in the context of repertoire and in practice, and that repertoire and theory are mutually informative of one another. While I am not suggesting that each student of the horn must be enrolled in such a program, resources such as the *Music Development Program* are useful guides for illustrating the importance of the integration of theory and repertoire and how it might take place inside individual music instruction.

Resources such as those just presented offer a valuable integration of broader musical concepts to the young learner beyond simple note reading and sound production. Horn pedagogy could benefit from an approach that goes beyond horn-specific knowledge and reaches toward training the young horn student as an all-around musician. Understanding theoretical concepts can help the student to make better sense of playing the horn and therefore gain skills faster. It is the goal of this paper to bring attention to the need for this approach to horn pedagogy and to offer suggestions of how an instructor might go about integrating music theory into regular horn lessons.

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[6] Ibid.

CHAPTER TWO

REVIEW OF LITERATURE

Approaches to music pedagogy are almost as numerous and varied as are performers and pedagogues. Every teacher and performer, educated in the school of thought handed down from their own instructors, develops their own thoughts on performing and teaching that may branch off from the others. Each one develops their own philosophical and pedagogical "voice." This is evidenced by the sheer number of pedagogical materials available to the horn player of every age and skill level, from method and etude books to orchestral excerpt compilations, treatises on the horn and its history, and even materials taking the horn into the jazz tradition.

A search through any research database will reveal research that has centered around discovering, annotating, and even creating these method and etude materials. A trilogy of studies that are very useful as general anthologies of available materials are those written by Howe,[7] whose work surveyed materials available in 1965, Pherigo's 1986 document which surveyed

[7] Marvin Howe, "A Critical Survey of Literature, Materials, Opinions, and Practices Related to Teaching the French Horn" (PhD diss., University of Iowa, 1966).

material published between 1965 and 1985,[8] and Johnson's 2012 document, which surveyed material published between 1985 and 2011.[9]

Some of the research that has been conducted has exposed gaps in the traditional horn pedagogy, and others have presented solutions to those gaps. For example, in 1994, Hoover performed an informative survey for the University of Southern California that questioned whether students who were at college-entry age were being adequately prepared to enter into college-level playing.[10] His findings were that the majority of students at that stage, regardless of their aspirations in music school, were not prepared to perform at the standard demanded by the repertoire, and an inquiry into pedagogical material revealed that most horn-specific skills such as transposition and hand-stopping were aimed at the advanced player rather than the beginner. He argued that the horn has unique challenges that set it apart from other instruments and therefore must be addressed as such; horn-specific skills need to be introduced earlier in the education of most students than they are in practice.

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[8] Johnny Pherigo, "A Critical Survey of Materials and Practices Related to Teaching the Horn, 1965-1985" (D.M.A. diss., University of Illinois at Urbana-Champaign, 1986).

[9] Joseph Johnson, "Etude Books for Horn Published from 1985-2011: An Annotated Guide" (D.M.A. diss., West Virginia University, 2012).

[10] David Hoover, "An Investigation of Student Horn Player Preparation for Repertoire-Based Performance and Study" (PhD diss., University of Southern California, 1994).

Otero's 2001 dissertation[11] presents a beginning horn method that follows Gordon's *Music Learning Theory,* in which the student is first introduced to the musical language by extensive listening and singing exercises before learning to read notation and before even starting to play the horn. This document contains a well-rounded guide to horn pedagogy that addresses the absence of explicit aural skills training in horn pedagogy. Otero's original method book, provided in the appendices of the dissertation, has the student first learn melodies by ear using solfeggio, gradually progressing to the horn, with composition and improvisation elements included. There is a teacher's guide as well for the instructor who may not be as familiar with leading a student through this methodology.

In theory, Otero's document is an excellent, well-rounded approach that does indeed train the young horn player in all the general basics of music, with the biggest value being her early fluency in solfeggio and the accompanying aural skills. This approach would work exceptionally well if the student were taking horn lessons alone and could spare the several weeks or months at the beginning of study to only listen, sing and learn solfeggio as the method indicates (skills which I agree are of inestimable value to the horn player). However, the reality is that most students begin playing the horn in the context of school bands, where they are learning to create sound, read notes and rhythms, and play in an ensemble from the first day the instrument is placed in their hands. Any learning of theory, composition, aural skills, or other broader musical

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[11] Erica Otero, "Beginning Horn Method Book Based on the Music Learning Theory of Edwin E. Gordon" (D.M.A. diss., University of Northern Colorado, 2001).

concepts must happen simultaneously, not beforehand, since the band system in which the majority of horn students get their start does not accommodate this preliminary learning period.

Lee's 1969 dissertation[12] presents a thorough method for learning transposition based on an argument from the orchestral repertoire. The author has included numerous exercises on each harmonic series that test the player's knowledge of which partials are being used at what time. Studies on orchestral excerpts are also included. Bass clef and old notation are used for the second, third, and fourth partials. This method assumes an advanced-level student, as many of the exercises will be too difficult for the beginner or intermediate-level student. The method addresses all sixteen partials, the extreme ranges of which are beyond the reach of the typical younger student. Additionally, each harmonic series is labeled by the written fundamental pitch in horn pitch (e.g., the horn in F series, which would be played with no valves, starts on a written C, or concert F). Labeling each series in horn pitch rather than concert pitch could cause some confusion; the student may mistakenly believe that the harmonic series for, for example, horn in E would begin on E, rather than written B. Even in learning transposition, the distinction between concert pitch and horn pitch should be stressed. Another very practical piece of information that is left out of Lee's method is an explanation of which valve combination to use for each new harmonic series that is introduced. Though it may be obvious given the fingering of the first note of each exercise, an explanation of how the valves take the place of the crooks would be helpful, especially to a younger player who is not familiar with transposition or the harmonic series. To an intermediate-level student, a resource such as this would be

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[12] Melvin Lee, "The Development of a Beginning Method of Transposition for the Orchestral Horn" (D.Mus.Ed. diss., University of Oklahoma, 1969).

overwhelming and quite possibly undecipherable. A resource that introduces the harmonic series in a simplified manner will help the concept to be more accessible to the intermediate-level player.

The current published lesson book materials and other horn-specific resources address all issues related to playing the horn from reading music to proper breathing technique, posture, embouchure, extended techniques, expression and interpretation, and horn history. The following section reviews some widely used method materials.

CHAPTER THREE

REVIEW OF METHOD MATERIAL

This chapter contains a review of commonly used horn method materials. The books have been chosen based on their degree of prominence in the horn literature. To my current knowledge, they are among the most widely used by horn teachers with students of all levels.

James Ployhar, *French Horn Student*, Level 1-3

The Student Instrumental Course series of which these books are a part are among the most comprehensive of materials reviewed here. Each of the three levels contains a companion set consisting of lesson, technique, and solo books. There are also supplementary etude books for the intermediate level. What sets this resource apart from others is that it includes in the lesson books a handful of written assignments consisting of various tasks. Some require the student to identify written pitches and their equivalent fingerings, or to add bar lines to a melody according to a given time signature, or to transpose a short melody into E♭ horn or bass clef. In the context of this dissertation, this resource comes the closest to what I am arguing for, namely, to have more theory integrated into regular horn pedagogy. Unfortunately, the written tasks for the intermediate level are no more advanced than for the beginner level. The topics that the written assignments cover only skim the surface; for example, the page that initially introduces the bass clef (Level 2, p. 34) leaves it immediately after introducing it and does not return until p. 40 with one very short written assignment and one eight-bar melody.

Max Pottag and Nilo Hovey, *Pottag-Hovey Method for French Horn*, Books 1 and 2

This is a widely used horn method series. Book 2 is organized methodically by key, with relative major and minor keys adjacent to one another. However, there is no written explanation

of the key relationships, an addition that would be useful for the student. Etudes and studies are aimed toward developing tone and technique through scales, arpeggios and melodic exercises at varying styles and tempos. There are only a few instances of bass clef notation, and these are limited to the lowest pitches in the scale and arpeggio exercises. No explanation of the difference between old and new notation is given. The final pages of Book 1 address transposition techniques, and the authors acknowledge that "special lessons are not deemed necessary,"[13] as transposition can be applied to simple exercises as early as an instructor sees fit. I agree with this point; however, the manner in which transposition is presented in this source gives the impression that transposition is an afterthought of horn pedagogy, as opposed to a key skill to be developed by the horn player. This text does provide a partial answer to the inevitable question of why the horn must transpose in the first place, which is to say that even though "a large portion of the recent publications include parts for the F Horn, many older and still desirable editions have only E♭ Horn parts available, making it necessary for the student to transpose."[14]

J.E. Skornika and R. Erdman, *Rubank Intermediate Method French Horn*

The Rubank series are widely used for all instrumental instruction. A full page addressing transposition is provided early on in the text, and the authors say that "it is presupposed that at this stage of Horn playing, transposition will have been introduced and used, however, a brief

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[13] Max Pottag and Nilo Hovey, *Pottag-Hovey Method for* French Horn, Book 1 (Belwin-Mills Publishing Corp, 1939), 46.

[14] Ibid.

review is made here for the convenience of those who have not been familiarized with it."[15] This is a notable assumption, given that the *Elementary Method* of the series does not address transposition, so one would have had to receive that information elsewhere if they had been trained exclusively using the Rubank series. The page on which the topic is covered addresses only transposition to E♭, with the assumption that once that skill is mastered, other keys will be a simple step from there. On this page, the student is asked to write out two original F melodies in E♭, and the suggestion is made to return to earlier exercises in the book to relearn them in E♭.

The remaining lessons in the volume do not ask for transposed parts. Bass clef is also given one page of introduction at the end of the volume with treble and bass clef equivalents. However, the terms *old notation* and *new notation* are not used, and the clef is used in only one succeeding piece for the remainder of the book. Its use is conspicuously absent from the two volumes of the *Advanced Method* as well. No other music theory concepts are introduced in any of the volumes of the series.

Marvin C. Howe, *Method for the French Horn* and Volumes 1 and 2 of *The Advancing Hornist*

Howe's *Method for the French Horn* is a beginner resource that progresses at a slower pace than do other beginner methods. Bs and Cs on the treble staff are used sparingly for about the first one hundred exercises, and eighth notes are not introduced until exercise 115. After all the notes on the staff and accidentals have been introduced, Howe devotes three and one-half

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[15] J. E. Skornicka and R. Erdman, *Rubank Intermediate Method French Horn, (*n.p.: Rubank, 1989) 12.

pages to the topic of transposition, providing various approaches to the process, such as reading by interval, using different clefs, and solfeggio. The thoroughness of these pages also has the potential of being a drawback in that the content is likely to be too abstract for the intermediate-level student. This is especially true if solfeggio and the six clefs other than the treble clef are foreign concepts to the student. Howe suggests revisiting past exercises in E♭ for practice rather than presenting transposition options in the succeeding exercises for the remainder of the book, assuming, like others, that the instructor and the student will remember to apply it.

This method and the *Advancing Hornist* volumes are by far the most useful for their incorporation of the bass clef. Howe gives an entire page to the presentation of the bass clef in the *Method* and provides three simple exercises that include note names written in. For the remainder of the book and the *Advancing Hornist* volumes, bass clef notation is included in the form of stand-alone exercises and melodies that integrate the bass clef with the treble clef. The final page of the *Method* provides a description of old and new notation using examples from Beethoven's Sonata Op.17 and excerpts from Wagner's *Götterdammerung* and *Die Walkürie.* No other music theory concepts are addressed.

As a whole, the three volumes have a visual presentation that feel as though they lack organization, with pages that are full of notes and exercises taking up several pages each. While much of the content is very useful, this factor could detract from the use of the resource. One way to address this issue would be to create (with the permission of the publisher) a collected edition of the exercises that involve the bass clef to be used as a supplementary resource to other texts.

Oscar Franz *Complete Method for the French Horn*

The Franz method is a very thorough explanation of all things pertaining to playing the horn. A history of the instrument is provided, complete with images of it at various stages of its development from the ram's horn to the modern horn at the time of the publication of the volume in 1906. The text also includes rudiments of music notation. This is an extremely valuable resource for the serious horn player and enthusiast, but is not practical as a method book for the student, as very few of the exercises would be playable for anyone possessing less than an advanced skill level.

A uniquely valuable contribution of this volume in contrast to the others reviewed here is the 42 studies Franz provides, which are to be played on the natural horn using the harmonic series. Virtually every other beginner method introduces a diatonic scale pattern within the first several lessons, treating the horn as a chromatic instrument rather than one built upon the limits of the harmonic series. In these studies, the seventh and eleventh partials are avoided, assumedly because they do not exist in repertoire without requiring the assistance of the right hand in the bell. The ninth, tenth, and twelfth partials are added after the third through eighth partials have been mastered. Old and new notation of the bass clef are addressed in the context of transposition, but not extensively. Franz's approach stands in sharp contrast with virtually all modern horn methods in that he suggests that the student become fluent in hand horn as soon as possible, even before learning the valved horn. "It is extremely important for a beginner to become proficient in 'Stopped Horn' playing as soon as possible. Through its practice the player's ear is sharpened and the tone developed to an unusual extent."[16] I agree with the ideality

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[16] Oscar Franz, *Complete Method for the French Horn* (New York: Carl Fischer, 1906), 35.

of this suggestion; unfortunately, from their very start on the instrument, beginners today are required to play music in band that requires diatonic and chromatic scale patterns. The nature of the music environment does not allow for the time it would take for the student to gain this proficiency on the horn, even though it would result in a deeper theoretical understanding of the nature of the instrument.

Max Pottag *Preparatory Melodies to Solo Work for French Horn*

While not an instructional method in the same way that the previously reviewed sources are, Pottag's *Preparatory Melodies* is included in this section because of its value in the development of this document and to the horn student's library. In this volume, Pottag has compiled and edited a collection of short pieces taken from Josef Schantl. Besides the melodies' musical value (they are interesting and singable, capable of satisfying the amateur and professional alike), they are showcases for various musical concepts such as motif development, form, and style. The entries at the beginning of the book are in the key of C (F concert) and progress through added sharps and flats so that the last pages of the book are in B and D♭. An array of musical terminology is also presented throughout the book, with tempo and title markings ranging from *Andante* to *Mazurka* and *Pollacca* and *Czardas*. This collection is an excellent supplement to method books, as each entry can be approached as a short two- to six-line solo.

Maxime-Alphonse, *Two Hundred New Melodic and Gradual Studies for Horn*, Book 1

The Maxime-Alphonse series is comprised of six volumes ranging from easy to virtuosic. The first volume of the series has been included in this review for the same reasons as the Pottag *Melodies*. Many of the studies in this book exceed the skill level expectations of an intermediate-level student, yet presenting the student with selections from this resource provides an attainable

challenge. Execution of these studies requires a development of nuance and control of the instrument, and the range of the book does not exceed a written G above the treble staff. In these respects, a judicious use of this resource is a positive contribution to the student's repertoire. These studies are melodic and musically stimulating, and the instructions preceding each study are helpful explanations for the appropriate approach and style, although the use of terminology such as "quavers" and "semi-quavers" will likely be unfamiliar to American students. All in all, this book is a good platform for illustrating a range of musical concepts.

Summary of Methods Reviewed

This review has shown that a discussion of concepts of music theory, as well as the important horn-specific topics of the harmonic series and bass clef, are almost entirely absent in standard horn pedagogy. The sample lessons presented in the following chapter will provide a model that can be used to fill in these missing pieces.

CHAPTER FOUR

SAMPLE LESSONS

The following section is a collection of nine sample lessons which integrate various theory concepts with intermediate level exercises and repertoire. While my intent in writing this guide was primarily to address the incorporation of theory concepts into horn instruction, it was not to be done to the full exclusion of horn-specific skill instruction. In my own experience, and in a consensus reached during casual conversation with other horn teachers who teach students of similar skill level, there are areas of horn-specific knowledge – namely, bass clef reading, transposition, and an understanding of the harmonic series – which receive little attention in the horn pedagogy from beginner to advanced levels. While beginning materials mostly ignore these topics (a cursory, one-page acknowledgment of the bass clef can be found in commonly used texts such as the *Pottag-Hovey Method for Horn* and the *Rubank Instrumental Series*), advanced materials assume that these skills have been gained somewhere else in the meantime. The Howe method is the only one of all the resources reviewed that addresses bass clef in any depth; however, the extreme low register and full key signatures of many of the exercises, particularly in Volume II of *The Advancing Hornist* series, are potential issues for the less-advanced intermediate student, and the books themselves, as mentioned in the previous chapter, have a disorganized feel and are therefore not as likely to be used as a consistent method from cover to cover. A good use of this particular resource would be to collect the bass clef transcriptions into a single volume to be used in tandem with other sources.

These horn-specific skills can justifiably be included with theory integration because all of them are arguably theoretical concepts. The harmonic series can be understood as theory of the horn, reading bass clef notation is rudimentary theory in the same way that beginners

learning to read notation is rudimentary theory, and transposition is a theoretical skill in understanding interval relationships and their transference from one key to another. Since the goal behind this paper is to suggest ways to cover the gaps in intermediate level horn pedagogy, it seems prudent to address these horn-specific areas alongside concepts that are more strictly music theory.

The collection of nine sample lessons included in this paper address the following topics:

1. Harmonic series
2. Transposition
3. Solfeggio
4. Tonic and dominant function
5. Building scales and arpeggios
6. Bass clef reading in old and new notation
7. Major and minor modalities
8. Cadences
9. Form

With the exception of the harmonic series, transposition, solfeggio, and bass clef sections, the theory topics have been assigned somewhat arbitrarily and appear in no particular order. The units do not necessarily build upon each other, and other concepts such as triads and inversions could easily have been included instead or in addition. The scope of this paper is only to provide a model for how one might go about using existing repertoire to introduce concepts of music theory. Any instructor using this resource is encouraged to take the general format presented here and apply it to topics of music theory as she sees fit.

Each lesson includes a simplified explanation of the theory concept in question and uses etude, solo, and/or orchestral repertoire to illustrate the point. Because there is such a wealth of pedagogical material for the horn already in existence, I have seen no need to write original material, except in the case of the brief example in the bass clef lesson. Instead, the musical illustrations have been collected from existing material and only simplified or edited when necessary to make the example more accessible to the student of intermediate skill. This is practical, considering that horn teachers do not necessarily need more resources to draw from, but rather ideas of ways to draw together the stores of materials into cohesive units.

It is crucial to stress that these lessons are not intended for the student to use independently from an instructor. It is heavily assumed that these lessons will be introduced in the context of a private lesson, where the instructor can elaborate as necessary and answer questions that will inevitably arise. In-depth explanation of the theory concepts would require more written space than the scope of this paper allows and would more than likely not be approachable by a student of this age. For the sake of accessibility, written explanation has been kept to a minimum with the assumption that a knowledgeable instructor will be present to help present and explain the material.

The following material contains the pedagogical guide for which I have argued in the previous sections of this paper. Each lesson is organized in two parts: the first explains the rationale for the topic chosen and an explanation of how the lesson has been put together; the second part is the actual lesson, comprised of a brief explanation of each theory concept followed by etudes and/or exercises which illustrate the point.

Harmonic Series

Rationale

It is assumed that by the time a horn student has reached intermediate skill level he has learned to play some form of lip slur exercises and has concluded that the same pattern can be repeated on the descending valve combinations. If not enrolled in formal private lessons, the student is less likely to have received an explanation of why these patterns are possible and why the valve combinations occur in the order that they do, and has likely not used the terminology of the harmonic series.

Grasping the harmonic series is imperative for two reasons. The first is for understanding where every partial lies on the horn, thereby improving accuracy and the ear. The second is for understanding transposition. This lesson on the harmonic series is not concerned with addressing the full topic of transposition; however, transposition and the harmonic series are two parts of the same conversation, and it can be helpful to explain one by way of the other.

The goal of this lesson is mainly to help the student isolate individual partials of each harmonic series. Lip slur exercises are of inestimable value toward this end and are already present in most students' experience as warm-up exercises. With the exception of the first entry, the exercises given in this lesson intentionally focus on the eighth through twelfth partials rather than the first through seventh. These partials tend to feel more "slippery" because they are closer together, often resulting in problems with pitch accuracy.

The first exercise in the lesson is a basic one-octave slur over the fourth through eighth partials, and is useful for finding and slotting the seventh partial. The second and third exercises are scalar patterns to aid the student in slotting the eighth through twelfth partials. I have found that precise scalar patterns on the harmonic series such as these are challenging for the student, but I am of the opinion that developing this technique is crucial to improved flexibility and

accuracy. It is suggested that the teacher introduce these exercises in a call-and-response fashion in order to help the student develop their ear.

The remaining studies in this unit have been collected from Oscar Franz's *Complete Method for the French Horn* and Fred Teuber's *Progressive Studies for Horn*. There is a range of technical demand in each. In acknowledgment that the range of the twelfth partial could present some challenge to an early intermediate-level student, these studies are showcases for transposition and can easily be altered to E♭ or D horn to accommodate the range.

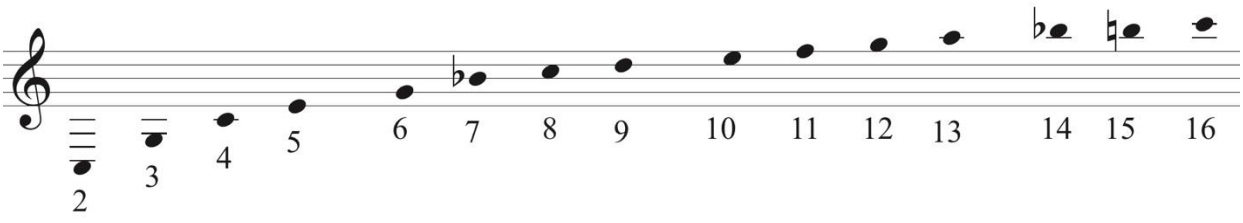
Examples from the performance repertoire are intentionally not included for a few reasons. Most literature of interest uses the eighth partial and above, and facility of range was a consideration. Additionally, even the simplest of examples of melodic material require at least one altered note, and hand technique is outside the scope of this lesson (second horn parts were not considered due to their general lack of melodic interest).

Lesson

The harmonic series is the term for all of the pitches that you can play using one valve combination. They are the "natural" notes on the horn.

Figure 1 shows the full harmonic series for the open F Horn, with the partial numbers written below each pitch:

Figure 1: F Harmonic Series



Each valve combination has its own harmonic series that follows the same pattern as the example above. For example, the entire sequence above could be played one half-step lower by using the second valve, beginning on B, and that would change the pitch of the horn from F horn to E horn.

Many warm up and lip slur exercises use just the harmonic series. For example, Figure 2 shows a very common warm up exercise that many brass players play using the fourth through eighth partials:

Figure 2: Harmonic Series Lip Slur

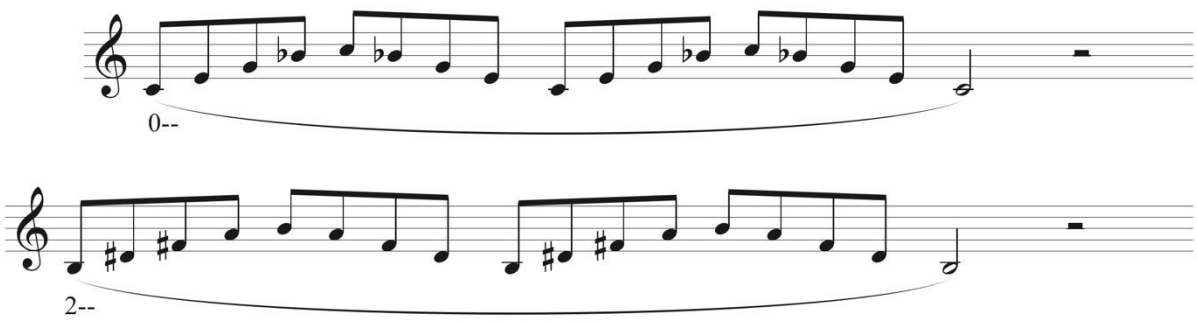
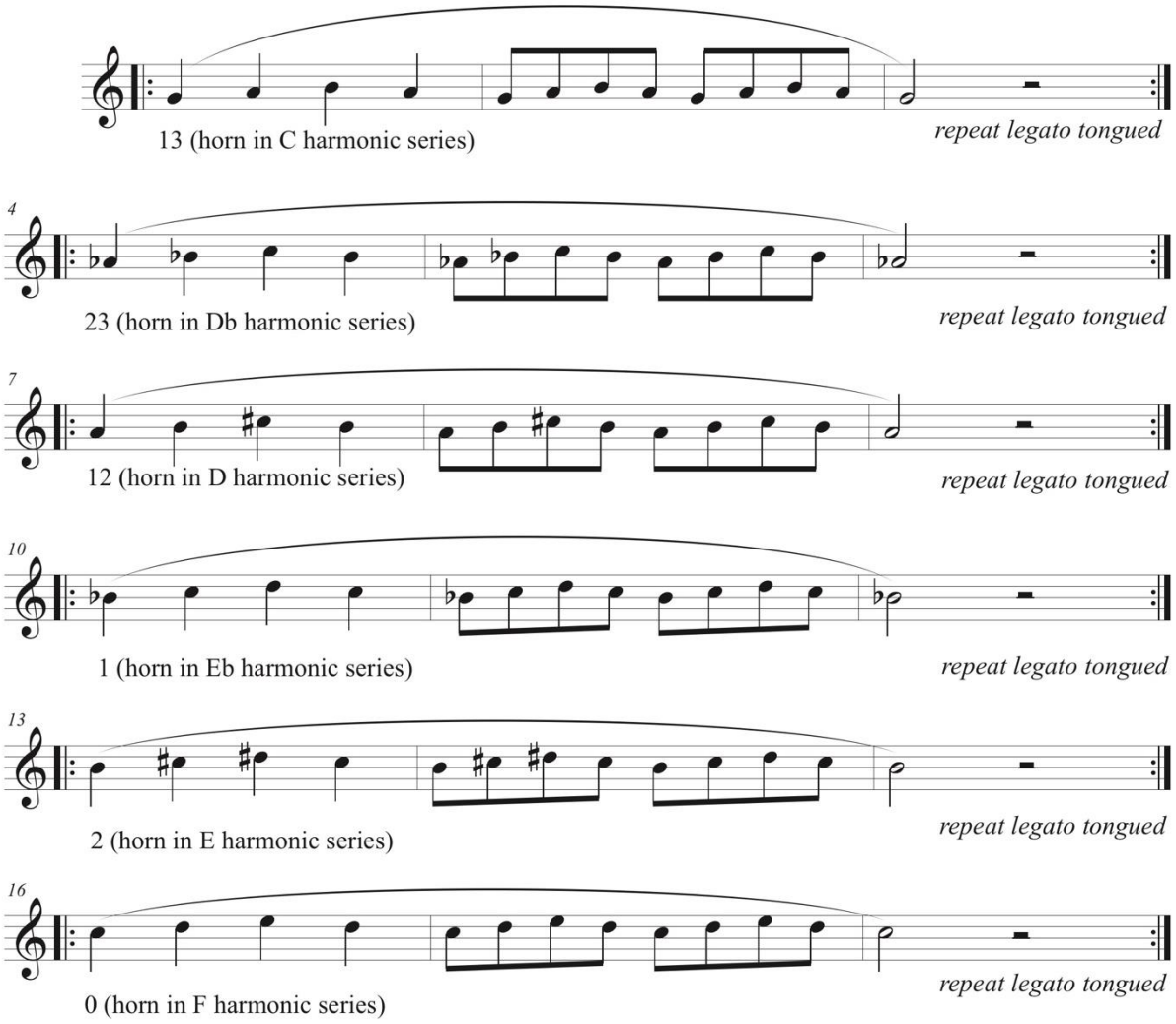


Figure 3 is also a common warm up that uses the eighth, ninth, and tenth partials.

Figure 3: Lip Slur with 7th, 8th, 9th Partials



Practice playing these warm up exercises using the following valve combinations: 0, 2, 1, 12, 23, 13, 123, beginning a half-step lower each time. You will see that each valve combination uses the harmonic series of a different key.

You will gain greater accuracy and confidence on the horn the more familiar you are with the harmonic series. The studies in Figures 4, 5, 6, and 7 are for practicing the harmonic series in a different context from lip slurs. Once you have learned them on the open F horn, practice

playing them using the valve combinations listed above for E horn, E♭ horn, D horn, D♭ horn, and C horn.

Figure 4: Harmonic Series Practice 1

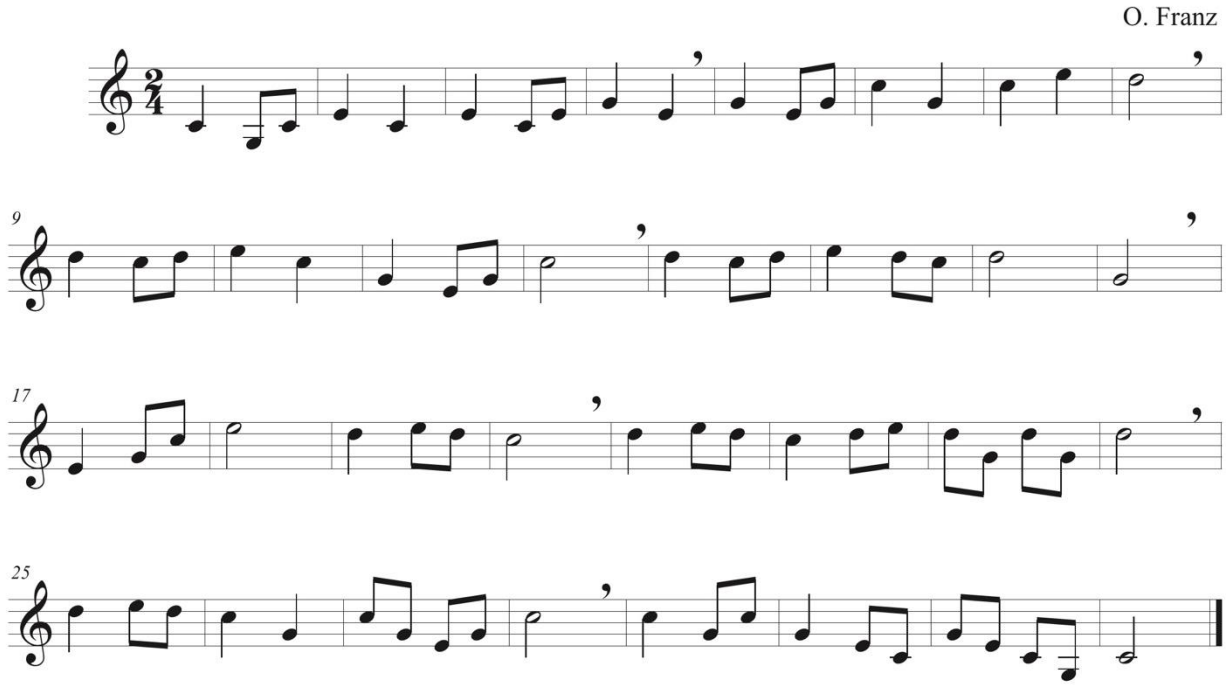


Figure 5: Harmonic Series Practice 2

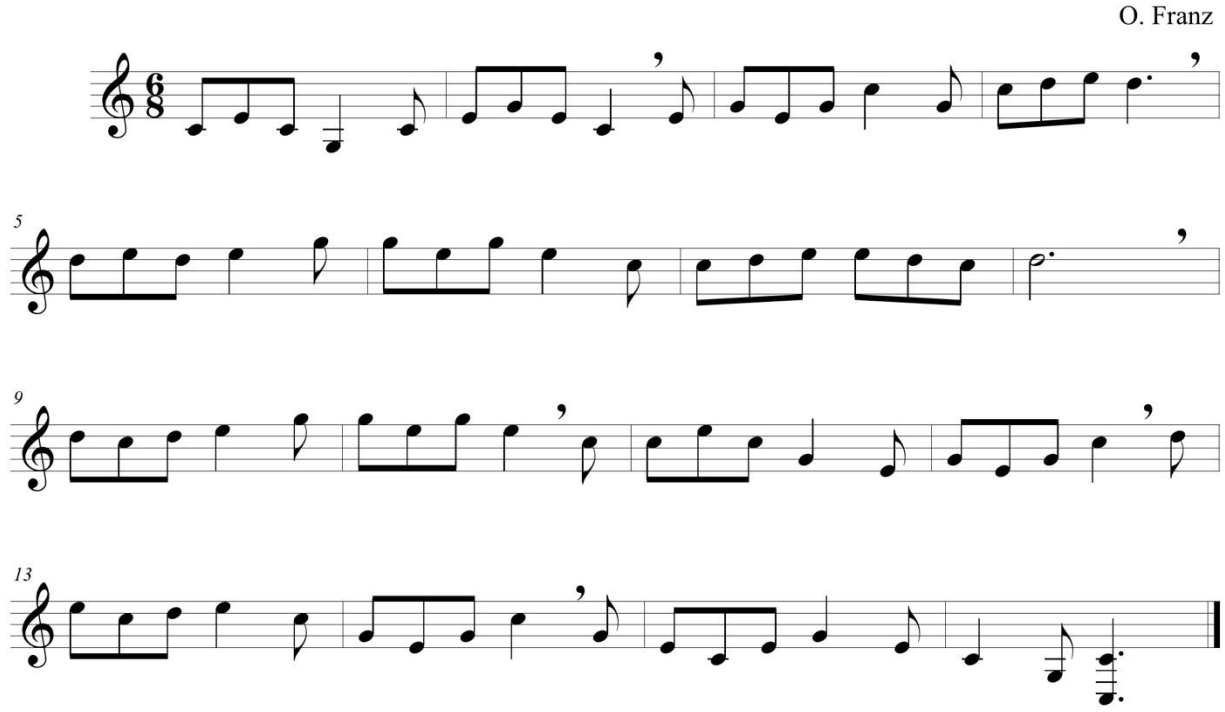


Figure 6: Harmonic Series Practice 3

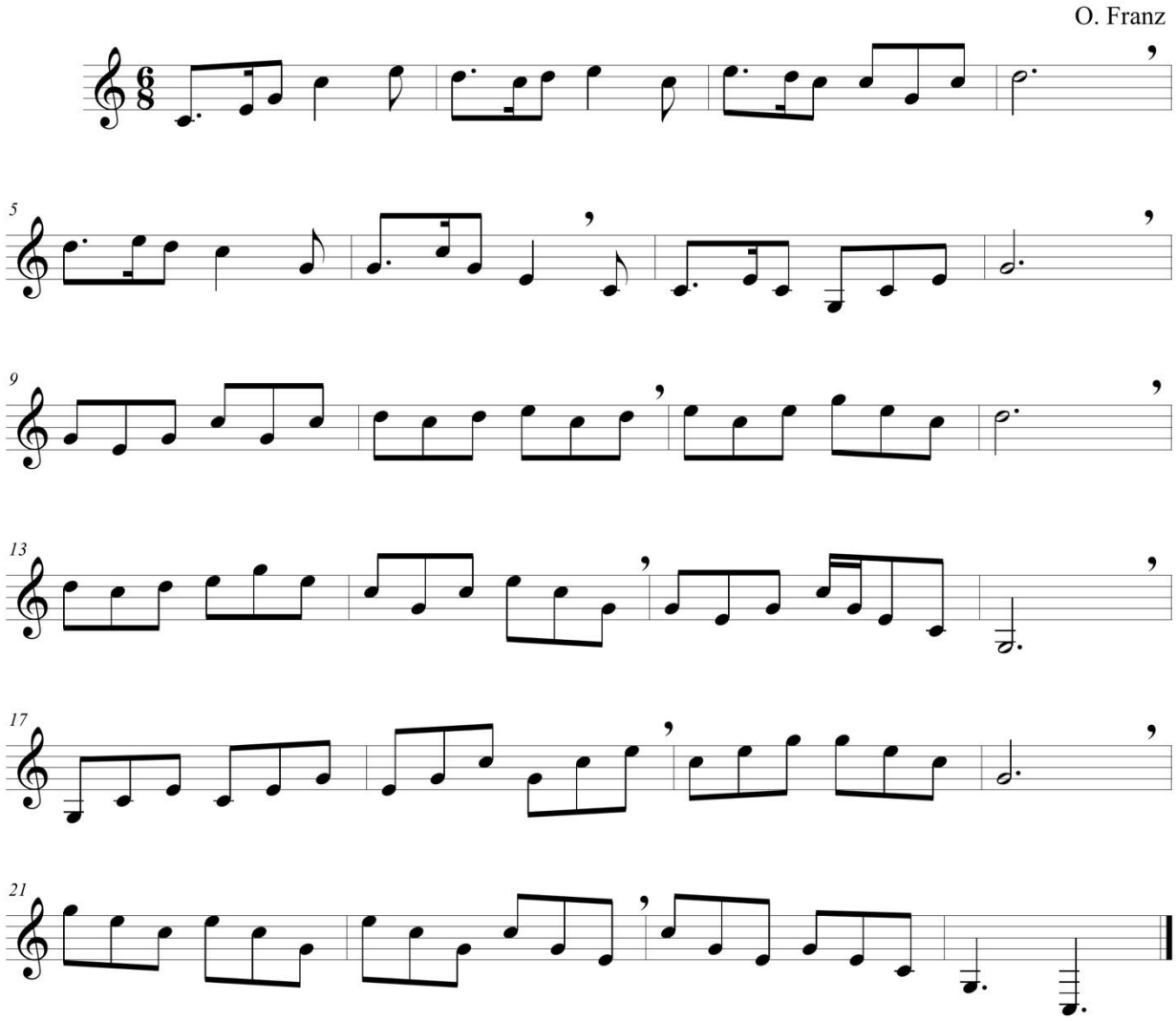
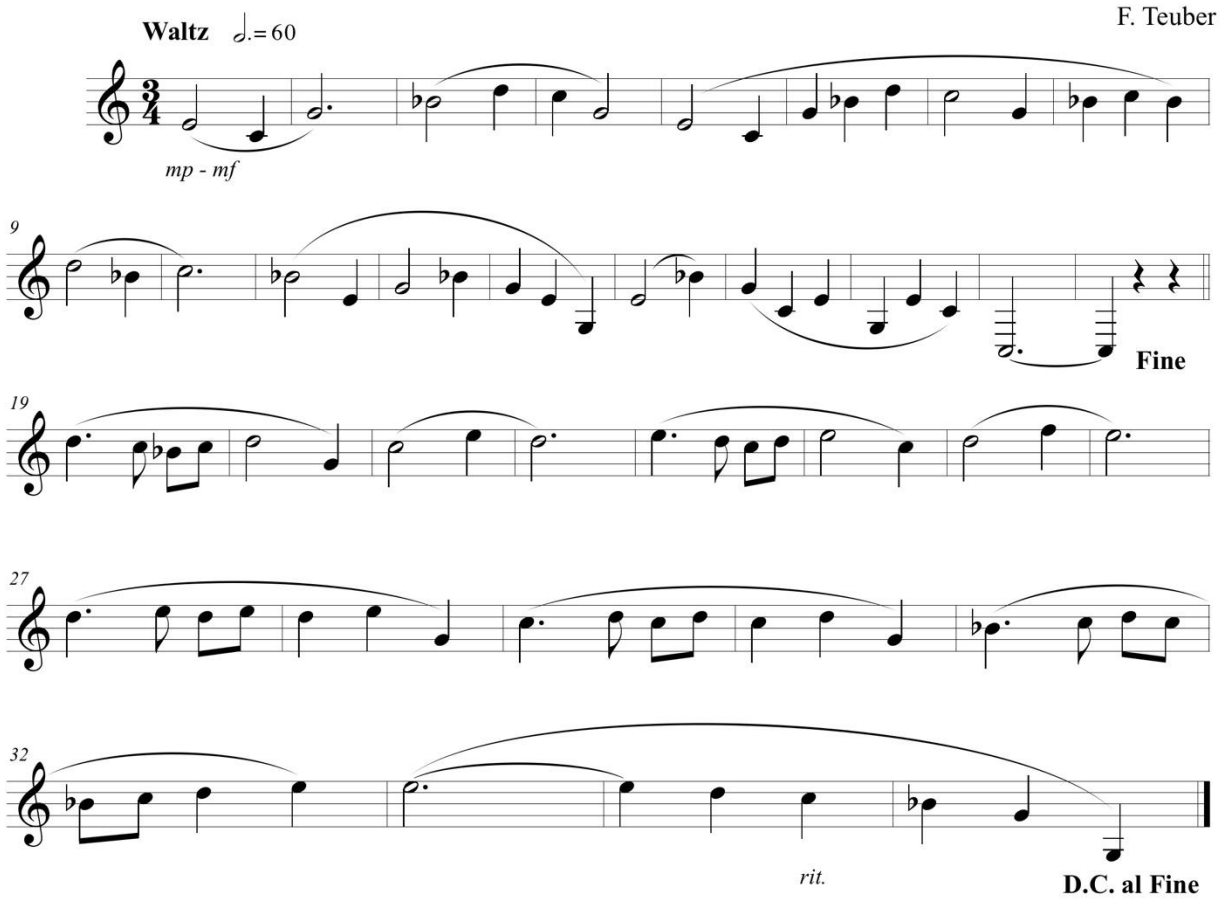


Figure 7: Harmonic Series Melody



Transposition

Rationale

A discussion of transposition is included in this group of lessons in an effort to draw a connection between the way that the harmonic series of each valve combination puts the horn into a new key and the interval of transposition. If transposition can be explained as occurring as the result of harmonic series function rather than as a stand-alone issue, it is hoped that the student will gain a more holistic understanding of how the horn works. Since the intention of this study is to encourage the student towards a rounded music literacy, comprehending the subject of horn transposition is essential.

However, bearing in mind the age of the student toward whom this treatise is directed, a full discussion of natural horn crooks and their added and removed lengths of tubing has not been indulged in this lesson. It is assumed that topics such as these will be presented in a private lesson with a knowledgeable instructor, and it is my opinion that detailed topics such as the history of the horn are better given verbally to a young student than in written form. This lesson provides the context in which such a conversation could take place.

The first example is simply an illustration of written versus played pitch. The following Teuber study was chosen because it is intended to be played on the harmonic series alone and does not present any unreasonable technical challenge. It is presented on the F harmonic series, and the student is asked to transpose it to E horn using the second valve, still using only the harmonic series. The student is then asked to play it in E again, this time using any valve changes necessary. In this study, the valve change will only affect one pitch, the seventh partial, which would be fingered 12 (or T12) for written A. This process will illustrate that transposition is a

matter of changing the key of the instrument more than simply playing different notes than written. It should be repeated in E♭ using the first valve.

Transposition has been kept to the keys of E and E♭ for the sake of simplicity and as an acknowledgment that this lesson is to serve only as an introduction to the skill. After the student has become reasonably confident with those two keys, it is suggested that the next key to be introduced be C. C is more commonly seen in repertoire than D and D♭, and the fact that it is concert pitch can help the student to understand the relationship of horn pitch and concert pitch.

The two volumes comprising Kopprasch's *60 Selected Studies for Horn* are most commonly used for transposition practice. The first two studies have been collected from Book 1 and have been edited in length and range to make the process more accessible for the intermediate-level student.

Since the purpose of learning to transpose is to be able to perform repertoire that requires the skill, an excerpt from the *Romanza* from Mozart's Horn Concerto no. 3, K. 447, has been presented as well. The inclusion of this piece is not intended to instruct the student in style or interpretation, but to illustrate the need for the transposition skill from the standard repertoire and to provide a musically satisfying means for practice.

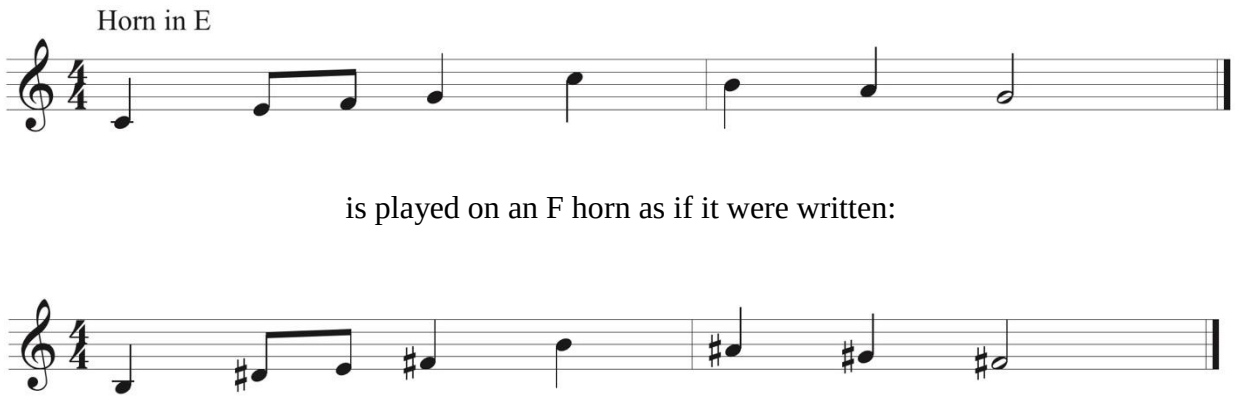
To build on this lesson, an instructor might ask a student to select a few lines from her weekly lesson material to be transposed into the key of her choice. Other etudes from the Kopprasch volumes or any other selections can be cropped and edited for practice purposes, and the same can be done for repertoire choices. The remainder of the Mozart *Romanza* could be worked over in bite-sized portions week to week so that the student can eventually perform the entire movement in the original key.

Lesson

You will often come across music that is written for the horn in a key other than F horn. When this happens, you will need to transpose the music on the page into the correct key. Just like other new skills, transposition may seem daunting at first, but you will gain skill and fluency the more you practice it.

The interval of transposition will always be in relation to the horn in F. For example, if your music is written for horn in E, as in Figure 8, you will play a half-step lower than the music that is written, because E is a half-step below F.

Figure 8: Transposition Example 1



Transposing horn music simply means playing in a different key from what is written; more specifically, to play on the harmonic series of another key.

1. Play the study in Figure 9 on the open F horn using only the harmonic series (do not finger the written B♭).
2. Now transpose it to E horn, using the second valve harmonic series. You will play every note a half-step lower (again, do not adjust fingerings for the written B♭).

3. Play it in E horn again, this time with a valve change for the written B♭. Try to "read" each pitch a half-step lower than what is written.
4. Repeat steps 2 and 3 using the first valve (E♭ horn) harmonic series.

Figure 9: Transposition Example

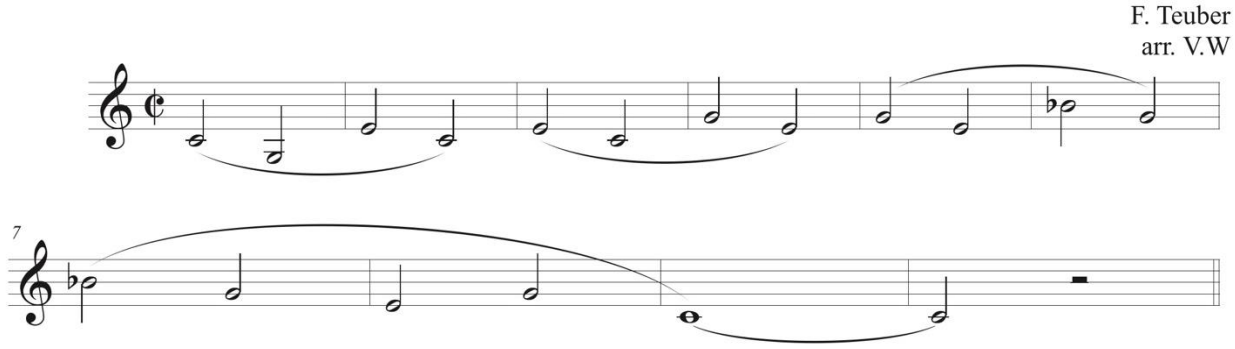


Table 1 shows the interval of transposition for some common keys that horn music is transposed to in solo and ensemble music.

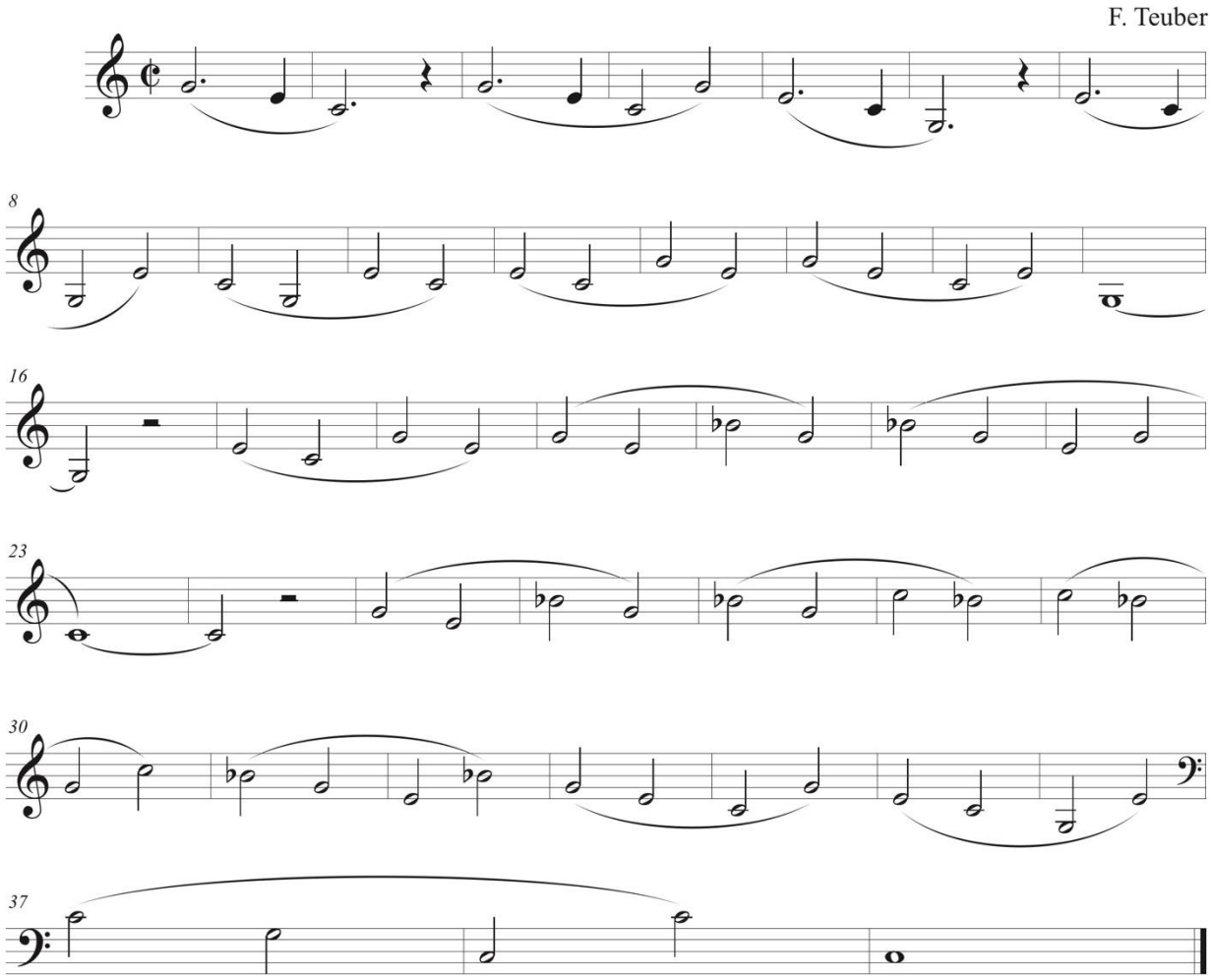
Table 1: Transposition Table

Horn in F	Play as written
Horn in E	Play one half-step lower than written
Horn in E♭	Play one whole step lower than written

The studies below are to help you practice transposing. First, play each one in F to learn how it should sound, then practice playing it in E and E♭.

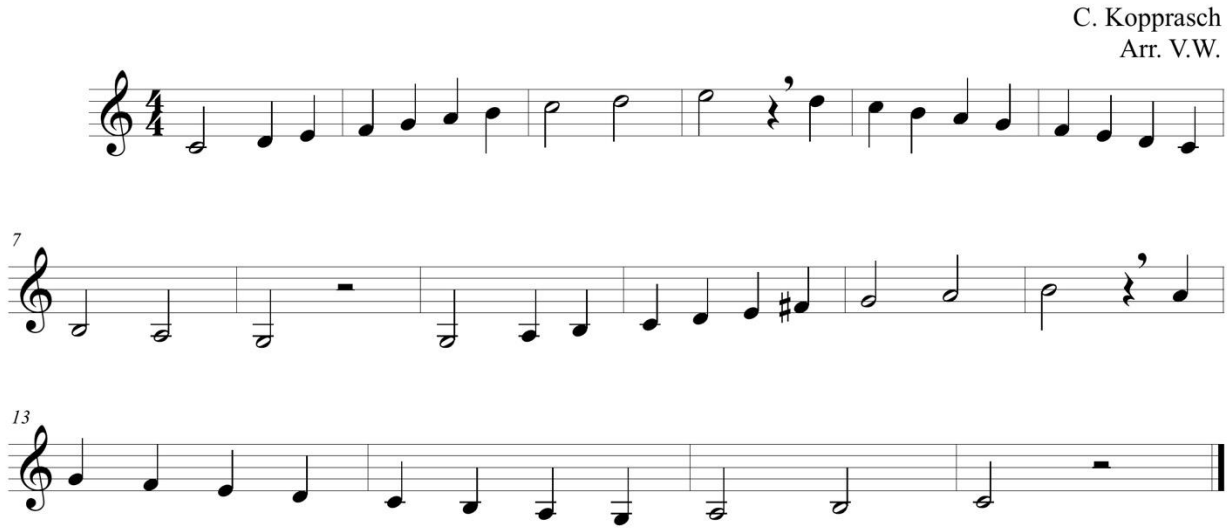
The etude in Figure 10 can be played on the natural horn, since it uses all open partials. Play it on both the natural horn and the valved horn, and be mindful of what pitch you are playing when transposing.

Figure 10: Transposition Practice 1



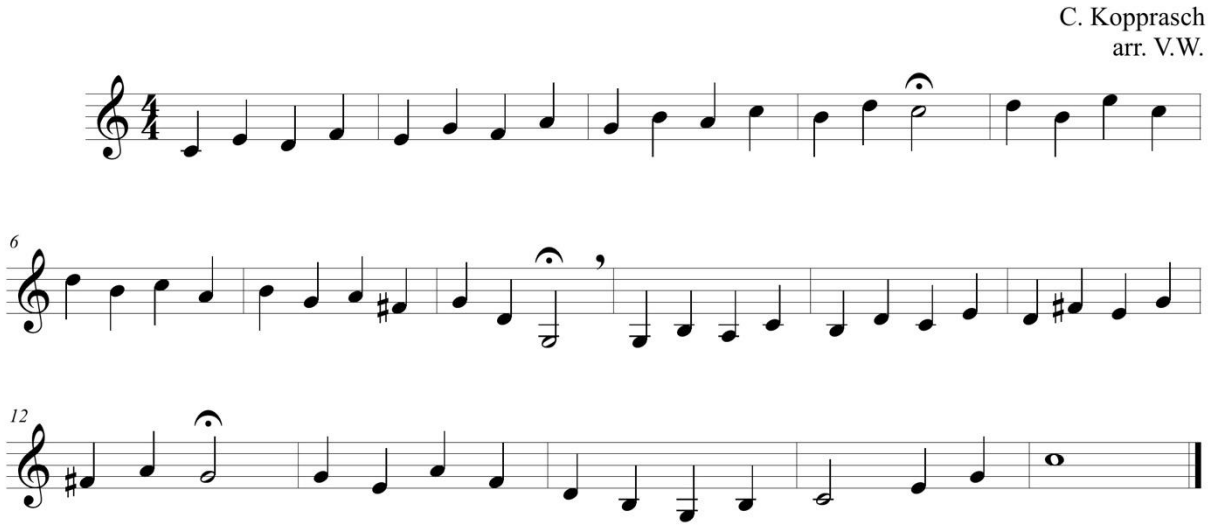
The etude in Figure 11 is based on scales. When practicing this one, think about what major scale you are playing rather than each individual note. For example, the C scale in bars 1-2 will be a B scale for E horn, and a B♭ scale for E♭ horn.

Figure 11: Transposition Practice 2



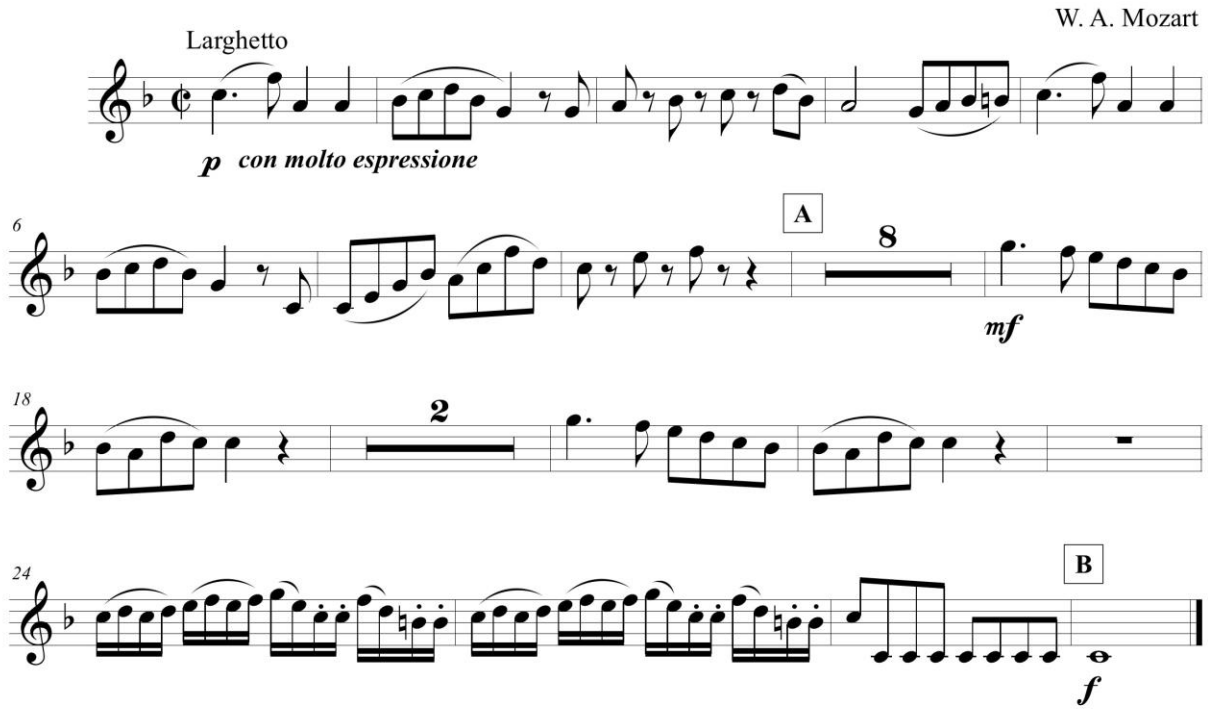
The etude in Figure 12 is built on thirds rather than scales. Play it slowly and visualize the transposed notes on the staff as you play.

Figure 12: Transposition Practice 3



Learning to transpose is an important skill for horn players because much of the horn repertoire is written in keys other than F. For example, try playing this segment from Mozart's Horn Concerto no.3 that is written for E♭ horn.

Figure 13: Romanza from Mozart Horn Concerto no.3



Solfeggio

Rationale

The overarching intent of this dissertation is to address subject areas that are lacking in horn pedagogy, so I have included a sample lesson on solfeggio. Although solfeggio falls more under the category of ear training than strictly music theory, these subjects are often taught together and, indeed, cannot be understood apart from each other. Perhaps not surprisingly, in my ten years of teaching, the greatest weakness I have observed in my students is their inability to sing an unfamiliar melody with reasonable pitch accuracy. (Even familiar tunes often present a challenge!) I have even come across students who are unsure of how to create a sung sound using their voice. I have concluded that students must not be singing on a regular basis, and therefore their ears are underdeveloped. The ability to hear and anticipate pitches is paramount to

horn playing, and I believe that this is not stressed enough in many school band programs, and possibly even in individual private lessons.

I am not the first to observe or attempt to address this area of need: as mentioned in the first section of this paper, Otero has created an entire horn method which begins exclusively with singing using solfeggio and is organized around tonal and harmonic patterns. Gates's dissertation studied the positive effect of ear training on beginning horn players,[17] and Spencer's dissertation offers a method for teachers to use "aural and improvisatory techniques" as a supplement to standard notated horn method books.[18]

With this in mind, I have included a lesson on solfeggio here with the intent of encouraging its incorporation into routine horn pedagogy, with suggestions of how one might do so.

Solfeggio can be considered a concept of music theory in that it can help the student to hear intervals in a *harmonic* context rather than solely melodic. For example, the student will *hear* the tonic/dominant relationship as a harmonic or aural one, in addition to seeing it written on the page. Additionally, she will hear, for example, the different harmonic function between ascending Sol-Do and Do-Fa, although both are the interval of a fourth.

This lesson assumes "moveable Do," where Do is whatever pitch the tonic of the key is. In my opinion this approach serves the goal better, so that students are learning to hear pitch relationships within a key. The alternative, "fixed Do," has the potential to encourage relative

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[17] Lori Gates, "The Effects of Ear Training on Beginning Horn Students: A Qualitative Case study Design" (M. M. Ed. thesis, University of Louisville, 2001) ProQuest 193954799.

[18] from abstract on ProQuest

pitch recognition, which is also a valuable skill for the development of the ear (especially for music that lacks a clear tonal center.) Fixed Do could also be used to explain horn transposition, as some students may eventually see horn parts marked in solfeggio rather than key (particularly in French music: Cor en Re, Cor en Mi, Cor en Fa, etc.) Though this is useful knowledge to have, my intention in the current context is to help students develop an ear for harmonic intervals around a tonal center, so moveable Do is an applicable choice.

The initial exercises presented are to practice singing major scales and arpeggios. In practice this would, assumedly, be expanded over time to include all minor scales, arpeggios, and chromatics. This lesson does not address altered pitches, such as Mi/Me or Sol/Si for natural/flat/sharp accidentals, which would also be addressed in the expansion of this introductory lesson. The next step is to introduce simple melodies, preferably which outline scales and arpeggios, for sight-singing practice. These can be taken from any repertoire that an instructor chooses, and logically from the student's current lesson assignments. As the student gains proficiency in sight-singing, the repertoire and etudes used will grow in complexity.

The last section in this lesson is a demonstration of how to use solfeggio to problem-solve large intervals within a melody. Occurrences of intervals greater than a second or third are often a stumbling block for students, and a practical guide to solving the issue is necessary. I have used Camille Saint-Saëns' *Romance Op.36* as a case in point. This is a piece that virtually every student will encounter at some point in their experience, and it is often found on school and state-wide competitions and solo festival repertoire requirements. The two interval leaps that I have observed students struggle with most often are the major sixth in measures 21 and 22, and the interval of a seventh from G to F on the staff, which occurs three times throughout. I have

illustrated how to fill in the interval using solfeggio, a process that can be repeated in any melodic context a student may need.

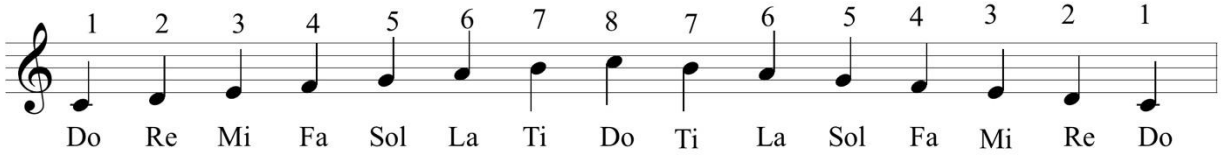
This lesson does not include the Kodály hand positions which are often used to teach solfeggio. I have omitted these in this particular context for the sake of simplicity in the construction of this lesson, as well as in consideration that a horn player does not have their hands free to engage in these motions while playing the horn. However, for the student who is especially struggling with pitch retention, the physical and spatial reinforcement of scale degrees in this manner could be a very beneficial process. If, how, and when to employ the hand motions would be a decision made by the individual instructor. If one chose to do so, the same repertoire choices and others that are similar could be used for practice.

Lesson

The ability to sing your music with your voice is a valuable skill for your growth as a musician. This may seem like an impossible thing to do if you are not used to singing or do not know how to hear pitches without the horn or a piano to help you. *Solfeggio* is a technique that will help you to develop your singing ear, which will make learning music and playing the horn easier. It will also help you to better understand the relationships that pitches have to one another within a given key signature.

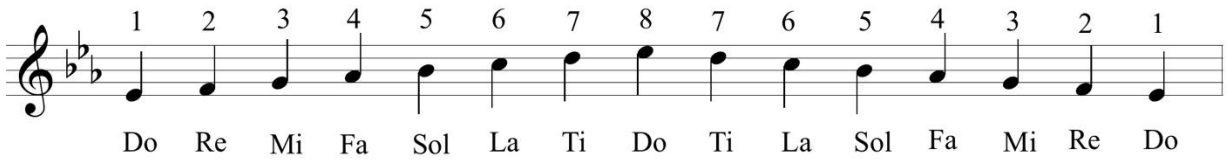
Solfeggio is a process of assigning a unique syllable to each note of the scale. Figure 14 shows a C major scale with the traditional solfeggio syllables written beneath each note (the numbers on top are scale degrees):

Figure 14: C Scale with Solfeggio



No matter what key you are in, the first note of the scale will always be called Do, the second note will always be called Re, the third Mi, and so on. For example, Figure 15 is a major scale with the solfeggio syllables:

Figure 15:E♭ Scale with Solfeggio



Solfeggio helps you to easily hear the personality differences between pitches. For example, Do, the tonic, sounds and feels very different than Sol, the dominant. You may also notice that Ti, the leading tone, has an obvious and very strong tendency to *pull up* to Do. As you become more familiar with solfeggio, the unique characteristics of each pitch in relation to the key signature will become more obvious to you. You will begin to understand how each note of the scale *functions* in the key signature.

Start by learning to sing major scales and arpeggios in solfeggio. Use the pitches in Figure 16 as starting notes. Play each one on the horn first to get it in your ear, then (before you *play* the scale on the horn) *sing* a one octave scale ascending and descending using solfeggio.

Figure 16: Solfeggio Scale Practice

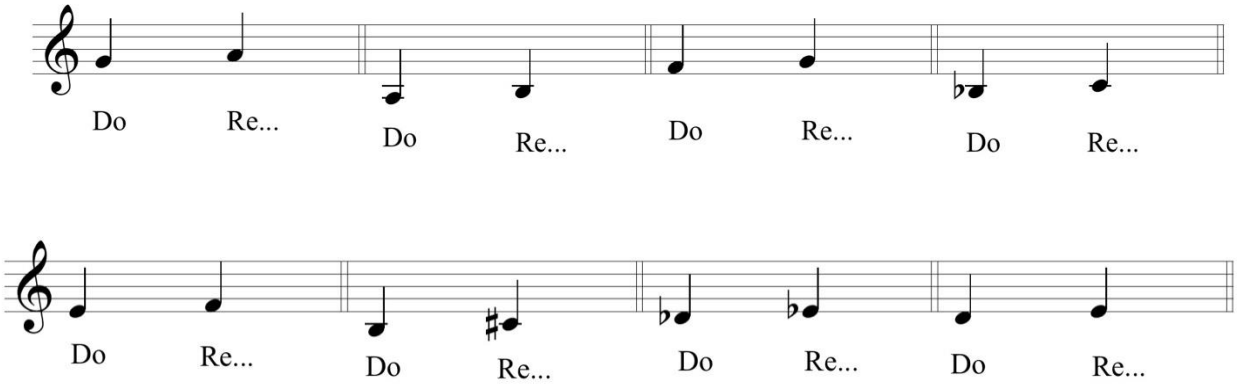
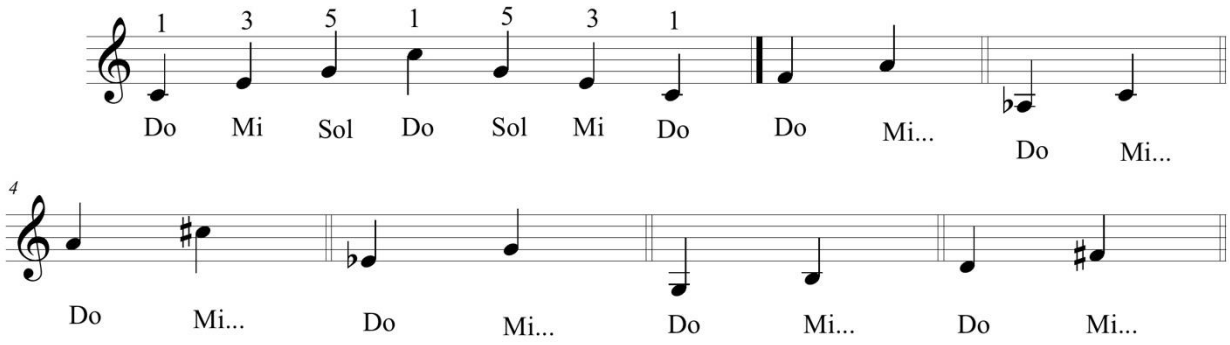
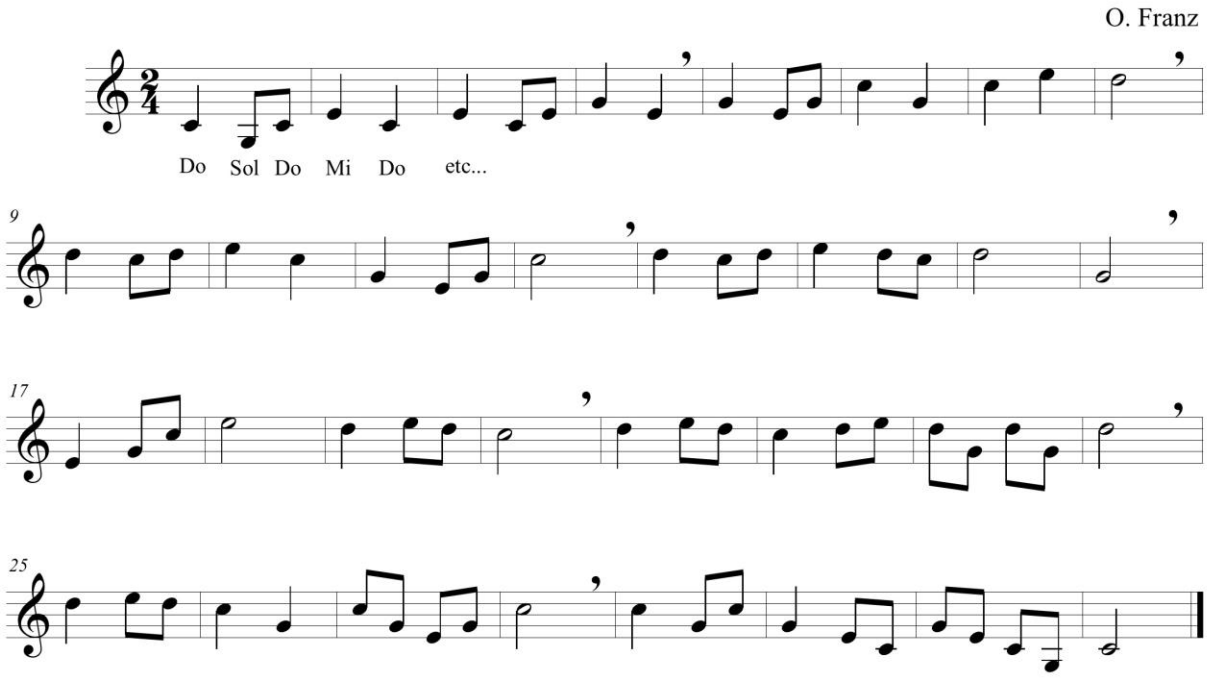


Figure 17: Solfeggio Arpeggio Practice



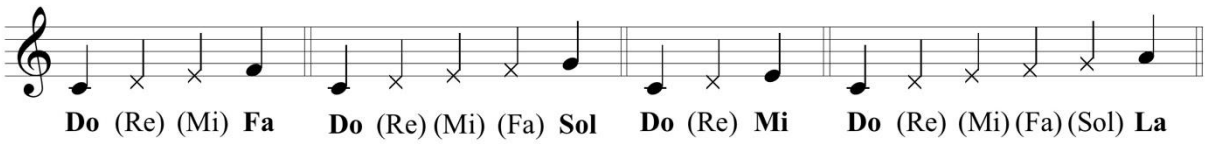
Next, practice singing very simple melodies using solfeggio. The etude in Figure 18 is a good example of an easy melody to use for practice.

Figure 18: Solfeggio Practice 3



Solfeggio will also help you learn to hear and anticipate intervals more accurately. Figures 19 shows you how to use solfeggio to hear how larger intervals will sound. For example, to hear the interval of a fourth, as in the first example below, you can start by singing the first note in the interval and solfeggio your way up to the second note. This takes the guesswork out of the process.

Figure 19: Solfeggio for Interval Practice



This process is demonstrated in Figures 20-25 using *Romance*, for solo horn and piano by Camille Saint-Saëns.[19] The melody contains some leaps of a sixth or seventh which will be very approachable after using solfeggio to learn to sing it. Each challenging interval is identified below, along with a solution for working it out using solfeggio.

Figure 20: Interval Challenge 1 – Saint-Saëns "Romance" m.21-23

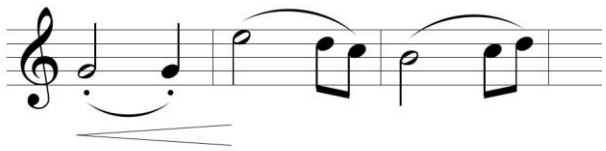


Figure 21: Interval Solution 1 – Saint-Saëns "Romance" m.21-23

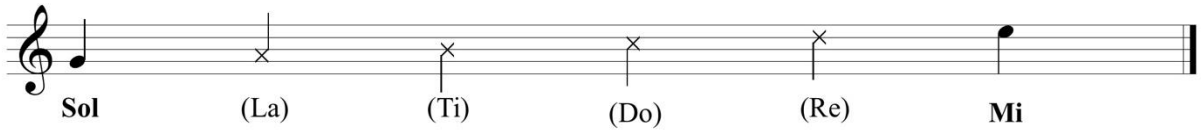
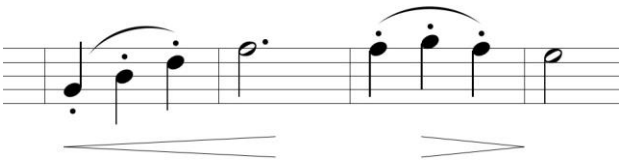


Figure 22: Interval Challenge 2 – Saint-Saëns "Romance" m.40-42



[19] A full presentation of this piece is addressed in the lesson on musical form.

Figure 23: Interval Solution 2 – Saint-Saëns "Romance" m.40-42

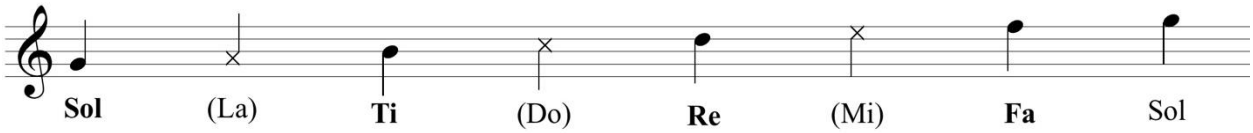


Figure 24: Interval Challenge 3 – Saint-Saëns "Romance" m.50-54

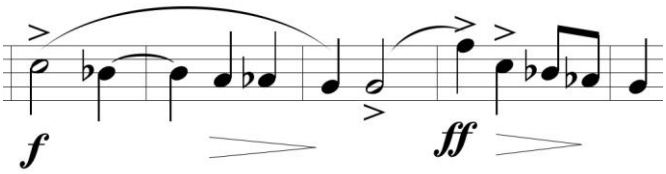
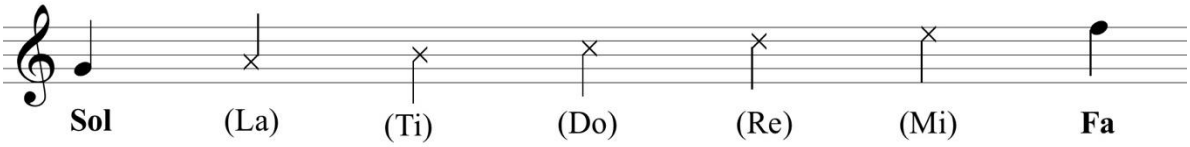


Figure 25: Interval Solution - Saint-Saëns "Romance" m.50-54



Each time you practice, sing the scale of the piece you are working on (you will know that from the key signature), then use that tonal center to help you work out the challenging intervals.

Building Scales and Arpeggios

Rationale

Scales and arpeggios have a reputation for being a less-than-inspiring area of music study. Although students can appreciate the value of mastering their technique in this area, I have yet to meet a student eager to learn and practice more scales!

Most method books introduce scales and arpeggios in terms of their key signature. When a student is assigned a new scale to learn, it is just that – a brand new scale, unrelated to other scales except that it has one more or one less sharp or flat than another. Many method books have a page that collects the scales and some form of arpeggio that have been used throughout the book. These are useful as a general resource for the student to turn to if she is not immediately familiar with the key signature of a scale. However, this still leaves the student dependent on an outside source for reference and relies on sheer memorization of key signatures. If memorization fails (which it often does), the student is left with no reference for identifying the correct notes of a given scale.

This problem can be addressed by teaching the student how a scale is built using patterns of half and whole steps. With this knowledge, the student has the ability inside herself to build a scale even if she is not sure what the correct key signature will be. Building a scale with the correct pattern will result in the desired key signature. This lesson is intended to illustrate this concept.

A C scale is used as a model because it is free of accidentals. Young brass players are generally more familiar with the keys of concert B♭ and E♭ due to the fact that most of their band music is written in these keys; however, the range of these scales on the horn could present a challenge. I have used C for illustration in this lesson for its visual simplicity as well as these

range considerations. It is also clear to see the difference between major and minor tonalities using this scale as a model.

I have found that students often know what degrees of the scale an arpeggio is built on. Presenting the concept using the terminology of minor and major thirds encourages the student to also think in terms of intervals and note relationships rather than only in isolated pitches that happen to be stacked together. This approach also has the potential of addressing intonation, as students are familiar from their experience in band and orchestra classes with the particularities of tuning intervals such as thirds and fifths. Teaching students the foundations of building scales and arpeggios will give them independence in their music learning, which should be one of the goals for any music instructor.

Virtually any etude or study from any anthology can be used to illustrate and practice scale and arpeggio patterns in the context of a piece of music. Since it is assumed that students will be seeing material such as this on a regular basis if enrolled in private lessons, examples from standard repertoire have been chosen to be presented here instead.

The Saint-Saëns *Concertpiece* excerpt was chosen both for illustration and inspiration. It is not expected that the intermediate-level student can accomplish the entire excerpt at tempo and in style. However, this excerpt, and really the entire work, can be held up as a model for why command of scales and arpeggios are not only necessary but are the foundational elements for music making, and to present a goal to aspire to. The excerpt can be approached and treated as an etude, with the understanding that it is part of a larger work.

The same reasoning applies to the presentation of the Rossini and Beethoven orchestral excerpts. Both are presented in their original keys for the sake of authenticity, but because the goal of this lesson is to illustrate scales and arpeggios in context, and not the advanced skill of

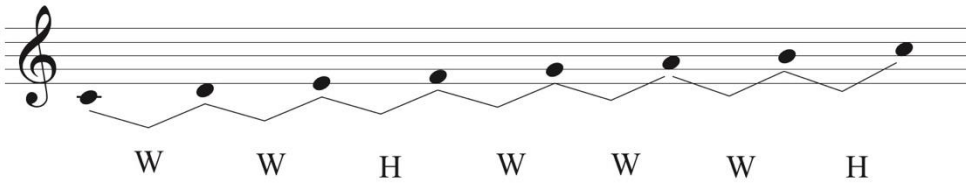
learning to play the excerpt, each one may be played in F. However, an ambitious student may enjoy the challenge of transposing each, and the Beethoven can also illustrate the use of the natural horn.

Expansion of this lesson could include written assignments where a starting note is given and the student is asked to build a major or minor scale on it based on the interval patterns.

Lesson

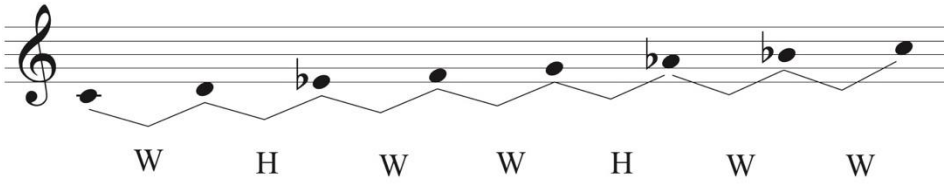
Scales and arpeggios are the building blocks of music, and use a specific pattern of intervals and major and minor thirds. If you know the patterns, you can build a scale even when you are not certain of the key signature. Major scales are built on the pattern shown in Figure 26 (W stands for whole step, H stands for half-step):

Figure 26: Building a C Major Scale



Minor Scales are built on the pattern shown in Figure 27.

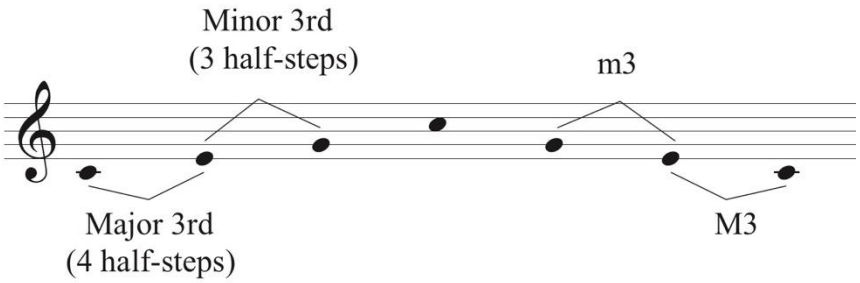
Figure 27: Building a C Minor Scale



As you can see, the only difference between major and minor scales is where the half-step occurs.

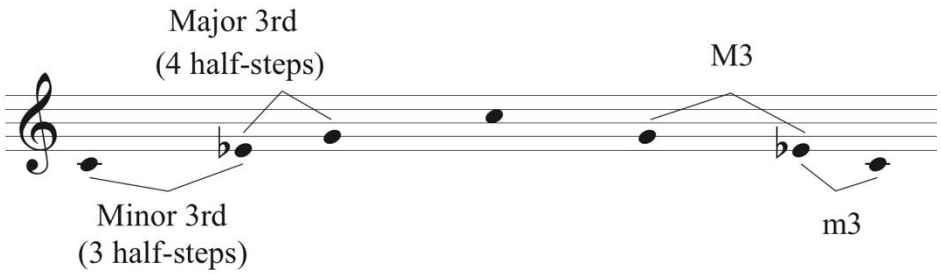
Arpeggios are built on the first, third, and fifth notes, or degrees, of the scale. For example, a C major arpeggio would be written as in Figure 28:

Figure 28: Building a C Major Arpeggio



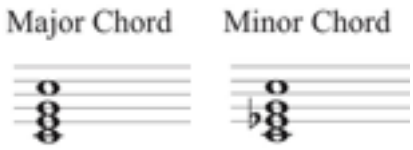
A C minor arpeggio would be written as in Figure 29:

Figure 29: Building a C Minor Arpeggio



It may help to see the notes stacked on top of each other, in a chord, to see how the major and minor thirds are organized, as in Figure 30:

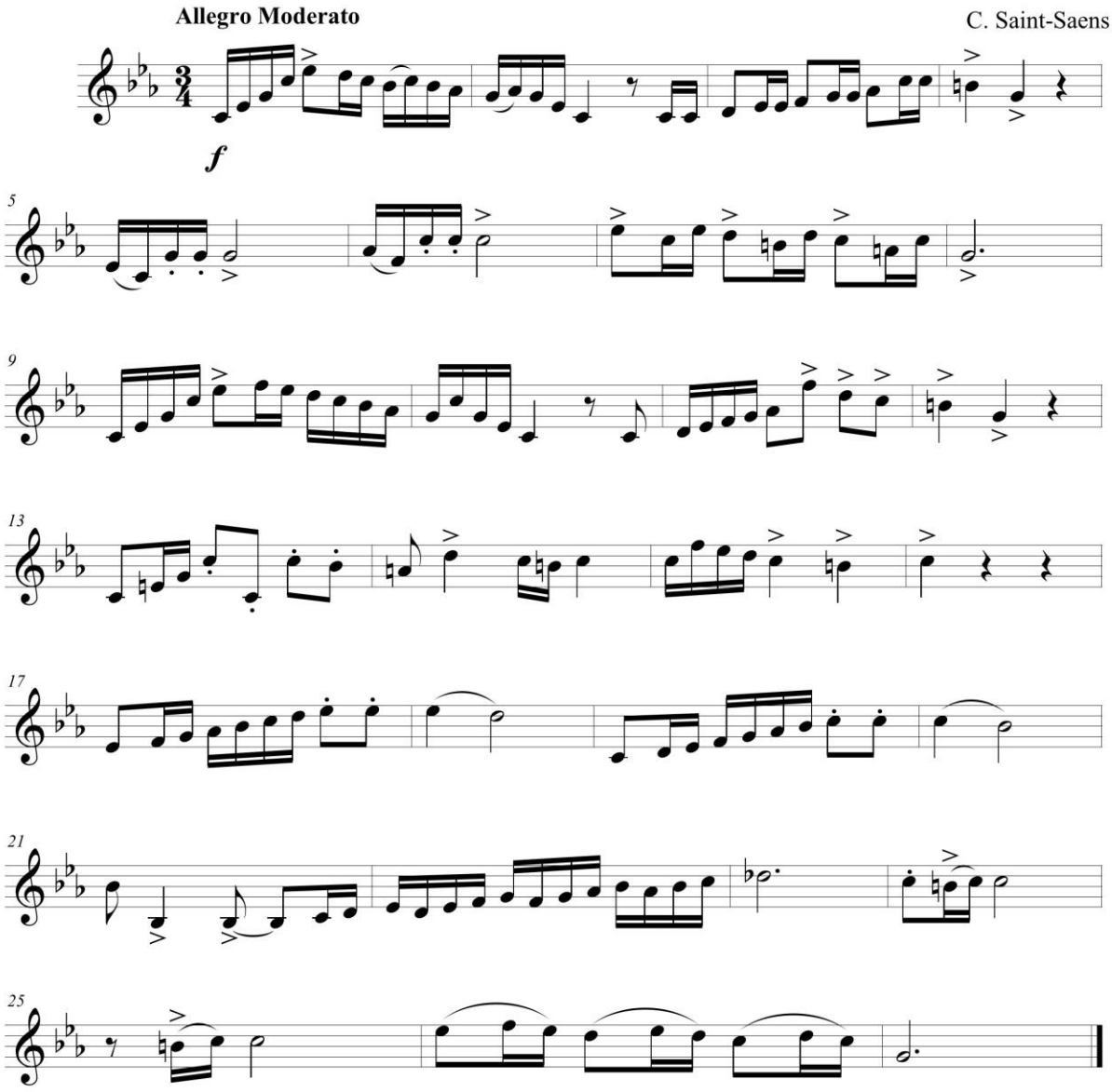
Figure 30: Major and Minor Chords



When you are assigned a new scale or arpeggio to learn for your lesson, use the information above to build the scale or arpeggio in your mind before looking at a notated version. You can also practice writing out each scale and arpeggio on blank staff paper.

Figure 31 is an excerpt from Camille Saint-Saëns' *Concertpiece*, and is a good example of how scales and arpeggios are the building blocks of music. Very often, as in this piece, a melody will be a plain scale or arpeggio. Learning scales and arpeggios separately will prepare you to learn and play performance music more effectively. Learning the entire piece can be a good goal for the future.

Figure 31: Variation 1 from "Concertpiece"



Scale and arpeggio patterns are used in many orchestral horn parts as well. Figures 32 and 33 are two examples from the Overture to Rossini's opera, *The Barber of Seville*.

Figure 32: Excerpt 1 from Overture to "Barber of Seville"

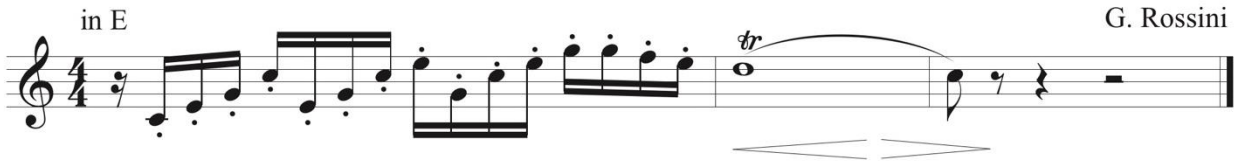


Figure 33: Excerpt 2 from Overture to "Barber of Seville"

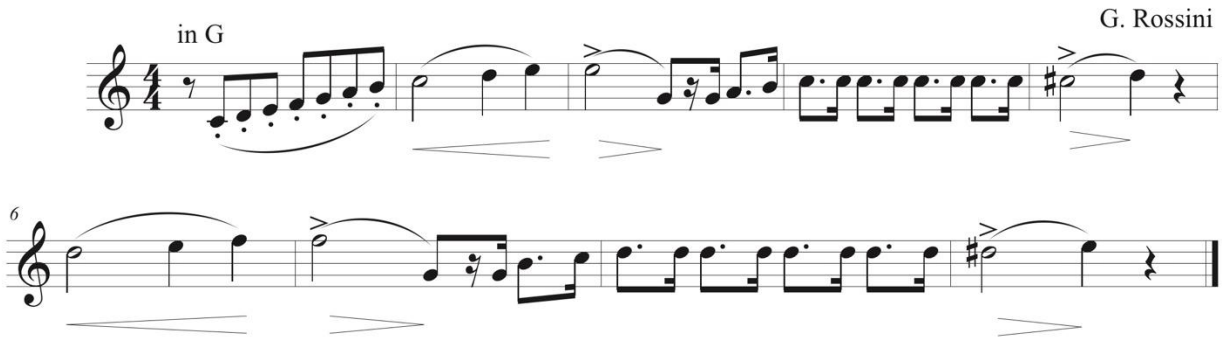
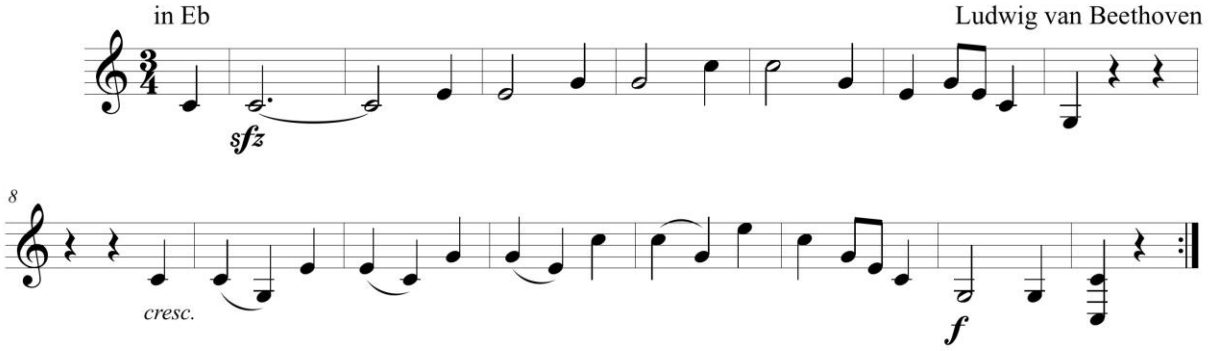


Figure 34 is an excerpt from the second horn part of Beethoven's *"Eroica"* Symphony.

Figure 34: Trio from Symphony no.3 "Eroica"



When you practice, look for scales and arpeggios before you begin playing to help prepare yourself.

Bass Clef

Rationale

As was briefly mentioned earlier, there is a baffling lack of bass clef notation in the current horn pedagogy. This lesson is directed toward addressing that lack. Bass clef in horn writing has the added challenge of old and new notation, and players must be able to distinguish between them on sight. The repertoire of the intermediate-level horn player will likely not use old notation, but it is worth introducing as part of the bass clef package. Building bass clef reading into the student's routine at this stage will prepare him for the inevitable occurrence of it in band, orchestra, or solo literature as he advances.

The introductory remarks given in this lesson are similar to what would be found in the bass clef lesson in books such as the Pottag or Rubank methods. Since most methods introduce bass clef but fail to expound on it, this lesson offers supplementary etudes and melodies for practice.

The Concone *Vocalise* has been transcribed into both old and new notation for comparison. The second etude by Concone was chosen because the melody contains mostly step-wise motion, which is more accessible for one who is not fluent in bass clef reading. The Howe etude was also chosen for its step-wise melody, but requires more advanced rhythmic facility, as well as a wider range. While the possibility exists that the low A in the last bar of the Howe is too low for the intermediate student, it is approached by descending step, and the fact remains that it is productive for the student to be comprehending the written pitch even if he may struggle to produce the pitch on the instrument. An instance such as this is exemplary of the necessity for development of the extreme low range over time. This etude also shows the interplay between bass clef and treble clef notation within the same work. Mozart's "No More, I Have Heard Everything" has been taken from Mason Jones's *First Solos for the Horn Player*. The only

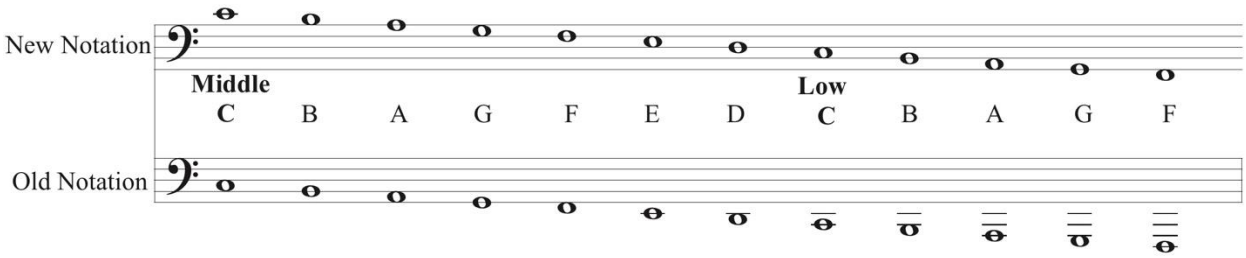
modifications made have been to transfer the arrangement down an octave to be placed in bass clef.

As intermediate-level repertoire does not tend to be written in bass clef, this lesson is a model in how one can use existing resources as a means towards the end of bass clef fluency. This lesson could be built upon by transcribing additional etudes and repertoire into bass clef range. While there are many resources that address the development of the low range (such as Fred Teuber's *Progressive Studies in Flexibility and Range Development for the Horn,* or William Brophy's *Technical Studies for Solving Special Problems on the Horn*), those that are directed toward the intermediate-level student for the purpose of developing bass clef reading fluency are not readily available. A collected edition of bass clef etudes and transcriptions would serve to fulfill this need, and this lesson is a step in that direction.

Lesson

While most of your horn music will be written in the treble clef, it is quite common to also see horn parts that are written in the bass clef. Like the treble clef, each note sits on a line or space. Horn parts in bass clef use *old notation* and *new notation*. The staff in Figure 35 shows how to distinguish between them. The top staff is in new notation, with the written middle C exactly where middle C is on the horn. The bottom staff is in old notation, where the notes are written one octave below where they are played. You will play the top pitches, even though they are written one octave lower.

Figure 35: Bass Clef New and Old Notation



The examples in Figures 36 and 37 are the same melody, but Figure 36 is written in new notation, and Figure 37 is written in old notation. First, learn to play Figure 36 comfortably, then practice reading Figure 37.

Figure 36: Example in New Notation

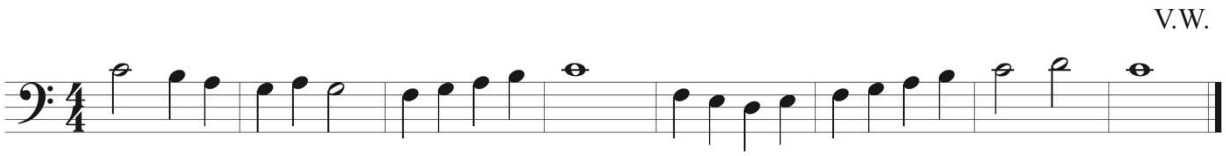
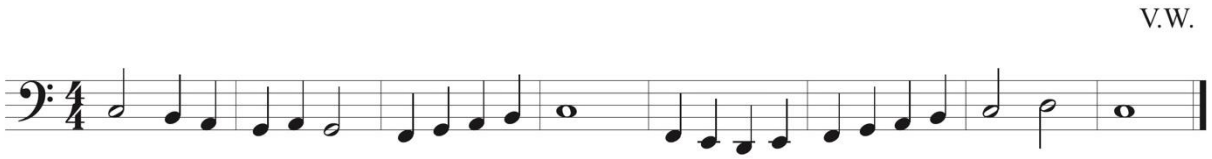


Figure 37: Example in Old Notation



The etudes and melodies in Figures 38 - 43 are provided for you to practice reading and distinguishing between old and new notation in bass clef.

Figure 38: Etude no.148

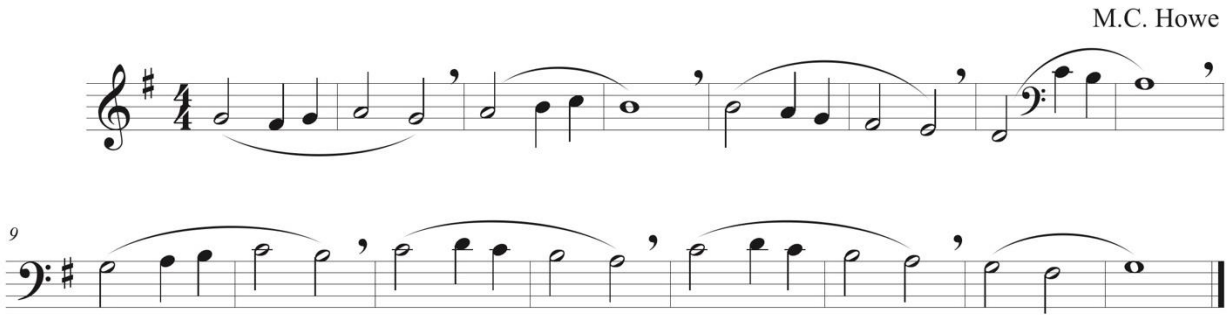


Figure 39: "Vocalise no.2" in New Notation

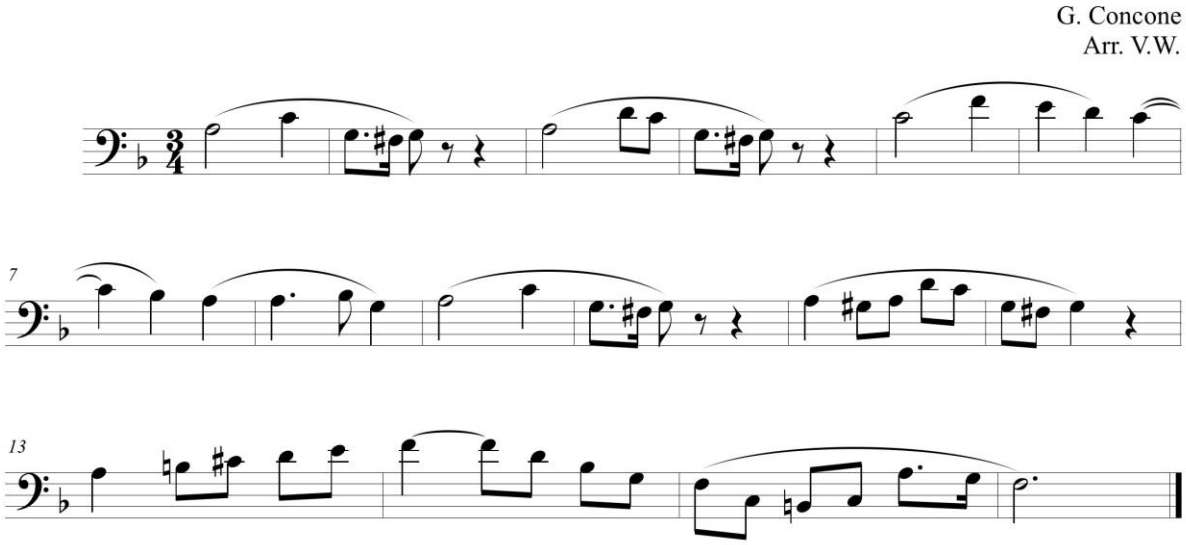


Figure 40: "Vocalise no.2" in Old Notation

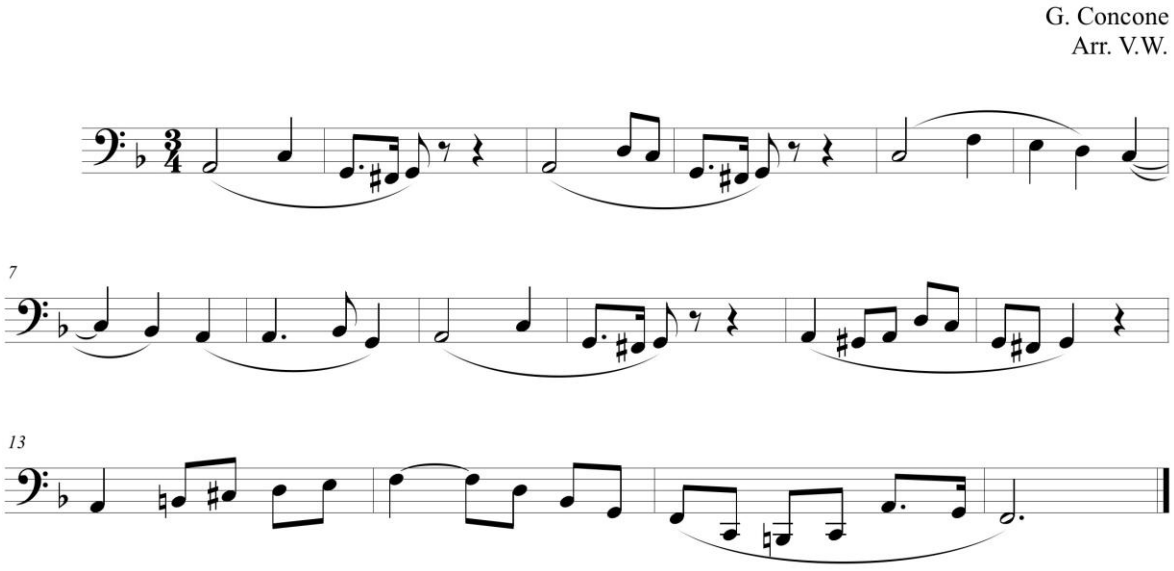


Figure 41: A Song in New Notation

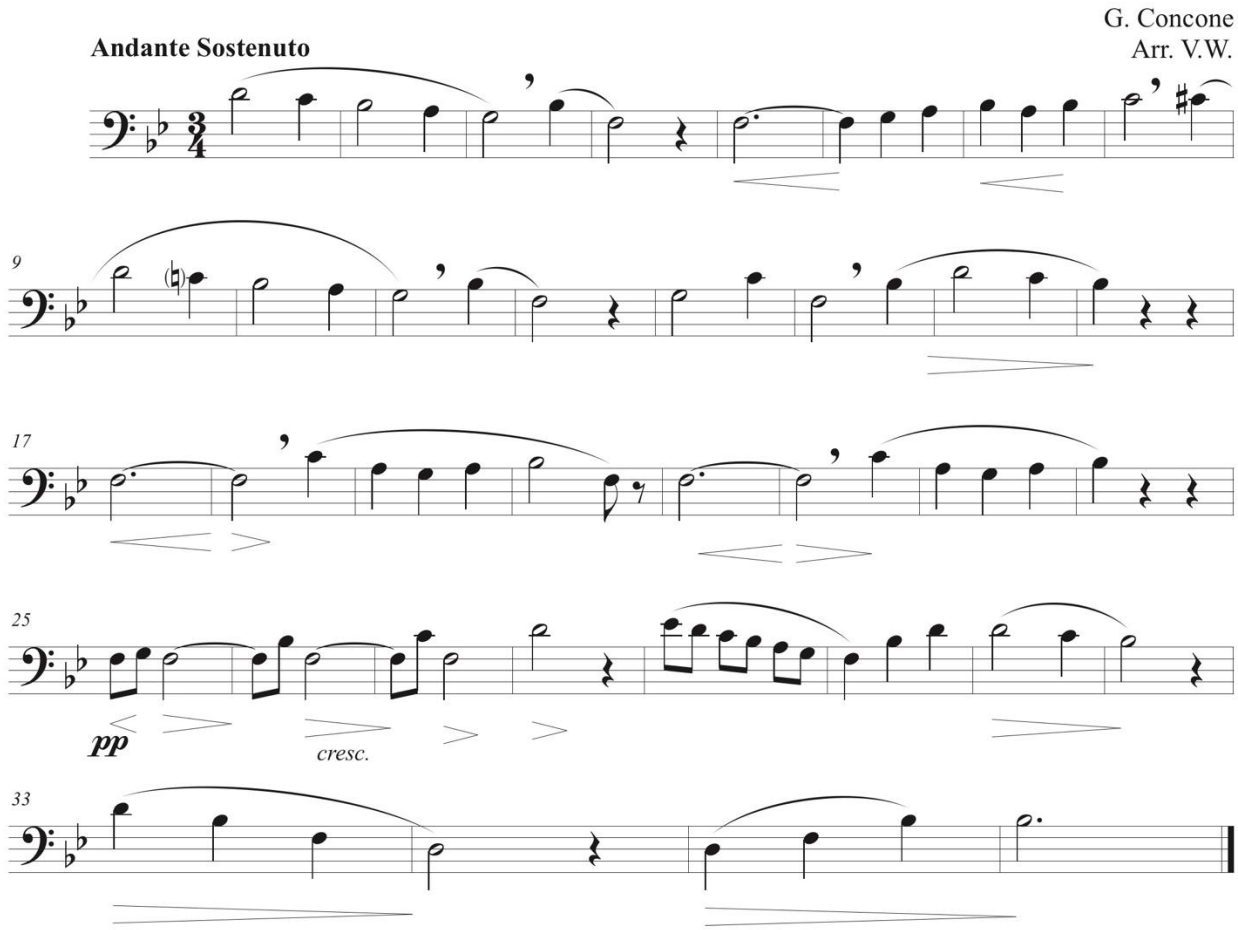


Figure 42: Etude no.100

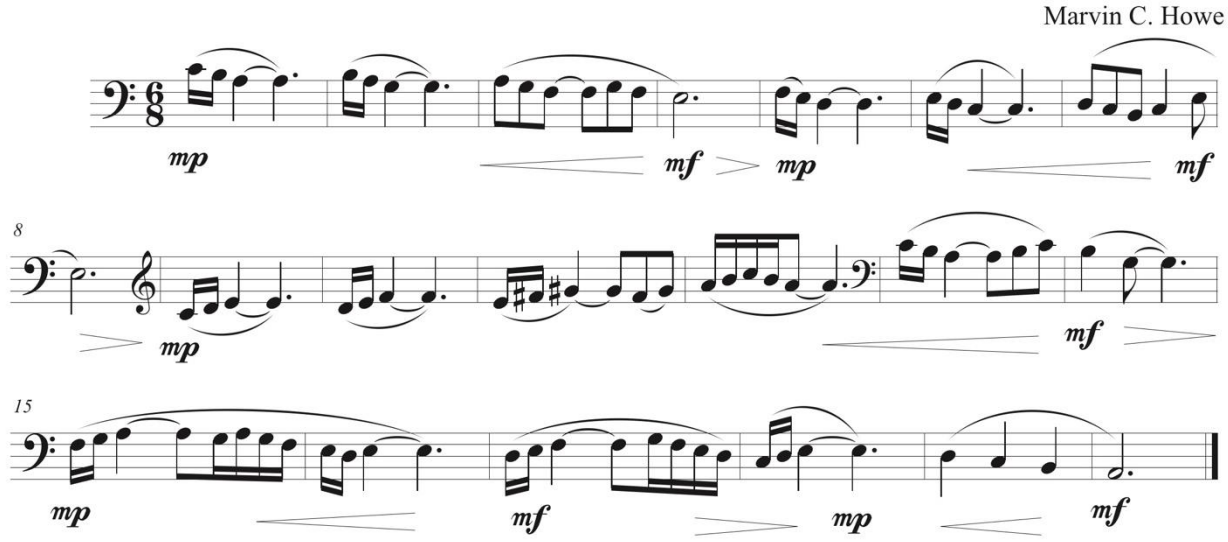
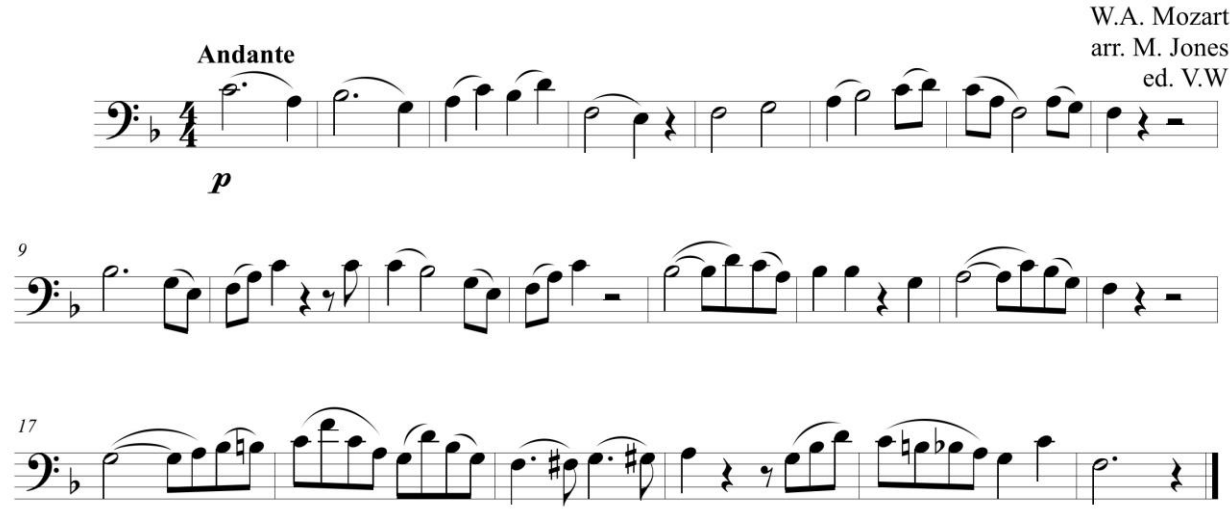


Figure 43: "No More, I Have Heard Everything"



Major and Minor Key Relationships

Rationale

It is regular practice for instrumental students to be required to learn major and minor scales in the context of band, orchestra, and/or private lessons. While they may accomplish this, it is not guaranteed that they understand the relationships between major and minor modalities. This lesson serves as an introduction to parallel and relative major-minor relationships. Music learning involves an understanding of these kinds of relationships among keys, and so this topic is warranted in this context.

Distinguishing between relative and parallel majors and minors will give the student an alternative approach to learning and practicing scales. Like the lesson on building scales and arpeggios, these modal relationships give context to what the student is learning, so that rather than memorizing, for example, a D minor scale in isolation from F major, the student can use knowledge of one to inform the other.

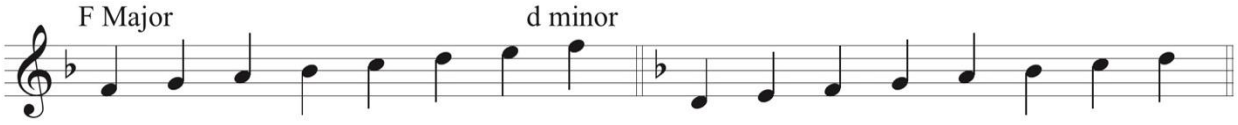
The etudes chosen to illustrate these relationships have been collected from Maxime-Alphonse *200 New Melodic and Gradual Studies for Horn*, and Max Pottag's collection found in *Preparatory Melodies to Solo Work for French Horn*. Two contain relative modal relationship, and two contain parallel. A summary analysis has been provided for the first two etudes, and the student is asked to decipher the key changes on his own for the remaining two. This task may be challenging for a student, but assuming an instructor is present, it is by no means an unreasonable expectation for the student of this level.

Lesson

Major and minor keys can be related to one another in two ways, either by relative or parallel relationship.

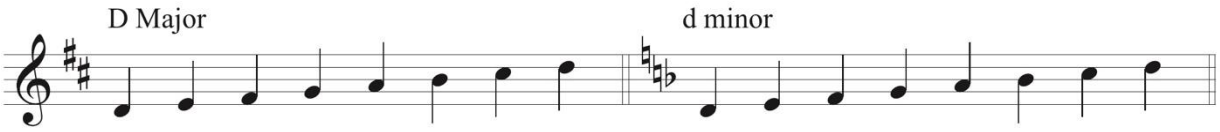
Major and minor keys that are relative to each other share a key signature, and their tonic pitches are three half-steps apart. For example, to find the relative minor of F major, count down three half-steps to D. To find the relative major of D minor, count three half-steps upwards to F. This relationship is demonstrated in Figure 44.

Figure 44: F Major and D Minor Relative Relationship



Major and minor keys that are in parallel relationship start on the same pitch, but do not share a key signature. To turn a major scale into a minor scale, you must lower the third, sixth, and seventh degrees by one half-step, as in Figure 45.

Figure 45: D Major and D Minor Parallel Relationship

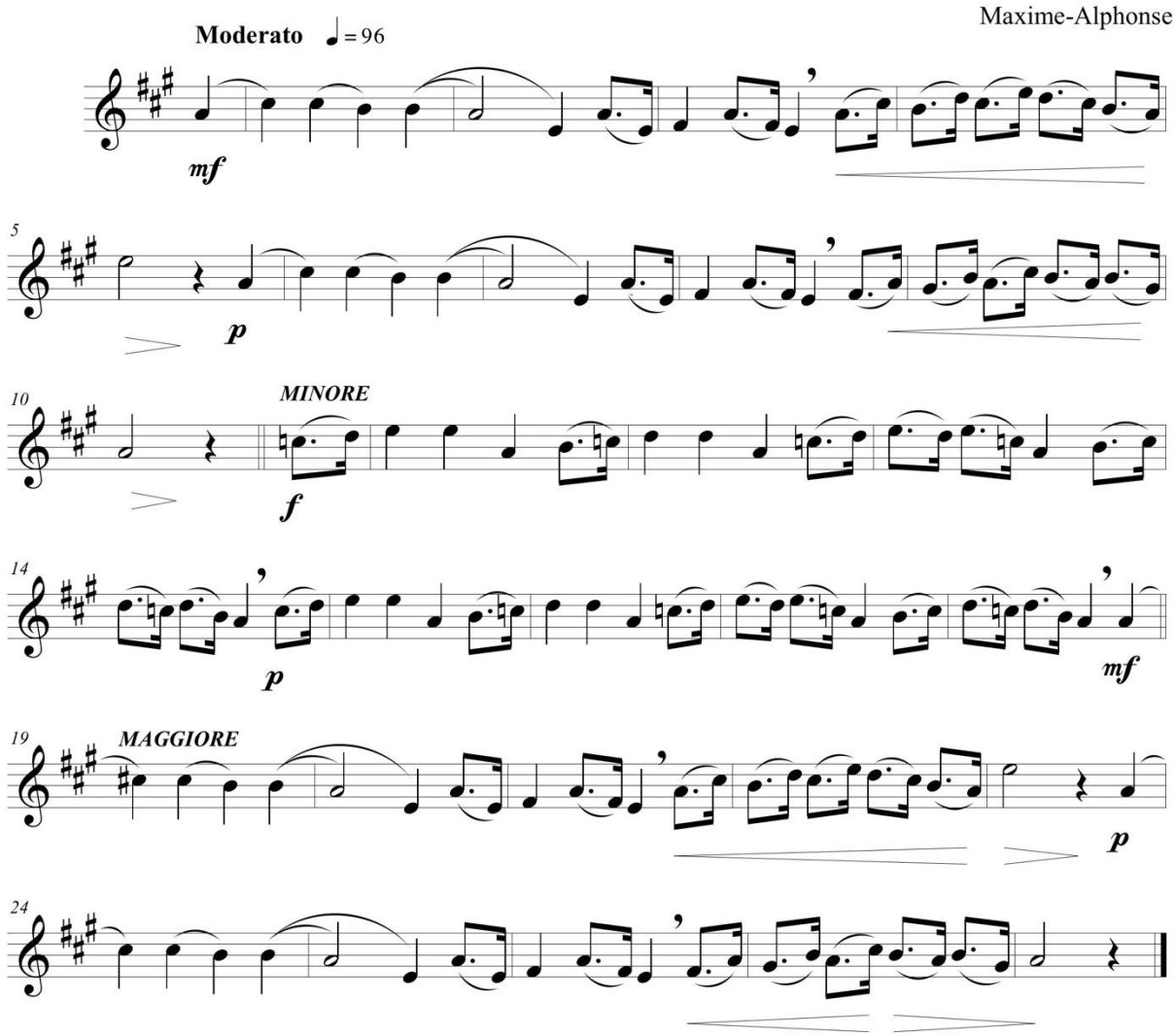


Refer to the "Building Scales and Arpeggios" lesson for further explanation on building a major and minor scale from the same starting pitch.

It is helpful to know relative and parallel relationships not only for learning your scales, but also for understanding what the music that you are playing is trying to communicate. You will be a more effective performer when you understand the relationships of the keys in your music.

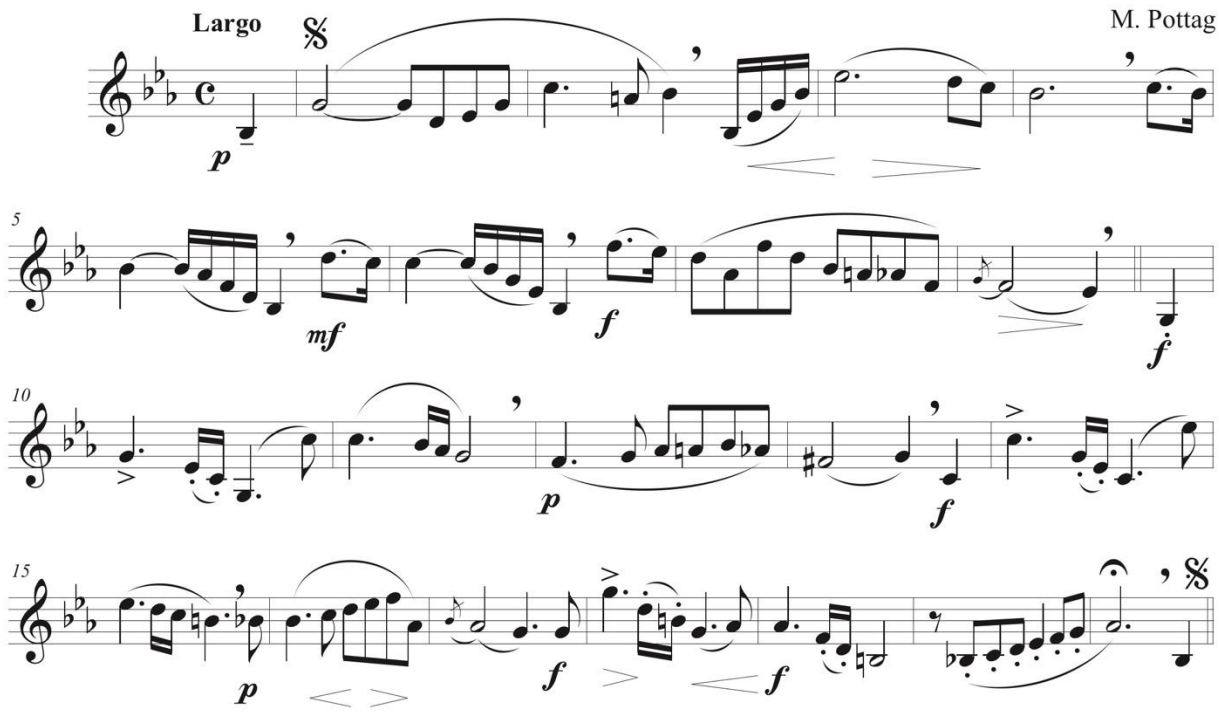
The etude in Figure 46 illustrates parallel major and minor in the key of A. You can see it begins in A major, and at the double bar at measure 11, the key changes to A minor. Although there is not a key change marked at the double bar, all the Cs are marked natural, which puts the melody in A minor. The melody then returns to A major at bar 19.

Figure 46: Etude no.10 from Book 1



The etude in Figure 47 illustrates the relative major and minor key relationship. It begins in E♭ major, and at the double bar after the *Fine* it continues in C minor. Even though you do not see a key change written, your ears will be able to identify the change from major to minor.

Figure 47: Preparatory Melody no.67



The studies in Figures 48 and 49 have a major and minor transition somewhere. Try to determine on your own if they are relative or parallel relationships.

Figure 48: Etude no.38 from Book 1

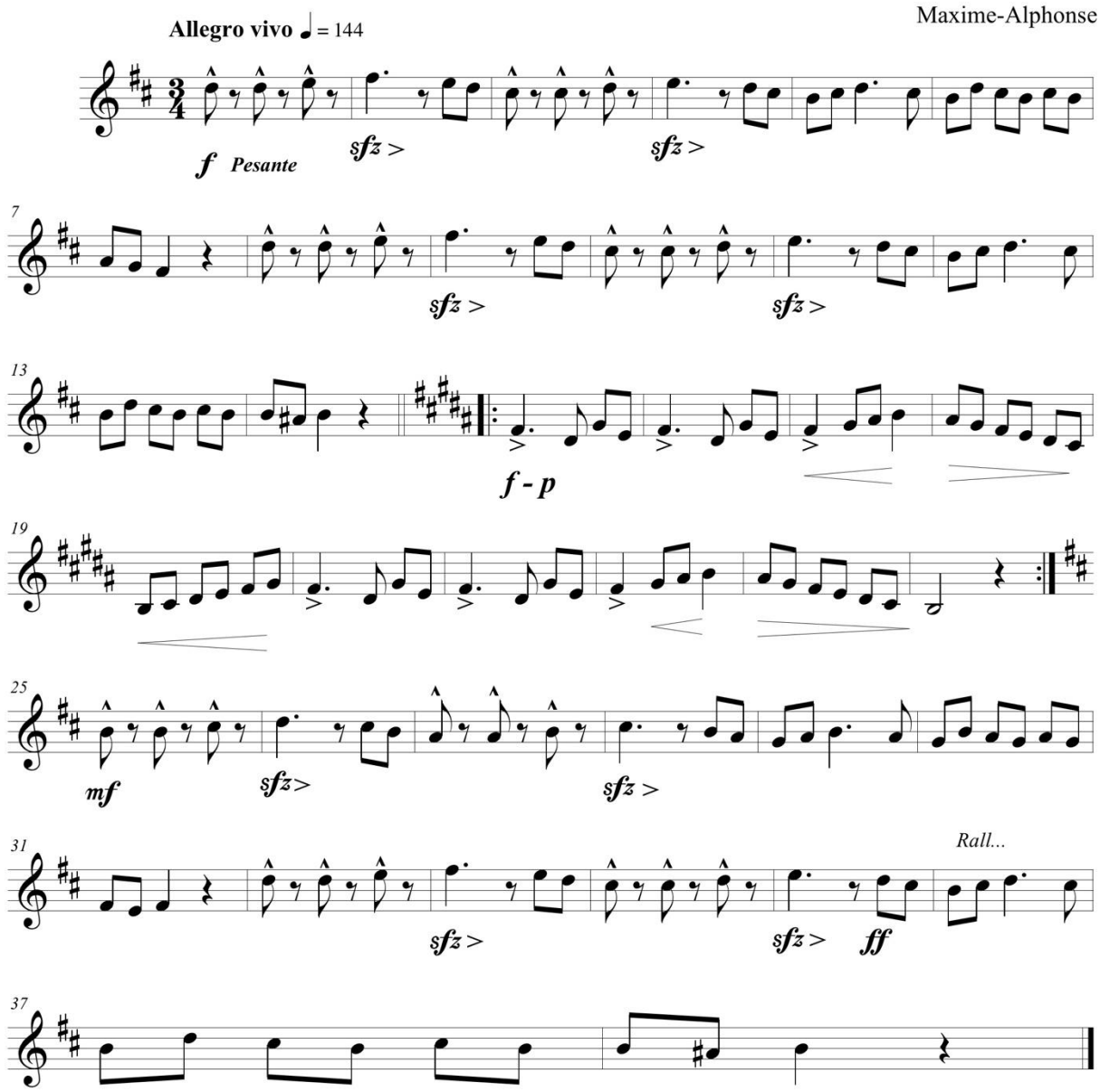
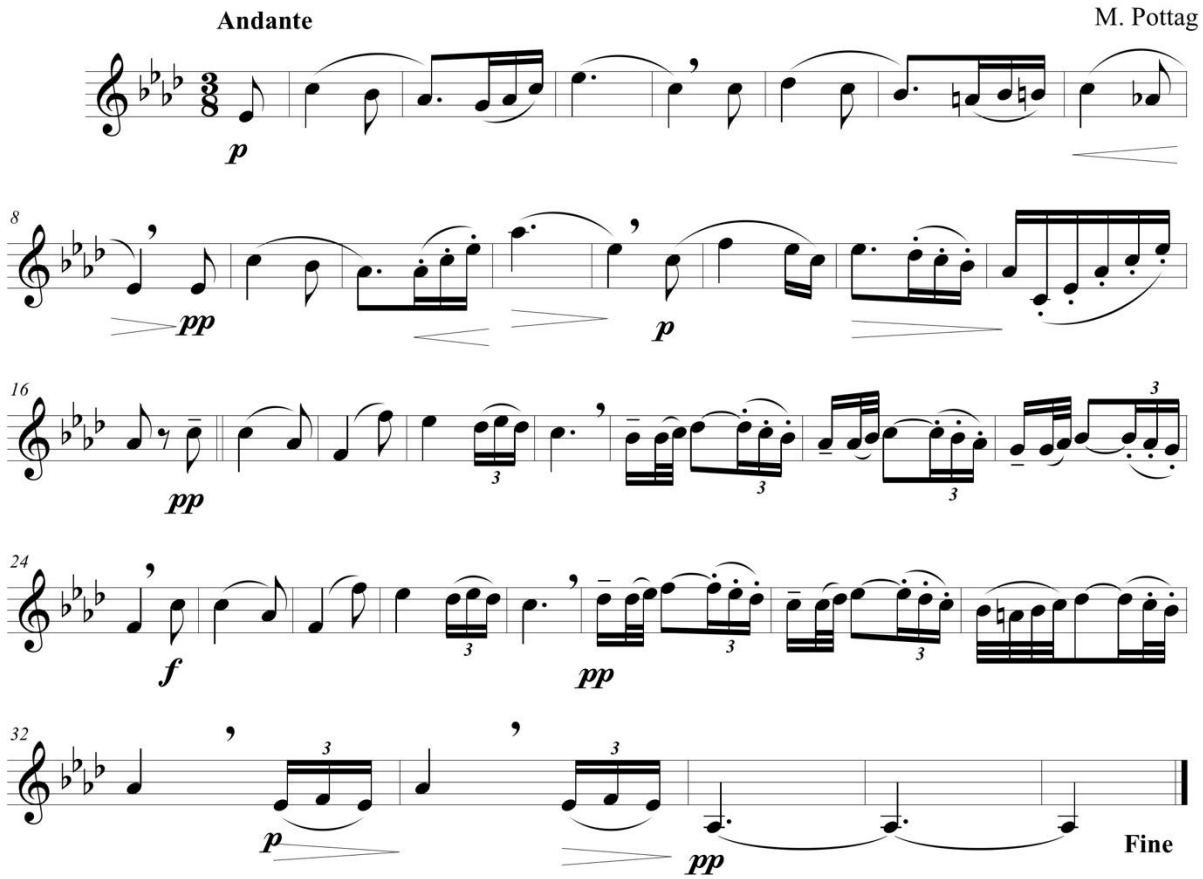


Figure 49: Preparatory Melody no.84



Tonic-Dominant Harmonic Relationship

Rationale

A simple presentation of tonic and dominant terminology is given here as an introduction into the world of harmonic function. Full explanation of harmony is complicated by the fact that the horn is a single-voiced instrument, meaning that all harmony is implied rather than explicit. Harmony is more immediately visible on an instrument such as the piano or even stringed instruments that can outline triads and bass lines. Of course, a student of the horn is not exempt from developing an ear for harmony, and so this lesson is included to encourage the student toward that end and to give them a framework for identifying tonal areas.

The two Pottag etudes clearly delineate tonic and dominant areas by means of the double bars. Additionally, the opening motif of Etude 10 outlines a tonic arpeggio, and the same motif is repeated in bar 9 in the dominant. These simple figures can be isolated side by side to illustrate the relationship between tonic and dominant. Attention must also be drawn to the F♯ in bar 15 as the leading tone to G, which will further illustrate that G has become a temporary "home" key.

Etude 39 briefly arrives at the dominant in bar 4, and outlines a V-I cadence in bars 7–8. While cadences and Roman numerals are not presented in this lesson, these harmonic moments can be used to illustrate the relationship between tonic and dominant harmonies, addressing the point in the written portion of the lesson that a I-V conversation can happen over a matter of bars or over a longer section of music. Once again, attention can be drawn to the B ♮ accidentals to show the key of the dominant.

The Cherubini *Sonata* has been presented here as an example from the repertoire. It is short and technically accessible to an intermediate-level student, and there are clear I-V-I progressions on small and large scale in the horn part. The greatest advantage to using repertoire,

however, is that the accompaniment can be used to more clearly illustrate tonal areas. Ideally, an instructor presenting this material would have a basic level of piano proficiency (most college-educated instructors will have been required to pass piano proficiency during their education, so this is not an unreasonable assumption) and could pick out at least a simple bass line to accompany the student in their learning. Even something as simple as this could help the student to hear the music they play in a more detailed manner.

An ambitious and able instructor could write simple bass lines or accompaniments to her students' weekly lesson etudes. The point of this would not be to turn them into solo works, but rather to be able to more clearly illustrate tonal and harmonic activity. By whatever means, the goal is to encourage the student toward hearing beyond one line of melody to the underlying harmony in the music she plays.

Lesson

The two most important notes in a scale and a key are the *tonic* and *dominant*. The tonic is the first note of the scale. This note will always feel like "home." It is the note that the key signature is named after. The dominant is the fifth note in the scale, and it has the feeling of "a home away from home."

To identify tonic and dominant, we use the Roman numerals I for tonic and V for dominant, as in Figures 50 and 51.

Figure 50: I-V in C

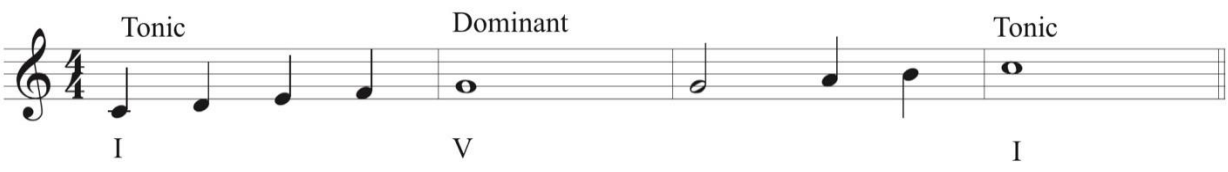
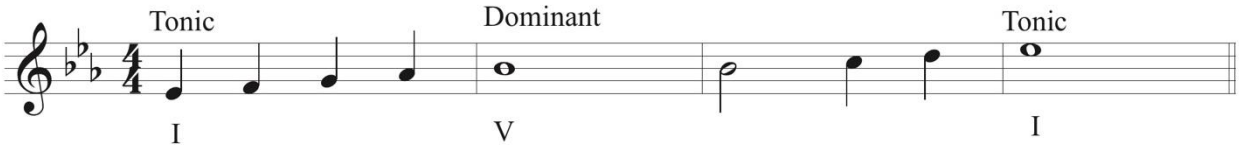
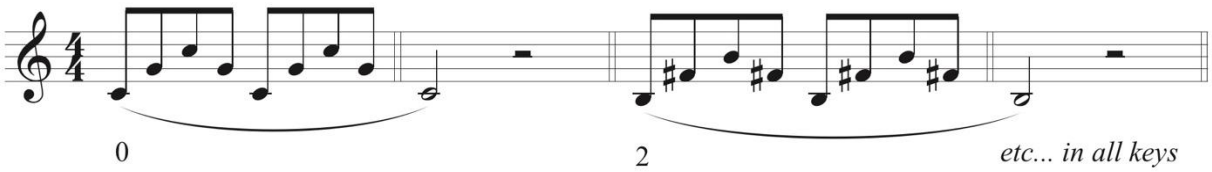


Figure 51: I-V in E♭



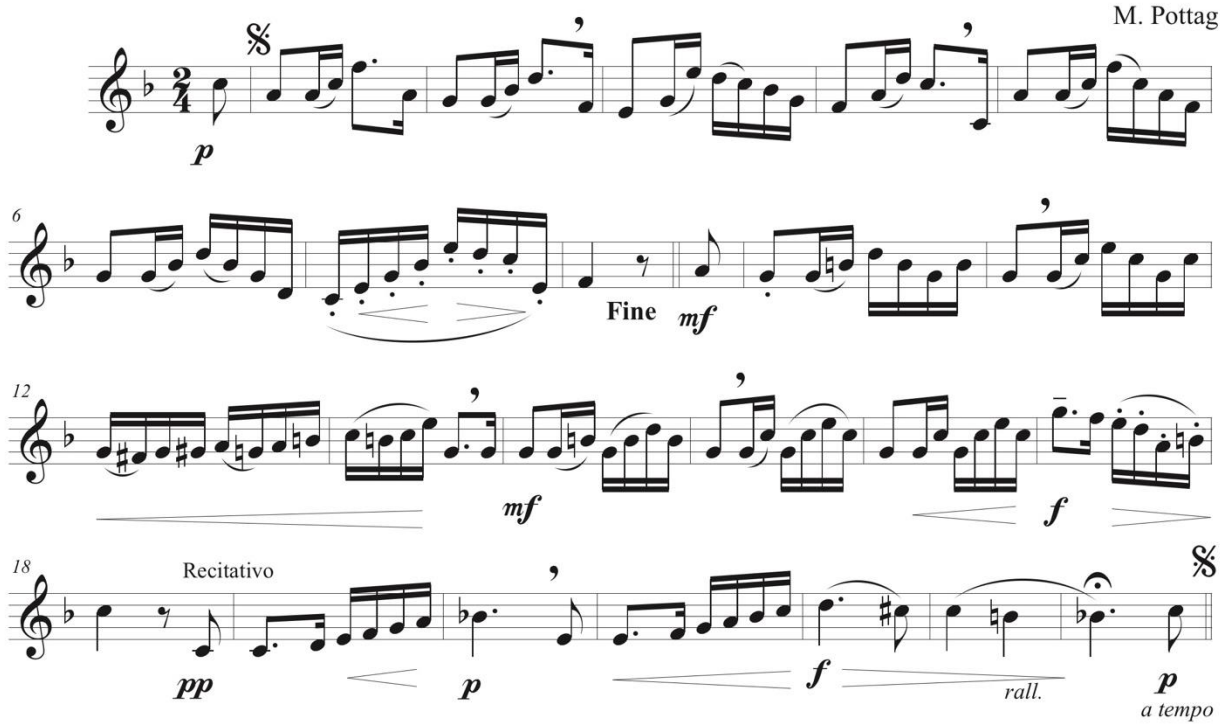
The lip slur exercise in Figure 52 will help you to identify the tonic and dominant by ear. Practice it on all fingerings of the F and B♭ horn.

Figure 52: I-V Lip Slur



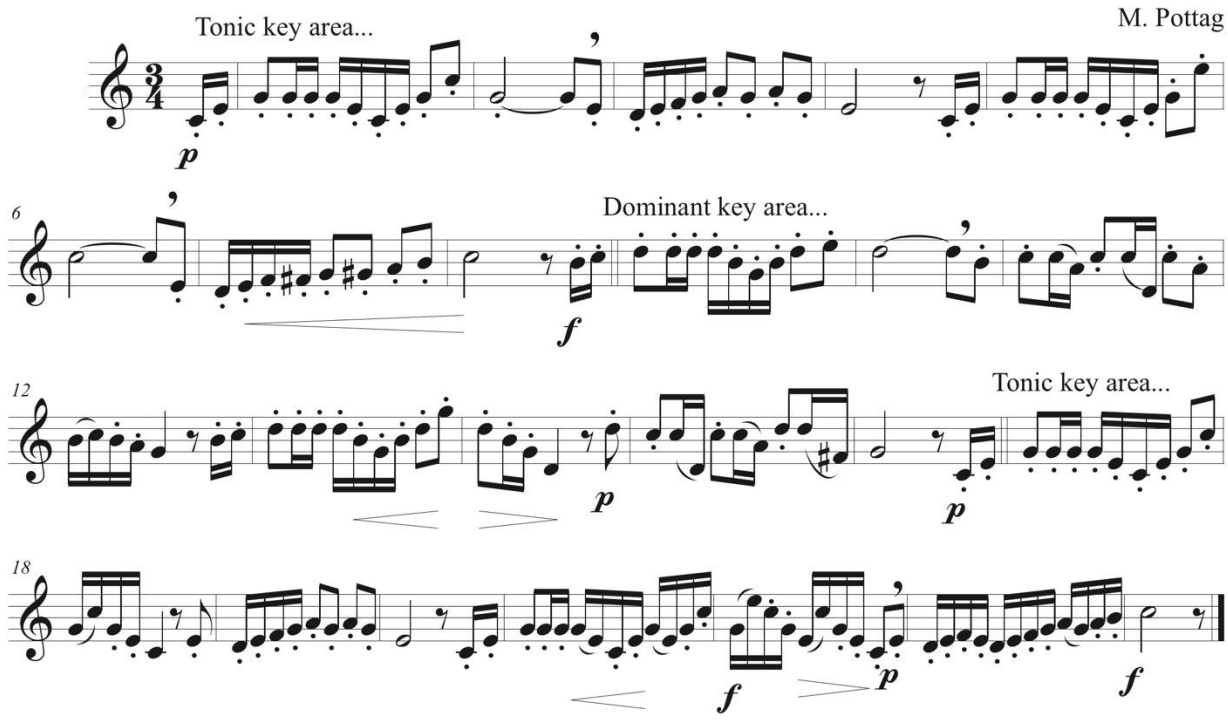
Music generally travels from the tonic to the dominant and back to the tonic. This can happen very simply, as in the scale examples above, or it can happen over larger sections of music, as in the studies below. Very often, an entire section of music will sound as if it has made the dominant the home key rather than the tonic. This movement is what gives music a sense of direction and meaning. The etudes in Figures 53 and 54 are good examples of this harmonic movement.

Figure 53: Preparatory Melody no.10



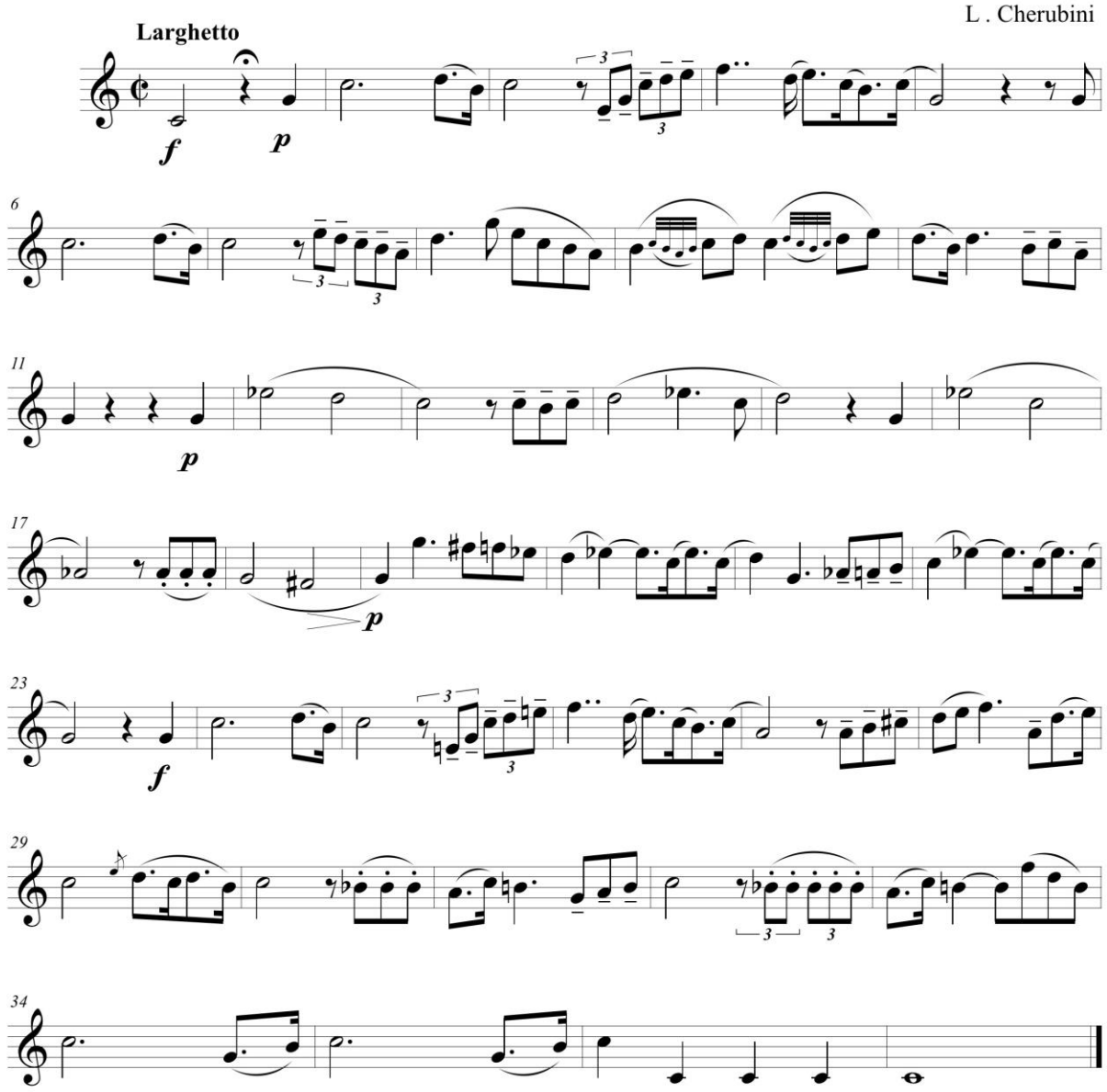
In Figure 54 you see where the tonic and dominant key areas have been labeled. We know that first section is in the tonic key because the melody mostly outlines a C arpeggio, and there is a lot of Do-Mi-Sol movement. The dominant key area takes over in the middle because the melody outlines a G arpeggio, with lots of Sol-Ti-Re movement. The F♯ is also a good hint of the dominant key area (because the key of G has an F♯.)

Figure 54: Preparatory Melody no.39



Typically, a longer work such as a sonata or concerto will have three distinct sections – one in the tonic key, one in the dominant key, and the last one back in tonic. Figure 55 is a short sonata by Luigi Cherubini. While you are learning it, be mindful of where it feels like C is "home" and where it feels like G is "home away from home."

Figure 55: Sonata no.1



Cadences

Rationale

This lesson serves to introduce the term cadence into the vocabulary of the intermediate-level horn student. At this point in her learning, a student will likely be able to identify a basic phrase, and that knowledge can be built upon with the added terminology of cadences.

By definition, cadences are harmonic functions rather than melodic. As was discussed in the "Tonic and Dominant" lesson, harmonic concepts present a challenge to players of single-voiced instruments, yet are still an important part of the musical learning process. In the intermediate literature, harmonic arrivals are often mirrored in the melody and coincide with phrase endings, and it is with this justification that I have taken the liberty of explaining cadences in the context of melody rather than harmony. The student will learn to listen for moments of arrival or completion.

If used in context, this lesson would do well to be divided into two segments: the first segment would introduce the term and concept generally, and once the student has grasped that, the second would introduce the detail of various kinds of cadences, such as the perfect and imperfect authentic cadences (PAC and IAC). Discussion of the cadential V-I progression that completes a PAC or IAC is beyond the scope of this lesson, as there is an amount of necessary underlying harmonic knowledge. However, the voice-leading differences which distinguish an IAC from a PAC can be clearly demonstrated with a single melody, and that has been indulged in this lesson. Discussion of these two types of cadences has the added bonus of encouraging the student to be listening for the tonic pitch as distinct from any other pitch.

Cadences can be modeled using any piece since they are part of the fabric of music. The Endresen etude was chosen for its clear-cut phrase structure and rhythmic precision. The opening phrase also provides opportunity to discuss the arrival in bar 4 as a moment of arrival and

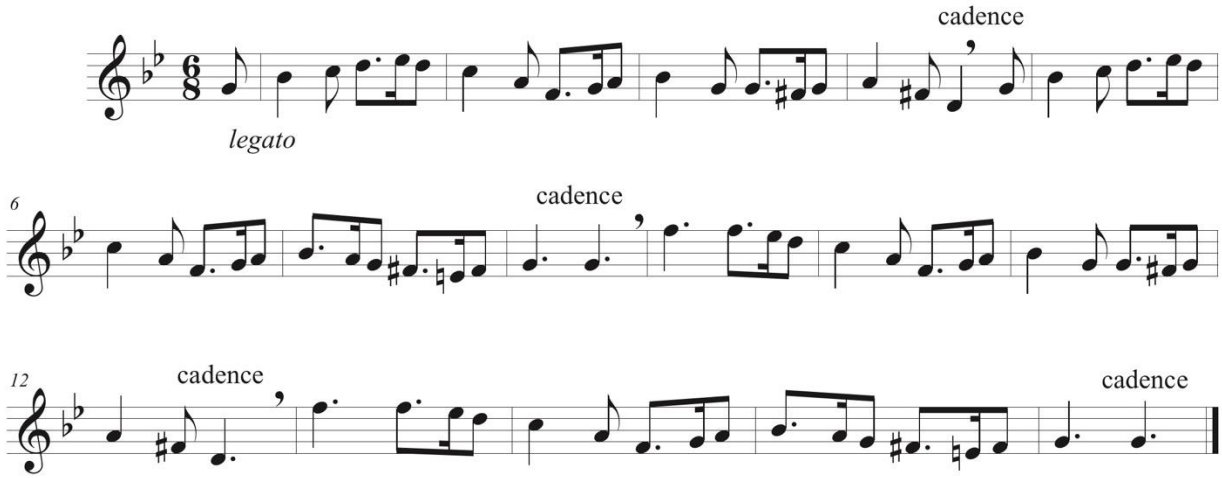
whether it qualifies as a cadence. (The half cadence has purposely been left out of discussion in this lesson because it is dependent on the underlying dominant harmony. An instructor could choose to use that term, but with great caution lest the student be misled to conclude that an arrival that happens in the middle of a phrase is always called a half cadence.) The Skrjabin *Romance* was chosen because it is from the original horn repertoire, and is an opportunity for the student to think analytically using music from the repertoire. It is technically accessible to the student horn player (although the piece presents more of a challenge for the accompanying pianist!) and illustrates a closing IAC in context.

Lesson

Music is goal oriented. This means that music is always traveling to or away from a harmonic goal. *Cadence* is the musical term for the goal, or arrival point, and there are strong cadences (such as the end of a piece) and lesser cadences along the way.

Figure 56 is a traditional melody called *Greensleeves*. When you play it, you will sense that the music naturally arrives and even rests a little at each cadence. Cadences often occur in between phrases, but not always. Try to play the cadences in the melody in the same way you would interpret commas or periods when you are reading a book.

Figure 56: "Greensleeves"



The final cadence of a piece of music will almost always end with a tonic chord, and if the melody plays the tonic pitch, the cadence is called a *Perfect Authentic Cadence*. *Greensleeves* ends with a Perfect Authentic Cadence (or PAC) because the melody note is G, and the piece is in the key of G minor. If the cadence ends with a pitch other than the tonic in the melody, it is called an *Imperfect Authentic Cadence*. [20]

The melody by Beethoven in Figure 57 is in the key of G major, but it cadences on B rather than G, and therefore is an Imperfect Authentic Cadence (or IAC).

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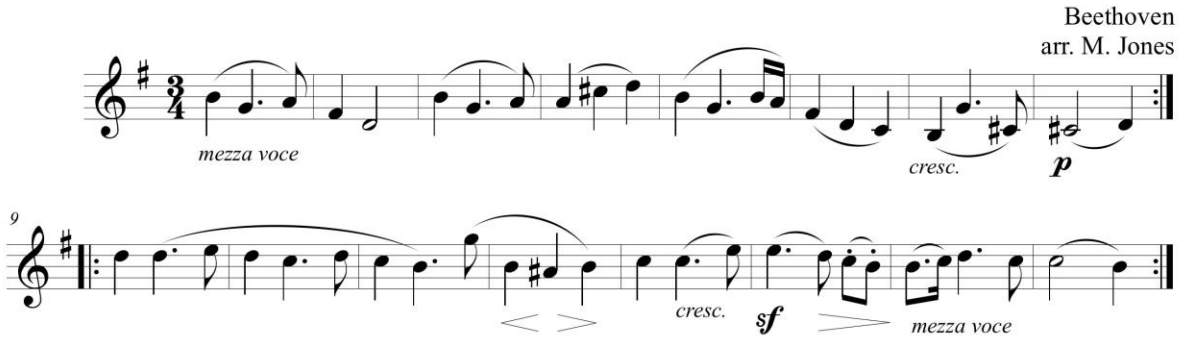
[20] "Greensleeves" example and cadence content adapted from Stefan Kostka and Dorothy Payne, *Tonal Harmony: With an Introduction to Twentieth-Century Music*. 5th ed. (New York: McGraw Hill, 2004), 323.

Figure 57: "Andante Espressivo" from Op.109



As you practice and learn the study in Figure 58 and the solo in Figure 59, listen carefully for the cadences, places where the music arrives or rests. Does each one end with a PAC or an IAC?

Figure 58: Etude no.24 from Supplementary Etudes

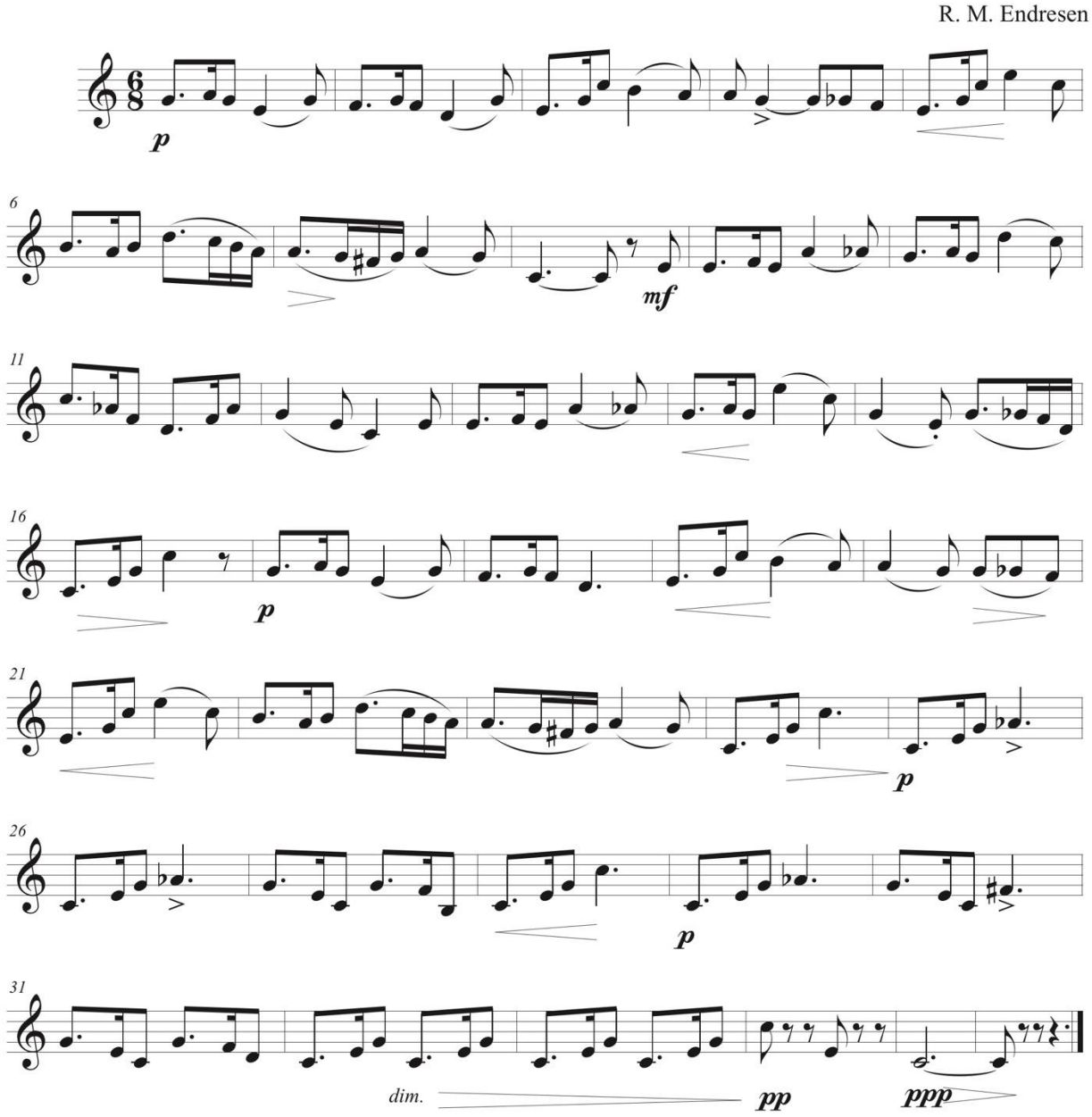
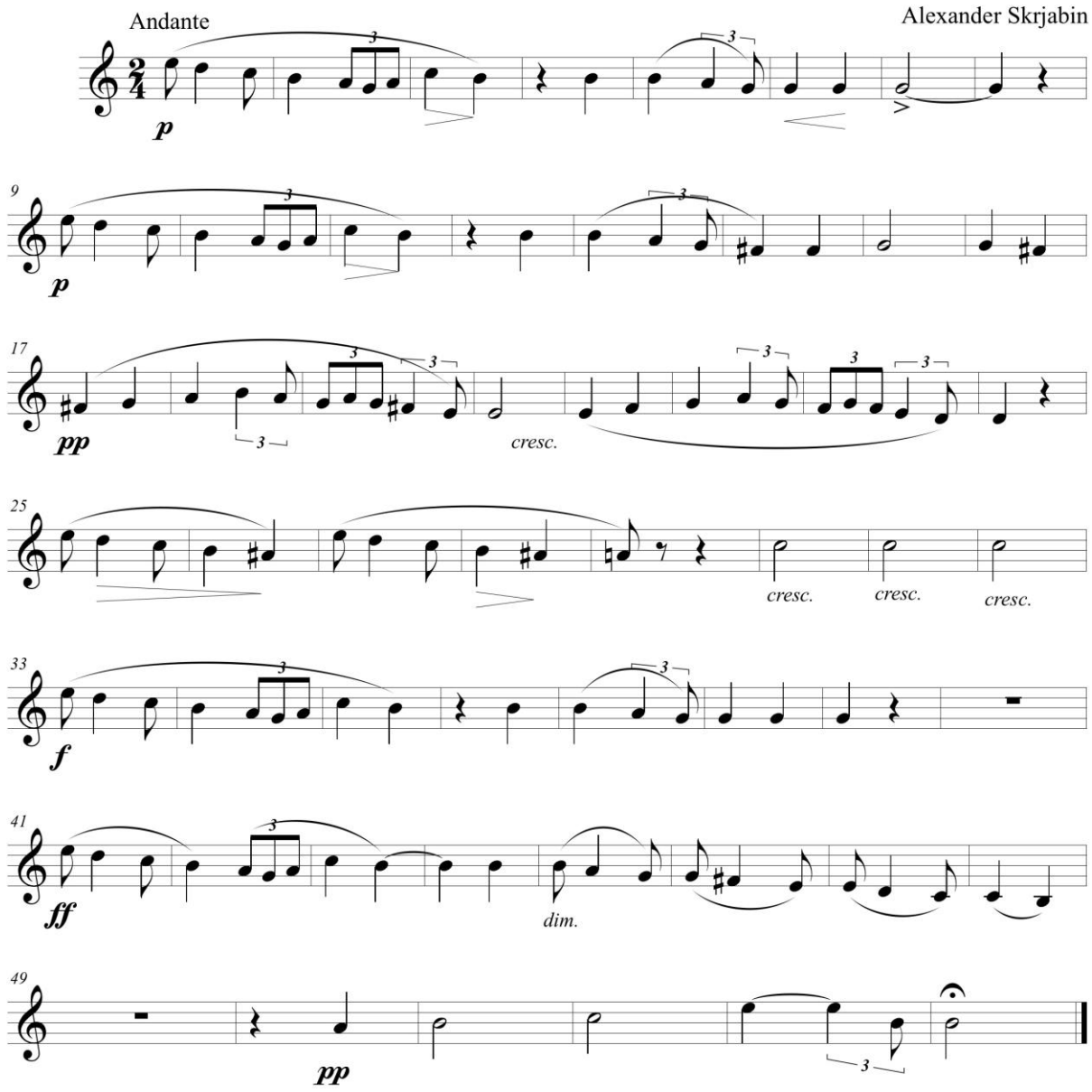


Figure 59: "Romance"



Musical Form

Rationale

Musical form is a topic that is not addressed explicitly in horn method books. At the same time, many of the etudes and pieces that students perform contain repeats and da capos, and provide an ideal template for the illustration of musical form. This lesson provides students with the binary and ternary form terminology that describes a large portion of the music that they see in horn literature. Possessing the vocabulary of musical form is helpful for the student to be able to make sense of a new piece of music, and understanding how an entire work fits together will present new ways to discuss and conceive of musical interpretation.

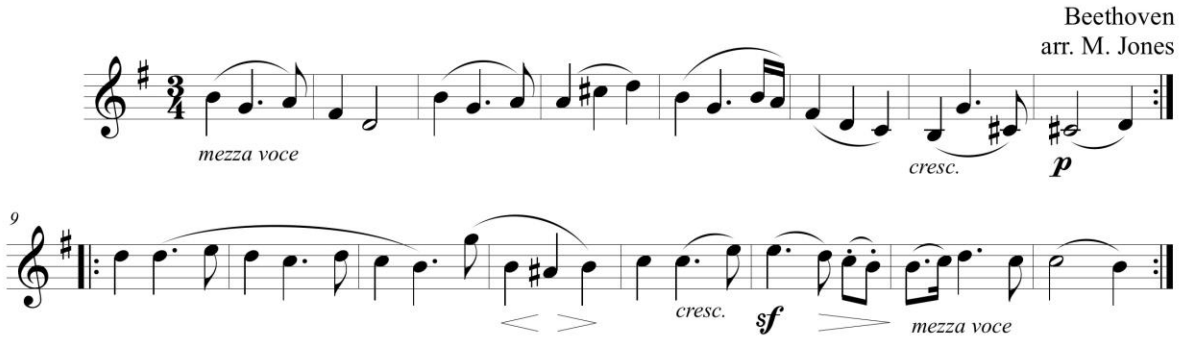
The Beethoven transcription and the "Ash Grove" folksong are given as straightforward illustrations for binary and ternary form. The Pottag etude is taken from his *Preparatory Melodies to Solo Work for French Horn.* This collection is an excellent resource for short, melodic works in ternary form, and most present some challenge to the intermediate-level student while remaining highly accessible. The Saint-Saëns *Romance* is a standard piece of horn literature often found on lists for solo competitions at the high school level.

Lesson

Just like books are organized in chapters, music also has specific ways of being organized. The musical term for this organization is *form*. Two common forms of music are *binary form* and *ternary form*.

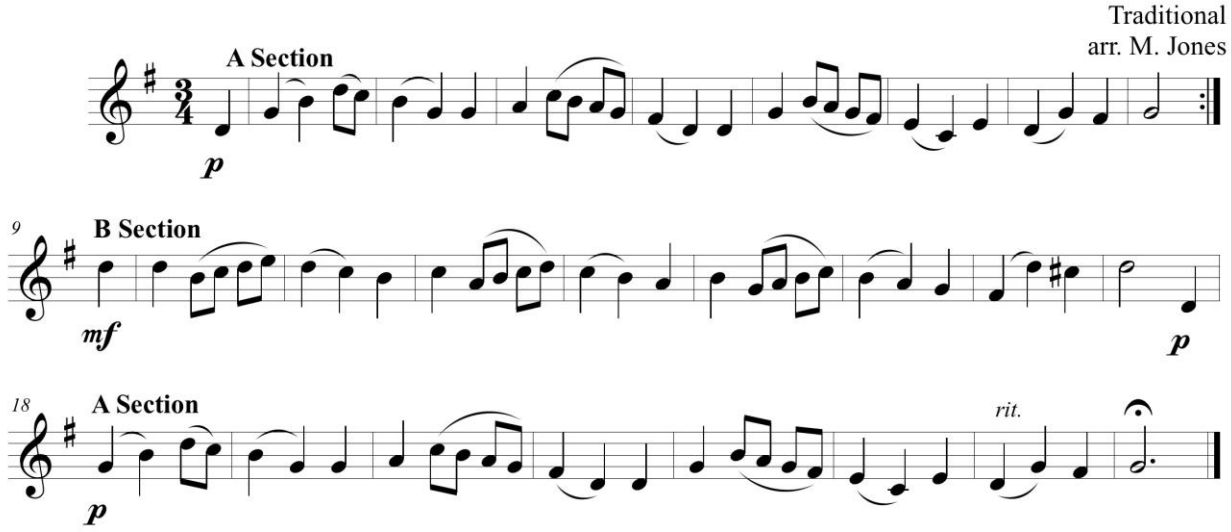
Binary form means that the piece has two distinct sections. The first section is labeled *A* and the second is labeled *B*. Very often, both sections are repeated, as in this example of a theme by Beethoven in Figure 60.

Figure 60: "Andante Espressivo" from Op.109



Ternary form means that there are three sections, labeled ABA. The last section is the same as the first, as in the melody, *The Ash Grove*, in Figure 61.

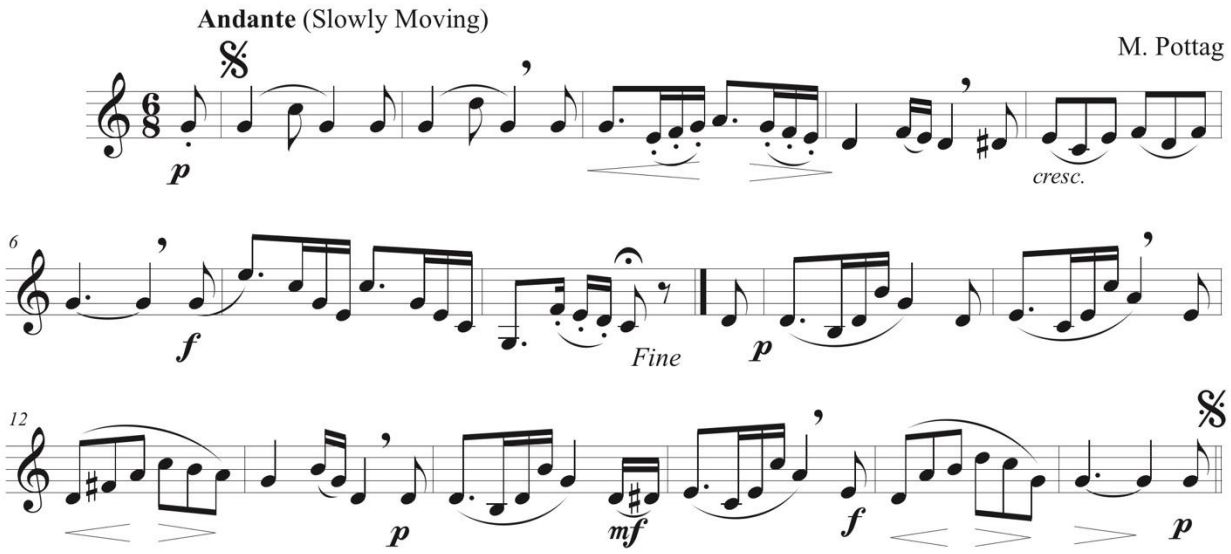
Figure 61: "The Ash Grove"



Very often, when you play a piece that has *D.C. al Fine* written, or that contains a 𝄋 symbol that returns to the beginning of piece, it is in ternary, or ABA, form. The first movement of most concertos and sonatas are in ternary form.

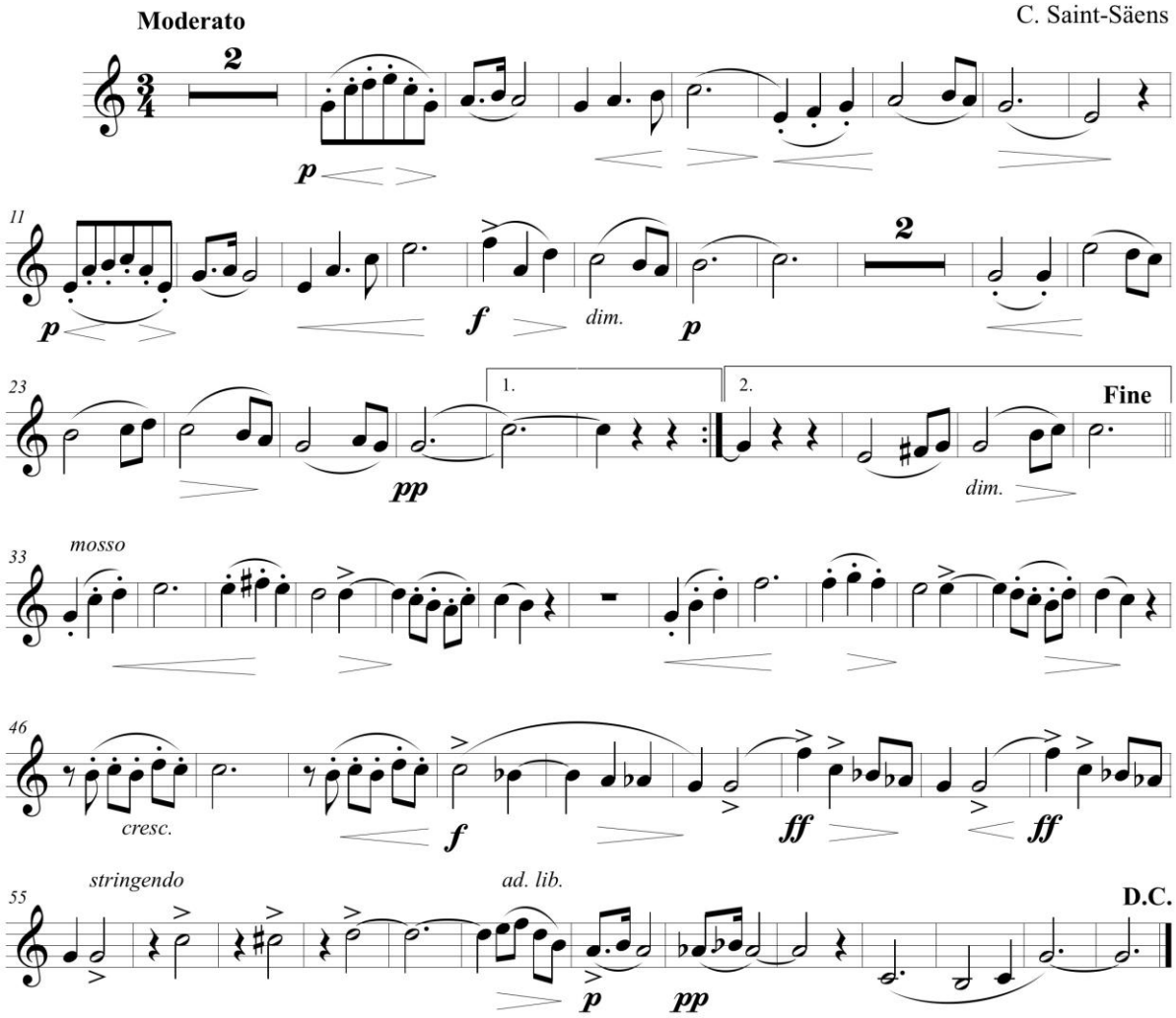
Figures 62 and 63 are two etudes in ternary form.

Figure 62: Preparatory Melody no.19



Although the A section in the *Romance*, Figure 63, ends differently the second time than the first, the piece is still considered to have ternary form.

Figure 63: Saint-Saëns "Romance"



CHAPTER FIVE

SUGGESTED AREAS FOR FURTHER DEVELOPMENT

This document has presented a format for one way in which an instructor might incorporate music theory more deliberately into her horn pedagogy. I have limited the scope of this paper to the concepts I have presented, but one can build each lesson out further with more repertoire options, or delve into each area in more detail, or address other concepts altogether. Concepts such as chords, including triads and seventh chords, inversions and their accompanying written symbols, and chord progressions are all important areas of understanding which can be intentionally worked into horn pedagogy using repertoire and technical exercises.

To keep the lesson presentations concise, I also did not address the written side of music theory, that is, the manual notation of examples and analyses. If horn pedagogy is to take any leads from standard piano pedagogy, as was suggested in the introduction, written theory assignments would be a routine aspect of weekly lessons. Written assignments could involve notating scales or arpeggios, writing down simple dictated melodies, composing very simple examples based on various parameters, identifying the distinct sections within a piece of music and articulating the distinguishing characteristics of each, or writing out transpositions of short portions of music.

Very often, especially in Advanced Placement and college-level courses, music theory and aural skills go hand in hand. While I did not address these skills in depth in this context, it is another vital area of competency that I believe needs to be incorporated more diligently into horn pedagogy, since success in playing the horn depends so heavily on the ability to hear and anticipate pitches. Taking into consideration that many students whom I have come across do not participate in singing activities such as choir or musical theater productions, aural skills which

involve the ear and the voice together are ever more crucial for the development of accurate horn playing.

To address aural skills, a guide with a format similar to this one could be used, but that one would incorporate more solfeggio, singing, and dictation. Alternatively, one could create a guide that offers solfeggio techniques specific to each etude or piece of repertoire. Textbooks that are used in college-level aural skills classes could be used as a starting point for the instructor who might need some initial guidance, but may need to be adjusted to fit the intermediate-level student.

Another approach would be to use the piano keyboard as a visual aid for the illustration of theory concepts. In some ways, playing the horn is an abstract process – we cannot "see" where the pitches are, and the valves offer little security, given the available partials associated with each valve combination. Familiarity with the keyboard could help the student orient herself around intervals, key signatures, enharmonics, and scale patterns.

CONCLUSION

This document has made a case for incorporating music theory into standard horn pedagogy at the intermediate level. Although there exists a substantial repertoire of pedagogical resources available to the instructor, there remain significant areas of general music and horn specific concepts that lack sufficient attention. This document has sought to address these shortages by approaching horn repertoire and horn-specific concepts using the language of music theory. This method will encourage the student to develop his skills not just as a "horn-player" but as a well-rounded musician.

A resource such as this is useful to show the interested instructor how one can use existing material to illustrate broader musical concepts beyond the markings on the page. With the wealth of available horn method books and other pedagogical treatises, a brand-new method book is not absolutely necessary to address this area of pedagogical need. However, a published volume such as this would certainly be a welcome addition to the horn pedagogy repertoire.

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