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Bridging the Gap: A Study of Compositional Similarities Across Time, The 'Realization' Techniques of Johann Sebastian Bach and Louis Armstrong

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**Bridging the Gap: Bridging the Gap:
A Study of Compositional Similarities Across Time
The “Realization” Techniques of Johann
Sebastian Bach and Louis Armstrong.**

Erin Cheshire

Spring 2016

Preface

This study is an examination of certain compositional techniques during the Baroque and jazz eras and how there are unexpected similarities throughout. The premise of this argument draws attention to the notion that, although the world has changed, this particular compositional technique has remained relatively unaltered. Given the aesthetic differences between these two compositional styles, the unlikely conclusion is that some aspects of music truly never go away, they simply change procedures.

By examining the emergence of the figured-bass style in the Baroque period and certain notational features in jazz, the evidence will trace the origins of these compositional techniques as exemplified in the works of Johann Sebastian Bach's *Flute Concerto, BWV 1033* and Louis Armstrong's *Potato Head Blues*.

Introduction to a Thesis on Baroque and Jazz:

More Similarities than Differences

Sound is a sensory perception in which the brain releases chemicals and neural connections create the sensation of sound, but humans elevate the experience of music to another level. Although emotions may cloud judgment and logic recesses, an objective assessment is required to attain a deeper understanding of the music. That is, we must strip away the emotional and philosophical aspects of music's definition.

Music is objectively defined as sound and silence organized in time, and not necessarily a collection of pleasant sound. And notation does not equal music; rather, it unfolds in the realm of the intangible, and this fact is what may cause us to ascribe to music its more ephemeral aspects.

Music is complex, but an instinctively inherent human endeavor. Although an extremely complex art form, music can be created with little understanding of these complexities. In an effort to systematize these complexities, various systems of notation and compositional techniques were devised throughout history; tools that lent themselves to a more objective understanding of music.

Understanding music comes from analyzing its constituent parts and identifying the reasons for how and why it is created. In music, this understanding is achieved through the study of music theory. The Baroque era saw the eventual establishment of tonal harmony, as it evolved from the older modal system of previous generations. The modal system defined music by the collection of pitches within an octave and a tonal center that identified the mode. In the Baroque era, the new tonal harmony prevailed. The notations are a physical representation of the pitches and are a systematic way of identifying the tonal center.

The major precursor to tonal harmony, known as the figured-bass, is permanently placed in history at the time of theorist Lodovico da Viadana, who lived from 1564-1645.¹ Because evidence is limited, this truth is remains under the heading of assumed validity until proven otherwise. Figured-bass was a compositional technique that is outlined in Viadana's "Conoti Concerti Exxlsiasitici, a Una, a Due, a Tre, and a Quattro voci. Con il Basso continuo per sonar nel Organo Nova inventione commoda per ogni sorte de Cantore, and per gli Organisti di lodovico Viadana Opera Duodecima", a treatise on the process of figured bass.² Throughout the work, Viadana explains the process by giving twelve rules and examples from six of his Concerti. Essentially, the process includes a bass line of notes and numbers above (or sometimes below) the notes that indicate to a musician the unwritten notes on the page. Originally written in neumes but translated by Professor Francesco Vatielli into a more understandable notation that is similar to tonal harmony, an example of figured bass is supplied to illustrate this process. Pairs of numbers and symbols would be written above a single melody that indicate the remaining notes that the musician is then to "realize" above that note. "Realizing" a chord means the musician identifies the interval note names that are indicated by the numbers, and proceeds to play the chord that is intended. This type of music is played on instruments of the respective time period that can play multiple notes at one time. In Viadana's generation, these instruments would have been a clavichord or the organ. The clavichord is a precursor to the piano and is a keyed instrument that plucks chords, and therefore is unable to sustain notes longer than a moment. The organ is a keyed instrument that conducts an air stream through different lengths of pipes to create sustained notes and chords. These instrumentalists would

¹ Arnold, F.T. *The Art of Accompaniment from a Thorough-Bass*. Dover Publications, inc: New York, NY. 1965, 1. Here after referred to as: Arnold, *Accompaniment*, 1.

² Arnold, *Accompaniment*, 2.

read the melodic line and symbols above these notes and fill out the remaining notes of a piece in order to accompany or simply present a piece by themselves.

These symbols include numbers and symbols. The numbers indicate intervals that are not indicated within the staff line using notes. So, if the melody given includes a note on the line or space representing “c” and there is a 6 written above, that would indicate that the note a 6th above a “c”, which is an “a”, should be played. Viadana’s works would include a number for every interval in the chord and the majority of chords included at least three notes, and therefore would include one written note and two numbers indicating the remaining notes.

Symbols that accompany these numbers include sharps, double sharps, flats, and double flats. These symbols are written next to the notes on the melodic line. A sharp sign (#), raises a note a half of a step, a double sharp (X) raises the note a whole step, a flat sign (b) lowers the note a half of a step, a double flat (b b) lowers the note a whole step. These symbols are written within the staff on the line or space that belongs to the corresponding interval or pitch. Performing figured bass is a skill that required practice and time to develop.³ The goal was to become a skilled player who could receive their melodic line with figures and be able to play upon sight.

Looking forward about 300 years, the world was beginning to see the emersion of jazz music. Jazz music emerged from the Black community in America, based off of their traditional background. Many African tribes who were brought to America remained loyal to their tribal songs that had been passed down for generations. These would soon be transferred to American instruments (example: hand clapping instead of gourd drums), and American text (Protestant

³ Arnold, *Accompaniment*, 14.

hymns instead of West African praise poems).⁴ Eventually, this musical style would progress through Ragtime, the Blues, and into jazz. Jazz music is defined as “improvised syncopated music”.⁵ This syncopated music holds a reliance on popular songs from both blues and ragtime, has tonal harmonic organizations, different timbres, and an emphasis on the performer’s ability to create music from the sheet of chords given.

A jazz band includes two major sections: the soloist (often being voice, horn, reeded instrument, etc.) and the accompaniment section (piano, bass, percussion). During the compositional process, both sections take part. These jazz musicians will take a well-known melody, play it, and the accompaniment section will form an accompanying part that repeats while the soloist and melodic section improvise the melody. This process occurs and causes the musicians to become both composers and performers. Once composed, a jazz musician’s written music often features the melodic line and the accompanying figure. This melody would be the transcribed well-known melody and the figures would be the representations of the chordal accompaniment played by the accompaniment section. For example, in Louis Armstrong’s piece “Potato Head Blues”, the melody is transcribed. The first measure includes the notes “b” and “d” (the rhythm is notated) and the figure “G” is written above the measure. This “G” indicates that that accompaniment section should play an F-triad. The style is up to the musicians during performance.⁶ Often these figures have numbers accompanying them to indicate the inversion (specific interval each note of the triad is found) or added notes (meaning an added seventh interval or ninth interval, etc.). In measure four of “Potato Head Blues”, the melody includes an “f#”, “e”, “d”, and “b”. The figure above has a “D7” written. This indicates

⁴ Tirro, Frank. *Jazz: A History, 2nd Edition*. W. W. Norton & Company: New York, NY. 1977,

4. Here after referred to as: Tirro, *Jazz*, 4.

⁵ Tirro, *Jazz*, 89.

⁶ Armstrong, Louis. “The Potato Head Blues.” OKeh Records, 1927.

to the musician to accompany the written notes with a D7 chord which is D, F#, A, and a C (which is a seventh above an “d”).

Genre in music is defined by its notational technique and style. Baroque music, as explained by Viadana, includes a notational technique of improvisation called “realizing” the bass and its compositional technique is the figured-bass. This figured-bass is a melodic bass line of notes with numbers and symbols that indicate the intervals of the remaining notes to be played by the improvising musician. Jazz music includes improvisation to compose a piece based off of a well-known melody and its notational style includes chord figures of letters and symbols that indicate the triad and the inversion or added intervals. Despite the fact that these two musical genres are both notated in almost identical styles, the manifestation of the music clearly sounds different. Most notably, this is due to the simple fact that jazz is improvised syncopation, whereas Baroque is not. It is incredible to see that two genres of music that are previously conceived as being unrelated except for the fact that they are both types of music, are actually more similar than different. By taking away preconceived ideas and understanding this complex idea that is “music”, we understand all that Baroque and jazz truly includes: figures accompanying a melody. Therefore, by the definition of what a musical genre is, Baroque and jazz are more similar than different.

Baroque: a History 1600-1750

Baroque included the establishment of the tonal harmonic system. However, this system developed throughout the preceding centuries. Tonal harmony is a system of music that revolves around the relationships of notes to one another. These notes are used to form chords, which have a relationship to one another through cadences and part-writing rules. During the Baroque era and centuries prior, figured-bass writing was the central means of music writing. A piece of music would often differ depending on the voice or instrument it was composed for. However, universally, instruments that were capable of sound more than one pitch simultaneously were referred to as accompaniment and were a part of the music of the day.

The Seventeenth Century and Figured Bass

Centralized within the church, music developed and was cultivated. Thorough bass, or basso continuo, and figured-bass are two means of composition that were used for accompaniment. These closely related compositional techniques differ only in that figured-bass composition includes the figures, or tablature, with numbers that must be realized by the performer, whereas thorough bass, or basso continuo, is completely written out in notation. Several theorists and musicians of the time outlined this technique in significance and order. Because of their works, we are able to understand how music was performed during that time.

The following example is of an excerpt of the figured-bass in the century leading up to the Baroque. This example from theorist Gasparini was published in 1708 in Venice. It represents what several of the theorists and composers would have been publishing. Notice the

difference in compositional techniques from a visual perspective of this example and the one to come that was supplied by J. S. Bach.

Example: Gasparini (1708)

Si usa alcune volte qualche falsa, che sarà acciaccatura di due, tre, o quattro tasti uniti uno appresso all' altro, e particolarmente ne' Recitativi, o Canti graui fanno mirabile effetto, offeruandosi in specie in alcune note, che hanno la Sesta maggiore, come qui.

The musical notation shows four staves of music. The first staff has five measures with notes marked 'm.', 'ac.', 'ac.', 'ac.', and 'ac.'. The second staff has four measures with notes marked 'x6', 'ni.', and 'x6'. The third staff has six measures with notes marked 'ac.', 'ac.', 'm.', 'ac.', 'ac.', and 'm.'. The fourth staff has three measures with notes marked 'x6 ac.', 'ac.', and a final note.

⁷ Gasparini, Francesco. *L'Armonico Pratico al Cimbalo*. Giuieppe Antonia Silvani con Licenza de Superiore: Venice, Italy. 1708, 56.

Example: J.S. Bach (1781)

14 F. LI

The image displays a handwritten musical score for a piece titled 'F. LI' (likely 'Für Anna Bach'), BWV 1079, by J.S. Bach. The score is written for a single melodic line on a grand staff (treble and bass clefs). It consists of four systems of music. The notation is highly detailed, featuring numerous slurs, accents, and dynamic markings. Below the notes, there are extensive fingering instructions, including numbers 1-5 and 0 (for natural), often with additional symbols like 'b' for flat or 's' for staccato. The piece is in a minor key, indicated by the key signature of two flats (B-flat and E-flat). The tempo or character is not explicitly stated, but the notation suggests a complex, technically demanding piece. The page is numbered '14' in the top left corner and 'III' at the bottom center.

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⁸ Bach, J.S. *Grundsätze des Generalbasses als erste Linien zur Composition, Das Musikalische Opfer*, BWV 1079. Dem Verfasser: Leipzig, Germany, 1781.

This transcription is a figured-bass transcription of a trio sonata *Das Musikalische Opfer*, BWV 1079. It is simply being used to exemplify the figured bass of the Baroque era. The following pages will outline what it took to lead up to this type of composition.

Peri, Caccini, and Cavalieri were three theorists whose life times were spent during the same century pursuing the same end. Lodovico da Viadana was their inspiration, particularly his works that establish rules for the figured-bass.

Viadana's Twelve Rules

Viadana exemplified the establishment of rules through the work of his concerti, a genre of music that was often performed within the church and included multiple instrumental voices. Published in 1602, this treatise came about at the beginning of the official era of Baroque (1600-1750).

Rule Number One: Figured bass must be performed with refinement and elegance. Nothing should be added that is not indicated by the composer.⁹

Rule Number Two: The Organist (or performer) must play predominantly with the left hand. If the right hand is to be added for appropriate ornamentation, it is to be done simply. The accompaniment is to aid the melody, not confuse or overtake it in importance.

Rule Number Three: It is important to read over the music before attempting to perform.

Rule Number Four: Always use the correct position of the cadence. In modern terms, this is in reference to inversion. Viadana elaborates to say that if the cadence is to be partial to the tenor, make a tenor cadence. The same is true for all of the other voice parts.¹⁰

⁹ Arnold, *Accompaniment*, 9-10.

¹⁰ Arnold, *Accompaniment*, 11.

Rule Number Five: The accompanist should begin in the same manner as the concerto. If in a fugal style with one voice entering at a time, the accompanist should follow suit.¹¹

Rule Number Six: Viadana comments on the lack of tablature use. Although it is easier to read, it is not as affective. Viadana encourages constant use of tablature and requires an accompanist to rise to the challenge by understanding figures.¹²

Rule Number Seven: When played on the organ, no stops should be used in concertos when in full harmony with all other instruments.¹³

Rule Number Eight: Observe the accidentals where they are listed, for it is intentional and necessary to the function of the music.¹⁴

Rule Number Nine: The accompaniment is not obligated to avoid parallel fifths or octaves, however the voices are.¹⁵

Rule Number Ten: Accompaniment is necessary for the performance of such music. The filling of the chords is necessary for the pleasing sounds and avoidance of dissonance.

Rule Number Eleven: Male falsetto is preferred over soprano voices for tone quality during this time.

Rule Number Twelve: The organist must play in correspondence to the other instruments, never at opposite ends of the pitch class. If the piece is higher, accompany higher, and vice versa for lower pieces.¹⁶

These rules predominantly referred to the style of which Viadana expected of both his students and contemporaries. Information on how to be the best performer and desired

¹¹ Arnold, *Accompaniment*, 14.

¹² Arnold, *Accompaniment*, 14-5.

¹³ Arnold, *Accompaniment*, 15.

¹⁴ Arnold, *Accompaniment*, 16.

¹⁵ Arnold, *Accompaniment*, 18.

¹⁶ Arnold, *Accompaniment*, 19.

performance techniques. But the inference of the system itself is evident. Viadana refers to his concerto pieces when explaining said rules, and these are multi-instrument pieces that move harmonically throughout the piece. The relationship to one another is not unlike the relationship that a composer intends throughout the remainder of the Baroque period, when tonal harmony is the norm, as opposed to the new idea of notation.

The Monodists: Peri, Caccini, and Cavalieri

Monody is a type of composition that includes figured-bass and limited voices. It was a religiously purposed music that was composed in service to the church. Peri is another composer whose works are annotated with rules of performance. In his *Euridice*, Peri draws rules such as how the lack of a sharp sign indicates a minor key, whereas in tonal harmony, a minor key is indicated in other ways, but still includes the use of a sharp sign or, lack there of, on occasion.¹⁷ When using figures, Peri keeps the rule of never reaching beyond an 11th interval. This rule is also evident within this work. His figures are never used one above the other, or in conjunction with a sign. This causes Peri's figures to be simplistic to the eye, and therefore, ambiguous.

¹⁷ Arnold, *Accompaniment*, 36.

Example of Peri's work, *Euridice*:

From Peri's 'Euridice'.

(Orfeo) (1) (2) (3)

Ohi-me Ohi-me che su l'aur-or-a Giun-se all'oc-ca-so il Sol

Ex. I.

(4) (5) (6)

degl'oc-chi mi-ei Mi-se-ro Mi-se-ro en su quell'or-a

(7) (8) (9)

Che scal-dar-mi a be-i rag-gi io mi cre-de-i Mor-

The image shows a page of musical notation from a score. It features three systems of music, each with a vocal line and a piano accompaniment. The vocal line is for Orfeo and the piano accompaniment is labeled 'Ex. I.'. The lyrics are: 'Ohi-me Ohi-me che su l'aur-or-a Giun-se all'oc-ca-so il Sol degl'oc-chi mi-ei Mi-se-ro Mi-se-ro en su quell'or-a Che scal-dar-mi a be-i rag-gi io mi cre-de-i Mor-'. The score includes various musical notations such as notes, rests, and accidentals. The piano accompaniment includes figured bass notation in the bass line.

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¹⁸ Arnold, *Accompaniment*, 37.

Peri also exhibited obduracy in regards to rules of dissonance. Not only did Peri rely on his own system for figures, but his figures seemed to indicate usage of dissonance that provided weak cadences and clashes between melody and accompaniment. Although it is impossible to say for certain whether these clashes were intended, either way the figure is filled out provides evidence to this truth¹⁹.

Caccini exemplified his methods within the notes of his work of *Nuove Musiche*. The Chitarrone, an ancient form of the bass lute, was Caccini's preferred instrument for figured-bass. Caccini used a similar system as Peri in that he only included one number or sign above a single note, but his consistency of voice part provided clarity that Peri's methodology lacked. For example, major 3rds and 6ths were indicated with sharps. Furthermore, minor 3rds and 6ths were indicated with flats. Most of the decisions of this music were up to the performer, and therefore are lost in the passage of time.²⁰

Cavalieri, another great composer who took time to historically record tradition of the era, exemplified his work in *Rappresentazione di Anima e di Corpo*, a work that has been edited by Alessandro Guidotti of Bologna, an admirer of Cavalieri, and once again re-edited in facsimile by Francesco Mantica. Like his contemporaries, Cavalieri leaves responsibility of performance decisions to the performer. However, he does take time to expand details to the musicians of the time. In regards to instrumentation, Cavalieri disagreed with Caccini. The most fitting instrument for Cavalieri's accompaniment was the tiorba, as indicated on most of his

¹⁹ Arnold, *Accompaniment*, 41.

²⁰ Arnold, *Accompaniment*, 45-6.

manuscripts.²¹ One must read further to decide if Cavalieri's other rules conflicted with his comrades as well.

Rule Number One: The number within the figures indicated the "discord", or interval above the given note.

Rule Number Two: A sharp in front of a figure indicates a raised interval, similarly, a flat lowers.

Rule Number Three: A sharp alone indicates a major tenth interval (or a major third an octave above).

Rule Number Four: Parallel fifths, along with other discords, are permitted on occasion.

Rule Number Five: An "incoronata" sign indicates breath and pause.²²

In summation of the previous three composers, including Viadana, their rules differ only in style and implementation. The usage of figured-bass runs consistent between the four, the only difference being the depth of instruction each composer decides upon. Due to this vagueness, performance practice could certainly have differed between the works of each. Giving power to the performer leaves historical evidences lacking, due to its existence in the past, and no record made for future learning.

Not all composers of the early Baroque era were susceptible to using figured-bass. Due to its ambiguity, Viadana's system was not universally used. However, several others not only implemented Viadana's usage, they expanded upon the system itself.

Agostino Agazzari was responsible for the work that appeared in 1607 entitled *Del suonare sopra il basso con tutti stromenti & uso loro nel conserto*. This treatise was reprinted within many of Agazzari's works, implying its importance to the style and function. These rules

²¹ Arnold, *Accompaniment*, 47.

²² Arnold, *Accompaniment*, 48.

surpass in complexity all treatises listed so far. Agazzari divides instruments into two groups: foundation and ornamentation. Foundation, meaning accompaniment, are used to guide and sustain pitches. Instruments such as the organ, gravicembal, lute, theorbo, harp, or a combination, are acceptable for Agazzari.²³ For foundational instruments, Agazzari would often omit the figures for cadences, due to the frequency of the practice, but otherwise, figures would be detailed and thorough. Agazzari gives detailed instructions for each individual instrument listed within these classes of voice (foundation and ornamentation). For example, within the rules for the organ, Agazzari lists four rules that discuss contrary movement of hands, and includes musical examples. Agazzari continues to explain the role of the instruments of ornamentation. These melodic instruments are to be played in consort with the voices the foundation instruments accompany. These instruments are to intertwine their melodies with the voices. They should include variety, and on occasion, chords or imitation. Furthermore, Agazzari writes,

But, since every instrument has its own particular limits, the player must observe them, and regulate himself accordingly, to be successful. For example: bowed instruments have a different style from those sounded by a quill [like the harpsichord], or a finger [like the harp]. Therefore, whoever plays the Lirone [Lira da gamba] must draw long bows, clear and sonorous, bringing out the middle parts well, and paying attention to the Thirds and Sixths, major and minor: a difficult matter, and one of importance for this instrument.²⁴

Clearly, instrumentalists of this time were expected to devote a lifetime to learning the intricate techniques to maximize the capability of the instruments at hand. Agazzari expected no less for his compositions. Agazzari ends his treatise with a debate on the significance of tablature. Ultimately, he concludes that a figured bass line requires less space to store, cheaper

²³ Arnold, *Accompaniment*, 68.

²⁴ Arnold, *Accompaniment*, 72.

to print, yet more difficult to read. However, the difficulty and high skill level required for reading figured-bass is not reason enough to not put it in print. A challenge of monetary loss is desired.²⁵

Francesco Bianciardi

In September of the same year Agazzari's treatise appeared, Francesco Biancardi published his *Breve regola per imparare a sonare sopra il Basso con ogni sorte d'Instruemento*. This short guide to learning the figured-bass on every kind of instrument was found in the library of Liceo Muiscale in Bologna, Italy. Surprisingly, Bianciardi's treatise deals mostly with unfigured music, and expands upon Viadana's ninth rule that refers to parallel fifths and octaves. Bianciardi includes fifteen different rules, summarized below.

Rules one through five deal with rising bass lines. Depending on the rising interval of the bass line, the corresponding interval raises either a major or minor third. The rise of an octave gives no difference, though. Rules six through nine deal with the corresponding interval when the bass falls, which typically translates to the inversion of the interval corresponding to the bass line movement. Rules ten through fifteen deal with the movement of a sixth, the interval that Bianciardi believes to be the most effective movement in music. The sixth interval is to be used only with certain movements.

Rule Number One: A natural third is given when the bass line rises a degree.

Rule Number Two: A major third, changed by a sharp if it does not naturally occur, is given to a bass line rise of a fourth. This is a cadential movement.

Rule Number Three: When the bass rises a fifth, a natural third is added; often times this naturally occurring third is minor.

²⁵ Arnold, *Accompaniment*, 74.

Rule Number Four: Once again, a natural third is added to the rise of a sixth in the bass line.

Rule Number Five: As the bass rises an octave, there is no difference in the added interval.

Rule Number Six: When the bass line falls a degree or a third, a natural third is added.

Rule Number Seven: A natural third, that is often minor, is added to a falling fourth in the bass.

Rule Number Eight: A major third is added when the bass falls down a fifth.

Rule Number Nine: Natural thirds occur when the bass falls a sixth or an octave. This third is made into a major third if this movement is to function as a cadence.

Rule Number Ten: If the bass rises a degree or a third, the natural sixth is added if it is the occasion for it.

Rule Number Eleven: The sixth is never used if the bass rises a fourth.

Rule Number Twelve: A major sixth is used if the bass rises a fifth.

Rule Number Thirteen: If the bass falls a degree, a major sixth can be used.

Rule Number Fourteen: The sixth is unacceptable for a falling fifth in the bass, except when a minor sixth is being used as a means to arrive at the fifth.

Rule Number Fifteen: When the bass falls a fourth or a degree, an interval of a seventh resolving to a major sixth can be used. If the bass falls a fifth or rises to a fourth, the fourth resolving on a major third occurs, causing a cadential close.²⁶

Bianciardi's rules exemplify both style and management of his composed figured-bass. Due to his expansion on Viadana's rules and thoroughness in comparison to his contemporaries, his treatise was widely accepted and found to be quite useful.

Bianciardi continued to give general directions and suggestions for treatment of the accompaniment. He writes that although there is only three-part harmony, there can be up to eight different parts when utilizing octave intervals. This creates a more rich sound, and is

²⁶ Arnold, *Accompaniment*, 76-7.

understood through the example given that when a third is notated in the figure, a tenth can also be added. Also, words are added to compositions to dictate support of higher notes by filling in notes that would ultimately support these higher pitches.

Bianciardi declares that cheerful pieces are to remain higher in register, and mournful tunes are to be performed in the lower registers. For full ending cadences, perform in the lower octaves only octave intervals, not thirds or fifths, and presses that contrary motion is consistently imperative.²⁷ In regards to consonance and dissonance, Binaciardi notes that the bass movement of crotchets and quavers (consonance), should occur on the first note, only to move into harmony (consonanza). Crotchets and quavers are to be passing tones, and only to be visited for a short time. A specific example is given when the bass leaps more than a third, including accompaniment that has a figured sixth and tenth.²⁸ Other rules are listed that include extreme detail and therefore exclude themselves of any great significance to the broader idea of figured-bass. Bianciardi's ideas were supported by many and reaffirmed in treatises of his contemporaries.

Opponents to the Figured Bass

Figured-bass, or basso continuo, was spreading through Europe, including Italy, a musical center of the era. . . Many musicians found it difficult if they were taught to read score only. Referring to Viadana, it was often expected for musicians to write in their own tablature within a score or an intavolatura (two stave-short score). Many refused to complete this time consuming and often difficult task for the inexperienced or novice accompanist.²⁹ Kinkeldey, one of the first publishers of tablature known as Organ Bases, wrote that figured-bass is an

²⁷ Arnold, *Accompaniment*, 78.

²⁸ Arnold, *Accompaniment*, 79.

²⁹ Arnold, *Accompaniment*, 80.

important part of a balanced score. The fully notated score without figured-bass lacks a foundation. He also mentions that the most important skill of a figured-bass player is to listen. Listen to the choir and melodies in order to properly accompany the music that is written. But playing one without the other was considered to be lazy and incomplete. An experienced figured-bass player must adhere to a written score with written rules for accompaniment, as shown by the work of Viadana, Agazzari, and Bianciardi.³⁰

Friderich Erhard Neidt

In 1700, almost a century after Peri Caccini, and Cavalieri's treatises' appeared, a composer named Friderich Erhard Neidt published a treatise entitled, *Musicalische Handleitung*. This musical guide deals with the practical treatment of a figured-bass. This treatise was so clear in its value to the time period, that even the great teacher, J.S. Bach, pulled from its teachings when working with his own pupils.³¹ This unique treatise explains figured bass through a narrative. Beginning with a story of a musical gathering (Collegium Musicum), and continuing through the narrative of Tacitus, Neidt explains twelve lessons in twelve chapters.³²

The narrative of Tacitus begins with his learning of music at the age of twelve. Tacitus was competent in singing and the fiddle, and was beginning the organ by playing popular pieces of the era such as preludes, toccatas, chaconnes, and the like. His teacher, Orbilius, continually encouraged Tacitus through the unfortunate techniques like that of boxing his ears, giving enough incentive for Tacitus to learn his pieces. Orbilius assured Tacitus that if he could not master these compositions, he would never master the basso continuo (figured-bass). Seven years pass and Tacitus was finally able to play these difficult pieces. Orbilius decided that his

³⁰Arnold, *Accompaniment*, 82.

³¹Arnold, *Accompaniment*, 214.

³²Arnold, *Accompaniment*, 217.

pupil was ready to read figured-bass. Tacitus learned to play this music through assigning different injuries to different rules: “I caught the Sixth on the right, behind the ear, the Fourth on the left, the Seventh on my cheeks, the Ninth in my hair, the false [i.e. diminished] Fifth on my nose, the Second on my back....”³³ This violent exchange was relatable to many students of the time and therefore reached many pupils and teachers alike. The intention of this section is to illustrate the external motivation that caused Tacitus to learn the challenging figured-bass.

After the death of his parents and two more grueling years of learning, Tacitus made a break for independence and took refuge in a kind neighbor’s home at the age of twenty-one. He was now an orphan that was needed to play the organ to survive monetarily.

Tacitus earned a position at Cornaria village church located in Marcolphia. He performed a Divine Service, in which noblemen attended in the congregation. One such nobleman approached Tacitus after the service and promised him a more affluent position as an organist if he only wed the daughter of his wife’s maid. Cornaria, the unfortunate bride, is said to be beautiful,

if only that the white and the red were not in the right place, for the red was in her rheumy eyes and the white in her hair, though the latter defect was not immediately noticeable because, like the crow in a fable, she had decked herself with borrowed plumes...³⁴

Tacitus gratefully accepted this position and was relieved to discover that his first opportunity to play did not include performing figured-bass. Figured-bass, quickly becoming the antagonist of this tale, was reserved for later events. But this lack in challenge quickly became a problem for Tacitus. Even though no one asked him to play figured-bass, Tacitus was beginning to realize that this form of composition had become one of the finest aspects of music. He wrote

³³ Arnold, *Accompaniment*, 218.

³⁴ Arnold, *Accompaniment*, 219.

to his wife Cornaria saying that even though the people believed him to be the most famous Master of the organ, he viewed himself in the following way, saying, “I was, in fact, a wretched bungler and could not play anything worth hearing, beyond what was written in my book.”³⁵

Unfortunately, Tacitus’s patron the Nobleman, unexpectedly died. Tacitus was then forced to perform for the ceremony, a musical expectation that had yet to be accomplished; Tacitus had no score to perform from for the burial ceremony. What was he to do? Through funeral tradition, he had a melody of *Laudate Dominum omnes gentes* that could be sung by the singers of the area, but no accompaniment or arrangement. Suddenly Tacitus knew what he must do: he must use the figured-bass process to create an accompaniment for instruments and organ alike. Suffice it to say, the performance was both powerful and successful.

At the conclusion of the service, a singer approached Tacitus and requested that he perform the figured-bass to yet another melody the singer produced. Tacitus refused due to the short notice; no tablature or rehearsal could take place in the time given. To Tacitus’ surprise, other instrumentalists from the ceremony took the melody and immediately performed a figured-bass accompaniment from sight, on both the organ and the violin. Tacitus was mortified! And fired. These instrumentalists took his place and Tacitus was forced to retire from his position.

Completely humbled, the young organist decided to return to a position of apprenticeship under Prudentius, a renowned composer and organist. Tacitus made the 60-mile journey to Schönhall to be kindly received by this master. After understanding the instruction his new pupil had already received, Prudentius stated that he would teach Tacitus within the year so that he may grow from bungler to Organist.

In contrast to Tacitus’ first teacher, Prudentius begins with figured-bass in order to teach his new student *Musica practica*, the musical compositional style of the time. Tablature came

³⁵ Arnold, *Accompaniment*, 220.

with this understanding. At the end of the year, Prudentius declared that his student had succeeded in his transition, and is now a true musical artist that was formed out of love and kindness from his new teacher. Tacitus returned to his home and soon attained an honorable position, and thus concludes the narrative of Tacitus.

Niedt continues with the explanation of the moral of the narrative, explaining that not only did Prudentius' kindness cause the difference in the growth of his student, but starting with the figured-bass, as opposed to ending with it, caused Tacitus to grow more than he thought possible. This narrative expresses the great importance of understanding and being fluent in figured-bass.³⁶ Not just for an organist, but for any instrumentalist or musician of the era.

In regards to theoretical knowledge, the tale of Tacitus indicates many things. To begin, different types of bass are explained. Bassus, derived from the Greek word meaning foundation, creates the conjunctions of *bassus generalis*, also known as *bassus continuus*, or *basso continuo*, which we know is also figured-bass. The most clearly stated explanation of a figured-bass is as follows: the left hand plays the notes prescribed, while the right hand plays the indicated consonances and dissonances. The result is a harmony that provides accompaniment that completes a piece. Although an incomplete figured bass can be produced on instruments that play one note at a time, this does not constitute a completely figured-bass accompaniment.

As follows is an explanation of consonances and dissonances. A perfect consonance includes fifths and octaves. An imperfect consonance is a third or a sixth. Perfect dissonances are fourths, diminished fifths, and elevenths. Imperfect dissonances include the second, seventh, and ninth. The reason for perfect dissonances is that these intervals arise from the perfect consonances. That is, the fourth from the octave or fifth, the false fifth from the octave, and the

³⁶ Arnold, *Accompaniment*, 222.

eleventh from the fifth. These intervals go hand in hand cadentially and provide music that is pleasing for the time.³⁷

As with most everything of the Baroque era, music was also believed to be an art for the Lord. Certain intervals, chord progressions represented different spiritual glorifications. And vice versa for spiritual shame. Niedt concludes this portion of his treatise with the reminder that whosoever uses music to glorify the Lord have a clear conscience, and whosoever misuses this, will have a heavy conscience and feel the wrath of judgment.

Niedt then addresses the harmonic triad. He addresses the placement of notes, not the intervals that they have (which is dictated by the figures themselves). The simple triad, the increased triad, and the scattered triad are three different ways to play the same notes. The simple triad is three notes played one above the other in a “snowman” fashion. The increased triad doubles the bass note at the octave, giving it more depth and four notes on the page. Stating that the notes are scattered over different octaves, but still holding the same bass note most naturally explain the scatter triad.

Niedt continues to go further into detail, creating the rules that J.S. Bach would use with his own pupils. Most have already been addressed, but because of their significance, it is appropriate to mention once again.

Regula I: Bass is played with the left hand, realization with the right.

Regula II: The right hand must stay within a two-octave range from the bass line.

Regula III: Unless the figure over the bass forbids this, as many sixths and thirds are allowed as additions when played in succession.

Regula IV: The third is always implied, unless prevented by the second or fourth in the figure.

³⁷ Arnold, *Accompaniment*, 224.

Regula V: Parallel fifths and octaves are not pleasant to the ear, and therefore not acceptable. Contrary motion should be used to prevent this from occurring.

Regula VI: Another alternative to parallel fifths and octaves is to substitute a sixth for one of the intervals.

Regula VII: When the bass goes into higher octaves, the right hand must follow and play within the same octave.³⁸

Regula VIII: If the singer or instrumentalist that performs with the thorough bass is singing the same line dictated by the figured-bass, the accompanist may omit these notes and simply play thirds, or something more elaborate, at his own discretion.

Regula IX: Figures are played simultaneously if they are placed one above the other, whereas they are played in succession if written next to one another.³⁹

The treatise continues to exemplify detail of intervals that has been summed into a near perfect process centuries later in textbooks used within music classrooms in order to teach this tonal harmonic theory with a foundation in figured-bass. Throughout the 17th century, composers saw the manifestation of the figured bass. Exemplified by its importance first by Viadana, and soon to follow Peri Caccini, and Cavalieri, basso continuo swept the nation. Finally being formed into the extensive treatise by Friderich Erhard Niedt, the figured-bass was now being taught by composers and teachers alike, including the greats such as Palestrina and J.S. Bach. The Narrative of Tacitus became a staple of the era and became a great tool for this secondary technique to accompany primary voices. All of these works contributed to the establishment of learning in music theory.⁴⁰

³⁸ Arnold, *Accompaniment*, 226.

³⁹ Arnold, *Accompaniment*, 227.

⁴⁰ Arnold, *Accompaniment*, 238-9).

The Eighteenth Century and Figured Bass

The 18th century provided several treatises. Most notably, Johann David Heinichen's and Jean Phillippe Rameau. The main difference of these treatises from the ones previously published is that the new treatises, despite their large numbers of pages, exemplify a more mathematical approach to music, as opposed to a narrative or literary based explanation. More charts and musical examples are given. This is due to the fact that music is becoming more accessible and intellectual. It is still centralized within the church, but secular pursuits, such as opera, are being made.

Johann David Heinichen

J.D. Heinichen, born 1682, published two treatises within a span of seventeen years. Often referred to as the German Rameau, Heinichen's work was overshadowed by the great J.S. Bach. Because of this, his writings were not esteemed to the point that they should have been during Heinichen's life. Heinichen's treatise on the figured-bass is one to remember. Coming from an expert and passionate place, Heinichen speaks on the importance of figured-bass, saying,

No music connoisseur will deny that the *Basso Continuo* or so-called thorough-bass is, next to [the art of] composition, one of the most important and most fundamental of the musical sciences. For from what source other than composition itself does it spring forth? And what actually is the playing of a thorough-bass other than to improvise upon a given bass the remaining parts of a full harmony or to compose to [the bass].⁴¹

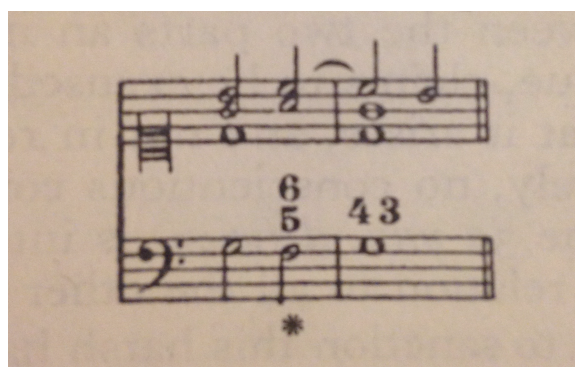
Heinichen actually wrote two treatises, but his second so completely outshines his first that it has become the treatise to focus on. Published in 1728, his second treatise features a name

⁴¹ Charlton, David. "Heinichen, Johann David." Classical.net. 1996-2000.

that includes all of his chapters held within the 960-page work. The introduction alone holds 94 pages under its command. The main work holds two parts within its contents and they include six chapters each.

Within the first section, chapters one through six cover interval classification, common chords, figure signs within the thorough-bass, quick notes, application of figures, embellishment and further practice, all respectively to these chapters. As for part two, chapters one through six include resolutions of dissonances within operatic works, divining thorough-bass without figure signs taken from a chamber or operatic music, accompaniment of recitative, an illustration of given rules within a cantata, exemplification of a Musical Circle and modulations, and practical exercises on how to improve figured-bass skills.⁴² Heinichen is unique thus far in that each example he gives is accompanied by both a figure and its realization. Because of this attention to detail, Heinichen leads the way in precision and clear instruction; no ambiguity here, in comparison to Viadana and his contemporaries a century before.

Example of Heinichen's figured bass⁴³:



⁴² Arnold, *Accompaniment*, 256-7.

⁴³ Arnold, *Accompaniment*, 261.

He also never fails to include visual references. Below is Heinichen's inclusion of the ancient circle of fifths or Musical Circle, as it were. This circle was introduced by J.P. Rameau and supported by contemporaries, all the way until modern day.

Image: Musical Circle written by J.D. Heinichen⁴⁴



⁴⁴ Heinichen, Johann David. *Der General Bass in der Composition*. Warren D. Allen Music Library: Tallahassee, Fl. 1728, 837.

This circle begins on C and is to be used with clockwise movement. The relative minor to C is A, and therefore this comes next. The next closely related key is the dominant of C, and this succeeds A. This is proof that tonal harmony has now become the norm and key signatures are preferred to modes. This system is the same system used today, showing that the relative minor and dominant keys are the most easily modulated to within a piece.

Further exemplification is given with Heinichen's Table of Signatures. This table illustrates the realizations that are indicated by the shorthand script of signature. Heinichen admits that the inclusion is to aide the beginners reading this treatise, however it applies to any level of figured-bassist, for it forms the foundation of the compositional technique. This table has been translated onto the following page, just as Heinichen intended. The numbers indicate the interval, the symbols indicate if that interval is raised or lowered. A "b" indicates an interval that is lowered a half step. An "X" indicates a raised or major interval (assuming the natural would be minor). Standing alone, the "X" indicates a major third. A "+" indicates a raised note that was already naturally a major interval. An "*" indicates an added fifth or octave option, depending on what the piece calls for. The single cross in the third to last column on the bottom row has been omitted on the chart, but is mentioned here to note that it is in fact a part of Heinichen's chart.

Overall Interval	2	3	3	3	4	4	4	4	4
Common signatures of a Thorough-Bass	2	3 2 ♭	X	♭	4 2	4+	4 3	4	4 3
The parts which go with them	6	5	5	5	6	6	6	5	5
	4		8	8		2		8	8

Overall Interval	5	5	6	6	6	6	6	6
Common signatures of a Thorough-Bass	5 ♭	5+	6	6 4	6 5 4 3	6 ♭ 4+	6 5	6 5 4
The parts which go with them	6	3	3	8	8	2	3	8
	3 *8	8	*8				*8	

Overall Interval	7	7	7	7	7	7	7	7
Common signatures of a Thorough-Bass	7	7 6	7 2	7 4 2	7 4	7 6 5+6	♭ 7 5 ♭	♭ 7 6 5
The parts which go with them	5	3	4	*5	5	3	3	3
	3 *8	5	*5		*8	*8	*8	*8

Overall Interval	9	9	9	9	9	9	9
Common signatures of a Thorough-Bass	9	9 8	9 4	9 6	9 7	9 7 4	9 8 7 6 5 6
The parts which go with them	5	5	5	3	3	5	3
	3	3			3		

45

⁴⁵ Arnold, *Accompaniment*, 263.

In addition to charts and examples, Heinichen has practical application for his students. He gives a melody or piece and asks for the figured-bass to be found from the given line. Also, he explains accompaniment techniques that coincide with different styles and genres. Heinichen's second treatise was widely accepted and reflected the teachings of Rameau, but due to their close geographic proximity, Bach overshadowed Heinichen in Leipzig.⁴⁶

George Phillip Telemann

One composer and musician worth mentioning in addition to Heinichen and Rameau is G. P. Telemann. Living from 1681-1767, Telemann rivaled Bach in talent but was, like Heinichen, thought to be secondary to Bach in reputation. Published in 1735, Telemann's treatise contains forty-eight pieces that are completely figured and explained. This treatise was created for beginners to explain plain chordal accompaniment through the figured-bass. Telemann uses Heinichen's rules as well and featured four sounding parts that avoided unison and came to a full close.⁴⁷

Jean Philippe Rameau

J.P. Rameau revolutionized western music by putting the ideas of tonal harmony down on paper in his four-part treatise entitled, *Traite de l'harmonie*, published in 1722. This book firmly established Rameau as a competent theorist who eventually attained posthumous fame through his works that are still studied and in application today.

The four books are divided into four different subjects, all pertaining to the figured-bass. Book one follows the mathematical reasoning for Rameau's theories. The second book includes

⁴⁶ Arnold, *Accompaniment*, 267-9.

⁴⁷ Arnold, *Accompaniment*, 285-7.

Rameau's entire theory through harmonic systems from fundamental principles, interval explanation, chords, modes, and everything that is necessary and essential to the composition of music in the tonal style. Book two is the most referred to of the four books. Book three utilizes the foundation established in books one and two and expands upon these ideas through practical rules of composition, including harmonic modulation and chord progressions. The final book includes further practical application of accompaniment on harpsichord and organ. This includes the realization of a figured-bass.⁴⁸

Johann Sebastian Bach

All of this ideology and progress manifested itself in the work of Johann Sebastian Bach. It is because of this composer's grand reputation that taking a look at his work using figured-bass is the most effective.

Flute Concerto BWV 1033

The following pages are a scanned copy of the original manuscript that Bach composed. The order is as follows: flute part alone, full score with figures, transcribed full score with figured-bass, transcribed full score with realization of figured-bass. Bach takes into action all rules that have been covered so far with the foundational techniques of figured-bass.

⁴⁸ Rameau, Jean Philippe. *Treatise de l'harmonie*. J. Murry and L. White: London, England. 1779.

Example of figured bass line in Bach's *Flute Concerto BWV 1033*⁴⁹:



⁴⁹ Bach, J.S. *Concerto for Flute, BWV 1033*. Manuscript, 1731.

Example of flute part in Bach's *Flute Concerto BWV 1033*⁵⁰:



⁵⁰ Bach, J.S. *Concerto for Flute, BWV 1033*. Manuscript, 1731.

Example of a modern transcription of both the flute part and the continuo part in Bach's *Flute Concerto BWV 1033*⁵¹:

The image displays a page of a musical score for "SONATA I." The page is numbered "3" in the top right corner. The score is written for Flauto traverso (flute) and Continuo. The tempo is marked "Andante." The flute part is written in the treble clef, and the continuo part is written in the bass clef. The score consists of five systems of music. The first system shows the beginning of the piece. The second and third systems continue the "Andante" section. The fourth system is marked "Presto." and shows a change in tempo. The fifth system continues the "Presto" section. The score is printed in black ink on a white background. The flute part features intricate melodic lines with many slurs and ornaments. The continuo part provides a steady harmonic accompaniment with various figured bass notations.

⁵¹ Bach, J.S. *Concerto for Flute, BWV 1033*. Leipzig, Germany: Breitkopf und Hartel, 1831
1906.

Example of realization of Bach's *Flute Concerto BWV 1033*⁵²:

Sonata in C Major
for Flute and Piano
BWV 1033
J.S. Bach

Andante
dolce

p legato

A

cres.

cres.

Presto
sempre forte

Presto
rit. *f*

1

⁵² Bach, J.S. *Concerto for Flute, BWV 1033*. Creative Commons: Hans-Thomas Muller-Schmidt, c. 2000.

Jazz: A History

“It [jazz] is... profoundly continuous with older music; its continuity with the past may be more important than its obvious novelty...” –William W. Austin, PhD, Music Scholar

Precursors

One of the darkest eras of American History is that of the centuries of slavery, which included the sixteenth, seventeenth, and eighteenth centuries. Black slaves were brought from different regions of Africa. However, most were pulled from clans and tribes along the west coast south of the Sahara. Widely known as the Ivory Coast, these tribes included Yoruba, Ibo, Fanti, Ashanti, Susa, Ewe, and many others. The cultures of these tribes relied mostly on verbal tradition to survive and has allowed for its preservation.⁵³

As the slave population increased, the prevalence of African culture in America followed suit. Chants and melodies that were common in Africa travelled across the ocean with the people. Their instruments that played these melodies became westernized based on availability and included the banjo, drums, fifes, fiddles, and other instruments. These melodies were often dance related and became known as Slave Song. These pieces were performed in the fields as well as on the streets post Civil War.⁵⁴

An example is given of the Fra Fra tribe found in Ghana to the African culture that survives on St. Simons Island, Georgia. The population found on the island is most closely related to the once large tribe found in Ghana. The music survives in both areas, both including Praise Songs. The difference: the concept within the lyrics and the instruments available. Westernization took over on St. Simmons Island and caused the change in the lyrics of said

⁵³Tirro, *Jazz*, 4.

⁵⁴ Tirro, *Jazz*, 6.

praise songs. For example, one Praise Song includes an interpolation of a stab at the white population:

“In the village they call me a fool when I sing,
But the white man gives me money to hear my music.”⁵⁵

The melody and other text remain the same, it is simply the influence of western culture on this tribe that shows its face through the text.

On a larger scale, Protestant Christianity was evident across many tribes that were brought to America. These lyrics changed their focus of praise. This change was one of the few that occurred to African culture of the time. The majority of the African music was analogous to western culture, including the diatonic scale and rhythmic practices; most were not foreign to the people groups. Because of this relationship, the music was able to sustain through time with few adaptations.⁵⁶

As these Praise Songs developed further, their circumstances shaped the music itself. As with every era of music, African American song was a reflection of the society from which it came. In this case, that society was subject to great suffering and oppression. Many of these Praise Songs included subjects of suffering, as well as praising a higher power that can deliver them from their suffering. These songs were intended to build the community and strengthen, as well as continue, the culture from which they originated.

Musically, these pieces included a rhythmic section, instrumental accompaniment, and vocal lead. Call and response over an ostinato (continually repeating bass line melody) was extremely common. One example of this comes from the “Yarum Praise Song”. This song

⁵⁵ Tirro, *Jazz*, 8.

⁵⁶ Tirro, *Jazz*, 10.

includes text that was affected by western culture, but the structure remains the same as its original performance. A transcription of this verbally taught piece is exemplified below.

Example of verbal transcription⁵⁷:

<i>LEADER (Willis Proctor)</i>	<i>REFRAIN (Chorus)</i>
<i>Walk, believer, walk.</i>	<i>O Daniel!</i>
<i>Walk, I tell you, walk.</i>	<i>O Daniel!</i>
<i>Shout, believer, shout.</i>	<i>O Daniel!</i>
<i>Give me the kneebone bend.</i>	<i>O Daniel!</i>
<i>On the eagle wing.</i>	<i>O Daniel!</i>
<i>Fly, I tell you, fly.</i>	<i>O Daniel!</i>
<i>Fly, believer, fly.</i>	<i>O Daniel!</i>
<i>Rock, believer, rock.</i>	<i>O Daniel!</i>
<i>Etc.</i>	

Music of the Church and Beyond

Apart from the streets and fields, African Americans began to create a musical culture within their churches. One example from the music at an African American church meeting in 1926 sheds light on this fact. The reverend moved from speech to chant to song during his message. A soprano in the choir joined in improvisational descant to the reverend's chant. Affinities evident in jazz that are also in this musical example include skipping of the second step of the key, transitioning between major and minor, as well as dancing around one single

⁵⁷ Tirro, *Jazz*, 12-3.

chord. This musical example within this church recording is a wonderful example of the music of the time and represents the music of the centuries and people that span that time.⁵⁸

This music quickly became prevalent in the dance halls and public places as African Americans were freed and strove toward equality. Instrumentally, the banjo, fiddle, and fife were some of the “modern” versions of the previously used bones, rhythm sticks, spoons, clapping, and slapping accompaniment. Soon, the accordion was introduced and the repertoire grew with the melodic freedom that created. Before they new it, the black community was beginning to revolutionize the music of not only the south, but of the entire country.⁵⁹

Ragtime

The first black music to ever accomplish popularity and commercial distribution is known as ragtime. Its years of highest popularity ranged from 1895 until 1915. The piano rags of Scott Joplin, James Scott, Tom Turpin, and Joseph Lamb, as well as their immediate collaborators, followers, and students led this movement. Instrumental ensembles soon followed suit, as well as minstrel companies, and even vaudeville groups. Claude Debussy and Charles Ives wasted no time in composing their own ragtime pieces for orchestra during the very early 1900's.

Ragtime style itself had several stylistic characteristics that classified this genre. The duple meter and functional diatonic harmony were two of the most notable qualities. Functional diatonic harmony, meaning centering on the tonic, dominant, subdominant, and relative major dominant tonalities, created a tonal pattern within the meter itself.

One denomination of ragtime music was known as the Southern Rag. Instrumentally, ragtime was centered on the piano, with adaptations to solo banjo, voice, and brass band, as well

⁵⁸ Tirro, *Jazz*, 17-8.

⁵⁹ Tirro, *Jazz*, 20.

as radical instrumental adaptations, as mentioned before. In contrast, a southern rag became a fixture in and of itself. The musicians that revolutionized were often disabled; because they were deemed “unfit” to work, they focused on becoming great musicians that eventually were able to create an entire genre that would bring income to them and their families. “Blind” Arthur Blake was one such revolutionary who was a part of the first recordings of ragtime in Chicago in the 1920’s. Unlike the published classic rags on the piano, this music did not have a fixed compositional structure.⁶⁰

Scott Joplin

Scott Joplin, born 1868 in Texarkana, Texas, was raised in a musical family. Joplin began music at a very young age thanks to his musically talented family. His ability to improvise impressed the local music teachers enough for them to agree to give him free lessons on the piano, sight-reading, and harmony. In 1882, after the death of his mother, Joplin left home for St. Louis. He quickly gathered a band and was able to elaborate on the musical inspirations he had gathered during his formative years. On a trip in 1899 to Chicago, Joplin played his music for the first time for the public. That same year Joplin published his most famous work, *The Maple Leaf Rag*, upon his return to the St. Louis and Sedalia area.⁶¹

Formally speaking, *The Maple Leaf Rag* directly paralleled march form: four strains of sixteen measures each, centering around the tonic, dominant, and subdominant. The form is classified as an AA BB A CC DD where A, B, and D, are in the tonic key, and C is in the subdominant. Joplin’s score was to be performed with accuracy and metrical precision; the artistic liberty remained with the composer, and not with the performer. Furthermore, beneath

⁶⁰ Tirro, *Jazz*, 21.

⁶¹ Tirro, *Jazz*, 28-9.

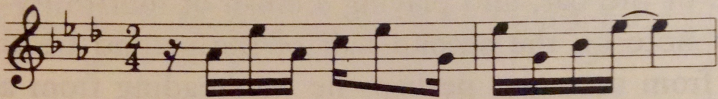
the rhythmic precision and chaotic arpeggios, a catchy melody resides; this is what made Joplin's revolutionary style attainable by its audience, no matter the level of musical understanding.⁶²

A rendition composed and performed by Jelly Roll Morton, a successful jazz composer and musician created a cross over of genres by this iconic piece. The true distinction between jazz and ragtime is exemplified within this rendition. The difference: a sense of swing is evident in Morton's jazz rendition that is missing in the rag. The only similarity that allowed for the claim of this rendition's inspiration was the harmonic structure. The harmonic structure remained true to the original. The differences can be seen in the notation below.

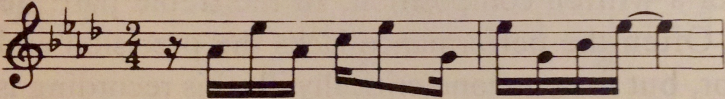
Example of harmonic structure in the "Maple Leaf Rag"⁶³:

Maple Leaf Rag

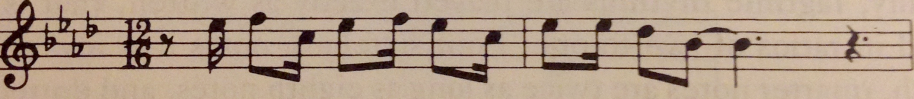
a. Notated



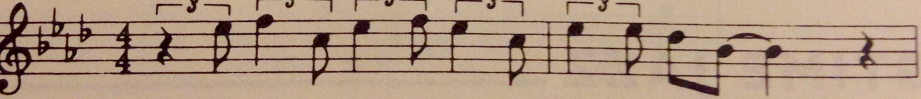
b. As Played by Scott Joplin (*SCCJ 1*)



c. As Played by Jelly Roll Morton (*SCCJ 2*)



d. Same as "c"



⁶²Tirro, *Jazz*, 29-30.

⁶³ Tirro, *Jazz*, 44.

Piano ragtime fell in popularity by the end of WWI. The New Orleans Ragtime Bands revolutionized into the jazz bands of the 1920's. This exciting music has found another place in history and will continue to live on.⁶⁴

The Blues

“The blues is a personal statement made in musical terms which is nevertheless valid for all members of a society.”⁶⁵ Most appropriately so, these personal statements are often lamentations of life and the suffering that so often accompanies it. However, the blues are not intrinsically pessimistic, though they often speak of connotatively “blue” subjects. This form of catharsis often allowed for a return to optimism. Unlike previous music, the blues were preserved through the creation of the phonograph. Thanks to the aural records, history has records of the 1920's and 1930's. Although this gives us an incomplete picture of this form, we still fasten it into the history of jazz itself.

Formally speaking, blues includes a repeated harmonic pattern of twelve measures in 4/4 time. This twelve-measure period is divided equally into three four-measure phrases. The harmonic progression goes from tonic, to subdominant and tonic, and finally to dominant and tonic. Of course there are more harmonically complex forms that have extended from this basic form, but this is the original and is maintained.⁶⁶

Country Blues

One subgenre of the blues is known as the country blues, or southern, folk, or Delta blues, depending on the geographic location. This rural expression of folk music typically

⁶⁴ Tirro, *Jazz*, 46.

⁶⁵ Tirro, *Jazz*, 47.

⁶⁶ Tirro, *Jazz*, 51.

featured a male singer and was often self accompanied with a fiddle, banjo, or guitar.⁶⁷ One such singer was commonly known as Huddie Ledbetter “Leadbelly”. Thanks to the influence of other blues artists, Leadbelly sought a career as a folk singer. His success is found in different recordings, most popularly, his pieces *The Bourgeois Blues* and *De Kalb Woman*, recorded in 1938. His four beat strumming pattern fell perfectly into the blues genre.

Classic Blues

Historically speaking, this subgenre of the blues, commonly called Classic Blues, featured several female lead vocalists, in contrast to the typically male dominated music scene. This music was a cross between folk music and popular music of the day and found its place in both minstrel shows and black theaters. Artists such as Gertrude Rainey, Bessie Smith, Ida Cox, Bertha “Chippie” Hill, and Mamie Smith all found their voices through this genre. However, W.C. Handy and Louis Armstrong also made appearances on the blues scene. The aspect that created a difference for this particular subgenre was the performance opportunities and female vocalists.

Early Jazz

The word “jazz” became a normal musical qualifier in media and print around the year 1917. This indicates that jazz became a household term. Certainly, the music known as “jazz” did not begin in that year, it simply gained widespread recognition. Prior to this year there were undoubtedly many pieces that would be considered jazz. Most notably, some early ragtime publications could certainly qualify as jazz. The distinction comes from composed syncopation

⁶⁷Tirro, *Jazz*, 56.

as opposed to improvised syncopated music, each belonging to ragtime and jazz respectively.⁶⁸ Similarly, blues and swing were often considered jazz in some respects, and not in others. When defining jazz by its musicians, audience, instrumentation, and time period, several pieces and bands would fall into this gray area. It is a matter of perspective as to whether or not these bands, musicians, and pieces could cautiously commit to being placed under the same blurry umbrella that encompasses music that is considered to be jazz. Because of this ambiguous understanding and application of the term, it is necessary to define jazz musically, and not by its exterior appearance and sound, but by the internal workings and analysis of the works of the time, identifying the differences and similarities, and defining clear genres between ragtime, blues, and jazz itself.

As a working definition, we will consider jazz to be the music that came into being through the African-American experience in the southern part of the United States during the late nineteenth century and first blossomed in the vicinity of New Orleans at the turn of the twentieth century. This music, which has undergone many stylistic changes, may be considered to include ragtime, blues, classic jazz, Chicago-style jazz, swing, boogie-woogie, Kansas City-style jazz, bebop, progressive jazz, free jazz, and fusion-jazz, as well as others. Certain musical elements are common to all, and the musical sound produced in combination is usually recognizable as jazz even by the untrained listener. These elements may be present in varying proportions, depending upon the style, the performers, and sometimes accidental circumstances...⁶⁹

The common features throughout all of the above listed genres that qualify as jazz are an ensemble that includes a rhythm section, syncopated melodies and added rhythmic figures, popular song form and blues form included in the performance, frequent use of the blues scale, features of timbre including vibratos, glissandi, and others, as well as performance practice, and most importantly: improvisations, both group and solo. One or more of these aspects can be

⁶⁸ Tirro, *Jazz*, 89.

⁶⁹ Tirro, *Jazz*, 99.

absent from any jazz performance, but whenever these elements are evident, it qualifies that piece or performance to be considered as jazz, to the discretion of whosoever takes time to draw the comparison and conclusion.⁷⁰ Typically, the music is considered jazz if it has more of these characteristics than any other characteristic of a contrasting musical genre. Both precursors and resulting genres coalesced into components of the jazz genre itself.

New Orleans

In the early years of jazz, there the sit down orchestras downtown and the improvising bands of uptown and each was defined by the demographic of their respective locations. Downtown consisted mostly those of high economic status, whereas uptown was mostly newly freed slaves who were uneducated and denied opportunity. This chasm of difference in status created two different worlds musically. Downtown featured opera, chamber ensembles, polished orchestras, and all cultural aspects that were valued by the upper class. In contrast, uptown musicians often could not even read music. Memorization and improvisation were techniques the uptown bands relied upon. The Creole people group was the most affected by the segregation laws of the late 19th century. Those who were considered upper class were forced to move uptown and lose most of their monetary income for generations. This rift caused the existing uptown residents to be unwelcoming to the Creoles who struggled to maintain their status in their new surroundings. Aggressive loyalty to musical types and techniques became the means of expression of disapproval of new laws and inequality.

As generation after generation passed, the coalescing began between the Creoles and the African Americans who cohabited in uptown New Orleans. The result musically was an expression of lively music. Performers and early bandleaders such as Jelly Roll Morton Buddy

⁷⁰ Tirro, *Jazz*, 100.

Bolden grew up during this time and risked family ties to pursue this music.⁷¹ Music being an expression of the society from which it comes, a time of such friction and inequality gave way to controversial genres such as ragtime, blues, and eventually, jazz.

The Jazz Combo

An important aspect of the emerging jazz genre was the ensemble in which it found its voice. As stated, a rhythm section is one major characteristic of jazz, and therefore was a must for early jazz musicians wishing to successfully perform. Eventually, the standard would become a rhythm section of three players: piano, bass, and trap drums. A quick note: the ragtime piano and the rhythmic piano are the same instrument, simply performing in different capacities and therefore different styles. The ragtime piano contains all elements within itself, where as the rhythmic piano simply contains the rhythmic elements of the piece which includes the harmonic framework and rhythmic pulse. Earlier bands featured a brass bass, as a result of their brass band origins. No matter the instrument, the bass of the rhythm section and the left hand part of the piano were always identical. This amplified the important bass line that formed the foundation of every song. The rest of the instrumentalists in a jazz ensemble were grouped in what was known as the front line, or the melodic instruments of a classic jazz band. These instruments would often stand in front of the rhythm section, and their instruments most frequently included the clarinet, cornet, and trombone. This section contained the majority of the improvisation and was primarily melodic and, appropriately so, syncopated. These instrumentalists would take the melody and play it ragged or with syncopation. The clarinet is responsible for taking this improvisational melody a step further by playing “lead” in an obligato

⁷¹Tirro, *Jazz*, 117-8.

fashion that is often higher in pitch, and therefore acts as a countermelody to the brass frontline players and rhythm sections.⁷²

The Jazz Age

In contrast to the Victorian life lived by pro-prohibition white American community, Jazz became a representation of the lifestyle of it's musicians. Prostitution, alcoholism, drug addiction, gambling, and the like practically became staples of a jazz musician. Through negative press and terrible reputations, the relationship of jazz to this type of lifestyle became a fallacy of a hasty generalization. Because of this, the Jazz Age's development remained in the community to which it was born and refused to expand further until an enormous event occurred that changed all circumstances.

World War I erupted and changed the world forever. As a result, jazz music travelled across the seas with the soldiers who were preparing to fight. These American men who were far from home allowed jazz music to transport them to their homes, even if it was not the Victorian home they were used to. All of the implications of jazz were forgotten as they were far from the comforts they had grown accustomed to, causing a perspective change. Back in America, this was also the time that jazz music travelled to find hubs in Chicago and eventually New York.⁷³ It was in this time that one of the greatest jazz musicians in history came to the height of his career. That musician, artist, and legend: Louis "Satchmo" Armstrong.

⁷² Tirro, *Jazz*, 122.

⁷³ Tirro, *Jazz*, 142.

Louis “Satchmo” Armstrong

Louis Armstrong was born in the uptown New Orleans area in a home of abject poverty. His father Willie, an illiterate turpentine factory worker, and his mother, Mary, lived in a shack off Jane Alley in 1901 when Louis was born. It is important to note that to many historians, this circumstance is said to be ideal for the future Louis would embark upon and acted as the catalyst for his greatness. Armstrong grew up in the most wretched ghetto of New Orleans, living as a street urchin in the Storyville district, and living a life that could certainly not be considered the American Dream.

It was not until Armstrong was thirteen that he finally received some musical training. This training came in the form of a reformatory practice by two amateur musicians in the Colored Waifs Home in New Orleans upon Armstrong’s arrest. The amateur musicians who became Armstrong’s teachers were the director of the Home, Joseph Jones, and the warden, Peter Davis. Jones was a cornet player and Davis was able to teach Armstrong the fundamentals of music. It was not until four years later in 1918 that Armstrong made real progress on his instrument. Joe “King” Oliver, a renowned instrumentalist of the time, befriended Armstrong and became both his tutor and encourager. Eventually in that year, King would recommend Armstrong to be his replacement in the Kid Ory’s Band where King was the primary cornet player. King moved on to a larger band in Chicago, where he would eventually call upon Armstrong in 1922 to join him and play as second Cornet in his Oliver’s Creole Jazz Band. This marked the beginning of Armstrong’s period as a creative and influential musician.

By 1925, Armstrong had formed his own band in Chicago known as the Hot Five. This jazz group included two of Armstrong’s greatest peers, Ory and Dodds. The Hot Five soon became the Hot Seven and both were responsible for leading Louis Armstrong to the historic

position he holds today. Over the next decade, these groups would catapult Armstrong into the books of history.⁷⁴

The Potato Head Blues

One example that can be found from this time is Armstrong's piece *The Potato Head Blues*. Despite its title, this song was not a paragon of the blues form. Blues form includes 12 measure phrases, and this piece featured 32 bar phrases. The accompaniment includes chord changes every eight beats and the solo continues throughout the piece. The solo itself shows the syncopated trait of jazz, falling on the off beats in cut time.⁷⁵ This cut time form can be counted in a fast four, just as the rest of the score is written in four. However, Armstrong decided to transcribe this in cut time to represent the interpretation more accurately. The original score was actually a lead sheet written by Armstrong's wife Lil Hardin Armstrong. Being a colleague in the King Oliver band and an experienced pianist, Lil Hardin had great talent that benefited Armstrong in his musical career. This improvisational solo has been transcribed in the following examples, but originally, Armstrong himself along with his Hot Seven, recorded at OKeh records, and extended to performances through improvisation over the bass line chord structure.

A succinct analysis by University of Michigan, Ann Arbor Professor of Music James Dapogny notes interesting facts about the original performance, which later became the transcription of the piece that was recreated. He writes that the first chorus features very little of the composed melody. The first verse begins the trumpet and rhythm section with piano player Lil Hardin and Baby Dodds on drums. The chorus allows the clarinet solo played by Johnny Dodds, and is followed by a banjo break featuring Johnny St. Cyr. The second chorus features

⁷⁴ Tirro, *Jazz*, 176.

⁷⁵ Tirro, *Jazz*, 177.

Armstrong's solo and the piece concludes with a half chorus with a stronger melody while Pete Briggs brings up the baseline with the tuba⁷⁶.

Example 1: The Full Score of "The Potato Head Blues"

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CONDUCTOR Essential Jazz Editions Set #1:
EJE9905C New Orleans Jazz, 1918 - 1927

As recorded by Louis Armstrong and His Hot Seven

POTATO HEAD BLUES

By LOUIS ARMSTRONG
Transcribed by DON VAPPHE
Edited by CHUCK ISRAELS

J = 180

1 2 3 4 5 6 7 8 9

10 11 12 13 14 15 16 17 18

* Dynamic markings do not appear in the score and parts as the limitations of early technology made it impossible for the musician to discern dynamic variety from the recording. Use your own discretion to create dynamic variety throughout the piece.

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⁷⁶ Dapogny, James. "Potato Head Blues." Forward in the publication by Alfred Publishing: New York, NY.

⁷⁷ Armstrong, Louis, transcription by Don Vapphe. "The Potato Head Blues." Alfred Publishing: New York, NY. 1927.

Example 2: The transcribed improvised cornet solo of "The Potato Head Blues"

POTATO HEAD BLUES (Armstrong 1927)

Verse

Chorus

(Solo Break)

(Transcribed from L. Armstrong 27)

Conclusion

As a musician, it is my responsibility and duty to spend hours rehearsing, practicing, drilling. There is an understanding in this world that to become a master of anything, one must practice. Practice requires hours and master teachers to instill wisdom. This truth is proved over centuries of musicians. In order to master a craft, one must have the correct tools. For the figured-bass, those tools are an understanding of music and repetition of application. But this practice looked different in each era. Now that the history and establishment of each genre has been outlined, the question must be answered: why do they sound different? If they are so similar, what is making them sound so different? Of course, the instrumentation is different. But there is something far more impactful than the timbre. The factor that causes the change is the phenomenon that music is a reflection of the culture from which it exists. Composers notate music with the ideas of the era in mind. Notation cannot always dictate the exact sound that is to be desired by a composer. When a composer of the Baroque era would notate a piece with figured-bass, they would give freedom to the performer to create the sound that was indicated by the notation. But even if the notation was extremely specific, giving virtually no room for freedom, the practices of the era would dictate the sound that would occur. The same is true in jazz music. A piece could be notated note for note, and yet in order for it to “sound like jazz”, the performer must put into practice the common techniques of the day, such as slides and swinging rhythms. The difference was made by the people that played the music itself, not the notation or compositional technique.

The connection between Baroque and jazz is an uncommon encounter. Certainly, on the surface, it seems that these two genres are as far away from each other in similarities as they are in years, so realizing that there is a stark similarity that is crucial to both compositional

techniques certainly holds greater meaning than simply a surface level overview. The paragonal examples of J.S. Bach and Louis Armstrong and their works of *Flute Concerto, BWV 1033* and the *Potato Head Blues* exemplify that two things that seem to be so different, are really quite similar.

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