

THE GENERATION VARIATIONS

A new work for double bass soloist
and electric guitar accompanist

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Abstract

This thesis combines the score of an original work by Arthur Roth for double bass and electric guitar with effects entitled *The Generation Variations* with a written analysis. The analysis presents the intent, method and purpose of the work. As such, it explicates the piece in an historical context with respect to music for the double bass soloist, compositional context regarding style, era, process, rationale as well as performance practice of the movements. It also outlines the creative inspiration, composition methods and processes used to develop the work both generally, and specifically, with each variation. Finally, this writing concludes with suggestions of newly discovered areas of composition and performance, and alludes to future directions for the development of this piece and for the creation of new music for the double bass soloist.

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Table of Contents

Abstract.....	ii
Acknowledgements.....	iii
Table of Contents.....	iv
List of Figures.....	vi
Introduction.....	1
The Double Bass Soloist: Historical Context.....	3
Beginnings.....	3
Development.....	5
The Twentieth Century.....	6
Jazz.....	6
The Future.....	7
<i>The Generation Variations</i> in Historical Context.....	8
<i>The Generation Variations</i> : Performance Practice/Required Skills.....	9
<i>The Generation Variations</i> : Technique/Tuning.....	10
<i>The Generation Variations</i> : General Notes on the Compositional Process.....	11

Melody/Soloist Rhythm.....	14
Form/Improvisation.....	15
Tone Colour and Texture.....	16
<i>The Generation Variations: Specific Notes on Variations</i>	17
Aria.....	17
Variation 1.....	19
Variation 2.....	20
Variation 3.....	21
Variation 4.....	22
Variation 5.....	24
Variation 6.....	26
Variation 7.....	27
Variation 8.....	29
Aria da Capo.....	32
Future Directions.....	32
Challenges.....	33
Bibliography.....	34
Discography.....	35
Appendix A: Score.....	37
Appendix B: double bass part.....	55
Appendix C: electric guitar part.....	69

List of Figures

Fig. 1: <i>The Generation Variations</i> : Ground Bass with Continuo Figures.....	12
Fig. 2: <i>The Generation Variations</i> : Ground Bass.....	12
Fig. 3: <i>Elegie for Solo Viola</i> –harmonic “wedge” example.....	17
Fig. 4: <i>Elegie for Solo Viola</i> –contrapuntal “wedge” example.....	17
Fig. 5: <i>The Generation Variations</i> - bass melodic line using “wedge.”.....	18
Fig. 6: <i>The Generation Variations</i> - bass melodic line using “wedge.”.....	18
Fig. 7: <i>The Generation Variations</i> - double bass rhythmic displacement.....	19
Fig. 8: <i>The Goldberg Variations</i> - upper voice descending eighth note gesture.....	20
Fig. 9: <i>The Generation Variations</i> -quarter note augmentation of piano gesture.....	20
Fig. 10: <i>Suite for Violoncello</i> - arpeggiation and root movement.....	21
Fig. 11: <i>The Generation Variations</i> -arpeggiation and subsequent root movement.....	21
Fig. 12: <i>The Generation Variations</i> -triple metre imitation of piano gesture.....	22
Fig. 13: <i>The Generation Variations</i> - extrapolated harmony on ground bass.....	23
Fig. 14: <i>The Generation Variations</i> - simplified harmony on ground bass.....	23
Fig. 15: <i>The Generation Variations</i> -modified aria upper voice theme on 12 bar major blues.....	24
Fig. 16: <i>The Generation Variations</i> - modified aria upper voice theme on 12 bar minor blues.....	25
Fig. 17: <i>The Generation Variations</i> - minimalist texture in accompaniment.....	26
Fig. 18: <i>Music for Airports</i> - opening piano motive from “1/1.....	27
Fig. 19: <i>The Generation Variations</i> - opening bass motive from Variation 7.....	27
Fig. 20: <i>The Generation Variations</i> - second bass motive from Variation 7.....	28
Fig. 21: Dittersdorf <i>Concerto for Double Bass and Orchestra</i> – notated use of harmonics	29

Fig. 22: Overtone series up to 6th partial on each open string of the double bass.....30

Fig. 23: Composite pitch set from overtone series of open strings of the double bass....30

Fig. 24: *The Generation Variations*- first two phrases of variation 8 with left hand
fingering indicated.....31

Introduction

The Generation Variations is a work inspired by *The Goldberg Variations* (1741) of Johann Sebastian Bach (1685-1750). It explores compositional and performance qualities for double bass using the theme and variations method with a binary AB form as a composition and performance template for the performing musicians and audience to develop a new understanding of the overlooked solo potential of the double bass.

As the title suggests, *The Generation Variations* draws on the achievements of numerous generations in the realms of musical language, tradition and innovation that have occurred in the 266 years since the death of J. S. Bach. After multiple attempts at various compositional methods and structures, the decision to use a theme and variations form was deemed the most appropriate and disciplined template for this creative pursuit.

The work is the culmination of over two decades of performance and composition field work in modern improvised music at the local, national and international level in a small or large ensemble context. It also draws on the skills developed in western art music (arco) studies pursued on the double bass with John Gowen and Edward Tait towards accreditation in the examinations at Toronto's Royal Conservatory of Music. Lastly, jazz and western art music harmony, theory and analysis studies at the undergraduate and graduate level at York University in Toronto and The Banff Centre for Fine Arts have been an academic background and springboard for the creative process.

The result is a composition that blends knowledge from jazz and western art music fields that can be enjoyed by listeners and academics of both disciplines. The use of modern jazz chord symbol notation for the accompaniment will unite new accompanists of various skill sets, levels and backgrounds together with the double bass

soloist, enabling performance in a wide range of contexts. It also espouses the use of the electric guitar (with effects) and the resulting texture and tone colour will have broad appeal to audiences and performers with experience in western art music, popular and jazz styles.

The Double Bass Soloist: Historical Context

The following provides a selective, but by no means extensive history of solo music for the double bass and provides a foundation for the context, rationale, relevance and purpose for *The Generation Variations*.

Beginnings

While a specific date is not known, the modern double bass appeared in the mid seventeenth century as an instrumental enhancement and support of the basso continuo, played on the viol de gamba.¹ Due to its ability to adequately fulfill volume demands required of enlarged venues and modern orchestras, the double bass gradually replaced members of the gamba family during the eighteenth century.² Unfortunately, due to the eclipsing nature of an explosion of solo music written for the violoncello beginning in the eighteenth century, the double bass undeservingly earned the dubious honour of being the forgotten “late bloomer” of the string family. This amazingly flexible and powerful instrument was mostly recognized by composers and audiences as a sectional, orchestral or ensemble (accompanying) instrument where delegated solo spots in symphonic works were sporadic.

While the aspiring double bass soloist could develop a repertoire with the use of transcriptions and arrangements of famous solo works originally written for other instruments, efforts to develop solo compositions exclusively for the double bass began in the Classical and early Romantic era with the Austrian violinist/composer Karl Ditters von Dittersdorf (1739-1799), Czech born bassist/composer Johannes Matthias Sperger

¹Michael Greenberg “Perfecting the Storm: The Rise of the Double Bass in France,1701-1815” *The Online Journal of Bass Research* 1 (July 2003):22 <http://www.ojbr.com/docs/OJBR-Volume-1-Number-1.pdf>

² Greenberg, “Perfecting the Storm”, 22.

(1750-1812), and the famous Italian bass virtuoso Domenico Dragonetti (1763-1846).

Dittersdorf penned two concertos for double bass in 1756 and in 1762, Sperger composed a bass concerto in (1776). Dragonetti wrote numerous concertos and lastly, *Twelve Waltzes for Double Bass* (1844).

Often these pieces reflected an imitation of other, more celebrated works by other composers for other members of the string family. Dragonetti's work greatly sharing a provenance with the violinist Nicolo Paganini (1782-1840) and Dittersdorf and Sperger's work very much in the shadow of famous cello concertos by Franz Joseph Haydn (1732-1809). These composers did succeed in showing the flexibility and potential of the instrument. Dragonetti by demonstrating rapid virtuosic passages performed on his newly developed shorter soloing bow (for fast passages) and Dittersdorf and Sperger, by using solo tuning and employing the use of "harmonics". Both of the latter's advancements allowed performers to gain easy access to higher registers on the instrument.

Solo tuning adjusts the bass up a full tone from the conventional lowest to highest E A D G to open strings to F# B E A. "Harmonic" is a utilitarian term referring to lightly fingered nodes on the harmonic series of the strings which, when plucked or bowed, sound pitches with relative ease in the alto and soprano range.

Development

Double bass solos began appearing in the late Romantic period within an orchestral context. The most notable examples of this are Camille Saint-Saens (1875-1921) *Carnival of the Animals* -fifth movement “The Elephant”(1886), Gustav Mahler (1860-1911) *Symphony # 1* (1888) opening to Movement #3, Giuseppe Verdi (1813-1901) *Otello* (1885) in Act 4. These passages were of a character effect conveying humour, sadness or villains respectively.

Two notable composer/conductors/bassists who began composing for the double bass were Giovanni Bottesini (1821-1889) and Serge Koussevitsky (1874-1951). While these composers were of different generations with distinctive styles, it is not a coincidence their compositions share a deep affinity with romantic Italian opera. Both individuals were opera/symphonic conductors: Bottesini in Havana (1845-1847) and Paris (1885-1887) and Koussevitsky (Boston Symphony Orchestra (1924-1949) and wrote for the double bass in what could be described as a *cantabile* (singing) style. These composers sought to exploit the upper register of the instrument, Bottesini composing *Fantasias* (1879), *Elegies* (1851, 1870), *Reveries* (1870) and Koussevitzky beginning with his first *Double Bass Concerto*, Op.3 (1905).

The vision of these Romantic composers cannot be underestimated. Despite the stylized nature of their works, they were a harbinger of the liberation of the instrument from its orchestral and ensemble stereotype and paved the way for a future as a solo instrument.

The Twentieth Century

In the twentieth century, many new solo works have been written for the double bass. Some examples of these works are Antonio Scontrino (1850-1922) *Gran Concerto for Double Bass* (1908), Reinhold Gliere (1875-1956) *Intermezzo & Tarantella for Double Bass* (1903 and 1908,) Paul Hindemith (1895-1963) *Sonata for Bass and Piano* (1949), Thomas Beveridge (b. 1938) *Sonata for Bass Viol and Piano* (1963), Canadian Christos Hatsiz (b. 1953) *The Birth of Venus* (1999) and American virtuoso Edgar Meyer (b. 1960) *Concerto for Double bass* (1993).

Jazz

It would be remiss to not discuss the importance of the bass soloist without mentioning the jazz idiom, and the development of the specialized jazz pizzicato technique beginning in the 1920s. Arguably the improvising jazz double bass soloist was, and is, the juggernaut of the instrument, a foil to the confines of the traditional roles for the double bass. With the exception of famous jazz arco players Leroy Eliot "Slam" Stewart (1914–1987), Jimmy Blanton (1918–1942), Paul Chambers (1935–1969), Major Holley (1924-1990) and Richard Davis (b. 1930), jazz bassists eschewed the bow, and by developing numerous new approaches to pizzicato technique, placed the instrument in the spotlight. Whether as an accompanist or soloist, the bassist was a singular foundation and catalyst in the jazz ensemble. As a result of strides made in Jazz bass playing, composers such as Duke Ellington (1899-1974) started composing pieces featuring the bass such as *Pitter Panther Patter* (1940), and *Jack The Bear* (1940) that featured bassist Jimmy Blanton (1918-1942). Numerous composer/performers continued, to name a few, Oscar

Pettiford (1922–1960), Ray Brown (1926–2002), Charles Mingus (1922–1979), Scott La Faro (1936–1961), Jimmy Garrison (1934–1976) and Dave Holland (b. 1946). Thus jazz afforded the bass a unique footing in western music, a perfect conduit, both catalyst and mediator for a plethora of artistic visions functioning in all manner and combinations of ensembles.

The Future

The future of solo music for the double bass continues to flourish and evolve due to an immense cross-pollinating of the western art music tradition with the jazz/modern improvisation world. There exists a strong expectation in academic and performance environments that any reputable soloist will have a strong background in multiple styles and approaches. Furthermore, the internet, social media, conferences and the ever changing music and publicity business have increased the proliferation and intellectual exchange of new techniques and innovations on the instrument. This, combined with the heavily marketed sales of double bass equipment, new luthiers further developing instruments and bows, and the twentieth century addition of amplification and effects, is creating an increasingly hyper-activated milieu for developments on the instrument. Additionally numerous performers including Canadian Joel Quarrington (b.1955) and Red Mitchell (1927-1992) have pursued an unconventional path, tuning the bass in fifths.

A stylistic/era designation of “New Music” has created a programming and performance niche for numerous technical innovations by avant-garde bassists including Bertram Turetsky (b. 1933), Barre Phillips (b.1934), Mark Dresser (b. 1952) and Stefano Scodannibio (1956-2012).

The Generation Variations in Historical Context

While this new composition shows provenance with the historical contexts presented above, it fills an unexpected niche for solo repertoire on the instrument. Despite the intermingling of traditions, there is a lack of double bass solo pieces to be performed by a cross disciplinary performer. Recently, due to the gradual financial obsolescence of symphonic orchestras and positions therein, academic institutions have been training cross-disciplinary bassists equally adept in orchestras or in improvised ensembles. Unfortunately, traditional solo repertoire cannot be reasonably expected to accommodate this change, and relatively few twentieth century composers have risen to this challenge.

A desire to eliminate this artistic vacuum inspired the creation of this piece, which seeks to break down barriers by uniting notated western art music soloists with an improvising accompanist, creating scenarios where duo improvisation is essential to bring out the character of the piece. Audiences and performers will experience a piece with hallmarks of the western art music tradition in the consistency of pre-determined pitches in the notated double bass soloist elements of the work, and also experience improvised passages that cannot possibly remain static in multiple performances.

For the specialist player of either western art music or jazz/modern improvisation, this piece represents a gateway between disciplines. For the jazz accompanist or jazz bassist, the variations are a progressive introduction to arco accompaniment and soloing

respectively. The jazz musician will see historically accurate western art music approaches theoretically expressed in familiar lead sheet fashion.

Conversely, for the orchestral bassist/soloist this piece will provide opportunities for new forays into jazz pizzicato and the world of improvisation. Furthermore, Baroque accompanists and specialists with experience with other chord notation methods can find a parallel application and introduction to the reading of modern jazz chord notation.

The Generation Variations: Performance Practice/Required Skills

This piece will present new and progressive challenges to the bassist of any level and background. As a result of the mostly arco performance of the variations, a thorough grounding in the methodologies of bass pedagogues Franz Simandl, Isiah Bille and Francesco Petrachii is helpful. However it should be noted that in the event that the jazz bassist has little experience with the bow, these pieces are playable using pizzicato technique. Furthermore a background in jazz performance for the soloist and especially the accompanist due to the use of chord symbol notation in the accompaniment part is helpful, and the composer acknowledges that if a realized accompaniment part is required, this will be developed. Certain movements will also require soloist and accompanist to have experience with modern free improvisation or traditional jazz or blues improvisation skills over a basic twelve bar blues progression, and the bassist will require adequate knowledge of the jazz pizzicato technique. The eighth variation will require the soloist to have adequate command of the “harmonics” or upper partials up to and including the 6th partial on all the open strings of the bass.

The electric guitar accompanist will benefit by familiarity with a finger picking approach with the right hand in order to provide a variety of technical textures and feels from variation to variation. Additionally, the use of effects will require familiarity with an arsenal of chorus, reverb, delay, loop and distortion effects pedals. Specific settings are left to the performer's discretion. The guitarist will benefit from some familiarity with Western Art Music styles in order to adequately and tastefully accompany the soloist in early variations and in later variations require a thorough understanding of jazz, blues and free form improvisation.

Finally, in the unexpected absence of a guitarist, and given that the accompaniment part is expressed in chord symbol notation, any harmonic instrumentalist (e.g., piano, organ, celeste, harpsichord, synth, harp, accordion) can accompany the soloist. Additionally, the effects used with electric guitar add to the piece, but are not crucial for success.

The Generation Variations: Technique/Tuning

This piece tunes the bass in "solo tuning", a method used at first by Dittersdorf and Sperger. With this tuning, the bass is tuned up a full tone from the conventional E A D G tuning in fourths, to F # B E A respectively. It should be noted that there are specific bass strings required to employ this tuning without damage to the bass due to increased string pressure transferred from the bridge to the instrument. Not only does this give the bass access to slightly higher notes, it puts music in an easy key on the double bass (G major) up to A major. Thus, the guitar, when tuned conventionally lowest to highest E A

D G B E, will carry the tonic (A) and dominant key (E) of the A section of the piece in its lowest open strings, and the relative minor (F# minor) of the B section having a tonic on the second fret of the lowest string and minor third as the second lowest string.

To reiterate, for the bass soloist, the piece is learnt from the notated music in the key of G with the conventional tuning. When performed with accompaniment, the soloist merely tunes up a whole tone and is in key with the guitar part.

In the event that finances or availability prohibit the acquisition of special solo tuning bass strings, the piece can be performed in the learnt key of G, with the bassist not using solo retuning and the guitarist using the G major bass part for reading purposes.

The Generation Variations: General Notes on the Compositional Process

The primary inspiration for *The Generation Variations* is *The Goldberg Variations* (1741) of Johann Sebastian Bach (1685-1750). Bach's work uses a ground bass (see Figure 1) as the primary harmonic framework for all 30 variations. *The Generation Variations* also has a ground bass theme (see Figure 2) as underpinning for an Aria, Aria da Capo and eight variations.

Figure 1: *The Goldberg Variations* - Ground Bass with Continuo Figures.³

The figure displays four staves of musical notation in bass clef, G major (one sharp), and 4/4 time. Each staff represents a measure of the ground bass, with specific continuo figures indicated above the notes. The notes are half notes, and the figures are: 6, 3,5,6#, 6, 3,5,6, 6, #, 6, 6, #, 6, 3,5,6, #, 6, 3,5,6.

Figure 2: *The Generation Variations* - Ground Bass.

The figure displays two staves of musical notation in bass clef, G major (one sharp), and 4/4 time. Each staff represents a measure of the ground bass, with specific continuo figures indicated above the notes. The notes are half notes, and the figures are: 6, 3,5,6, 6, #, 6, 6, #, 6, 3,5,6, #, 6, 3,5,6.

With the exception of the Mixolydian/Aeolian blues movement in variation 5, and a slightly simplified harmonic version in sections of variations 4 and 6, all melodic lines

³Peter Williams *The Goldberg Variations*. (Cambridge, UK: New York, NY: Cambridge University Press, 2001), 35.

of the solo double bassist and generated harmonies of the accompaniment are built on this fundamental architecture.

Less formal, modern jazz harmonies were initially explored to harmonize the ground bass, but decidedly traditional, diatonic harmonies were deemed most appropriate as they provided a sonic foundation for future variations to be contextualized. Further augmentations, diminutions and simplifications of the ground bass occurred to facilitate the creative process.

The ground bass creates and establishes harmonies that have an internal logic for conventional perfect or plagal cadences. Both sections have harmonies that cadence successfully back to facilitate a repeat, either in A major or the relative minor of F sharp. After the second statement of the B section in certain variations a final cadence back to A major expressed as a final additional bar was required to unify and finalize a variation.

The Generation Variations deviates from *The Goldberg Variations*, as the B section does not cadence in the tonic key. As mentioned above, this departure facilitates a logical harmonic motion back to the relative minor key that begins the B section. This creates feeling of depth and suggests the B section as an involved, expanded “development” section. As the second repeat of B finishes a movement and does not repeat back to the relative minor, it follows the principal of *The Goldberg Variations* and cadences in tonic key in the form of an additional one bar coda. This departure from tradition is inspired by modern interpretations of Bach by performers like Glenn Gould. Gould’s 1956 and 1981 recordings clearly show the latitude of individualized liberties taken regarding repeats, order of variations and movements and ornamentation and the effects on key centres. With this understanding, and the presence of modern audiences

having a wider tolerance for less formal tonal centre changes, a deviation from Bach's method regarding the harmonic departure from predetermined key areas is in keeping with the present era.

Melody/Soloist

Where practical and/or playable for the double bass soloist, certain variations require the restatement of a section in a different octave of the instrument. This creates an increased dramatic effect, and also features the expressive range of the instrument in a clear way to the listener. Of special note is the pause on A minor in the B section. This opens up an aesthetic from Baroque era performance in which certain performers used improvised ornaments in cadenza passages as a creative, personal addition to a piece. This approach may be useful in the performance of *The Generation Variations*.

Rhythm

The opening movement sets the stage for a *moderato* to *andante* tempo range for the whole work. Due to the conspicuous presence of lower partials of the harmonic series, the double bass speaks very difficultly at faster tempos and can frequently become a low register cacophony in rapid passages, even when performed by professional performers for the most discerning audiences. Given this reality, and to facilitate this piece having broad performance appeal for audiences and bassists alike, rapid virtuoso passages are avoided. Syncopation is not featured in the present incarnation of this work, as it would diffuse modal and textural explorations that are featured.

Form

Fundamentally, *The Generation Variations* follows *The Goldberg Variations* as it begins with the aria, and after multiple variations, recapitulates with the aria da capo. As mentioned above in the harmony section, modern interpretation has brought an open approach to the order of movements within a theme and variations framework. With this in mind, the aria and aria da capo are the essential and sole formal frame to which the piece must strictly adhere. Additionally, while the binary form must remain, sectional repeats are optional.

Improvisation

The improvisational skills of each performer are drawn upon to create improvised interludes between selected variations of differing nature. The goal of improvised interludes is to “bookend” the previous variation and eventually usher in the mood of the next variation, providing consistency and unity to the work. A benefit of the unpredictable content and focus of the improvised interludes is the democratization of the relationship of the soloist to the accompanist of previous eras. Given the democratic nature of group improvisation, opportunities will arise for the accompanist to be the lead voice.

For audiences and performers, these passages will also give listeners a relief from the constancy of the bass being the lead voice, a challenging tone colour for even experienced listeners. Improvisation also ensures that every performance of the piece will be personalized, different and reflect the times in which it is performed.

Tone Colour and Texture

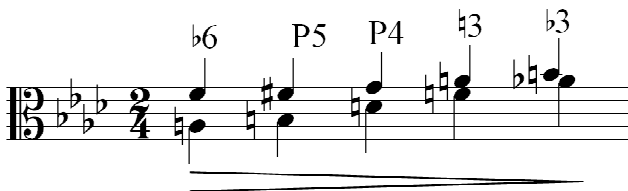
With the exception of improvised passages and the blues movement, this piece features the bow used with the bass in a legato, cantabile style. The electric guitar is featured as a supportive instrument providing ambient and harmonic “padding” and accompaniment in a tasteful way. The upper octave transposition of the bass part at sectional repeats in many of the variations demonstrates the qualities of different ranges of the double bass. The use of pizzicato technique in the interludes is left to the discretion of the soloist, and is welcomed if it is done in such a way that a transition back to the use of the bow is not technically or aesthetically abrupt.

The Generation Variations: Specific Notes on Variations

Aria

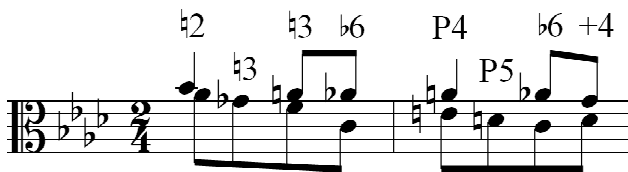
This opening section is homage to the aria movement of the *Goldberg Variations*, beginning with a plaintive, humble introduction. The first aria movement upper voice employs an intervallic composition technique used extensively by Igor Stravinsky in *Elegies for Solo Viola*. This technique is often called a “wedge” because of the shape it creates on the musical staff. In the case of the first excerpt (bar 44) from Stravinsky’s *Elegie for Solo Viola* (Figure 3), the composer uses continuously narrowing intervals in successive double stops on the viola to create a decrescendo effect.

Figure 3: *Elegie for Solo Viola* – harmonic “wedge” example.⁴



Stravinsky also uses this effect in the same piece (bars 27-28) in a contrapuntal texture (Figure 4) with successive widening intervals in moving lines played against pedal points in neighbouring strings to create a crescendo to decrescendo effect.

Figure 4: *Elegie for Solo Viola* - contrapuntal “wedge” example.⁵

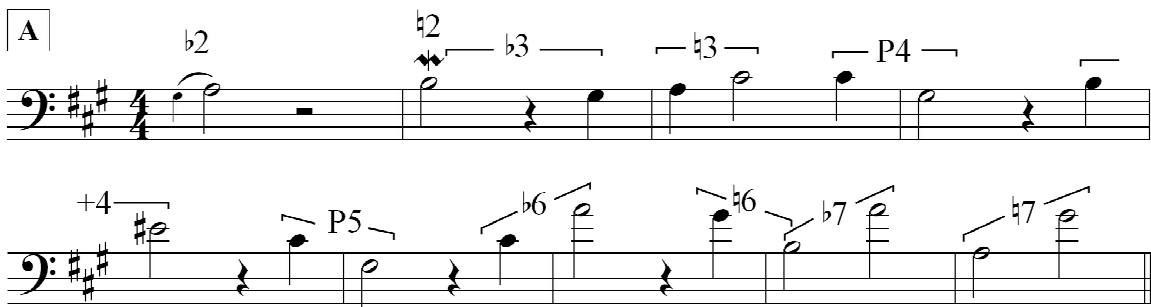


⁴Igor Stravinsky. *Elegie: für Violine oder Viola solo* (Mainz, Germany: Schott, 1945), 3, bar 44.

⁵Stravinsky, “*Elegie*”, 2, bars 27-28.

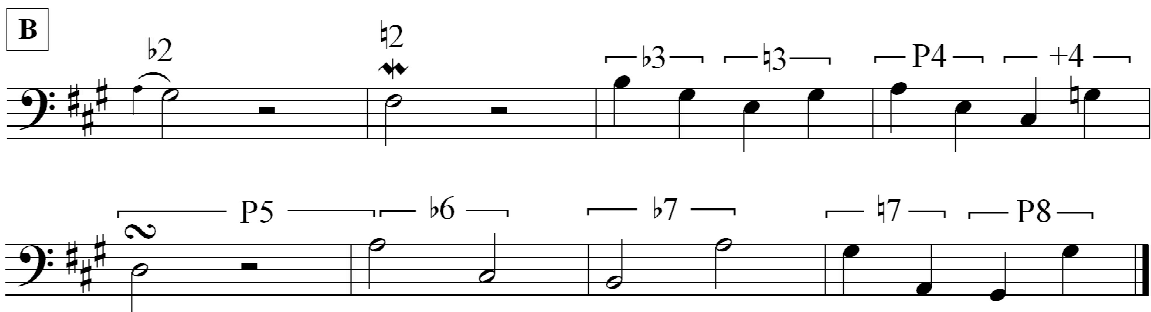
Unlike the double stops or contrapuntal texture in Stravinsky’s piece in the examples above, this technique was applied in the aria to *The Generation Variations* in an exclusively linear fashion as part of a homophonic texture when juxtaposed with the electric guitar. As is evident in Figure 5, the upper line of the first variation demonstrates intervals progressing from minor second to perfect octave in the A section to create an intensifying effect with a “wedge.”

Figure 5: *The Generation Variations* - bass melodic line using “wedge.”



In the B section of the aria (Figure 6), the solo line for the double bassist is intervallic wedge in a descending direction. This is also cast in a homophonic texture when accompanied by electric guitar, beginning in the relative minor and progressing through the cycle of fifths.

Figure 6: *The Generation Variations* - bass melodic line using “wedge.”



Variation 1

The first variation begins a rational or reductionist approach to composing where the ground bass is developed using first species counterpoint in the upper voice. Upon the first repeat of the A section, and continuing to the first statement of the B Section inclusively, the bass is transposed up an octave and displaced by one beat (Figure 7), eliminating the rhythmic unison. Juxtaposed with the guitar accompaniment, this creates a rhythmic double time effect, intensifying the momentum of the variation. The melodic and textural effect is a suspension chain, where transient dissonances create tension and release, creating harmonic forward motion. At the recapitulative second repeat of the B section the forward motion and tension is resolved by returning the bass to the lower octave in rhythmic unison with the guitar. The double time created by quarter notes instead of the initial half notes of the movement foreshadows Variation 2.

Figure 7: *The Generation Variations* - double bass rhythmic displacement.

The figure displays two staves of musical notation in bass clef, 4/4 time, illustrating a double bass rhythmic displacement. The first staff shows the initial sequence of chords: A, E/G#, D/F#, E, D⁷, A/C#, E7⁽⁹⁾₁₃, E7⁽⁹⁾₁₃/D, C#7, and C#7/B. The second staff continues with: F#m/D, C#7/G#, F#m(b6-5), E(6-5), B7/D#, B7, E7sus, and E7. The notation includes quarter notes with stems and beams, and various chord symbols indicating harmonic structure.

Variation 2

This variation continues the foundational approach through the use of second species counterpoint technique. The studied “rules” that govern the use of parallelism in diatonic resolutions are not strictly employed as such, but are used loosely in a manner that is referential. The main inspiration for this variation is the 15th variation of *The Goldberg Variations* in which Bach uses a descending eighth note gesture in the first bar treble clef (Figure 8) as a motive. In *The Generation Variations* this is expressed through a quarter note rhythmic augmentation (Figure 9) of the tied eighth note articulation in Bach’s variation.

Figure 8: *The Goldberg Variations* - upper voice descending eighth note gesture.⁶

Variatio 15. Canone alla Quinta (in moto contrario). a 1 Clav. BWV 988

Andante



Figure 9: *The Generation Variations* - quarter note augmentation of piano gesture.

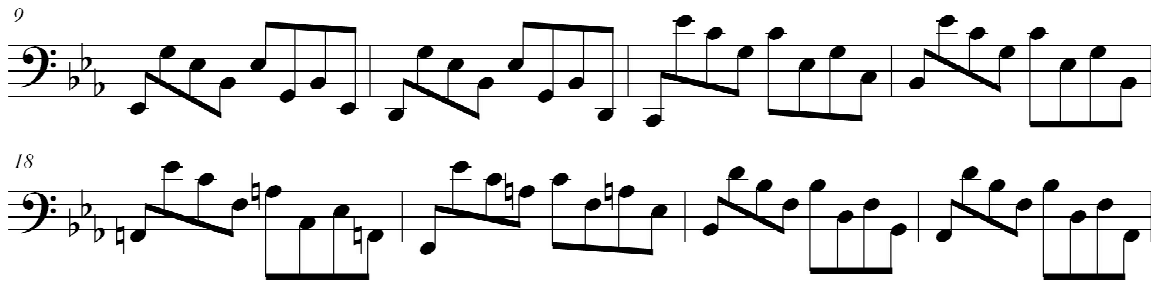


⁶ Johann Sebastian Bach. *Goldberg Variations* (BMV 988, New York: E.F. Kalmus, 1968), 20.

Variation 3

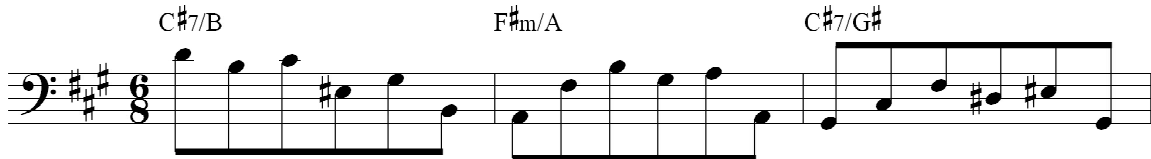
The third variation switches to a triple metre but attempts to aesthetically approximate the intensified rhythm of third species counterpoint. This variation has a clear provenance with the prelude from Johann Sebastian Bach's *Cello Suite # 4 in E flat Major* presented in Figure 10 following.

Figure 10: Suite for Violoncello - arpeggiation and root movement.⁷



The identifiable element from Bach's work above is in upper arpeggiations of the chord followed by a lower note (representing a root of the chord) moving to anticipate, punctuate or voice lead the harmonies. The influence is evident in Figure 11 below. In *The Generation Variations* these bars demonstrate the root played for the first eighth note of the bar followed by arpeggiation in the subsequent five notes of each respective bar. Due to the elaborate use of range in this movement, octave transpositions of the movement are not necessary to make full use of the range of the instrument.

Figure 11: The Generation Variations - arpeggiation and subsequent root movement.

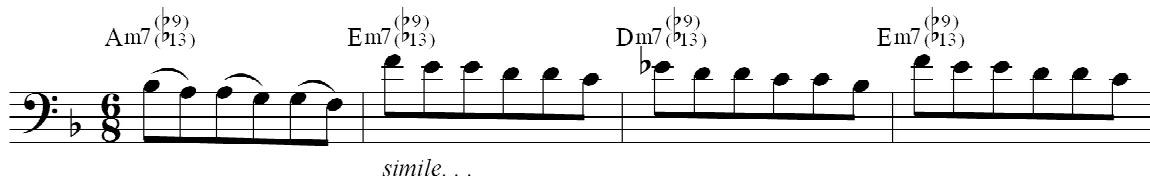


⁷ Johann Sebastian Bach. Ed. by August Wenzinger. *Six Suites for Violoncello Solo* BWV 1007. Barenreiter, 2005), 24.

Variation 4

This variation continues the intensity of third species counterpoint in triple metre by restaging a simplified version of ground bass harmonies in parallel Phrygian (half diminished) sonorities. In performance, a *rallantando* approach to tempo is taken to bring out the flattened second tension that so characterizes this mode, and to emphasize its importance to the listener. As in Variation 2, this variation is influenced by the 15th variation of *The Goldberg Variations* (Figure 8) as a triple metre imitation of the tied articulation of the downward gesture in the first bar treble clef that dominates the canonic movement. An expression of this can be found in *The Generation Variations* expressed below in Figure 12.

Figure 12: *The Generation Variations* - triple metre imitation of piano gesture.



While the ground bass and form are followed, elements of the extrapolated harmony on the ground bass (Figure 13) are simplified (Figure 14) in order to facilitate the Phrygian mode expression of this variation. Essentially, every second half note of the ground bass was treated as a passing note/chord. This created a scenario where the true character of the Phrygian mode could be emphasized in a more static harmonic environment.

Figure 13: *The Generation Variations* - extrapolated harmony on ground bass.

A A E/G# D/F# E D Δ 7 A/C# E7^(b9)_(b13) E7^(b9)_(b13)/D C#7 C#7/B

F#m/A C#7/G# F#m(b6-5) E(6-5) B7/D# B7 E7sus E7

Figure 14: *The Generation Variations* - simplified harmony on ground bass.

A A E D E7 C#7

F#m F#m B7 E7

Variation 5

The blues movement, while still binary AB, is the one exceptional movement that does not use the ground bass as a template for harmonic development. Instead it uses a slightly modified aria upper voice in a fashion heretofore restricted to the ground bass, as a “theme” and replaces the previous ground bass with a modified 12 bar blues progression as a catalyst for the variation.

Figure 15: *The Generation Variations* - modified aria upper voice theme on 12 bar major blues.

The musical notation for Variation 5 is presented in two lines of bass clef, 4/4 time, with a key signature of one sharp (F#). The first line contains measures 1-4. Measure 1 starts with a double bar line and a repeat sign, followed by a quarter note G. Measure 2 has a quarter rest. Measure 3 has a quarter note G. Measure 4 has a quarter note G. The second line contains measures 5-8. Measure 5 has a quarter note G. Measure 6 has a quarter note G. Measure 7 has a quarter note G. Measure 8 has a quarter note G. The third line contains measures 9-12. Measure 9 has a quarter note G. Measure 10 has a quarter note G. Measure 11 has a quarter note G. Measure 12 has a quarter note G. The notation includes various chord symbols above the notes: A7, D7, A7±9, D7sus, D7 // N.C., A7, A7/B // N.C., C#7, F#7±9, B7, and E7. A double bar line is placed between measures 4 and 5.

This variation began with an attempt to continue the renaissance inspired modal explorations from previous movements. What ensued was a departure from the ground bass for this movement. The idea to do this came from efforts to “modalize” the ground bass to Mixolydian. The initial attempt was made using the melodic solo part of the first arioso variation. The appoggiatura leading note of the movement was brought down from G# to G to capture the Mixolydian sonority. Compositionally, it imitated and triggered memories of the sound of the blues guitar tradition and inspired a shift to a twelve bar blues underpinning. Additionally, the transition to the relative minor in the B section also stimulated memories of minor seven chord and minor seventh suspended sonorities

explored in the “minor blues” chord progressions of John Coltrane in “Mr. Syms” from *Coltrane Plays the Blues*.

Figure 16: *The Generation Variations* - modified aria upper voice theme on 12 bar minor blues.

B

F#m9 Bm11 F#m9 F#m9 // F#7±9 Bm7 %

F#m7 F#m11 D7(#11) D7 C#7±9 %

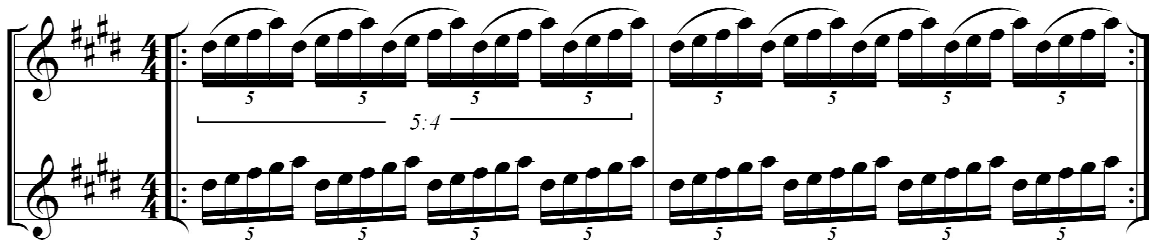
Given this evolution, it was deemed apt to allow this departure from the strict method of the ground bass/theme and variation structure for this movement. Additionally, improvisation on a twelve bar blues, by instructions on the sheet music to ad lib on the twelve bar blues chord progression, provides an excellent and liberating release for improvising performers from the notated reading aesthetic and provides respite for the audience from the consistent ground bass theme and variations format.

Variation 6

This variation applies Lydian sonorities to the simplified ground bass (Figure 14). As is evident in the music, where there were previously major chords expressing tonic, subdominant and dominant chord with appropriate major and dominant seventh qualities respectively, these have been changed to major seventh chords with a sharp 11th extension.

The featured compositional element is the employment of minimalist techniques, influenced by the works of composers including Steve Reich, Arvo Part and Phillip Glass. This is achieved by a pre-recorded digital loop created by the guitarist. The sequence notated in the two middle treble staves, which comprise a five against four rhythm, establishes a repetitive phasing minimalist texture.

Figure 17: *The Generation Variations* - minimalist texture in accompaniment.



The guitarist outlines the harmony/ground bass and the double bassist plays the composed part with this established pre-recorded loop. The composed line for the double bass soloist uses wide sweeping gestures of mostly large perfect intervals, namely perfect fourths and perfect fifths. This was used as a textural intervallic contrast to the tightly knit minimalist sequence.

Variation 7

This variation pays homage to the compositional influence of producer and composer Brian Eno, specifically in his work *Ambient 1: Music for Airports*. In the first track, “1/1”, of Eno’s famous recording, multiple analog tape loops of a piano motive (Figure 18) are used in a fugal style.

Figure 18: *Music for Airports* - opening piano motive from “1/1”.⁸



In *The Generation Variations*, the envelope filter effect on the guitar simulates an analog tape loop effect. The ostinato bass gestures were influenced by Eno’s looped piano motive. The double bass part (Figure 19) opens with a thrice repeated, rhythmically imitative three bar phrase in the A section. This is followed in the B section with a second motive (Figure 20), with an imitative phrase of five beats.

Figure 19: *The Generation Variations* - opening bass motive from variation 7.

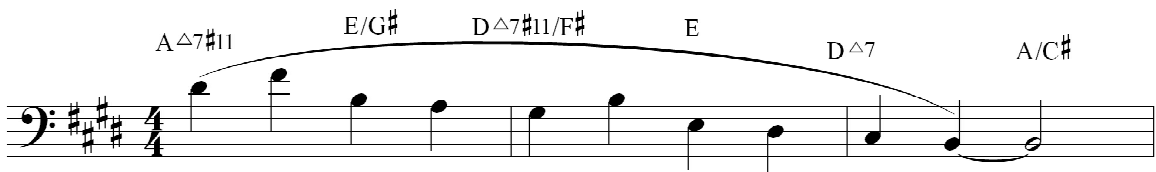
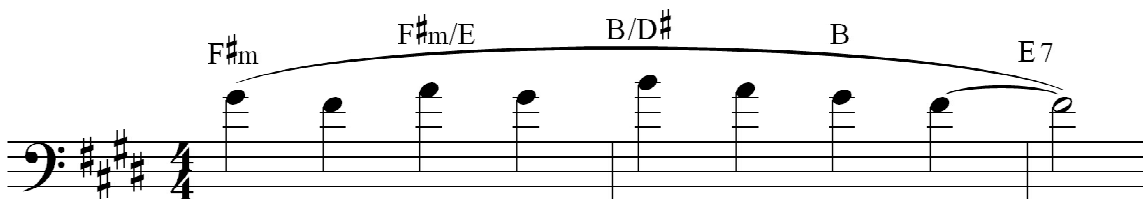


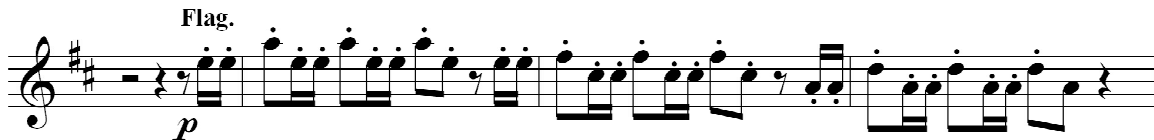
Figure 20: *The Generation Variations* - second bass motive from Variation 7.



Variation 8

This is the only variation that courts extended techniques for the double bass by being composed so that all pitches can be played as “harmonics”. A “harmonic” is the colloquial term that refers to upper partials on the harmonic series of strings that are produced by lightly touching a node on the string with the left hand while either plucking or bowing with the right hand. While arguably an “extended technique” that this work attempted to avoid, the use of harmonics on a string instrument could hardly be described as a modern or new technique as it dates back to the overtone theories of Pythagoras. In terms of bass music, its first notated use (Figure 21) is in the Concerto work of Dittersdorf.

Figure 21: Dittersdorf *Concerto for Double Bass and Orchestra* - notated use of harmonics.⁹



Thus, the use of harmonics is as a reasonable departure from the strict technical parameters of the compositional process. This variation presented a significant challenge, identifying the pitches, organizing and locating the harmonics on the musical staff and then on the fingerboard of the bass. Further challenges came with balancing the theoretical and practical (playability) application of this concept and organizing all this in a way that fit the predetermined harmonic structure created by the ground bass.

⁹ Karl Ditters von Dittersdorf. Ed by Franz Tischer-Zeitz *Concerto for Double bass and Orchestra*. (Mainz, Germany: Schott Musik International 35 316, 1999), 4.

Firstly, the overtone series on each open string of the bass from the fundamental to the 6th overtone the bass was written out vertically (Figure 22), and secondly, turned in to a composite where the available pitches were mapped out as a linear pitch set (Figure 23), facilitating diatonic composing. The pitches in Figures 22 and 23 were written one octave higher than they actually sound, as is the convention with music written for the double bass.

Figure 22: Overtone series up to 6th partial on each open string of the double bass.

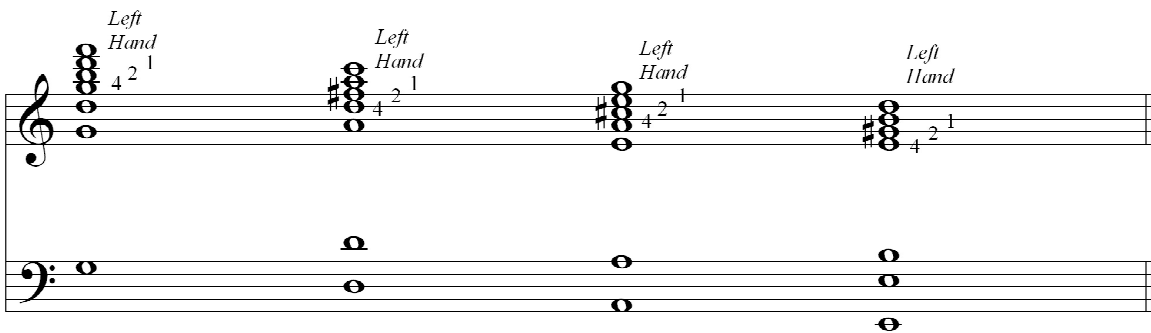
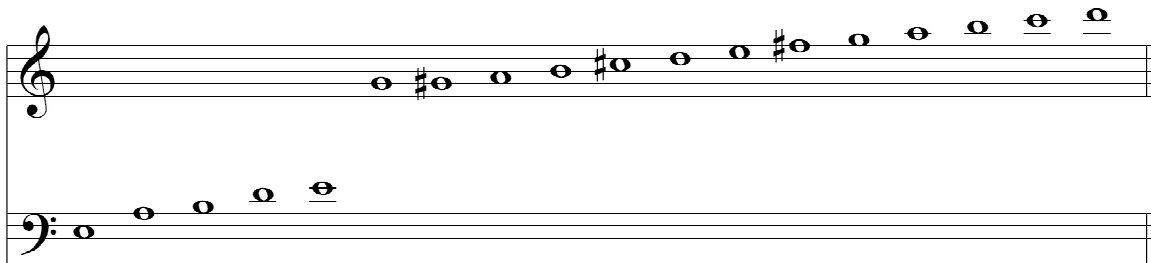


Figure 23: Composite pitch set from overtone series of open strings of the double bass.



Thirdly, through experimentation, relationships and the understanding of locations of playable harmonic and melodic structures as “harmonics” on the fingerboard were discovered. One of the major breakthroughs was the discovery of the root position major triad of each open string being available in a closed hand position, with a natural 4-2-1 left hand finger combination, ascending from the 3rd partial of each string (see Figure 22). Conversely, the composite pitch set may indicate two pitches that while proximal, are a significant physical distance apart on the fingerboard. For example, the first partial (G) on the G string relative to the tone (A) above sounded on the D string are separated by 20 centimeters. With this understanding, the first two phrases of variation 8 in bars 1 and 2 (Figure 24) exist in a conveniently playable fashion, as the fingerings and string labeling indicate.

Figure 24: *The Generation Variations* - first two phrases of variation 8 with left hand fingering indicated.

G D/F#

string ——— G ——— D ——— A ——— D ——— G ——— D ——— A ———

fingering 4 4 2 4 2 1 4 1 1 4 2 1

Played exclusively with harmonics

While seemingly counter-intuitive in a double bass part, the decision to notate primarily in the treble clef was necessitated by the pitches themselves, as opposed to original ideas of a 16va notation instruction if written in the bass clef. Lastly, pitches above the 5th partial were used sparingly, as the intonation, while technically correct, sounds out of tune to listeners accustomed to equal temperament.

Aria da Capo

The piece closes with a recapitulation of the first aria movement of the cycle without repeats, reminding the performers and audience of the starting point of this musical journey and provides symmetry to the piece. This was a formal arrangement idea that was a direct influence from the initial inspiration of *The Goldberg Variations*.

Future Directions

The theme and variations form is ideal for new compositional directions and naturally facilitates the seamless addition of new movements. Indeed, further experimentation with counterpoint in the form of imitative polyphony (fugues, canons) as overlapping musical lines by the bass soloist (if they are within the left hand reach on the fingerboard), or in combination with the guitar is presently being considered.

Also, the relaying of lead melodic line between double bass and electric guitar much like the interaction of Bach's left hand and right hand parts respectively in *The Goldberg Variations* is also being considered as a more balanced compositional approach. Additionally, rhythmic exploration of odd metre 7/4 and 5/4 time signatures is being considered for future variations.

The use of electric guitar and effects provides modernity to the piece. Thus, *The Generation Variations* leans heavily on the creativity of the accompanist, which ultimately leads back to the democratized blend of improvised music with western art music to create a hybrid solo music for the upstart of the string section, the double bass.

Challenges

One of the major hurdles of this composition project was narrowing the compositional focus. With the abundance of developed and invented extended techniques for double bass in Western Art Music, jazz and modern improvised music, initial compositional attempts were too far reaching and had a detrimental effect on any sense of a unified effort. Further, short character pieces featuring new extended techniques in succession ran the risk of sounding disingenuous and “gimmicky.” For this reason, the decision was made to exclusively favour either a conventional arco sound or a conventional jazz pizzicato sound to functionally create a limited compositional tone colour palette and eliminate this possibility.

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APPENDIX A: Original Full Score (In A Major)


The Generation Variations


Composed by Arthur Roth

June 2016

The Generation Variations

Aria **A** ♩ = 50 A E/G# D/F# E D[△]7 A/C# E7^(#9)_(#13) E7^(#9)_(#13)/D

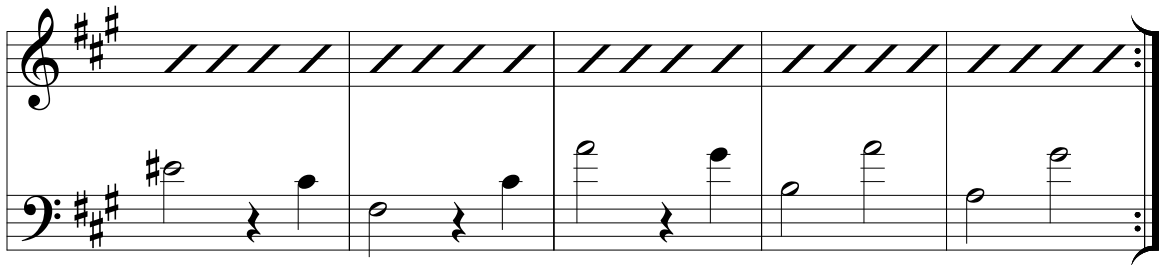
Guitar 

Bass 


8va 2nd x arco

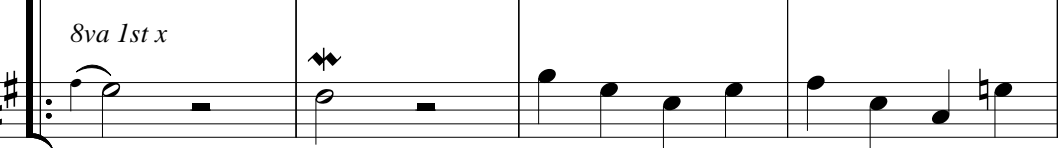
double bass solo tuning F#-B-E-A

C#7 C#7/B F#m/A C#7/G# F#m(b6-5)E(6-5) B7/D# B7 E7sus E7



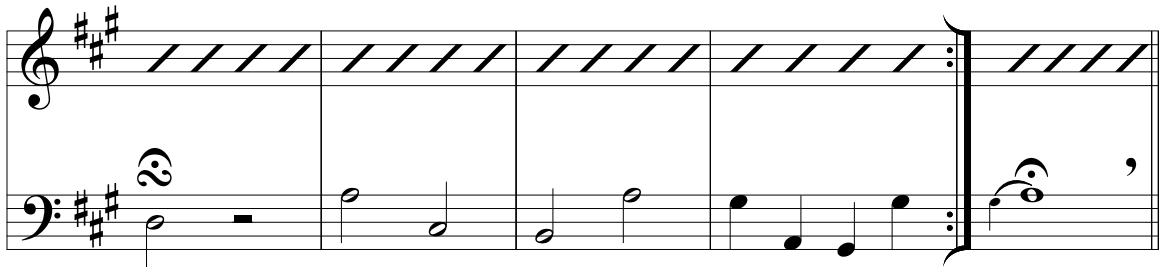
B F#m9 F#m9/E B/D# B7 E7 E7/D A/C# A7

Guitar 

Bass 

8va 1st x

Bm Bm/D B7/D# E F#m/C#C#7(b13) E/B A



The Generation Variations

Var
1

A ♩ = 60 A E/G# D/F# E D^Δ7 A/C# E7^(#9)_(#13) E7^(#9)_{(#13)/D}

C#7 C#7/B F#m/AC#7/G# F#m(b6-5) E(6-5) B7/D# B7 E7sus E7

A E/G# D/F# E D^Δ7 A/C# E7^(#9)_(#13) E7^(#9)_{(#13)/D}

C#7 C#7/B F#m/D C#7/G# F#m(b6-5)E(6-5) B7/D# B7 E7sus E7

The Generation Variations

B F#m9 F#m11/E B/D# B7 E7 E7/D A/C# A7

Bm Bm/D B7/D# E F#m/C# C#7(b13) E/B

F#m9 F#m11/E B/D# B7 E7 E7/D A/C# A7

Bm Bm/D B7/D# E F#m/C# C#7(b13) E/B A

The Generation Variations

Var
3

A $\text{♩} = 180$ A E/G# D/F#

E D Δ 7 A7/C# E7

E7/D C#7 C#7/B F#m/A

C#7/G# F#m \flat 6 E B7/D#

B7 E7sus E7

The Generation Variations

Var
4

A ♩ = 46 Am7^(b9)_(b13) Em7^(b9)_(b13) Dm7^(b9)_(b13) Em7^(b9)_(b13)

C#[∅]7^(b9)_(b13) F#m7^(b9) F#m(b6-5) E(6-5) B7^(b9)/D# B7 E7^(b9)_(b13)

B F#m7^(b9)_(b13) Bm7^(b9)_(b13) Em7^(b9)_(b13) Am7^(b9)_(b13)

Bm7^(b9)_(b13) Bm7^(b9)_(b13) Em7^(b9)_(b13) C#7^(b9)_(b13) Am7^(b9)_(b13)

C Improvisation/Transition A phrygian ---> A7 mixolydian **D** Vamp ♩ = 66 On Cue A7 E7 A7 E7

Suggested Motif

The Generation Variations

Var
5

A ♩ = 66 A7 D7 A7±9 %

D7sus D7 N.C. A7 A7/B N.C.

C#7 F#7±9 B7 E7

B F#m9 Bm11 F#m9 F#m9 F#7±9

Bm7 % F#m7 F#m11

The Generation Variations

D7(#11) D7 C#7±9 %

SOLOING STRUCTURE

C Blues/Swing Eighth Note Feel $\text{♪} = \text{♪}^3$

A7 D7 A7±9 % D7sus D7±9/C

Guitar/Bass

A7 A7/B C#7 F#7 B7 E7

D F#m7 Bm7 F#m9 % Bm7 %

F#m7 % D7 % C#7 %

E F#m % **F** Improvisation/Transition ♩ = 42 *Swing Feel Ends*
 F#m ---> A Lydian A maj7(#11)

The Generation Variations

Var
6

♩ = 42

Intro (Loop)

A
lydian

A
lydian A Δ 7#11 E/G# D/F# E(add9)

D
lydian D Δ 7 A/C# E7sus E7sus/D

The Generation Variations

F# melodic minor
C#7 C#7/B F#m/A C#7/G#

D lydian F#m b6 E6 *A lydian B7/D#* B7

D lydian E7(4-3) E7

The Generation Variations

B *A* *lydian* F#m F#m/E B/D# B7

D *lydian* E7 E7/D A/C# A7

D *lydian* Bm Bm/D B7/D#

The Generation Variations

E F#m/C# C#7(b13) E/B

C A lydian ‰

Loop Fades

Loop Fades

Suggested Motif

D Improvisation/Transition
A lydian ---> A with envelope filter

Vamp ♩ = 69 On Cue

A maj7(#11) Em11 Em11 A maj7(#11)

The Generation Variations

Var
7

A ♩ = 69 A Δ 7#11 E/G# D Δ 7#11/F# E D Δ 7 A/C# E7(#11) E7(#11)/D

w/ Envelope Filter

C#7(#11) C#7/B F#m/A C#7/G# F#m(b6-5)E7 B7/D# B7 E Δ 7#11

B F#m F#m/E B/D# B E7 E7/D A/C# A7

Bm Bm/D B7/D# E F#m/C# C#7 E/B

A Lydian

C Improvisation/Transition A Lydian ---> A "harmonics" envelope with chorus **D** Vamp ♩ = 60 On Cue Em11 %

Suggested Motif

The Generation Variations

Var
8

A

♩ = 60

A

E/G#

D/F#

E

played using harmonics only

D Δ 7

A(add9)/C#

E7⁽⁹⁾₍₁₃₎

E7/D

C#7

C#7/B

F#m7/A

C#7/G#

F#m7

E6

B7/D#

The Generation Variations

Aria
Da Capo A ♩ = 50 A E/G# D/F# E D^Δ7 A/C#

E7^(#9)_(#13) E7^(#9)_{(#13)/D} C#7 C#7/B F#m/A C#7/G#

F#m(b6-5) E(6-5) B7/D# B7 E7sus E7

B F#m9 F#m9/E B/D# B7 E7 E7/D A/C# A7

Bm Bm/D B7/D# E F#m/C# C#7(b13) E/B A

APPENDIX B: Double Bass Part (In G Major)

The Generation Variations

Composed by Arthur Roth

June 2016

Appendix B
Double Bass

The Generation Variations

Arthur Roth

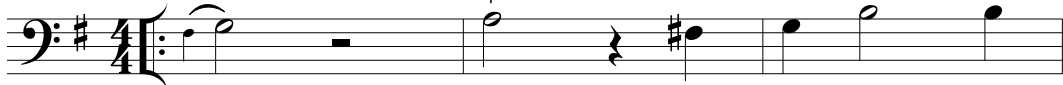
Tuning:

Aria

A

♩ = 50

G D/F# C/E D C^Δ7 G/B

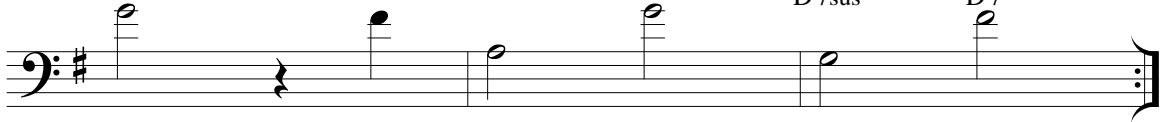


8va 2nd x

D7^(♯9)_(♯13) D7^(♯9)_{(♯13)/C} B7 B7/A Em/G B7/F#



Em(♭6-5) D(6-5) A7/C# A7 D7sus D7



B

Em9 Em9/D A/C# A7 D7 D7/C G/B G7



8va 1st x

Am Am/C A7/C# D Em/B B7(♭13) D/A G



The Generation Variations

Var 1 A $\text{♩} = 60$ G D/F# C/E D C Δ 7 G/B

D7⁽⁹⁾ D7⁽⁹⁾/C B7 B7/A Em/G B7/F#

Em(b6-5) D(6-5) A7/C# A7 D7sus D7

G D/F# C/E D C Δ 7 G/B

D7⁽⁹⁾ D7⁽⁹⁾/C B7 B7/A Em/C B7/F#

Em(b6-5) D(6-5) A7/C# A7 D7sus D7

B Em9 Em11/D A/C# A7 D7 D7/C G/B G7

Am Am/C A7/C# D Em/B B7(b13) D/A

Em9 Em11/D A/C# A7 D7 D7/C G/B G7

Am Am/C A7/C# D Em/B B7(b13) D/A G

The Generation Variations

Var
2

A ♩ = 70 G D/F# C/E D C^Δ7 G/B

8va 2nd x

D7⁽⁹⁾₍₁₃₎ D7⁽⁹⁾_{(13)/C} B7 B7/A Em/G B7/F#

Em(b6-5) D(6-5) A7/C# A7 D7sus D7

B Em Em/D A/C# A7 D7 D7/C

8va 1st x

G/B G7 Am Am/C A7/C#

D Em/B B7(b13) D/A G

C Improvisation/Transition G

Suggested Motif

D Vamp ♩ = 180 On Cue G D7

The Generation Variations

Var
3

A $\text{♩} = 180$ G D/F# C/E

D C Δ 7 G7/B D7

D7/C B7 B7/A Em/G

B7/F# Em \flat 6 D A7/C#

A7 D7sus D7

B Em A7 D7 G 8^{va}

Am (8^{va}) A7 D B7 Em9

loco

C Improvisation/Transition Em ---> E phrygian

D $\text{♩} = 46$ On Cue Gm7 (\flat^9) (\flat^{13}) D7alt/A \flat

Suggested Motif

The Generation Variations

Var
4

A $\text{♩} = 46$ $\text{Gm7}(\flat 9)$ $\text{Dm7}(\flat 9)$ $\text{Cm7}(\flat 9)$

simile...

B $\text{Em7}(\flat 9)$ $\text{Am7}(\flat 9)$ $\text{Dm7}(\flat 9)$

simile...

C Improvisation/Transition **D** **Vamp** $\text{♩} = 66$ **On Cue**
 G phrygian ---> G7 mixolydian G7 D7 G7 D7

Suggested Motif

The Generation Variations

Var 5 **A** ♩ = 66 G7 C7 G7±9

C7sus C7 / / N.C. G7 G7/A / / N.C.

B7 E7±9 A7 D7

B Em9 Am11 Em9 Em9 / / E7±9

Am7 Em7 Em11

C7(♯11) C7 B7±9

Em9 Am11 Em9 Em9 / / E7±9

SOLOING STRUCTURE

C Blues/Swing Eighth Note Feel ♩ = ♩³ G7 C7 G7±9 C7sus C7±9/B♭

G7 G7/A B7 E7 A7 D7

D Em7 Am7 Em9 Am7

Em7 Am7 Em9 Am7

Em7 C7 B7

E Em **F** Improvisation/Transition ♩ = 42 Em ---> G Lydian G maj7(♯11) Swing Feel Ends

Em G maj7(♯11)

The Generation Variations

E B7
melodic minor

B7/A *Em/G* *B7/F#*

C Em^b6
lydian

D6 *G A7/C#*
lydian

A7

C D7(4-3)
lydian

D7

The Generation Variations

B *lydian* *G* *Em* *Em/D* *A/C#* *A7*

C *D7* *D7/C* *G/B* *G7*
lydian *8^{va}*

C *Am* *Am/C* *A7/C#*
lydian (*8^{va}*) *loco*

The Generation Variations

Var
7

A ♩ = 69

G Δ 7 \sharp 11 D/F \sharp C Δ 7 \sharp 11/E D C Δ 7 G/B

D7(\sharp 11) D7(\sharp 11)/C B7(\sharp 11) B7/A Em/G B7/F \sharp

Em(\flat 6-5) D7 A7/C \sharp A7 D Δ 7 \sharp 11

B

Em Em/D A/C \sharp A D7 D7/C

G/B G7 Am Am/C A7/C \sharp

D Em/B B7 D/A G Lydian

C Improvisation/Transition
G Lydian envelope ----> G "harmonics" with chorus

D Vamp ♩ = 60 On Cue
Dm11

Suggested Motif

The Generation Variations

Var 8 $\text{♩} = 60$ G D/F# C/E

A string — G — D — A — D — G — D — A —
 fingering 4 4 2 4 2 1 4 1 1 4 2 1

Played exclusively with harmonics *con simile*

D C Δ 7 G(add9)/B

D7(\flat 9)(\flat 13) D7/C B7

B7/A Em7/G B7/F#

Em7 D6 A7/C#

A7 D7sus D7

B Em Em/D A7/C# A7 D7 D7/C G/B G

Am Am/C A7/C# D Em7/B B7(\flat 13) D7/A G

Cadenza
Ad Lib

The musical score is written in treble clef with a key signature of one sharp (F#). It consists of two main sections, A and B. Section A begins with a tempo of 60 beats per minute and features a melodic line of harmonics on the string, with specific fingerings provided for the notes G, D, and A. The accompaniment consists of a series of chords: D, CΔ7, G(add9)/B, D7(♭9)(♭13), D7/C, B7, B7/A, Em7/G, B7/F#, Em7, D6, A7/C#, A7, D7sus, and D7. Section B starts with a boxed letter 'B' and contains a sequence of chords: Em, Em/D, A7/C#, A7, D7, D7/C, G/B, G, Am, Am/C, A7/C#, D, Em7/B, B7(♭13), D7/A, and G. The piece concludes with a 'Cadenza Ad Lib' section.

The Generation Variations

Aria
Da Capo

A

♩ = 50 G

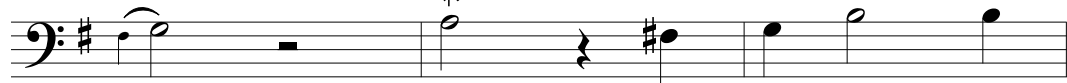
D/F#

C/E

D

C△7

G/B



D7^(b9)_(b13)

D7^(b9)_{(b13)/C}

B7

B7/A

Em/G

B7/F#



Em(b6-5)

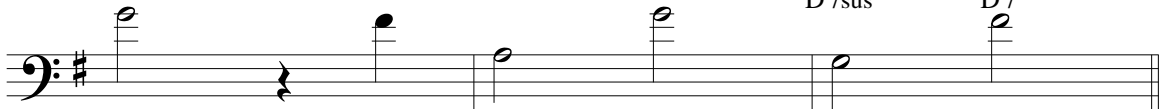
D(6-5)

A7/C#

A7

D7sus

D7



B

Em9

Em9/D

A/C#

A7

D7

D7/C



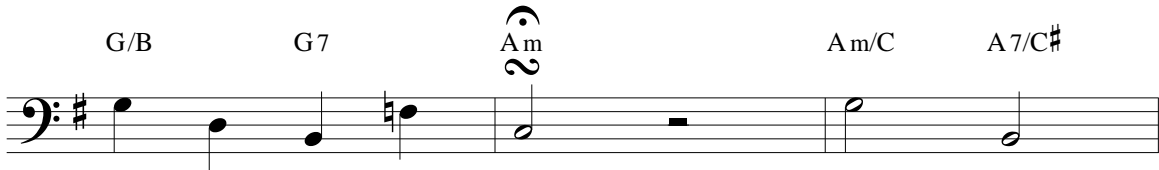
G/B

G7

Am

Am/C

A7/C#



D

Em/B

B7(b13)

D/A

G



APPENDIX C: Electric Guitar Part (In A Major)

The Generation Variations

Composed by Arthur Roth

June 2016

The Generation Variations

Aria A ♩ = 50

A E/G# D/F# E D[△]7 A/C#

8va 2nd x

E7^(#9)_(#13) E7^(#9)_{(#13)/D} C#7 C#7/B F#m/A C#7/G#

F#m(b6-5) E(6-5) B7/D# B7 E7sus E7

B F#m9 F#m9/E B/D# B7 E7 E7/D A/C# A7

8va 1st x

Bm Bm/D B7/D# E F#m/C#C#7(b13) E/B A

The Generation Variations

Var
1

A ♩ = 60 A E/G# D/F# E D^Δ7 A/C#

E7⁽⁹⁾₍₁₃₎ E7⁽⁹⁾_{(13)/D} C#7 C#7/B F#m/A C#7/G#

F#m(b6-5) E(6-5) B7/D# B7 E7sus E7

A E/G# D/F# E D^Δ7 A/C#

E7⁽⁹⁾₍₁₃₎ E7⁽⁹⁾_{(13)/D} C#7 C#7/B F#m/D C#7/G#

F#m(b6-5) E(6-5) B7/D# B7 E7sus E7

B F#m9 F#m11/E B/D# B7 E7 E7/D A/C# A7

Bm Bm/D B7/D# E F#m/C# C#7(b13) E/B

F#m9 F#m11/E B/D# B7 E7 E7/D A/C# A7

Bm Bm/D B7/D# E F#m/C# C#7(b13) E/B A

The Generation Variations

Var
2

A ♩ = 70 A E/G# D/F# E D Δ 7 A/C#

E7^(#9)_(#13) E7^(#9)_{(#13)/D} C#7 C#7/B F#m/A C#7/G#

F#m(b6-5) E(6-5) B7/D# B7 E7sus E7

B F#m F#m/E B/D# B7 E7 E7/D A/C# A7

8va 1st x

Bm Bm/D B7/D# E F#m/C# C#7(b13) E/B

C Improvisation/Transition **D** Vamp ♩ = 180 On Cue
A A E7

The Generation Variations

Var
3

A $\text{♩} = 180$ A E/G# D/F#

E DΔ7 A7/C# E7

E7/D C#7 C#7/B F#m/A

C#7/G# F#m♭6 E B7/D#

B7 E7sus E7

B F#m B7 E7 A ^{8va}

F#m B7 E7 A ^{8va}

Bm (8va) B7 E C#7 F#m9

loco

C Improvisation/Transition F#m ---> F# phrygian

Suggested Motif

D Vamp $\text{♩} = 46$ On Cue

Am7 ⁽⁹⁾ ₍₁₃₎ E7alt/B^b

The Generation Variations

Var
4

A ♩ = 46 Am7^(b9)_(b13) Em7^(b9)_(b13) Dm7^(b9)_(b13)

The Generation Variations

Var 5

A $\text{♩} = 66$ A7 D7 A7±9 ‰

D7sus D7 / / N.C. A7 A7/B / / N.C.

C#7 F#7±9 B7 E7

B F#m9 Bm11 F#m9 F#m9 / / F#7±9

Bm7 ‰ F#m7 F#m11

D7(#11) D7 C#7±9 ‰

SOLOING STRUCTURE

C Blues/Swing Eighth Note Feel $\text{♩} = \overset{\text{3}}{\text{♩}}$ ‰

A7 D7 A7±9 D7sus D7±9/C

A7 A7/B C#7 F#7 B7 E7

D F#m7 Bm7 F#m9 ‰ Bm7 ‰

F#m7 ‰ D7 ‰ C#7 ‰

E F#m ‰ **F** Improvisation/Transition $\text{♩} = 42$
 F#m ---> A Lydian A maj7(#11) Swing Feel Ends

The Generation Variations

Var
6

$\text{♩} = 42$

Intro (Loop)

A
lydian

A ^Alydian A Δ 7#11 E/G# D/F# E(add9)

E7sus/D

^Dlydian D Δ 7 A/C# E7sus

The Generation Variations

F# melodic minor C#7 C#7/B F#m/A C#7/G#

D lydian F#m^b6 E6 A lydian B7/D# B7

D lydian E7(4-3) E7

The Generation Variations

B A F#m F#m/E B/D# B7
lydian

D E7 E7/D A/C# A7
lydian 8va

D Bm Bm/D B7/D#
lydian (8va) loco

The Generation Variations

Var
7

A ♩ = 69 A Δ 7#11 E/G# D Δ 7#11/F# E D Δ 7 A/C#

w/ Envelope Filter

E7(#11) E7(#11)/D C#7(#11) C#7/B F#m/A C#7/G#

F#m(b6-5) E7 B7/D# B7 E Δ 7#11

B F#m F#m/E B/D# B E7 E7/D A/C# A7

Bm Bm/D B7/D# E F#m/C# C#7 E/B A Lydian

C Improvisation/Transition A Lydian ---> A "harmonics" envelope with chorus

D Vamp ♩ = 60 On Cue
Em11

Suggested Motif

The Generation Variations

Var
8

A ♩ = 60

A E/G# D/F#

E D[△]7 A(add9)/C#

E7^(#9)_(#13) E7/D C#7

C#7/B F#m7/A C#7/G#

F#m7 E6 B7/D#

B7 E7sus E7

B F#m F#m/E B7/D# B7 E7 E7/D

A/C# A Bm Bm/D B7/D#

E F#m7/C# C#7(b13) *Cadenza* *Ad Lib* E7/B A

The Generation Variations

Aria
Da Capo

A ♩ = 50 A E/G# D/F# E D[△]7 A/C#

E7^(#9)_(#13) E7^(#9)_{(#13)/D} C#7 C#7/B F#m/A C#7/G#

F#m(b6-5) E(6-5) B7/D# B7 E7sus E7

B F#m9 F#m9/E B/D# B7 E7 E7/D A/C# A7

Bm Bm/D B7/D# E F#m/C#C#7(b13) E/B