

The Other Standards

(Deconstructing-Reconstructing Classical Masterpieces)

Bruce Arnold

A by-product of both modernity and modern modernity is a change in perceptions and accepted ideas. In its most recent iterations, globalization and technology have shaped these changes. How we hear and make music is just one example.

Modernity did away with the long held tenet that the interval of a tritone is “sinful,” and in the wake of modern modernity, disapproval of dissonance has been replaced by a new appreciation for its emotive potentials. The notion of all conservatory music being acoustic has likewise been upended, and to take this further, even the electric instruments of the mid 20th century are now capable of sounds that were undreamed of by their inventors.

The tools that we use to create music now, are new as well. Our researches, influences, means of production, and theoretical constructs have all changed in ways both subtle and obvious. “Fusion” is certainly a product of modern modernity, for all its controversy.

My work with the ensemble Spooky Actions has taken me on a journey through both time and music, and its content, intent and place in the musical continuum comes out of modern modernity’s sensibilities. Before embarking on this discussion of improvisation, a few words about globalization and technology and their role in the music of Spooky Action are also in order.

Connections between folk and classical music abound in the modern and modern modernity eras. As far back as Chopin’s mazurkas up to Bartók’s settings of Hungarian dances, composers have drawn upon durable folk motifs of their own culture upon which to build their own formal arrangements. These composers were considered Nationalists in their day. These folk songs would now fall into the category of “world music,” and today musicians using roots music motifs from multiple cultures might be labeled “globalists” instead. With their fascination with all music as potential inspiration, it was not a far jump for Spooky Actions to focus two CDs on Native American music, using the transcriptions of Frances Densmore as source material. “Songs of the Nations Volume 1” grew out of a live performance, and although the usual analysis of form was employed, the motifs were used as a jumping off point for jazz interpretation. Volume 2, on the other hand took far more liberties with the primarily monodic material injecting harmony, layered voices and multiple guitar tracks.

Musical instruments themselves have been undergoing remarkable changes in the past 150 years. Acoustic instruments can be “tricked out” with sympathetic or even just extra strings which expand their range. Computer programs now place a world of sounds into the hands of instrumentalists and non-instrumentalists. The guitar in particular has morphed from a sweet acoustic creature into one that has the sonic universe at its command. The computer program SuperCollider is a fairly new and flexible one which when used in the service of music is particularly liberating. The sound of electric guitar processed through this program can be heard in abundance on all Spooky Actions recordings.

The history of western classical improvisation has been a steady one, up until the 18th century. Why it ceased to be a central element of performance is a matter of conjecture. But its decline is undeniable, and it is only in the past few decades that a real resurgence can be observed.

Within that “non improvisation” time period, the prevalent idea was that the performance of a classical piece should basically cleave as much as possible to the music as indicated by the composer’s notation and written instructions, with the performer or conductor’s interpretation being the only freedom that could be considered improvisational. (A case can be made that improvisation is expected during a cadenza, but that is just one small and limited area of the classical body.) Of course, the performer’s interpretation is entirely subjective, particularly when only the sheet music is available and no other reliable references exist. This is the case with most classical music composed prior to the advent of recording devices. Nevertheless, interpretation of classical compositions has become the only allowable, and for many, deviating from this norm is unacceptable.

Composers have, however, improvised for hundreds of years, so there is plenty of precedent. Lately some contemporary musicians have been going a few steps further and now improvise pieces “in the style of” or create completely new improvised pieces based on various relationships to the original compositions.

The success of improvising within the classical idiom will of course depend on the level of musicianship and artistry performers possess, and their affinities and understanding of the original piece. If music is thought of as a language and each composer’s work or body of work their unique language, then it becomes obvious that successful classical improvisation requires a musician to study the language of each composer in order to express something that actually sounds as if it is related to the composer’s original ideas and sensibilities. A working understanding of the music of Mozart will not be helpful if one is called upon to create an improvisation based on the music of Debussy or Schoenberg—or Hildegard Von Bingen, for that matter.

In other words, when attempting to improvise within the style of a specific composer, an understanding of the inner workings of the original music is paramount. A balance of intuition and technical skill is a must, but it also requires deep preparatory work in order to get to a point where it is a natural expression. Again the language metaphor is appropriate. If one wants to express oneself within a musical language, either a total immersion within that language (for instance playing many pieces of music of similar compositional content) is required, or one needs to learn “improvisational techniques” and address form issues that relate to the structure and intent of the composer’s music. Because composers don’t write hundreds of pieces with the same internal content, the “improvisational technique” learning is often the most expedient way to gain control over the material at hand.

At the same time, each artist has his or her own voice and influences, so the goal is to have the improvisation balance the musician’s individual artistry with a firm grounding in the structure and content of the composition. There is great diversity within the Classical music continuum. Everything from Ancient Greek Music through Early Music, Baroque, Classical and the Modern Era contains rich opportunities for improvisation. Really, any piece can be used, but due to its complexity or sophistication, some music requires a very high level of musicianship when approached. It can take years to develop the proper skill set. Not unlike Jazz, which demands intensive foundational work, improvising over classical music can require the same or more preparatory work. For example, when dealing with a composer such as Messiaen, who uses “scales of limited transposition” (his own term) the challenges of hearing and understanding structure and key center relationships are particularly formidable.

Spooky Actions

The contemporary ensemble Spooky Actions headed jointly by John Gunther and Bruce Arnold has produced a series of recordings containing improvisations over various types of music from Native American music to Early Music through the Common Practice Period and continuing through the music of the 20th century. The name Spooky Actions derives from a quote by Albert Einstein describing the mysterious ability of two distant and seemingly unrelated objects to exert an effect on one another.

Overall these improvisations fall into two categories; improvisation within the piece, and separate movements wherein the original music is played, followed by an improvisational section in which the key compositional aspects of the music are used to create an entirely new piece of music. The core tenet governing these improvisations can be stated as “meeting the music on its own terms.” The members of Spooky Actions believe that a successful improvisation sounds compositionally and aesthetically equivalent to the original music.

Pre-Improvisational Analysis

Throughout their DVDs and CDs Spooky Actions shows that classical music is an excellent vehicle for improvisation. These recordings, while demonstrating multiple examples of improvisation over classical music, also point out many of the possible structures and approaches available to a musician for use in this area. Over the years the ensemble has chosen highly diverse music from Native American song to Early Music to 20th century masterpieces. The settings for each piece and the approaches for organizing improvisation have also varied radically. First the placement of the improvisation within the composition needs to be chosen. These improvisational sections can be intersected within the composition or a completely new piece may be added after the playing of the composition. The ensemble prefers to make the improvisation mirror the sound of the original piece, but the more the improvisation does this, the harder it becomes. This pre-improvisational analysis includes looking at the historical period in which the music was written, and developing improvisational approach that are based on the structural analysis of each composition. In some cases, previous knowledge of scales and modes used both in classical music and jazz have been employed making the transition easier, but when a composer has developed a whole new language within their work the ensemble has been required to learn this language in order to make the improvisation fit the music.

A musician’s past experiences and musicianship greatly affects the direction and success of the improvisation. On a macro level, a musician’ must feel the form, creating a common overall density that reflects the original music, as well as harmonic, melodic and rhythmic figures that are inherent in the style. In general, Spooky Actions uses either musical elements from the original score or creates a free improvisational section; whichever they feel will create a closer affinity to the composition. Some of the overall components that were borrowed from the original music to create an improvisatory section are often harmonic melodic or rhythmic fragments. Within the improvisation these fragments might even be quoted. The ensemble often chooses specific compositional techniques to employ in their improvisations such as the use of a canon or counterpoint. The ensemble might also limit the overall time of the improvisation to reflect the original composition’s length. In most cases Spooky Actions uses

the jazz lineup of bass and drums, so “grooves” are often chosen that the ensemble feels will work for both the composition and/or the improvisation. If the original composer had influences such as other cultures, a groove from that culture might be chosen. Computer generated parts and backgrounds are often chosen if they embellish the overall direction of the original composition or the improvisation. In all instances the program SuperCollider was used for computer generated parts.

In general, Spooky Actions analysis relies heavily on Pitch Class Set theory. While this is obviously needed in many compositions from the 20th Century the core ideas of Pitch Class Set theory analysis are useful for all the music that the ensemble engages. Pitch Class Set theory by nature shows many of the much deeper mathematical relationships that exist within a composition. By not only looking at the overall Pitch Class Sets used in a piece of music but also how the piece organizes these sounds as far as the intervallic relationships are concerned, the improviser can develop chords and melodies that are closely based on the original work. It can require extensive preparatory work to understand and apply these structured components in a musical and natural way. Although many of the examples referenced in this essay use Hexatonic scales, depending on the composition that is used as a basis for improvisation, any of the 220 possible Pitch Class Sets might be used and organized in a myriad of ways. While this preparatory work can be substantial, the new ideas and sounds created can be valuable in many contexts and help to shape the overall sonic palette the improviser draws upon.

Improvisation and Music Theory

This essay assumes a high level of improvisational and musical theory knowledge on the part of the reader. The members of Spooky Actions have decades of experience improvising on a wide variety of material and every situation calls for multiple technical and aural skills in order to deliver a successful improvisation. At the very least this requires a lot of understanding of not only the traditional skill set involved in improvisation but also knowledge and ability to improvise with Pitch Class Sets. Because of this, a Pitch Class Set theory and traditional improvisational theory section has been added to this essay. This section includes not only an explanation of common terminology but also suggested practice routines for musicians to hone their improvisational skills.

Spooky Actions Early Music

If we step through the discography of Spooky Actions chronologically, their “Early Music” CD, MSK 120 still includes music from a wide swath of time, including as it does the “Skolion of Seikilos,” one of the earliest examples of written music, from the 2nd century BC, to the “Canzonet 1, 2, & 3” of Claudio Monteverdi (1567-1643). Other pieces are “De Virginibus O Nobilissima Viriditas” by Hildegard Von Bingen (1098-1179), “Vergine Bella” by Guillaume Dufay (1397-1474), a Gregorian Chant, “Alleluya (Nativitas) by Perotin (c. 1200) and “Ode from the Kanon for Easter Sunday” a Byzantine Chant from the 8th Century AD.

Webpage for Audio and Additional Information

MP3s, videos and where applicable scores of the compositions and improvisations presented in this essay are available at:

<http://muse-eek.com/multimod-the-other-standards-deconstructing-reconstructing-classical-masterpieces/>

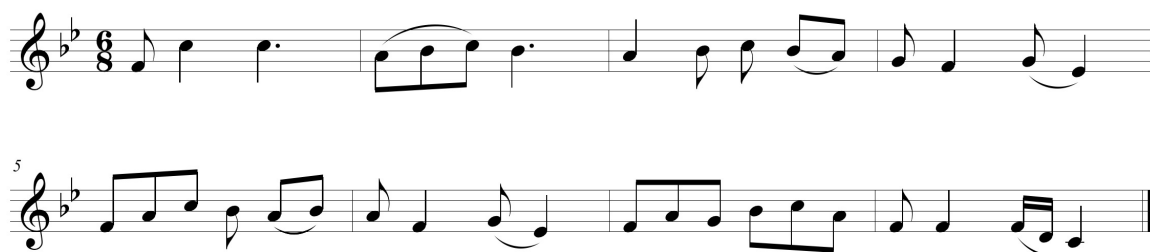
Skolion of Seikilos

The ancient Greek drinking song entitled “Skolion of Seikilos” is, as of this writing the oldest surviving complete musical composition that includes musical notation from anywhere in the world. This piece dates from around 200 BC to AD 100. There is some disagreement as to how to analyze this Hellenistic Ionic song but Spooky Actions heard this as an F Mixolydian melody and based on the currently available information, it is a light hearted drinking song. Here is the translation of the lyrics:

While you live, be happy [shine]
 Don't suffer [be sad] anything at all;
 [Because] life is short
 And time demands its toll [time leads to death]

Although this lyric may have been meant for merriment, there is a somber note, after all, it appears as an epitaph. And while the approach to this song is light in nature and a bass and drum groove that felt appropriate to its *raison d'être* was used, there is a wistful quality to it. The key center of the piece was not based on ancient Greek music analysis but on how a contemporary musician with ear training skills based around a “key center” would hear this melody. The melody as seen below is mostly hexatonic only becoming heptatonic by the addition of the 6th degree in the second to last note.

Figure 7.1. Skolion of Seikilos



In the recording, the melody is first stated by the flute, then the guitar enters on the 2nd iteration of the melody, playing a canon separated by 4 beats. The guitar solo uses a Hexatonic scale derived from six notes of the F Mixolydian scale. There are two different Hexatonic scales employed in this improvisation: The first hexatonic scale {F, G, A, C, D, E♭} seen below is only used briefly.

Figure 7.2a. First Hexatonic Scale.



This hexatonic scale was further divided into two trichords (i.e. two 3 note groups.) {F, G, C} [0,2,7] and {A, D, E \flat } [0,1,6] as seen below. The improvised melody moves back and forth between these two structures.

Figure 7.2b.



The 2nd hexatonic scale is {F, G, A, B \flat , C, E \flat } as seen below and was used extensively during the improvisation.

Figure 7.3a. Second Hexatonic Scale.



Again the hexatonic scale was divided up into two trichords {F, B \flat , C} an [0,2,7] and {G, A, E \flat } an [0,2,6] as seen below. The improvised melody repeats the organizational principle of moving back and forth between these two structures.

Figure 7.3b.



One of the main reasons for employing these hexatonic scales and the associated trichords was to stay away from the common melodic movement of a Mixolydian scale, and also to avoid tertial based melodic structures. The harmonic structures used behind the flute solo again employ the {F, G, A, C, D, E \flat } using the {F, G, C} and {A, D, E \flat } trichords, and are clear demonstrations of the effectiveness of this approach. There is a history of using this idea of moving back and forth between two trichords. You can find it many places in the history of music. Stravinsky’s “Petrouchka” chord comes to mind or the jazz pianist McCoy Tyner’s use of two tertial triads in “Passion Dance’s” melody and improvisation. In the improvisation for “Skolion of Seikilos” as well as all other improvisations where a Hexachord is divided into two trichords in the guitar solos throughout Spooky Actions work often the complete three note structures of each trichord are not played but at least two or more notes of one trichord is played before switching to the second trichord.

Ode from the Kanon for Easter Sunday

The Byzantine Chant “Ode from the Kanon for Easter Sunday” dates from the 8th Century AD. As with many Spooky Actions endeavors, the use of the computer program SuperCollider is used to create a background drone/sound-scape, reminiscent of voices or church organ. The drums add color at the beginning while the bass clarinet states a small portion of the melody. On the second full statement of the melody the drums and bass add a groove in D Dorian.

Figure 7.4. Ode from the Kanon for Easter Sunday.



Figure 7.5. The Melody is made up Entirely of a D Dorian scale:



After the statement of the melody a guitar improvisation follows wherein a hexatonic scale is employed to keep the improvised melodies in a non-tertial relationship. The hexatonic scale was extracted from the Dorian scale leaving out the 7th degree:

Figure 7.6a. {D, E, F, G, A, B} Hexatonic Scale.



The hexatonic scale was Further Divided into two Trichords: {D, G, A} and {E, F, B}.

Figure 7.6b.



Figure 7.7a. During this Improvisation the “Symmetric Difference” {A^b, B^b, C, D^b, E^b, G^b} is also used.



Again Divided into two Trichords {G \flat , B \flat , C} and {D \flat , E \flat , A \flat }.

Figure 7.7b.



The symmetric difference is the six notes that were not contained in the original {D, E, F, G, A, B} hexatonic scale. An interesting intervallic relationship exists between any original Pitch Class Set and its Symmetric Difference in that both sets will have either the exact same interval content or one that is very close to the original set. When two Pitch Class Sets have similar interval content there is a tendency to hear that these sets are related. For instance, the Symmetric Difference of a C Major scale is an F \sharp Pentatonic scale as seen below; C Major Scale = {0, 2, 4, 5, 7, 9, 11} (intervals between pitch names starting from “C.”)

Figure 7.8. C Major Scale.



Figure 7.9. C Pentatonic Scale = [0, 2, 4, 7, 9] = (intervals between pitch names starting from F \sharp .)



A Major scale and A Pentatonic scale are closely related because they share a similar interval content. This is why it is common for an improviser to move freely between a C Major scale and a C Pentatonic. In this case the Pentatonic scale is an augmented fourth from the C Major scale but modern improvisers often switch back and forth between these two scales when improvising because the Symmetric Difference relationship makes the contrasting melodic figures seem related. It is because of this affinity and the dark nature of the music that this correlation was chosen in the improvisation and as previously mentioned to keep the Dorian scale sound in a relationship that predates common practice period melodies.

After the guitar improvisation, a portion of the melody is re-stated by the bass clarinet followed by an acoustic bass improvisation accompanied by the drums and drone. The bass clarinet reenters with the melody followed by a final statement of the melody in unison with the acoustic bass.

Canzonet One by Claudio Monteverdi

On the “Early Music” recording Spooky Actions recorded the first three of 21 Canzonets by Claudio Monteverdi (1567-1643.) The first Canzonet, “Qual si può dir maggiore” is part of the “Canzonette a tre voci” 1584, a collection of three-voice Canzonets. The movement is performed by the ensemble as

written, then the first three measures are repeated to set up an improvisational section for the soprano saxophone. This use of a section of the original music acts as a template whereby Spooky Actions keeps the improvisation embedded in the actual music of the composer. During the improvisation a repeating middle voice as played by the guitar and then a contrapuntal bass part mirrors the written music. In different performances the group may pick different sections of a composition to improvise over. By maintaining the same mood or feel of the music within the improvisation, Spooky Actions creates a seemingly natural extension of the Canzonet. The key center of the original music is also an important consideration. In this movement Monteverdi moves between a B♭ Major tonality and the relative Minor tonality of G but adds an F♯ and E♭, making it sound more like G Harmonic Minor. It can't be overstated that a musician's ability to hear the type of key centers created by the music is of extreme importance when both improvising and writing supportive parts. This is true of all instruments, including the drums, and drum heads are frequently re-tuned to make sure their resonant pitch conforms to the key center. The Canzonets of the late 16th century were usually of a light character and Spooky Actions performs the piece with a buoyant feel.

Figure 7.10. First Canzonet “Qual si può dir maggiore“

Preparatory Work for Improvising on Classical Music

Moving into the 20th century, the amount of information and research into various compositions is much more abundant and available to musicians who are looking for insights into appropriate improvisation. Spooky Actions began to investigate compositions with multiple movements rather than single self-contained pieces, which complicated the analysis and the process. In most cases the preparatory work for recording or performing these pieces was increased proportionately. Composers such as Messiaen and Schoenberg have written many books about their music or music in general, so a great deal of research and study presaged working with their compositions. In the case of Messiaen, where he used bird calls in his “Quartet for the End of Time,” research also had to be made into the calls of the Nightingale and the Blackbird in order to be better informed during the improvisations. Webern, Schoenberg and Messiaen all had highly specific musical languages that they used in the pieces covered by Spooky Actions and learning to improvise with scales of limited transposition, specific Pitch Class Sets and the various rhythmic patterns found in bird calls and specifically Messiaen’s additive rhythm principles called for months of intensive study. Special work was also needed in learning to read music that used rhythmic duration rather than meter as found in movements 3, 5 and 6. There were also technical issues such as using an acoustic bass instead of a cello. It was an exceptional challenge to play the music on an instrument less agile and tuned differently. Since the core of the Spooky Actions sound is basically woodwind, bass and guitar as melodic voices, in pieces such as Schoenberg’s “Five Piano Pieces” Opus 23 frequently multiple voices needed to be played on the guitar, creating yet more technical hurdles for that instrument. When tackling compositions particularly by 20th century composers and attempting to make the improvisation relevant, with close affinities to the written music one can expect a long learning period before any meaningful group or solo improvisation can take place.

“Quartet for the End of Time” by Olivier Messiaen

The Quartet was started while Messiaen was in the French army, and completed while he was a prisoner of war in a German stalag (prisoner-of-war camp). It is his first and most famous work wherein he integrated his deep knowledge of bird song into his compositions. He was known to rise before dawn in order to hear the first calls and chattering of the local flocks, to steep himself in sounds that were endlessly fascinating to him, and he claimed to be able to identify fifty different patterns specific to European species. The songs, particularly those of nightingales and blackbirds, transported this devout Catholic, and enabled him to imbue the Quartet with grandeur, despair – and hope.

The Quartet presented specific challenges to musicians then, and now as well. It was written for the virtuosos that Messiaen was interned with. The famous 3rd Movement “Abyss of the Birds” calls for extreme prowess on the part of any clarinet player (or in this case, soprano saxophone), and transferring cello parts to the upright bass not only lowers the timbre, but calls for great precision and velocity. The addition of drums to the palette of the piece (which is not scored for any percussion) requires a supremely subtle and musical touch for it to work.

As they have with other classical pieces, Spooky Actions states the original work as written, and then uses it as a jumping off point for improvisation (they have done this with Movements 1, 2, 4, 6, and 7).

“Quartet for the End of Time,” Movement One

The first movement of Messiaen’s “Quartet for the End of Time” is used as an improvisational setting. Throughout the piece Messiaen employs the Whole Tone Scale which is one of his “Seven Modes of Limited Transposition.” He also employs rhythmic diminution as well as augmentation principles which can be studied in his book “Techniques of My Musical Language.”

Where possible the ensemble would also rely on other sources to gain insight into the compositions that they were performing. Fortunately, Messiaen had written program notes for a performance of the “Quartet for the End of Time” and these comments helped the ensemble to realize the mood and purpose of each movement. Messiaen says this of the 1st movement:

“Liturgy of Crystal: Between three and four in the morning, the awakening of the birds: a solo blackbird or nightingale improvises, surrounded by a shimmer of sound, by a halo of trills lost very high in the trees. Transpose this onto a religious plane and you have the harmonious silence of Heaven.”

The guitar solos on this 1st movement and employs figures from the written score which quote the rhythmic and melodic character of the blackbird’s song as well as a general feeling of suspended time reinforced by the rhythm section. Messiaen often disguises the scales that he uses but the whole tone scale is used in abundance in all movements of the “Quartet for the End of Time.”

Figure 7.11a. Whole Tone Scale in F# [F#, G#, A#, C, D, E]



Messiaen also uses the movement of a whole step and tritone i.e. [0,2,6] throughout the entire piece which is a characteristic intervallic movement within a Whole Tone Scale. The guitar incorporates this idea of breaking the Whole Tone scale into two Trichords {F#, G#, D} and [A#, C, E] with the same interval content in its improvisation.

The Whole Tone Scale is divided up into two [0,2,6] trichords.

Figure 7.11b



This creates a symmetrical structure but also creates symmetry with the remaining six notes. {A, B, D#} and {G, C#, F}. All four trichords are made of a whole step and a tritone.

Figure 7.11c



Figure 7.11d



Figure 7.12. Whole Tone Scale in G [G, A, B, C#, D#, F]



“Quartet for the End of Time” Movement Six

Again Messiaen’s description of the movement is helpful in deciding how to approach the movement for improvisation. Here is his description from movement six:

“Dance of fury, for the seven trumpets rhythmically, the most characteristic piece of the series. The four instruments in unison imitate gongs and trumpets (the first six trumpets of the Apocalypse followed by various disasters, the trumpet of the seventh angel announcing consummation of the mystery of God). Use of added values, of augmented or diminished rhythms, of non-retrograde rhythms. Music of stone, formidable granite sound; irresistible movement of steel, huge blocks of purple rage, icy drunkenness. Hear especially the terrible fortissimo of the augmentation of the theme and changes of register of its different notes, towards the end of the piece.”

Movement Six is a challenging piece of music for many reasons. The unison melody is written in unmeasured bars which require the performer to concentrate on each individual note value which not only makes the performer look at rhythm differently but requires a new skill set to master this type of sight reading. There are three solos in this movement; saxophone, guitar and drums. Both the saxophone and the guitar solo over an AABB form. The “A” consists of the 1st and 2nd measures where the 1st measure is repeated 3 times followed by the second measure of the original music played once to form a 4 measure “A” section.

Figure 7.13. Saxophone and Guitar Solo Form, Movement Six “*Quartet for the End of Time.*”



The “B” section follows a similar procedure by repeating the 3rd measure of the original music 3 times followed by the 4th measure. This creates an “A” section which is four measures of 17/16 which is repeated; then the B section is three measures of 18/16 followed by one measure of 19/16.

The saxophone improvisation is played first, with the guitar and bass playing the repeating bass line. After the saxophone solo the guitar solo uses the same organizational principle of using a Whole Tone scale divided up into two Trichords exactly as it did in the first movement. But in the case of this solo, the guitar not only uses the Trichords melodically but also interjects the Trichords as chords, which are interspersed with the solo melodic lines. The sax and the guitar join together trading ideas in the last chorus.

The drums have a unique challenge with this piece of music, soloing over a highly complicated rhythmic cycle. “I” through “K” of the sixth movement is a call and response among the 4 instruments. The drum solo is built on phrases from these sections. The ensemble plays various figures in response to the improvisation which is organized in two and four bar phrases but with odd rhythmic groupings derived from the movement. This interchange between the drums and the rest of the quartet requires great rhythmic accuracy by the musicians because of the odd meters, sixteenth note ostinato figures as well as the periods of rest between entrances. The next page shows the form for the drum solo on the 6th movement.

Figure 7.14. Drum Solo Form, Movement Six “

10 C Drum Solo

14

18

22

26

Moins vif (♩=160 env.)

The 8th movement is an arrangement of an early organ work called “Diptyque” for organ. In Messiaen’s preface he says: “Eulogy to the immortality of Jesus: Large violin solo, counterpart to the violoncello solo of the 5th movement. Why this second eulogy? It is especially aimed at the second aspect of Jesus, Jesus the Man, the Word made flesh, immortally risen for our communication of his life. It is all love. Its slow ascent to the acutely extreme is the ascent of man to his god, the child of God to his Father, the being made divine towards Paradise.”

As is the tradition with Spooky Actions there is never an improvisation after the last movement of a piece. This is done because the ensemble feels it is important to end a composition as the composer intended, as a gesture of respect. That said, the performance of this movement shows the reinterpretation of and the creative license that the ensemble takes with changing instrumentation and how the feel of the music can be shaped by the addition of bass and drums. The last movement is reminiscent of a rock ballad but still maintains the solemn character of the piece with the guitar playing the violin part using distortion which allows the long rhythmic values to be expressed fully. Compositionally this movement shows Messiaen’s additive and subtractive rhythm principles extremely clearly.

“Quartet for the End of Time” is a great example of how a musician needs to enter the world of the composer in order to create improvisations that relate to the work. As Spooky Actions entered the interpretation of 20th century classics they were challenged by the need to master improvisational technique infrequently used in this context. Although this has been difficult it has also been highly rewarding because the structural concepts used by these composers can actually be applied to many other situations.

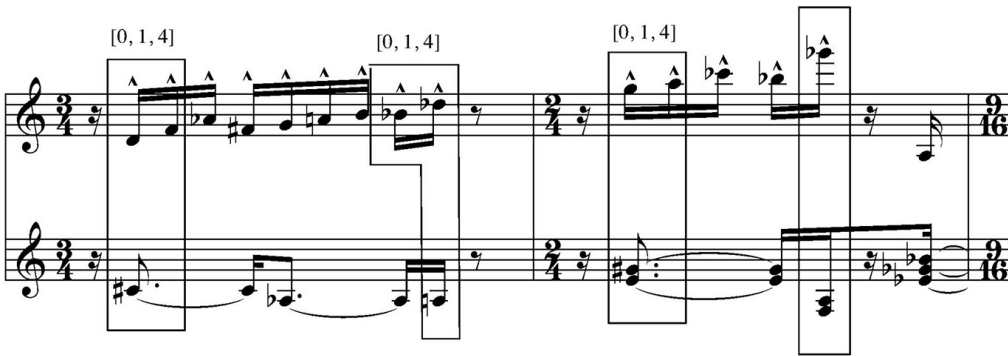
Five Piano Pieces, Opus 23 by Arnold Schoenberg

The “Five Piano Pieces” presented many practical hurdles for “Spooky Actions.” Since the group’s melodic players consist of saxophone, guitar and bass some sections of various movements ended up relying on the guitar to play multiple notes. This made certain sections extremely hard to play. The ensemble used differing improvisational structures for four of the movements. (The 5th movement does not have an improvised addition.) Schoenberg used Pitch Class Set theory heavily in this piece; the last movement is the first 12-tone piece written by the composer. There has been a great deal of analysis of this piece making Spooky Actions’ work much easier when looking for resources to use as the basis of their improvisation. In the case of the 2nd movement, measures 10-17 were used as a repeating section for the improvisation. When the movement was played by the ensemble, the saxophone and guitar divided up the top stave while the acoustic bass covered the bottom stave as seen below.

Figure 7.15. Five Piano Pieces, Opus 23: 2nd Movement measures 10-17.



Figure 7.16. Analysis of the 2nd Movement, Measures 1-2 shows preponderance of [014].



The saxophone improvisation focused on using the Pitch Class Set [0,1,4] and tended to draw more on rhythmic and melodic motives from the movement. Here are a few excerpts from the saxophone improvisation where [0,1,4] was used with various rhythms and registers.

Figure 7.17a. [0,1,4] as occurring in measures 34, m. 18, m. 31-32 and m. 39 of the sax solo.



Figure 7.17b.

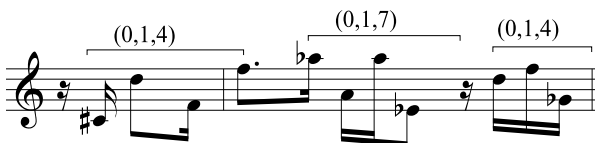
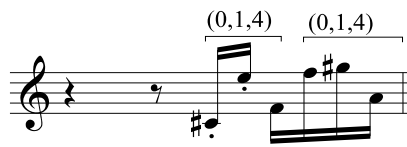


Figure 7.17c.



Both [0,1,3] and [0,1,4] Pitch Class Sets occur in abundance within this composition. This is not surprising, as the two sets are very closely related. Here are the first four measures of the 2nd movement showing various [0,1,3] Pitch Class Sets.

Figure 7.18. Occurrences of [01.3] in Movement 2 Measures 1-4.



The Pitch Class Set [0, 1, 3, 6, 7, 9] is used extensively in the guitar improvisation. This Pitch Class Set can be divided up into two trichords that either form two [0,1,3]s or [0,1,4]s. Choosing Pitch Class Sets that have internal symmetry is a logical choice for improvisation. As will be seen, it is important to note that the guitar might only play two notes from either of these trichords rather than the whole trichord.

Figure 7.19a. [0, 1, 3, 6, 7, 9] Pitch Class Set.



[0, 1, 3, 6, 7, 9] could be analyzed as two [0,1,3]s or two [0,1,4]s.

Figure 7.19b. Two [0,1,3]s

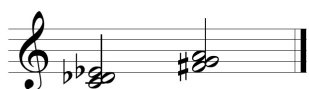


Figure 7.19c. Two [0,1,4]s



By choosing this Pitch Class Set the guitar is able to closely relate to both the [0,1,3] and the [0,1,4] that is so prevalent in the entire composition. The examples below show some of the applications of this Pitch Class Set.

Figure 7.20. Guitar Improvisation 2nd Movement Measures 4-5

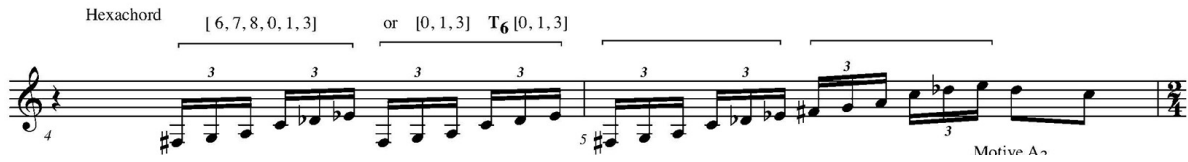
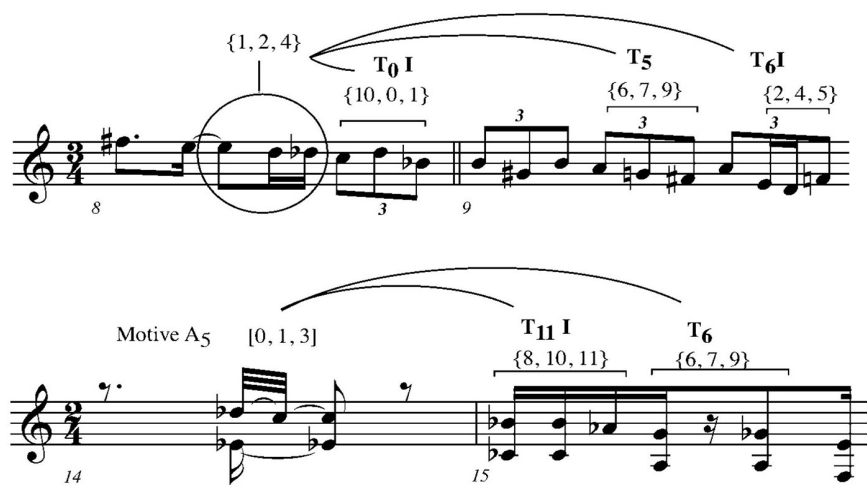


Figure 7.21. Guitar Improvisation Measures 8-9 and 14-15.



The Pitch Class Set [0, 1, 3, 6, 7, 9] Symmetrical Difference is also employed in this solo because it is symmetrically equivalent via retrograde and of course also contains either two [0,1,3] s or two [0,1,4] s.

Figure 7.22a

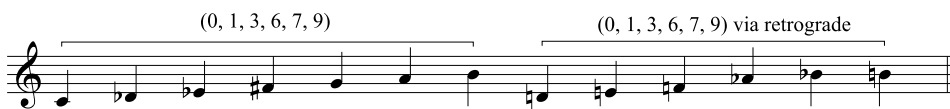
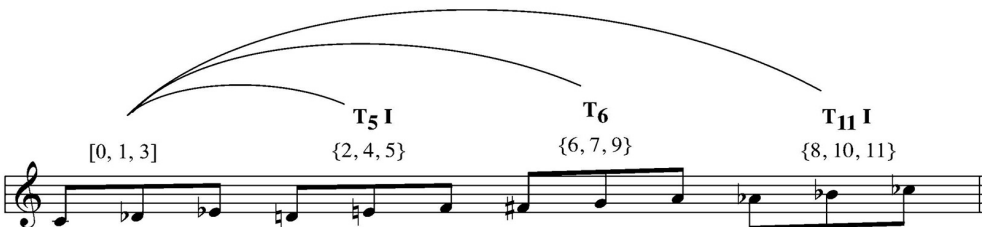


Figure 7.22b.



By deriving four [0,1,3]s or four [0,1,4]s 12 tone improvisation becomes a much easier technique to master. The following example shows the use of the four [0,1,3] Pitch Class Sets.

Figure 7.23. Guitar Improvisation 2nd Movement Measures 28-32.

The [0,1,3] is an extremely powerful Pitch Class Set and is arguably the most versatile of the trichords when looking at its application over chord structures. [0,1,3] can be used to represent almost every type of chord as seen in the chart below. Any chord with a “mel” after it means that there is an “avoid note” present and therefore should only be used melodically and not as a chord structure

Chord structures in all keys that can use the [C, D \flat , E \flat] Pitch Class Set i.e. [0,1,3].

Figure 7.24

C:	1	$\flat 2$	$\flat 3$	-7 mel, 7, -7 $\flat 5$ mel, 7sus4
D \flat :	7	1	2	$\circ 7$, $\Delta 7\#5$ mel, - $\Delta 7$, $\Delta 7$, $\Delta 7\#5$
D:	$\flat 7$	7	$\flat 2$	
E \flat :	6	$\flat 7$	1	-7, 7, 7sus4
E:	$\flat 6$	6	7	$\circ 7$, $\Delta 7\#5$ mel, $\Delta 7\#5$, - $\Delta 7$ mel
F:	5	$\flat 6$	$\flat 7$	-7 mel, 7, 7sus4
G \flat :	$\flat 5$	5	6	$\Delta 7\#5$ mel, - $\Delta 7$, 7, $\Delta 7$
G:	4	$\flat 5$	$\flat 6$	$\circ 7$, $\Delta 7\#5$ mel, -7 $\flat 5$, 7 mel, - $\Delta 7$ mel
A \flat :	3	4	5	$\Delta 7\#5$ mel, 7 mel, $\Delta 7$ mel, 7sus4
A:	$\flat 3$	3	$\flat 5$	7
B \flat :	2	$\flat 3$	4	$\circ 7$, -7, - $\Delta 7$, -7 $\flat 5$, 7 mel, 7sus4
B:	$\flat 2$	2	3	7, 7sus4

Figure 7.25. Note that the [0, 1, 3, 6, 7, 9] can form many symmetrical trichord pairs (*).

- [C D \flat E \flat] [A G G \flat] [0 1 3] [0 1 3]*
- [A C D \flat] [E \flat G G \flat] [0 1 4] [0 1 4]*
- [C D \flat G \flat] [A E \flat G] [0 1 6] [0 2 6]
- [C G G \flat] [A D \flat E \flat] [0 1 6] [0 2 6]
- [C D \flat G] [A E \flat G \flat] [0 1 6] [0 3 6]
- [A C G] [D \flat E \flat G \flat] [0 2 5] [0 2 5]*
- [A C E \flat] [D \flat G G \flat] [0 3 6] [0 1 6]
- [C E \flat G \flat] [A D \flat G] [0 3 6] [0 2 6]
- [A C G \flat] [D \flat E \flat G] [0 3 6] [0 2 6]
- [C E \flat G] [A D \flat G \flat] [0 3 7] [0 3 7]*

Fünf Canons, Opus 16 by Anton Webern

The Fünf Canons by Webern were written for voice, clarinet and bass clarinet. Movements 1, 3 and 5 are written for all 3 instruments while the 2nd and 4th movement are written for only voice and clarinet. These short pieces are highly angular with counterpoint and motivic development in full force. A preponderance of [0,1,4] is developed in a highly intertwined way which is characteristic of Webern's writing. The improvisations mirror these ideas and are only bound by making each improvisation approximately the same length as the original piece. Being able to create a solo that has a beginning, middle and end, which conforms to Webern's formal structures, and within such a short duration of time is quite demanding but also highly rewarding.

Spooky Actions divided up the three part canons with the saxophone playing the voice part, the guitar playing the clarinet part and the acoustic bass playing the bass clarinet part. On the two part canons the saxophone played the voice while the guitar and bass doubled the clarinet part. Webern makes heavy use of trills, frequently changing dynamics, legato and staccato articulations as well as very angular melodic lines and canonic writing throughout the pieces. Spooky Actions mirrors these musical expressions as well as the contrapuntal nature of the piece to make the improvisation relate as closely as possible to the original material.

These canons are a near perfect vehicle for Pitch Class improvisation. Each canon is of short duration and technically they are of moderate difficulty to perform. The last movement is played without adding an improvisation.

Webern uses multi-layers of the Pitch Class Set [0,1,4] throughout the canons. Just by looking at the first few notes there are many [0,1,4] relationships. Here is a partial list: {A, C, C#} (C# is part of trill), {C, G, G#}, {A, C, C#}.

Figure 7.26. Fünf Canons, Opus 16 Movement One Measures 1-2.

Learning to improvise with Pitch Class Sets can be difficult, so some improvisers just quote from the melodic, harmonic and rhythmic figures of a piece of music to achieve their goal. But it is also possible to develop the use of Pitch Class Sets by working with targeted exercises. Pitch Class Sets are often used for melodic application but they can also be used to represent traditional chords. Although applying Pitch Class Sets to chord types isn't common practice, they can create very useful and intriguing sounds for classical music or for that matter, any style of music. For instance, there are

many transpositions of [0,1,4] that can be used as a replacement both harmonically and melodically for a Dominant 7th or Dominant 7th sus4 chord as can be seen in the following chart. Again “mel” indicates that the application only works for a melody and not a chord.

Figure 7.27. Chord and Melodic Application of a [0,1,4] Pitch Class Set to Traditional Chords in All Keys

C:	1	^b 2	3	7, 7sus4
D ^b :	7	1	^b 3	+7, °7, -Δ7
D:	^b 7	7	2	
E ^b :	6	^b 7	^b 2	-7 mel, 7, 7sus4
E:	^b 6	6	1	°7, Δ7#5 mel, -7 mel, 7, Δ7#5, 7sus4, -Δ7 mel
F:	5	^b 6	7	+7, Δ7#5 mel, -Δ7 mel
G ^b :	^b 5	5	^b 7	7
G:	4	^b 5	6	°7, Δ7#5 mel, -Δ7, 7 mel
A ^b :	3	4	^b 6	Δ7#5 mel, 7 mel, 7sus4
A:	^b 3	3	5	+7, 7, 7sus4
B ^b :	2	^b 3	^b 5	°7, -Δ7, -7 ^b 5, 7
B:	^b 2	2	4	7 mel, -7 ^b 5 mel, 7sus4

Spooky Actions approaches improvisation on classical music by believing that every composer has their personal voice and by studying the composition and its analysis by others, methods of composition can be learned. Eventually, as these concepts gel within each musician, they can speak a language at least close to the composer’s. Their improvisation will then have a personal connection to the original composition. To restate, Spooky Actions approaches each composition by trying to meet each piece on its own terms. In some cases it takes years of preparation to develop the techniques that are deemed appropriate for the composition. The members of Spooky Actions are also composers. This certainly has an effect on the seriousness with which they apply themselves to the music. There is of course, the magic that is within any great composition that no amount of technical understanding can match but at least entering that world is the goal of “Spooky Actions.”

This is one approach of many. Some musicians may wish to completely change a classic composition to give it a different feel or emotional impact. I’m sure some interesting ideas can come from this alternate approach. Some might believe that Spooky Actions adding of a rhythm section to many pieces is in fact changing the composition’s *raison d’être* too much. We respectfully disagree. The founders of Spooky Actions believe that any great piece of music has the ability to be inhabited in different ways and that we have respected the music in our efforts.

If you find the idea of improvising on classical music intriguing, you may find that you need to do some preliminary work with relevant techniques and/or improving your aural recognition skills to facilitate your interactions with other musicians. Fortunately, there are many good books available to help you learn these skills. In many cases these can take years to master, but the rewards are great, especially when you get to that place where you can improvise over various classical pieces and make beautiful music spontaneously.