REEVALUATING THE FOUNDATIONS OF IMPROVISATION:

PERSPECTIVES ON THE POTENTIAL FOR

DEVELOPMENT OF NEW IMPROVISATIONAL REFERENTS

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INTRODUCTION

The complex relationships between a musician's sounded improvisation and their source materials present consistent challenges to both musical analysis and cognitive research. Many great improvisers express little interest in this nuts and bolts aspect of their process, leaving lesser practitioners and nonmusicians to speculate about what combination of cultural influence, inner psychology, and physical ability can produce the often transcendent effect of skilled improvisation.

Perhaps even more astounding are the achievements of musicians who, beyond achieving great fluency and charisma as improvisers in an already established style, manage to discover and develop innovative new approaches to and forms for improvisation from the musical materials presented by their surroundings. Examples of this sort of groundbreaking musician abound in mid-20th C. American music--Charlie Parker, Thelonious Monk, Ornette Coleman, and many others both well and little known—and their work continues to amaze and directly inspire improvisers today more than forty years after their period of greatest progress. A long period of time has passed since this dual explosion of both improvisational skill and innovation in the development of musical structures for improvisation, and it is time to reassess the ways improvising musicians learn to develop new materials and ways of playing.

Section 1 of this paper will examine and expand of the concept of *improvisational referents* in jazz improvisation, introduce a complementary concept, that of the *mimetic trope*, and argue that together in jazz today these improvisational mechanisms form a closed loop that, while continuing to evolve on its own terms, is largely anachronistic.

Jazz is a loose and ill-defined collection of disparate styles; please note that my use of this term directly correlates with its use in American academic jazz studies circles. Section 2 will propose a possible method for the development of new improvisational frameworks based on a pedagogical practice of turning inwards to discover internally located and generated improvisational referents that can be used as new vehicles for improvisational expression. Selected writings by musicians Joseph Jarman, Pauline Oliveros, and Francois Rabbath, as well as writer and philosopher Maxine Greene, will be discussed.

Section 3 describes my own ongoing work as an improviser attempting to implement a personal pedagogy based on the concepts presented in section 2, discusses some possible drawbacks to my rationale for this attempt, proposes a general set of rules based on this personal pedagogy, and describes the performance of a piece based on this process. The goal of this paper is to establish an awareness that it is possible to discover new and powerful improvisational referents, whether by using the process I describe or some other method, which can serve to further develop our depth of improvisational expression, sharing, and truth through music.

1. THE IMPROVISATIONAL REFERENT

Several papers and essays on improvisational processes in music (most notably Sarath 1996, Pressing 1984, 1988 and 1998, and Nettl 1998) include passing or in-depth discussion of the "*referent*, a set of cognitive, perceptual, or emotional structures (constraints) that guide and aid in the production of musical materials" (Pressing 1998,

52). Examples of improvisational referents (sometimes called *models* (Nettl 1998, 14)) can be found in diverse musical styles, such as the Persian *radif*, Carnatic *raga*, and jazz improvisation using song forms. Improvisational referents can be culturally based and inferred from the musical surface (as in jazz improvisations over a song form), or provided by a composer or musical collaborator. Further, improvisational referents can use fixed demonstrable techniques (such as a rhythmic or tonal pattern), or emotional, language based, or other prompts to achieve a desired improvisational space (Pressing 1984, 346-47).

While it is clear that much improvised music relies on some sort of referent, the diverse types of improvisational referent render generalizations about their function within improvisational settings difficult. Understanding the complex relationships between improviser and referent is not a matter of simply codifying the technical rules or tendencies built into the referent. The history and set of cultural practices that led to the development of the referent and its role in the larger improvisational setting must be understood, at least in part, for the complete function of the improvisational referent to be known. In *Psychological Constraints on Improvisation* (1998), Jeff Pressing discusses the role of improvisational referent in computational, rather than musical, terms: "Since the referent provides material for variation, the performer needs to allocate less processing capacity (attention) to selection and creation of materials" (Pressing 1998, 52). Pressing further states that "the effect of this reduction is to free up more processing resources for perception, control, and interplayer interaction, *increasing the chances of reaching a higher artistic level*" (italics mine) (Pressing 1998, 52). The first statement is self-evident; by establishing a framework, the improvisational referent helps to resolve

potentially difficult problems of how to incorporate timbre, genre, rhythm, or pitch into an improvisation. The italicized statement bears further discussion in relation to the improvisational referent.

IMPROVISATIONAL REFERENTS AND MIMETIC TROPES

The improvisational referent functions, in part, to improve the quality of an improviser's results as a player. If an improviser's goal is to "reach a higher *artistic* level," however, they cannot just observe the technical or lower level rules presented by the referent. The improvisation must also have a relationship to the referent that reflects the in situ cultural values of the improvised music, which in turn requires nuanced engagement with diverse expectations and preferences, higher level and complex rule sets. Without this relationship between cultural preference, improvisational referent, and performed improvisation it is hard to imagine any method for determining which improvisation does or does not achieve a "higher artistic level." Further, while the improvisational referent surely does free up "processing resources," for the improviser, these resources are not spent only on performative processes. In addition to the improvisational referent, an improviser must also refer to the appropriate set of received music, training, interpersonal, and preference rules presented by the improvisational situation. I will call this large body of musical and cultural information the set of *mimetic tropes*.

For example, many musicians are familiar with and can improvise using the 12-bar blues as a referent. But where do the guidelines set by the blues as a referent end and increasingly individual choices or socially mediated opinions about style and success

begin? While a I-IV-I-V-IV-I progression over 12 measures is considered standard, the blues in practice usually deviates from this progression at some point, and some blues forms only imply this progression or ignore it completely. Given the broad range of rhythmic, pitch, and timbral choices that are available it becomes very difficult to single out any particular aspect of the 12-bar blues that is a constant referent for all blues improvisers. While musicians from varied backgrounds use the 12-bar blues as an improvisational referent, and the blues' function as such surely does free up "processing capacity" for other musical tasks, it seems that correct use of the referent alone cannot increase an improviser's chance for success.

Thus the blues referent must be complemented by a set of mimetic tropes known to the improviser, from musical references such as "Texas blues," "Charlie Parker's "Blues for Alice" chord changes," or "the riff from Albert Collins' "Crosscut Saw"," to on site preferences such as "don't play so loud in this club," "keep it peppy," "play like Albert King," or "the bandleader can only play in G." The improvisational referent supplies a set of more or less formal rules; the set of mimetic tropes available to the player determines how those rules are observed and, along with the referent, help index an improvisation's success for improviser and listener alike. Olly Wilson succinctly describes the symbiotic relationship between improvisational referent, mimetic trope, and improvised result as "a situation in which all participants are aware of what will transpire but are unaware of how a particular performer will realize the predetermined plan" (Wilson 1992, 337).

In jazz, improvisational referents are a kind of cultural artifact and are often reflexive ("Bye Bye Blackbird" by Ray Henderson and Mort Dixon is always "Bye Bye

Blackbird" by Ray Henderson and Mort Dixon). In contrast, mimetic tropes are always evolving, such that an improviser will play differently to evoke the original 1926 recording of "Bye Bye Blackbird" with Gene Austin than they will to mimic the sound of Miles Davis' 1955 version or Ringo Starr's 1970 recording of the song. Mimetic tropes are plastic, for instance the key, harmony, and melody of "Bye Bye Blackbird" varies from one recording to the next, the verse is often omitted, the melody can be sung or played on an instrument, etc. In jazz this flexible relationship between improvisational referent and mimetic trope has allowed a vast amount of diverse musical materials to be generated based on popular song forms. In addition the work of Duke Ellington, Charlie Parker, Thelonious Monk, John Coltrane, and many more have added rich and complex harmonic, rhythmic, and improvisational vocabulary to the range of available jazz improvisational referents and mimetic tropes. However, significant amounts of time have elapsed since the period of greatest development and generation of new improvisational referents and mimetic tropes in jazz yet many jazz practitioners are still using materials developed decades ago.

As a jazz improviser I wonder why, beyond simple familiarity, I and my colleagues often choose to rehearse and perform jazz from 40 years ago or more, and, more importantly, if it is possible for this bassist to explore improvisation using new referents in new ways. In the remainder of this section I will argue that many of the improvisational referents being used and reworked in jazz today are anachronistic and begin to formulate a possible alternative path towards development of new improvisational frameworks.

AN ARGUMENT FOR NEW IMPROVISATIONAL REFERENTS

Mimesis, or imitation (the use of this term, with all its philosophical implications, is intended), is a key skill for developing jazz improvisers. Note for note transcription and practice of well-known improvisations is encouraged, and, towards the goal of finding their "inner voice," students learn to copy the timbre, melodic shape, and rhythmic mechanisms used by their favorite improvisers. Thus, as musicians develop into professionals, the ability to mimic the habits (or "tropes") of leading improvisers is continually reinforced such that most gigging jazz improvisers have a ready set of mimetic tropes to deploy in diverse musical settings.

Such abilities are, of course, standard for musicians involved in a professional culture. In jazz improvisation, however, the powerful combination of learned referents and mimetic tropes can present complicating factors when the improvising musician embarks on a project with the goal of creating something "new," personally directed, and original. As Derek Bailey points out

> …the learning method in any idiomatic improvisation does have obvious dangers. It is clear that the three stages—choosing a master, absorbing his skills through practical imitation, developing an individual style and attitude from that foundation—have a tendency, very often, to be reduced to two stages with the hardest step, the last one, omitted. Imitating the style and instrumental habits of a famous player who is in all probability a virtuoso is not necessarily an easy matter and, successfully achieved, is an accomplishment which can supply a musician with considerable satisfactions; not the least of which is the admiration of those musicians less successfully attempting the same thing. (Bailey 1992, 53)

Moreover, while there is a sense that constant innovation and progress is an important tenet of creative jazz, musicians seeking progressive new approaches often compose

using a song form type referent (in lead-sheet form) and build improvisations out of recognizable mimetic tropes (licks, harmonic sequences, etc). Thus the materials of innovation in jazz today are often impossible to distinguish from the truly innovative improvisational referents and mimetic tropes developed before 1970.

The anachronistic types and functions of common jazz improvisational referents can limit the fluent jazz musician seeking new forms and modes of expression. Whereas jazz practitioners born before 1950 or so have a direct cultural experience of the origins in popular song and commercial radio of fundamental jazz forms (such as “I Got Rhythm,” “Body and Soul,” even radio friendly jazz hits like Ahmad Jamal’s “Poinciana” or Herbie Hancock’s “Watermelon Man”), people born since 1970 who strive to provide fresh perspective on jazz improvisation probably became familiar with these forms as they are heard in jazz. This creates a disconnect between the ebullient, aurally based process of discovering improvisational possibility in the harmonic and melodic structure of popular song that led to the creation of the standard repertoire of jazz “tunes” (which represents the large proportion of common jazz improvisational referents played today), and the more academic process of refining and adapting the now established referents commonly undertaken now. Standard improvisational referents are outdated and mismatched with the contemporary improviser. Likewise the symbolism and function of the mimetic tropes found in jazz are antique and, as time progresses, there are fewer and fewer listeners attuned to the style.

There is, however, an inner tension between the improvisational referent and mimetic tropes of jazz improvisation that lends vitality to the form. This vitality is most evident to those who are actually involved in jazz improvisation and can be understood as

"bending" or "breaking" the referent or mimetic tropes at various levels. Examples of this include performing standard jazz songs in asymmetrical meter, obfuscation of harmonic structure by using large-scale anticipation or delay of resolution in improvisations, use of uncharacteristic timbres or expressive techniques, extensive reharmonization, etc. While all these practices are well established and can be found in canonical jazz recordings the creative performer today takes special pride in the ability to freely play in complex meter, improvise using advanced harmony, and use electronic or studio production techniques to complicate the musical texture. Such approaches do represent important musical development and resonate with Olly Wilson's seminal theory of the "heterogeneous sound ideal" found in African diasporic music (Wilson 1992), and while this is a form of progress jazz musicians often forget that the underlying referents and mimetic tropes, the core materials, remain the same.

The tension created within the more or less unchanging relationship between improvisational referent and mimetic trope, while it allows for a broad range of expressive possibilities, represents a closed loop. The two processes inform each other and together yield the familiar frameworks and sounds of jazz. While it is interesting to explore further possibilities for "bending" and "breaking" these structures, their anachronistic presence in much jazz improvisation frustrates this improviser. One possible next step is to revisit the concept and function of the improvisational referent towards finding new structures for improvisational expression. My feeling is that this next step involves creating an alternative way to develop improvisational expression, a new pedagogy that invites the creation of new forms of improvisational referent.

2. TOWARDS A NEW PEDAGOGY OF IMPROVISATION

Robert Morris' 1961 artwork *The Box with the Sound of its Own Making* (private collection) consists of a simple pine box with an audiotape inside. The artist recorded himself while constructing the box, placed the tape inside, and now the box is capable of replaying the (over three hour long) sound of its own genesis. This is an apt metaphor for the pedagogical process I propose. Of course the box is inanimate and incapable (I suppose) of storytelling, yet it holds inside itself a complete reference, in sound, to its developmental history. This sound story is specifically located and self-referential, uniquely related to the box itself.

Like the *Box*, people retain large amounts of aural information, from natural and mechanical sounds to familiar voices and music. Further, we can categorize and index these sounds at will, compare them to newly heard sounds, and even build rule sets and theories based on received sound. Our ability to recognize, analyze, and create music is an obvious example of these aural skills. Also obvious is the fact that the entirety of a person's experience with music (as listener, participant, even as ignorer) forms a kind of mega-referent. This vast, highly personalized collection of musical memories, preferences, and experiences should be examined and analyzed by improvisers seeking new ways to organize and express their ideas.

Just as many of us learn to hear and understand lower-scale musical relationships such as pulse, meter, and rules of harmony without much or any formal training in music, I suggest that we also build higher scale formal concepts, discover unique relationships between diverse styles of music, and each develop a different system of concordance to

organize and understand the whole field of our experience with music. If the *Box* can play back its unique sound, surely we can learn to play back our own. Each of us must use an advanced internal system for referencing and recollecting music. If some aspect or even the entirety of our internal music reference system were available to us as improvisers any number of new and unexpected improvisational formulae and strategies could be discovered and developed—new referents. The improvisational prompt does not need to be some specific culturally generated referent; I believe we each have discrete and singular ways of understanding music, internally located and generated referents, that can be used as vehicles for improvisational expression.

Most of us are taught to learn music performance skills by seeking *outward*; through teachers, books, observation of other players, study of iconic stylists, and rote memorization. For some improvisers the necessary next step is to direct effort *inward* by working to more fully understand our mind's true comprehension and systematization of musical principles. The ready availability of recordings insures that many adults with even a moderate interest have already heard thousands of hours of music. If we begin to put that musical experience to work the relationships between experienced music, sense memory, and in the moment improvisational inspiration can be better exploited and improvisation will grow to be even more personal and meaningful. The challenge is that, similar to our ability to block out ambient sound, I think we learn to quiet or neglect our internally constructed understanding of music in favor of external standards for musical training and socially reinforced conformity. Herein lies the need for a new pedagogy of improvisation; we need to lean how to hear and support our individual musical

perspectives. As an improviser I have been working on this problem with mixed results but find support for my process in the work of several composers and thinkers.

What follows is a brief discussion of four sources of background inspiration and information; saxophonist and multi-instrumentalist Joseph Jarman, writer, philosopher, and teacher's teacher Maxine Greene, composer, accordionist, and electronic musician Pauline Oliveros, and bassist/pedagogue Francois Rabbath. Each takes an expansive view of the challenges and potentials of creative expression. For me Rabbath and, especially, Oliveros point the way to new uncharted possibilities in improvisational expression. Greene's innovative writing on alternative pedagogy provides a background to this discussion that is based in education rather than music per se, and here Jarman takes an epigraphic role.

JOSEPH JARMAN

A founding member of the Association for the Advancement of Creative Musicians, Joseph Jarman was active in the daily life of the AACM from the beginning and, in 1968, played a lead role in an improvisational two act play called *The Dream*, an event "that formed an important watershed moment in the development of [the AACM's] organizational solidarity" (Lewis 2008, 183). Another actor in the play, Claudine Myers, recalls that "the play got so real that it scared me, we got so into character" (Lewis 2008, 185). Jarman describes how he evoked reality as an actor in this improvised stage play as follows:

METHOD

reach down deep inside of what you are

and bring up the reality of

the “part”—you don’t need the

“training” of the “actor”; you need the training

of yourself, what you are already—that is enough.

how to act in each “scene”;

don’t “act” at all become *yourself* out

of your life and do the scene, the reality

of it, as it is the facts of your life

are the only theatre needed

(Lewis 2008, 184)

This description of dramatic process cuts through the artificial constructs created by and for artists in many genres, urgently calls for direct personal expression, and serves as a guide to this discussion.

Returning momentarily to the concept of mimetic tropes in jazz improvisation, for most jazz musicians these sets of tendencies are located someplace external to the player themselves, for instance “I just played a Woody Shaw lick,” or “this tune should be played with an “ECM” feel.” If the locus of improvisational practice was built starting instead from an examination of internal musical understanding, musical improvisation could grow into a *mimesis of internally held experience*, as Jarman writes “the facts of your life/are the only theater needed,” and rather than beginning improvisation by using the tropes of other musicians we could begin by discovering and sounding out our own.

This process requires a reevaluation of the relationships between musical cognition (how we hear and organize what is heard), imagination (the connections we make between sensed events, emotions, and larger experiences), and musical sounding.

MAXINE GREENE

Maxine Greene, in her large body of erudite and inspiring work, provides many possible paths towards such a reevaluation. In *Releasing the Imagination: Essays on Education, the Arts, and Social Change*, Greene makes the argument that individual imagination is often squelched by standard educational methods, and that in education we must

> …release imagination to open new perspectives, to identify alternatives. The vistas that might open, the connections that might be made, are experiential phenomena; our encounters with the world become newly informed. When they do, they offer new lenses through which to look out at and interpret the educative acts that keep human beings and their cultures alive. (Greene 1995, 18)

This call for novel approaches to educational process is centered on effective use of the imagination to synthesize received experience. "Experiential phenomena" are by definition individually located, but can be effectively incorporated into larger shared understandings of the world, i.e. living culture. Greene further explores the individually located and mediated nature of imagination and its relationship to reality, proposing an educational environment where

> …each person's reality must be understood to be interpreted experience—and that the mode of interpretation depends on his or her situation and location in the world. …To tap into imagination is to become able to break with what is supposedly fixed and finished, objectively and independently real. It is to see beyond what the imaginer has called normal or "common-sensible" and to carve

> out new orders of experience. Doing so, a person may become freed to glimpse what might be, to form notions of what should be and what is not yet. And the same person may, at the same time, remain in touch with what presumably *is*. (Greene 1995, 19)

Such a proposition creates the potential for exciting new educational methods wherein that which is personally felt and understood becomes integrated into a larger cultural understanding, and echoes strongly with Jarman's "Method." Together, Greene's writing on imagination and Jarman's "Method" point to the possibility of discovering the internal improvisational referents I theorized above.

PAULINE OLIVEROS

To provide perspective on how these diverse concepts can be incorporated into a new improvisational pedagogy I turn now to a survey of Pauline Oliveros' practice of "Deep Listening." In addition to her important work as a composer, improviser, and performer, Oliveros has developed "Deep Listening" a new, extensive, and comprehensive pedagogical approach to understanding the relationship between self, sound, and, by extension, music. Oliveros' system focuses on understanding and developing our auditory ability.

> The source for Deep Listening as a practice comes from my background and experience as a composer of concert music, as a performer and improviser.
>
> Deep Listening comes from noticing my listening or listening to my listening and discerning the effects on my bodymind continuum, from listening to others, to art and to life. (Oliveros 2005, xxiii-xxiv)

"Deep Listening" is innovative. While it was created by a musician, the practice rarely uses any set rhythms, pitch relationships, or musical terms. Instead, participants are

encouraged to “expand the perception of sounds to include the whole space/time continuum of sound—encountering the vastness and complexity as much as possible” through meditation, movement, journaling, and various group or individual listening games and exercises (Oliveros 2005, xxiii). “Deep Listening” is an outgrowth of Oliveros’ *Sonic Meditations*, an ever-expanding set of compositions “notated through prose instructions or recipes” (Oliveros 2005, 29) one of which is reproduced below:

> Ear Piece (1998)
>
> 1) Are you listening now?
> 2) Are you listening to what you are now hearing?
> 3) Are you hearing while you listen?
> 4) Are you listening while you are hearing?
> 5) Do you remember the last sound you heard before this question?
> 6) What will you hear in the near future?
> 7) Can you hear now and also listen to your memory of an old sound?
> 8) What causes you to listen?
> 9) Do you hear yourself in your daily life?
> 10) Do you have healthy ears?
> 11) If you could hear any sound you want, what would it be?
> 12) Are you listening to sounds now or just hearing them?
> 13) What sound is most meaningful to you?
>
> (Oliveros 2005, 34)

In this piece, as in many of the “Deep Listening” compositions, the focus is entirely on exploration of the phenomenon of auditory experience and provides a method by which, as I suggested earlier, improvisers could direct effort *inward* by working to more fully understand our mind’s true comprehension and systematization of musical principles. By engaging fugitive concepts such as the possibility of hearing past or future sounds, the inherent complexity of hearing multiple sonic events, and the value or meaning of sounds, this and other “Deep Listening” pieces form a valid method through which

improvisers can start to contextualize their experiences with music, and access their already functioning and well organized inner understanding of received sound. As Oliveros wrote in an essay about composer Alvin Lucier "it is not enough just to play the right notes at the right time in the right way; one must also have right consciousness. This places the performer in the role of explorer of the interior in order to produce, and also being still in order to be active" (Oliveros 1984, 191-192).

The practice of "Deep Listening" provides a path towards understanding what we hold in our aural memories. My desire to develop a new pedagogy for improvisation includes developing this kind of understanding and extends as well to include a method for bringing these aural memories into organized sounding which, for me and many others, includes playing more or less conventional musical instruments. To return to the metaphor of *The Box with the Sound of its Own Making*, the *Box* has a tape inside that plays back through a speaker. If we hope to play back our stories as the *Box* does, what will function as our "speaker?" As the technology of speakers is well developed and brings with it certain imperfect givens—hiss, electricity necessary, produced by corporations like Sony, etc—so our established instruments have given properties and limitations. I believe it is possible to bring the materials presented by our internal mega-referents of received sonic information to bear using conventional instruments and improvisation.

FRANCOIS RABBATH

Francois Rabbath is a noted string bassist and pedagogue. Self-taught and iconoclastic, he pioneered a new approach to playing the instrument and published an influential three-volume method book in 1977. While not primarily an improviser, his insights into how to develop as a player further inform the materials presented from Jarman, Greene, and Oliveros. One recurrent theme in his writing is the pervasiveness of negative reinforcement and fear in musical training.

> The word “difficult” is passed on from generation to generation. Its power is so radical that, from the outset, the player is oppressed by a fear that he drags behind him all his life like a ball and chain, making any natural approach to the instrument impossible for him. We can add to this [the] reluctance of most teachers to help technique to progress: a wall of concrete a hundred meters thick is automatically created; it can only be breached by striking the word “difficult” from the vocabulary. (Rabbath 1984, XII)

Rabbath emphasizes the need to approach the string bass (and I extend this to all musical instruments) from a biomechanical point of view. The player should learn how their build, posture, and singular ways of movement can best be brought to bear on the instrument. He points out that the primary goals of many teachers and ensemble leaders, such as “perfect” intonation, sight-reading, and performance practice, should actually be secondary goals that follow from development of clear listening, relaxation, and the ability to discern and enjoy the subtle variations in feedback created between player and instrument (Rabbath 2005).

In summary, these musicians and writers from diverse backgrounds agree that many of the standard means of creative production and teaching are unexamined and

ineffective. Like the closed loop presented by the often stale relationship between improvisational referent and mimetic trope in jazz, many current forms and ways of knowing are closed and need to be revisited and reinvented. As Jarman says, “you don’t need the/“training” of the “actor”; you need the training/of yourself, what you are already—that is enough.” In hindsight this seems patently clear. In addition, each expresses a sense that a new approach to the creative process, focused on the individual’s understanding and situation, can yield vast new possibilities for expression.

As I have considered the work of the above writers and musicians, and others, certain specific approaches to improvisation have been made apparent. The next section will describe my process in attempting to create a personal pedagogy for developing improvisations, outline a potential more generalized improvisational pedagogy, and briefly analyze a performance of mine. First I would like to add a note on instruments in general. Musical instruments have a rich history of refinement, innovative use, and evolution. As interfaces for expression they are very advanced, versatile, and specific. In addition, many of our experiences with music include acoustic instrumental sounds. While any approach to playing an instrument is valid, it is important to have regard for the sophisticated design elements that centuries of technological development bring and strive to understand how these elements contribute to both our experiences listening to music and as performers. Current exciting developments in computer music may render instruments like the string bass quaint, in which case it should be considered anachronistic. Until then, and as long as the sounds of instruments resonate with our store of received music, they will be vital vehicles for improvisational expression.

3. EXPERIMENTS WITH A NEW IMPROVISATIONAL PEDAGOGY

My desire to find a new method for improvisation was sparked in 2005 when I started to study with David Moore, a bassist with the Los Angeles Philharmonic, professor at USC, and proponent of the Rabbath technique. Shortly after I began working with him it became clear that my way of approaching the instrument was tense and counterproductive. As I began to apply his lessons to my own practice I became more aware of my own sense of music, and found that this sensibility was not fully concordant with my musical environment. Although I am a trained professional jazz musician and lifelong lover of piano jazz the structures and mores presented by most playing situations did not fulfill my improvisational interests.

This grew into a frustration with the timbral and stylistic expectations I encountered as well the closed loop mentioned in the earlier section about improvisational referents and mimetic tropes in jazz. I decided to develop a new approach to improvisation, focused on building a relationship between my inner understanding of music and string bass performance, and develop this into a solo performance practice. Oliveros' *Sonic Meditations* was a prime resource, but, surveying the broad range of available materials presented in the *Meditations*, I decided to limit my own improvisational materials. Referring once again to Morris' *Box*, to find a limit within the aural field presented by the *Meditations* I imagined that, like a box's contents, our personal sonic history could be opened, sorted through, and organized.

Using this construct I further imagined a discrete set of aural experiences best described as "all the music I've heard" and attempted to find one predominating rule set

or unifying attribute that most easily defined the discrete set of “all the music I’ve ever heard.” The goal of this exercise was to narrow the large amount of aural information I have received by a lot—consider only “music”-- and, having narrowed the set of received information to music, see if some aspect of this smaller set presented common traits that could be used to guide improvisation, internally indexed and understood traits that, while surely reflecting some generally understood musical principals, would also reflect inward to illuminate my own sense of music. A new referent that, unlike jazz song forms, bears, at least in part, a personal stamp.

TONALITY AS REFERENT

Upon examination of this imagined set of “all the music I’ve heard” I made an obvious discovery; the vast majority of all the music I’ve heard contains an abundance of “tonal phenomena.” As defined in Grove Music Online,

> Tonal phenomena are musical phenomena (harmonies such as the tonic, dominant and subdominant, cadential formulae, harmonic progressions, melodic gestures, formal categories) arranged or understood in relation to a referential tonic, which imbues the music – in the case of C major – with ‘C-ness.’
> (Brian Hyer. "Tonality." In Grove Music Online. Oxford Music Online, http://www.oxfordmusiconline.com/subscriber/article/grove/music/28102 (accessed May 12, 2009)).

My upbringing included lots of music listening and, given my location in an American academic family of middlebrow music lovers, this music was filled with the whole array of tonal phenomenon. I have been more or less inundated with tonal information, both as a passive recipient of recorded music, audience member, and musician. Surely I have developed an internally indexed sense of tonal possibility and established unique synergies based on this sizeable experience with tonality. It follows that if I practice and

learn to improvise using “tonality” as an improvisational referent I will, over time, begin to understand the intricacies of my unique reference system for tonal phenomena, and, further, develop the ability to signify using this personal referent, creating an in the moment *mimesis of internally held experience*.

With this goal in mind I began to work on improvising tonal suites in three or four movements lasting, in total, seven to ten minutes. I chose this format for several reasons, not the least of which is its echo of the large scale notated tonal pieces found in Western music for the last three hundred years. Tonality, like instruments, is a well developed system, and it seemed sensible to try to survey my own understanding of tonality using a temporal framework similar to that of some of the most ambitious examples of tonal exploration. This format also presented enough time for me to attempt deeper or more formal explorations of tonality, and possibly begin to discover larger internally understood structures and ideas to explore in present or future improvisations. Finally, an improvised tonal suite with movements that begin and end allows for contrasting sections and various cadential gambits while challenging me to “chunk” large amounts of improvised musical information to retain for development or recapitulation later in the suite.

One potential flaw with this plan becomes immediately apparent. The need for a fresh perspective and new improvisational referents, in my theory, grows from the stale anachronistic relationship between old forms like popular song and musicians who no longer have an immediate connection with them. Improvising tonality is as bad or worse in terms of staleness, especially when the format attempts to parrot classical structure.

What's more, tonality itself brings with it larger codes and concepts well beyond the control of my quixotic internally held referent. Tonality, as a system promoted by dominant cultural forces, subtly reinforces the stability of the white male powers that be while squelching exactly the new and alternative approaches of musicians like Rabbath, Oliveros, and Jarman. As John Shepherd writes in *Music as Social Text*, "The architectonicism of the functional tonal structure articulates the dominant world sense of industrial societies. It is a structure having one central viewpoint (that of the key-note) that is the focus of a single, unified sound sense involving a high degree of distancing" (Shepherd 1991, 122). In Shepherd's theory (and I largely agree) the hierarchical structures of tonality reflect an industrial society that reinforces human isolation and greed, and are inherently unmusical (Shepherd 1991, 18). Surely any benefit presented by using tonality to discover an internal improvisational referent is outweighed by the possibility that "the vast majority of music consumed in the Western World is concerned with articulating, in a variety of different ways, male hegemonic processes" (Shepherd 1991, 171).

Despite these misgivings, I have continued to develop improvised tonal suites. While it is quite possible that tonality is also an anachronistic improvisational referent, its familiarity to many ears and deep resonance with my own experience of music for now outweighs the possibility that the process I am undertaking will prove fruitless. Also, the potential for discovery of personally synthesized, novel, high level structural concepts hidden within my internal music reference system tempts exploration. Regarding the very valid overall criticism of tonality presented by Shepherd, I point out that as improvisations these tonal suites are markedly different from the notated music that

forms the core of Shepherd's work on the subject in *Music as Social Text*, and the reliance on development of tonal materials formulated *in the moment of performance* pleasingly recontextualizes the hierarchical nature of tonal phenomena.

I agree with Shepherd that the rigid formulae of notated music tend to sterilize the vital temporal explorations possible in music (Shepherd 1991, 122). However, since my suites use only the vaguest temporal rules (rest between movements), the possibility remains for a tonal improvisation to access "the revelationary nature of time as articulated by spiritual and corporeal rhythms" (Shepherd 1991, 122). So, moving past these issues, having determined that tonality is a potential internally held improvisational referent, and my format is an improvised suite, systematic steps toward a personal and possibly more generalized new approach to improvisation can take place.

PERSONAL PEDAGOGIAL PROCESS

While the musicians and writers discussed earlier provide many perspectives on how and why we need to turn inward to best discover our potential expressive abilities, my actual work to create a personal pedagogy for new improvisational practice is by definition lonesome work. As I began to develop improvised tonal suites I tried to follow these nine rules:

1. Practice relaxation, posture, and form more than anything else.
2. *If* you are relaxed, poor intonation and lousy outcomes (even in performance) are OK.
3. Record improvisations and listen to all of them more than once.
4. Play with the bow; it's what the bass is designed for.
5. This is an improvised tonal suite. Explore a main "tonic" key center (major or minor) and develop relationships between related keys and the "tonic."
6. Avoid predetermination of any kind beyond these rules.

7. Remember what you did. Develop and mirror tonal motion.
8. Make an effort to clearly outline harmonic movement.
9. In parallel to the improvised suites, remember to improvise “freely” every day.

As time went on I realized that a larger scale system was needed to develop this improvisational approach. If there were larger structural processes occurring within the improvisations I needed to adopt a means for analyzing recordings of the suites and organizing the materials. It became clear that mimetic tropes drawn from classical music were dominating the phrase level; perhaps these also revealed habits of mind created over years of listening and performance, that, if unpacked, could yield fruitful material for improvisation.

A comprehensive method for analysis of these improvisations is still forthcoming but I have adopted short, medium, and long term pedagogical goals for analysis. In the short term I will transcribe selected improvised suites using standard notation, including barlines and meter, and analyze these for patterns that reveal the structure of my internally developed sense of tonal phenomena. In the medium term I hope to develop a system using the computer program Max/MSP/Jitter that incorporates preference rules and mimetic tropes based on my analyses into an interactive performance piece. The long term goal is to have the computer identify and organize pitch and rhythm components of improvisation in real time based on a large database of analytical information.

Major challenges were presented by my own dissatisfaction with the recorded results. While I have been able to maintain a focus on relaxation and good posture during improvisation, my overall technical skills lag behind the improvisational ideas being generated. The result is sound production and intonation that often insults my ears (and

others') when played back. The combination of extensive use of triadic and stepwise motion (to clarify the sense of arrival and departure from tonal centers required for tonal phenomenon to be perceived as well as an observation of rule 8 above), the musical timbre presented by bowed string bass (which evokes classical performance practice), and the mimetic tropes I naturally began using (which reinforced this sense of classicism), presented a musical texture reminiscent of intermediate student level performance of simple etudes for string bass.

These problematic issues, while irksome, bear working through and doing so conforms to rule 2 listed above. Most of the ideas presented in section 2 involve finding new unexplored paths to expression. My own commitment to this pedagogical process began in earnest only several months ago. To truly venture into a new improvisational space, for me at least, requires an acceptance of timbral and pitch events that are less than satisfactory when regarded from a point of view located within academic expectations of sound production and intonation.

This hearkens back to Rabbath's "wall of concrete a hundred meters thick," and presents the idea that my ideal practice of improvisational suites is too difficult (Rabbath's avoid term) to accomplish. Conservatory standards for sound production and intonation reinforce the culture of specialization that has led to the virtual extinction of improvisational practice among conservatory trained musicians (Goertzen 1996, 334-335). These standards, though honorable, should not prevent my (or anyone's) further exploration of novel means for generating improvisational materials. In addition, the flaws in pitch and execution I hear now may prove to reflect some essential aspect of my

own self-referential process, and, as long as I am able to maintain composure and focus, develop into desirable, repeatable, mimetic tropes.

GENERALIZING THE NEW PEDAGOGICAL PROCESS

This section so far has focused on my personal reflections and research developing a fresh improvisational framework. I am unsure whether any of the scholarly or performative investigations I am pursuing will prove to be of lasting value for me, and certainly do not assume that this work should be generalized or pursued by other improvising musicians. With these caveats in mind this section will attempt to distill the personal process so far outlined into a new pedagogical process based system for developing new improvisational frameworks. An initial goal is to present the materials with utmost brevity; the individual's choice of process and mechanism for accessing internality is more important than the guidelines and concepts outlined below.

An overarching tenet can be described as follows: Development of a method for accessing internally referenced aural knowledge through improvisation is a *process-based activity*. Individual improvisers should attempt to find a personally significant, aurally mediated body of information (in my case it was "tonal phenomena"), then work towards a method through which this body of information can be used as an improvisational referent. Rather than working backwards from an "ideal" musical result to develop a new method (*object-based activity*), discovery of a possible internal referent requires a slow and systematic journey to understand one's relationship to the internal referent, and build improvisational materials generatively (here I use the term generative as it is used in standard English to denote things that can grow and reproduce rather than

the linguistic, music theoretical, or mathematical definitions of generative) to discover new as yet unknown musical results.

Returning to Jeff Pressing's (object based) assertion that the improvisational referent frees "up more processing resources for perception, control, and interplayer interaction, *increasing the chances of reaching a higher artistic level*" (italics mine) (Pressing 1998, 52), in this process based pedagogy, at least at the early stages, exactly what represents a "higher artistic level" is not germane. Instead the pertinent issue relates to the improviser's sense that they are accessing and improvising using materials presented by their own unique internality, and doing so without unnecessary tension, fear of judgment, or embarrassment.

Here is my proposal for a more generalized pedagogical process:

1. Open your box of sound memory.
2. Reflect on what is found there.
3. Find something big and important in this sound box.
4. Refer to it as you improvise.
5. Also try *not* to refer to it as you improvise.
6. Practice relaxation, posture, and form more than anything else.
7. *If* you are relaxed, lousy outcomes (even in performance) are OK.
8. Record improvisations and listen to all of them more than once.
9. Develop a way to organize, analyze, or feel these improvisations.
10. Find out if the improvisation reflects what is in your box of sound.

AN EXAMPLE IN PERFORMANCE; ANALYTICAL CHALLENGES

As part of my MFA recital I performed an improvised tonal suite, my first public presentation of this type of improvisation. Just before beginning I decided to play in Bb major. In the moment I felt pleased with my sounding; fears of an abrupt or incomplete

improvisation (which do occur in practice) were unfounded. The hall seemed to respond well to the instrument, and the audience was supportive. While I am sure there were in the moment problems, I cannot recall them now, and I was satisfied with my beginning and ending. While listening to the recording (soundfiles submitted with paper) and transcribing the suite into notation (see appendix), my feelings wavered between despair at the sound of inaccurate pitch and poor sound production, especially in the opening, pleasure with the recorded effect of the piece, curiosity about events at the phrase and formal level, and a sense that more work needs to be done.

The process of transcription invites interesting questions and introduces an ironic twist to the earlier discussion of my ideas in relation to John Shepherd's work. My initial hope was to avoid the use of any visually mediated materials in this process (whether they be notational or computer based), but transcribing these pieces is, I will admit, strangely empowering, and imbues me with a sense of logical correctness and legitimacy. The choice of meters and barlines is the most interesting aspect of transcription here; the barlines can function to legitimize phrasing that sometimes sounds wrong, a mixture of meters lends the notation a sense of complexity.

As mentioned earlier in this section, I have yet to discover an appropriate system for analysis of these improvisations. Fred Lerdahl and Ray Jackendoff's *A Generative Theory of Tonal Music* and Fred Lerdahl's *Tonal Pitch Space* are helping me form ideas. Of course, transcription using notation comprises an analysis of sorts, and I have taken some time to observe how the improvisations work as though they were notated compositions. However, and despite the presence of notated transcriptions, the goals of analysis presented earlier in this section are to further develop an understanding of my

internal referent, build this understanding into truer improvisation, and develop interactive improvisational frameworks with the computer. I think that systematic analysis of these (or any) improvisations should be nuanced and carefully constructed to meet the analytical needs. An improperly implemented analytic system could easily obfuscate the delicate structures of musical understanding we hold inside ourselves.

Jumping off nonetheless I will briefly discuss the notated transcription and point out a few tonal and formal concepts that are developed somewhat consistently throughout the improvisation. I will not attempt to parse phrase level choices, mimetic tropes, or tempo/texture shifts. Note that in the transcription I have tried as much as possible to fit "phrases" onto one system; this is meant to further reinforce the structures I noticed while establishing barlines etc. The opening, shaky intonation and all, establishes Bb and uses a pattern that climbs the scale from Bb to Eb. The pitch Ab is sounded before the line returns to Bb at measure 7. This simple movement up scale degrees 1-2-3-4 (especially 1-2), slightly complicated by Ab (which could indicate a modulation to Eb, or something else) is referenced and returned to throughout the improvisation.

The pitch Ab briefly becomes the tonic at measures 27-28, the first of several more or less abrupt key changes in the suite. The opening climb is developed again at measure 29, and the first use of diminished patterns (which I love to play) comes at measure 37. Apart from a momentary visit to Gb major (or something like it) around measure 86, the tonal materials in the rest of the movement are similar and explored in similar ways to those found in mm 1-37. The movement comes to a close with a resolution on Eb. The second movement is in c minor, and modulates to d minor at measures 11-12 (scale degrees 1-2 as mentioned above). Ab is again established at

measure 48, and the improvisation seems to arrive fully at Bb major at measure 59 before abruptly ending in c minor.

The third movement begins with a long kind of *misterioso* introduction in f minor, reaches a long pause at measure 48, and then Bb major is established and explored in ways similar to the first movement. The pitch Ab makes a prominent rhythmic appearance in the final seven measures. While, as mentioned, there is more work to be done, this improvisation does conform to the ideas I have been developing in relation to the concept of an improvised tonal suite. My choices of material (refer to tonality, play with the bow, use a kind of mongrel classical form) are clearly reflected in the "light classical" effect of this improvisation. There is a psychological effect created by the combination of musical aesthetic and improvisational approach; this sounds like notated music. My hope is that time and further practice will uncover deeper tonal relationships and formal schemes that will bring more vitality to the improvisational aspect of the improvised tonal suites.

CONCLUSION

The old standards and modern canonical song forms of jazz present a varied and sophisticated set of improvisational referents. There are many great composers and improvisers of every age making vital and progressive contributions to the art form. This paper's focus on next steps and alternatives seeks to point out the potential for discovering new ways of developing improvisations and is written with a spirit of inclusive progress—a spirit of imagining what new music and modes of expression we

can develop together using our uniquely situated understandings of music, memory, and feeling.

The sense of potential such new seeking brings is invigorating, and reminds me of the excitement and joy I experienced when first encountering, understanding, and performing the classic songs and styles of jazz. Perhaps the diverse and nuanced set of jazz standards will never be anachronistic as long as they are being rediscovered and investigated by musicians inspired to pursue jazz improvisational skill. Nonetheless, there are surely untapped new resources for improvisational materials already partially formed by our received aural experience. As human-computer interfaces become more advanced and tactile the possibilities for new and unexpected musical forms grow ever more tantalizing. We should not any longer be satisfied with computer programs that parrot stylized musical performance or randomly generate materials; we must dig deep into our own understandings of music to enrich the experience of electronic music.

It may be that the period in American improvisational music between 1940 and 1970 has become mythologized in my mind, but I have a sense that the developments in improvisation during that time had an immediacy and validity that is missing in much improvisation today, especially new creative music. Let’s bring that same energy, mythological or not, to our music making and improvisation now.

Appendix

Improvised Suite in Bb Major

performed by John Crooks 05/07/2009

timing based on audio files submitted with paper
all rhythms freely interpreted

1st movement

:01 :15 :28 :39 :47 :55 1:03 1:13 1:26 1:33

2

57 1:46 58 59 60 61 62

63 1:56 64 65 66 67

68 2:06 69 70 71 72 73 74 75

76 2:11 77 78 79 80 81

82 2:15 83 84 85 86 87

88 2:24 89 90 91 92 93

94 2:43 95 96 97 98 99

100 3:00 101 102 103 104 105

2nd movement

:02

:10

:19

:31 *accel.* *...a tempo*

:40

:49

:58

1:09

1:18

1:26

1:34

3rd movement

:00

:29

:42

:50

1:02

1:12

1:20

1:26

1:41

1:48

1:56

2:03

2

65 2:10 66 67 68

69 2:16 70 71 72 73

74 2:25 75 76 77 78 79 80

81 2:37 82 83 84 85

86 2:44 87 88 89

References

Bailey, Derek. 1992. *Improvisation: Its Nature and Practice in Music*. London: The British Library National Sound Archive.

Banfield, William C. 2003. *Musical Landscapes in Color: Conversations with Black American Composers*. Lanham, MD: Scarecrow Press.

Goertzen, Valerie Woodring. 1996. By Way of Introduction: Preluding by 18th- and Early 19th-Century Pianists. *The Journal of Musicology*, Vol. 14, No. 3 (Summer): 299-337.

Goertzen, Valerie Woodring. 1998. Setting the Stage: Clara Schumann's Preludes. In Nettle 1998, 237-260.

Greene, Maxine. 1995. *Releasing the Imagination: Essays on Education, the Arts, and Social Change*. San Francisco: Jossey-Bass Publishers.

Lerdahl, Fred, and Ray Jackendoff. 1999. *A Generative Theory of Tonal Music*. Cambridge, MA: The MIT Press.

Lerdahl, Fred. 2001. *Tonal Pitch Space*. Oxford: Oxford University Press.

Lewis, George E. 2008. *A Power Stronger Than Itself: The AACM and American Experimental Music*. Chicago: University of Chicago Press.

Mockus, Martha. 2008. *Sounding Out: Pauline Oliveros and Lesbian Musicality*. New York: Routledge

Nettl, Bruno, and Melinda Russell, eds. 1998. *In the Course of Performance: Studies in the World of Musical Improvisation*. Chicago: University of Chicago Press.

Oliveros, Pauline. 2005. *Deep Listening: A Composer's Sound Practice*. New York: iUniverse.

---------------------. 1984. *Software for People: Collected Writings 1963-1980*. Baltimore, MD: Smith Publications.

Pressing, Jeff. 1984. Cognitive Processes in Improvisation. In *Cognitive Processes in the Perception of Art*, ed. Ray Crozier and Anthony Chapman, 345-63. Amsterdam: North Holland

-----------------. 1988. Improvisation: Methods and Models. In *Generative Processes in Music*, ed. John Sloboda, 129-78. Oxford, Clarendon Press.

-----------------. 1998. Psychological Constraints on Improvisation. In *In the Course of Performance: Studies in the World of Musical Improvisation*, ed. Bruno Nettl, and Melinda Russell, 47-67. Chicago: University of Chicago Press.

Rabbath, Francois. 1984. *A New Technique for the Double Bass*. Vol. 3. Paris: Alphonse Leduc.

----------------------. 2005. DVD. Art of the Bow with Francois Rabbath. Muncie, IN: Ball State.

Sarath, Ed. 1996. A New Look at Improvisation. *Journal of Music Theory* vol. 40, no. 1 (Spring): 1-38.

Shepherd, John. 1991. *Music as Social Text*. Cambridge, UK: Polity Press.

------------------. 1997. *Music and Cultural Theory*. Cambridge, UK: Polity Press.

Sloboda, John A., ed. 1988. *Generative Processes in Music: The Psychology of Performance, Improvisation, and Composition*. Oxford: Clarendon Press.

von Gunden, Heidi. 1983. *The Music of Pauline Oliveros*. Metuchen, NJ: Scarecrow Press.

Wilson, Olly. 1992. The Heterogeneous Sound Ideal in African-American Music. In *New Perspectives on Music: Essays in Honor of Eileen Southern*. Michigan: Harmonie Park, 1992, 327-340.