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Beyond borders : broadening the artistic palette of (composing) improvisers in jazz

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ABSTRACT

This study discusses the application of advanced compositional and improvisational techniques in the domain of contemporary jazz in order to help (composing) improvisers extend their musical practices beyond functional harmony and conventional chord-scale approach.

Although today's jazz acts as a guesthouse in which elements from the surrounding musical world are welcomed with curiosity, the relationship between improvised lines and the underlying harmonic structures is still considered a substantial part of its structural elements. As a consequence of this "all-inclusive" character, the harmonic approach of traditional jazz improvisation needs reconsideration. This study is based on the issue I share with colleagues and students that we tend to reach the limits of the conventional chord-scale approach. In order to let jazz keep track with recent developments, the advanced compositional and improvisational techniques elaborated upon in this study can be a relevant contribution. However, important to stress is that instead of operating in opposition to functional and modal harmony on which the majority of jazz is still based, these new techniques can be applied alongside, or as an extension to this convention.

Considering the fact that, together with the blues and the work songs, the European classical music tradition was one of the fundamentals of jazz, making it a crossover music *avant la lettre*, this study focuses on harmonic issues in line with the historical development of classical music. For those musicians who feel the need to move on by continuously enriching their artistic palette, the adaptation of twelve-tone and modal techniques by composers of twentieth-century Western art music could provide a fruitful addition to the already existing jazz toolkit. Because it would be naive to assume that just offering new toolkits would be sufficient to innovate jazz music, I decided to also analyze six exemplary publications by leading jazz artists and educators on advanced compositional and improvisational techniques. I undertook this part of my research not only to provide a decent context, formed by already existing educational models: I was also curious how these models would relate to the twelve-tone and modal techniques of the two composers I took as subjects of my research: Peter Schat and Olivier Messiaen.

First, the ideas of Dutch bassist Theo Hoogstins concerning his applications of twelve-tone techniques from Peter Schat's *Tone Clock* to jazz music became a source of inspiration to undertake this research project. Second, a recording of a master class by guitarist Nelson Veras at the Conservatory of Amsterdam inspired me to take Olivier Messiaen's modes of limited transposition as another source to enrich the artistic palette

beyond traditional harmony.

The following research question resulted from the considerations summarized above: How can advanced improvisational techniques by expert jazz educators, and adaptations of serial techniques of composers of Western art music help jazz composers and performers to extend their musical practices beyond functional harmony?

As for the selected methodological tool, I have first reviewed and illustrated the models of all authors and composers. Secondly, their practical applications by professional (composing) performers, including myself, are displayed and analyzed. Thirdly, all practices are evaluated, individually and in conjunction with one another. Finally, in chapters 4 and 5, compendia of patterns constructed with the discussed models are presented to demonstrate how they can add to the improviser's artistic palette.

Most of the models in the educational publications discussed in chapter 3 represent improvisational strategies based on intervallic orderings of pitches rather than on diatonic or modal scales. All five saxophonist-educators mention their relations to twelve-tone techniques: David Liebman, George Garzone, and John O'Gallagher explicitly, Jerry Bergonzi and Walt Weiskopf implicitly.

Liebman's (2013) definitions of terms and his step-by-step stratification of improvisational practices serve as a useful framework to articulate the (composing) improvisers' steps beyond traditional chord-scale techniques. His concept of non-tonal superimposition can be considered as a demonstration within jazz music of what composer and theorist Charles Wuorinen has called the "highly chromatic music of the present day" resulting from a "reconciliation of the two principles of pitch organization, content and order" (Wuorinen 1994: 9).

Bergonzi's (2000) intervallic approach facilitates the creation of unconventional melodic lines. For instance, applying variations to a random or conscious collection of intervals according to his suggested operations can be a fruitful start of a composer's writing process.

Just like Bergonzi, Garzone's (2009) approach, aimed at the creation of tone rows, largely depends on the (composing) improviser's *informed intuition*. Less experienced students might be confused by the strict playing rules on the one hand, and the absence of any theory of the harmonic implications on the other. However, the model enables musicians to create surprising melodic lines, particularly in a context without a stated harmony or with only a limited number of stationary chords.

Weiskopf's (2009) intervallic approach is useful as a step-by-step method to extend one's improvisations beyond conventional linear improvisation, guiding musicians from the

most inside to the more “outside” sounding triad pairs. Despite its obvious connections to functional harmony, it can serve as an effective tool to start making “educated steps” outside the stated chords to create an intended *harmonic vagueness*.

Bergonzi’s (2006) concept of hexatonics – combinations of two triads – can be considered as a valuable addition to Weiskopf’s model. As a result of his intuitive approach, the triad pairs forming his hexatonic scales contain more variety than those in Weiskopf’s model.

O’Gallagher’s book (2013) offers a perspective on playing “outside the chords” that meets my motivation to undertake this research project. With his pragmatic approach of an analytical model related to twelve-tone music, he offers an alternative approach to intervallic improvisation in the form of a detailed and systematic model that is applicable both in twelve-tone and tonal contexts.

Chapter 4 discusses theoretical and practical aspects of Peter Schat’s Tone Clock. This model consists of an inventory of twelve possible trichords that can be arranged to display all twelve pitches of the octave. The resulting twelve-tone rows represent the twelve hours of the Tone Clock. Examples of applications in jazz practices are discussed in pieces by bassist Theo Hoogstins, pianist Frank Carlberg, saxophonist John O’Gallagher, and myself.

In Theo Hoogstins’ piece “7th Hour Blues”, both the composed part and the bass improvisation are constructed with the twelve-tone row of the Tone Clock’s seventh hour. By means of his permutations of the row, Hoogstins manages to deliberately avoid the typical “bluesy” sound in the theme in order to move away from the expected conventional harmonies.

Frank Carlberg’s composition “Green Room”, also based on Schat’s Tone Clock, displays a much more complex structure than Hoogstins’ “7th Hour Blues”. Carlberg uses the structure of the row of the second hour to construct both the melodic lines and the vertical harmonies of the piece. Hereby he manages to combine the ordering principle of the twelve-tone row with the tonal content of trichords and tetrachords. I consider my improvisation in this piece an example of how twelve-tone operations can be played alongside already existing improvisational practices such as tonal chromaticism and traditional chord-scale techniques.

Likewise, the composed parts of O’Gallagher’s piece, “Petulant Snoot”, contain examples of the application of elements from the Tone Clock in both twelve-tone and tonal contexts. Yet, the construction of O’Gallagher’s composition is even more complex than Carlberg’s “Green Room”, because it is based on elements from two different hours of the Tone Clock: the fifth and the sixth. The complexity of the composed parts is reflected

in O’Gallagher’s alto saxophone solo, containing fragments in which twelve-tone and tonal applications of the fifth hour can be identified.

In all three examples, twelve-tone operations can be defined, predominantly in the composed parts. As for the solos, the fragments where twelve-tone techniques are intentionally applied to the rows of the Tone Clock hours are relatively short. Rather than limiting themselves to strictly use the Tone Clock hours at stake, the soloists are freely connecting them to their informed intuitive habits of embellishing pentatonic scales (Hoogstins), playing tonal and non-tonal superimpositions (De Graaf, O’Gallagher), or creating high-density chromatic textures (O’Gallagher). I consider these practices as illustrations of Schat’s idea of the Tone Clock as a way to connect the twelve-tone techniques of atonal music with the more intuitive practice of tonal music.

In order to create a “controlled” environment in which both the compositions and the improvisations express the distinct colors of the separate Tone Clock hours, I composed my saxophone quartet “Carillon”.

The three pieces discussed in chapter 3 (“Onsa”, “Pontiac”, and “Dicke Pitter”) display conscious compositional applications of twelve-tone operations, varying from combinations of three distinct twelve-tone rows to construct melodic lines (“Onsa”), to operations in which segments of the row are used to create both horizontal melodies and vertical harmonies (“Pontiac”), and random combinations of the aforementioned techniques (“Dicke Pitter”). Examples of applied twelve-tone techniques are: octave displacements, transpositions, and the re-ordering of segments (such as trichords, or trichord combinations) from the basic rows. As an addition to Schat’s suggested operations, I did not only combine the segments from the actual Tone Clock hours with their embedded steering hours, but also connected them to the rows of “foreign” hours in order to emphasize their characteristic dissonant (“Pontiac”) or consonant (“Dicke Pitter”) sound colors.

The responses of the soloists to the “suggestions for improvisations”, appended to all movements of the piece, appear to be quite diverse. For instance, in my solo in “Onsa” I demonstrate my suggestions for improvisation on the first Tone Clock hour quite clearly, while in Van Haften’s solo in “Pontiac” the reference to the fifth hour is far more intuitive. This observation relates to the concept of *informed intuition*, indicating that the allegedly spontaneous operations of (composing) improvisers in response to a variety of musical situations depend on a body of conscious or unconscious knowledge acquired by formal education, professional experience, cultural background, and taste.

In order to learn to apply twelve-tone techniques related to the Tone Clock, musicians have to learn to sacrifice at least temporarily some of their “natural” habits to allow and embed new and “controlled” elements. On the other hand, mastering these new techniques does not mean that they should break up with their existing practices. I consider improvising with the Tone Clock as a potential skill to enrich techniques to improvise outside the pre-given or imaginary chords. It is meant to become part of their informed intuition alongside the already existing practices. In other words, twelve-tone techniques can be used alongside existing compositional and improvisational practices.

Chapter 5 discusses Messiaen’s modes of limited transposition as practical tools with the potential to help (composing) improvisers to transcend traditional tonal practices. In contrast to the twelve-tone rows of the Tone Clock hours, the individual characteristics of the seven modes are determined by their restrictive transpositional possibilities, their symmetric structures, and their ambiguous tonal colors.

Examples of performances by Nelson Veras, Bo van der Werf, Jasper Blom, and Steve Lacy are presented as practical jazz applications of Messiaen’s modes.

Veras’ particularly melodic applications of Messiaen’s third (M3), fourth (M4), and sixth (M6) mode convincingly demonstrate their tonal ambiguities: by taking different degrees of the mode as pivot notes of temporal tonal centers, various embedded diatonic structures inside the modes can be highlighted.

In Van der Werf’s complex composition “Calcutta”, a variety of Messiaen’s techniques, including non-retrogradable rhythms, are combined. The piece is based on the second (M2) and the sixth (M6) mode, but the soloists are also offered a succession of chord changes as a basis for their improvisations. In contrast to Veras, who only sparsely leaves the notes of the mode, Van der Werf continuously adds “foreign” notes, both in the composed and improvised parts. As a result, it is often difficult to identify the actual modes. In his solo, Van der Werf displays an interesting inside-outside-inside approach, taking the second mode (M2) as his point of departure for excursions into tonal structures inside and outside the mode.

Both in the composed and in the improvised parts, the ambiguous tonality of Messiaen’s third mode (M3) is the main subject of Blom’s composition “Let Give This Tree A Little Friend”. As an addition to Van der Werf’s operations, Blom displays Messiaen’s concept of parallel harmonies, by playing (fragments of) M3 on top of each other, each one starting on a different degree of the mode. His tenor saxophone solo contains comprehensive operations with M3, highlighting the mode’s characteristic ambiguous harmonic content. Altogether he manages to create an unconventional musical space, incorporating a clear relation between the composed and the improvised parts of his piece.

Lacy's composition "Prayer" is involved in this chapter to demonstrate that operations with Messiaen's modes can also be achieved in pieces with simple structures, with limited means, and in a small line-up. In addition to his emphasis on the particular colors of the fifth mode (M5) by playing frequent repetitions, Lacy applies Messiaen's modes to conduct ingenious contrapuntal operations.

In my composition "A Crow Calling" the ambiguous colors of the three parallel tonalities implied in M3 are found in a variety of mode embellishments, both in the composed parts and in the tenor saxophone solo. The harmonies in the melody and in the accompanying chords are exclusively constructed with notes from the mode. My tenor saxophone solo shows how the three symmetric minor/major tonal centers, intertwined with the embellishments in the bass lines, can become a fruitful source for melodic improvisation. Because a composition based on Messiaen's sixth mode (M6) is lacking in the examples discussed so far, I decided to use this mode to compose "Sparrows". In the composed parts of this piece I frequently refer to the augmented fourth interval that is quite prominent in this mode.

In my composition "Dicke Luft" the application of the second mode (M2) is only used in the last part of my solo. On top of a static pedal point, played by the rhythm section, I intuitively whirl around the exact content of the actual mode, freely switching between embellishments (defined here as scale variations) of the basic notes of the mode, its implied dominant-seventh chord with alterations, and, eventually, a superimposed major-seventh chord.

Just like the applications of the Tone Clock hours in chapter 4, all discussed works in chapter 5 illustrate the potential applications of Messiaen's modes to enrich the jazz musicians' palette beyond functional harmony. However, compared to the twelve-tone techniques, in Messiaen's modes, references to (ambiguous) tonal colors are omnipresent. Hence they can help (composing) improvisers to add an intended "harmonic vagueness" to their music.

Yet, it should be noted that, in the strict sense, the addition of notes outside the actual modes, found in all pieces analyzed here, does not match Messiaen's original aim of "never leaving the notes of the modes." However, although I usually advise other musicians to avoid the adding of "foreign" notes as much as possible, I simply cannot disapprove of these additions if combined explicitly or intuitively with existing improvisational techniques; these operations are typical representations of how jazz practitioners are used to import new elements in order to broaden their musical space. However strict the rules of the newly imported techniques are, the curious (composing)

improvisers are free to adapt and transform them, which is simply one aspect of a creative process.

After a summary overview of the relations between Messiaen's modes and traditional harmony, a generative compendium of melodic patterns is presented. By commenting on characteristic (steering) intervals, on relations with other modes, and on implied harmonic structures, I intend to motivate and help musicians to use these patterns as a point of departure for their individual applications.

To end the journey I have embarked upon in this study, chapter 6 contains more concrete and up-to-date results: a coda in the form of a number of recent recordings.