

## Moacir Santos' Mediations: a Look at His Dialog Between Harmonic Languages

### *Mediações de Moacir Santos: um olhar sobre seu diálogo entre linguagens harmônicas*

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**Abstract:** This article seeks to provide a panoramic portrait of the work of the musician Moacir Santos according to his characteristic mediation between different forms of musical organization. More precisely, I indicate how functional harmonic treatments coexist in the composer's pieces with constructions not confined to the traditional limits of tonalism. Such "mediations" between distinct harmonic approaches are traditionally understood by Santos scholars as an "ambiguous" —and, in this sense, indefinite — trait of his music. However, in addition to the ambiguities, I seek to demonstrate here how this harmony obeys a proper and well defined organization, guided in general by the horizontal aspect of voice leadings as the main building element.

**Keywords:** compositions by Moacir Santos; mediation in triadic post-tonality; Brazilian instrumental music.

**Resumo:** Este artigo busca fornecer um retrato panorâmico da obra do artista Moacir Santos segundo sua mediação característica entre diferentes formas de organização musical. Mais precisamente, se assinala como tratamentos harmônicos funcionais convivem nas peças do compositor, com construções não confinadas aos limites tradicionais do tonalismo. Tais "mediações" entre abordagens harmônicas distintas são tradicionalmente entendidas por estudiosos de Moacir como traço "ambíguo" – e, nesse sentido, indefinido – de sua música. Porém, para além das ambiguidades, se busca demonstrar, aqui, como essa harmonia obedece a uma organização própria e bem definida, guiada em geral pelo aspecto horizontal dos *voice leadings* como elemento principal de construção.

**Palavras-chave:** composições de Moacir Santos; mediações na pós-tonalidade triádica; música instrumental brasileira.

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## 1 - Contextualizing Moacir Santos

The notion of fusion between languages and diverse musical styles is old and long discussed from various perspectives within the field of music: from musicological to sociological analysis, from music history to aesthetic criticism, and so on. Without entering into the question of the inherently hybrid nature of language (BAKHTIN, 1981 and 2003), it is possible to highlight specific historical moments in which musical creation flourished from the fusion of different universes -- from the parody masses by Renaissance artists such as Josquin Des Prez to the search for folk elements in 20<sup>th</sup> century primitivism and modernism by figures such as Bartók, Stravinsky and Villa-Lobos. In the field of popular urban music, stylistic fusions have been

widely practiced throughout the twentieth and early twenty-first century, partly because of the great access to different content and the increasing speed of information via technological means. Free jazz's initial exploration of world music (especially from the Indian, African, Japanese and Arabic cultures) (BERENDT and HUESMAN, 2014), progressive English rock's similar quest in the 1970s (MACAN, 1997), and *Tropicália's* controversial fusions in '60s Brazil between rock guitars and what was then understood primarily as "Brazilian music" (NAPOLITANO, 2001) are emblematic moments of this process. However, among the infinite possibilities of fusion, this article intends to explore a specific type – the coexistence in a musician's work or set of works of different forms of musical organization. In a recent publication focused on the analysis of post-tonal music, theorist Richard Cohn elaborates this question as follows:

Can music of high aesthetic value really partake of two systematic modes of organization, shuttle between them almost instantaneously, and even overlay them? Are our musical brains wired in such a way that we have the capacity to shift between these syntaxes as if at the click of a switch, or to multitask between them? (COHN, 2012, p.12)

This question is posed in relation to nineteenth-century works that combine a tonal approach with stretches of triadic harmony that are not totally confined to traditional diatonic limits. That is, the author deals with what he himself chose to call "Triadic Post-Tonality" (COHN, 1998, p.168) within the framework of eighteenth-century European classical music. We want to approach the work of musician Moacir Santos in this sense of coexistence between distinct musical organizations. Santos stood out in the 1960s Brazilian popular music scene with his own type of fusion, and his varying forms of organization (tonal and "non-tonal") were accompanied by a specific mixture of stylistic order among elements of folk, erudite and urban popular music. In particular, Santos emphasized not only the homogeneous way in which he had managed to delineate such a fusion, but also the presence of distinct temporalities in his work—an aspect directly related to his biography.

Santos was born in Flores do Pajeú in the arid backlands of Pernambuco in 1926. He was poor as a child and grew up learning music with bands from the interior of the state. There, he gained his initial experience as an instrumentalist and composer of popular genres such as *choro*, *baião*, *xote*, *marcha*, and the waltz, among others. The artist's pilgrimages to cities in the interior and capitals such as Recife and João Pessoa would lead him to be a musician with circuses, jazz bands and regional radio groups, as well as military bands. His migration to Rio de Janeiro in 1948 was a fundamental milestone in his career path in several senses. There, Santos became an instrumentalist and later arranger for Rádio Nacional (the national radio station), and he worked as an arranger, musical director and conductor for several phonographic productions. He was a music teacher and the partner of important figures in *bossa nova*, such as Nara Leão, Sérgio Mendes, Vinícius de Moraes and Baden Powell. As well, he composed movie soundtracks for filmmakers such as Caca Diegues and Flávio Tambellini. His contact with Afro-Brazilian culture, such as the *candomblé* religion and the development of his interest in various mystical beliefs would also inform his artistic production from then on.

In the midst of this set of experiences, a specific factor played a special role in the composer's career: the theoretical lessons he received from teachers such as Guerra-Peixe, Cláudio Santoro and Hans-Joachim Koellreutter, among others. Initially averse to theoretical studies, Santos

would end up clinging to them with great determination and would consequently develop a remarkable mastery of his creative processes throughout the 1950s and '60s, converging on the release of his first solo album, *Coisas (Things)*, 1965). Here, two different temporalities in the artist's work were already clearly defined. The marked presence of the universe of oral tradition from which Santos had emerged – with a circular temporality, recurrent, and tied to traditional or mythical contexts – was present in the modal aspect of several pieces, as well as in the cyclic character of melodic and rhythmic materials, and in the use of pedals and ostinatos, among other factors. This aspect was revealed not only in musical elements, but was present in titles of works even prior to *Coisas*, in the form of mythical memories of childhood and adolescence: *Saudade de Jaques* (an homage to Jackson do Pandeiro), *Jequié* (a memory of one of Santos's trips), *Paraíso* (remembering the *Circo Paraíso*, where he participated as a musician), *Da Bahia ao Ceará* (relating to another of his trips), and *Flores (Flowers)*, an homage to his native city), among others. On the other hand, a rational, pragmatic, directed temporality, linked to the rigor and planning of Western culture, stood out amidst the minutia with which Santos manipulated his forms, his melodic and motivic variation, his use of orchestration and, above all, his exactitude in harmonic aspects related to voice leading and punctual symmetries.

Alongside the mythical memory of the past and the rationalization of the creative process, Santos would also reveal a view toward the future at times throughout his career. This can be seen initially in his statements in the era of *Coisas* concerning his artistic pretensions: "The ideal is that we find the way that will bring together the European instrumental and harmonic ideas and the African spirit and rhythm" (SANTOS, 2005, p.6). Such a statement already makes it clear that the artist's theoretical studies had led him toward a nationalist ideal, close to the molds of his main mentor, Guerra-Peixe, including research on national folklore as a basis for the construction of his own art. Such an artistic ideal would never cease to be pursued by Santos throughout his life, given the uniformity of creative procedures in the different phases of his career (BAHIA, 2016). Whether it is in a work of his final phase, such as *Amalgamation* (from the album *Ouro Negro*, 2001), or in the material from *Coisas*, released thirty-six years earlier, it is possible to point out what Ernest Dias called a "mediation between tonality, modality and atonality" (ERNEST DIAS, 2010, p.167). This article therefore focuses now on this specific coexistence between musical organizations.

## 2 - Mediations in three creative phases

In a recent research paper (BAHIA, 2016), I proposed the division of Santos' solo career into three distinct phases, namely: the "Brazilian phase," concerning the period of residence of the artist in Brazil and including his debut album *Coisas* (1965); The "American phase," starting with his migration to the United States in 1967 and the subsequent release of four albums in that country; and, finally, the "mature phase," referring to the artistic return of Santos to Brazil with the release of the album *Ouro Negro (Black Gold)* in 2001. In this sense, it is possible to perceive, in the three phases, the mediation between *tonality, modality* and *atonality*, described above by Ernest Dias. However, in my aforementioned research, I chose to classify such mediation in another way, simply preferring to include Santos within the broad universe of "Triadic Post-Tonality." Here, I use the term in the same sense used by COHN (1998): I consider that, based on the record *Coisas*, what is found in Santos's work is precisely the free transit between a tonal language and a triadic language not limited to the traditional limits of diatonic tonality. Although the word "mediation" makes complete sense, from a certain point of view, it

causes what many other attempts to understand Santos (DURÃES NOGUEIRA, 2008; VICENTE, 2008 and 2012) also cause: a definition of his harmonic language that focuses on its ambiguity – that is, with a focus on what it denies. As Cohn himself said, for example, about the post-tonal harmonic vocabulary of the nineteenth century:

To acknowledge that chromatic progressions of triads might be based in some syntactic principles other than those of diatonic tonality is to clear a space, but that is not the same thing as building a house. One needs to be able to say something about what that syntax is, not just what it is not. (COHN, 2012, p.12)

It is true that Santos often works with various ambiguities typical of his style and that this in itself is a valid way of defining it. Among the most commented upon examples of such ambiguities, we can cite the following:

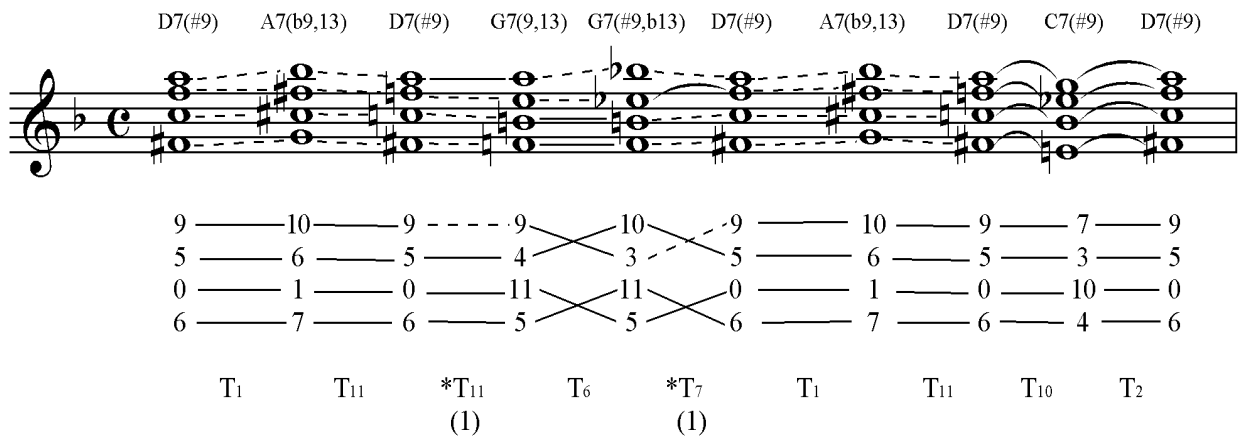
- Ambiguities between modes: we do not know how to identify with which mode the composer works on a given part of a piece, and there may be two or more correct options.
- Ambivalences, especially between a major mode and its parallel minor—often postponing such choices until the end of musical sections, or simply not defining it.
- Overlays of modal and tonal procedures, as VINCENT (2012) observes about Santos's frequent practice of superimposing modal melodies on tonal harmonic cadence—or using "a selection of notes in the melody that end up constituting the structure of a mode, without a direct link to the tonality or harmonic progression underlying the music" (VINCENT, 2012, p.156).
- Presence of the concept of "modulatory harmony," which VICENTE (2012) borrows from TINÉ (2008), designating a discourse where "chords seem to have no relation to each other through the harmonic field" (TINÉ, 2008, p.171).

All these observations are valid and true about the music of Moacir Santos. However, what I argue here is that it is possible to seek to understand this music beyond these ambivalences, that is, to understand it not by what it sometimes denies (a more precise tonal or modal definition, for example), but by what actually constructs it and defines it as language, which in practice comes to be this: a harmony that is established by voice leading and specific counterpoints, the resulting verticalities being mere consequences of this horizontal discourse. By this I mean that the *voice leadings* and their contrapuntal aspect define the chords in Santos, and not the opposite process -- that of selecting chords and only later deciding how to connect them. This aspect becomes clear, either in the artist's tonal passages or at the times where harmony is not limited to traditional tonal borders. The free transit between these two "spheres," in distinct pieces or within the same piece, is what harmonically delineates Santos's solo production. Let's look at some examples.

### 3 - First phase analysis examples

Starting with a piece from Santos's initial phase, we choose one of the most emblematic works on the album *Coisas* (1965), titled *Coisa no.5 – Nanã*. Vicente points out in this song (again) the ambiguity between modality and tonality, as well as the presence of the "complete blues mode"

(VICENTE, 2008, p.43), from the sonority of some chords, such as that of the first degree D7(#9), of a major and minor quality at the same time due to the presence of the augmented ninth (enharmonically, a minor third); also stating that the score of the official *Coisas* songbook (SANTOS, 2005) presents the piece in the key of D minor. However, apart from the ambiguities and their possible modal or functional aspects, see in Figure 1 (chords of part A of the piece, m.26-33) how Santos's harmonic discourse is generated primarily by a specific voice leading in which all the voices move only by tone and semitone intervals. The dotted lines designate movements by semitone, the continuous ones mark common notes and the continuous curved lines punctuate movements by major 2nd. In the sequence of the figure, the excerpt's chords appear to be transformed into pitch-class sets, in order to observe how the *voice leading* from a post-tonal point of view takes place; that is, it matters how many semitones are needed to map a given pitch-class set onto the next set, demonstrating the level of similarity of sound between them. The Santos section appears clearly organized by a succession of simple transpositions between sets — just the relationships between the third and fourth sets, as well as between the fifth and the sixth, bring one deviation each by only one semitone. Thus, it is a section entirely organized by complete or almost complete similarities of sonority between sets:



**Figure 1:** Voice leading in Part A of *Coisa no.5*.

Note also the accuracy of Santos in keeping constant intervals between bass and tenor (six semitones or a diminished fifth) and between tenor and alto (five semitones or a perfect fourth, with the sole exception of the G7(#9,b13) chord, varying only the intervals between alto and soprano. This kind of interval approach will again appear in another piece on the same album, *Coisa no.3*, as we shall see below in Figure 2. Already in *Coisa no.8*, also present in *Coisas*, Santos applies similar subtlety in voice leading, this time, in an unambiguous context in the key of Bb minor. Both parts A and B of the piece are transcribed in the songbook as sequences of tetrads and pentads, but Santos distributes the accompaniment between a bass line and the part of the guitar, all composed of trichords. The notes he chooses for trichords describe relationships very close to the example set forth above. In part A (m.1-8), the sequence is divided simply by two identical chromatic lines described by the lowest notes of the chords, in the antecedent and consequent phrases of the period (the arrows below indicate the direction, descending or ascending, of the semitones in the bass line):

C7(b13) F7(b9) Bbm7 Eb7(b9) Bbm7 C7(13) F7(b9) Bbm7 Eb7(b9) Bbm7

minor 3rd

st ↓ st ↓ st ↓ st ↑ st ↓ st ↓ st ↓ st ↑

8 - - - - 6 - - - - 5 - - - - 4 - - - - 5      9 - - - - 6 - - - - 5 - - - - 4 - - - - 5  
 4 - - - - 3 - - - - 1 - - - - 1 - - - - 1      4 - - - - 3 - - - - 1 - - - - 1 - - - - 1  
 10 - - - 9 - - - - 8 - - - - 7 - - - - 8      10 - - - 9 - - - - 8 - - - - 7 - - - - 8

\*T<sub>1</sub> (1) \*T<sub>11</sub> (1) \*T<sub>11</sub> (1) \*T<sub>1</sub> (1)      \*T<sub>11</sub> (1) \*T<sub>11</sub> (1) \*T<sub>11</sub> (1) \*T<sub>1</sub> (1)

Figure 2: Voice leading in Part A of *Coisa no.8*.

Already in part B (m.17-24), in Figure 3 below, Santos simply divides the stretch between one static half and the other with subtle motions of tone and semitone:

Ebm7 Gbmaj7 G° Fm Fm(maj7) F7(b9)

Figure 3: Voice leading in Part B of *Coisa no.8*.

The practice of dividing passages by contrast of voice leadings or repetitions of similar lines is common in other parts of *Coisas*, such as *Coisa no.2*, one of the first works created for the record. ERNEST DIAS (2010) dates it to 1956, nine years before the release of the album. In part A between measures 123-28, as we can see in Figure 4, the melody is harmonized by the voicings of the winds and is always doubled in octaves. The notes of the voicings, below the melody, maintain the level of interval subtlety of the other pieces commented upon. What, however, best supports the harmonic cohesion are clearly the two low lines in intervals of seconds to divide the section in the middle:

Db7(#9)
Eb7(b9)
Abm7
Am(9)
Abm7
Gbm(9)

**Figure 4:** Voice leading in Part A of *Coisa no.2*.

However, perhaps the passage from *Coisas* in which Santos generated a more ambiguous discourse from the voice leadings was part A of *Coisa no.3* (m.1-4), based on the parallel movement of the voices below the melody. Here, as in *Coisa no.5*, the intervals between bass and tenor (of 10 semitones) and between tenor and alto (6 semitones) are kept constant, varying only the intervals between alto and soprano. Such an approach generates vertical constructions with a kind of undefined hierarchy, having in mind that the rhythmic treatment will not affirm the primacy of any of them. Let's look at the example in Figure 5 below followed by its harmonic reduction:





continents were one. The landscape is the same, beaches, coconut palms, palm trees... (SANTOS, 2001)

From this new extramusical portrait sought by Santos, *Bluishmen* began to divide into two distinct movements or "Forms" (BAHIA, 2016): the first had a slow nature, floating, with little harmonic movement, besides instrumental effects that send us to the elements suggested by the artist, such as sea waves and wind noise; the second one had a doubled tempo, rapid chord changes and rhythms that refer to the universes of the *baião* and *caboclinho* (two typical popular genres from Brazil's Northeast). The intended conjunction between Africa and the Northeast is thus quite clear throughout the narrative. Concentrating, however, on its strictly modal aspect, we will show below part B of the first form, composed of the sequence: Introduction - A - B - A'. After the Introduction and part A, passed in *Db* Lydian mode, part B begins the first mode changes: the section simply comes down to two measures in *Db* Lydian b7 and one measure in *Gb* Lydian, a sequence that repeats once. The occasional *Gb* note (circled in Figure 6 below), which occurs only briefly in the first two measures of the sequence, foreshadows the mode of the next measure, in addition to making the initial mode itself ambiguous - it lies between *Db* Lydian b7 and *Db* Mixolydian. The second mode also affirms a certain lack of definition: between *Gb* Lydian and *Db* Ionian. In either case, however, the switch from one mode to another occurs with at most two semitones of difference, a ratio demonstrated after the score:

**B Part**

Melody played by F. Horn (doublings: Trumpet in unison and Sopr. Sax. one octave higher)

Melody and Voicings (Winds and Bass)

Ten. Sax  
Tbn  
Bari. Sax  
Bass Tbn

Bass (pizz)

Piano

Organ

20

Melody and Voicings (Winds and Bass)

Melody

Ten. Sax.

Tbn.

Bari. Sax.

Bass Tbn.

Bass (*pizz*)

Piano

Organ

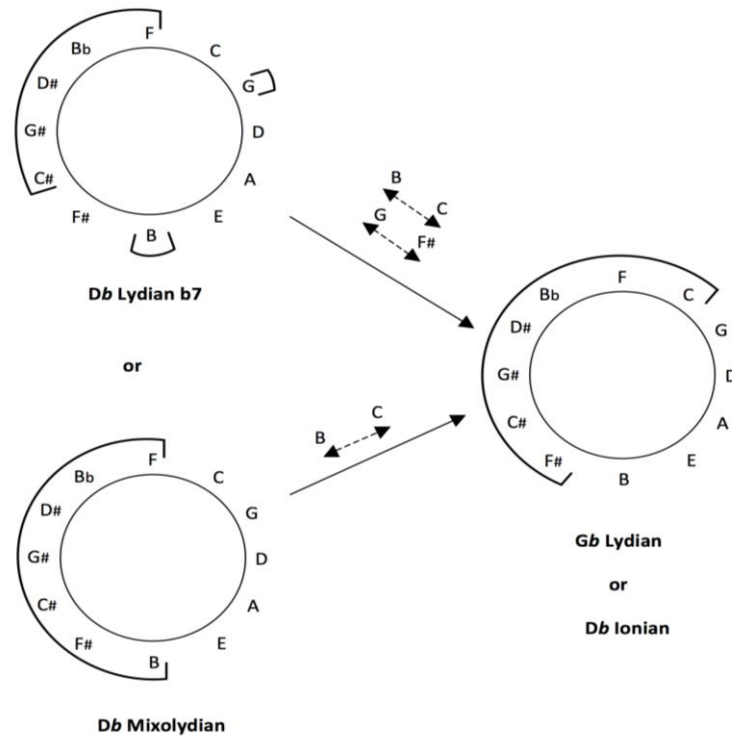
22

Melody and Voicings (Winds and Bass)

Piano

Organ

Sequence: ||: 2 measures → 1 measure : ||



**Figure 6:** Economic switching between modes in Part B of *Bluishmen* (Form 1).

The discourse is organized, clearly, by the economy in the exchanges between modes or reference collections that inform the sonority of the work. This same economy is applied, following Form 1, in its part A' (Figure 7). In it, the mode of *Db Lydian* of the first four measures becomes, in the six final measures, something between *Db Ionian* and *Db Mixolydian*, an indefinición caused by the absence of both the C note and the B note (inharmonic *Cb*). As in part B above, the mode change occurs, in any case, by at most two semitones:

**A' Part**

24 Melody played by F. Horn (doublings: Ten. Sax in unison and Sopr. Sax one octave higher)

Melody and Voicings (Winds and Bass)

Piano

Organ

Tpt.

Tbn.

Bari. Sax.

Bass Tbn.

Bass (bow)

Bass Tbn.

Bari. Sax.

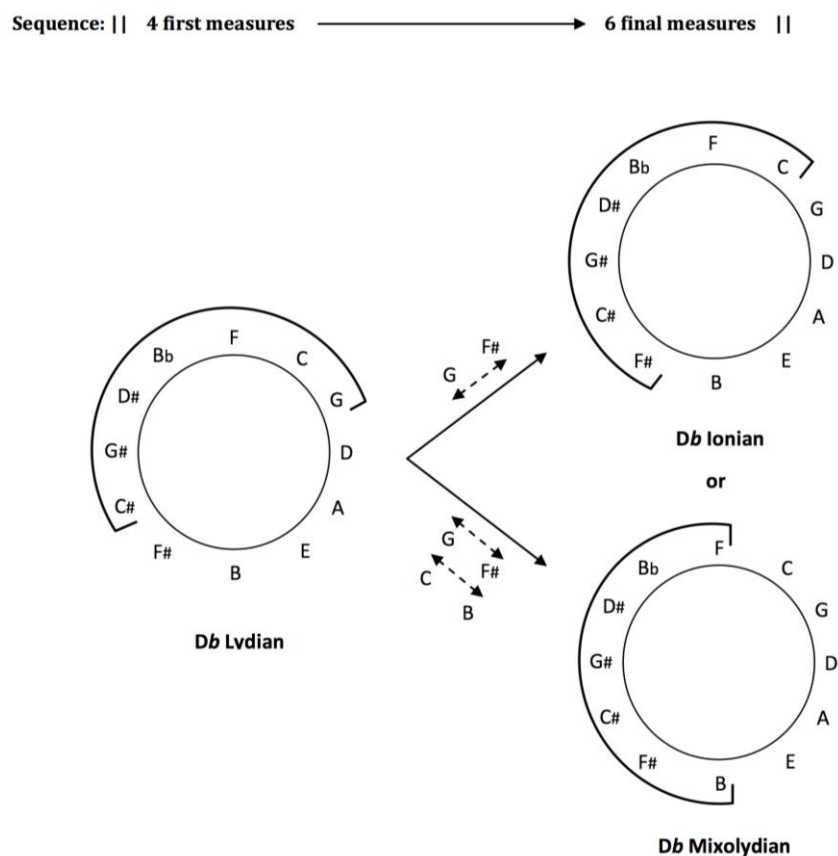
28 *Alla Breve*

Melody and Voicings (Winds and Bass)

Piano

Organ

*Double Time*



**Figure 7:** Economic change between modes in Part A of *Bluishmen* (Form 1).

*Bluishmen* thus exemplifies the harmonic dubiousness of Santos within a new context, i.e, as a consequence of economic relations between modes, again exposing the subtle exchanges by semitones as the defining procedure of his language. It is also possible to cite a third and last example of this approach in the piece *Amalgamation* (*Ouro Negro*, 2001), which represents the artist's last creative phase, attesting to the continuity of his procedures.

## 5 – *Amalgamation*: tonality and post-tonality

All the examples thus far have been devoted to the role of voice leadings in the harmonic construction of Santos, but they do not necessarily address the way in which his creative process occurs as a whole. In this sense, there are many statements of the artist himself indicating that when he created music, melodic themes used to be the first thing to come to mind, and the piece later developed from them. About *Astral Whine* (*Maestro*, 1972), he said:

We lived in New York in the late sixties. One night, Cleonice [Santos's wife] became ill. I put her in the shower and I headed desperately into the street, looking for a pharmacy. That was how this melody came into my head (SANTOS, 2001).

As for *April Child*, a piece from the same album, Santos says that, returning from the Blue Note label to his house, "I looked at the blue sky, I remembered Brazil and I started to sing this African thing..." (SANTOS, 2001). Similar situations were narrated by the artist about several other

pieces. *Coisa no.3* (*Coisas*, 1965), *Coisa no.5* (idem), *Kamba* (*Carnival of Spirits*, 1975), *Maracatucutê* (*Ouro Negro*, 2001) and many others always emerged from some specific situation - or sensation provoked by it - motivating the birth of a new theme. Producer Mário Adnet, who worked and lived closely with Santos throughout the musical projects launched in Brazil, goes a little further about his creative process: "In my opinion, he began to compose from an intuitive melody (always something ancestral) that was hammering in his head. Soon afterwards, he wrote the bass tying together everything, millimetrically thought out and constructed, always entertaining." (BAHIA, 2016, p.262).

Precisely this last process is strongly suggested by *Amalgamation*, which like other works by Santos, is defined above all by the counterpoint constructed between melody and double bass, the other elements of the piece gaining a secondary role. In part A, even the voicings of the accompaniment (piano and winds) are placed discreetly -- the voicings are much more closed than usually occurs in Santos, so as not to interfere with the melodic elements of the main counterpoint. In Figure 8, we see the harmonic reduction for piano (whose bottom line is doubled by double bass), plus the melody of the baritone sax:

1st Phrase

The figure displays two systems of musical notation. The first system, labeled '1st Phrase', begins at measure 7. It features a Baritone Saxophone (Bari. Sax.) line and a Piano (Piano) line. The Bari. Sax. line contains a melodic phrase with a triplet of eighth notes and a fermata. The Piano line provides harmonic support with chords and a bass line. Above the Bari. Sax. line, a bracket labeled 'Inciso 1' spans measures 7-9. Below it, three sub-brackets identify 'Figuração 1' (measures 7-8), 'Fig 2' (measure 8), and 'Fig 3' (measure 9). A fourth bracket labeled 'variations - Fig 3' covers measures 10-11. Harmonic labels 'I6,9', 'IV6,9', and 'II(maj7)' are placed above the piano staff. The second system, labeled 'Repetition of the 1st Phrase with variation', begins at measure 10. It shows the Bari. Sax. line repeating the melodic phrase with variations. The Piano line provides accompaniment with chords and a bass line. Harmonic labels 'II(maj7)', 'II6', 'I°(b13)', and 'Imaj7(9)' are placed above the piano staff.

Repetition of the 1st Phrase with variation

Development

13

Bari. Sax.

ascendant variations of the *Inciso 1* complete variation of the 1st Phrase

*I*add9 *VI*m7 *II*m(maj7) *V*/III *III*m7(11) *I*6,9

Pno.

16

Bari. Sax.

two variations - *Fig. 1*

*IV*maj7 *VI*m7 *V*/V *V*6,9 *IV*7(#9,#11)

Pno.

19

Bari. Sax.

preparation for the B Part

*VI*m7 *V*/V *V*7(#11) *V*7(b9,13) *I*6,9 *bVII*4add9 *bVI*°7

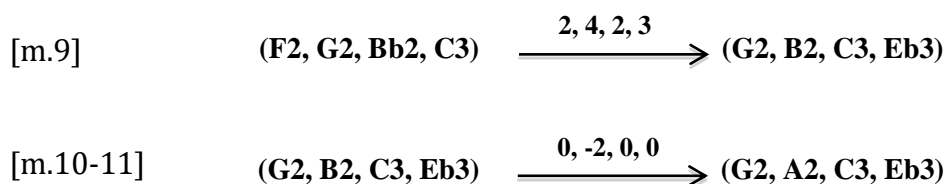
Pno.

Figure 8: Construction of Part A of *Amalgamation*.

The segmentation of the main melody adapts here to the concept of *sentence*, as defined by SCHOENBERG (1996), in the sense that there is a first phrase (of three measures in the example of Santos), repeated next with some variations. Only then, a kind of development of the material occurs, totaling, in this case, twelve measures. The development of Santos occurs precisely through variations of the first phrase, the first *inciso* (paragraph) and the first *figuração* (figuration) - the last two categories being related to the segmentation model of SCLIAR (1982) and the first term not possessing, in the musical sense, a precise translation into English. Such a process thus practices a kind of "evolutionary construction," as Schoenberg classifies it in opposition to the cyclical discourse of *periods* (SCHOENBERG, 1996, p.14). It is interesting to note that here the bass line constructs its own sentence, divided in an identical manner to that of the main melody -- first phrase, varied repetition of the first phrase and subsequent development of the material. The double bass, however, takes place on variations of its unique figuration, based on eighth notes. Such a construction from the combination of two lines, basically segmented in the same way, is the guiding thread of Santos's discourse in *Amalgamation*. Voicings, as stated, not only occupy a secondary place, but also forge a language of tonal character - see harmonic analysis with Roman numerals in the above example - including some tonicizations, diminished chords, and modal borrowings. We suggest that, for a deeper analysis of this harmony, the reader should refer to the fourth chapter of this researcher's recent work on Santos (BAHIA, 2016), since it is important here to address the specific issue of voice leadings. In this sense, with the exception of the transitions to part B (1st and 2nd endings), this part A of *Amalgamation* maintains the logic of the subtle movements between voices, including what Kostka called the *voice-leading chords*:

Such chords are the result of goal-directed motion in the various voices, rather than an attempt to express some traditional harmonic progression... This goal-directed motion is usually stepwise, often chromatic, sometimes in similar motion and sometimes not. The resulting verticalities are usually tertian (triads and 7th chords), but the chords form nonfunctional successions or brief tonicizations. (KOSTKA, 2006, p.9)

The author makes the caveat, however, that these chords are also used in functional contexts and, in this sense, there are several voicings in the example of Santos that move with determined direction, either by similar or oblique movements. The numbers on the arrows below describe the number and direction of semitones between corresponding notes of different chords:



The functional context, in *Amalgamation*, coexists, however, with a clearly post-tonal variation of part A. This presents the melody harmonized by the voicings of all the wind instruments up until the melodic "development" (not included below in Figure 9), when it returns the solo line of the baritone sax. Let's look at the *tutti* excerpt:



40

Winds

Sopr.Sax.  
Fgh.  
Ten.Sax.

Tbn.  
Bari.Sax.

Piano

doubled by the Bass

Bb Ab F Gb Bb Db F Ab Gb D F Eb Bb Db Cb Ab

42

Eb F Gb/Bb Bb6(9) G7(b9,b13)

Cm    Bm G#m Am Cm Em G#m Bm Am    F#m Am Gm Em Gm F#m    Em

A7(maj7,9)                      Bbmaj7(9)

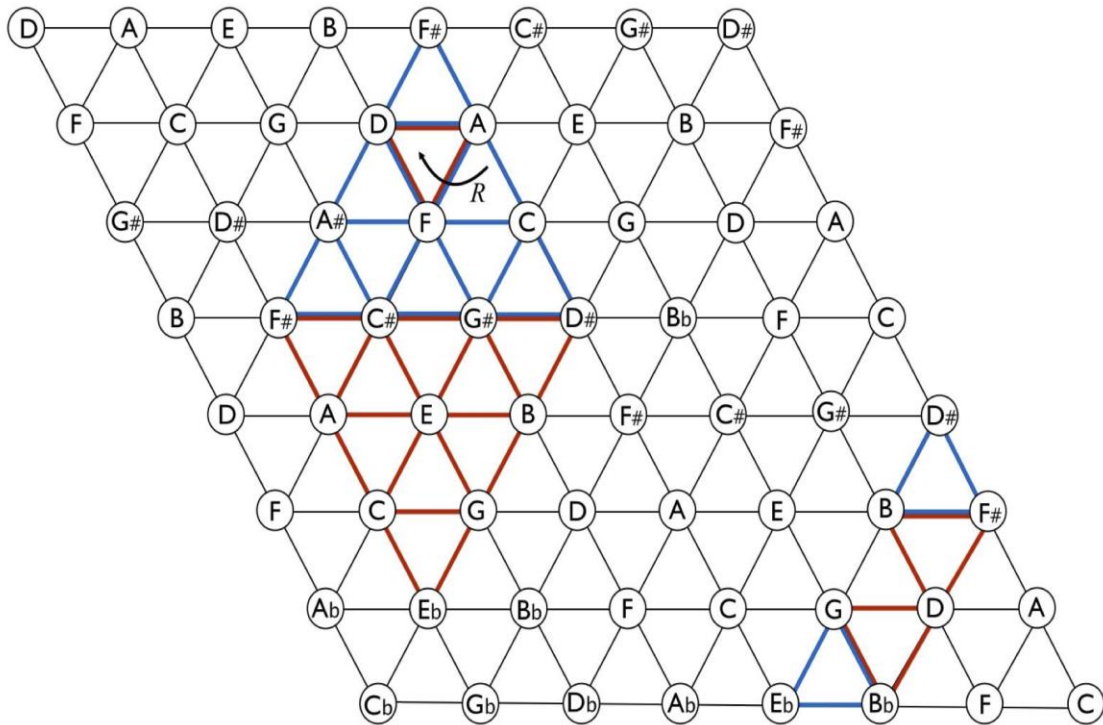
C#m                      Dm

46

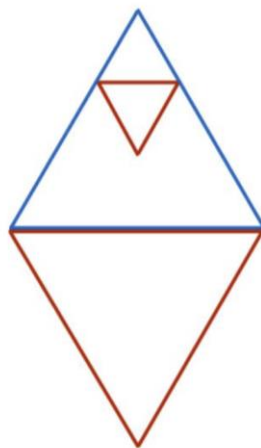
**Figure 9:** Parallelism in Part A (Varied) of *Amalgamation*.

In this new version of part A, note that there is a brief melodic interference of only one measure (m.43), in which a melody, which hadn't been heard before in the piece, divides the stretch of the *tutti* in half, three measures to the left and three measures to the right. At both poles, all voicing lines move entirely by parallel motion, establishing 18 major triads at the left pole and 18 minor triads on the right pole (note that the two triads of m.46 are clearly highlighted by the orchestration of the winds). If we demarcate all the triads of both poles in *Tonnetz* (blue

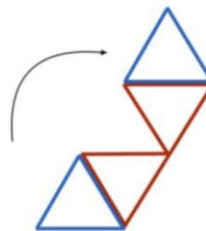
triangles for major triads and red triangles for minor triads), we will see, in Figure 10 below, that the "total" harmony of this part A produces two distinct figures. The smallest of these describes harmonic materials related by rotation. The main figure shows an almost complete mirroring between the other triads. The only exception is the D minor triad (the last triad of the second pole), which is related to the last one of the first (F major) by triadic transformation  $R$ .<sup>3</sup> Let us look at the *Tonnetz*, followed by the observed relations:



**Mirroring**



**Rotation**



<sup>3</sup> It has to do with the term *Relative* (COHN, 2012), in which both triads divide two common notes, with the third note of each one being two semitones apart.

**Figure 10:** Symmetric mirroring and rotation relationships in *Tonnetz* of Part A (*tutti*).

Here, we finally have an example of the coexistence of different organizations - one functional, the other clearly post-tonal -- emerging not in different pieces, but in the same work. Such coexistence reveals a deepening of the typical ambiguity of the artist, seen since his first-phase works - an ambiguity, however, achieved not by simple denial, but by the well defined and fundamental factor of voice leading.

## 6 – Conclusion

In this article, we briefly presented how the specific connections of voice leadings and counterpoint in Moacir Santos are the main continuity factors in his harmonic language, thus having the importance of being determinant aspects of his approach. Independently of the functional or nonfunctional context of his musical passages, economic voice leading is not the consequence of a randomly chosen harmony but is itself the medium through which the artist produces his discourse.

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