

Spectral harmony: continuity and rupture in works by Tristan Murail and Almeida Prado

This conference will focus on two pieces written during the 80's, *Désintégrations* by Tristan Murail and *Missa de São Nicolau*, by Almeida Prado. The reason why I chose these works from the 80's is that I believe that those were turning point years on aesthetic evaluations for many artists. If one looks at the seventies, that had an experimental character, and then turns to works composed on the eighty's will realize that the music scene had changed. Aspects that were considered "conservative" gained new strength and replaced the former "modernist" attitude. Ideas on continuity reappeared with great emphasis, meaning that avant-garde movements had reached both sides of its limits: abstraction in music writing techniques and alea processes in performance and chance music. Both based chosen for this communication based aesthetic decisions on their need to embody empirical experience.

The avant-garde attitude

Discontinuity was the main theoretical tool for the avant-garde from the fifties to the seventies. Discontinuity also meant breaking free from traditional values that were related to a society that had led two major wars. On the after-war period the prevailing idea amongst artists and intellectuals was the idea of rupture, with French writer Gaston Bachelard as a mentor on ideas of discontinuity. For him, time perception of a continuum was a delusion, a ruse; philosophical time should be superior to time of life, immanent time superior to earth. One of his favorite saying was: "time only constitutes itself on the living reality of spirit". The consequences of this reasoning were:

1. To build a theory of history based on rupture was an important aspect to those who were willing to break away from the immediate past;
2. The feeling of time being personal, discontinuous and dominated by instant: continuity needed to be tricked by the mind on what was called "consolidation processes".

How much people embraced these axioms can be illustrated by the way the French composer of electroacoustic music Bernard Parmegiani refers to his creative process. "I have the feeling that I've been captured in the instant. The sonorous instant, per example. Being absorbed, I risk living without before and after, without composition".¹

This might be one of the best examples of "vertical time" in which the idea of composition and the idea of consolidation of time are brought together, before and after being part of a compositional artifice.

In his book, *La dialectique de la durée*, melody is the main example on how continuity is "consolidated" from one pitch to another, by rhythm. It is not difficult to imagine the same process of consolidation in serial music, in which not only pitches are consolidated into melodies, but all music parameters could be abstracted and organized. Outside from the Viennese nucleus of serial music, in France, Olivier Messiaen was employing a very particular harmonic system that combined symmetric scales and chords based on resonance.

He developed a very personal harmonic system, based on symmetric non-retro gradable modes and chords based on resonance. What he less admired in twelve tone technique was its "grayness", its lack of colorfulness and transparency. For him, harmony could be understood as filtering of a sonorous continuum, personal sensations of virtual sounds that becomes harmony. How this concept of harmony has influenced Almeida Prado and Tristan Murail is what we will see next.

Almeida Prado: Kyrie of Missa de São Nicolau.

Missa de São Nicolau was composed on 1985/86. It is scored for strings, 2 flutes, 2 oboes, 2 clarinets and 2 bassoons; 3 double brass, 2 horns, 2 trumpets and 2 trombones; tubular bells and timpani; choral SATB and 4 soloists. Almeida Prado has always been a very religious man and he has many scores dedicated to his catholic religious convictions.

Before getting into the harmonic characteristics of the piece, it is important to learn a little about Brazilian musical context.

During the post war period, composers that had once embraced dodecaphonic techniques turned back to national and folklorists' influences. They were following the rules established by the 1948 Composers Congress in Prague. In this Congress it was said that communication and attachment to popular values should rule over avant-garde experiments. As the most gifted Brazilian composers adhered to these theses, avant-garde and modern techniques had to wait till 1963 when it was finally revived with a New Music Group founded round progressive ideas on art, music and literature. In those approximate 15 years, neo-classical nationalistic trends were the only alternative for young composers.

Camargo Guarnieri, the most important teacher and composer of this tendency was responsible for Almeida Prado's training on counterpoint, harmony and orchestration. All these techniques should be applied to regional melodic contours, rhythms, scales and genres. By the end of the sixties, Almeida Prado rebelled against this training, when he felt he needed to be in touch with recent avant-garde tendency that were taking place in Europe. New Music festivals had been going on in Brazil since 1963, but there were no establishments capable of training composers in contemporary trends. With the prize awarded by the First Brazilian Composition Festival, in 1969, he went to France in order to learn serial techniques, rhythmic complexity and experiment on timbre and texture. When he got to Paris, he attended classes with Olivier Messiaen in the same group in which Tristan Murail was a student. At the same time he studied with Nadia Boulanger, who was more inclined to neo-classical techniques of composition.

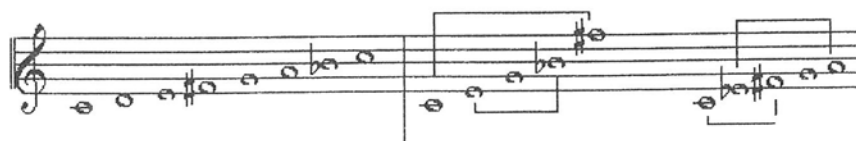
The ambiguity of his training is present on his compositional products. One can say that he is a radically attached to compositional techniques that were legitimized through centuries of use, and was never ready to abandon them completely. For the sake of this present communication, we will concentrate on the influence of Messiaen on Almeida Prado.

Based in these premises, Almeida Prado developed for himself a harmonic technique that he called *Transtonalism*, which he considers similar to the *Spectral* technique of the French composers Tristan Murail and Gérard Grisey. The main difference among them is that the French composers were much closer to the experimental attitude of the electroacoustic composers that were examining the internal functioning of sound shapes. The amount of technology employed by each of them is quite different also. The French composers based their compositional techniques in complex analysis of the spectra of instruments sounds in order to define the harmony, timbre, texture and rhythm. Almeida Prado's transtonalism combines harmony conducted by the bass line, as in traditional harmony, with techniques that were usually employed by contemporary composers in the 70's. He has never abandoned empirical principles, based on living experience, with is true to other Brazilian composers. Even when committed to contemporary aesthetics and techniques, Brazilian composers have always expressed themselves in an empirical way, trying to adapt these techniques to a kind of "common sense" based on hearing and tradition. Almeida Prado follows this tendency of correcting "by the ear", being its most important choice criteria.

In *Missa de São Nicolau* Almeida Prado employs the transtonal chord that is built from the resonance of a fundamental pitch and extracts from it the whole harmony of the movement.

Example 1 shows the main materials for the beginning of the *Missa*, with a major scale that includes partial 7 and 11, C {p.2, 3, 4, 5, 6, 7, 8, 11}, a "natural" chord, and a minor chord with an added sixth. Example 2 shows the *Kyrie's* main theme based on the "natural" scale.

Ex. 1 Scales, intervals and chords of the *Kyrie*



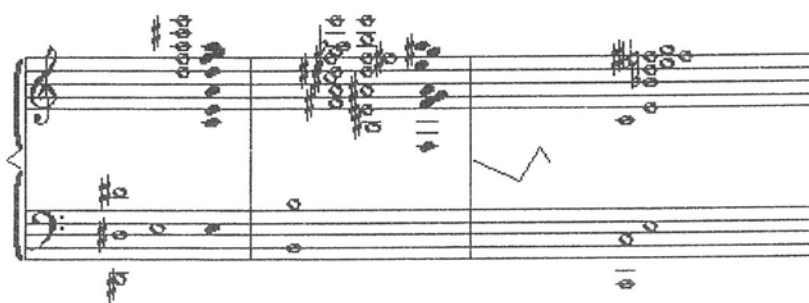
Ex. 2 Two tritons theme



Before the main theme there is a short Introduction with chord based transtonal chords on strings and winds, built on the upper partials, complement the root notes, which form an augmented major/minor C chord that should remind the timbre of bells.

Example 3 shows the two first transtonal chords of the Kyrie and the last one that prepares the transition to the Christe.

Ex. 3



The first section of the Kyrie, closes with a transtonal chord of ten sounds. The only two that are not employed are the pitches of the beginning of Christe. Example 4 shows the last chord, with partial 7 to 11 shown in separate, C {p 7, 8, 9, 10, 11}. Example 5 shows the beginning of Christe, with B/G#, a minor third, completing the upper notes of the former chord.

Ex. 4



Ex. 5



Tristan Murail and *Désintégrations*.

A group of young French composers², the majority of them former students of Olivier Messiaen, founded a chamber orchestra called *L'Itinéraire*, in 1977. In 1979, Hugues Dufourt, composer and philosopher, presented the general ideas of the group in an article called *La musique spectrale*.

The motto of the group, "the sound to begin with" stated their position in favor of compositional thinking that concerned itself with the nature of sound and its relationship to music perception. These young composers believed that music that followed the paths of serialism, the main tendency in the French avant-garde of the time, had either reached the limits for combinatory possibilities of sound parameters - pitch, intensity, timbre and duration -, or had gone to far on abstract processes of sound manipulation. In both cases the *Itinéraire* group believed that the post-serial music was not rooted in hearing processes, whether natural or cultural.

Nevertheless, the *Spectral* group did not considered necessary to turn back to traditional harmonic procedures and they never called for a complete rupture from the serial composers, especially not from Pierre Boulez. Tristan Murail refers to this moment as one in which they were trying to suspend the "negative" attitude of the previous avant-garde.

In the origin of our movement there are no interdictions. This means that it does not define itself negatively in relationship to other compositional procedures³. Against juxtaposition of parameters, as in total serialism, they proposed one and unique sound source that unfolds in different aspects of composition, providing continuity from sound to music.

The spectral analysis of instrument sounds as built lead to a juxtaposition of natural and synthesis sounds that created sound illusions, similar to the sight illusions when one can exchange foregrounds with backgrounds. The use of computers is another important feature. Computers are employed not only to analyze and discretize timbres as to help in calculating the elaboration processes. In *Désintégrations*, composed in 1982/83, the sound of bell ringing is stretched by artificial means, computers and sound synthesis, and re-orchestrated by the instruments. In fact, the source of the sound is C#/A# of a piano. The analysis that I've done for this first section of the piece takes into account more than pitches and rhythms, but unfolds the qualities of sound into shape formants.

Section I - 0'00 - 2'56''(p.16;m4)

Harmonic materials

Percussion model

Local character

Texture

Time-space

piano spectrum - vf C#/A#⁴

carrillon

stretched bell ringing

homophonic

smooth with vibrato.

The virtual fundamentals (vf) for his section are C# and A#, and they will give origin to the main chords of the section

Fig. 1 Two chords built on vf A#1 and their partials.

A# {p: 7, 11, 20, 36}

A# {p: 4, 7, 11, 21}

The resulting chord is built on a blended parallelism of partials A# {p: 2, 5, 7, 13} and C# {p: 2, 5, 7, 11, 12, 13}, as seen in Fig. 2.

Fig. 2



Conclusion

For the little that we've seen from these examples both Almeida Prado and Tristan Murail were looking after a musical grammar that was closer to their prior experiences with music and that would bring them back to the "genuine" source of music: Sound. Both started their compositions by allegories to bell ringing, but they have different backgrounds and different expectations about their art. One could say that Almeida Prado never abandoned his strictly conservative education and has remained attached to the idea of tonal cadences, even in a non-tonal musical environment. Tristan Murail is a typical product of the IRCAM studios in Paris; he is willing to adapt higher levels of abstraction to sensitive decisions based on empirical experience. The idea of process, which is fundamental to the understanding of Spectral Music could be traced back to the first minimal experiences of Steve Reich, even if they never accepted as forerunners others than those selected among the European avant-garde scene. But this would be the subject of another paper. In this one I was trying to show how the idea of continuity was capable of bringing innovation into contemporary music.

Notes

- ¹ Mion Ph. et alii - *L'envers d'une oeuvre, De Natura Sonorum de B Parmegianni*, Paris, Buchet, Chastel
- ² Tristan Murail, Gerard Grisey, Michael Levinas and Hugues Dufourt, the only non-student of Messiaen.
- ³ Murail T., 1988 - "Questions de cible", *Entretemps*, 8, Paris,
- ⁴ vf = virtual fundamental; bn = bass note; The first section has two fundamental tones.

Carole Gubernikoff

Spektrinė harmonija: tęstinumas ir naujovės Tristano Murailio ir Almeidos Prado kūrinuose

1977 m. grupė jaunu prancūzų kompozitorių, kurių dauguma anksčiau studijavo O. Messiaeno kūrybą, įkūrė kamerinį orkestrą, pavadintą *L'itinéraire*. 1979 m. kompozitorius ir filosofas Hugues'as Dufourt bendras grupės idėjas pristatė straipsnyje, pavadintame *La musique spectrale*.

Šios grupės moto: „garsas, nuo kurio reikia pradėti“ - nusakė jų poziciją kūrybinio mąstymo, susijusio su garso prigimtimi ir jo santykiu su muzikos suvokimu, atžvilgiu. Šie jauni kompozitoriai tikėjo, kad muzika,ėjusi serializmo, pagrindinės to meto Prancūzijos avangardo tendencijos, keliu, arba jau pasiekė garso parametrų (aukščio, intensyvumo, tembro ir trukmės) kombinatorinių galimybių ribas, arba nuėjo per toli abstraktaus manipuliavimo proceso link. *L'itinéraire* grupė tikėjo, jog postserijinės muzikos šaknys neslypi klausymo procesuose, nei natūraliuose, nei kultūrinuose. Jie siekė geriau suprasti fiziologinius ir sukultūrintus klausymo procesus.

Brazilų kompozitorius Almeida Prado lankė pamokas kartu su O. Messiaenu, o toje pačioje klasėje mokėsi ir Tristanas Murailis. Jie skirtingai reagavo į tą patį iššūkį, t. y. kokios galėtų būti naujos harmonijos vientisumo formos.

Aš pateiksiu Tristano Murailio ir Almeidos Prado kūrinių ištraukas, kur abu kompozitoriai estetiniais tikslais siekia natūralaus garso pagrindo.