

Relationships between instrumental music and electronic resources in the Venezuelan repertoire of mix music.

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This research presents some of the mix electroacoustic concert works of Venezuela at its highest expression, from the 70's to this day, seen through the analysis of the relationship between instrumental sections and their electronic resources.

Venezuela has a great number of mix electronic works, which have been very little promoted, interpreted or recorded.

This repertoire includes tape works, -which are created through several procedures-, works with synthesizers among the instrumental group, and interactive works.

The main aim of this paper is to establish relationships, hierarchies, proportions and functions between instrumental and electronic sources in order to conceive the work as a body, where each fragment forms part of the whole in its closest and smallest part. A complex discourse is consolidated, generating multiples relationships, which contribute to build the structure of the work, where usual acoustic instrumental phenomena are conceived as sonic objects as much as the synthesized sounds or pre-recorded and processed ones.

Some analysis tools have been applied: concepts from Schaeffer *"Le Traité des Objets Musicaux"*, also Smalley: *Spectromorphology: explaining sound-shapes*, and the article of Daniel Schachter: *Towards new models for the construction of interactive electroacoustic music discourse*.

Among the elements for the analysis of the above-mentioned repertoire, attention is given to the three phases of the production of sound: *onset*, *continuant* and *termination*, the duality between gestures and textures, and also the spatial movement of Spectromorphologic densities. Gesture is conceived as a builder of the basic principles and the textures as the generates of the internal characteristics of the sound, in the spatial dimensions in which all this elements are constituted, the process of gestures growing and texture behaviour are of great importance. A general reference is made to different orders of gestural surrogacy and a classification is made of the works according to each of their basic constitution.

In spite of Smalley's use of spectromorphological analysis mainly for acousmatic music, in this essay the relationships between acoustic and electronics are analyzed under his concept, in its movement thorough time and space.

In order to establish closest relationships between the interpreter and the electronic resources a classification is presented according to its functions and typologies, developed in John Croft: *Theses on Liveness* article as paradigms of the relationship among performer, instrument and electronic sound, going from a responsorial-antiphonal all the way to the typical soloist-with-accompaniment one.

As a contribution to the development and diffusion of Venezuelan electroacoustic music, which includes mix genres, it is important to get know all these repertoire, to understand it, and the active participation of interpreters, who must have the tools to get involved properly in this creative act, with conviction. For each period and according to the general features of this repertoire a different analysis is chosen.

All of this leads to a close approximation from musicians and listeners allowing a greater accessibility for its performance and diffusion.

According to each composer's aesthetics and intentions the works could be perceived as traditional or experimental, and all of them explore certain aspects of Aesthetics of Electroacoustic Music.

On the early works of the 70's, specifically Alfredo Del Mónaco's compositions, we can appreciated a strong tendency toward the study of the sound itself. For the composer, the three phases of the sound structure are of most importance: the onset with their resonances, the continuants with different ways of displacements, worked on pulses, and the terminations with several colourings.

It is outstanding the emphasis on the creation of texture as such, both in the tape as in the ensemble, displacement of pulse and movement of the sound within the spectral space at different rates, velocities and densities. In some sections attention is paid to texture itself, in others gesture conglomerates exchanges rapidly oscillate between instruments and electronics.

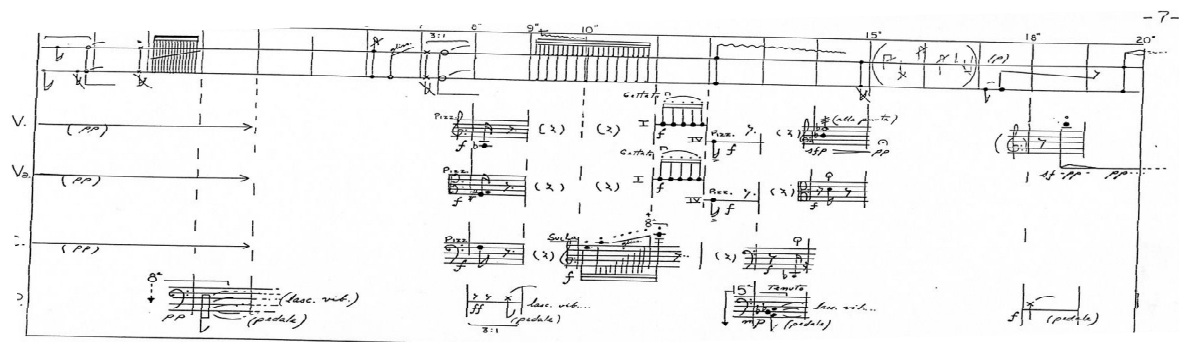


Figure 1: Instrumental and tape textures: Alternancias by Del Mónaco

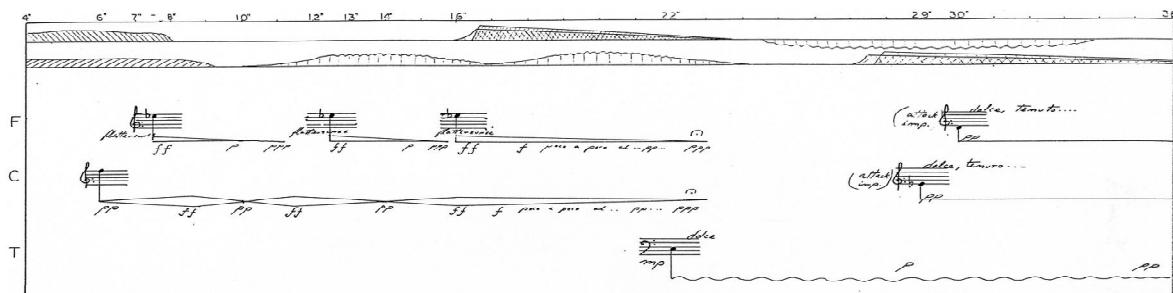


Figure 2: Types of mobility and behaviour: Dualismos by Del Mónaco (Attacks and mobility)

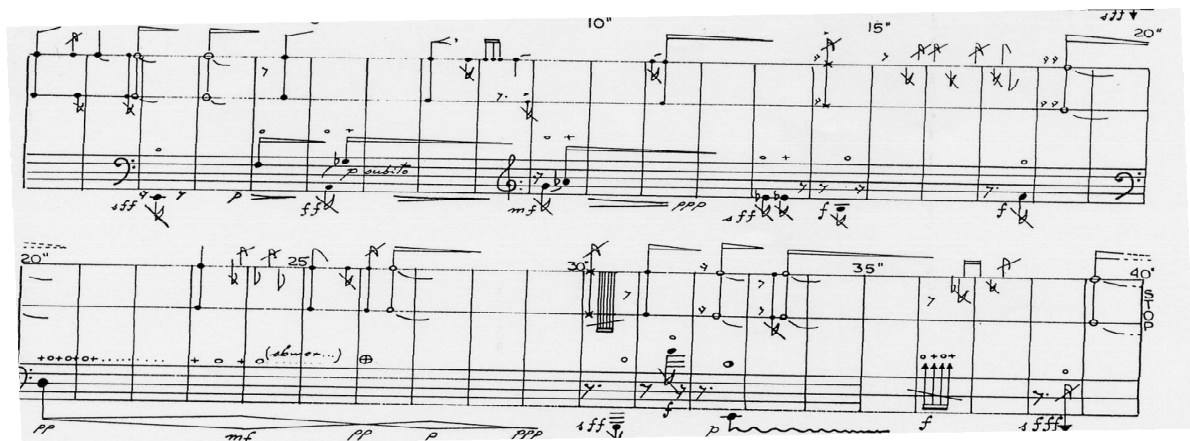


Figure 3: Responsorial functions: Syntagma by Del Mónaco

During the 80's Venezuelan works were strongly influenced by the presence of the midi synthesizer, both in producing sound to be placed on tape and in its participation within the instrumental ensemble.

The analysis of this group of works is based around proportions between instrumental sections and electronics, and focuses on the points of attention. Spectromorphology analysis is not the main tool any longer.

Many of this works have a soloist against the electronics. Integration is a passive one, in a few words, the musician plays independently from the tape, without any type of interactivity. Non the less it is important to point out that some works have elements of aleatorism and interactivity for the performer, due to the use of delays, and free repetitive modules. Here a greater exchange between the musician and the electronics begin to be seen.

The midi synthesizer plays also an instrumental role, both as a soloist or accompaniment within different contexts: harmonic, rhythmic or timbral accompaniment or as a soloist within an orchestra. Like in Beatriz Bilbao's Siete Luces for synthesizers and orchestra.



Figure 4: Entry of the synthesizer soloist: Siete Luces by Bilbao

The synthesiser was used also to generate chamber music, both producing ensembles on tape or alive in concert, like in Toro's *Soufflé en Flauta* where the tape imitates a musical band of acoustic instruments creating duos or ensembles mainly with the original banks of sounds of the synthesizers. The terrain of the instrumental takes up all the attention and the organization is done through the actual notes.

In Izarra's *Margarita* the synthesiser is found among the ensemble, non the less the timbral aspects of the acoustic instrumentation can be seen from an Spectromorphological point of view, creating concordances which allows both resources, the electronics and the acoustical to merge.



Figure 5: Correspondence Spectromorphological in *Margarita* by Adina Izarra

On those works where live processors are used, different textures are produced which can be categorized in the realm of creating sonic expectations, as in Victor Varela's *Praeludium*, and Juan Francisco Sans' *Lasciate mi Morire*, (in both cases Oboe and Electronics) here repetitive processes help to create different levels of textures, like in the cadenzas of the solo instruments in Alfredo Rugeles *Oración para clamar por los oprimidos*.

In spite of the use of synthesizers with keyboards, composers like Varela in his *Praeludium* managed to create a laboratory in itself, and through his research creates a sonic world, which can be analysed through Denis Smalley theories. This is accompanied by his interest in controlled aleatorism and seen in his use of modules for repetitions of the acoustic materials (in the oboe part), defined by the tape duration, but determined by performer repetitions in which the oboist is free. Also Sans' *Lasciate mi morire* in using extensive repetitions and feedback of the delay creates weaved textures with mobility and reliefs, creating a timbral continuous gestures out of acoustic instrumental materials.

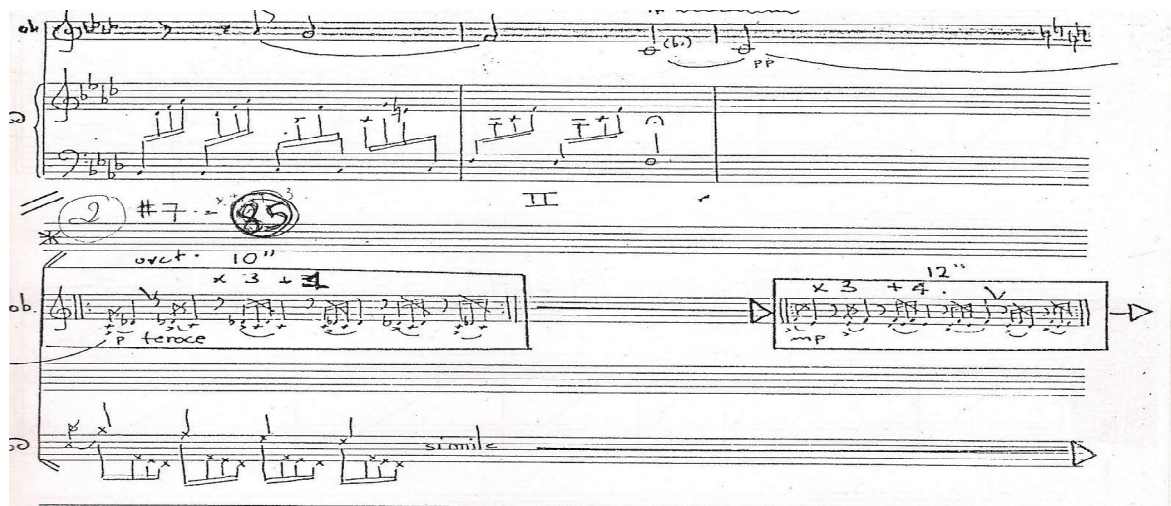


Figure 6: Repetitions and Gestural timbric continuum: *Lasciate mi morire* by Juan Francisco Sans

From the 90's and especially during the present decade Venezuelan composers have started to use laptops and computer based programmes, both to generate tapes and to use interactivity in real time. Many programmes are been used, especially Max/Msp and Supercollider for real time works and Pro-tools, Logic, Cubase, Digital Performer, SynthEdit for editing and mixing. There are works which produce great expectancies in Smalley's sense of gestural 'throwing', using tape and live electronics. Both sources, the electronics and the acoustic materials, at the same level and conditions, create images of ambiantation at the perception level. Many acoustic sounds are transformed through electronics, resulting in tapes very much related to the acoustic sound. Croft's sense of ambiantation can be found in Works like Teruel's *Un sombrero lleno de Sonidos*, together with extensive third and remote surrogacy order due to the refined orchestration of the orchestral parts.

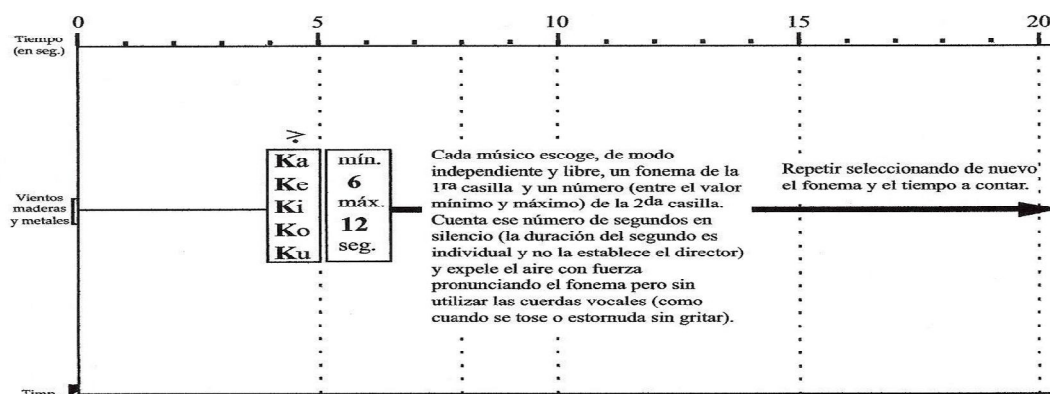


Figure 7: Third order of surrogacy: *Un sombrero lleno de sonidos* by Ricardo Teruel

Fusion of timbre and spectra is relevant in the work of Mirtru Escalona's *Se rompen Espejos*, where the sound of the piano merges back and forth with the electronics, resulting into a huge and new instrument, through the overlapping of the electronics on the spectra of the piano, including the sound from inside the piano, amplifying it and rebuilding it. Creating a journey from the harmonic towards the inharmonic, the noise.

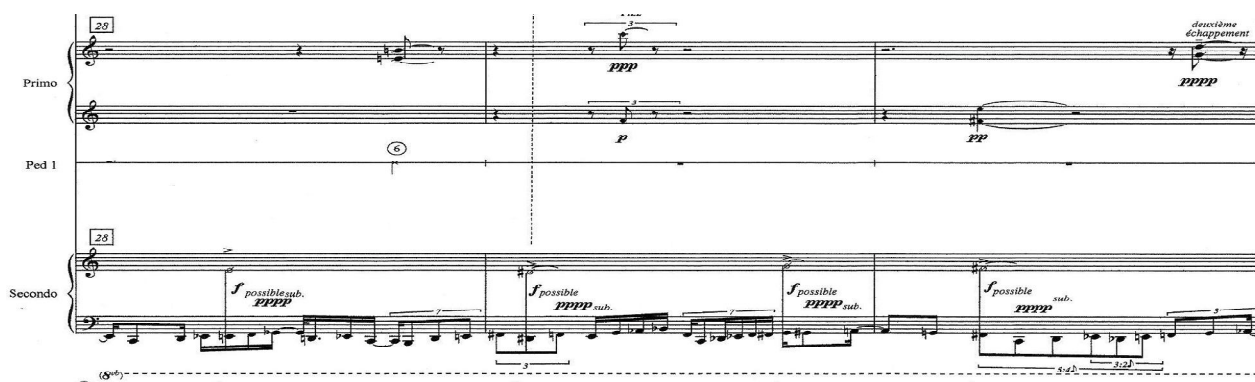


Figure 8: The piano merges with the electronics: Mirtru Escalona-Mijares *Se Rompen Espejos*

Some works manipulate the actual sound of the instrument on precoded tape, like *Lyríka* by Del Mónaco, where multiphonics accompany the melodic line of the oboe through most of the work. Pedro Barboza in his *Estratos* (2001) combines this technique with live transformations triggered by the composer himself on performance, together with several live transformations, this is combined with extensive use of aleatorism, the type of aleatorism which fades into

improvisation of the performers, presenting no borders, because of repetitions blocks are free in order, only condition of the accents suggested by the electronics. Also d' Escriván on his *Recuerdos del Alhambra* for baroque Theorbo not only transforms the sound of the instrument, but the performer triggers it in concert through pedals. The “tape” also has solos: longer samplers in the middle of the work. Spectromorphology can be applied here in the sense that the electronics, which originate form the instrument itself, the theorbo, merge at different level of transformations with the performer, in many levels of surrogacy and perception.

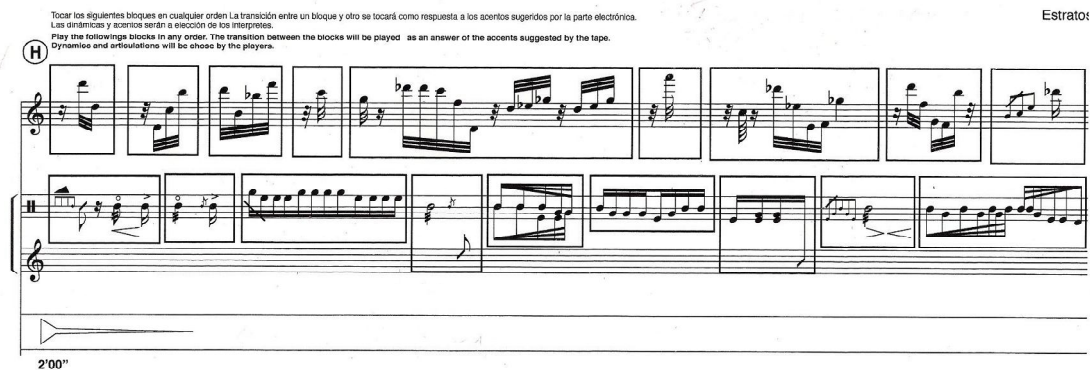


Figure 9: Aleatorism: *Estratos* by Pedro Barboza

Interactivity has not been a constant among the electronic genres in Venezuela, there are but a few works that exploits interactivity as a means of reaching controlled aleatorism. The role of the performer is no doubt very important, in order to activate many of the electronic resources; the performer is no longer passive. The delay was important in the 80's especially the Yamaha SPX II, for which several works were written, like Adina Izarra's *Vojm*, for a capella feminine voice, which through the delay creates its own always changing acoustic accompaniment. *Canto Llano* by Eduardo Marturet was written for a melodic instrument and tape delay (1976), a plain chant that can be performed in many instruments, so far the Venezuelan mix work most recorded and played by many different artists. Echoes, reverberation and canons are reached through long delays, while the melody keeps the first plane and emphasis, and provides all the resources for the second level of sound, that produced by the delay.

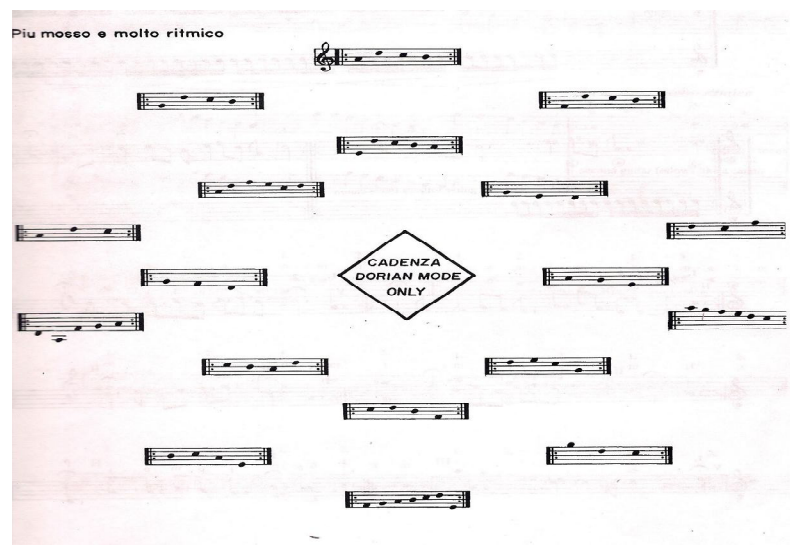


Figure 10: Cadenza in Eduardo Marturet's *Canto Llano*

From the 90's onward many forms of mix repertoire are present, also more research and improvising can be seen among the composers. Like in Gustavo Matamoros *Retratos* where each performer chooses its own material which the composer transforms on tape and sets for the interaction in concert. The composer himself speaks of gesture and morphology: all sounds are possible and allowed; all of them make sense within different contexts.

Pitch followers through the use of Max/msp are present in *Toda mi vida hos amé* by Izarra, where the vihuela activates several internal textures that accompany the solo acoustical part, in the same way she does in *DeVisée* for Theorbo and electronics sounds, formed by a set of three works by Robert de Visée, from the suite in D: Prelude, Gavotte and Allemande.

No doubt the resources available define the mix world together with the capabilities and interests of performers, many of which have inspired the composers in Venezuela to write this repertoire and will continue to do so. There is a definite

return to consonance that only follows a general tendency in the acoustic world of Venezuela. Electronics music is still a young genre in Venezuela.

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