



Hybrid

Revue des arts et médiations humaines

1
6 | 2019
L'écoute

Projective listening: *Trans*, for saxophone and electronics, a case study

Eric Maestri

Translator: Tresi Murphy



Electronic version

URL: <https://journals.openedition.org/hybrid/595>

DOI: 10.4000/hybrid.595

ISSN: 2276-3538

This article is a translation of:

L'acte compositionnel comme écoute projective : le cas de *Trans, pour saxophone ténor et électronique* -

URL : <https://journals.openedition.org/hybrid/587> [fr]

Publisher

Presses universitaires de Vincennes

Electronic reference

Eric Maestri, "Projective listening: *Trans*, for saxophone and electronics, a case study", *Hybrid* [Online],

6 | 2019, Online since 04 November 2019, connection on 26 September 2023. URL: <http://journals.openedition.org/hybrid/595> ; DOI: <https://doi.org/10.4000/hybrid.595>

This text was automatically generated on 26 September 2023.



Creative Commons - Attribution-ShareAlike 4.0 International - CC BY-SA 4.0

<https://creativecommons.org/licenses/by-sa/4.0/>

Projective listening: *Trans*, for saxophone and electronics, a case study

Eric Maestri

Translation : Tresi Murphy

Introduction

- 1 In this article, I will focus on three types of acts of composition: creating a mixed sound through the blend of an acoustic instrument and electroacoustics (i); composing musical tension through specific sound morphologies, in particular glissandos (ii); the performance of the piece using a target-image as starting point (iii).
- 2 In the piece *Trans*, for saxophone and electronics, the relationship I established with the performer plays a fundamental role, as they were included in the writing process. Listening was crucial to this dialogue. For me, when I listen, I am executing a singular, individual act that involves only myself: I choose. Composing is an act that lasts over time and it requires decisions to be made about every aspect of the piece: this is what we could define as the existential condition of composition. Behind every composition, there is philosophical reflection. I consider the composition process from the point of view of symbolization. In my opinion, this symbolizing act is fundamentally transformational. I use this term in the same way as the American philosopher Susanne Langer, for whom art operates a symbolic transformation of experiences. This transformation is based on the artist's vital experience articulated through forms (Langer 1953). So, I see my work as objects that articulate this transformation. In this article, I will attempt to show how this reasoning takes shape in my work as an artist.

The act of composition as an existential trace: projective listening

- 3 Before getting into the process of composing *Trans*, it is fundamental to define the notion of the act of composing. I consider this act to be characterized by four fundamental moments: the choice of sound, the position of the sound, its composition and its projection. These moments are not distinct chronologically, but they do coexist. This means that the choice and positioning of a sound due to its unique perception, its connection in the context of the piece as a whole and its public, planned and desired presentation, constitutes a whole, indivisible movement.
- 4 Yet, choosing a sound means recognizing and positioning it within the composition, using the imagination; positioning it means perceiving that sound as having its own place in time. As a result, this place in time conditions other places, that are also composed taking the previous one into account. The projection of this series of acts and choices is based on the projective imagination of their public presentation. The fact of thinking about a sound in a certain moment of a piece means giving it a meaning that manifests in and through listening. This means listening to the arrangement in a possible space and time. These elements constitute a sort of circle in which the act of composing invents relationships between possible sounds, spaces and listeners. This activity involves myself as a composer, making choices according to the public presentation of the piece and the feelings it will provoke in the listener and the success of the imagined sound arrangement. To compose means to mobilise the collective memory of a potential audience from the starting point of a personal intention: the listening process works on two levels, one that is focused on the composition's present and the other projected into a possible future.
- 5 Consequently, I see writing as a public act that takes immediate account of the fact that music is listened to. Listening is doubled. As such, composing means imagining a sound event that is deferred in time. It means anticipating and pre-organising a form in progress. Composing involves 'pre-performing' music, and in doing so, 'including' it in and from a position that is existentially unique.¹ This circular activity does not concern just the piece itself, but the entire individual musical experience. Each piece mobilises, evokes and questions this experience. Writing functions as a trace of compositional choices. I project this existential trace, inscribed in the instant [t] of the composition toward an instant [t] (Maestri 2016).² Through this act, I anticipate a real sound in progress that will materialise in the future and will live in the listener's own temporality. It is about writing and listening at the same time.
- 6 The compositional choice, that is to say, the singular moment during which I imagine the projection of the sound into the future, defines the central node of my writing. Through listening, I progressively integrate the act into the reality of its concrete perception and into its public presentation. Perception and presentation constitute the two aspects of listening. Perception mobilizes individual reception, while presentation in a public context mobilizes judgement and the collective memory. Perception goes through presentation. Imagining perception and presentation is the same as integrating composition into a concrete sound reality. The result of composition has a projective meaning, a poetic approach that is not unlike that of Jonathan Harvey. The British composer asks the following question: what amount is necessary to transform this precise sound, this particular partial and amplitude, into something deeply right?

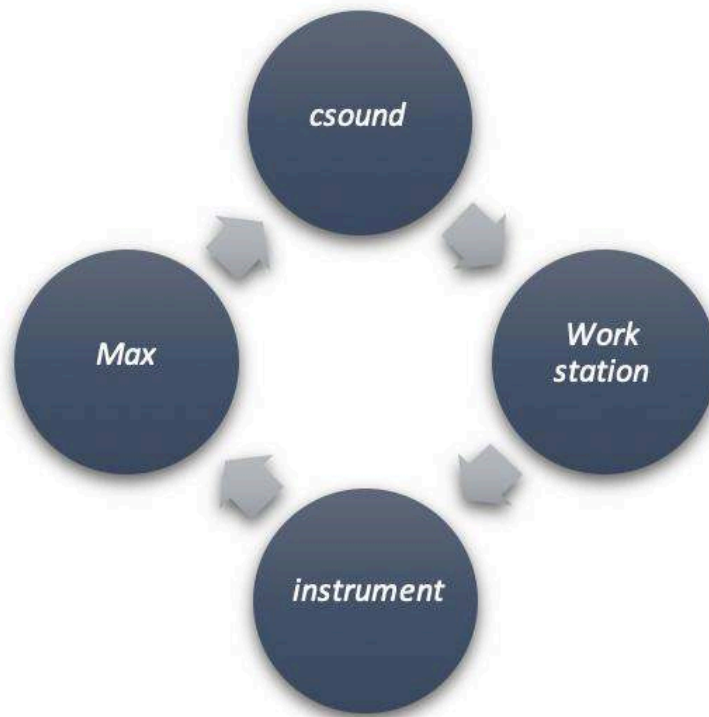
(Harvey 1986, 175). Similarly, my compositional approach is eminently interrogative. I ask: what sound, what note, what amplitude should I choose to get it right?

- 7 In order to answer these questions, I take a step by step approach, I seek to determine a path and to pre-perceive it in the finest detail. I eliminate all abstract consideration and I base my work on in-depth listening to the sounds by trying to eliminate any notion of music in favour of the emergence of a free path. The horizon of the composition is its concrete realization as a sound event that truly exists in the future as a whole. This horizon is the time that I compose for the listeners.³ My way of making sound is at the heart of this activity, that is to say, constructing listening for others.

Composing as a deferred performance

- 8 Mixed music uses both acoustic instruments and electroacoustic devices. This convergence allows me to create sound configurations that come from organising the relationship between the instrument and the electronics. In my early mixed pieces, I used real-time treatments. This meant an electronic sound that was in line with the performer's movements. As I was not satisfied with the sound that this approach allowed me to create, I went looking for alternatives. I found that electronic sound became interesting when it retained its typical properties, in particular the fact that it does not have a recognizable sound source – except a computer – and to be able to develop sound lengths that were impossible for an instrument. This means I can invent complex forms of sound from the contact between the instrumental part and the electronic part.
- 9 I now use a set-up made up of a number of different types of software, that connects CSound, a work station, *Logic Pro*, or *Reaper*, and *Max*. The acoustic instrument is added to this digital set-up.

Figure 1



My work set-up

- 10 I compose by listening to how the piece unfolds. I force myself to think about each sound according to its meaning in the context of the piece as a whole and the time of its perception. The idea is to create a sound, to choose it according to its role in the musical configuration, and to think about it as if it is being listened to. In this way, composing is a deferred performance in as much as it projects the writing toward its public presentation. I compose the electronic and the instrumental part as an action/perception loop. I need to have an interactive working environment; it must allow me to compose with listening by intensifying the expressive knowledge of the technical tools at my disposal. This approach means I am connected to the sound and can create an even broader network by including the performer in the writing process.
- 11 There are two key moments in this approach. The first is when I compose a synthesised sound; the second is when I place it in time and modify its dynamic profile. The fast-working pace of *Csound* means I can work very quickly. The fact that I can feel the need for a sound at a given place in the piece and the create it instantaneously makes *Csound* a very powerful synthesiser that allows me to create complex sound forms by editing a number of sounds together simultaneously.

My working set-up in sound synthesising is built around four main synthesising instruments and one sampler.

Type of synthesis	Instrument csound (opcode)	Sound description

Subtractive	Reson	I use this instrument to create a shiny sound built around certain defined heights.
Additive	Adsynt2	A complex sound with a high number of partials. This synthesis allows me to control the relationship between the partials and their rate of vibration.
Wave terrain	Wterrain	This technique allows me to create complex sounds using a cross between two forms of soundwaves, which creates a 'terrain' that is shot through by predetermined trajectories.
Mixed: Frequency modulation +additive	Foscili+poscil	The blend of these two types of synthesis is used to create complex sounds that run through opposing tones. I use it to create short sounds that articulate attacks or inflexions.
Sampler	Loscilx	This is a sampler that allows me to extract and transpose sound files.

- 12 These instruments are used to create texture or short articulations. The notion of musical figure is fundamental in this way of composing the way individual sounds articulate together. This notion allows me to think about the way the sounds are organized temporally and to create figures of figures, that is to say, configurations where a number of sounds coexist polyphonically, each with their own profile. The notion of figure comes with the contiguous notion of tension, of expectation (Smalley, 1997) and of the predictability of what the sound will become (Grisey, 1982). I play on predictability, and use it to as a base for listening expectation on a psychological level. I refer to composing configurations as morphology. This morphology presents the organization of the succession of sound configurations. It allows me to control the perception of sound and, at the same time, to flag spaces that go beyond common perception. For me, this is a way to take the listener elsewhere based on their own experience.
- 13 In *Trans*, my aim was to construct just one morphology that lasted for the entire piece. This morphology is made up of a limited number of sound configurations. These configurations are characterised by a specific sound that blends the sound of the saxophone and the electronics in a unique sound organization.

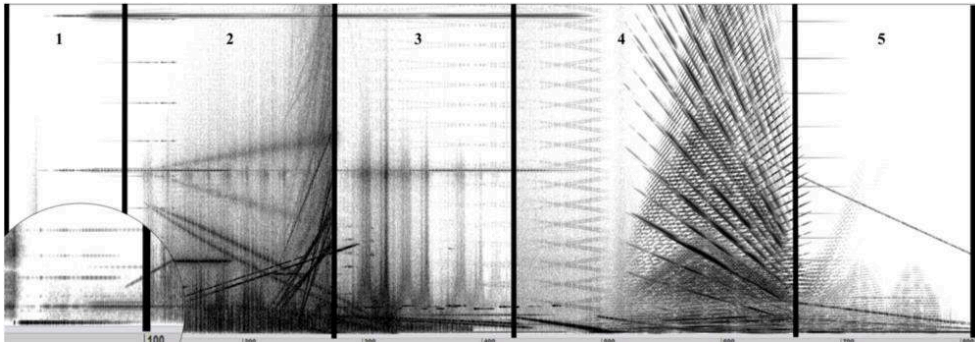
Trans

- 14 This piece is made up of five parts. Each one is defined by a predominant directionality, a sound and a synthesiser. The first (1) comes with a fixed, stable directionality, it changes within the sound and develops a noisy sound. The dominant synthesis is subtractive. The second (2) is defined by a gradual sound accumulation that feeds off the previous material. The syntheses used are the subtractive, the additive and the sample that plays the specially recorded and modified saxophone sounds. The third (3) is characterized by a slow transition toward the low range. In addition, subtractive synthesis dominates this section. However, instead of producing a continuous sound, it plays a percussive sound. The fourth section (4) is very dense and uses synthesis by

sound waves. The final section (5) presents a directionality toward the low ranges based on pulsations from a subtractive synthesis. These pulsations slow down progressively and continually. The five sections follow on from one another without any continuity. I wanted to have the listener experience crossing through an open space, ideally without being able to notice the changes. The saxophone integrates this overall sound organization and inserts itself into the electronic sound.

- 15 The composing process of this piece is defined by three compositional acts.

Figure 2

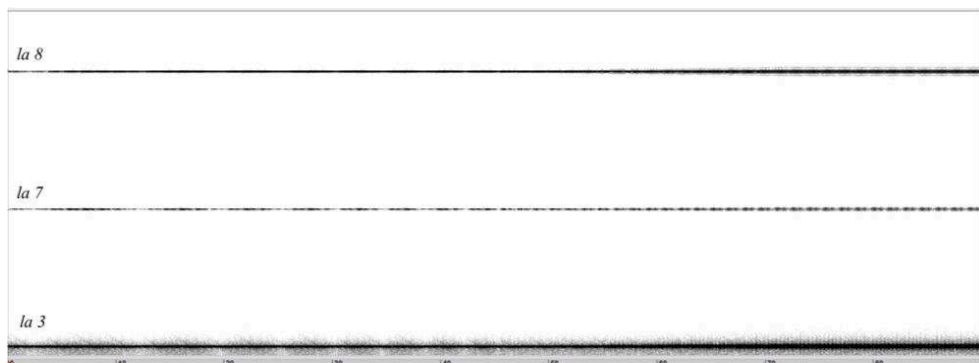


A spectrogram that represents the overall shape of the piece. The vertical lines and numbers help to outline the sections.

Act one: mixing

- 16 The first act as composer involves creating a mixed sound. Listening plays a central role in this part: not only does it form the basis of the choice-making process, it also allows me to include the performer in the composition process. I will take the first section as an example. In this section, I superimpose three types of sound: an electric sound generated by a subtractive synthesis process (*i*), the sound of a tenor saxophone (*ii*) that plays the sounds of a tune while letting the dominant energy components of the electronic sound come through, and a synthesized additive sound in the background (*iii*).
- 17 The sound (*i*) is characterised by three predominant tracks around 3, 7 and 8 (Fig. 3):

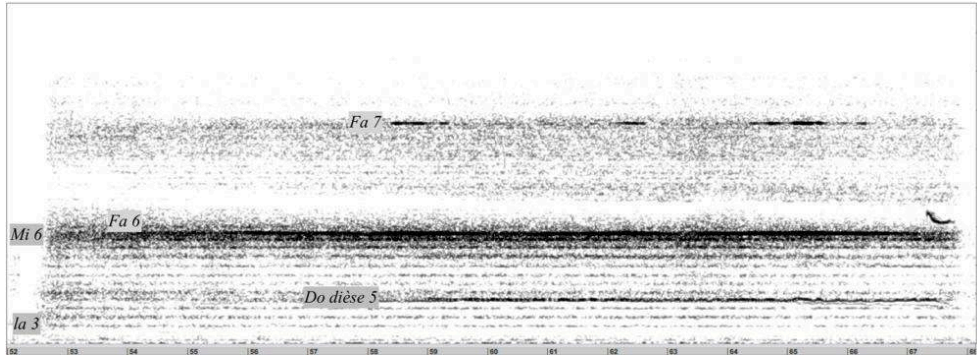
Figure 3



Sound (*i*) is characterized by three predominant tracks.

- 18 Once this sound is laid down, it solicits the instrumental part, through the listening process of myself and the saxophone player together. I then ask the saxophonist to imagine a sound that could coexist with this electronic sound. We carry out a kind of sound analysis through words. We find a private language, based on what we perceive in the sound and what could be added by the instrument. During this process, we come to define a type of instrumental starting sound. The saxophonist's instrument resonates to highlight the fundamental electronic sound first – a 'la 3' – followed by the harmonics in the upper register (Fig. 4).

Figure 4



The saxophone resonates to highlight the fundamental electronics followed by the upper register.

- 19 The saxophonist slots airy sounds into the electronic sounds. The sound spectrum of the electronic part is shot through with the articulation of the pronunciation of syllables [hu] – for the lower register – and [hi], for the upper register. Furthermore, by changing the shape of his mouth, the saxophonist finds some particularly unstable resonances that create a lively sound. He imitates the electronics and finds himself carried by them. He plays a sound that swings between fundamental notes and high-pitched partials. In this way, the instrumental part derives from the electronic part. The instrumentalist lets himself go with this and uses his movements and imagination. In the sheet music, we chose to distinguish the airy, toneless sounds of the saxophone using a square notation (Fig. 5).

Figure 5

Eric Maestri
 Trans (2018-19)
 for tenor saxophone and electronics
 [op. 32]

$\text{♩} = 70$

[hu]: articulate the reed to reach a low rising sound
timbré (accentuate the resonant fundamental of the saxophone)

Tenor Saxophone
 (written in B flat)

Electronics

Subtractive synthesis
 Low Oscillator
 Additive synthesis

airy sound pitch (follow the electronics)
Subtractive synthesis
(Follow the electronics)

13
 T. Sax.
 EL.

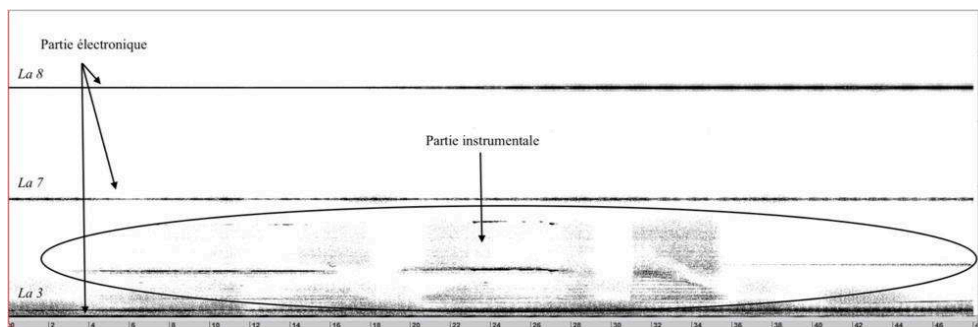
Transition between the lower and the higher register through the sound transformation from [hu] to [hi]

Sax airy sound

Notation of the saxophone sounds.

- 20 The electronic part is very precisely transcribed in the sheet music. This allows the performer to follow it, and to grasp its most perceptive and relevant components. The mix of instrumental and electronic sounds creates a complex mix of sounds that derives from my interaction in the studio with the saxophonist and the electronics and it will be different with each performance (Fig. 5).

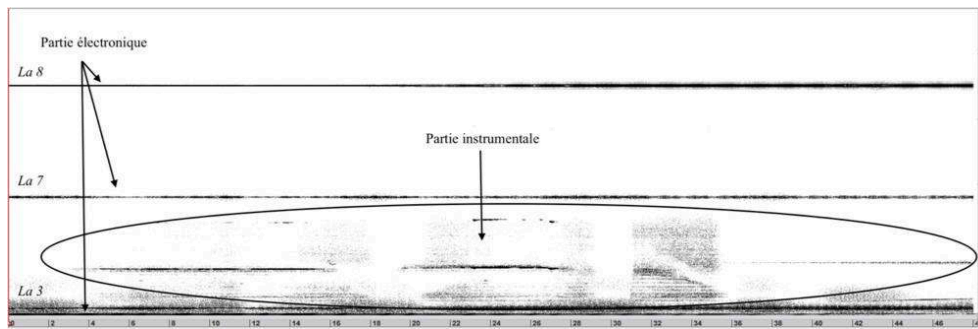
Figure 6



Complex mixed sounds.

- 21 This shared writing process leads to a rewrite of the electronic part based on the collaboration. The loop of the choice of the sound, its positioning and the composition thus integrates the conversation with the saxophonist, that itself started from listening to the electronics. I add an additive synthesized sound to enrich the sound from the initial electronics and the contribution from the saxophone. This complete sound adds a background that integrates with the existing sound (Fig. 7).

Figure 7



Complete sound with added background that integrates the existing sound.

- 22 The integration of this sound is also automated. It appears progressively, only clearly emerging at beat 13, that corresponds with the two triple crochets played by the saxophone. This layered composing process reveals how the working method is based on successive listens that allow me to define an overall sound. The sound composed is the result of a progressive writing process solicited by the “model”. Simulation and listening in the studio allow us to project toward the final result and to pre-perceive the resulting sound image. Through playing and dialogue, the saxophonist and myself manage to fix on a musical idea that we implement together. Our immediate connection to the actual sound of the piece leads to a form of writing that combines perception and tools in a single working environment. This approach comes from a studio performance that is designed to be projected into a concert hall. The process allows us, through listening, to create a written trace from which, a complex, organic sound emerges, one that is written to be performed. As such, this composition is a progressive pre-performance of the piece’s sound possibilities, that decant in and through the use of the model, and are imagined in the final sound configurations. The traces left by this work are based on successive choices, in the piece itself, in terms of form and presentation, and constitute a basis for new compositions.

Act two: listening to the tension

- 23 Each section of *Trans* is defined by a sound that lasts for the entire section. This sound is followed by the next and it constitutes the canvas on which I pose the second-level sound events that it articulates. This directionality defines a background musical tension which is presented as such. Apart from the first section, the others are based on slow glissandos. A glissando that lasts a number of minutes allows me to create a sound bradyseism. The organisation of a subjacent, continuous tension accentuates the need to think through the concrete existence of the sound by projective listening. This type of listening is based on imagining the moment when the listener hears the piece for the first time. The length of this subliminal movement is decided on by imagining a moment when the tension breaks, where the listener loses interest in the movement. The electronics provide this possibility.
- 24 Four types of tension coexist in *Trans*. They are characterised by a listening process that outlines the sound’s potential field, by which I mean all of the ways it could be presented and, as such, received by an audience. By presentation I mean the images, memories and ideas that a sound can evoke for the listener. In order to implement this

double listening process, I force myself to pre-listen to the sound as perceived through the imaginative process. Complex sound configurations emerge from the contact between the following four types of listening.

- 25 The first type of listening is characterized by slow movements that define an entire section. This forms a *subliminal* tension that forms an imperceptible canvas for the shorter movements. The second type of tension is based on shorter glissandos. I refer to this as the *liminal* part as it is on the edge of listening expectations. It goes beyond the natural length of an instrumental figure but lets us perceive its sound morphology. These glissandos mark a dramatic passage in the piece, where the electronic sound and the saxophone follow the same trajectory (Fig. 8). The rise represented in Figure 8 is easy to perceive but goes beyond instrumental possibilities.

Figure 8.

The image shows a musical score for two parts: T. Sax. (Tenor Saxophone) and El. (Electronics). The score is divided into two systems. The first system, labeled '73 Growl sound', shows a long, continuous glissando line for both parts, starting at a low pitch and rising steadily to a high pitch. The second system, labeled '73 Wave terrain synthesis', shows the same glissando line for both parts, but with a voice sample overlaid. The voice sample is in French and reads: "Voice in the electronics: "...mais alors tu vois c'est...dans la vie arrive un moment et je pense que c'est fatale qu'on ne peut pas y échapper, où tout est mis en doute. Le mariage qu'on a fait, les amis qu'on a..."". The score also includes dynamic markings like *mf* and *fff*, and various musical notations such as slurs and accents.

Glissandos that mark a dramatic passage in the piece.

- 26 The third type of tension consists of the articulations executed by the saxophone. I refer to this movement as *figural* (Fig. 9). The tension in the second part is characterized by the progressive entrance of fast saxophone passages, that follow the accumulation of the electronics. The transition between these elements allows me to build a specific listening tension. It is based on the gradual passage between the airy notes down to the timbre notes, from fast passages and violent glissandos or 'growls'.⁴
- 27 The musical structure that this construction is based on is initially defined by the electronics. Thanks to the arrangement of the electronics' sound events, I can perceive the rendering of the piece in terms of sound and timing. The saxophone navigates within this space and raises the tension of the passages.
- 28 Figure 9.

The image shows a musical score for two parts: T. Sx. (Tenor Saxophone) and El. (Electronics). The T. Sx. part is written on a single staff with a treble clef. It features a melodic line with various dynamics: *p* (piano), *f* (forte), *mf* (mezzo-forte), and *ff* (fortissimo). A bracket above the staff indicates a 'Grotol sound' effect. The El. part is written on two staves (treble and bass clefs) and consists of a dense, textured sound field. A note in the El. part is annotated with the text: 'Wind noisy sound randomly diffused by the four speakers'. The score is marked with a '71' in a box at the beginning of each part.

29 Figural movement.

30 The writing of the instrumental part influences the electronics in terms of the composition. Once the instrumental part is fixed, the electronics orchestrate certain instrumental lines. For example, on beats 58 and 62, the crescendo note played by the saxophonist is doubled by the electronics.

31 I refer to the fourth type of musical tension that I mobilise in *Trans*, as *environmental*. It presents a state of sound that belongs to an environment. Listening is meant to make reference to a non-musical field of experience that represents an elsewhere with which the music is in constant contact. This form of listening is presented with the others and constitutes an element of reference. The text by the poetess that is read in the piece is an example of this, as is the use of nocturnal environmental recordings.⁵

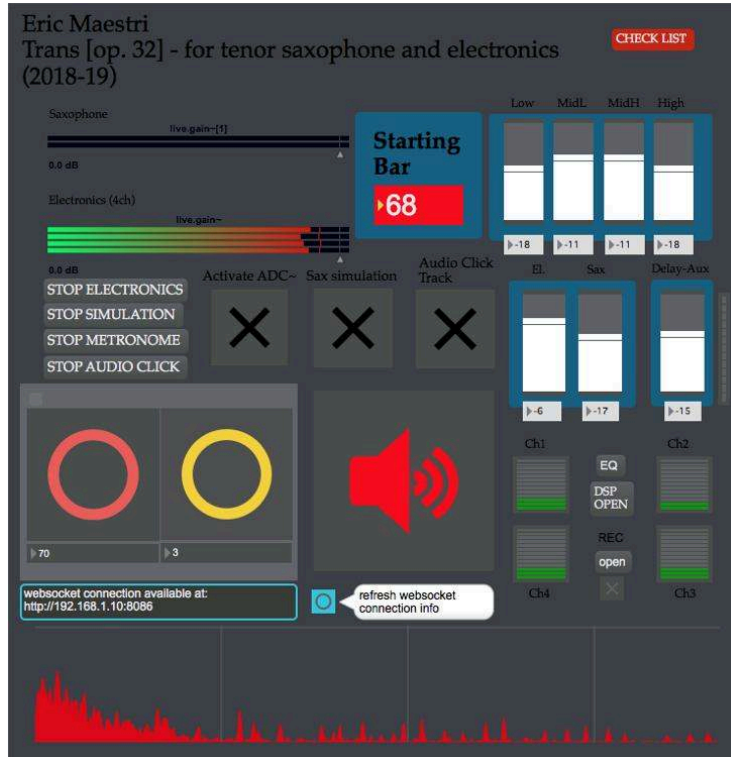
Act three: performing a “target-image”

32 The writing process of *Trans* is performative. The electronic sound composed in the studio serves to solicit the performer, who then suggests instrumental solutions. Having listened to the sound, the saxophonist and I build a mixed sound. This is made possible by the fact that we are able to listen to the electronic part, that we are able to record the saxophonist in the studio and are then able to choose each sound by perceiving the way the mix between the electronics work together. This approach means the saxophonist got to connect directly with the music and contribute to the composition process in a creative manner. The composition then emerged progressively by associating the sounds based on a poetic idea, the result of the experimental articulation of a hybrid music-writing environment where the saxophone and the electronics coexist. The composition fixed itself progressively in the computer until the final image held together.

33 The simulation process makes this sound-image ‘pre-audible’, and it ultimately forms the ‘target-image’ of the performance. As a result, the composition requires a specific preparation of the performance. The subtle work on sound levels and mixes between the electronics and the instrumental part must be possible to recreate during the concert. As a result, this ‘target-image’ can be seen as a sort of audio sheet music that guides the performance.

- 34 The objective of the performance is then to follow this image so as to play along with it and recreate the piece in a concert context. In doing so, we are discovering unknown aspects of the piece which means that it presents new elements each time. This is an interpretative approach that is based on the physical elements of the piece. This means that the “target-image” constitutes the idea of the piece that is articulated in time during the public performance.
- 35 The presentation of the piece comes with multiple variables. The piece needs to be adapted to the specific context of each performance, so with this in mind, I programmed a *Max patch* that allows it to be performed live. The *patch* involves a four-frequency equaliser, a volume control on the electronics and the transmission of the saxophone as well as a delay effect of two-hundred milliseconds applied to the saxophone. This delay is used in certain parts of the piece to make the mixing more effective. I used a visual metronome which was controlled by the patch to coordinate between the saxophone and the electronics. The performer can see it on their smartphone which is on the stand. It connects to a local network and displays the metronome’s visual signals⁶ (Fig. 10).
- 36 This device allows us to perform the piece’s ‘target-image’. The target-image serves to orient the implementation process. To prepare the concert I performed the piece myself in the studio by using the simulation of the instrumental part. This allowed me to rehearse and train the image-listening process in order to be able to adapt it to performance conditions and public presentation. This preparation process is also part of projective listening.

Figure 10.



A visual metronome

Conclusion

37 In this article I have outlined my actions as a composer according to philosopher Susanne Langer's notion of symbolization. According to Langer, this symbolization is implicit and natural. Pieces of music articulate individual experiences and in particular the singular experience of time. Using these philosophical considerations as a starting point, I focused on three types of compositional acts in my piece *Trans*, for saxophone and electronics. Listening plays a central role in these acts, so I propose the notion of projective listening. This notion allows me to outline the fact that composition is an act that projects its concrete realization toward a possible future. I show how I compose a mixed sound, how I build musical tension through the contact between the instrument and the electronics, and how I see the piece's performance. The mixed sound is made by editing the electronic sounds with the instrumental sounds. A simulation is used to pre-listen to the result of the mix and to solicit the composer's and the performer's imaginations. The notions of digital instruments figures, configuration and morphology are central to this process. I then concentrate on the composition of points of musical tension. These points of tension are composed by superimposing four types of movements. The first is *subliminal*, the second *liminal*, the third *figural* and the fourth *environmental*. These movements are characterized by three different lengths. Finally, I focused on the performance of the piece. I propose the notion of 'target-image' to define this process. The model of the piece provides me with a complete sound image. To create this model, I focus on the details and think about the piece as a whole. This image is then created as an ideal objective. Pursuing this objective allows me to structure the performance process and to be aware of the variants that take place during performance and rehearsals. In order to take the performative aspect of the composition into account but also the implementation, I programmed a Max patch that allows me to control volume and balance during concerts.

BIBLIOGRAPHY

- Casati Roberto and Dokic Jérôme, *La philosophie du son*, Paris, Jacqueline Chambon, 1998.
- Grisey Gerard, "La musique: le devenir des sons", In *Ecrits ou l'invention de la musique spectrale*, Paris, Éditions MF, 1982, p. 27-35.
- Harvey Jonathan, "The Mirror of Ambiguity", In *The Language of Electroacoustic music*, Simon Emmerson, Palgrave, 1986, p. 175-90.
- Heidegger Martin, *Sein und Zeit*, Tuebingen, Max Niemeyer Verlag, 1927.
- Langer Susanne, *Feeling and Form. A Theory of Art*, New York, Routledge & Kegan Paul, 1953.
- Mâche François B, *Musique-mythe-nature*, Château-Gontier, Aedam Musicae, 2015.

Maestri Eric, "Notation as Temporal Instrument". In *Proceedings TENOR 2016. International conference on technologies for music notation and representation*, edited par Chris Nash, Richard Hoadley and Dominique Fober, Cambridge, United Kingdom, 2016.

Small Christopher, *Musicking. The Meaning of Performing and Listening*, Middletown, Connecticut, Wesleyan University Press, 1998.

Smalley Denis, "Spectromorphology: explaining sound-shapes". *Organised Sound 2 (2)*, 1997, p. 107-26.

NOTES

1. This division of the fundamental moments of my composing process evokes Heidegger's writings about being. Here, I refer to the three modes in which the human being exists as proposed by Martin Heidegger in *Being and Time*: emotional situation, understanding and interpretation. The first indicates everyday humour, the feeling of being "thrown into the world"; the second is understanding this way of being among other possibilities; interpretation consists of elaborating possibilities projected by understanding (Heidegger, 1927).
2. For the notion of musical event, see Casati, G., Dokic, J., *La philosophie du son*. (Casati and Dokic, 1998)
3. I subscribe to Christopher Small's idea according to which the composer, in the end, only produces material for a performance (Small, 1998).
4. A technique that involves playing a note and singing a bass note at the same time.
5. The description of this poetic approach is not unlike the one presented by Gérard Grisey (Grisey, 1982) and François Bernard Mâche (in particular his mixed piece *Kassandra*, 1977) (Mâche, 2015).
6. I used the Max library *miraweb* for this: <https://github.com/Cycling74/miraweb>

ABSTRACTS

In this article, I examine three types of composition based on projective listening, a notion I develop in my own practice as a composer. I wrote *Trans* for saxophone and electronics, using a mixed sound where the electronic part interacts with the instrumental part through electronics. This choice structures the composition and means the performer can be included in the writing process through listening. The analysis of this piece reveals three listening modes: listening to mixed sound as a deferred performance; listening in order to project a target-image that guides the performance; listening in order to organize expectations through the development of three types of musical tension. This requires a specific work environment. This environment allows for a number of listening possibilities. I propose then to think of composing as the construction of the listening process of others.

INDEX

Keywords: compositional act, co-creation, interaction, electronic music, delayed performance, trace

AUTHORS

ERIC MAESTRI

He studies composition in Brescia, Turin and Strasbourg with Gilberto Bosco, Ivan Fedele and Yan Marez. He also studies philosophy of musicology. He received the Aberdeen Music Prize in 2004 for his string quartet "Sul ponte sul mare". In 2009 he was selected by Ircam to follow the curriculum in computer music. His musical works have been published by Suvini Zerboni since 2011.

Doctor of the University of Huddersfield (2014) and the University of Strasbourg (2016), he teaches there, as well as at the University of Paris 8 and at the University of Lorraine. He is currently an associate researcher at CICM / Musidanse at Paris 8. He is the author of several publications in music sciences, concerning the analysis of electroacoustic and mixed music, and is interested in popular music as well as in art-science dynamics.