



Participative musical interpretation and recording
Modes of Interference II (2006) by Agostino Di Scipio

Pedro Bittencourt – Sax Professor UFRJ – Rio de Janeiro - Brasil

PhD Music Candidate CICM - Université Paris 8 - France

Participative interpretation in mixed music

- mixed music combines acoustic instruments and electronic means
- the participative musical interpretation in mixed music is developed through a dynamic and creative process as a result of multiple interactions and exchanges amongst both composers and players during the period of time required for a satisfactory version of each piece
- I consider the composer of mixed music also a performer
- aside from being loyal to the “final work”, the instrumentalist contributes to its “construction” by enhancing the composer’s ideas

Participative interpretation in mixed music

- the participative interpretation emerges from this “exchange of skills”, it is distributed over a large period of time and subject to the “final” validation by the composer
- a new creative working dynamics that didn't exist before emerges, giving birth to versions (or “states”) of the mixed works, and opening operational perspectives between acoustic sounds and electronic tools
- I consider participative musical interpretation as “multiple mediation” in both senses (composer \leftrightarrow instrumentalist), built entirely along the collaborative process. It is flexible and it has an adaptive character, providing a greater or lesser degree of “plasticity”

Agostino Di Scipio

- acoustic instruments and adaptative DSP

« Well, musical instruments are devices usually meant to deliver sounds, but I like **also** to use them as devices to exert controls over the digital transformations of the sounds they themselves deliver. (...)

In other words, in this line of research, **sound sets the conditions and boundaries for its own transformations**. I call it sound-specific signal processing or adaptative DSP. When « sound » includes the room resonances, then it becomes room-specific, or room-dependent signal processing. »

ANDERSON, C. [2005] « Dynamic networks of sonic interactions, an interview with Agostino Di Scipio », *Computer Music Journal* 29:3, Fall 2005, éd. MIT Press, Massachusetts, p. 16

Agostino Di Scipio

- live interactions in sound

« The phrase **live interactions in sound** (...) suggests that the technological infrastructure in a performance of live-electronics music can be seen as **a network of mutually influencing sound-generating and transforming processes or devices** (including not only signal processing software and musical instruments, but all transducers and electroacoustic devices involved in the performance set-up).

DI SCIPIO, A. [2006] *Using PD for Live Interactions in Sound. An Exploratory Approach*, proceedings of the Linux Audio Conference 2006, ZKM Karlsruhe, Allemagne, p.1

Agostino Di Scipio

- sound becomes the interface

« That requires of us that we deal with sound not as just a raw material to forge and deliver to listeners, but as the source of dynamical behavior within the network, i.e. the vehicle of information transferred from any one node to another. **Sound then becomes the interface**, the medium itself for control and interaction among agencies participating in a performance - either human or machine agencies.

DI SCIPIO, A. [2006] *Using PD for Live Interactions in Sound. An Exploratory Approach*, proceedings of the Linux Audio Conference 2006, ZKM Karlsruhe, Allemagne, p.1

Agostino Di Scipio - composing interactions

« Dans le modèle le plus commun de l'interaction en direct, l'interaction est surtout comprise comme un flux d'information : une source sonore est transformée. En quelque sorte, le système agent + dispositif est peu interactif ! Ou encore, on peut dire que le paradigme musical sous-jacent est celui du jeu instrumental, l'agent étant le musicien, le dispositif, l'instrument : le compositeur se souciant uniquement du *résultat* (sonore). (...) Selon Di Scipio, **la composition pourrait au contraire consister à *composer les interactions*, — le résultat, lui, n'étant pas ce qui est composé directement.** »

SOLOMOS, M. [2010] « Notes sur la notion d'« émergence » et sur Agostino Di Scipio » in *Manières de faire des sons*, SOULEZ, A., VAGGIONE, H. (org.), éd. l'Harmattan, Paris, p. 90

Agostino Di Scipio - music without previous existence

« (...) en général, ce qui m'intéresse, c'est la composition d'*interactions souhaitables* entre composants ou éléments disponibles, de telle sorte que la musique soit entendue comme l'épiphénomène empirique de ce réseau d'interactions et non comme un discours abstrait écrit par moi et énoncé par soin par d'autres. **Bien sûr, je fais ce que je peux pour que l'épiphénomène sonore soit fidèle d'une manière ou d'une autre à ma propre imagination sonore.** (...)

« Pour moi, la musique est quelque chose qui n'a pas d'existence préalable, mais qui finalement se produit, quelque chose qui est toujours à réaliser, à renouveler chaque fois ; elle n'est jamais quelque chose qui est là, déjà existante et délimitée dans une forme idéale ou virtuelle, qui se prête à être re-présentée, ré-incarnée. »

DI SCIPIO, A. [2007] « Due di Uno, une composition dédiée à Horacio Vaggione », in SOLOMOS, M. (org.) [2007], *Espaces composites - essais sur la musique et la pensée musicale d'Horacio Vaggione*, éd. L'Harmattan, Paris, p. 292

Agostino Di Scipio

- timber, texture, noise

« For me usually pitch is not the main dimension of musical structure. (...)

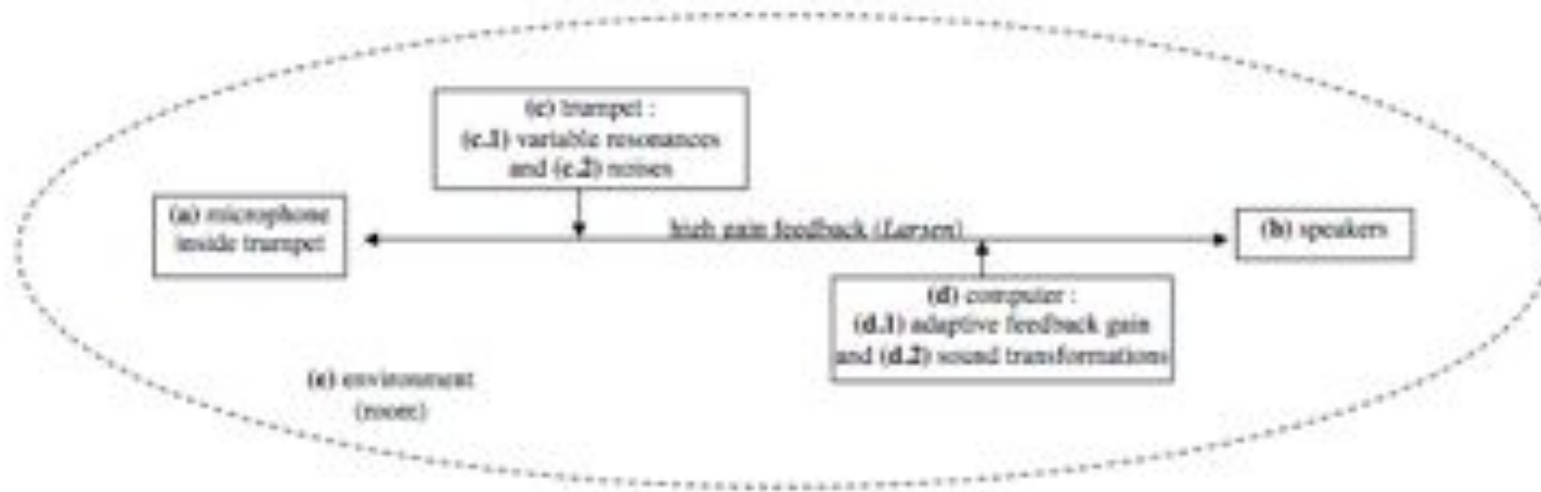
I don't want the computer and the electronics to deliver notes. And even in the way I use musical instruments, I try to minimize any sense that the way pitches are organised is the musical structure per se. **My attention is more focussed on timbral, textural constructs, noise transients, etc. »**

ANDERSON, C. [2005] « Dynamic networks of sonic interactions, an interview with Agostino Di Scipio », *Computer Music Journal* 29:3, Fall 2005, éd. MIT Press, Massachusetts, p. 20

Performing and recording Modes of Interference 2 (2006) for audio feedback system with sax and live-electronics



Performing and recording Modes of Interference 2 (2006) for audio feedback system with sax and live-electronics



« The instrument becomes a kind of variable filter internal to the feedback loop ».
DI SCIPIO, A. (2006, p.2)

Performing and recording Modes of Interference 2 (2006) for
audio feedback system with sax and live-electronics

- it is not possible to start the piece from the middle (or another part)
- the piece must always be performed from the beginning to the end
- it would not be coherent to edit the takes

Performing and recording Modes of Interference 2 (2006) for
audio feedback system with sax and live-electronics

The input signal is submitted to :

- dynamical low-pass filtering
- dynamical (self-gating) amplitude scaling
- cascaded granular resampling (with variable sample-read values)

DESCRIPTION OF THE DIGITAL SIGNAL-PROCESSING METHODS

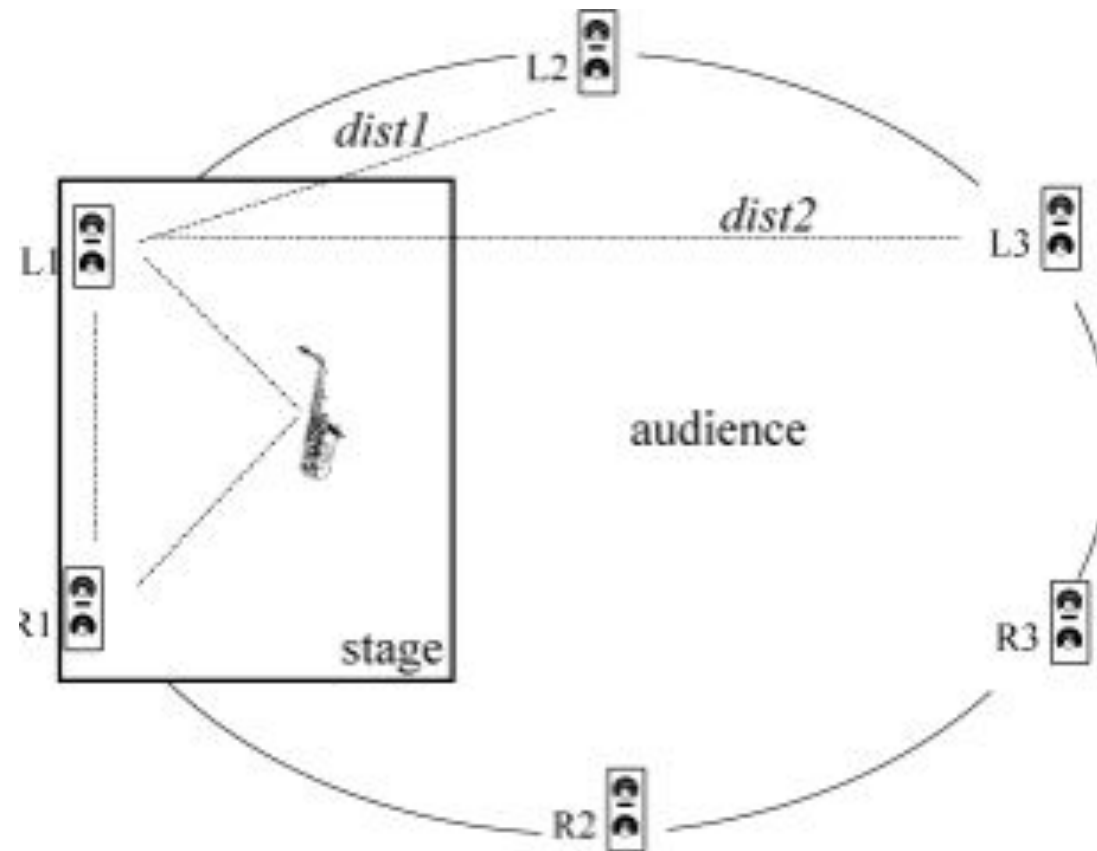
(performer does not need it, when using the composer's own implementation)

Overview of the full process

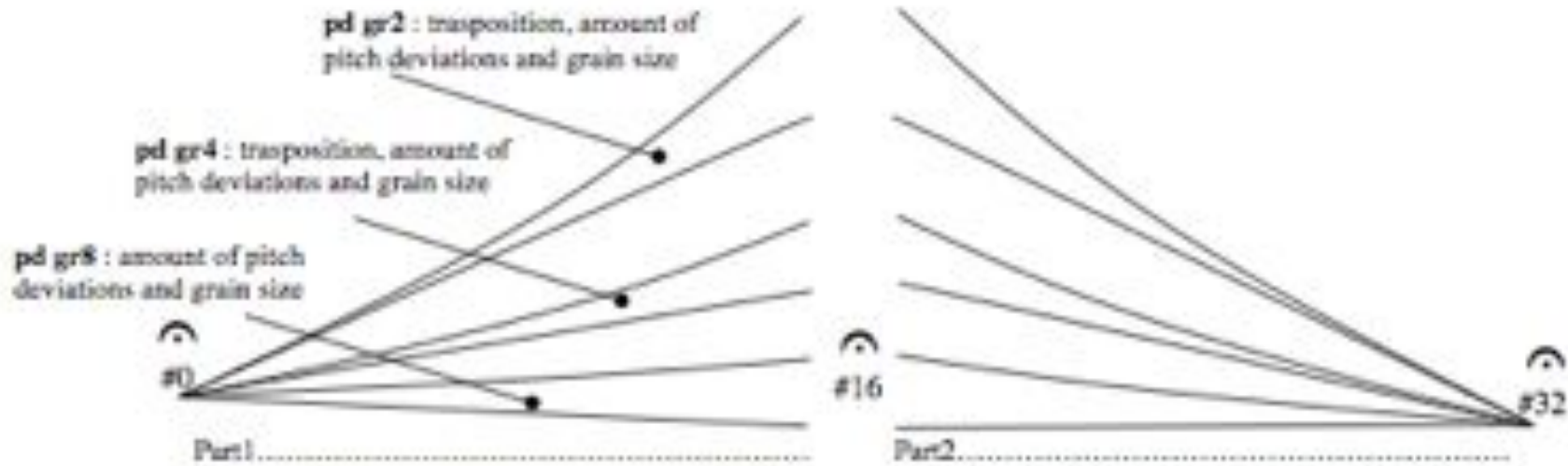


A description is provided here, of digital signal processing methods needed to performer MODES OF INTERFERENCE. Graphical examples refer to the composer's own implementation, made with PD. For simplicity, details of PD programming are discarded in the description (PD connoisseurs can still grasp them from the graphics).

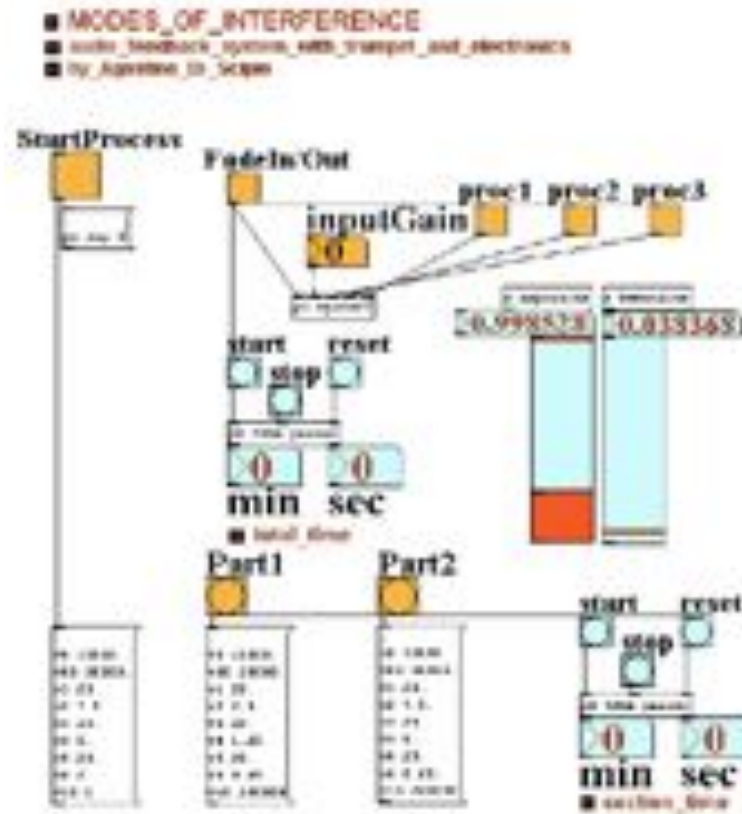
Modes of Interference 2 (2006) for audio feedback system
with sax and live-electronics



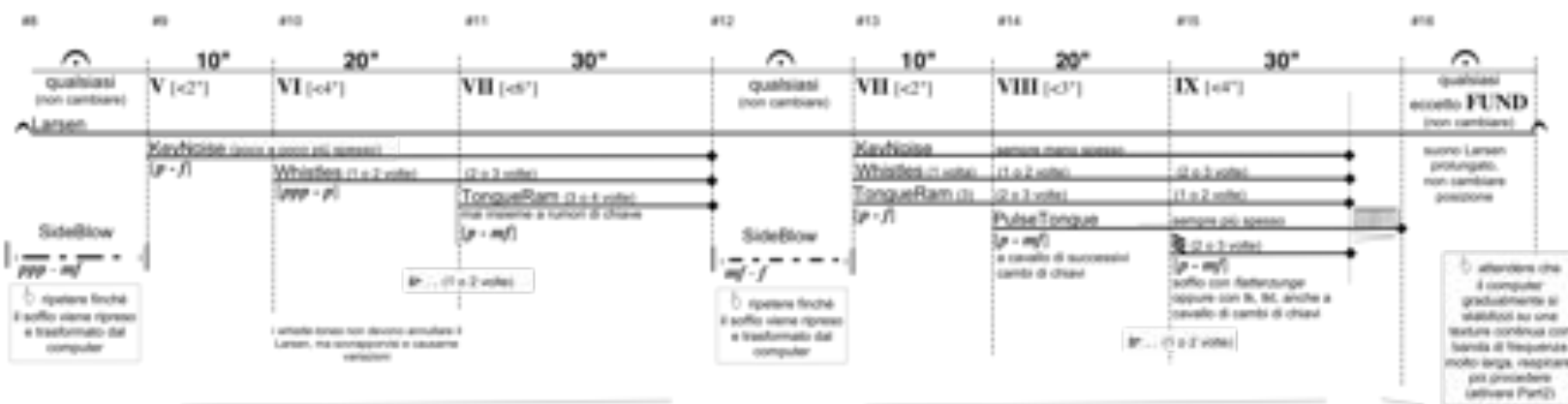
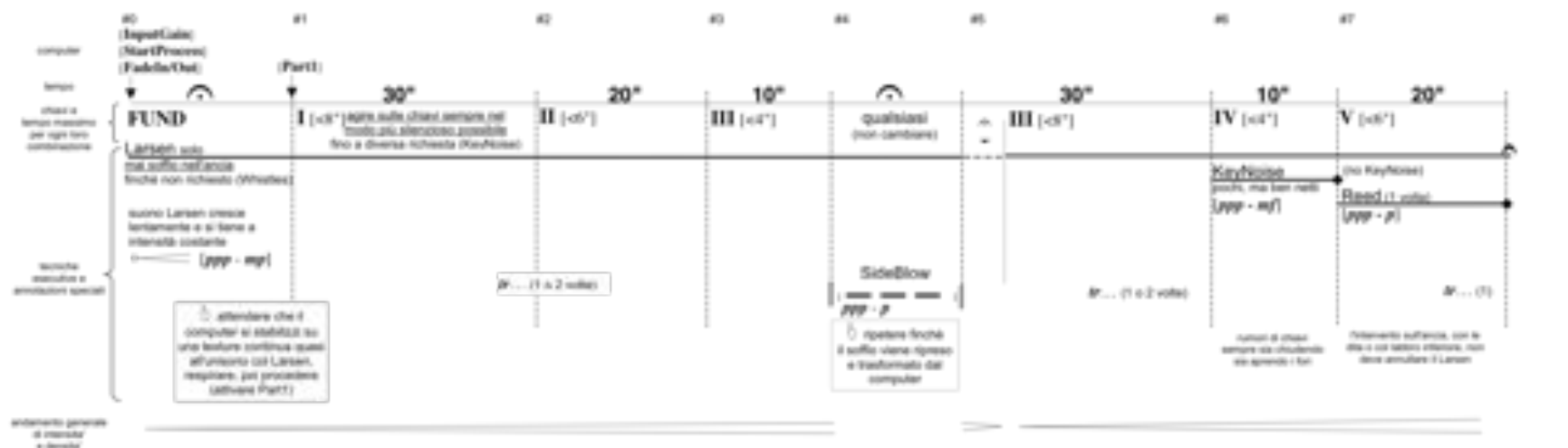
Modes of Interference 2 (2006) – real-time (patch Pure Data) chart



Modes of Interference 2 (2006) – patch Pure Data



Agostino Di Scipio
MODES OF INTERFERENCE
 Parte 1



ADAPTATIONS

"Maybe your preoccupation with the form (now I am thinking this for the first time) was too much, it was influencing your playing. In this case, form is emerging from what is to be done. So I think if you focus only on interacting with the dynamical system, within the dynamical system, I think you will land up with the shape that you expect. Don't worry about the form, just worry about the playing and the interactions.

Agostino Di scipio, personal interview after recording at ZKM, 06/02/13

ADAPTATIONS

- "The piece is about constant adaptation, so in a way I cannot but adapt, and the piece cannot but adapt to the player, and the player cannot but adapt constantly to the piece"
- "I would have made some slight corrections on the score if I had worked with you together"
- "First of all, **I heard new things happening in these two days, but that's not adaptation, that's more acceptance in a way**"
- "the notation and the score are not indicating actions, but trying to convey to the instrumentalist a way of playing which is acting and reacting."

Agostino Di scipio, personal interview after recording at ZKM, 06/02/13

ADAPTATIONS ON THE SAXOPHONE

- Les doigtées proposés dans la partition n'ont pas été suivis (sauf FUND)
- Whistles = sifflements les plus aigus possibles, ou resserant les lèvres en soufflant à l'envers
- Tous les gestes le plus doux possible
- Choix du sax soprano
- autant que possible, l'air a été inspiré (et non expiré) (*Tong Ram, Pulse Tongue*)

Modes de Jeux ("micro-gestes")

- *Key Noise* – bruits de clés (très doux) – des fois on entend l'ouverture des tampons
- *Trilli (Tr...)* – faire des trilles pour moduler l'effet Larsen (éviter les bruits de clés)
- *Whistles* – faire sortir des harmoniques très aigus et très doux (balayage), utiliser les dents sur l'anche si besoin
- *Tongue Ram* – souffler et arrêter l'air brusquement avec la langue, comme à la flûte, ce qui peut éventuellement générer un nouvel effet Larsen
- *Pulse Tongue* – des coups très doux de la langue sur l'anche ("tktktk..." ou "dgdgdgdg...")
- *Side Blow* – souffler légèrement sur des trous proches du mic1 (supérieur) jusqu'à ce que le son ressorte par les enceintes
- *Reed* – inspirer pour retirer de la salive, ou gratter l'anche légèrement avec le doigt

“I am glad that it seems to work well "even if sometimes not...". As a general attitude to this piece, you understand that the denser and louder your activity becomes, the smaller the total sound texture becomes... in a sense you have to "let it go", and add only as little as possible with keys and/or reed/lips, everything on your side could be like "suggesting" some materials, rather than "stating" them. Listening and refraining from doing is just as important as doing, here, and when the score requires action on your side, things you do should be not overstated. **Overall, the important is that you find as many chances as possible to get various Larsen tones, sustained and not peaking, not only when all keys are released, but also when some keys are depressed.** Once that is assured, then you are in the position to do a good performance.”

Agostino Di Scipio, personal email before premiere, 23/02/10

Modes of Interference 2 (2006)

Version sax soprano - 2011 - ZKM



Modes of Interference 2 (2006)
Version sax soprano - 2011 - ZKM



Modes of Interference 2 (2006)

Version sax soprano – recording February 2011 - ZKM



Modes of Interference 2 (2006)

Version sax soprano – 2013 – with Agostino Di Scipio



Modes of Interference 2 (2006)

Version sax soprano – recording 06/02/13 (also video) – ZKM



Modes of Interference 2 (2006)

Version sax soprano – recording 06/02/13 (also video) – ZKM



Modes of Interference 2 (2006) rec 06/02/13

Pedro Bittencourt (on the left), Agostino Di Scipio (on both pictures)
and Sebastian Schotke (ZKM's Tonmeister)



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Thanks



Pedro Bittencourt

www.pedrobittencourt.info
contact@pedrobittencourt.info