

Interactions in a performance space: *A changing landscape, an experience of an audiovisual installation*

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Abstract

This project comes out of some reflections originated from an experience of interactive composition. The latter stemmed from the creation of background music for a project of architectural regeneration that later became an audio-visual installation with its own independent character. The musical idea was born out of the belief that the perception of a landscape doesn't involve only the elements of visual and spatial character, but also the sound elements that compose the landscape. The soundscape is an integral part of our perception of the landscape in general.

From these premises derived the idea of composing an audio-visual installation where the sounds accompanying the viewing were, in part, sounds from the landscape itself and, in part, realized through synthetic instruments and techniques. The perception of the whole depends on the interaction with the movements of those who observe and listen. This way, also the concepts of relationship between sound and image and between sound and listening space come into play. By now, technologies have been contributing for a long time to the rethinking of these relationships as well as to their use in both musical and multimedia compositions.

Project's objectives

I carried out some experiences of interactive composition and improvisation in which the role of the interpreter could have an influence in various ways on the outcome of the composition.

I would like to deepen my reflection on how interactive technologies keep facilitating the spread of the use of certain aspects of the artistic and music composition such as, in the first place:

- 1- sound-space interaction;
- 2- interpreter-listener/observer relationship.

The *A changing landscape* audio-visual installation was a quite simple experiment of interaction. However, it enabled me to create a relationship between different ambits, starting from the coupling of music with an architectural project. The initial proposal consisted in creating background music for a project of regeneration of a landscape. Therefore, it was a music work born out of a context of redesigning of a space that supplied the starting point for the study in depth of the interaction between sounds and environment. The idea of proposing the form of the audio-visual installation derived exactly from the fact that the project was going to be enjoyed through the listener-spectator's experience of the space. The interactive

technologies, in this case of relationship between presence-movement and sound-visual outcome, highlight the importance of the interpreter-spectator-observer relationship.

Therefore, the idea of *A changing landscape* is, from its inception, linked to an architectural project of regeneration of some mines that were once working in South-Western Sardinia. The audio-visual installation, although it starts from this original idea, can later be realized also separately from it and can be performed in other contexts as a stand-alone musical and visual installation.

Context and instruments

A first reference for this idea of background music for the landscape, are some realisations of the spanish architect P. A. Padilla Jargstorf and in particular the project of the Centro de Investigacion sonora of the Jardin de San Francisco en Madrid. In it, some thin vegetable sheets with different bends, produce different acoustic responses depending on visitors' placement within the space. Here the concept of soundscape is conceived as the "primordial element of the comprehension of our surroundings, always implied in our visual experience, that plays a fundamental role in our spatial perception" (P. Jargstorf, 2005).

Another important reference were the theories by the french landscape architect Gilles Clément, expounded in his main works and, in particular, in his *Manifesto of the third landscape*. The space-garden should be lived and observed as the place of the change where "some biological energy unfolds naturally" (Clément, 2004).

The main musical reference for *A changing landscape* is the conception of 'dramaturgy of sound' expressed by Luigi Nono in this last works in which sound was moving in the space using live transformations every time changing. In all his works of the 80s the composition is the result of a research of sound in which composer and performer have a continuous interaction, they are "caminantes without caminos" as the composer itself described in the foreword of the score of his work *La lontananza nostalgica utopica futura* for violin and tape (Nono, 1989).

In the performing space of this composition the sound changes according to the points of listening and the performer's idea. We never have equals performances.

Realisation of *A changing landscape*

The *A changing landscape* installation consists of a series of images and audio files. The original images are of seascapes, arid lands, wooded areas taken from the original architectural project of landscape regeneration. Each type of images is combined with different audio files composed both with sounds of acoustic instruments, and with synthetic sounds, and with sounds from the landscape itself. The installation is arranged in such a way as to be performed along a spatial route of a size between 5 and 8 metres of length, like a corridor, a room or a courtyard, both outdoor and indoor. In the following picture is showed the performing space in which the installation was realised the 20 june 2009 in Milano.

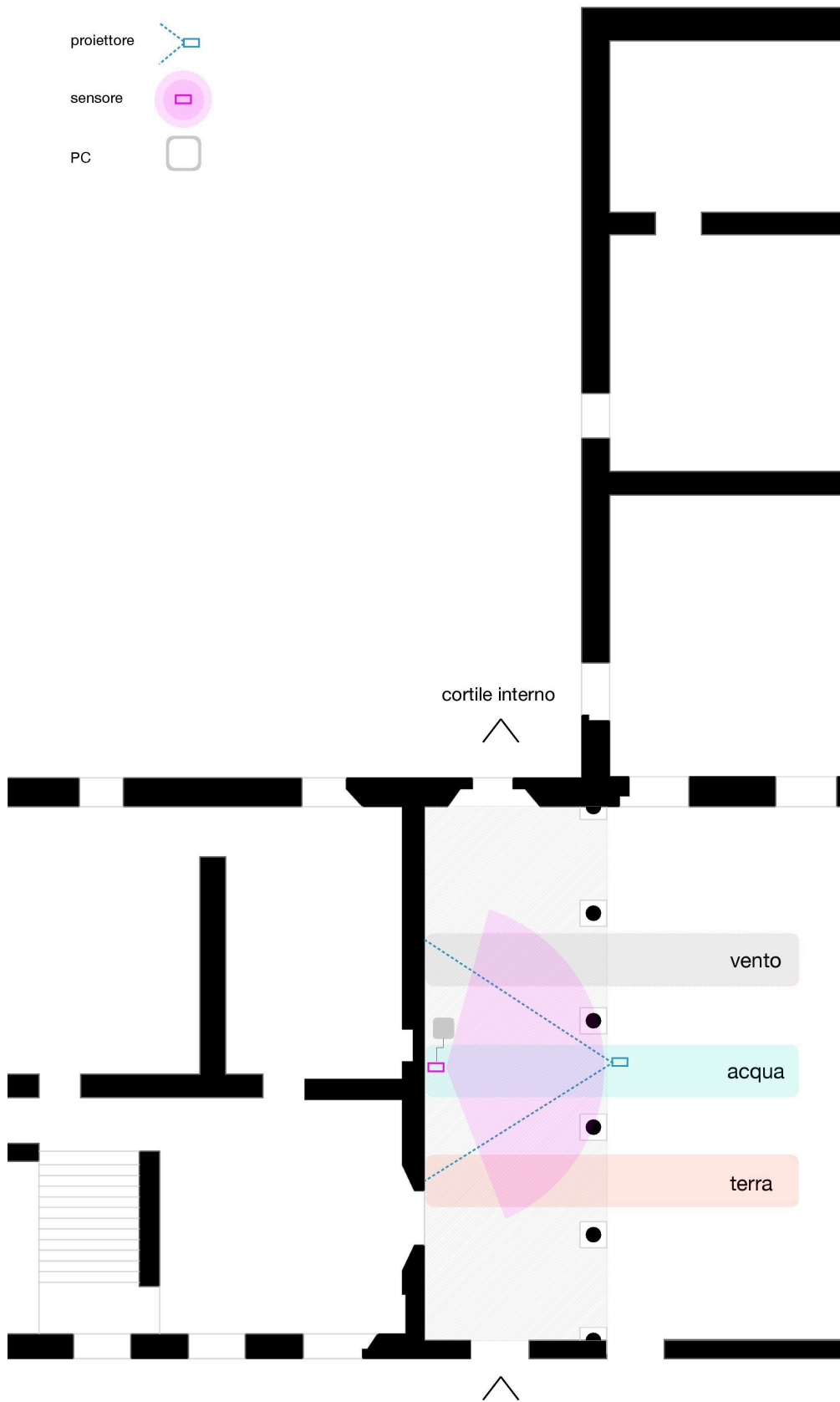


Figure 1. Sound-image associations within the composition

Within this space, different kinds of images from landscape are projected and at the same time the audio files are played. By walking through the installation area, each visitor-listener will be presented with different perspectives of the images and of the accompanying sounds. The changes during the running of the installation depend on two types of events:

- 1- number of spectators present;
- 2- type of movements of the spectators.

The presence of the public and their movements are detected by a video-camera and affect the transformation of the sounds and of the images, that are processed by a motion capture algorithm realized through the program Max/MSP.

At the beginning of the composition, sound and images are associated as showed in the following table.

Time	past	present	futur
Image	landscape with ruins	natural seascape	regenerated landscape
	rocks-arid land	sea, beach	wood, wind
Music	metallic sounds	water sounds	acoustic instruments
	sounds of recorded instruments	water sounds from the soundscape	synthetic sounds

Table 1. Sound-image associations within the composition

During the performance we have changes in the images and sounds produced by the presence of people in the area of performance.

total absence of spectators and therefore of movement	dark and silence
minimal presence of spectators	start of sounds and of images
higher increase in presences	more changes in sounds and images
maximum presence of spectators	maximum changes in sounds and images

Table 2. Changes produced on images and sounds

If we have a great presence of people in the performing area, we obtain more changes in the visual and sound domain.

Conclusions

The project offered here is an opportunity to deepen our reflection on various topical themes:

- 1- the interaction as an emerging element of many current artistic activities that avail themselves of the available technologies, further and further improved ;
- 2- the function of the interpreter who, in the final analysis, can even be the spectators themselves or a person acting from a distance. Also on this point, if at the dawning of the use of live electronics there was an interaction, for example, between the performers on their instruments and the composer's thought through the way the sound was produced by the performer and processed by the sound engineer, now with the interaction this process extends also to the spectator-listener ;
- 3- furthermore, still through interaction techniques, it is possible to deepen the interrelation existing in this type of works between sound and visual event, as well as between space and movement.

References

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