Venusia

Musical Theatre for Actors, Cello, Flute, Electronics and Motion Tracking.

Influences and Methodology.

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Abstract
The following paper focuses on the influences that have contributed to the creation of Venusia: a piece of musical theatre for three actors, cello, flute and electronics scheduled for performance at Sound, Sight, Space and Play 2009. The piece is the result of combined efforts between the author of this paper and members of Ubikteatro, a theatre-research group based in Venice. The main idea behind the piece was to create a work for musical theatre based on the soundscape of Venice and the rich cultural legacy of the city. We also wanted to incorporate theatrical gesture as a means of controlling musical expression and explore the associated potential by placing it within the context of a specific tradition (Venetian spatial music, Luigi Nono and musical theatre) while combining it coherently and artistically with other influences and research interests. The purpose of this document is to highlight the research elements that influence our work and the methodology implemented in combining them.
Introduction

Work on the project begun in late 2006 while the author was conducting research on spatial music and creative applications of live Ambisonic spatialisation. This interest in spatial music could be considered as the primal inspiration behind the piece.

1) Venice and the Tradition of Spatial Music

The documented development of spatial music leads back to 15th century Venice, when Maestri di Cappella such as Adrian Willaert and Giovanni Gabrieli composed music for the space of St. Mark, splitting choirs and instrumental groups across different parts of the cathedral (Arnold 1979). Compositional techniques involving spatial ‘responsorial forms’ and the concept of ‘space’ as a musical context begun to emerge at the time. It is however only with the advent of electronic music that the interaction with space becomes truly rooted in a musical tradition and increasingly intertwined with aspects of theatrical performance and sound dramaturgy. Among the great innovators in the field, like P. Henry, P. Boulez, G. Mumma and K. Stockhausen, we find the Venetian composer Luigi Nono (1924-1990).

2) The Legacy of Luigi Nono

His work is of particular interest as it provides an example of meaningful implementation of sound in space both in terms of composition and performance. Nono often uses space to project the listener into a specific situation, recreated through sounds and vocal fragments, in order to convey meaning with greater impact: a factory and its working conditions, a concentration camp, the Vietnam War³. In the later part of his career, work with live electronics developed at the Freiburg Experimental Studio, enables Nono to move towards an even stronger integration of music, musical performance and space. The performance space is finally transformed into a musical instrument as brilliantly demonstrated in Nono’s Prometeo (1984). Each location has specific resonances to be excited differently at every performance by the sound instrumentation and by the performers’ techniques. Space becomes therefore an ‘active’ element in musical performance and spatialisation is approached as a performance practice. Space is also highly theatrical in that it provides a flexible canvas for Nono to develop his sound dramaturgies, where sounds increasingly become the leading characters, while little visual dramatic action takes place on stage in the traditional sense² (Nono 2008; De Benedictis et al. 1998). We wanted to explore this idea of a sound-based dramatic action in our piece and did so primarily by not overemphasising costumes, by limiting the stage design to very small illuminated areas that performers can enter and leave according to their musical roles and, more generally, by investing more into the research of narrative sound solutions as opposed to visual dramatic action.

3) Musik from the City Soundscape

One other aspect of some of Nono’s later pieces informs the idea behind our work: the soundscape as a source of musical inspiration. In pieces like Prometeo and A Pierre (1985), Nono employs sound ideas captured from the Venetian soundscape, reinterpreting them mostly through instrumental noises or electronic processing. Venice’s unique soundscape, with its low noise floor allows entering a fascinating world of small sounds, echoes, steps, voices and water. This, as Nono himself points out on several occasions, is a city where more than one hundred bell towers still now play daily ‘spatial’ concerts. What
interested us mostly was the idea of reinterpreting such a soundscape in a musical way through a theatrical experience. The soundscape materials, including processed field recordings and live reinterpretations, provide the architecture for the piece, which is essentially conceived as an imaginary visit to the city.

4) Theatrical Performance for Musical Expression

Performances involving, electronic and computer generated music often lack certain expressive, physical, ritual and theatrical aspects that are naturally associated with other types of musical performance. Inspired by models such as Clara Rockmore on the Theremin and Pierre Henry with his Potentiomètre d’Espace3 (cf. Palombini 1999) we set to work to find an artistically meaningful integration between technology, theatrical action and musical expression within the context of spatial music and the Venetian theatrical tradition. Based on this assumption we decided to explore the potential of actors’ gesture to control sound projection and other musical parameters and, having investigated a number of possible options, soon landed onto the idea of implementing camera motion tracking.

5) Technology and Implementation

In its latest version, after two years of development, the technology implemented is based on a dual camera IR tracking system4 allowing control of three-dimensional sound projection and other musical parameters. The actual spatialisation is performed in real-time by different platforms according to the performance requirements: from quadraphonic arrays up to three-dimensional 16 channel Ambisonics5. Voice is the main element to be affected by motion-controlled spatialisation, but music and other live sources are also processed through this device in the piece. Other parameters affected by the tracking system in Venusia include pitch, filters and two sample-based instruments wherein selected sounds have been mapped to portions of the performer’s action space.

Traditional live electronic processing with delays, artificial reverberation and filtering also plays a major role in the piece. Rather that creating a fixed effect routing patch for the piece we have chosen to implement a flexible matrix where each process can be fed onto any other in the desired amounts to create dynamic effect textures and increase the ‘interpretative’ aspects of the electronics.

6) The Piece and its Musical Materials

Venusia presents itself as a theatrical journey through Venetian sounds. The performance uses actors, instruments (cello and flute) and live electronics to take listeners through a set of musical scenarios, as if they were wandering through an imaginary Venice. The city, represented by Venusia6, thus tells its own story through sounds. Venetian sounds have been used as the building materials in three different ways: some have been recorded and manipulated with various techniques to form short electro acoustic compositions; other recorded sounds have been edited and mapped into sample-based instruments that can be ‘played’ with the motion tracker; finally, a number of Venetian sonic contexts have been discussed, analysed and reinterpreted to generate live parts, performed by the actors with instruments, noises, singing, spoken voice and so forth. The text7, derived from thorough analysis and reinterpretation of documents, literature and life in the city, is conceived as a musical part in its own right even when it’s spoken. It combines various languages to express the plurality of views of the city and its multicultural heritage. The live electronics, including spatialisation and motion tracking, are
conceived as the pivotal elements allowing us to contextualise all the experiences discussed above and our impressions of the city.

7) Conclusions

In our experience the impact of using theatrical gestures to affect musical expression is extremely effective. It is dramaturgically and musically interesting as it creates an association between visible actions and perceived sonic results and it allows for sophisticated manipulations and creative narrative solutions such as the dissociation of sound from its physical source in space and enhanced performers/character differentiation and interplay. Using a city soundscape as a thematic lead has enabled us to reveal many layers of understanding of the city’s life, of its inhabitants and traditions through sound and served us as general canvas and framework in combining our influences coherently. Finally, Nono’s ideas for spatial and theatrical approaches to sound are possibly the strongest influences in our research and their potential suggests further investigation is indeed worth pursuing.

Bibliography


Further information and a short demo video of this work may be found online at: www.ubikteatro.com

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1 Examples of this are evident in early works like La Fabbrica Illuminata (1964), Ricorda cosa ti hanno fatto in Auschwitz (1966) and A Floresta e jovem e cheja de vida (1966).

2 While this is particularly obvious in Prometeo (1984) the tendency towards a ‘total-theatre’ or ‘theatre of ideas’ (as opposed to the traditional actor’s theatre) is present throughout Nono’s career. Nono’s ‘stage actions’ are deeply influenced by the experiences of Meyerhold, Piscator and Svoboda. Important works for musical-theatre by Nono include Intolleranza ’60 (1961), Al Gran Sole Carico d’Amore (1972-74), and Prometeo (1984), notable collaborations include a tape score for Die Ermittlung by P. Weiss / E. Piscator (1965).

3 A theatrical user interface used to control the three dimensional sound projection developed in 1952 at RTF.

4 Jitter-based implementation by the author.

5 Max/Msp based 1st order Ambisonic Panner developed by Dave Hunt.

6 The name Venusia is taken from a poem by Andrea Zanzotto’s in Filò (1976), originally written for Federico Fellini’s film Casanova.

7 By Francesca Sarah Toich.