

Kino dźwięku.
Estetyczne i warsztatowe zagadnienia kwadrofonii frontalnej na przykładzie
słuchowiska autorskiego pt. „12/4.1”

The acoustic cinema.

Aesthetic and technical aspects of the vertical quadrophony
on the example of original radio drama "12/4.1"

My PhD thesis addresses artistic and technical convention of *the acoustic cinema*. This convention is an expansion of a radio drama form based on vertical quadrophonic sound reproduction system. The system consists of four full range loudspeakers placed in front of the listener on a rectangular plan. It constitutes an analogy to a cinema screen and is used as phonographic reproduction of *acoustic films*. I have produced such a film as part of my PhD thesis at the Department of Sound Engineering at the Fryderyk Chopin University of Music in Warsaw, which was preceded by a number of experiments in which I studied capabilities of that reproduction system. I was particularly interested in capabilities of spatialization of virtual sound sources on a vertical plane by means of this technique. In this thesis I present results of the experiments. Moreover, in this thesis I explain why I did not decide to use a popular and functioning on the market 5.1 surround sound system.

The acoustic cinema is also the name of the festival which took place four times in years 2011-2016 in Wrocław. During the festival a number of works from the verge of *musique concrète* and electronic music, radio art and field recording were presented. It was also there that surround sound projection was used. It surrounded listeners gathered in a cinema hall specially adapted for that purpose. The festival and Luc Ferrari's work in particular gave me an important source of inspiration while creating *12/4.1* and for my practical attempts of defining poetics

of that work. At the same time, my overall, theoretical views on radio art are connected with ideas older than the festival: Zenon Kosidowski and Leopold Blaustein's aesthetics, Vitezslav Nezval's poeticism, Bronisław Wiernik's antitheatrical ideas of the radio art. Simultaneously, I distance myself slightly from the vision of radio drama presented by the Polish Radio Theatre throughout the last forty years. Audio movie is not *theatre of imagination*. It is acoustically more complex, intense, spatially varied, multicolored and immersive. It is not based on literature (a screenplay or a classic novel) and the spoken word is not always a dominant part of the whole composition. The composition itself resembles rather an opera – but in a varied way it uses means of expression of *musique concrète*, atmosphere sounds, editing, spoken parts, poetically used sound effect, sound design and spatially elaborate medium of vertical quadrophonic. The image is ambiguous: it is the interpretation of the listener that decides about the identity of the presented things and their affiliation to the real world or to the sphere of music. Characters live in a surreal world soaked with music and they try to complete their aimed goals in surreal ways.

A studio production of this work was complicated due to an elaborate technique of sound projection, complexity of the world presented in the recording and variety of acoustic phenomena which illustrate adventures of the three main characters. In my thesis I describe the production process by dividing the description into the following problems: spatiality of the phonographic picture, movement, microphone techniques, editing, rhythm, sound illustration, work with actors. I explain technical difficulties, describe audio tools which I used and virtual music and phonographic instruments which I programmed for a more efficient workflow. I present advantages and disadvantages of contemporary digital audio workstations used as means of sound creation in untypical formats. For *the acoustic cinema* is technical art: it relies on the achievements of the contemporary civilization and could arise thanks to constantly evolving phonographic technique.

From the artistic point of view I cannot omit probably the most important and independent from the historical moment question, namely in what new way, in that elaborate form of radio drama, sounds take their meanings and what

semantic games they can enter into with the spoken word and with each other in the function of telling a story and constructing the whole of work. An attempt of reflection on that issue, on relations of radio art and Luc Ferrari's acousmatic music and ways in which we can listen to the world concludes my PhD thesis.