

Influence of Spectral Music on *Lichtbogen* of Kaija Saariaho: Analysis of the Computer Program Data and the Sketches

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The aim of this work is to examine how Kaija Saariaho used the compositional technique of spectral music with the computer programs that were developed at the Institut de Recherche et Coordination Acoustique/Musique (IRCAM) for the creation of *Lichtbogen*. The compositional technique of spectral music is primarily based on two ideas: “model” and “process of transformation.” We study how Saariaho developed these two ideas for *Lichtbogen* by focusing on the analyses of the computer program data and the sketches that she elaborated during the composition.

The idea of “model” can be seen in Saariaho’s approach, which consisted of analyzing the sound of the cello with the computer program, IANA, and using the results as chords in the work. The “process of transformation” can be seen in the manner in which she prepared the rhythmic material from the interpolations that were calculated by the computer program, FORMES. The important observation here is that Saariaho did not directly use the data calculated by the programs. However, she did not hesitate to transform or to adopt parts of the computations to obtain the material that she needed. In fact, Saariaho’s use of the compositional technique of spectral music was not strict but more unrestrained.