

Simonetta Sargenti*¹*Conservatorio Guido Cantelli, Novara /
Gruppo Analisi e Teoria Musicale (GATM), Italy¹simonetta.sargenti@consno.it

Analysis of the Score and Performance Analysis: Two Different Approaches to Karlheinz Stockhausen's Music

ABSTRACT

In the music of the twentieth century, often the methodologies for the analysis of works even by the same author must be addressed in a diversified manner. An interesting example that confirms this claim is the music of Stockhausen. After spending a period of strictly applying the dodecaphonic technique, Karlheinz Stockhausen experienced new possibilities for composing, where performance became an increasingly important element for understanding his music. Works as *Mikrofonie I*, *Mixtur*, *Solo*, all pieces created in the 1960s are characterized not only from the composer's indications contained in the score, but also largely by performer's decisions and not least by sound processing technologies as live electronics, when provided. In all these compositions it is not only the score the most important element to be taken into account for the analysis, but the performance.

In 1970 Stockhausen debugs a new method of composition called 'formula', in which he created a structure that determines the characters of the whole composition. With this method, he returns to attributing to the score a decisive role. The performance is more determined by the prescriptions contained in the score. The role of the performance is in the foreground in all these works composed until 1970, onwards is the structure and the method of composition that are becoming again increasingly important. In each of the pieces composed between 1960 and 1970, the interpretative key becomes the material organization chosen by the performers following composer's indications. In these pieces is also relevant the interaction between score and performer or between the performers if there are more than one. The compositional method is instead more and more significant in the compositions created after 1970.

Introduction

In this paper I will focus my attention on the performance analysis in those compositions where the role of the performer comes in foreground. To discuss this point it will be taken as an example the piece *Solo* for a melodic instrument and feedback, composed by Karlheinz Stockhausen in 1966. A first level of my work describes the instrumental score and the role of the performer who must choose elements of the piece and 'rebuild' it for the performance. The analysis of the performance also includes the effects obtained by sound processing indicated by the composer in different 'Formschema', part of the score. A relevant issue concerns the evolution of live electronics. At the time the piece was composed, at least three assistants needed to realize the feedback required in the score. Now, from the 1990s, it has become possible for the performer to play the piece itself without the help of any assistant. Since perfor-

mance is the characterizing point of the composition *Solo* and, in general, of the other compositions written by Stockhausen in the same period, after describing the instrumental score and the sound processing, a second level of my analysis focuses on some examples of different performances. I have chosen a flute version, played and recorded at the Stockhausen Foundation in 1995, a double bass version and a violin version, both realized between 2014 and 2016 to show the differences of interpretation and their influence on the score. The analysis of the performances reveals the intentions of the various performers and hence their role in compositions like these. The analysed versions, based on different re-compositions of the score, are characterized also by different expressiveness, instrumental gesture and organization of time, which emphasize the role of performer over the written score.

The evolution of Stockhausen's thinking brings the composer to formulate a new method of composition starting from 1970. This means that the role of the performer in relation to the score will change again. The seven operas of the *Licht* cycle are entirely made up of this new technique and contain scenes that can be performed separately as concert pieces. Is the case for example of the *Klavierstück XIV*, a scene of *Montag aus Licht* that will be examined as an example of this creative stage of the composer, in which the formal, thematic structure and the different parameters of the composition are very determinate and determinant.

Description and Analysis of the *Solo*'s Score

In the analysis of the score and of the sound processing the starting point are the composer's indications and the suggestions contained in his theoretical writings. The composer explains in the introduction of the score the rules for recompose it. The piece consists in six pages of score written in traditional notation and six 'Formschemas' for the realisation of the feedback and other effects of live electronics. Performers can change only the order of pages or even the order of the single musical events inside them. After the recomposition of the score the performer has to choose a 'Formschema'. Each of them involves different duration of the entire piece and of the parts of it. Also the various realisations can be very different from the ones to the other.

Performance Analysis of *Solo*

For the analysis of different performances, the listening and the description of the score are supported by the signal analysis. The latter was conducted with the CQT methodology that allows to describe the variations of time and dynamics between the different versions of the composition defined by the performers and between their interpretative choices. In this step of the project, I compared the results of signal analysis. A first

implication is a description of differences of time and dynamics in the various interpretations. A further observation concerns the possible expressive intentions of the performers that can be deduced from that different choices. They appear clear and measurable through the analysis of the signal.

Analysis of *Klavierstück XIV*

For the analysis of *Klavierstück XIV* the method adopted is quite different. After finding out the significant elements for the definition of the ‘formula’ in that composition, it was possible to determine how these structural characteristics develop at different levels of the considered piece. Here we have structural elements as pitches, durations and silences that are elaborated during the whole piece. The formula consists in the structure of a composition and is subdivided into more elements. Each of them is transformed using dynamic, melodic and rhythmic tools. *Klavierstück XIV* is a scene of the opera Montag. The main character of the opera is Eva and the Eva’s formula in the entire opera is based on the main pitches C and E. Also as we can see in the example 3, the top of the track is represented by the sounds belonging to Eva. The *Klavierstück XIV* has been analyzed by identifying the elaborations of the main formula of the opera Montag within the various parts. So for the works composed in the time in which Stockhausen applies the ‘Formeltechnik’ we must rather refer us to the score than to performance unlike what we have done for *Solo*.

Conclusion

We can conclude that in the considered repertoire, the analysis shows that there are pieces in which the importance of the performance gestures emerges, and others where the structure fixed through a method and defined in writing is decisive. Stockhausen is an example of passages through periods in which writing dominates performance and others where the opposite occurs. In this process a role is also given by technology.

Keywords

Performance, Interaction, Analysis.

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