Meta-Xenakis

New Perspectives on Iannis Xenakis's Life, Work, and Legacies

Edited by Sharon Kanach and Peter Nelson



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Introduction

In the year 2021, the Music Technology Group of SUICREA (University Seminar for Research in Artistic Creation at the National Autonomous University of Mexico) was created as a pedagogical platform focused on the exchange of computational ideas and collaborative work. Directed by Dr. Hugo Solís, this space aims to imagine and seek creative solutions in the field of music technology and computation from a practical perspective, where the sonic imagination guides the developmental processes and computational implementations.

In 2021, the team developed a web application that emulates, in a simplified form, the original UPIC system of Iannis Xenakis. Subsequently, in 2022, instead of expanding and detailing the system, the group decided to create an audiovisual web application that combined the compositional concerns and interests of each of the course members into a single project. The unifying element of the proposals was the integration of autonomous agents that resulted in the use of the "flocking behavior" proposed by Craig Reynolds.[1] This flocking behavior is directly related to the approaches and concepts of agency, intelligences, and emergent phenomena. Another original element of the system is the correlation mechanics between the 3D geometric space and the sound parameters, since the latter are derived from free projections of the rotation of this geometric space.

Finally, a model of synchronization and collective organization of the rhythmic pulse was implemented based on experiments and research related to synchronization

1 Reynolds, 1987.

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