## The Augmented Orchestra

Shared artistic research project on creation of music for large ensembles and electronics by Sofus Forsberg, Henrik Munch and Jens Chr. Chappe Jensen



## Augmented Orchestra Concerts 12.4 kl. 20 Rytmisk Sal Aarhus 13.4 kl. 19 Rytmisk Sal Aalborg

**Project I: Augmented Orchestra Aalborg & Augmented Orchestra Aarhus:** 

Another interesting experiment had microphones "submerged"





	d brug af elektronisk live lenter. Med ensembler f	
Augmented Orchestra Aalborg:	NY koncertoplevelse?	Augmented Orchestra Aarh
Davide Salvadori Electronics Jonas Lambrecht Bergmann-	Prøv det	Mark Hurrell Saxophone Theo Benjamin Hjort Piano
Holm Electronics Nikolaj Kornerup Guitar	Tjeck det ud!	Anton Severin Norup Classi Guitar + Electronics
Marcus Kendellen Drums Gytis Girdauskas Trombone Andreas Godtfred Berthelsen Trumpet Chappe Saxophone	Det Jyske Musikkonservatorium The Royal Academy of Music	Nikolaj Skjold Electronics Lingyun Chen Violin + Electronics Henrik Munch Electronics Chappe Saxophone

In the project, we investigated various techniques for processing acoustic instruments in a live situation. We had great success using a MAX patch where an envelope follower and a transient detection system responded to incoming audio by randomly changing parameters on a delay line. This was employed on a drum kit which resulted in a musical section focusing on the interaction between the computer and the drummer. The system will be expanded to include other transformations and real time audio

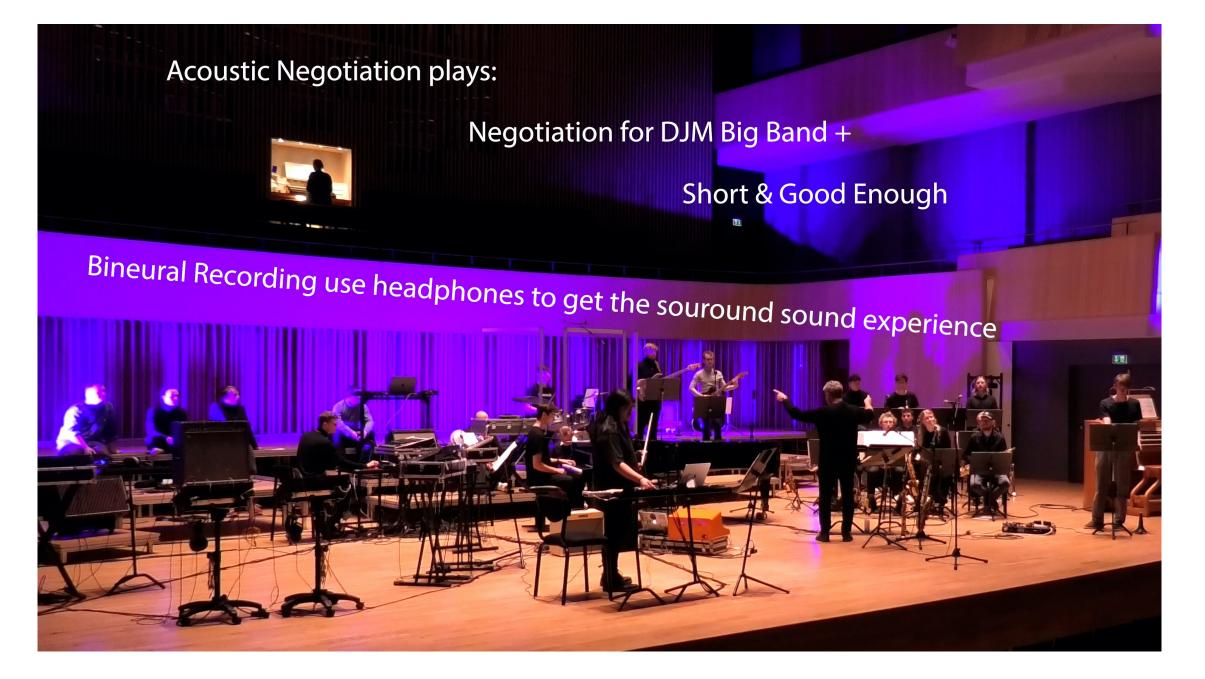
processes.

at the bottom of the saxophones. When gained close to the edge of feedback, exciting timbres were created when the tone holes of the instrument opens and closes acoustic feedback paths: Strikingly simple, non-electronic and very effective.

The horns were augmented with the use of more regular processing such as looping, pitch shifting and granular synthesis, where the instrumentalists responding to the electronic textures created a interaction enhancing both the sonic palette available as well as the compositions.

One section, we processed the trombone with a simple octaver. This technique has been used many times before, but with a larger-than-normal amplification, the role of the instrument expanded into a much more typical bass playing role. In another piece, the tromboneplayer had a solo with this processing applying different overblowing techniques, which created some very interesting timbres and sounds.

The purpose of this multi-year artistic research project is to create new works for ensembles, including electronic musicians, in



Project II: Acoustic Negotiations

A series of experiments in Symphonic Hall explored the large Vinterjazz 6.2.2023 Det Jyske Musikkonservatorium præsenterer 20:00: Acoustic Negitiation 21:30 Celebration – Wayne Siegel

## ACOUSTIC NEGOTIATION

Theo Benjamin Hjorth<br/>Lasse MichelsenJens Christian Jensen<br/>Andres Beltran<br/>Jens Jakob MadsenLingyun Chen<br/>Tönis Kristian Koppel<br/>Jon Døssing BendixenAlexander Palm<br/>Nikolaj Skjold<br/>Andreas Brink Peders

collaboration between teachers and students from RAMA's creative education programmes in Aarhus and Aalborg. acoustics along with electronic manipulations, surround sound and the concert organ.



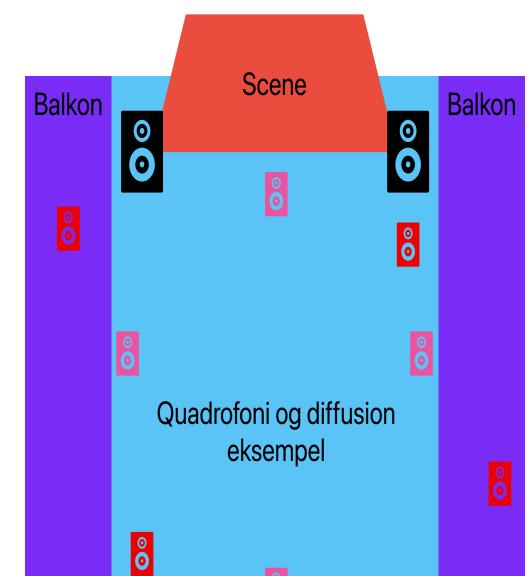
With this project, through a systematic exploratory approach, we want to develop new music in new collaborations that involve colleagues' expert knowledge and students' creativity across DJM departments. Everything is a mix of instruments and electronics with the aim of integrating composition and playing to make a coherent whole.

Common to this development is the evolution of technology that enables us to inspire, share and collaborate. Within music technology, this enables new ways of sonic staging, exciting transformations and the development of new expressions and concert forms.

At the crossroads of acoustic and electronic music, creative spaces can appear with a pronounced responsiveness and curiosity. Here, the electronic composer benefits from the authenticity and organic nature of the acoustic instruments which in return takes advantage of the augmented timbres and sonic textures from the electronic processing as well as new conceptualizations through collaboration.









## Project III K A L II D O & Aarhus Jazz Orchestra for SPOT Festival:

Students from the Composition and DIEM departments contribute to this project with a full sonic design for the concert May 6. 2023 at the Symphonic Hall. The acoustic sounds are manipulated electronically and immersively staged with quadrophony and sound diffusion.

Det Jyske Musikkonservatorium **The Royal Academy** of Music

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