



DET KONGELIGE DANSKE MUSIKKONSERVATORIUM

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3D-KONCERT

Onsdag 26. oktober 2022 kl. 19.30

Ny Sal

- Claude Cadoz: Helios (2015) first time in DK
created at ACROE (Grenoble) with GENESIS for a 24 channel
spherical speaker layout.
- Ludger Brümmer: Spheres of Resonance (2020) first time in dk
created at the Hertz Lab of the ZKM (Karlsruhe) with GENESIS
for the “ZKM Klangdome”
- Giuseppe Gavazza: Medley (2022) world premiere
for GENESIS sounds, field recordings and old radio broadcasts
dispersed with 44 loudspeakers
- Hans Peter Stubbe Teglbjærg: The Anamorphic Circle (2019) danish premiere
created with GENESIS for a 5th order spherical speaker layout

PROGRAMME NOTES

CLAUDE CADOZ (FR)

Helios (2015)

Hélios is a audio and visual artwork entirely created within the Hélicanthe platform of ACROE, including the CORDIS-ANIMA (CA) formalism and the GENESIS user interface for sound and animated images synthesis by physical modelling. It was presented for the first time in Grenoble, in November 2015, as part of the closing concert of the European project EASTN (European Art Science and Technology Network) (#AST2015). The complete work is made with a single huge CORDIS-ANIMA model created with GENESIS, calculated in deferred time. It comprises about 130,000 physical components corresponding to about 40 different “instruments” : Gongs, Plates, Strings, Particles flows, etc. The video part is the visualization of the dynamic 3D scene of the physical models during the same time that they produce the sound. The macro-temporal structure of the piece results from the movements, behaviors and interactions of models of large physical objects having slow evolutions, of the same nature as those of instrumental gestures. The original version is for 24 channels.

LUDGER BRÜMMER (DE)

Spheres of Resonance (2020)

In Spheres of Resonance only resonance phenomena are audible that have been created with the help of physical models. Not only the tonal aspects were created by using physical algorithms, but also the time-based changes of the sound structures. The individual resonance phenomena remained completely unprocessed, they were merely put together - composed. The sound phenomena audible in this composition are based entirely on the laws of mechanics and are often comparable with objects from reality: small music boxes, pendulums and accelerandi triggered by gravity, as well as sound colour gradients created by changing the bow pressure on a string or sound phenomena that are difficult to explain, such as the noise of a heavy ship's engine. By simulating the physical processes, the sounds often possess a high level of detail that would have been difficult to capture with a microphone. The software used is Genesis by ACROE Grenoble. Spheres of Resonance was created at the Hertz Lab of the ZKM Karlsruhe. In August a double CD named „Spheres of Resonance“ was released at WERGO containing this composition.

GIUSEPPE GAVAZZA (IT): Medley (2022)

I don't like medleys very much and, perhaps for this very reason, I threw myself the challenge of proposing one on the occasion of a new composition to be broadcast on the large 3D klangdom at the Danish Royal Academy of Music in Copenhagen. The hemispherical space with its six vertical levels becomes a clock that screws from bottom to top in a chronological sense. I decomposed and recomposed 12 minutes of music using models of my main GENESIS compositions from 1996 to the present, together with field-recorded sounds and fragments of radio broadcasts from 1901 to 2020, which I collected for recent sound installations and online projects.

This is the list of works from which I have taken the sounds presented here:

Level 1, below panel + satellite; 12 loudspeaker: years 1996-2005:
FeldLand GameMan, N-ODI, La natura delle cose (cycle), Variazioni su un Prelude di Skrjabin.

Level 2, In panel; 12 loudspeaker: years 2006-2014:
Chordis cordi vibrat (cycle), Poème Espace, Dodici corde e mezzo.

Level 3, above panel; 8 loudspeaker: years 2015-2018:
Le voci del mondo, Musica Ritrovata, Intervista con la Materia, On the Nature on Matter.

Levels 4+5, high & top; 10 loudspeakers: years 2019-2020
La foresta delle voci timide, Foresta 4 Tissardmine.

Levels 6, zenith; 2 loudspeakers: years 2021
Numeri

Cross all levels:

Ascolto il tuo Cuore Città (Bandcamp edition): soundfield recording project 2020-2022
RadioWega Timachine: installation, 2021-2022

HANS PETER STUBBE TEGLBJÆRG (DK): The Anamorphic Circle (2019)

The Anamorphic Circle develops a journey into an abstract physical structure (the anamorphic ring) where couplings between the rings different parts are made audible in a 3D universe (to be played on a speaker dome). Ever deeper into the ring couplings nonlinear in nature brings out rich droning sonorities. The hemispherical speaker arrangement seeks an illusion of being "inside the ring", where the real and imaginary meets in a new musical sensation. All sounds were created using ACROE's proprietary GENESIS software for physical modelling. The work was commissioned by ACROE (Grenoble) with support from the Danish Art Council and premiered at "EASTN" (Grenoble) October 2019. There is a binaural version for headphone listening at vimeo.