Open CUBE

Migration und Metamorphose

Paulo C. Chagas

Dienstag, 23.05.2023, 19:00 Uhr, IEM CUBE, Inffeldgasse 10/3, 8010 Graz

In Zusammenarbeit mit der Gesellschaft zur Förderung von Elektronischer Musik und Akustik – GesFEMA

Program:

CUBE Lecture - Klang, Wahrheit und Paradigma: Das elektroakustische Paradigma.

Migration (1995) – 24:30”
Projektion (2000) – 17:28”
Pune Metamorphosis (2023) – 19:00”

The electronic music works **_Migration_** (1995) and **_Projektion_** (2000) were produced in the studio for electronic music at the WDR in Cologne when I was working there as a sound director. At that time the studio had a sound space concept consisting of 12 loudspeakers placed as a circle on a ring attached to the ceiling. For both works I developed the sound space concept of circular composition, systematically exploring the circular configuration of 12 loudspeakers in the WDR studio along with the new digital multi-channel capabilities of hard disk recording (Pro Tools just came out in the middle 1990s).

The basic material of **_Migration_** consists of samples of speech and piano submitted to different kinds of spectral transformations. The speech material was taken from the short story The Library of Babel by the great Argentinian writer Jorge Luis Borges. It describes an infinite, eternal and cyclic library that represents the perpetual conflict between chaos and order. The composition develops a multi-layered structure of sound migrations at the level of both individual sound objects and sound structures. Speech and piano sounds were processed through spectral techniques based on FFT analysis and synthesis: filters transposition, time compression/expansion and cross-synthesis, etc. AudioSculpt (1996) was the main software for digital signal processing and Patchwork (1993) was used to generate compositional algorithms for signal processing. The metaphor of migration shapes the sound composition in many different ways. Mirroring my personal experience migration, Migration conveys the idea of a continuous change and reconstruction of identity. It is a state of permanent transition in both time and space domains.

Projektion was the last piece produced in the WDR studio. It deals with some of the basic visions of the "analogue" era of electronic music, including the concepts of parametric composition and sound space composition. The cybernetic principle of circularity and the concept of non-trivial machines are applied in the composition to create a virtual 12-channel sound space. The entire piece is built upon a single sound – a fragment of a speech that is continuously as a loop. This sound, which resulted from a computer crash, is feed into a twelve-channel analogue "rotary machine" (EMS Synth100), consisting on 12 time-windows that open and close sequentially and regularly, allowing the sound to pass through the twelve outputs. Since the duration of the loop and the time window are not the same, they lead to a polyphonic perception of the sound space in the interferences resulting from the superimposition of the rhythms (comparable to the propagation of acoustic waves in space). The sound space polyphony has been further developed through transformations of the original 12-channel layer. Five such new layers were created resulting in a total of 72 separate tracks (6 x 12) available for mixing. The transformations occur through the manipulations of filter, delay and feedback based on linear and chaotic algorithms.

Pune Metamorphosis (2023) is my first work exploring Higher-Order-Ambisonics (HOA). It was produced at the electronic music studio of the Technische Universität (TU), Berlin. The basic material consists of ambisonic sounds recorded 2019 in Pune (India) for my research project Sound Imaginations. They capture typical soundscapes of this vibrant Indian metropole such as urban environment, traffic noise, people, and the sites of the temples located in the surroundings of Pune. I assembled this material in an ambisonic soundscape composition that creates a continuous transition between different sounds that are related to listening habits, technical devices, animals, architectures, and space and time structures that represent individual and social listening contexts. A second layer of electronic music was created through transformations of the original ambisonic sounds through granular synthesis. The processes of granular synthesis focus on interplays between nonconscious and consciousness cognition and affective assemblages, exploring nonconscious cognitive sound assemblages that operate with automatic systems of sound synthesis, constantly adding and dropping components and rearranging its connections. The sound synthesis algorithms were designed and programmed in SuperCollider by Konstantin Fontaine.

Paulo C. Chagas is professor of composition at the University of California, Riverside. He created more than 190 works for orchestra, chamber music, electroacoustic, audiovisual and multimedia. His works resulted from numerous commissions and have been acclaimed in the United States, Europe, Russia, Asia and Brazil. Chagas develops extensive research in semiotics, philosophy, electroacoustics, audiovisual composition, and telematic music. His book Unsayable Music (Leuven University Press, 2014) presents theoretical, critical and analytical reflections on key themes of contemporary music. He recently edited the book Sounds from Within: Phenomenology and Practice (Springer, 2021) and published the book Zwischen Klängen und Apparaten: zur Theorie und Praxis der elektronischen Musik [Between sounds and apparatuses: theory and practice of electronic music] (Rediroma, 2021). Chagas has received several international awards, including recently the prestigious Fulbright Research Award for a research project at the TU Berlin.

https://solo.to/paulocchagas

Open CUBE – Kalendarium

20.06.2023 | 14h00 – CUBE Lecture - Sinn und Präsenz in konkreter Musik,

19h00 – Open CUBE - PHENOMENON

Vortragender: Thomas Gerwin

03.07.2023 | 17h00, 18:30 und 20:00 – Open CUBE - Semesterkonzert

Studierende von Marko Ciciliani, Gerhard Eckel und Daniel Mayer

---

Details zur Open CUBE Konzertreihe unter:

https://iem.kug.ac.at/veranstaltungen/veranstaltungsreihen/open-cube-cube-lecture/