anti-Odysseus: the irreversibility of Time

Program note

In myth the hero comes back home. In knowledge he can return but never to innocence. In music the theme can inform but cannot bring us back home. Our wanderer would have not been ordained as hero if home had not remained a garden of innocence.

This composition belongs to a series of projects that I set myself into promoting the function of composers for influencing the evolution of technology so that we do not have to yield our composers' intellect and dreams to others' hands. A compositional problem for each project often leads to a set of demands for new solutions. Let the configurations of software and hardware engineering be brought into an articulation guided by the compositional propositions.

anti-Odysseus, the irreversibility of time invites listener's ears to be tuned into fine details of sounds which reside in an analog chaotic signal generator and its sisters in the form of digital simulations. They resonate together creating unfamiliar sonic adventures. The sounds inform us of their reverberant states. The composition navigates through the landscape of a continuous covariance of their physical properties. One step down from the hills, one step up from valleys, changes in acoustic qualities can be abrupt and discontinuous near the edge of boundary conditions.

The composer contextualizes her exploration of the sonic space of the chaotic system with an imaginary audience in her mind. While uncovering attractors and offering alternative patterns embedded in noise, the composition studies the relationship between the instabilities of the system and unpredictabilities from our percept.

Technical note

The tape was realized in real-time synthesis environment with interactive 3D graphic interface, manifold controller. Sounds are generated with the Chua oscillator, a voltage-controlled analog experimental circuit and a digital simulation of the circuit. Signals from Chua's oscillator can be classified according to a unique combination of three characteristics: intermittency, harmonicity, and pitch bandwidth. Intermittency creates irregular interruptions in the signal, most often heard as patterns of noise bursts or short silences. Harmonicity is a measure of the distribution of energy in the power spectrum, and provides the signal with simple or complex pitch and timbre characteristics. Pitch bandwidth describes the presence of more than one identifiable pitch in the signal: the number of distinct pitches, their frequencies, and the interval between them contribute to the pitch bandwidth characteristic of the signal.

Analyses were used to define stable boundaries in the chaotic system. All signals in composed sequences are generated by altering the circuit parameters. The graphical interface was used for navigating the parameter space.