

Amanzule Voices for cello and live electronics by Örjan Sandred

Amanzule is a lake near the coast in western Ghana, West Africa. On this lake there is a village built on stilts, and the only way to reach it is by canoe. The trip starts in a marshy lagoon where one paddles (where it is possible) through aquatic vegetation, continues through the bush towards the village on Amanzule lake.

It was on the way back from our visit to this village that an unforgettable moment came to pass. The sun was about to set (which it does very suddenly at the equator) and all the night sounds began. When we reached the marshes again we paddled in the dark surrounded by hundreds of frogs who "sang" their evening song. I was fascinated by the way they seemed to listen and wait in silence before starting a new "phrase" together. When they "sang" they all seemed to agree on a unison rhythm.

With the help of my tape recorder and computer technology this "frog choir" plays an important role in my piece. The rhythm they create becomes the basic structure of all rhythms in one section of the piece (see below). The recording of the actual frog "song" is also incorporated into the piece. I used the theory of masking effects to reduce the rather rough and noisy sound they produce. The purpose was to filter out the most important layers of pitches from their "song", and to reconstruct (i.e. re-synthesize) these layers in different ways in the piece.

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Another sound source in the piece is a "virtual cello" playing pizzicato on its strings in the computer. This "virtual cello" has more or less the same characteristic as the real cello on stage with one important exception: the 4 strings are made either of glass, copper or nylon. There is no sampled pitched string sound in the piece. All plucked strings in the computer are done with physical modeling (i.e. a mathematical model).

The most experimental side of this piece is on the rhythmical level. The whole piece is done within a rule-based system for controlling rhythm, which I have developed during 1997/98. Part of the compositional work has been to investigate possible rules, to understand the relation between them, and to find ways to express musical directions (or sometimes lack of direction) as rules in the system. As already mentioned, at one point I even let the rhythm produced by the frogs become a rule within this system, conducting all the other rhythms in the music.

Why try to create a system for controlling rhythm? Computers are of course incapable of taking any artistic decision, and they will probably never be able to understand anything of importance in music. However, their strength lies in their ability to solve problems in a 100 % logical way, and they will never allow for exceptions from constraints given to them. In a flexible system, computers can allow the composer to develop his musical ideas while the machine assures the consistence of the idea. The idea of my system to control rhythm has been to first define a rhythmical language for the computer, and thereafter experiment within its frame. By defining musical intentions and musical directions, the result can be steered in different directions within the language.

Örjan Sandred, July 1998

More info: www.sandred.com