ATT – acoustical table tennis

(Georg Holzmann, 2004)

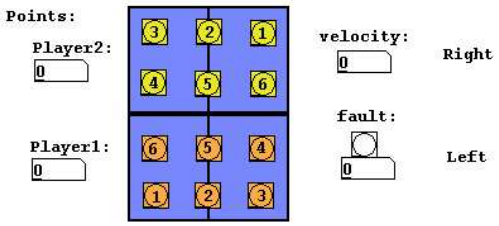
composition/performance/audio-installation for 12 speakers,
one table tennis ball, a pipe and a computer
(realized with PD – Pure-Data, see puredata.org)

ATT, acoustical table tennis, is a mixture of a composition/performance and a sound installation for 8-12 speakers spread over the room, 1 table tennis ball and a computer.
The sound materials are live sampled table tennis balls and the composition rules are derived from the table tennis rules.

picture1: live sampling of the table tennis ball

The speakers are divided in 2 players (one player at the right, one at the left side – see picture2) and they are controlled via specific probability functions (markov chains). The game is over if one player reaches 21 points (like in the original game rules). The current points of the players are displayed very big with a video beamer.

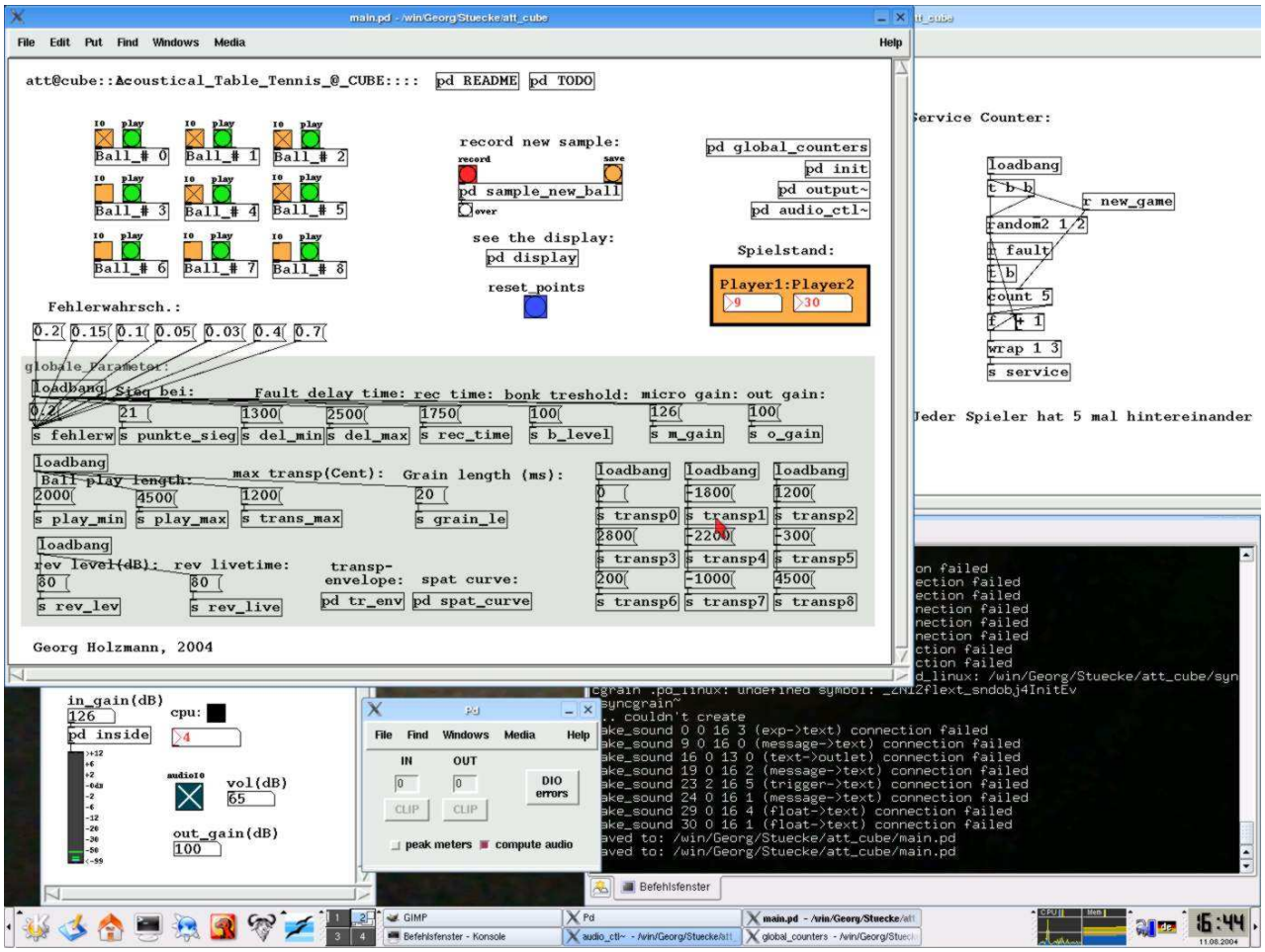
As an additional dimension the room/place comes into the game: With the 12 boxes the table tennis field is enlarged and the listeners can walk through this field hearing the “acoustical balls” flying from one player to the other.



picture2: speaker arrangement, the two players

In contrast to the “real” table tennis more and more balls are sampled and get into the game. So a very complex sound network becomes spread over the whole room/place.

The exciting thing: You never know in advance which player wins and how much time he will need to eliminate the adversary!



picture3: screenshot of the PD-patch

This project is realized explicit with open source software under Linux. For audio-synthesis, generating the video-display and all the program logic I used PD (PureData – see www.puredata.org) and made some stuff in C for PD (see picture3).
For the live-sampling I built a transparent pipe with an integrated microphone. So you can see the table tennis balls springing inside the pipe when they get sampled (see picture1).
I rebuild the table tennis rules with 2nd order markov chains, also implemented inside PD. The samples of the balls are stretched with some kind of granular synthesis – so the "2 players" can shoot their balls with "different velocities", different heights, etc.

duration: ca. 10-15 minutes