

Musical Collaboration between Tibetan Lama Gyalwai Nyugu Rinpoche and electronic musician and researcher Palle Dahlstedt

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Electronic composer, improviser and researcher Palle Dahlstedt has, in a unique musical collaboration, worked together with the Tibetan Buddhist lama Gyalwai Nyugu Rinpoche. Over a year, they have got to know each others' musical background and thinking, in a search for an experimental approach to merge electronics and traditional Buddhist chant. They have improvised, recorded and analyzed traditional singing and experimental prototypes. The collaboration has taken place in Gothenburg in a series of workshops, and in China. The resulting concert was given in Gothenburg, April 14, 2014. The planned concert in China had to be postponed, due to practical reasons.

Palle Dahlstedt has over a number of years worked on the development of new technologies for live performance and free improvisation of electronic sounds and music. Here, he faced an unusual challenge. How to merge the traditional Buddhist music and particular vocal art of Gyalwai Nyugu Rinpoche with electronics, and how to cater for the improvisational character of Rinpoche's singing? His traditional musical practice, which is an integrated part of his religious practice, consists mostly of solo singing and recital. It flows freely, with irregular rhythms and very flexible phrasing. He has been through several unsuccessful attempts to squeeze this traditional singing into simple Western meters and harmonies, and we decided early on to not try to go that route.

Since his characteristic and very multi-faceted voice is a large part of Rinpoche's musicianship, Dahlstedt decided on an early stage to construct a series of electronic improvisation instruments that based all sounds directly on his voice, to be controlled from a keyboard. The voice is captured and used as fragments, source waveforms or spectral and dynamic control structure. Even if the voice sometimes is processed into something completely different, it is conceptually important that every single musical vibration comes from his voice. This is also related to the fact that Rinpoche is regarded as one of the highest teachers within the Tibetan Buddhism, and as a reincarnation of a legendary teacher from the 17th century. Everything he utters is regarded as sacred words.

After much research and experimentation with unusual adaptive sound analysis algorithms, a set of five algorithms emerged, which were used in the concert. They are also adapted to the tonalities of the Buddhist chant, which is primarily pentatonic, but with many microtonal variations and details around those five primary notes. There are also hints of overtone singing in his technique. So the electronic instrument had to be able to accommodate to all this, without forcing Rinpoche to sing in equal temperament. This was solved in different ways in different songs. Some of the instruments use realtime adaptive pitch detection to build up a set of pitches stemming directly from his singing, which are mapped to the keyboard, as we play. Other instruments used an unconventional keyboard layout, where each keyboard octave (12 keys) provided an overtone series for a particular fundamental. Still other instruments provided percussion instruments, also seeded by voice fragments – bells, drums and also the iconic Tibetan long horns.

A short description of the approach in each track:

1. A virtual string model is seeded with fragments from Rinpoche's voice. The amount of string excitation can be controlled with keyboard pressure. Two layers of pitch control are used – conventional keyboard pitch, and an adaptive pitch mechanism. These can be faded between in real-time by the musician.

2. For this long, repetitive prayer, a unique surround “reverb” algorithm was developed. It transports the sound of the singer slowly in a circle around the audience, so that one whole verse of the prayer is actually heard at the same time, with time transformed to spatiality. It was projected in surround (4 channels) during the concert.
3. Once again an instrument based on virtual string models and dynamic pitch control. Here, a bell sound is added to the repertoire.
4. In this track, the singing is complemented with a bell and a hand drum. The electronic instruments provide a subtle microtonal backdrop to the singing, with pitches provided by the singer. Electronic drum and bell models are also used, seeded by the voice, and finally, the singer’s voice is transformed into quasi-synthetic Tibetan long horns, through the insertion of frequency modulation of the feedback patch in a resonant delay line.
5. Here, the keyboard is used as an overtone instrument, with voice-excited virtual strings as sound production method. The keyboard is laid out to provide partial 1-12 of 7 different fundamentals.

A more extensive description and analysis of the collaboration and instruments is planned in a research paper to be written later this year.