

Flashback/ Flash forward

by Wayne Siegel

Cover notes from the CD: DIEM 25 Years - Electronic Music in Denmark 1987-2012

“Let me just tell you how thrilling it really is, and how, what a challenge it is, because in 1987 the question is whether we’re going forward to tomorrow or whether we’re going to go past to the - to the back!”

(Dan Quayle, Vice President of the United States 1989-1993)

The Forward/Backward Principle

The works on this CD are arranged in forward/backward order with two interwoven chronological strands, one moving forward from the late 1980’s to the early 2000’s, the other moving backwards from 2012 to the early 2000’s. In 2002 DIEM was dissolved as an independent organization and became part of the Royal Academy of Music in Aarhus, resulting in a shift of focus from production and promotion towards education and research. The early works on this CD reflect creative work in the electronic music studios at DIEM. The more recent works are by composers who have either studied or taught at DIEM. Together, these works represent the varied activities associated with DIEM between 1987 and 2012, with focus on electronic works created in the studio. In fact, instrumental works with live electronics, interactive computer music and sound installations have been as important as studio productions at DIEM, but these works are not well suited for CD release and we have chosen not to attempt to include them. Oh yes, the “we” here refers to an intimate editorial trio consisting of the present author, Wayne Siegel (composer, director of DIEM and professor of electronic music), Morten Riis (composer and PhD student at DIEM) and Jonas Olesen (composer, teacher and former student at DIEM). Several composers who worked at DIEM in the 80’s and 90’s returned in the 2000’s to either obtain a degree in electronic music or to teach, adding yet another level of interweaving.

Flashback

In the early spring of 1986 I stumbled over an ad for a new position as part time director of a new Danish national electronic music studio, which was being established in Aarhus at the time. The ad described what I could only see as the job of my dreams: setting up and managing a new national electronic music studio funded by the Danish Music Council. I decided to apply, and was fortunate enough to get the position.

The idea of establishing a national electronic music studio in Denmark stemmed from the Danish Music Council, propelled by an important figure in the development of Danish electronic music and chairman of the council at the time, Prof. Finn Egeland Hansen. The history of electronic music in Denmark was somewhat humble compared to Denmark’s Scandinavian big brother, Sweden. The EMS studio founded in Stockholm in 1964 was considered to be one of the most advanced studios in the world at the time and indeed the abbreviation “EMS” often popped up in articles and reports used as political leverage in favor of the foundation of a Danish national studio.

The original mandate for DIEM was broad, reflecting compromises and alliances made in the process of procuring funds for the new institution. The new national center was expected to embrace many different styles and genres ranging from experimental electro-acoustic music to popular electronic music when it was founded in Aarhus in 1986. Copenhagen would have been a more obvious place for a new center of electronic music in Denmark. After all, most of the potential users lived in or near the Danish capital. What made Aarhus attractive, apart from the city's strong musical traditions, was the fact that the recently completed Concert Hall housed a fully equipped 24-track analog recording studio with a substantial amount of excess studio capacity.

Magnificent machines

An Otari MTR 90 24-track analog tape machine was the backbone and workhorse of the original DIEM studio. It used tape that was 2 inches wide with tape reels 10½ inches in diameter. The machine was the size of an industrial washing machine (no further comparison intended). New users had to be warned never to touch the reels or tape while the machine was running, since the one horsepower motor could easily rip a finger off an unwary composer's hand. The monster was generally operated by DIEM's professional audio engineer. Reducing tape hiss and noise was a major concern at the time. The Otari was equipped with 24 channels of Dolby-A noise reduction. Each noise reduction channel consisted of two hardware units, an encoder and a decoder. It was common knowledge that Dolby-A produced some unwanted audio artifacts, but reducing tape hiss was considered worth the sacrifice in audio quality. An Otari MTR 12 4-track tape machine and a Nagra-T audio stereo mastering machine completed the arsenal of analog tape recorders.

In the late 80's when DIEM was established, a major transition from analog to digital technology was fully underway. The CD-audio player had become widespread and writable CD technology had recently entered the pro audio market. Personal computers were beginning to be used for musical production and MIDI had recently been accepted as a standardized communication protocol for personal computers and digital synthesizers. Digital recording and editing, especially multi-track recording and editing, were, however, still a very exclusive affair. DIEM's first studio configuration was a hybrid that reflected the broad scope of our potential users. It included an Atari 1040 along with four Macintosh Plus personal computers with 1 megabyte RAM and two floppy disc drives (no hard disk drives). Software included computer music programming environments such as Csound (MIT), Lisp and HMSL (Mills College) as well as commercially available MIDI sequencer programs and editor/librarian programs for programming outboard synthesizers: an Emulator II sampling keyboard, several Yamaha DX and TX FM-synthesis modules and keyboards and an Oberheim X-pander hybrid synthesizer. The gap between open source software development environments and user-friendly music hardware and software was addressed by trying to encompass both. Soon an Audioframe digital audio workstation with sampling, digital editing and 8 tracks of hard disc recording was added. This was a high-end mainframe-based system that required its own ventilated glass enclosure to prevent the system from overheating and to reduce fan noise in the control room. Although it was a state of the art system at the time, it was far less powerful than almost any sequencer software running on any standard laptop computer today. Later a NeXT Cube computer with an IRCAM ISPW sound card were purchased to allow users to run IRCAM's version of Max/FTS, an early version of what today is known as the programming environment Max/MSP.

Other directions

Presenting electronic music in Denmark and promoting Danish electronic music abroad was an important focus area at DIEM. In 1988 DIEM produced concerts with Alvin Lucier (USA) and Michel Waisvisz (Holland) as part of the Aarhus NUMUS festival. Alvin Lucier performed *Music for Solo Performer* (1965), using brain waves to control vibrating instruments and other physical objects via electrodes attached to his head. Waisvisz controlled electronic sounds with a unique MIDI controller called "The Hands" built at STEIM in Amsterdam. Numerous electronic music festivals and concerts were since held in Aarhus and other cities in Denmark, culminating in the International Computer Music Conference (ICMC) in 1994, where 400 practitioners of computer music from around the world met to exchange research developments and present over 50 works involving various combinations of humans and machines, including performances by the Royal Danish Ballet and the Aarhus Symphony Orchestra. Research was also important at DIEM, with focus on human computer interaction. The most notable research project was the DIEM Digital Dance project in the late 1990's, which involved technical and artistic development in interactive music controlled by dancers.

Productions

Even so, the two electronic music production studios in the Aarhus Concert Hall were the main focus at DIEM between 1987 and 2002. It was my ambition that DIEM should be a place where many different types of composers would feel welcome and comfortable. Since many of the composers who worked at DIEM did not live nearby, many productions took on the form of 1-2 week residencies. Here the technical staff was crucial in making composers feel at home, helping them when they needed assistance, and becoming invisible when they wanted to work alone. In 1988 Claus Petersen was hired as DIEM's audio engineer and in 1989 Steffen Brandorff joined the staff as software coordinator. Claus and Steffen served faithfully as midwives for countless artistic productions. Naturally, with the joy of birth comes pain as well. I remember situations ranging from artists succumbing to delirious laughter during a recording session to a composer breaking down in tears after losing a week's tedious work due to a hard disc failure. I remember on one occasion having to calm an overly exciting composer who had been interrupted in the middle of a production by the concert hall security guard who wanted to close down the building and on another occasion having to lay down the law after entering a studio filled with cannabis smoke.

Studio time and technical assistance were provided free of charge for composers' projects. One would imagine that this luxury would have made it difficult to get studio time at DIEM. This was sometimes true, but it was also a challenge to attract a broad base of composers. Actually, there were not many electronic music composers in Denmark. The most serious ones tended to have their own studios, since they previously had no other options: Fuzzy, Gunnar Møller Pedersen and Jørgen Plaetner immediately come to mind. Commissions for instrumental works initiated by ensembles, orchestras and Danish Radio were plentiful in the 80's, and many Danish composers were busy with commissions. There was also a geographical issue: most of the composers lived in Copenhagen, which was a five-hour train ride from Aarhus. I saw it as an important task to introduce Danish composers to the powerful artistic tools that technology could offer. A series of summer workshops was initiated in collaboration with the three Danish composers unions represented on DIEM's board of directors. Students often included well-established Danish composers. Additional courses were started in collaboration with other institutions such as the University of Aarhus and The Royal Academy of Music in Aarhus. While teaching the first summer course, I remember quickly falling behind the course curriculum after discovering that

most of my students did not know how to use a computer mouse. The first hour was spent practicing controlling the mouse and selecting pull-down menu options by clicking the mouse button. Being a composer myself, I also found it important to produce my own music. It was a luxury to work in my dream studio and it also provided a opportunity to remain familiar with the software and hardware.

Decline and Rebirth

In November 2001 a newly elected government in Denmark decided to cut cultural spending by 15%. Forced to make some difficult decisions, the Danish Music Council decided to close DIEM, resulting in a last minute reconstruction as an integrating part of the Royal Academy of Music in Aarhus in January 2003. I was appointed professor of electronic music by the Academy's principal and entrusted with the task of setting up a new degree program at the Academy in electronic music composition. Focus naturally shifted from production and promotion to education and research and the name was changed from the Danish Institute of Electroacoustic Music to the Danish Institute of Electronic Music.

In 2003 electronic music had become more popular and more widely accepted than I could have imagined in 1987, a brief 15 years earlier. Personal computers had become commonplace, and electronic music software was abundant and easily accessible. In a certain sense, institutional electronic music studios had been overtaken by home studios with personal computers and readily available software. Digital editing and signal processing techniques had become both sophisticated and commonplace. Impressive technical manifestations began to lose their impressive qualities, their virtuosity. A new generation of young people had grown up with computers and digital audio at their fingertips. Many of them rejected the idea of progress in music technology, using obsolete hardware and embracing the errors and glitches of audio technology as relevant building blocks for what might be called post technological music. This is not only a historical phenomenon: the origins of glitch music date back to the late 80' and early 90's. It is also a cultural and social phenomenon revealing a dichotomy between high art and street art. The tape hiss that we so desperately tried to eliminate using costly noise reduction systems in the early years of DIEM had become a welcome musical element used to add technological "warmth" in an age of digital perfection.

Flash forward

The electronic music degree programs at the Royal Academy in Aarhus were designed to accommodate a new artistic and technological reality. The first students were admitted in 2004. Today there are over 30 students working on degrees in electronic music on all levels: bachelor, masters, PhD and an advanced soloist program. DIEM, now the electronic music department at the Royal Academy, moved out of the Aarhus Concert Hall in 2004 to make way for a new addition to the Aarhus Concert Hall that later would house not only DIEM with three new electronic music studios but the entire Academy of Music as well as the National Opera, The Aarhus Symphony, a new symphony hall, a new rock venue and a chamber music hall. In 2007 DIEM moved forward into these new facilities by moving back to the Aarhus Concert Hall. Production and concerts continue to play an important role after DIEM was incorporated into the Royal Academy. The list of guest artists who have lectured and performed at DIEM since 2002 is long and impressive. Much has changed in 25 years, but the lively artistic environment at DIEM in 2012 exceeds my wildest dreams of what might be achieved when the institution opened in 1987.