The Extensions of Many: 20+ Years of Bergen Centre for Electronic Arts

By Dušan Barok

Not merely an artists' studio, nor simply a media space, not just a production platform: the Bergen Centre for Electronic Arts (BEK) represents a community and milieu driven by artists and their engagement with widely divergent practices. Over the past 20 years, the artists' endeavours have moved along the axes of sound, moving image and performing arts. The projects have been put in many diverse bags and boxes such as experimental music, live art, net art, sound installations, live video, artistic software, open-source art, multimedia theatre, artistic research, social practice or video art. These labels fall short of describing BEK's place in the arts properly, but they are useful in pointing out that there is not one unifying direction. There are, however, many traits shared in BEK's community: the willingness to cross any imagined aesthetic boundaries, the confidence in experimentation, paying equal attention to both the process and the result of work, forming critical alliances with machines, and close attention to the relationship of practice and place. The first two decades of our century were associated with the unprecedented rise of technological companies, which have become central not only to social and economic life but also to politics. Social media and Big Tech have made our lives more comfortable, more socially connected, but they have also normalised attention-driven consumerism, permanent surveillance and populist politics as our new conditions. Against this background, the story of BEK's first 20 years offers us the opportunity to see how artists have been building different worlds where technology serves different poetics and politics. These worlds are built upon collaboration, experimentation and critical approaches.

MELTING POT

There are multiple ways to tell the story of BEK. One thing its protagonists would likely agree with is that the legendary event that put BEK on the map in 2000 — Hot Wired Live Art — not only launched BEK into the future, but also marked the culmination of various threads passing through Bergen, Oslo and Trondheim for over a decade. We can trace them all the way to the alternative culture in Bergen at the turn of the eighties and nineties when the young music and visual scene occupied post-industrial spaces of run-down factories, and theatre took over the streets. It was against the background of post-punk, electronic music and postmodern drama that young local artists began to engage with the language and expressive possibilities of video installation, sound art, multimedia theatre and experimental music. They were in contact with the international context, although their art was more fleeting than anything that would appear on the radars of institutions.

"We had a space, Krydderfabrikken [The Spice Factory], an independent artist space. Everything was happening there. There were artist studios, music studios, rehearsal rooms. We also did exhibitions, and I started to work more with visual art." [3-4]
Gisle Frøysland, 2020

After it was established in the late eighties, the artist-run complex Krydderfabrikken quickly became the epicentre of alternative culture in Bergen. Occupying the premises of a former spice factory situated in the Nygård neighbourhood in the city centre, the self-organised space housed artists' studios, music studios and ad hoc gallery spaces. A continuous stream of exhibitions, concerts, raves and other DIY events quickly made it the region's melting pot for subculture and underground, which launched the artistic journeys of many young people. The factory's music studio Hindu Lyd (Hindu Sound), frequented by black metal bands, was run by Gisle Frøysland, a guitarist from the famed post-punk and new wave band Alle Tiders Duster[1], or Dustene. In addition to drum machines and synthesisers, Frøysland was already well versed in computers and MIDI from his time in the band in the early 1980s. Finding himself in the milieu where musicians cross paths with visual and theatre artists, he embarked on working with video, installation and sound sculpture and later enrolled at Bergen's art academy. The Krydderfabrikken was also home to the studios of visual artist Sissel Lillebostad, visual artist and musician Maia Urstad and her partner, self-made musician and performer Lars Ove Toft. Urstad used to play guitar and synth in the ska/new-wave band Program 81[5]. Later, she began collaborating with Lillebostad on an unorthodox series of works in which sound and image played equally constitutive roles — audiovisual installations. Their first such work was shown in 1987 as part of the *Høstutstillingen* in Bergen, an annual exhibition.

"I met Gisle Frøysland through my involvement in Bergen Rock Klubb, a club for post-punk and the like. I was not involved with the club myself, but for a little while I wrote for the club's newspaper called *Rockeavisen*, long enough to meet a lot of people. The Krydderfabrikken started because there was large unemployment among young people, and the municipality and the unemployment agency wanted activities for them. Sissel Lillebostad, together with a friend, was looking for a place to run pre-art school workshops. Sissel found the factory, but it was quite big. There was high concrete wall storage with all the spices, Kardemommefabrikken,

smelling of cardamom and cinnamon all over the place, and a smaller, wooden building, Hindufabrikken, as well as a large hall in the garden. Gisle's studio was part of the main building, along with many other musicians and artists. Maia Urstad and I had a studio in the very cold part of Hindufabrikken. It was a unique, subcultural-underground place, with lots of things going on. Concerts, exhibitions, testing things out, underground rave parties, everything was ad hoc, and a mix. Everyone from across the cultural stage was there. Gisle was studying TV production at the university at the time and made a film about the factory as his undergraduate work.

Maia Urstad and Sissel Lillebostad's collaboration goes back to when Sissel was at the art academy here in Bergen and Maia was a musician, who had studied at the Bergen School of Arts and Crafts, and as a textile artist she wanted to make sound. They were invited to the 100th-year anniversary of *Høstutstillingen* and created an audiovisual installation called *Where Are the Monuments?*. That was their starting point, and it is one of the very early pieces where sound and visual art are equally based in the work. The art of sound wasn't appreciated at the time, it was a struggle not to be viewed as just a 'sound designer'."
Lars Ove Toft, 2020

Frøysland also started working with the Bergen-based theatre troupe Baktruppen[2] who, along with Verdensteatret, were at the heart of Bergen's experimental theatre and performance milieu. The scene was responding to the performative, action-like elements of Fluxus and postmodern post-dramatic forms of theatre as well as the ethos of amateurism and 'no-skill' of the Geniale Dilletanten subculture. This ethos assumed that everyone should be able to do everything, mixing their talents and skills in a non-hierarchical collective working process. Baktruppen's first production took place in 1987 in a 100-metre-long tunnel under a nearby park as part of the Teatertreff festival that would later establish BIT Teatergarasjen, Bergen's major theatre. Both the festival and venue operate to this day.

"The Bergen International Theatre started as a street festival which combined very experimental, performative pieces. We supported local theatre, performance and dance groups, such as Baktruppen, and many short-lived initiatives. We also imported minimalistic, post-industrial theatre from established bases such as the Netherlands and Belgium. To conceive performance not as a theatre didn't exist in Bergen at the time. We suddenly saw that there was a possibility of doing performance where music was as important as text, which was as important as scenography, etc. Everybody who came from one part of this, from art, sculpture, music or whatever, mixed there; it was a kind of melting pot. Besides the festival, from 1990 onwards we also did performances all year round. I stayed working there for 15 years."
Lars Ove Toft, 2020

The year 1987 also marked the first edition of the Music Factory festival, bringing avant-garde music to Bergen. The festival was started by composer Geir Johnson after he left his role organising music events for the progressive Henie Onstad Centre near Oslo. During its early years, Music Factory was held at the United Sardine Factory (USF), which had closed down several years before and was transformed by artists into a studio complex and later a major art arena in the city, now called USF

Verftet (The Yard). By the early 1990s, house and techno raves began to be staged at different places such as Krydderfabrikken and Teatergarasjen, signalling the onset of electronic culture as a mass phenomenon where machines serve as the force uniting sound, image and movement.

"To this day, the strongest concert experience I've ever had was Jon Hassell's concert at Music Factory in 1987. There's nothing that gets close to it. I was getting involved with both the music and the ideas of Brian Eno at the time, and through that also the ideas of possible 'fourth world music' by Jon Hassell. The conceptual side of it was also very important to me. When I saw that Jon Hassell was coming to Bergen, I was the one person lining up for a ticket. I arrived at USF perhaps 45 minutes before the concert was due to start to get the best seat possible. Jon Hassell was already sitting there, it was just him and me, and he was warming up on his instrument. This continued while the audience gathered and at some point I realised that the concert had been going on for 20–30 minutes already. It was about the way he was tuning all of us into the space, taking us to a place, a very concentrated, almost religious experience but without religion. I didn't manage to sleep that night, I felt completely euphoric. Immediately after that there was a happening with John Cage's Musicircus which also made a very profound impression on me."
Trond Lossius, 2020

ART AND TECHNOLOGY IN/BETWEEN STUDIOS

Video, sound and electronic music that was originating in Bergen's industrial ruins, however much driven by artistic exploration of the conditions of an interconnected world to come, relied on the enthusiasm and gift economy of alternative culture. Internationally, the interest in these domains gravitated around institutional centres. The emergence of electronic music studios and art and technology centres can be seen from the 1950s onwards. The singularity of new technology saw artists, composers and engineers working side by side. Gathering around the new wonders of tape recorders, sine-wave generators, oscillators, sequencers, video-editing devices, synthesisers and computers, they set out to explore the language and aesthetic possibilities of electronic instruments, as well as in prototyping new ones. The tools, and maintenance of these tools, was initially very expensive, which meant that only a few large institutions could afford them. Among the earliest of these institutions were radio stations. The French Radio Institution, Radiodiffusion Française, in Paris hosted Pierre Schaeffer's Groupe de Recherches Musicales (GRM), Karlheinz Stockhausen established the Studio for Electronic Music at the WDR in Cologne, the BBC had its Radiophonic Workshop with Delia Derbyshire, while Radio Sweden ran its equally renowned Elektronmusikstudion (EMS) led by Norway-born Knut Wiggen. These places have become milestones in the history of tape, electronic and later computer music, as well as live video. Centres dedicated to music and video research and production soon began to appear in universities as well. Among the most famous ones were Columbia-Princeton's Electronic Music Center, the Department for Media Study at the University of Buffalo, the Center for Computer Research in Music and Acoustics at Stanford University and the Institute of Sonology at the Royal Conservatoire in The Hague. By the 1960s–1970s, their non-profit counterparts began to emerge in the

United States where Ramon Sender, Morton Subotnick and Pauline Oliveros started the San Francisco Tape Music Center and the Czech-Icelandic video pioneers Woody and Steina Vasulka opened The Kitchen in New York. They were followed by other video centres such as Experimental Television Center in upstate New York, Electronic Arts Intermix in New York and Bay Area Video Coalition in San Francisco. In Europe, the varied Dutch scene has been particularly inspiring for the Norwegian context with non-profits focusing on electronic composition and instruments (STEIM), video and multimedia (Montevideo, V2_, Mediamatic) and the internet (De Waag).

In Norway, the studios for electronic music and video art were first housed in an unlikely institution — an art centre — the Henie-Onstad Art Centre near Oslo. Composers Arne Nordheim and Hal Clark first founded the Norwegian Studio for Electronic Music in 1975, two years before the famous IRCAM (Institute for Research and Coordination in Acoustics/Music) opened at Centre Pompidou in Paris. Later, Terje Munthe and Kristin Bergaust started the Artists' Media Workshop in the same venue in 1986. Although both studios operated for only a short period of three years, they demonstrated the need for such facilities among students as well as professional artists and musicians.

The turning point came in the early 1990s when an intermedia department was founded at the Trondheim Academy of Fine Art and two production-oriented centres for art and technology emerged in Oslo. In 1992, the Norwegian Network for Technology, Acoustics and Music (Notam) was established at the University of Oslo with composer Jøran Rudi as managing director. The centre has provided studios, labs and technical assistance for electroacoustic music composition and sonic research ever since. Almost simultaneously, the arts centre Atelier Nord expanded its scope from printmaking to video and computers and began building a dedicated laboratory. Five years later, after Kristin Bergaust took over as artistic director, the graphic arts workshop closed down, and electronic art became Atelier Nord's main focus.

While these centres encouraged interdisciplinary collaboration, the emergence of the Web opened a whole new world of possibilities. It came with a promise of a social space not just for remote encounters but also artistic collaboration, in "real time". For example, when the Distributed Real-Time Groove Network, or Dragon, went online in the spring of 1995, it had about one thousand members worldwide. Initially, this project of two London-based musicians Willy Henshall and Tim Bran started as the Res Rocket Surfer Project, a mailing list for exchanging song ideas and sound files. A new website, created by two Chicago University students, Canton Becker and Matt Moller, took the experience further, letting users enter a room, pick up an instrument and sequence it on a drum-machine-style grid. They could share this with others in the group and, by chaining these patterns together, create songs as if sharing a virtual studio. In other words, Dragon was a virtual environment that enabled multi-user, real-time music-making across the internet: a "MIDI-MOO". Early members included Ulf Knudsen and Per Platou who joined from Oslo. An integral part of the experience was a video chat connecting musicians' studios and bedrooms via CUSeeMe, an internet video conferencing service. The experience of the internet as a social space would continue to shape their artistic practice from this point on.

"Together with Ulf, I got access through Notam, we were making a band on the internet [laughs]… There was a MOO server based on a MIDI

sequencer, no samplers. The server had different rooms and studios where you could meet, you could grab a room and start jamming using a multitracker sequencer online, 120 bpm etc… The project was started by Willy Henshall from Londonbeat (who had the hit song "I've Been Thinking About You"), and he hooked up with Tim Bran from Dreadzone; they were both in London. They in turn hooked up with programmers from Chicago and Santa Fe. The fun part was the chat. You didn't know who was on the other end of the conversation, you just saw their nickname… and it turned out to be people like Peter Gabriel or Annie Lennox. People had webcams already, and we did strip shows… That was important: the internet is social. Our band, NOOD, was all about rock'n'roll mythology, like sharing a joint across the internet. Later in 1996, RealAudio came, and we could even send sound over the internet." Per Platou 2020

"Cyberspace" had captured the imagination of many other artists in Norway, offering new modes of expression enabled by liveness, interactivity, multimedia and digitality. Net-based art had emerged, and the web and the internet were soon discussed as artistic media on the pages of national visual art periodicals such as *Billedkunst, UKS-Forum for Samtidskunst* and *Kunstnett Norge*. Art centres such as Notam and Atelier Nord were quick in developing a dedicated networked infrastructure for artists. Notam served as an important provider of dial-up internet connection and a webhost for cultural workers and initiatives. In 1997, Atelier Nord announced the launch of an internet server for artists by an open letter and also set up an online gallery.

"There were not many people working with new media in Bergen, nor at the academy either, but one thing they had was a Silicon Graphics Indy machine. This was 1992, and the server was connected to the university network. Almost no one knew about it, I did just by coincidence. I got permission from the director to use it; the deal was that I would do webpages for them. I learnt a lot by sitting there by myself, exploring the internet. I started to work with webcam images, around 1993, using Mozaic. From the factory, I had a dial-up line to Notam." Gisle Frøysland, 2020

"I worked at the National Library part time alongside my university studies. Then around 1992–1993, the internet happened. Part of my job was to collect available databases online. Then Netscape came along, and I began to write HTML and did 'art projects': net.poetry, animated gifs, and I used a lot of experimental coding. Later, when I worked with Verdensteatret, Web Infotech gave me unlimited space on their server chaos.wit.no, and I experimented a lot with images and sound." Ellen Røed, 2020

INTERMEDIA

When the Intermedia Department was established at the Trondheim Art Academy (KiT) in 1990, it was unique in the Norwegian art school system for its critical engagement with electronic media such as video, sound, internet and software. At the time, only a few schools in Scandinavia offered education in electronic arts. The Royal Academy of Arts in Stockholm got its video department going in the mid-1980s, spearheaded by painter Marie-Louise Ekman and later by sculptor Eberhard Höll. By 1991, the academy

also had a computer department, led by sculptor Peter Hellbom. In Copenhagen, artist Torben Christensen gave video courses at the Academy of Fine Arts from the late eighties and later formally established a media art department in 1994. In parallel with the efforts in Trondheim, Robert Meyer started a photography department at the National Academy of Fine Art in Bergen in 1990, where students gained access to digital tools and image manipulation. In 1996, Meyer's colleague, video artist Kjell Bjørgeengen, moved to the Academy in Oslo where he began building a department for video and digital art.

The Intermedia Department was founded on the initiative of the artists Oddvar I.N. Daren, Terje Munthe and Merete Morgenstierne, and throughout the nineties it was led by British-born video artist Jeremy Welsh. His internationally oriented programme brought a wide range of key figures from critical net and media culture to Trondheim and introduced new ways of making and showing art. For example, a workshop facilitated by Dutch media activist David Garcia in 1995 resulted in an hour-long broadcast on cable TV in Amsterdam. Intermedia attracted students from the whole country. The graduates would include Helge Sten ('96), Kim Hiorthøy ('96), HC Gilje ('99), Alexander Rishaug ('00), Ellen Røed ('01) and Jørgen Larsson ('04).

"I met Jeremy Welsh through the exchange programme at KiT, where they had the first department for video and media art in Norway. I went along for some workshops and got more involved in new media art scenes." Gisle Frøysland 2020

"Jeremy Welsh ran the first media-based art education in Norway, and people graduating from there, like Kim Hiorthøy or Helge Sten, were musicians in a way: they made great noise music with visual components. Jeremy was also a great writer; he would post some of his writings to mailing lists. I worked with Verdensteatret in 1995, and there everybody involved in the production of the performance would bring something to the process and we would read it out loud. I would bring Jeremy's writings. I wanted to be his student, so I decided to have an art education." Ellen Røed, 2020

Real-time tools came more to the fore in the late nineties. For example, in the spring of 1998, the Intermedia Department invited Per Platou and Amanda Steggell, of the art project Motherboard, to facilitate a two-week workshop. Ellen Røed and HC Gilje were among the participants, both of them students in the department and part of Motherboard. The pretext was the ongoing development of an installation featuring a miniature football pitch inhabited by a host of small, battery-driven, three-wheeled robots responsive to cheering and clapping from the audience.

The group employed two new pieces of software developed by Amsterdam-based experimental music laboratory STEIM, BigEye and Image/ine. BigEye, first released three years earlier, allowed the tracking of objects through space and converted their parameters into MIDI in real time. Image/ine was first released the previous year and was co-produced by video pioneer Steina Vasulka who was then STEIM's artistic director and employed the software in her performances of the legendary work Violin Power. It was the first piece of software that allowed artists to manipulate video in real time. The two tools opened up unforeseen possibilities for both interactive installations and live performance and proved formative to explorations in interactive real-time video

processing to unfold in the years to come. This would also foreground the aesthetics of nonlinearity and presence over more representational approaches. Røed had been making use of both systems since the previous year in her performances with Motherboard and the touring event Klubb Kanin.

ELECTRONIC ARTWORLD

By the mid-1990s, the rise of the internet and the wide embrace of video and new media in artistic practice posed a question to art institutions: how do we deal with technology? Even though major artists have been experimenting with technology since the sixties, museums largely resisted this trend or relegated it to the sidelines. They lacked not only knowledge and experience but technology itself. A sustainable focus on electronic art required new partnerships. The prime example was the Guggenheim Museum, which decided to take this direction. The museum struck a partnership with Deutsche Telekom to reopen its branch in Soho with four galleries dedicated to art and technology and curated in collaboration with ZKM Center for Art and Media Karlsruhe. These plans, however, failed. Instead, many institutions decided to concentrate their efforts on singular exhibitions showcasing the field as a novelty.

The first to do so in Norway was the Henie Onstad Art Centre near Oslo. In March 1996, the museum staged the six-week-long exhibition *Electra 96: prosjekt for elektroniske medier* exploring technology in relation to art, architecture and design. The exhibition was among the largest in Europe, featuring over 30 primarily interactive artworks by the likes of Nam June Paik, Art+Com, Ulrike Gabriel, Knowbotic Research and Bill Seaman. These were drawn from the milieus of V2_ and DEAF festival in Rotterdam, and the two largest European centres for electronic art, ZKM in Karlsruhe and Ars Electronica in Linz. They were joined by the mid-career generation of Norwegian video artists and photographers such as Rolf Aamot, Marianne Heske and Kjell Bjørgeengen alongside emerging talents such as Espen Gangvik, Vibeke Tandberg and Ståle Stenslie. The museum put in place a high-end Silicon Graphics computer and a web server to support the artworks. The ambitious exhibition was a success with audiences; however, it left the museum with a deep deficit and was also criticised for being too unfocused in its all-encompassing approach.

In the live programme of *Electra*, two 'cyber'-theatre performances stood out. In the first, *M@ggie's Love Bytes*, Per Platou and Ulf Knudsen of Nood joined forces with choreographer Amanda Steggell, three dancers and a cast of remote 'lovers' interacting through video conferencing and onsite with the persona of M@ggie who traversed the field between virtual sex and cyberfeminism. The ensemble would continue their internet-aware performance work as Motherboard for over a decade. A week later, Baktruppen presented its play *Tonight :-)*, a "hypertextual lecture on industry, technology, time and memory on 350-sq-metre synthetic carpets." Gisle Frøysland took part in the play and also had his video Joystuck in the exhibition.

"I got my first public support when I curated the live programme of the *PiG* project in Oslo's Old Town with more than a hundred artists. For me, the artworld was just a background, but perhaps I made a mark because suddenly I was asked to be part of the curator team for *Electra*. We drove

around Europe for two weeks, went to ZKM Karlsruhe, V2_ Rotterdam, Ars Electronica Linz... we were cherry-picking. We got the number of Laurie Anderson, who made us nice coffee, and later became part of the exhibition. So did Knowbotic Research, whom I knew from Cologne. That year [1995], Peter Weibel resigned from Ars Electronica with an inflaming speech saying that it had become too commercial. The critical art writing started around that time as well; the mailing list Nettime was important. There has been a big divide between critical and non-critical art writing in Norway, I probably promoted criticality too much."

Per Platou, 2020

"A friend of mine from Dustene invited me to Baktruppen, I was the 'expert' there. We developed a play called *Tonight :-)* around the internet, which was commissioned by Kampnagel Theatre in Hamburg. This was an important piece, and we showed it at *Electra* as well. Electra was innovative, we were able to use IRC directly on stage. The show was also in Bergen and toured internationally. At Kampnagel, we met a now-famous American expert on the internet, Clay Shirky, who toured with a theatre group from New York. He said he had written a book about email, and he would later step in for me when I had no time to tour around."

Gisle Frøysland, 2020

A year later, in June 1997, the Kunstnernes Hus (the Artists' House) in Oslo staged the second major exhibition dedicated to electronic art in Norway, titled e-on. It was held on the occasion of a large-scale international conference on cyberspace, 6cyberconf, organised by Morten Søby at the University of Oslo with media scholar and trans activist Sandy Stone and attended by two hundred participants. Among other works at the exhibition, Motherboard presented the culmination of the project now titled *LawHat al-umm*, a performative installation bridging the real and the virtual working with references from Islamic and Arabic cultures. Developed across several months, in tandem with emerging video artists Ellen Røed and HC Gilje and dancers Siri Jøntvedt, Snelle Hall and Kristine Øren, the work manifested in a range of different environments including an artist-run gallery cafe, an art museum and a rave in a nightclub and it introduced methods that would prove formative to the participating artists.

THE BEAUTY AND THE GEAR

The discussions *Electra* provoked in the public domain, however critical they were, pointed to the fact that the number of artists in Norway working or wanting to work with video and new media could no longer be overlooked. The Intermedia Department in Trondheim alone brought up a whole new generation of artists. Their access to infrastructure was, however, limited to Oslo, where Atelier Nord and Notam offered their modest platforms. The situation required a more systemic approach.

In October 1997, a seminar on electronic art was held as part of the Screens festival organised by the Intermedia Department at Trondheim Art Academy, at which Kristin Bergaust and representatives of Arts Council Norway were also in attendance. The discussion revolved around the question of infrastructural support for the field of electronic arts in Norway, yielding two possible scenarios: to build a strong national centre in Oslo, or to build a network of smaller centres across the country. The Arts

Council established the art and new technology scheme (KNYT) the following year and initiated the open-call exhibition *Virtuell virkelighet* (Virtual reality) (1999) in Oslo's Kunstnernes Hus to stimulate cross-disciplinary approaches to new technology from traditional contexts.

"Thinking about art and technology in the Arts Council was based on the idea of meeting the new experimental art practice. Starting KNYT at the Council was about giving the scene the possibility to get established. Many projects wouldn't get support from the visual arts funding stream. The Screens debate was formative, for KNYT as well. Jeremy Welsh made a very crucial foundation with his Intermedia programme in Trondheim."

Marit Paasche, 2020

Two days after the show was dismantled, in June 1999, the Arts Council published the report *Skjønnheten og utstyret. Produksjonsnettverk for elektronisk basert billedkunst* (*The beauty and the equipment: production network for electronically based visual art*) produced by a working group led by Anne Wiland, outlining the establishment of a network for collaboration between different production sites in electronic arts, modelled on the Virtueel Platform in the Netherlands. The following year, the Production Network for Electronic Art (PNEK) was founded as an umbrella organisation for Atelier Nord and Notam in Oslo and two new centres in Bergen (BEK) and Trondheim (Top Floor). The Arts Council began awarding them annual infrastructure grants for an initial period of three years.

"You cannot underestimate the role of PNEK in establishing the understanding of electronic art as something important and as 'the future' in the way it was in the early 2000s. It made the role of BEK and other organisations in PNEK so much more important."

Lars Ove Toft, 2020

"BEK was supposed to do the role of both Notam and Atelier Nord in Bergen, we deal with both music and fine arts here. PNEK was initially meant to be just for visual arts, which was too narrow for us. Therefore, it was very important for us that Notam became part of PNEK as well."

Trond Lossius, 2020

LOUD NETWORK

An important formative aspect of the sound and music directions in BEK's milieu was a distinct noise and free improv scene. At one particularly memorable event in September 1998, over one hundred people gathered at Kvarteret for a live show from Japanese noise legend Merzbow (Masami Akita), known for his pulsating electronic wall-of-sound performances. It was the largest showing yet for an event from the Bergen arm of the contemporary music organisation nyMusikk, which had recently embarked on staging more noise and free improvisation concerts. This was mainly due to the involvement of John Hegre and Jørgen Larsson from the local scene that also included figures such as Nils Are Drønen and Jørgen Træen and their projects Public Enema and Der Brief. While their music generally involved more lyrical undertones than the harsh signature sound of their Tokyo counterparts, what they shared was a way of treating sound as texture instead of 'lines' (as in classical composition). It also built on a range of local references including post-punk, the Krydderfabrikken's rave-ish electronica, heavy and black metal as well as free improv. Merzbow was supported

in concert by Lasse Marhaug from the equally lively scene in Trondheim with the likes of Tore Honoré Bøe (Origami Republika), Helge Sten (Deathprod) and Klubb Kanin. During this period, Hegre and Marhaug formed the acclaimed duo Jazkamer, who would have a lasting influence on the next generation of musicians.

"There was a strong noise scene in Tokyo at the time. Some of my friends who I played with, especially John Hegre who is a great guitarist-improviser, were very into the scene and we got connected to Merzbow. We invited him to play for nyMusikk, and it turned out to be a fantastic concert at Kvarteret. It was just amazing, people were blown away physically and psychologically, it was very good. We also brought along other people, like the two artists we had in residence at BEK for a couple of days, and whom we streamed live. We kept the concert going for a really long time, some 12 hours. Then around 1998–1999 we did an improvised concert, also at Kvarteret. We connected four different rooms in the building: musicians in one room listened to the other, the second listened to the third, the third listened to the fourth and the fourth to the first. The audience couldn't hear all of them together, they had to move around from room to room. It was a funny house project."
Jørgen Larsson, 2020

"For me, the Merzbow concert was a very important event. At the time, I viewed nyMusikk as somewhat conservative, fixed on classical composition, while this was new and different. When Jørgen and John came into nyMusikk, they turned everything upside down. The Krydderfabrikken also had that: post-punk bands did

tape loops, although they weren't so noisy. And there was a black metal community, but it was detached from everything. Lasse Marhaug was a support act for Merzbow, there he met with John Hegre and started Jazkamer. They were key to the scene. They were like godfathers to the next generation that was into noise music."
Roar Sletteland, 2020

"At one point, around 1995–1996, I did visuals for Origami in Oslo and later relocated to Trondheim. The spider (of the web)/man behind the Origami network was Tore Bøe, who moved to Trondheim around the same time. Together with Lasse Marhaug we started a noise platform, an anti-capitalist venue called Klubb Kanin. I was the video girl, I was the only girl. First, we were at UFFA-huset, a self-managed centre a bit like Blitz in Oslo. Then the new manager of Teaterhuset Avangarden, Kristian Seltun, saw us and said it was 'ambient theatre', and invited us in. We had one day a month to do whatever we wanted.

What brought us together? Experimental music, experimental performance and… the internet. Like when I met Per Platou for the first time: 'oh, Ellen, you are on the internet too!'… like Ulf Knudsen or Amanda Steggell. We moved around the world and the network stayed." Ellen Røed, 2020

Merzbow returned to Bergen in March 2000, when together with another noise artist, Zbigniew Karkowski, he was 'locked up' for two days in one of the rooms at BEK. They were joined by four Norwegian musicians and composers and an assortment of equipment. The invited participants were John Hegre, Maja Ratkje, Ronnie Sundin and Andreas Brandal. Out of this came a collaborative noise piece that was performed in the same room and broadcast online.

Despite large protests, Krydderfabrikken in Bergen closed down in 1998 to give way to municipal plans to turn it into a residential area. Gisle Frøysland, Sissel Lillebostad, Maia Urstad and Lars Ove Toft were among the many artists left without studios, workshops and communal spaces.

That same year, the Kunstnerverksteder C. Sundtsgate 55 (CS55) was established in Bergen on the initiative of two regional artist unions (Visual Artists' Association Hordaland, or BKFH, and Norwegian Crafts Western Norway, or NKVN) as a co-operative for professional artists working with fine and applied art. The leading forces were board leaders of the two unions, artists Lillebostad and Marianne Berg. They helped to secure five floors of a nine-storey industrial building adjacent to the Bergen Academy of the Arts (the Academy would stay there for another two decades) for artist studios. The top floor being empty, Lillebostad suggested to the leader of the Bergen arm of nyMusikk, Jørgen Larsson, that a composer's residency programme could be established there. But as there was not much interest in the idea among composers, Larsson and Lillebostad weighed other options, among which the Bergen City of Culture 2000 (Kulturby 2000)'s call for starting a media lab seemed the most appealing. Larsson, a graduate in classical piano from the Grieg Academy Bergen, was in his mid-20s, with a fervour for experimental music and free improvisation, yet lacking any footing in video and media labs. They travelled to Oslo together to see how labs like Notam and Atelier Nord were operating.

"Sissel and I were the dynamic duo at the start. I was over-energetic, with long hair, she was a respected person who went through many projects and people trusted her. It was really good she was involved from the start."
Jørgen Larsson 2020

In the summer, Larsson approached the only artist who he knew was working with video in Bergen: Gisle Frøysland. Ten years his senior and carrying the reputation of a legend through his involvement in Dustene and Baktruppen, Frøysland took Larsson by surprise by readily agreeing to work together. He moved his studio to the top floor of CS55, which also served as Larsson's temporary residence and an informal meeting place for a community including Grethe Melby, Bjørnar Habbestad, Piotr Pajchel and others as well as a space for ad hoc events. What was important then was to build their own infrastructure, to "get the tools into the workers' house." They applied to the Arts Council's KNYT fund with "a project based on the interaction between artwork and the public on the internet," which was to take shape as a web-based interactive audiovisual platform. It would be in development for the next few years under the heading of pl0t and, although it was never completed, it served as a vessel for buying equipment for the new centre. Its focal point was a computer server, also called plot, that would immerse the soon-to-be-formed Bergen Centre for Electronic Arts (BEK) in international networks through hosting artist websites, mailing lists, audiovisual streaming and software repositories.

"I didn't know anything about video, I only knew electronic music. We needed someone who knew the visual side of the electronic scene, and in Bergen we only knew one such person — Gisle. He had a studio at Karde-mommefabrikken, two huge floors with computers and lots of crap lying

around, and he did amazing video installations, a real 8-bit steampunk. He was also a video guy for Baktruppen and played guitar in Alle Tiders Duster. As students, we really liked this band, he was a legend, and also quite big, so we were really scared when we approached him... But he said yes! It was easy. ...There were a lot of other people involved, all our friends got involved in some way, and there were people just hanging around because suddenly we had all these computers and fast internet... people who were into games, video, VJing, people excited about new technology... Grethe Melby, my future wife, was there as well." Jørgen Larsson, 2020

In March 1999, Larsson and Frøysland travelled to Amsterdam and Rotterdam to attend Next 5 Minutes, a tactical media festival co-created by artist and writer David Garcia. They encountered people from V2_, Waag, XS4ALL and others involved with media arts and activism internationally, many of whom they knew from mailing lists such as Nettime. What was inspiring to them was to see artists building their own software and infrastructure, running servers and mailing lists and doing "net. art" and other stunts. The Netherlands already had a high standing in media arts, including several organisations focusing on art production such as STEIM, NIMk, V2_ and Waag. Yet, Larsson and Frøysland did not envisage building a version of any of them, nor of Atelier Nord or Notam for that matter, as it made little sense to emulate something that did not fit Bergen's context. They saw themselves less as a media space and more as an artist collective.

"We knew we didn't want to be like IRCAM, that was not our goal. But we asked: 'do we want to be De Waag, or V2_, *ZKM*? What is BEK's purpose?'. It was important to understand that we were not going to be a video production centre for artists. You were supposed to have some skills already to get to go to BEK, we didn't train people in Adobe Premiere. Gisle and I always had this alternative thinking that we didn't want to emulate something that didn't fit in Bergen, because Bergen is just a small city. There was almost no one at the time working with anything related to technology. We had to ask, 'what's interesting for us?'. At the time, we were more like an artist collective than a media space. That was an attitude that also started BEK, which set the direction from the start." Jørgen Larsson, 2020

Young composer Trond Lossius came into the picture from an unlikely place. He left Bergen's Grieg Academy (where he was in the final stage of his music and composition studies) for Namibia, where he accompanied his partner Laila Linde Lossius on her two-year research stay as a fisheries biologist. In early 1998, he began exploring a visual programming environment for computer music composition and performance called Max. Developed in IRCAM, the tool had been gaining popularity among composers and sound artists internationally. This was due to its modular design that allowed for the software to be extended with functionality developed by third parties. One such extension, called MSP, expanded the capabilities of Max with sound synthesis and became its integral part. The instrument Max/MSP finally allowed Lossius to approach composing in terms of densities rather than timelines as taught in his classical training. He had been more interested in music as a place or situation rather than the narrative of getting from A to B. Closer to the poetics of Brian Eno, John Cage or Erik Satie, Lossius's problem was that if A was an interesting place then

he would rather stay there. His first sound installation piece, titled *Texture I*, was an algorithmic composition, with MIDI messages generated in real time using Max/MSP controlling a synthesiser. Through Max/MSP[15], Lossius would get closely involved in the digital sound processing community around the world and interacting through a mailing list, himself working from an unstable internet connection in the desert. His activity on the list caught the attention of Larsson, who invited him to join in building up the new initiative. He returned to Bergen in July 1999, quickly got involved in the renovation of BEK's premises and became its core member.

"Trond and I studied together at the Grieg [Academy]. When I heard he was about to come back from Namibia and was looking for things to do, I asked him if he wanted to come to BEK. He said yes, and we were three."
Jørgen Larsson, 2020

"BEK became a hotspot for discussions where different backgrounds were meeting. Jørgen, Bjørnar Habbestad and I came from music and composition where a lot of things were not discussed. We were all looking outside of our disciplines, in different ways, but clearly all of us searched beyond the narrow confines of what music is. Gisle had a clear conceptual and political background from the art academy, which was very provoking, in terms of coming at things from completely different perspectives, and confronting in a way that meant I had to reassess a lot of things. Conversations with Sissel Lillebostad were very important for me. There was Maia Urstad coming from a punk background and educated in arts and crafts, and Jana Winderen who was then still in Bergen and who also had a background in fine arts and worked in music. It was important to look at our own work through other fields, to ask: what is the thinking and values within one field and the other? Working cross-disciplinarily became very interesting for me because I became aware that my works can be seen and read very differently by someone from another field. There was very little awareness of context within composition education at the time, the question of what is the work and where does the work stop, was a radically new thought for me at the time. It was very enriching to be part of this environment rather than just sitting and working in a studio."
Trond Lossius, 2020

The Bergen Centre for Electronic Arts (BEK) was formally established as a non-profit foundation in May 2000, with three employees: Frøysland, Lossius, and Larsson as managing director. Its formation was supported by Arts Council Norway, Bergen City Council, Kulturby Bergen 2000 and The Kavli Trust. The following year, a board was established. Its first chairman was Jeremy Welsh, who had just moved to the Art Academy in Bergen after spending 11 years in Trondheim. Other board members included the artistic director of Bergen Kunsthall and Baktruppen member Bo Krister Wallström, cultural manager Harm-Christian Tolden and later also Jill Walker, a doctoral researcher on electronic literature at the University of Bergen and an early blogger. The affiliations of board members indicate some of the institutional partnerships that BEK would maintain in the years to come. Notably, frequent collaborations with Bergen's Art Academy were strengthened by its immediate proximity to BEK. During the first decade, professors Karen Kipphoff and Andrea Sunder-Plassmann got involved, along with Jeremy Welsh, as well as a number of students.

In June 1999, the notorious anonymous artist collective Netochka Nezvanova released an extension for the music software Max, titled nato.0+55+3d. Nato expanded Max with video processing functionality and contributed significantly to the surge of interest in generative, real-time and interactive audiovisual arts associated with the software tools Max/MSP, Pure Data/GEM, Image/ine and BigEye and mailing lists such as Max, Pd-list, music-dsp and LEV (Live Experimental Video). For many artists, 'real-time' aesthetics marked a sharp departure from the more product-oriented approach of 'rendering' electronic music and video. On the other hand, while each software was in continuous development and extendable by users, it was also associated with particular aesthetics recognisable to the trained eye. This would be partly responsible for the emergence of many other platforms in the years to come. Other important aspects included licensing policies and the divide between operating systems. Most of the software was proprietary and limited to Mac users. Pure Data/GEM, on the other hand, was the first major audiovisual tool available as free software for Linux and Windows. Some of the platforms would later be ported to other operating systems, while there would also emerge projects with system-independent web-based interfaces.

"I went to a Nato workshop organised by Guy van Belle in Rotterdam as part of the DEAF festival in the autumn of 2000. There was Kit Clayton, Kurt Ralske, HC Gilje, and Jeremy Bernstein who wrote all those functions into Jitter. I went with Michelle Teran, and we were the only girls there. At one point I was approached by two guys saying: we know who you really are — NN (Netochka Nezvanova)! Just because I was a girl working with Nato and was good at it…"

Ellen Røed, 2020

The worklab *Hot Wired Live Art* (*HWLA*)[6–11] held at BEK from 4–16 January 2000 represented the culmination of a number of collaborations and developments of the previous few years. The event, which spanned more than two weeks, had been initiated by Per Platou and Amanda Steggell of Motherboard. It was the first major event to be held at BEK, and it also overflowed to a spacious project room on the sixth floor of the Art Academy next door. Eighteen invited artists from Norway, Germany, the Netherlands, Canada, the UK and Austria gathered to share experiences in real-time video, sound and performance. Their backgrounds varied from video and installation art to music, dance and choreography. The pretext was a networked audiovisual software called Keystroke (later renamed Keyworx), then in alpha version. It had been developed over the previous three years at the Waag by artist Sher Doruff and her team including Niels Bogaards, both of whom joined the worklab. The platform treated different media as equal and allowed for them to be blended in a connected, collaborative setting. With Keystroke, multiple participants could improvise together with image, sound, text and other signals over the internet and the cybernetic notions of input and output captured the imagination of the artists present. They were busy interconnecting cameras, screens, computers, people and objects in the space and on the network into an ever-changing feedback loop. Remote-controlled helium balloons filled up the space, serving as projection screens for video feedback, and light bulbs reacting to microwave heat provided other video material.

Connections with other real-time software were explored as HC Gilje introduced the Nato software and Trond Lossius gave a workshop on Max/MSP. Bogaards's presence enhanced the feeling of immediacy as he did changes and updates to Keystroke onsite. The workshop culminated in public events at the Academy and online. The lab was a major boost for Keystroke, which would soon see its official release and become a major networked performance platform in the years to come. The cross-disciplinary and collaborative nature of the event resonated strongly with many participating artists. For BEK, the event would open the way to collaborations with Doruff and Bogaards of the Waag, Ellen Røed who was about to wrap up her intermedia studies in Trondheim, HC Gilje who had recently graduated from there, Michelle Teran who was based in Canada, and others. Motherboard would organise three follow-up events in the next three years in Moss (Norway), Banff (Canada) and Kampala (Uganda) with BEK as co-producer.

"There was a large network around Motherboard. We heard about a new synesthetic software from Waag/Steim in Amsterdam called Keystroke, and invited the developers to join a high-level workshop for invited participants. We spent a New Year in a lighthouse near Kristiansand and continued straight to Bergen. The Keystroke people, Sher and Niels, gave us a huge input, the learning curve was steep, and we really tried to make it crash. We had some project support, but most participants paid for their travel. BEK provided space, network, modems, etc."

Per Platou, 2020

"The *HWLA* was a culmination cooking for a long time, where a lot of people working together online finally met together for the first time. There was Gisle's and Piotr's interest in real-time processing, and Trond's interest in Max/MSP and audio processing. Motherboard brought popular culture and experimental performance together. It was playful and multi-dimensional, with more media and possibilities, connections to popular music, the dance and performance scenes. Amanda brought her international network from the digital dance scene, like Sher Doruff from Waag and Scott Delahunta, work-ing on live tools for choreography and making digital scores. Sher and Niels brought Keystroke, HC brought Nato, Trond brought Max, Daniel Aschwanden from Vienna brought working with live cameras. Amanda invited a fencing instructor to work with us as a warm-up every morning. We used fencing rods as sensors, we hotwired them to trigger images and sound... audiovisual fencing. Per and Amanda were great hosts; Per had endless curiosity and generosity with people, Amanda with media — coming up with quirky ideas, the combination was brilliant. Their visions were never imposed, these were rather potentials to be explored. It was almost like a party-workshop, we worked until 4 am, cross-connecting things, thinking about inputs and outputs and keeping it alive. With all the tools available, everything was very playful. Keystroke was a very tempting solution that Sher brought us because of its immediacy... you didn't need to sit for hours programming, Niels programmed it according to our desires... he would sit there for two weeks adding to and changing the system. Sher's project mantra was: *Equalize All Media*. Over the next few years, I would work with Nato and Keystroke intensively."

Ellen Røed, 2020

"The *HWLA* was based on developing collaborative art software, Keystroke. It was really rudimentary, with terrible frequency and quality, but really *fun*. But it also felt advanced, since it could do video, sound and a lot of other stuff – and it could do it over the internet." Jørgen Larsson, 2020

"I had a close connection with both Per and Amanda, Per saw me as a tech wizard and kept bringing me to projects with them. The *HWLA* was an initiative of Motherboard, and the main focus was Keystroke. Ellen and Michelle were into it, while HC Gilje was working with Nato, other people used Max/MSP. For me it was a bit on the side, it was 'Mac-end', and I was not using Apple products. Both Trond and Jørgen were on Mac, like all the people doing music at the time, although Jørgen got much more into free software when it came around." Gisle Frøysland, 2020

"You can't possibly overestimate the importance of this workshop [*HWLA*]. It was important for me, but also for BEK and the development of electronic arts in Bergen. It was the bridge between things happening in the 1990s and afterwards. It allowed us to tap into what many people had been doing for at least five years already, and provided us with a network and introduced new ways of thinking and working. You can see its influence right up to today, because it was something not just experimental, but experimental in a research way. Many of its participants later got involved with artistic research or academia, which I think is extraordinary. I haven't been part of any other workshop that would resemble it. For me, it was very chaotic, difficult to understand, but in a deeply fascinating way. It was my first cross-disciplinary experience. I was sucking in, observing, thinking. It was also my first experience of working collaboratively. The workshop was set up in a remarkable way by Amanda and Per in terms of hosting a productive environment, and with Scott Delahunta as moderator of the seminar. Every morning there was a conversation with each of us sharing what we were working on, which oriented the social setting for working together but also kept us aware of what was going on in the room, beyond our screens [laughs]. This kind of concentrated, one-to-two-week-long workshop is more typical for art academies, while teaching in the music conservatoires is entirely different. So, to me, it was also an introduction to a different, experimental pedagogical model which was very productive. It also set the tone for certain things BEK would be involved with, and triggered us to start defining the position of BEK as different to Notam. At that time, Notam was focused primarily on electroacoustic music, while our interest was in live arts. This position allowed us to see ourselves not as disparate parts working with music and fine arts, but working in between them." Trond Lossius, 2020

Later that summer, HC Gilje gave a week-long internal workshop about the Nato software in BEK, titled */ 55 \ Så jævla sanntid* (*So damn real time*). The participants were Trond Lossius, Gisle Frøysland, Thomas Sivertsen, Reinert Mithassel and Kurt Ralske who flew in from New York, as this was the first opportunity for artists to meet around Nato in a workshop situation. Several new patches were developed, and the week culminated in a networked group performance at Kvarteret. Shortly after, Gilje

would form the video improvisation trio 242.pilots with Ralske and Polish artist Lukasz Lysakowski and perform internationally in the years to come.

Ahead of the workshop, BEK started a mailing list for Max/MSP/Nato titled / 55 \. With the banning of Netochka Nezvanova from the official Max list over a plagiarism dispute, the / 55 \ list became the main communication platform for Nato users, administered by Lossius and Frøysland. In the long run, the / 55 \ significantly contributed to BEK gaining recognition as a major centre for real-time work with audiovisual media in Norway and internationally. By the end of 2002 it had almost two hundred members.

"BEK hosted a Nato mailing list, and I was on it. I wanted to use Nato in combination with Keystroke, it was interesting to use them both, simultaneously. It became a community of many people doing this stuff. There was a little group of people using Nato… more than half of them were in Norway, so I viewed BEK as a giant institute." Marieke Verbiesen, 2020

In addition to live performances, real-time and online tools opened new possibilities of conceiving exhibitions as well. The annual *Autumn Exhibition* (*Høstutstillingen*) in 2000, held at the Lysverket building (today the Bergen Art Museum), featured the installation *Sement* by Per Platou, Amanda Steggell, HC Gilje, Ellen Røed and Gisle Frøysland, produced by Motherboard in collaboration with BEK. Invited to contribute a 'net-specific' work, the artists responded to the ongoing highly charged international debate about what constitutes internet art and how to present it in a gallery. Inside an abandoned office complex, selected classic works of net art were presented alongside generic screensavers on monitors, each stationed inside a different office room where they were observed by motionless mannequins, in a somewhat ironic contrast to the liveness associated with real-time net-based performance. The office settings could be observed through glass walls from a spacious lounge situated in between them. Throughout the exhibition, the light dome on top of the building was illuminated by a number of spotlights in different colours. The lights were controlled via a public website that also featured photos from a stationed webcam. This marked the first use of the software pl0t developed by Lossius, Frøysland, Larsson and Espen Riskedal as a web-based composition tool for multiple users, connected to and programmable through Max.

"The *HWLA* was the beginning of the end, then it all went down. There was a shift to the commercial around the net in the early 2000s in Norway, with web design. When Telenor started approaching us, we realised that the pioneering days were over." Per Platou, 2020

"When they moved *Høstutstillingen* to Bergen, Per got an invitation to do a new media representation thing because he wrote about net art for the magazine *Billedkunst* [Visual Art]. We did *Sement* as an extended Motherboard project, where there was a lot of focus on Nato." Gisle Frøysland, 2020

"*Sement* was a turning point. Per wanted to point out that net art's 'heroic period is over', it is 'dead'. He was invited to fill the space with 'live electronic art', but what we did was in contrast to 'real time'. Other Motherboard projects celebrated 'performance', this one celebrated 'museology'." Ellen Røed, 2020

"It is funny that Café9 was created basically by bureaucrats as something which looked good on paper: internet cafés connecting youth in cities around Europe. I think this wasn't so important in itself, but the project was important for Bergen because suddenly we got Café9 at the [Bergen] Kunstforening, and that in turn created Landmark." Jørgen Larsson, 2020

In the autumn of 2000, BEK took part in the major initiative Kulturby Bergen (Bergen City of Culture) with the internet art café project Café9, situated on the ground floor of Bergen Art Association's Bergen Kunsthall (which was then simply called Bergen Kunstforening — Bergen Art Association) and linked to partners in seven other European Capitals of Culture 2000. In many of the participating cities, the occasion drove the development of infrastructure for art and technology, and Bergen was no exception: the Kunsthall and BEK rebuilt and reopened Café9 the following year in October as a new cultural venue called Landmark[14].

"We got half a million kroner from City of Culture, that was lots of money at the time, so we had obligations to them as to how to use it. They told us about a project proposal from Helsinki, which was to create internet cafés between eight cities in Europe over one month for youth to chat and have video conferences. This was something they wanted to be part of, and they asked us to fix up this Café9 thing in Bergen. So, this came from above. There was no wireless internet then, to go online you had to go somewhere to a computer and sit there. We thought 'that's easy, just some cables and computers, and substance to fill it with'. But we didn't have a space for it and went looking around. At the time, at Bergen Kunstforening there was a youth night club called Villa Amorini, which was the place to go party after everything else was closed for the night. The owner decided to close it down and the space was empty. Aashild Grana, who was artistic director at the time, proposed to create a large new entrance there, an open atrium with an elevator up to the offices. She let us use the space for a month, before it would be torn down. We installed cables, got tables from Telenor's old building Telegrafen and got this internet café going. At the same time, there was a change in leadership at Kunstforeningen, which meant that Bo Krister Wallström, who came in as a new director, hung out a lot at Café9 as his job hadn't started yet. He found it cool, lots of young people, new technology, it was fun. He persuaded the board that this was what they needed: a café, internet, new technology. Eventually they tossed the plan for the new entrance, and instead it became Landmark. It's funny how sometimes things just come together." Jørgen Larsson, 2020

"For the Festspillene [Bergen International Festival] exhibition in 2001, this space was completely stripped down, all the way down to the brick structure of the walls. It looked rough, nothing was built up yet, and that space was cool — you could do anything you wanted to do, it was absolutely amazing. It was very different to the lounge architecture it got when it reopened as Landmark." Trond Lossius, 2020

The new venue was named after architect Ole Landmark who designed the functionalist building in the heart of Bergen as one of his major works in the 1930s. It started as a multipurpose café gallery for new media art, created in collaboration between BEK, the Art Association, the restaurant operator Willies and the firm 3RW Architects, who took care of interior design. The minimalist lounge with white walls and ceilings and wall-to-wall beige wool carpet featured a stage situated on the mezzanine above the bar. BEK worked with Thomas Sivertsen on the state-of-the-art audiovisual and networking setup, suitable for both live events and sound installations. The space featured three video projectors, a multi-speaker setup, two computers, a 2 Mbps fixed-line internet connection and Wi-Fi. Live streaming became an integral part of events. As a result, BEK gained its 'home' venue, while also opening up its event programming to other initiatives in the city.

BEK's most memorable event at Landmark, *Looking Forward, See You Soon*[13], took place over two weeks in the winter of 2001 and was dedicated to live art and Keystroke, the tool introduced to the milieu the previous year. By then, the inclusive nature of the use and development of the software had created a community of collaborators spanning the Waag, BEK and the Banff Centre for the Arts in Canada, where a two-week-long session was produced by artist Michelle Teran earlier that year. For BEK, Keystroke and the availability of webcams provided a welcome means for connected, networked performance practice for which Ellen Røed would emerge as chief instigator. Keystroke's head developer, Niels Bogaards, attended the event along with over twenty artists, mostly from Norway. Remote participants included Teran and her collaborators at InterAccess Toronto and Ivar Smedstad joining from Berlin. The artists activated the space for different audiences, staged new installations every day, had jam sessions and tested different interfaces and networking tools. As was the case with many BEK events during this period, the process was chronicled in a lively 'log.' A one-week series of happenings orchestrated by Motherboard followed the next year in March, with a theatre play by Baktruppen livestreamed from ZKM Karlsruhe and an adaptation of Henrik Ibsen's poem *Terje Vigen* by Ulf Knudsen and others from Oslo.

"My first project at BEK was *Looking Forward, See You Soon*. Piotr [Pajchel] and I sat above the bar in Landmark with computers. Niels came too, from the Netherlands, he was sitting there continuously programming Keystroke. Other people would come in through Keystroke from other places. Ivar [Smedstad] was in Berlin, Michelle and Jeff [Mann] were in Toronto. We would do a new installation around a theme every day."
Ellen Røed, 2020

"It was really crazy, we spent a lot of time creating infrastructure in Landmark. How could this work, how could we make this 'media café'

thing? There were also conflicts, because BEK's events didn't bring so many people to the place. For example, we wanted visitors to be quiet during an event, before they could get something from the bar. But it was alcohol that brought money to the space. So how could we do it when there were fifty people only drinking water, maybe getting only one drink before they left? Then we had to change the whole crowd... the quiet crowd came first, then it changed into more of a party atmosphere. [...] But in the end Landmark became really good. First it was a space with an experimental vibe to it, then it needed to figure out how to bring in mon-

ey, then there was a lot of clubbing. Within three to four years it found itself, and it is really good, now it's controlled by Kunsthall."
Jørgen Larsson, 2020

"The BEK period in Landmark, when the venue was used for presenting processual art, lasted a couple of years, and during that time the groundwork was laid for Landmark's future identity. [...] Two trends were to follow from this. In the first place, Landmark's profile from about 2004 was conceived as a curated programme. Secondly, the programme became decidedly cross-aesthetic. None of this involved any radical break with the previous period — the BEK executives probably viewed themselves as curators, and electronic art was more a form of intervention in existing modes of expression such as visual art, music and theatre than an art form itself. The combination, on the other hand, was to be quite original, perhaps mainly because the curatorial project necessarily had to be collective."
Roar Sletteland, 2013 (see literature)

SOUND, SPACE AND TROLLEYBUS

The increasing interest in sound in visual arts in the 1980s and 1990s could be seen internationally in numerous exhibitions, radio art programmes and growing discourse. Two of the key events took place in 1996 in Berlin: the Sonambiente festival and the foundation of singuhr hoergalerie which is still operating today. A turning point in Scandinavia came three years later when Teddy Hultberg produced an exhibition of the Stockholm-based artist association Fylkingen in the Museum of Contemporary Art in Roskilde, Denmark, and Jørgen Teller established a biennial of Danish and international sound art in Copenhagen called *Ssshhhh*. That same year, in Norway, the weekly radio programme *Ballongmagasinet* (*Balloon magazine*) moved online as an artist-run sound gallery, and the Young Artists' Society (UKS) magazine released a CD with a booklet documenting works from the 1990s. Other releases soon followed: the Stavanger-based online magazine *Localmotives* dedicated a special issue to sound art (Summer 2000), Hultberg wrote the book *Swedish Contemporary Sound Artists* which included a double-CD (2001), and the museum in Roskilde published an anthology with a double-CD connected to its festival-exhibition *SeeSound* (2002). The focus on sound challenged conventional perceptions of both music and visual art, bringing forth the spatiality of the former and duration of the latter. Both of these qualities not only presented artists with uncharted territories but also offered a welcome common platform for these arts to meet.

The legendary *motlyd* [20–22] (*counter-sound*) festival co-produced by BEK for Kulturhuset USF came just as this momentum was building. In October 2001, Jana Winderen, Maia Urstad and Jørgen Træen organised a 10-day festival of "sound as noise, noise as art and art as sound." Near to USF at this time was a scrapyard full of metal and industrial waste that could be walked on, knocked on and which inspired creativity. The motlyd programme included sound installations, concerts, screenings and discussions. Winderen and Urstad, together with Trond Lossius, presented a layered 'textural composition' distributed over 18 speakers in the Visningsrommet USF (Viewing Room) across a 120-sq-metre space. This was a turning point for Lossius in presenting sound in space.

"There were two sound installations planned for the exhibition space as part of the *motlyd* festival at USF, by me and Maia Urstad. Maia gave me her sound material upfront, and I made mine so it would work with hers as I knew they would be heard together. I decided to use four plus four speakers, and this was also my first experience with surround sound. Then I did the smartest thing I've ever done: I made the thing, gave it to Maia and told her to do whatever she liked with it. I had another project happening elsewhere and couldn't be there to install it. I came back at the end of the festival and when I saw how they had transformed the space, I was shocked. Until then, my idea of a sound installation was that there are four speakers, you listen to the sound, and that's it. Seeing how they cared for the listening situation, emphasising that you can't do anything in a space without also thinking of its architecture and visuals, because people come in first with their eyes, not their ears, was a total eye-opener. Back then, the space of Visningsrommet was divided into three distinct sections, and one of the ideas for the exhibition was that the two parts of my work (each for four speakers) were using the same pitch material, using natural harmonics in different chords, based on a piece by Arne Nordheim. In one part, I used a long continuous note based on samples of playing glass, in the other one I used synthesized sounds resembling decaying piano notes. Maia's work made use of radio signals. These three layers subsisted of very different materials but functioned as a joint spatial composition. Moving around the space was a way of mixing these three layers. Depending on where you were, one of the layers was foregrounded and the other layers were in background. It was a revelation. That's when the question of what it is to work between music and fine arts appeared to me as acute and one I needed to gain more understanding and experience with." Trond Lossius, 2020

Although works involving sound and space are often described plainly as sound installations, this label should not obscure their formal ambiguity and diverse poetics. For example, Lossius, together with Thorolf Thuestad, took the spatial 'layer' approach from *motlyd* further when they created a multi-channel sonic texture for an installation developed by another ten artists at Trondheim's KiT Gallery as part of the *Living Room* project (2003). A different work at *motlyd* was Jørgen Larsson's 'vertical' site-specific concert with eight speakers, piano and a soap-bubble machine taking place in the 12-metre-high Borggården. In another project with Reinert Mithassel, Lossius involved living organisms in *Ekkofisk*[12] (*Echo fish*) in which two goldfish generated quadrophonic sound by their changing mutual positions (2000–2001). Involving a performative corporeal element with a different kind of poetic agency, Ellen Røed and Bjørnar Habbestad made an installation-concert, *Etterklang*[16] (*Aftershock*), for video, flute and electronics as part of the *Detox* programme (2004). And Habbestad's *TelArt* project (2000) further underlines the manifold relation of sound and space. With the help of BEK's server, the work consisted of spamming 50,000 mobile phone users with music commissioned from ten artists.

Artistic practices engaging electronic sound rely largely on adapting, subverting or building software as a creative instrument. Of key importance for the sound and music arm of BEK has been one such application, Max/MSP.[15] Its visual programming

environment allows the artist to arrange and connect building-blocks of objects within a 'patcher', or visual canvas. These objects act as self-contained programs, each of which may receive input and generate output, passing messages to connected objects. In this way, the artist instructs the machine to synthesise sound by 'patching' sound events, creating various triggers, conditions and dependencies, as well as programming new objects, called externals. Thanks to its flexibility and modularity, Max/MSP has remained the lingua franca of electronic music and sound processing ever since its initial release in 1997. It is its spatial, object-based language that contrasts sharply with classical composition techniques.

"In the same way as with painting, I wanted music to reveal what it consisted of at first glimpse. You shouldn't need to spend 20, 5 or even 2 minutes to hear what components a sound image is made up. Instead of horizontal listening, I aimed for a vertical listening. The act of continuing to listen should be similar to continuing to stand in front of a painting, looking deeper into it, rather than seeing a story spanning over time, unfolding in front of you. [...] I liked building things in Max, like building Lego, thinking in terms of densities instead of timelines, about how often something changed, thinking vertically instead of horizontally, which was very liberating."
Trond Lossius, 2020

After the experience of developing *pl0t*, in 2001 Lossius embarked on creating other extensions for Max/MSP for mathematical operations, digital filtering and audio signal analysis, including a program called Loorph-mooper which allowed for working with an audio sample as a layered terrain instead of the usual wave curve. The experience gained from building such tools overshadowed the fact that other Max users might also make very similar things. Still, many extensions became widely used in the Max community internationally, thanks also to being published under the GNU GPL open-source license.

"I started building my own externals for Max during my stay in Namibia in the late 1990s. When you're making some kind of functionality, and this functionality turns out to be useful and you might want to use it again, you start abstracting it into an object or external. I've done that for a number of projects. *pl0t* was one of the early ones that we never succeeded in making exactly as intended. We wanted to stream MIDI on the internet. We had a working prototype, you could play in Max, it streamed MIDI and that could be listened to from a web browser. This was before I knew anyone else was streaming anything inside a browser. There was RealMedia, but it was a separate application. In order to do this we had to make a Max patch communicate with a server at BEK.

It has happened to me many times over the years that I've had an idea and developed something, and then seen the others doing more or less the same. Technology affords certain things, there's often more than one person who sees an opening in a certain direction, and then goes there. A complex object, a tool, valuable at one point, later becomes a straightforward plugin or a device doing the same thing. But when you do this very early on, for the first time, you start asking 'what is this', 'what does this mean?'. When you apply a tech-

nology that already exists, you simply start utilising it and it is difficult to ask fundamental questions. You don't necessarily have access to read it in a way that invites these questions."

Trond Lossius, 2020

A most renowned extension coming out of BEK became Jamoma[19]. The work on this open-source framework for building modules in Max/MSP/Jitter first started with American engineer Timothy Place's efforts to reduce the complexity and instability of Max patches during his stay at BEK in October 2003. By the spring of 2005, Lossius was onboard and the idea was "to create something of a standard for how to construct a Max patch for maximum reusability and interchangeability." The software ended up in active development over the next 11 years, with new contributors joining from France and elsewhere. They also began framing it as artistic research, presenting at conferences and writing academic papers. Lossius used Jamoma in his sound installations and other work with Max, as did others including Verdensteatret, Espen Sommer Eide, Alwynne Pritchard, Knut Vaage and Ricardo del Pozo. Some of the ideas from Jamoma were also implemented in Max itself.

"When you are building something with Max, very quickly you reach a certain complexity where things become very hard to organise and feel uncontrollable and start jeopardising your artistic practice. You could be working towards an opening, and your biggest fear is that suddenly the program would misbehave or crash. When there's too much resistance from a tool you rely on, you fall out of fluency in following ideas and lose a momentum that is generating quality. I experienced this in a number of projects, especially in working with Verdensteatret. We were working with a certain sequence, then we'd throw in something new which offset everything, things got off balance and nothing worked any longer. It meant that one new idea made everyone sit around for hours looking at someone working with a mouse. It was incredibly expensive and killed the creative flow. Jamoma addressed this problem. It was also a very interesting process because my need for this solution emerged from my artistic practice and then that need served and facilitated Jamoma as well."

Trond Lossius, 2020

Instrument-making has had a special place in Espen Sommer Eide's practice. His first contact with BEK was in the context of Café9, when he was invited to play at an outdoor event with live video. There was much anticipation as wall projections were still very rare and a high-performance projector had to be shipped from Oslo especially for the event. However, Bergen's oceanic climate showed no mercy and the city was hit by heavy rain. Despite this zany start, Eide had met his home scene in BEK and quickly became an integral part of its community. Originally he moved to Bergen from his home town of Tromsø to study philosophy, graduating with his master's thesis on Derridean deconstruction of Kantian critique of judgment. He had a teaching job at the university but was determined to pursue his career as a self-taught musician. Starting out with flute and trumpet, then playing drums in several 'broken microphone-stand' bands, he began experimenting with computers and samplers and soon embarked on his solo project Phonophani as well as forming the duo Alog with Dag-Are Haugan. The debut albums of both projects fused ambient, experimental electronica and

post-rock and were received to critical acclaim. Eide soon got acquainted with Max/MSP through Lossius and found in it a great tool for advancing new techniques and turning them into instruments[18].

"I learnt Max/MSP from Trond Lossius, it was a revolution for me. Before that I used existing software and a sampler. The third Phonophani record, *Oak or Rock* (2004) and Alog's *Duck Rabbit* (2001) were inspired by a completely different attitude. You approach things very differently when you build your own instruments."
Espen Sommer Eide, 2020

Under the moniker pilota.fm, in 2001 Eide and Nicholas H. Møllerhaug established the festival Trollofon[17]. The two first met on BEK's terrace and talked about starting an internet radio. Eide had enough technical knowledge, while Møllerhaug was a journalist with a background in literature and brought in Dada and surrealism and also an interest in local history. The project soon materialised as the pilota.fm website hosted on BEK's server and streaming radio episodes and recordings from Trollofon events, woven into an unfolding fictional narrative with the trolleybus as the lead motif, anchored in an attempt to save the last operating trolleybus line in Norway. The daytime part of the festival took place in an actual trolleybus from the early 1970s that had not been in use for 15 years[23]. Invited performers covered a broad span of genres, and the electricity for instruments of those who needed it was provided directly from the overhead wire network that was powering the bus. The evening programme took place in a borrowed venue and featured a surreal mix of poetry, jazz, electronic music, noise and folk. Starting with the support of BEK and nyMusikk, the event would establish itself as an annual music festival with an evening programme at Landmark from 2004 and continuing up to 2006 as part of the Bergen International Festival (Festspillene). Over the years, it featured the likes of Peter Rehberg, Oval, Fennesz, Tujiko Noriko, Francisco López, Maja Ratkje, Goodiepal, Biosphere, Emi Maeda, Haco, Jaap Blonk, Janek Schaefer, Massimo and Kim Hiorthøy, among others. The trolley line continues to operate today.

"The idea was to take pictures of a trolleybus for the design of the pilota.fm website. Together with Nicholas, we went to the bus station, talked to people there and discovered this old bus. So we made an opening event with live electronic music in the bus, it was meant to be a one-time event... What I found important in pilota.fm and Trollofon was the ability to combine surprising subjects — local history, old technology, surrealism, dada, online streaming, websites/web design, poetry — and the festival became a collage of all these elements. It felt very new and exciting at the time. This was true in regard to BEK as well... combining different aesthetics of course, but also combining very different fields. I don't know what it has to do with art and technology, perhaps people who are interested in technology are also more open to this combining of fields."
Espen Sommer Eide, 2020

The *Hot Wired Live Art* event of 2000 not only brought together different art forms but also set the stage for a special way of being and working together that BEK kept returning to afterwards. Described by the artists as 'worklab', it combined the focus on prototyping and participative learning from workshops with the structure and public setting typical of stage performances. One could engage in a creative process with others but just as easily step back and observe. In addition, both *Hot Wired* and *Looking Forward, See You Soon* (2001) stretched over a period of two weeks, making space for transforming the convivial setting into a temporary utopia. Historically, we can find parallels to this creative situation in the early days of The Kitchen in New York, where Steina and Woody Vasulkas and their community engaged in a months-long continuous stream of setups, trying out different things, performances and productions involving video and electronic media. Steina described it aptly as the Live Audience Test Laboratory. For BEK's work in theatre and performing arts, liveness was similarly the glue between stage, technology and the creative process.

"We worked with many theatre groups, in terms of facilitating equipment, but also by being directly involved in productions. Verdensteatret in Oslo was greatly important, because their projects allowed for taking things out of the usual electronic art context. Thorolf [Thuestad] worked a lot with Transiteatret, I did as well for a while." Roar Sletteland, 2020

Before moving to its current base in Oslo, the Verdensteatret[27] was founded in Bergen in the mid-1980s by Lisbeth J. Bodd and Asle Nilsen, sharing an affinity to theatre scholar Knut Ove Arntzen. The artist collective has been notorious for its persuasive blending of music concert, theatre performance and installation art. Well regarded in the BEK community, a number of artists joined the group for periods of time and contributed to a production process known for its communality and meticulousness. Ellen Røed worked with the group from 1995 to 1996. Trond Lossius was first involved in creating an installation version of the troupe's *Régla* (2000) and later took part in the productions *Tsalal* (2002) and *Concert for Greenland* (2003-2005). *Tsalal*[28], for example, was the collective's seventh major work. The piece unfolded as a dreamscape from a journey across the Black Sea. Central to it was the sonic dimension, the exploration of the spectrum between pure sound and language, whereby performers' voices were transformed using real-time processing. Piotr Pajchel was part of the group from 2003 to 2019, Thorolf Thuestad from 2010 to 2015 and Espen Sommer Eide from 2010 to 2016 and again since 2019.

In the spirit of worklabs, and following the 2003 edition of Autunnale festival, Verdensteatret held a week-long cross-disciplinary workshop in collaboration with BEK at Teatergarasjen. Attended by about forty artists, musicians and students, it was centred on the concentrated work of two Tibetan Buddhist monks from northern India who spent the whole time creating a mandala. The workshop culminated in a performance and a ceremonial dissolution of the large sand painting. The sacred sand was eventually thrown into the sea at Nøstet.

"I went to *all* the performances of Baktruppen and Verdensteatret, we all hung out in the same scene." Ellen Røed, 2020

Ellen Røed carried her experiences from earlier work with Motherboard and Verdensteatret into both of BEK's early worklabs. Before she joined BEK in January 2002 as the instigator for performing arts, she also collaborated with Origami Republika and Michelle Teran on onsite and online performances and founded the noise platform Klubb Kanin together with Tore Honoré Bøe and Lasse Marhaug back in Trondheim. Starting out with making web art in the early 1990s, Røed soon began working with moving image in projection mapping, analogue video synthesisers and live video tools such as Image/ine, Nato and Keystroke. In the piece *Foolish Fish!* (2000), for example, she employed microphones as sensitive instruments to allow for algorithmic mapping of the movement of dancers on the stage on aspects of visual projection. In another project, Røed created the ambient theatre piece *Papercuts*[26] together with Bøe which stemmed from a pile of printed script for Terrence Malick's film *Badlands* which was cut, read, torn up, recorded and enacted in audiovisual feedback loops by the two performers.

Røed was behind several worklab-based events with BEK. Together with Torunn Skjelland, she created a one-day festival-as-artwork called *Beta*,[29] attended by a large audience of about a hundred and seventy people. Held in May 2004 at BIT Teatergarasjen, the event was arranged as a special edition of Prøverommet, a monthly event for presenting experimental performative work in progress. Twenty-four artists from BEK's milieu as well as from the fine art community were invited to present installations, concerts, paintings, photography and film. An additional international programme of experimental film and video from sixteen artists was curated over the internet and assembled for the occasion. The second edition a year later brought together a wide range of process-oriented works from over thirty artists in an open-ended social setting[24–25]. Eleven installations and eight performances were presented, drawing from electronic, intermedia and networked contexts. Among many others, Jana Winderen presented a sensor-controlled interactive sound installation titled *Kunsten å gå på vannet* created with Trond Lossius and Jørgen Træen and which had previously toured schools in the Hedemark county. In September 2004, Røed also organised the week-long worklab *Come on Petunia* exploring artists' strategies for structuring time outside the constraints of linear narrative. Among the participants were twenty musicians, video artists, composers, performers and other artists from the milieus of BEK, Motherboard, the Academy and Verdensteatret.

RESTART

"When you establish a place like BEK, with a mix of people and a potential, the first few years is a privileged period because, to an extent, you don't have a clue what you're doing. You can do things you wouldn't otherwise be able to do. That was definitely a part of BEK. When you look back at the 1990s, you can see exactly the same thing happened during the first few years of Notam. They made ground-breaking software and were also very visible and internationally connected. You can also see it in the early days of Fylkingen in Stockholm. You start with a blank slate that you never have later on. BEK, however, needed a clear vision of what it was, to define its core field, because there was a clear danger of being dissolved into a number of solo projects of mine, Gisle Frøysland and others. During

the first few years, 'real time' and 'cross-disciplinarity' became terms which bound all of this together. Even if what each of us did would be very different, these were the common denominators. There was a field of artists around BEK engaged in these questions, the terms were something to build conversations and common practices around." Trond Lossius, 2020

The attempts to better articulate BEK's role in the artistic community were accompanied by organisational changes taking place throughout 2002. The increasing debt and strained liquidity brought the organisation into crisis management. In January, Jørgen Larsson resigned as general manager. A new board was constituted and its role in the organisation strengthened. In the July, BEK withdrew from Landmark which continued to be run by Bergen Kunsthall and Willies. The situation improved toward the end of the year thanks to cost reduction and refinancing grants. A research remit was included as part of BEK's strategy for the coming years.

"After Jørgen left in January 2002, it was just me, Gisle and Thomas Sivertsen employed at BEK. Thomas was mostly maintaining things at Landmark, but despite our agreement with Bergen Kunsthall, we had little control over its artistic programming. We spent 2001 refurbishing the space and afterwards did very few events there, actually. We ended up doing technical support for events such as a meeting for hairdressers [laughs]. When I took over as BEK's director, I also realised what kind of dire state the economy was in. The Arts Council conditioned additional funding for BEK — seeking assurance that BEK would not go bankrupt. It was clear that we needed to get out of Landmark, so we sold all of our equipment to Bergen Kunsthall and ended our collaboration. We did events there afterwards but only as guests, like the others. I think that worked much better."
Trond Lossius, 2020

Another blow came the following year. After the initial three-year period, the Arts Council declared it was unable to continue to provide infrastructural support. After being turned down by the government as well, BEK's prospects looked bleak, and the only way forward was to continue to lobby and garner support and solidarity for an appeal. BEK issued a call for action in October 2003 and the petition quickly gained 600 statements of support from across the international scene. After distributing the petition to politicians and bureaucrats, in January 2004, the Parliament decided to grant long-term support for BEK, followed by the Arts Council and the Ministry of Culture confirming additional funding. As a result, BEK gained the long-term financial security it had never had before. This also served as the occasion to define BEK as a national interdisciplinary and cross-aesthetic centre of excellence and a resource centre for work in the intersection between art and technology.

After obtaining a doctoral position at Bergen's Art Academy, Lossius took a sabbatical from BEK from the autumn of 2003 until early 2007. This was one of the first artistic research positions in Norway. Jeremy Welsh and Lossius's former tutor Morten Eide Pedersen acted as his advisors. During this period, Lossius explored productive tensions between contemporary music and fine art traditions through collaborative sound installations and other projects. Many other BEK members and collaborators would develop their practices through doctoral artistic research. In the same period, Amanda

Steggell and Sher Doruff gained fellowships at the Norwegian Theatre Academy at Østfold University College and the University of the Arts London, respectively (both graduated '06). Later, HC Gilje, Ellen Røed and Michelle Teran completed fellowships at the Bergen Art Academy ('09, '14 and '15, respectively). Other research fellows in arts and technology in Norway would include Victoria Johnson, Ruben Sverre Gjertsen, Thorolf Thuestad, Craig Wells, Stephan Meidell, Tijs Ham and Magnhild Øen Nordahl, showing that a research mindset is inherent to electronic arts.

Following Lossius's departure, the position of BEK's managing director was taken up by Roar Sletteland, who was new to BEK's milieu. A few years earlier, Sletteland had wrapped up his philosophy studies with a thesis on a poststructuralist take on the architecture of Bergen's railway station and the tension between it being both a historical object and a living thing. He found a job as a political secretary and began turning his thesis into a book although with doubts about whether to do so. When an offer came to join the board of the Bergen arm of nyMusikk to take care of finances, he accepted. This is also how Sletteland learnt about BEK. At BEK, he found a project room filled with computers and a sound studio, both actively used by many people on a drop-in basis. Eva Sjuve became BEK's sound director for a year before leaving to embark on a PhD. Other regulars in this period included Frøysland who was in charge of video, Lossius who dropped by a lot as the Academy was right next door, and other people who were part of the milieu including Espen Sommer Eide who would eventually rent his studio here, Nicholas Møllerhaug, Bjørnar Habbestad, Maia Urstad, Thomas Sivertsen, Piotr Pajchel, Stefan Mitterer and Peter Mitterer and also Marieke Verbiesen, Gijs Gieskes and Dalas Verdugo who were on long-term residencies here. The space was frequented by many other residents from the Hordaland Arts Centre in collaboration with NIFCA (The Nordic Institute for Contemporary Art).

"When I came to BEK in 2003, the notion of 'electronic art' was fading out; it was increasingly considered a thing from the 1990s. It was a strange period of 'what happens now?'. Jørgen, Bjørnar and Trond came from the music side; for them, music performance would be a more natural direction than doing a gallery. Yet, BEK was and still is very cross-disciplinary, involving performing and visual arts and everything in between, not invested in any particular movement like new media art."
Roar Sletteland, 2020

In the summer of 2004, composer, sound designer and producer Thorolf Thuestad joined BEK as a sound manager. After graduating in composition and music technology from the Utrecht School of the Arts with a thesis on machine-generated music, Thuestad moved to Bergen to pursue his practice. He swiftly emerged as a prolific collaborator working with fellow composer Knut Vaage and various groups and ensembles such as Transiteatret, Fat Battery, Verdensteatret and BIT20 Ensemble, among others. After Lossius's return to his role in BEK, both Sletteland and Thuestad left the staff to continue to focus on their artistic practice and as key instigators of Bergen's music and performing arts scenes.

"If you develop a model for BEK, it becomes irrelevant after two years, it has always been like that. You always have to reinvent a place like BEK and ask: what can it be now? Where are things moving? Where's the need,

where's the potential? The answers have always been changing. Some of those changes were very surprising. Initially, a very strong idea for BEK was to be a media lab, a provider of access to resources that were not affordable for individual artists. That's why we had Apple G4 computers, for example, which were ridiculously expensive at the time. But after two years, this model was no longer relevant. People started getting laptops, which were often faster than the computers we had. It was also challenging to keep computers accessible to more than one user. There were no systems for multi-user setups, and we continuously faced a problem that someone mastered a computer to such a degree that no one else could work on it; it became 'privatised'. I saw the real potential of BEK in a community of artists, coming from different backgrounds, where ideas met and knowledge was exchanged, but also in creating spaces for in-depth work for more experienced artists, a generous community. The most important machine in BEK has always been the coffee machine [laughs].

Around the time I returned to BEK in 2007, 'real time' and 'cross-disciplinarity' were still important to BEK. The real-time processing of video was still relevant for Piksel, and the practice of the artists involved with BEK like Thorolf, Alwynne [Pritchard], Knut Vaage or Roar included things being in between. The questions related to 'real time' and 'cross-disciplinarity' were still there, although perhaps not as burning and unresolved as before. Hardware electronics had become more important after Peter Flemming's residency, especially for Roar and Espen. I was one of the few still sticking to the software domain, deeply involved with the development of Jamoma. As systems grew more complex, our major problem was how to control real-time systems, how to manage to abstract and simplify to make them manageable and playable. It was a media compositioning approach." Trond Lossius, 2020

SOUND CIRCUITS

"Whereas digital instruments often imply the control of sound or video, the physicality brings in the experience of being 'outside', out of control, with an instrument having its own identity. Next to that, Espen [Sommer Eide] was frustrated by being on stage with a laptop. The digital doesn't have much object quality. A computer is an object, but it's always the same." Roar Sletteland, 2020

A 'low mech' workshop on tinkering and hands-on electronics given at BEK by Canadian artist Peter Flemming in November 2003 provided a contrast to the computer-driven environment in the electronic arts. The experience inspired Roar Sletteland to reconnect with his long-standing passion for electronics and he embarked on building his own amplifier. This took a long time but, from this point on, his office was dominated by a table piled with tools and gadgetry, a welcome distraction from his office work and a conversation starter for visitors. This is how he eventually embarked on repurposing loudspeakers together with Espen Sommer Eide, resulting in the first generation of musical instruments counting Tantrix[30], Sølvberg, Treberg and Slåttberg, collectively called the Tandberg family. When Eide's Alog released their fourth album *Amateur* (2007), it was nominated for the Spellemann Prize because of its distinct sound produced with self-built instruments.

From early on, BEK was closely involved with Bergen's music scene, commissioning new works and contributing to festivals such as Autunnale, its successor Borealis, as well as Ultima in Oslo. For example, at Autunnale 2003, BEK premiered an audiovisual performance featuring dance with sensors called *Cracker* by Frode Thorsen, Gitte Bastiansen, Trond Lossius, and Gisle Frøysland. At Ultima 2003, BIT20 Duo and Ellen Røed premiered the programme *Virtual Garden*, consisting of minimal music pieces and live video. For the premiere edition of Borealis in 2004, BEK co-produced the interactive 'party' environment *Re:Actor* (Frøysland, Piotr Pajchel, John Hegre, Anders Gogstad), Bergen 8-bit Allstars (curated by Frøysland and Gijs Gieskes) and Ap (Martin Howse and Jonathan Kemp), as well as the renowned large-scale installation *Lydmur*[31] (*Sound Barrier*) by Maia Urstad, which was shown at a temporary gallery in Nordnes. *Lydmur* consisted of some 150 antiquated cassette decks and compact disc players assembled into a 10 x 2-metre-large wall playing in turn a composition of sounds involving speech, morse code, white noise and fragments of recordings from radio channels. The piece was installed at multiple venues around the world and became known as one of Urstad's signature works.

BEK's first music commission was Alwynne Pritchard's work *Don't touch me, you don't know where I've been* for flute, guitar, percussion, clarinet, piano, voice and electronics which premiered at Logen Theatre as part of Borealis festival in 2008. The development involved musicians through recordings and workshops. Thorolf Thuestad was responsible for programming and processing. In addition, Sletteland built a 23-channel amplifier that drove 80 speakers which were placed among the audience. The quirky title was related to Sletteland's earlier, private commission of Pritchard. Puzzled by the standard practice of determining the amount of a fee according to the length of a commissioned piece, in 2005 he asked her to compose an orchestral piece lasting one second. He had one condition — the title. So, when Pritchard took the liberty of calling the piece *World Enough* under which it was performed several times, Sletteland insisted on commissioning the next piece with a title of his own.

While there were multiple stages in Bergen to present music, galleries are traditionally visually oriented and not always prepared to meet technical and spatial requirements for presenting sound-based practices. By 2007, the interest in working in sound in the gallery setting was finally met with a new experimental space for sound-based art practices called Lydgalleriet. The initiative was founded two years prior by former BEK director Jørgen Larsson along with a group of musicians, artists, art historians and organisers affiliated with BEK and nyMusikk including Habbestad, Erlend Hammer, Urstad, Sletteland, Steinar Sekkingstad, Thuestad and Lossius. Lydgalleriet found its permanent address on Østre Skostredet 3 in central Bergen, where it would stay until 2020 when it moved to its current location on Strandgaten. The gallery established itself as the only permanent exhibition platform for sound art in the Nordic countries. Larsson organised more than 40 exhibitions there.

"After I left BEK, I did various projects for a couple of years. Maia, Trond, Roar, Steinar Sekkingstad, Erlend Hammer, Bjørnar Habbestad, and I, were all working with sound art in some fashion and wanted to create art exhibitions with sound. We started to work towards a sound gallery in late 2005, trying to get funding. Then the Grieg project came along which created a possibility… it is a funny story: at some point

around 2006 I was visiting BEK, Thorolf said he was about to answer an invitation from people involved in the 100th anniversary of [Edvard] Grieg's death. They had proposed that BEK should do a project on sampling Grieg's work. It sounded terrible, like they wanted to do DJing with some layered Grieg, just terrible. Thorolf thought the same. I said, well there's a lot of money, but he said, we can't do this, it is just too terrible. I told him not to send his answer quite yet, I would give him four lines. I went out for a cigarette on the terrace, came back and said I got it — we just turn it around, we just say, Grieg was also a sampler of nature, he took samples from nature and created music. We can create a project for artists coming to Bergen, or to somewhere else where Grieg had been, and we can ask them to record stuff, like field recordings, and we can create a new work from that. We can say this is in Grieg's spirit, it can be fun! The application was eventually accepted. This became one of three big projects for the Grieg anniversary, and became

really nice, with works by artists Jana Winderen, Chris Watson and Natasha Barrett. This also put Lydgalleriet in a physical space because we had the money to do this large project. We were in this crazy ruined building, and especially the first two to three years, until 2009, were fantastic, everything happening there was just amazing. It wouldn't have happened without all these coincidences..."
Jørgen Larsson, 2020

"Lydgalleriet was Jørgen's initiative and idea. He gathered people who he knew were interested in sound, starting a gallery for sound art. I was probably invited because I was at BEK, so it would give some institutional justification. I also had access to funding via nyMusikk. Thorolf was at both BEK and Lydgalleriet as well. When Jørgen was working on applications, he was sitting in BEK and doing it; there would also be lots of equipment borrowing. The community around BEK and Lydgalleriet was pretty much the same."
Roar Sletteland, 2020

One particularly memorable Lydgalleriet exhibition from this period was by John Hegre and Jørgen Træen (as Golden Serenades) in the summer of 2008[31]. Commissioned by BEK and developed in collaboration with Sletteland, the installation involved an automated mechanism featuring relays, motors, sensors, a large number of microphones and pickups, effects pedals and other electronics. The mechanism operated two guitars, turning them into an improvising duo producing a stream of loud electroacoustic noise similar to the sound of smashing guitars in the final part of the traditional rock concert. This was, in fact, how Hegre and Træen performed the piece earlier in Oslo. The concert became the target of an attack in a televised discussion with tabloid editor Knut Haavik who highlighted it as an example of what he saw as the inadequate policies of the Arts Council and of their support of work lacking artistic merit. In the ensuing debate, other funded projects by Motherboard, Kate Pendry and Sven-Åke Johansson were also singled out. Nominated to the Council by a far-right party, Haavik's stance was perceived as a political attack on free expression. This sudden appearance in the spotlight was also the reason for creating an installation version of the piece which the Council eventually supported with the same amount of funding that the concert had received. Despite his reservations, Haavik eventually became a supporter of the Council's independence and policies. A concert version of the piece was performed at the Henie Onstad Art Centre and Bergen Kunsthall the following year.

"Both Gisle and I had a kind of contrary thinking: technology is a way to get your own infrastructure by building something that is on the side of, or contrary to, commercially available tools. To get the tools into the workers' house, to own your own tools. That was actually a very important part of early BEK. One of the milieus that worked with this was Nettime, later Spectre, Next5Minutes, and people in Vega. There was also a small collective, doing small pranks, the 'net art' thing, which kind of phased out after some years. But it was really important at the turn of the century, because these artists were actually creating their own software, they put up their own servers. To have control over infrastructure and tools was really important. Very early on, Gisle knew how this all fitted together technologically, he knew how to work with Unix systems, create open-source, free software and tools. He was so clear; he was older than me and had already been working a lot with this, and his ideology was really important for us at BEK at the time." Jørgen Larsson, 2020

The dependence of the vast majority of software products on Apple's and Microsoft's operating systems is both a blessing and a curse for artists. On the one hand, tools are readily available for instant use for those who can afford them, but, on the other, artists have to accept restrictive licenses, as well as the properties and functions of a tool as a given and adapt their work to what is possible in a given framework. The free-software movement and its younger sibling, open source, interpret this as a question of freedom. Users should not only be free to use the software but also to modify and distribute it as they wish. The flagship of this alternative vision of software culture has been the family of operating systems called Linux.

Fed up with the limitations of the Windows platform, in the early 2000s, Gisle Frøysland embarked on transforming his video tool GIFJam, supporting both interactive installations and live performance, for Linux. GIFJam was in development from 1999, and he had used it in works such as the ironic virtual shopping simulator *JoyStuck III – the Walker*, the misguided sonic surveillance environment *Easy Listening* and the interactive 'party' environment *Re:Actor*. The new application, developed in collaboration with Italian programmer Carlo Prelz from V2_, was called MøB, and Frøysland first employed it in the installation *Freeze!*, a cubist video collage made possible by multiple cameras fixed on a ring surrounding an object, which was shown in the spring of 2002 at Landmark.

The following year, the MøB platform reached a state where it could be proved useful for other artists, which led Frøysland to organise a workshop. By then, however, both real-time video processing and open-source culture had matured enough for a number of similar tools to emerge in different places. The workshop therefore served as an occasion to bring the initiatives around open-source 'real-time media' tools together for the first time. It took place as what became the first edition of p1k5el, or Piksel, at BEK, Landmark and the Art Academy during one week in November 2003. Participants included Artem Baguinski, Antoine van de Ven and Simon de Bakker from V2_ Rotterdam, Tom Schouten from Belgium, Yves Degoyon from France, Jaromil from Italy, Pedro Soler from Spain, Amy Alexander from the USA, Martin Howse from the UK and Kentaro Fukuchi from Japan, altogether about thirty artists and developers.

Per Platou moderated the discussions. Among other platforms, the open-source sibling of Max/MSP called Pure Data was discussed. The outburst of activity found common ground in drafting an interoperability protocol that would allow different applications to exchange data and 'talk' to one another.

"I was fed up with the fact that artists had to crack software like Adobe, so we made a mailing list for people interested in real-time video on Linux. Kentaro Fukuchi was a pioneer doing EffectTV software, which was an inspiration for many people doing live video, Yves Degoyon was important, there were people from Freej community, one gang was doing Pure Data, another did independent software and some artists were using all of these. There were many discussions on the list, and at one point I invited everyone working with this to come to Bergen for a workshop. It was cool to gather all these people, to see everyone we had been talking to on the net. We wanted to do a lot of different things to connect these projects together." Gisle Frøysland, 2020

The second Piksel took place a year later and expanded the focus on live video to include sound as well. Many participants from the previous year returned and were joined by others, totalling about fifty people. Part of the event took place at Landmark but it appeared challenging to engage a broader audience, and Piksel's outlook was more of a workshop rather than a public-facing festival. Its point of convergence remained the interoperability between live video platforms. Sound-processing platforms were also discussed, among which the versatile Pure Data and SuperCollider emerged as essential tools. Yet the discussions were not limited to VJing and sound processing as the event embraced streaming technologies, embedded solar-powered devices, EEG monitoring, GPS data use for installations, and lively PlayStation interfaces, for example. The exclusive reliance on free software, as opposed to proprietary tools, was without precedent in the context of arts events.

"In a similar way to how the Nato community was established, where you had artists working with real-time audio and video and you could get to know each other online, Piksel was established as a community with a focus on open source. Back then, around 2003–2004, there were many people living in various places who were making their own software and a lot of them had an interest in open source. Gisle was also making his own tool called MøB. When I started to work for Piksel, I remember how annoying it was to do everything open source [laughs]. It was very fundamental; we had an open-source blog software which was a nightmare to use, I had to hand-code everything to just make a blog post [laughs]. The same with making posters, I wasn't allowed to use Illustrator, so I had to use open source. But I was into it, I used Ubuntu and lot of other software at the time. At Piksel, these people would gather, meet, make presentations, and there was also a lot of collaboration, it was pretty geeky. Then it was getting bigger and bigger, there were evenings with live performances, and more and more people came." Marieke Verbiesen, 2020

The 2005 Piksel widened its scope to focus more broadly on the aesthetics and politics of open source, adopting the subtitle 'Festival for Free, Libre and Open-Source Audiovisual Software and Art'. About sixty participants gathered at the event, from

the collectives and organisations Goto10, dyne.org, Hackitectura, De Waag, Free Software Foundation and others. The programme included a variety of workshops and performances taking place at the Teknikerkroen bunker inside the mountain below Bergen University, as well as an exhibition on game art at the Hordaland Arts Centre curated by Isabelle Arvers from France. The political subtext of open-source and free software movements came more to the fore.

"After the second and third Piksel, I realised that the focus on software development was not going any-where, so we moved to focus more on art using free technology, artists teaching artists, trying not to focus on something specific."
Gisle Frøysland, 2020

The fourth edition of Piksel in 2006[34, 36, 38] shrank from one week to a long weekend yet the programme, with 70 participants, became ever more diverse. The festival was organised around the theme of open hardware. The collective ap/xxxxx (Martin Howse and Jonathan Kemp) prepared a two-day seminar on speculative hardware framed by Friedrich Kittler's concept of electro-mysticism at the USF Cinemateket with German chaos theorist and endophysicist Otto E. Rössler among the guests. The programme also revolved around live coding, circuit bending, sonar panel bots as well as the new open-source physical computing platform Arduino. The Hordaland Arts Centre hosted an exhibition. A CD-ROM was made with Linux distribution containing a selection of applications for the audiovisual performance, "Piksel Live CD".

"The seminar in 2006 was part of a strategic choice to focus more on artistic output and development; we wanted to develop new artistic projects. I gave Martin Howse a free hand and a budget to do what they wanted. I was very happy with these things; they got a space they could do whatever they wanted with, lots of good people were involved. This is what Piksel is about — creating situ-ations, bringing together all kinds of people from different fields, mixing art, science and technology."
Gisle Frøysland, 2020

The fifth Piksel festival in 2007[33, 35, 37] revolved around free audiovisual software, circuit bending and artist-made electronic music instruments that were demonstrated by Casperelectronics, Gijs Gieskes and Audun Eriksen among others. The ap/xxxxx was again in charge of a seminar that took shape as a 12-hour 'life coding' event, an iteration of the *Plenum* event that had taken place as part of NodeL London festival in March the previous year. Tatiana Bazzichelli, Jessica Rylan, Stewart Home, Paolo Cirio, Otto E. Rössler, Nancy Mauro-Flude and Alejandra Pérez Núñez were among its participants. Onsite, August Black and Federico Bonelli produced a no-budget film called *Kaos -aka- Rosencrantz & Guildenstern in Hell* using free software. Distributed alternatives to social media like YouTube and MySpace were presented. Git was introduced as a new standard for a distributed versioning system for software development. A book anthology on free software and art in collaboration with Goto10 was underway. This was the last edition organised by BEK and the following year it began to operate as a separate organisation.

By then, Piksel had established itself as the leading event for open-source arts internationally. Like-minded festivals followed including Make Art, organised by Goto10 in Poitiers, France between 2006 and 2010, and LiWoLi in Linz, Austria from

2008, later called Art Meets Radical Openness. The audiovisual arts and digital culture festival Pixelache in Helsinki and its offshoot Mau au Pixel in Paris were also part of its informal support network. A comprehensive introduction to these artistic practices and the surrounding discourse was first put down in the book *FLOSS+Art* edited by Aymeric Mansoux and Marloes de Valk of Goto10 and published by Mute in London in 2008. Frøysland continues to organise Piksel annually to this day.

"We separated Piksel from BEK in 2008, after a lot of turmoil. We made a deal that I could take Piksel with me and start a new organisation. It was a natural development since there was not much interest in keeping Piksel run by me from within BEK. For me, this was the only solution."
Gisle Frøysland, 2020

"Piksel was a big part of my work at BEK in the first years. What is interesting is that Piksel is not as much part of the local and national, but rather of the international field. For many people abroad, the only thing they know about Bergen is that Piksel is happening here." Roar Sletteland, 2020

"Piksel was, and still is, a large international scene. Thirty to forty artists and programmers would come to BEK every year, and we filled Landmark and other venues with days of jamming and trying out different things. This scene was very much focusing on Linux. I was really influenced by the artists such as Martin Howse, Jonathan Kemp and Erich Berger. For me, Piksel was a huge inspiration in terms of research."
Ellen Røed, 2020

RESIDENTS

Two artists from the Netherlands, Marieke Verbiesen and Gijs Gieskes, arrived at BEK in 2003 for a six-month self-directed residency. Verbiesen had recently graduated from an art school in Den Bosch and worked with lo-fi animation and live video. As an early Keystroke and Nato user, she worked with Sher Doruff in the Waag and with Sonic Acts in Amsterdam, learnt about BEK and the Norwegian live video scene through its / 55 \ list and joined the *Looking Forward* event back in 2001 in person. Gieskes, Verbiesen's fellow student, specialised in building musical instruments. The two ran the live-played lo-fi video game concert project Video Home Training. Verbiesen would eventually stay with BEK ever since. In the following years, Verbiesen arranged a number of events of 8-bit music at Landmark. Featuring concerts, workshops and parties, the series presented an international community of musicians, MicroMusic, active since 2000 and using modified game consoles as instruments to make chiptune music.

Dalas Verdugo arrived at BEK at around the same time as Verbiesen and Gieskes on a year-long Fulbright scholarship from the School of Film and Animation at Rochester Institute of Technology, New York. Verdugo was involved in an early video-blogging community called Blumpy run by his fellow student Jacob Lodwick who happened to be visiting him and became acquainted with them. Lodwick experimented with QuickTime plugins and made it possible to upload videos directly to a webpage, bypassing the otherwise necessary FTP transfer, making it possible for people without server access to share videos. He also approached Gisle Frøysland and got to host his online project on BEK's fast server. Lodwick would soon rename the service Vimeo,

continue it as a community art project upon his return to the States and begin to scale it up in 2006 to become a major video-sharing site. Verdugo would go on to work for Vimeo as community director.

FLEETING EXPRESSIONS

While there had been various initiatives to build archives for video art in Norway in the past, none had grown beyond its immediate milieu, while historical works going back to the 1970s were in real danger of being lost forever. In October 2007, after several years of work, the Arts Council [Kulturrådet] published the report *To preserve the ephemeral: A study for a national archive of video art* (*Å bevare det flyktige*) prepared by Mie Berg Simonsen, Marit Paasche and Åslaug Krokann Berg. Based on the report, the Council issued an open call for a pilot project of a nationwide collection of video works. While video is ubiquitous in artistic practices, little has been done for other ephemeral art forms in terms of preservation. In response, BEK joined forces with USF Verftet and Trond Lossius, Mayra Henriquez and Aashild Grana and came up with an ambitious alternative proposal to establish a centre of excellence not only for video art but more broadly for ephemeral, non-object-based arts such as sound art and performances. The centre would be organised under the umbrella of BEK and located at USF. This, however, came to no avail. KINOKINO, Atopia and PNEK each submitted their own proposal, and, in the autumn of 2011, the Council awarded the assignment to PNEK with Per Platou as project leader of what would become the Videokunstarkivet (Video Art Archive).

The archive was launched by PNEK in the Autumn of 2011. BEK was indirectly involved through its artistic developer Anne Marthe Dyvi as she took part in the archive's resource group, being responsible for dissemination. The group also consisted of Per Platou as project manager, Ida Lykken Ghosh as coordinator, Marit Paasche as lead researcher and Ivar Smedstad as technology expert. In the pilot phase, which ran until 2015, a large scope of video works and material was collected, archived and digitised and published online, while the collection of over 2,900 videos by 645 artists was transferred to the library of the National Museum in Oslo in 2020.

"Artistic research is about continuity in what one's doing, a systematic enduring exploration and questioning, getting experienced with the things that you're questioning. But besides artistic results, this experience and the insights into the process, thoughts, knowledge also need to be documented, shared and archived. Even if we'd managed to build a research culture in a community at BEK, when a project is done, the artist has to move on to the next project. They may upload some documentation on their website and file a report to a funding body, but it stops there. They don't have the time to sit down and articulate the insights that came out of this project. BEK didn't have resources to document these projects either, we saw that we were part of history unfolding, but we weren't able to make that history stick. [...] When the call for the video art preservation strategy came from Kulturrådet, together with Aashild Grana from USF we came up with a model for a research platform into contemporary art. We would also involve the university and perhaps have PhD fellows. Because, besides collecting and preserving, you could also, in parallel,

start seeing this as data for further research and think beyond just video art, towards all temporary, fleeting artistic expressions. There is still no strategy for how to preserve these in Norway. Maybe it was too ambitious for Kulturrådet, and I also think Per Platou, on behalf of PNEK, had a very clear idea of how to organise it. That was also very credible. It made a lot of sense to say that this needed to be a shared responsibility of the PNEK network." Trond Lossius, 2020

INTO THE SECOND DECADE

In 2008, BEK had reached a crossroads. Either considerable operating grants had to be raised, or work at BEK had to be scaled down, in the worst case, wound up. Economically, it was not possible to continue operating at the same level with the framework BEK had then. The new board chaired by Aashild Grana from USF suggested BEK's leadership be split into two positions. In the autumn of 2009, Lars Ove Toft was appointed as the new general manager, and Trond Lossius moved to a newly created position of professional manager. Marieke Verbiesen continued in her part-time role as computer and software technician, while Espen Sommer Eide was hired on a temporary basis as information manager.

Toft was already familiar to BEK's milieu through his work at BIT Teatergarasjen and because he had followed sound art early on through his partner Maia Urstad. Back in the late 1980s and early 1990s, he had the studio together with Urstad at Krydderfabrikken and, with his Taskenspillerne troupe, was part of the experimental theatre milieu around Teatertreff (later BIT) street festival from which both Verdensteatret and Baktruppen emerged. When the festival moved into Teatergarasjen in 1991, Toft was already part of its team and continued as production manager for a good 15 years. Forced to leave the theatre because of injury, he studied organisational science and leadership and, fresh from his studies, he was a perfect fit for the job of running BEK. The remit from the board was clear: we need people. Toft viewed music, visual art and performing art as three pillars of BEK and set out to broaden access to engagement for people to come to BEK.

Toft originally envisioned building the organisation around three areas: a support base for small projects, professional projects, and artistic research and development. This, however, proved difficult. Restricting employee roles to different user groups creates close dependencies, where things could not move on if someone was not available. In terms of expanding BEK's user base, its main potential partner, the Academy adjacent, was busy with reorganisation and had no resources to maintain networks with small organisations. It also proved challenging to keep the emphasis on developing tools and open-ended experimentation because funding was tied to artistic output in terms of events and was not so suited to longer-term development of artistic projects and tools. What did turn out to work was to maintain an environment where people were welcome to reach out for advice, equipment and collaboration, which helped, and still helps, embed BEK more closely in local art milieus. Small projects received due attention next to larger initiatives and BEK's role as facilitator became of central importance. BEK would keep moving forward by being shaped by what the people working there were interested in. Toft's contract was extended twice and, with a temporary leave in 2018, he continued leading BEK until late 2020.

"When I started as managing director at BEK in 2009, I knew little about software and hardware, but I knew a lot about sound, light, stage and other things that BEK was involved in. We had a strategic plan for the three pillars of BEK which were music, art and stage art. But I didn't know BEK from the inside, I wasn't fully sure what was expected of me besides what the board told me when they gave me the job: 'we need people'. There were main projects that were already started and should continue: artistic development, collaborations with big concerts, making interaction design and international collaborations. But my first mission was to open up BEK, or to 'lower the threshold' for artists, musicians and others to come in, work at BEK and be part of the BEK community. For example, I served soup every month in the first half a year, asking people to come along; I wanted to treat people well and see what could happen. By around 2012–2013, I had built the basis for smaller projects that were going on here, which were not the main focus, but were important to get BEK running as a 'centre'. But of course, I had a vision of how to form BEK. I had a four-year position (followed by another four years, and finally three years). For my first term, I imagined BEK as a three-layered centre. The ground level was where we recruited people, and it was very lab-based: artists came in, did some practical work, got some advice and help. The mid-layer was artist graduates or musicians who needed a place to work, or people to work with, for their own projects, where the end result would be an exhibition or a concert or something else, outside of BEK. The top layer of artistic development and artistic research was very important at the time and was integrated into the Stipendiat [Artistic Research] programme. It was mainly focused around Trond, and our international collaborations surrounding him were about writing papers, presenting at key conferences and events for the development of hardware and software. I wanted these three layers to work in such a way that the top layer could drizzle down to the first level as teaching or by introducing people to tools. And — I never got to do this. Why? I understood at the time that formal collaboration with academia was very difficult. In France, England or the US, there were small organisations linked to academia, which had a niche way of working and had positions and funding from academia. In Norway, there are institutes like these for weather or for the oceans, but the Forskningsrådet [Research Council] is so closed, that you never see it in culture. The institutional models in culture were very fragmented; the art academy in Trondheim was under the umbrella of the university, in Oslo the art education was divided between fine art and craft around 2009, and in Bergen the study programme was not linked to academic standards, rather it was a mix of everything, and they had enough to work on themselves and their constant restructuring at the time. So, it was very difficult, and I did not manage to make the connection to academia. I tried to get these three layers at BEK mixed into one, but then it became very dependent on one person doing this, one person doing that... if some of us weren't there, then this or that couldn't happen, etc. So BEK became much more of what those of us who worked here were interested in.

The art academy wanted BEK to be a computer hub for students. We were door-to-door neighbours, very close, the academy was in the one building and BEK was on the top floor above of all the artist studios in the other building. There were a lot of computers at the academy, but I don't think they were for 'studying', they were for people interested. BEK is not a place for courses or teaching, yet it's a lot about workshops, development, advising, mixing and meeting. In a way you recruit users from students, but not by them standing in the doorway saying, 'can you please teach me', but by them being interested, staying and doing something. You have to bring your own energy, and that's what drives you at BEK, it still is. It is fuelled on your initiative and not on your lack of a skill."
Lars Ove Toft, 2020

The circle of BEK's staff and collaborators continued to grow. In 2010, BEK initiated a long-term collaboration with Sindre Sørensen and Stian Remvik, who had newly graduated in design and visual communication from the Bergen Art Academy. Sørensen became responsible for server and network support, and they would both contribute as programmers and technicians to various art projects co-produced by BEK. By 2015, Remvik was working as a technical developer in the organisation, continuing to support a wide range of artists.

Anne Marthe Dyvi joined BEK as artistic developer in late 2010. Freshly graduated from her master's at Bergen's Art Academy, she also had a background in theatre and was part of the female collective platform Ytter along with Julie Lillelien Porter, Anngjerd Rustand and Vilde Andrea Brun. Dyvi came into contact with the electronic arts milieu through her participation in a competition arranged by the computer science department at NTNU together with TEKS in Trondheim where she received the main award for her project about data and algorithms. She viewed the field's potential as being especially about bridging scientific and humanities work and thinking and opening this out to a broader society. While Lossius's point of focus at BEK was primarily research, Dyvi came to see her role as being focused on frameworks, situations and content that artists and audiences can respond to. She worked at BEK until 2019. During that time, she also closely engaged with diverse art scenes in Norway as a practising artist and in other roles as a board member for Bergen Kunsthall, NBK–Norske billedkunstnere (Norwegian Visual Artists), PNEK and Lydgalleriet.

"Before my time at BEK, there had been discussions about the existential nature of electronic art. But to me, it is more important to ask: what is its artistic essence? Rather than trying to define it as a particular type of art. There's often talk about specific disciplines, practices and tools, or about separate fields: electronics, physics, philosophy and humanities… it is divided. But it is much more interesting to have them all in relationship — to notice how they are connected. The best that platforms like BEK can give us is self-confidence and the opportunity to think together, explore how our practice relates to questions and aspects of society, and to give us a way to reach an audience. And to do this through art." Anne Marthe Dyvi, 2020

In 2013, Apichaya (Piya) Wanthiang received a year-long funding award to work as an aspirant at BEK, under the Arts Council's scheme to support emerging artists. She had recently graduated in art from the Bergen Academy of Art and Design, and her

work was with installations combining painting, three-dimensional structures, video, sound and other media.

"For me, it was important that the people working at BEK had enough freedom to build their own network and interest and to keep doing things related to their own practice. The positions were part-time, 50% or even less, so why should they work in a place where they couldn't benefit from it artistically. I built up an in-and-out structure of people getting equipment, advice, going in and out, a pulsive turnaround of artists interested in BEK. This meant a lot to me, because it was a way of rooting BEK in the local art and music environment. I think that our funders did agree with me, that the important thing was not that we said we were necessary, but that those who needed us said it. Then of course, we lost the nerds who used to come, stay and develop something very strange at the time, but perhaps not so strange anymore after two or three years. We lost the hub, the part of BEK that was only into this little thing, which was much stronger the first ten years and was also the basis for BEK and its development and what BEK contributed to in the early days. BEK became very different. When you look at it from the outside now, not understanding the history behind it, you see that the development of artistic projects and the development of usable tools for artistic projects has gone down, while the amount of project collaborations has gone up. You could think BEK has become just a participant, which is not the case; there is a story behind it that is linked to the openness to collaborations, but also to what was acceptable within the framework of funding."

Lars Ove Toft, 2020

SONIC RESEARCH

In its second decade, BEK continued its sonic research practice along numerous threads such as composing, installations, ambisonics, instrument building and sound design, including commissions.

"In terms of how BEK worked with artistic research, a very important part of what I did was to see what was going on, what people around BEK were working on. I was looking for potential projects outside of BEK, to see if we could go in and facilitate and support these longer-term projects that involved more than one person or one single project, and that could really build something over time."

Trond Lossius, 2020

In the spring of 2010, Pascal Baltazar and Bjørnar Habbestad, in collaboration with Benjamin Maumus, premiered their work *Unruhige Räume* at the Journées Électriques festival in Albi, France. The artists described the work as *Hörspiel* (*Radio Play*) for historic building, audience, speakers, microphones and three electroacoustic performers. Jointly commissioned by BEK and GMEA (the National Centre for Musical Creation), their starting point was to combine a high degree of performative actions with a spatial realisation of the soundscape. As part of the process, a number of electroacoustic instruments were built: Respirator for facilitating sound synthesis and interaction between SuperCollider and a flute, the real-time composition environment Z based on Max/MSP and the multitouch interface for Max, MSpace. The Norwegian premiere took place at Borealis festival the following March.

BEK also tapped into the community of a popular programming environment for real-time audio synthesis and algorithmic composition, SuperCollider. In the autumn of 2010, BEK held a workshop about a tool for building instruments in SuperCollider, called Modality. Developed by Jeff Carey and Bjørnar Habbestad, its starting point was an attempt to unify various protocols (HID, MIDI, OSC). Other invited participants included Alberto de Campo, Wouter Snoei, Marije Baalman and Trond Lossius. The workshop was the first extended meeting around Modality and was followed by another one in the autumn of 2013. Over the years, Modality would develop into a toolkit to support live electronic performance environments.

"Bjørnar Habbestad's artistic development was really remarkable. He was then the primary user of SuperCollider at BEK, and also involved with a network of other artists in Norway working with SuperCollider. He got far with developing things with Jeff Carey but got stuck in terms of infrastructural support. I shared with him my experience of working with the development of Jamoma, where we had a very productive international team that achieved a lot with very little money. BEK then helped him facilitate and bring together some of the people working on this, so they could be in the same room and share what they were working on, discussing needs and urges. It was to give the chance for a productive environment to build around this." Trond Lossius, 2020

A different tool, OpenMusic, a visual programming language for computer-aided composition developed at IRCAM, Paris, was introduced to BEK's milieu by composer researcher Anders Vinjar with a workshop in late 2013. The software was then being ported into Linux, and using this connection, Vinjar was commissioned to create an ambisonic piece to be presented the following year. BEK also commissioned two of the workshop participants, Jostein Stalheim and Marcus Davidson, to compose two short pieces which were eventually completed in a year. Later, in late 2015, IRCAM developers gave an OpenMusic workshop at the Music Academy in Oslo with several artists from Bergen taking part.

The project Sonic Interaction Design involved BEK in its research on the use of interactive sound design in art, music, design and research. The four-year research project funded by the EU culminated in an exhibition curated by Trond Lossius and Frauke Behrendt (Anglia Ruskin University, Cambridge), produced by BEK and hosted by the Norwegian Museum of Science and Technology in Oslo in the summer of 2011. Eleven works were selected from over 100 proposals received, and a work was commissioned from Espen Sommer Eide who created a multitouch musical instrument in the form of an app. An estimated thirty thousand people visited the show.

BEK has a long history of working with surround sound, including the development of supporting software platforms such as Jamoma. Artists working in ambisonics in Norway and even internationally are, however, very few. In the second part of the decade, BEK teamed up with Lydgalleriet and Borealis to offer rare workshops, commissions and concert opportunities for both established composers and emerging artists. The original impetus for the series, titled *Multi*, came from Lydgalleriet as a way to make use of its equipment while it had to reduce its exhibition programme due to financial difficulties. Natasha Barrett initially served as curator of the series and was later joined by Trond Lossius and others.

In June 2014, a 24-channel speaker rig was installed at the venue above Lydgalleriet, Østre, and the programme featured world premieres of works by Natasha Barrett and Anders Vinjar and the Norwegian premieres of works by Åke Parmerud (Sweden), Ludger Brümmer (Germany) and Fernando López-Lezcano (USA). Vinjar's work *Aria ex aria* was commissioned by BEK and made with open-source software. In October that year, two works commissioned by BEK premiered at Østre as part of Ekko Festival. Asbjørn Blokkum Flø's work *Analogikk* for analogue electronics and four musicians, developed from 2010, was performed by Blokkum Flø, Maja Ratkje, Alexander Rishaug and Hild Sofie Tafjord. Guitarist and composer Stephan Meidell and multimedia sculptor Birk Nygaard presented *Dialogues* in which Meidell performed computer music using a tape deck machine as the interface while Nygaard created a visual accompaniment to the music. March 2015 marked another edition of Multi concerts at Østre as part of Borealis festival. The works presented included those by Thorolf Thuestad (for 27 loudspeakers), Natasha Barrett, Rebecka Sofia Ahvenniemi and Bethan Parkes. In December that year, BEK's workshop on circumferential sound for composers and sound artists was accompanied by another edition of Multi concerts at Lydgalleriet. A new work by Lossius was presented, along with earlier pieces by Joseph Anderson and French-Syrian artist Julia Hanadi Al Abed.

To make it more accessible for artists to work with ambisonics, in the autumn of 2014 Lossius collaborated with Joseph Anderson from The Center for Digital Arts and Experimental Media (DXARTS) at the University of Washington on porting the software toolkit for ambisonics (ATK) from Supercollider to another audio editing software, Reaper. ATK for Reaper[39] would be used by artists, musicians and composers in immersive concerts, performances and installations internationally, including the series Multi. Lossius also participated in developing a file format for describing and storing works that use surround sound called SpatDIF.

VIBRANT IMAGE

BEK was no less active in co-producing video-based works[41], installations and exhibitions. In collaboration with Maia Urstad and the 3,14 Foundation (a non-profit art institution with an emphasis on contemporary art beyond the western context), BEK produced the exhibition Contemporary Artists from South Africa for the 3,14 Gallery in the summer of 2010. The show featured an installation by Hobbs & Neustetter and a multi-channel sound installation by James Webb, both created in Norway. The video programme consisted of eight video works by different artists and animation films by Cameron Platter.

In the autumn of 2012, BEK produced and curated the exhibition *The Ritual of Walking in a Circle* in collaboration with Lydgalleriet at the Gallery S12 in Bergen. The exhibition presented Kjersti Sundland's video installation *Enduring Portrait* (2008)[45] showing the

gradual ageing process of a woman, Ellen Røed's video *Elektra*[44] based on volcanic activity of Popocatépetl and Anne Marthe Dyvi's new video work *I / Jeg*.

An interactive installation by Marieke Verbiesen, *Moviestar*[46], was presented at the Art Academy as part of Meteor Festival in the autumn of 2013. The work, co-produced by BIT-Teatergarasjen and BEK, utilised classic film, animation, robotics, sound and motion tracking to simulate a movie scene where visitors play the main role. They found themselves on a film set surrounded by cameras, lights and a green screen studio, projected into a world of monsters, UFOs and surreal events they controlled by movements in front of the camera.

On behalf of BEK, in January 2014, Apichaya Wanthiang curated the exhibition *I Love Your Manners Full of Deceit* at KNIPSU Gallery with works by emerging artists. Later, in April that year, Wanthiang also presented her immersive installation *Without Waiting for Her Reply*[42–43] at Visningsrommet USF. The work explored the oral and embodied storytelling culture in the artist's childhood village in northeastern Thailand and revolved around a live broadcast of sunrise over a landscape in the countryside which the audience observed during the nighttime in Bergen. The installation was framed by wooden structures reminiscent of Thai traditional rest houses on rice fields and featured videos and songs from daily life. Electronics for the installation were developed by Roar Sletteland and Sindre Sørensen.

In addition, on behalf of BEK, Anne Marthe Dyvi curated the art programme for the Solund Light Art Festival in November 2014. Viel Bjerkeset Andersen, HC Gilje and Ellen Røed presented site-specific works.

MIXING GENRES ON AND OFF STAGE

Between 2011 and 2015, Espen Sommer Eide and Anne Marthe Dyvi curated a series of events, *RAD*, bringing into contact different genres and disciplines. They not only showcased the diversity of practices in BEK's milieu but also created unexpected situations opening new perspectives for engaging with the site.

"*RAD* was about being right there, researching what was going on in the here and now. It was a collaboration with Espen and was a really interesting project. I find that Espen and I share an interest and attention to poetics — to the essence of art — and it was important to us to bring this focus to BEK, because there's often too much emphasis on cables and hardware when it is actually about art and humanities. In *RAD* we created a lot of space for that." Anne Marthe Dyvi, 2020

The first in the series took place at the recently established artist-run gallery KNIPSU in central Bergen. The philosopher Steinar Bøyum reflected on the concept of the series, departing from the 15th-century author Rabelais' views on laughter. Eide presented the sound of dead languages. Ellen Røed did a performance for science, sarabande and harpsichord[46]. Maia Urstad performed the radio concert *23 Uhr in Deutschland, Las cinco de la mañana en Madrid, Hilversum 16:00, Saint Johns 7:30 while 7:00 in Nova Scotia.*

The second event took place at Knut Vaage's cabin at Sunde, Kvinnherad, south of Bergen[49]. The invited musicians/artists Knut Vaage, Trine Hylander Friis, Signe Lidén,

Alog/Espen Sommer Eide, Dag-Are Haugan, Sigbjørn Apeland and Anne Marthe Dyvi improvised together, presented a reading of Ragnvald Vaage's poetry and served food. The audience and performers stayed the night there.

RAD #3 was dedicated to literature, art and law and revolved around the notion of 'zero document' (0-dokument)[47], a designation in Norwegian public administration for documents deemed confidential for third parties. The event took place inside the Bergen District Court. The programme included a lecture by Bjørn Ekeland from a research group on law, rhetoric and literature at the University of Bergen, a performance by Trine Falch, photographs by Julie Lillelien Porter, a radio play by Nicholas Møllerhaug and a performance by Alwynne Pritchard, Thorolf Thuestad and Claire Zakiewicz.

"*RAD* was very much about the sites it was taking place at. Calling them 'sites' makes it more ritualistic perhaps. For example, the courtroom site that was part of *RAD #3* was interesting; it was called *NULLDOKUMENTET* (*The Zero Document*), in reference to the judiciary system's classification of confidential documents that are excluded from public court proceedings, and it explored how society can be read through the way this system functions. How the court is designed exactly mirrors the form of theatre; prosecutors are called 'actors', and theatre and courts were even developed at the same time as each other.

NULLDOKUMENTET explored 'what is truth?', 'what is a document?', and 'how important is art for understanding reality (and vice versa)?'. It was also very visually and aesthetically interesting as it took the form of a panopticon which allowed you to see the court structure and how it was operating.

RAD #4 took place at Bergen School Museum and was a 12-hour continuous performance. Again, the site itself was key: a lot of content was drawn from the museum, and the pieces questioned school documents, the role of school in society, education, art and aesthetics."

Anne Marthe Dyvi, 2020

RAD #4 explored reading aloud as artistic form and took place at the old Latin school in Mesterlektien, Bergen[46]. The programme included readings from texts selected by a number of invited readers, lectures, sound, music, food, performative approaches, poetry and film. Contributors included Anne Margrethe Konow-Lund, Julie Lillelien Porter, Yngve Pedersen, Kristin Tårnesvik, Steinar Bøyum, Trond Søbstad, Ole Mads Sirks Vevle, Espen Sommer Eide and Anne Marthe Dyvi.

RAD #5: Transition explored the path between light and dark, objecthood and flatness, and sound and silence. The event took place at the premises of Fortidsminneforeningen (The Society for the Preservation of Ancient Norwegian Monuments), Bergen. The starting point for a performance by Mari Kvien Brunvoll, Kristin Tårnesvik and Espen Sommer Eide was printing plates used in early 20th century textbooks introducing a new classification system of plants by Emil Korsmo[51]. Further contributors included Lasse Årikstad, Lona Hansen, Steinar Bøyum, Piya Wanthiang, Tolga Balci and Anne Marthe Dyvi.

RAD #6: Freedom, Interaction, Isolation[50] took place at Fløyen above Bergen and formed the occasion for the launch of an LP record from the event *RAD #2*, where artists and audience members huddled in composer Knut Vaage's cabin.

For the final edition of *RAD*, titled *Norsk Retorikk*, Eide and Dyvi invited fifty researchers and artists and writers to contribute to a manual of Norwegian rhetoric. The fanzine, published in an edition of 300 copies, was launched at Hordaland Arts Centre.

REFLECTION

The 15th anniversary of BEK in 2015 was also a time for reflection.

During the year, BEK released three e-books edited and designed by Apichaya Wanthiang. Thorolf Thuestad and Roar Sletteland's *Kollisjonsindeks – It's Magical and Strange, but it's just Natural* is a collection of interviews, documentation and material from a project exploring the margins between installation and performative art. Espen Sommer Eide's *Language in Time* is based on the lecture he gave in connection to his exhibition at Bergen Kunsthall in 2013. Finally, *On Balancing* by Ellen Røed gives an insight into an artwork as an evolving performative system exhibited by Røed and Christian Blom at Rom8 during Borealis festival in 2012.

In collaboration with Dušan Barok, who runs the Monoskop.org platform and lived in Bergen at the time, in the same year BEK also organised a three-part series of seminars on media aesthetics titled *The Extensions of Many* — a pun on Marshall McLuhan's understanding of media as the extensions of man — which aimed to rethink mediality from non-anthropocentric perspectives. The themes ranged from sonic art and the theory of rhythm, through the emergence of narratives about multimedia systems in the interplay between library science and peace activism, to the relationship between video art and ecological crisis. The speakers included Ina Blom (University of Oslo), Florian Cramer (Willem de Kooning Academy, Rotterdam), Knut Ove Eliassen (NTNU, Trondheim), Olga Goriunova (University of Warwick), Aud Sissel Hoel (NTNU, Trondheim), Eleni Ikoniadou (Kingston University, London) and Femke Snelting (Constant, Brussels).

RECALIBRATION AND RENOVATION

By the mid-2010s it became clear that funding for electronic arts was about to fade out. The situation raised existential questions for many organisations associated with the field, triggering efforts to emphasise their institutional side. After 20 years, in 2018, the Arts Council eventually closed down the support scheme for art and technology projects, known as KNYT (Kunst og ny teknologi / Art and new technology), pointing out overlaps with other schemes, and transferred the funds to visual arts.

This was also a time of a repositioning of BEK as an institution. It was widely acknowledged that new technology had become ubiquitous across the arts as well as in society, politics and everyday life. While serving as a meeting place and facilitator for new connections, BEK also wanted to put an emphasis on themes such as identity, globalisation/nativism, surveillance and ecology while thinking about and with technology. As part of this process, in 2016, work started on the renovation of BEK's premises for the first time since the late 1990s. Lars Ove Toft, Trond Lossius and Anne Marthe Dyvi were in charge of the process, rethinking uses of the space and gathering funding. Production support remained BEK's priority. The use of sound and video rooms was adjusted, while the organisation decided to prioritise longer-term uses for production and short-term residencies.

When BEK reopened in January 2019 after its three-month-long rebuilding by 3RW Architects, the occasion served as a two-week-long celebration curated by Anne Marthe Dyvi. Paul Johannessen facilitated a course on DIY film, Kjersti Sundland discussed electromagnetic radiation in art and thought, Sabine Popp gave a performance lecture on the artistic use of algae, objects and the body, Siri Austeen and Espen Sommer Eide talked about sound art in a post-truth era and Else Olsen S, John Hegre, Brita UT and Andrea Urstad Toft gave performances. A success with the audience, BEK would continue to hold a January open week in the years to come.

"The purpose of the refurbishment was to transform BEK into a platform for sharing, not just for individual artist learning. BEK has to be about something more than that; more than one-to-one development."
Anne Marthe Dyvi, 2020

The BEK team was going through changes as well. In the autumn of 2016, Vilde Salhus Røed joined BEK as information manager. She received her master's from Bergen's Art Academy and worked with different organisations including BKFH as board leader. In early 2017, Marit Paasche, an art historian who has also focused on video art early on, joined BEK's board as chairwoman. She views BEK's potential as being especially about expanding on the issues in art, technology and society and reaching out to new audiences. In the autumn of 2019, after nine years at BEK, Anne Marthe Dyvi left the organisation to focus fully on her art practice. Åse Løvgren joined BEK as project developer. She graduated from Bergen's Art Academy and has, besides many other initiatives, worked as part of artistic duo Rakett with Karolin Tampere. Løvgren's role in BEK involved initiating and producing art projects, the first of which was the large closing event for the Future DiverCities project.

In late 2020, BEK began a new chapter — our current chapter — when curator and producer Maria Rusinovskaya took over as the new director. Well known in the milieu, Maria has brought with her many years of experience from her time as curator of Live Programmes at Bergen Kunsthall and as artistic project manager for Pikene på broen.

"I must say, the change in gender balance is a great success. There is room now for several stories, several ways of looking at things."
Anne Marthe Dyvi, 2020

"My position, which was a new position, was part of a strategy to make BEK more visible. Funding had been focused on art and technology for some time, but it was fading out. In order for BEK to do what it is supposed to do — that is, work with artists and develop projects — the more 'artist-run' hub feeling had to be put to one side for a more institutional version. This was a process that began years before I started here in 2016. It was also with regard to the employees at BEK, for them to have a structure and routine, not to be exhausted in the long run. People working here now are still artists and have their own art practices with interests related to their jobs at BEK."
Vilde Salhus Røed, 2020

"Before I started to work at BEK in 2019, I did a residency here about three years ago while working on a video. And I found that this is a great place to be. There are very engaged people with interesting practices here. I am not an 'electronic artist', I'm not into that as a defined field. But when I worked as a producer for Pik-

sel at BEK in the middle of the 2000s, I had a kind of epiphany while working on funding applications. I wrote about art and new technology, and it was then that I realised how fascinating this field is. I've always been interested in how art relates to different structures of society, politics, etc. And I felt that the field of art and new technology is perhaps the most compelling thing one can work with, because it is right to the core of what is going on, and what is at stake right now: the issues of new technology and how technology influences and intervenes in our everyday lives."
Åse Løvgren, 2020

"I first heard about BEK in the early 2000s when Espen Sommer Eide and I were dreaming of making a Russian version of the Trollofon project in Murmansk in Russia, where I was a producer and curator at the Murmansk Museum of Arts. After I moved to Norway in 2007, I made connections with PNEK and Per Platou and had a broader idea of the Norwegian electronic arts scene, as it was then, and I had a feeling that BEK was a white tower in the mist from where very special processes and connections emerge. I think I first came to BEK physically to visit Espen Sommer Eide's studio in Bergen about 2014 — to be honest, it was all a bit mysterious back then, but it was clear to me it was a strong creative community." Maria Rusinovskaya, 2021

SURROUNDED BY SOUND

In the second half of the 2010s, in terms of sound, BEK continued to put the emphasis on supporting the interests in its milieu on a long-term basis. Whether it was surround sound, field recording, instrument building or learning new tools, BEK saw its role in facilitating collaboration in the form of commissions, workshops and residencies.

Several ambisonic works were commissioned as part of the Multi series in collaboration with Notam, Borealis and Electric Audio Unit. In the spring of 2016, Anders Vinjar, Kari Telstad Sundet, Julian Skar and Mia Marlen Berg presented their new works for a surround system at Østre as part of Borealis festival. Then in the autumn of that same year, Niilas[40] and Bethan Kellough performed their pieces on Lydgalleriet's ambisonics setup at Ekko music festival. In the spring of 2017, four new musical works for a surround sound system were presented at Østre as part of Borealis festival. Tolga Balci and Jacqueline George presented their 'surround' debuts, Craig Wells's work combined live electronics and surround sound, while Yvette Janine Jackson presented a surround sound radio opera.

In 2018, BEK initiated the audio cinema project Reality-based Audio Workshop in collaboration with sonic ethnographer Ernst Karel from the Harvard Sensory Ethnography Lab, which developed through a series of workshops with a group of artists. The project addressed issues around land use and changes in the landscape occurring due to digital, global communications. The group visited Mongstad, an industrial area north of Bergen, to record sound on-site and follow CO_2 gas from the refinery through the CO_2 capture facility — which former Prime Minister Jens Stoltenberg called Norway's "moon landing" — to an algae plantation where CO_2 is used in the cultivation of edible algae. This circular path of the CO_2 was chosen as a symbol of one of the biggest issues facing Norway today, concerning its past and future.

The following year, the Workshop presented a collective improvised performance using a surround-sound system at Bergen Cinema as part of Borealis festival and at Struer Tracks urban sound art festival at Struer, Denmark. The participating artists included Signe Lidén, Alexander Rishaug, Bodil Furu, Rune Søchting, Yngvild Færøy, Jiska Huizing, Siri Austeen, Joakim Blattmann, Espen Sommer Eide, Ernst Karel, Halla Steinunn Stefánsdóttir and Eduardo Abrantes.

Other workshops were hosted at BEK. Between 2017–2018, Tijs Ham held the discussion and workshop series *Mod/All* focusing on developing artistic visions in order to address the perceived need of catching up with the continuous developments in technology for live sound. In early 2020, artist and composer Luke Fischbeck from California facilitated a workshop on machine-learning techniques for creative work with sound.

Espen Sommer Eide took his research into building hand-held musical instruments into a new dimension. In the spring of 2017, alongside Signe Lidén, they performed *Vertical Studies: Acoustic Shadows and Boundary Reflections II* at a former military base outside Bergen as part of Borealis festival. The interior of the 15-metre-high cannon served as a vertical field laboratory, where the artists utilised sound created by wind-recording instruments and bird songs at various heights of the atmosphere. Vertical telescopes with speaker elements allowed them to play sounds on the whole vertical axis of the space. The audience was placed on different levels and wandered up and down through the laboratory.

BEK also participated in Tarek Atoui's project *Within*, developing new musical instruments for the second edition of the Bergen Assembly art triennial in the autumn of 2016. The project explored the diversity of hearing and how deafness can give us a new understanding of the performance of sound and music, sound space and instrumentation. The instruments were installed in the disused swimming pool Sentralbadet in central Bergen and used by invited participants in performances. Eide developed an instrument called Ouroboros in collaboration with deaf practitioners and those with different levels of hearing. The instrument consisted of custom-made microphones, pedals and speakers. Kari Telstad Sundet and Trond Lossius developed software for another instrument called FELT, a sound sampler operated by pressure-sensitive textile panels. All three took part in a performance programme as well.

In terms of residencies, between 2017 and 2019 Marieke Verbiesen organised a series of 10-day residencies *Studio Sessions*, where two artists from different music backgrounds were invited to collaborate at BEK's sound studio to create a new composition, leading up to an impromptu performance. The pairs included filmmaker and electronic musician Carsten Aniksdal and bass-guitar player and composer James Welburn, British electronic musician Adam Parkinson and Norwegian composer and artist Tine Surel Lange, Norwegian synth musician Helene Rickhard and British chiptune musician Gareth Morris, and musician and performer Eva Pfitzenmaier and Dutch electronic instrument builder Tom Verbruggen/toktek.

BLENDED IMAGE

BEK has supported many video productions. For example, the film *Oilers* was created by Anne Marthe Dyvi together with Massimiliano Mollona from freethought collective

for Bergen Assembly in 2016. The 30-minute film investigates the Norwegian oil economy from the workers' point of view. Throughout the previous year, while the recession had been progressively hitting the job market, the artists followed a team of workers who were assembling an offshore platform at the Kværner Stord shipyard and explored their faith in the, now declining, sector and prospects for the future. In the same year, Sara Rajaei's short film *In the Gaze of Panoptes* was presented at 3,14 Gallery. The work features the life journeys of fifteen Bergen inhabitants from different parts of the world.

In late 2016, BEK held the seminar and workshop *The Material in The Immaterial* for artists working with video to share and discuss their practices, organised by Sara Santos and Anne Marthe Dyvi, and in which Julien Maire gave a workshop on real-time manipulation of video and graphics. Throughout 2017, in collaboration with Bergen Public Library, BEK arranged a series of workshops on technology and crafts, *Digicraft*, aimed at young people. Jan Willem Hagenbeek and Steven Pickles gave a workshop on DIY instruments, Raquel Meyers on digital embroidery and Rosa Menkman on 'datamoshing' and glitch art.

In response to the coronavirus pandemic lockdown situation, in the autumn of 2020 BEK launched a series of online lectures titled *Blended Reality* in collaboration with the Office of Life + Art (OLA). Guests included Elizabeth LaPensée on Indigenous-led games and comics and Laura Allcorn on humour as an artistic strategy.

STAGE OUT OF SPACE

Performing arts continued to be one of BEK's key domains alongside sound and video. In the second half of the 2010s, several of BEK's co-productions stand out:

In the spring of 2015, theatre-maker Jingyi Wang presented *Static Theatre: Those That Have Been Left Behind* at Studio USF. The work explored the boundaries of theatre as an artform by presenting works of invited Bergen-based artists in a still performance without performers. A year later, the opera *Tycho Brahe*, written and directed by Ursus productions (Sigurd Fischer Olsen, Lena Buchacz, Roar Sletteland), premiered at Grand Bergen. The story centred around the death of Danish astronomer Tycho Brahe in Prague and was set in the world of early modern science. In 2017, the stage production *Blind Spot: Staring Down the Void* by Karen Kipphoff, Trond Lossius and others was presented at the Norwegian Theatre Academy in Fredrikstad and BIT Teatergarasjen in Bergen. The work examined the blind spot as a sensory phenomenon.

THE CITY'S HIDDEN STORIES

Throughout the second half of the 2010s, BEK was occupied with the large-scale four-year project Future DiverCities focusing on art in the urban context and the role of citizen participation in shaping the city. Funded through the EU's Creative Europe programme together with nine organisations across the continent, the project was managed and developed by Anne Marthe Dyvi alongside her work at BEK. A number of artists from BEK's milieu took part in workshops and festivals organised by the network.

"I see BEK as an innovation, but it does have its limits, as a small organ-isation; I wanted us to be influenced by something bigger. At the time I

joined BEK, there had just been a change in government, and we could see that cultural cuts around Europe were both affecting and influencing Norwegian politics. Media art is a global field, so we must make sure we are a part of it and learn about how other organisations around the world deal with financial change.

There are positive and negative sides of the Creative Europe system, but the strong points I've found include a trust in art and an experimental approach towards working with communities and connecting with audiences. Future DiverCities was a good platform to experiment with complex projects and to work with new audiences. One such project was *Survival Kit for the Age of Technology* which was founded in the feeling of 'disaster-fatigue': how will we survive the relationship we have to technology? And not just people related to the BEK community, but anyone — any person we pass in the street. I do have knowledge in the field of technology, but there is a big gap in that knowledge, a gap I think I share with most people. So we organised a seminar with three tech experts and asked them to share their thoughts and advice on what we needed to know to survive. An artistic approach to this was really important, as we'd learnt in RAD before; when people are given questions formulated in the arts, they give different answers."
Anne Marthe Dyvi, 2020

In 2018 the seminar *Survival Kit for the Age of Technology* was held at the Bergen Public Library. In their lectures, Knut Melvær, Kjetil Rommetveit and Jill Walker Rettberg, all from the University of Bergen, delved into terminology, technical gadgetry and communication habits spawned by technological developments. Building on the seminar, a year later, BEK held a workshop resulting in a video book on the same theme. The contributors included Michael Ang, Rocio Berenguer, Samuel Brzeski, Stine Gonsholt, Yana Gorbalenya, David Guez, Tarik Hindic, Paul Johannesen, Åse Løvgren, Linda Kronman, Vilde Salhus Røed, Sara Salamon and Andreas Zingerle.

"In the middle of the Future Diver-Cities project, the leading partner suddenly went bankrupt, and the whole project almost got dragged down with it. The Creative Europe programme hadn't experienced bankruptcies by leading partners in such a big project before. We learnt a lot about financial models and cuts, and learnt the hard way, and it took a lot of my and Lars Ove Toft's time. For smaller organisations in the project, it was financially disastrous. Creative Europe projects look amazing, and only go public with the good news, but most organisations are unaware of how much responsibility you have if something goes wrong. I didn't know how *risky* it was. But we pulled it through together in the consortium." Anne Marthe Dyvi, 2020

The project culminated in the two-week programme *Latent City* held and streamed from Bergen Kjøtt in November 2020. The project's title was inspired by the term 'latent space' from machine learning and artificial intelligence. Latent space refers to the pool of compressed data that the machine analyses in order to extract knowledge from, and where algorithmic computations often are so complex that they become opaque and gain an agency of their own. In line with this metaphor, the programme approached the city structures that are obscured from view: infrastructures such as Wi-Fi and surveillance technology, nonhuman perspectives of animals and nature, and

political factors that involve power relations and social exclusion. The further framing of the programme, along the lines of sci-fi visions of the city and contemplations on city planning pointed to new possibilities as well as pitfalls. The contributors included Aleksander Johan Andreassen[52], Aske Thiberg, GaraGara Artist Initiative, Gitte Sætre & Frans Jacobi[53], Hanan Benammar[54], Hannevold/Prati/Qin/Shomali, Jan Mocek, Jonas Ersland, Kaeto Sweeney, Maren Dagny Juell[55], Marit Eikemo, Nayara Leite, Pia Rönicke, Stelios Manousakis, Stephen Connolly, Thure Erik Lund, Tivon Rice, Trond Lossius, VUMA Projects[57], and Søssa Jørgensen & Yngvild Færøy.[56]

"I started to work on Future Diver-Cities right after joining BEK, and initially I had four months to do the final event of that four-year project. BEK is mostly an institution that facilitates new production and new research, it is a resource centre for artists, so I thought: this is also the way to do Future DiverCities. We described the event as a 'series of productions and presentations'. The project was about city planning, enhancing those views that you don't always hear inside the city and society. The title *Latent City* was inspired by the hidden layer or space in machine learning. There's also a more sci-fi part about the city that is dormant and is about to unfold. What we found interesting was the analogy between an algorithmic structure that you can't completely control and an urban space that is constantly negotiated by daily use." Åse Løvgren, 2020

+- ELECTRONIC ARTS

What could BEK's place be in the changing arts community? Does its positioning as an electronic arts centre still hold? The term, similar to media arts, digital art and intermedia, has always been vague. These labels distinguish between artistic practices based on their traits of engaging a certain set of tools and media, basically those requiring an electric plug. This might, however, obscure the fact that the tool, the technology itself, is central to only some of these works.

"At the turn of the century, there was a push to think that now, we can use the Internet for art. There was a purpose in using communication tools and the possibilities of real time, streaming, putting sensors all over the world to create something. We looked ahead and saw this as a possibility to create something completely unique. Yet, the art created early on using a new technology gets through all possibilites very fast. It was the same with film, they did everything that was possible within a few years, you didn't have all this experimentation afterwards, it's more about stabilising. Similarly, there were some really good net-based projects in the late 1990s and the early 2000s, but you don't see anything like that today. There's no one doing an intrusive Twitter bot art, because who does that? Governments... Those kinds of intervention strategies in the communication were important for early Internet art practices, but they are not interesting anymore, because they don't give you any experience of art, they're just disruptive, and we have enough of that from other agents. The other thing is all the control we now have... you have remote control of all your LEDs outside to light up your house. As a BEK project, this would have needed ten people to create something like this. Now you just buy it, because the technology is there. Lots of the art that was created

was experiments with technology, and much of the energy of that punk and experimental attitude is gone. The art scene is much more stabilised. If you're doing a four-channel art installation in a queue, you'll get Raspberry Pi, there's no need to do anything, just plug it in. If you're doing an interactive robotic piece, you'll also get help straight away. One thing that bound people together in the early 2000s was the fascination for communication technology. In retrospect, you might see that they perhaps didn't work with the same project in the end. They worked with all kinds of different things, but because the technology was similar, they worked together." Jørgen Larsson, 2020

"Electronic arts is a specific and quite narrow term, I prefer to think of 'art and new technology', which is not an isolated field. Technology will always be giving new important and exciting tools and possibilities to artists, but it is important to keep a critical approach to these tools — the medium is no longer the message. While grasping the possibilities of machine learning or digitalisation, we always try to be aware of the political, ethical and other long-term consequences of these technologies. Technology infiltrates more and more artistic forms and genres, whereas electronic arts is more of an autonomous form. If I can paraphrase artist and musician Holly Herndon, 'the intersection of art and technology doesn't exist, art is a technology'."
Maria Rusinovskaya, 2021

Even if the experiments with a new medium that are typical for its early, emergent years run out of steam at one point, the technology gradually moves into the background and becomes a banal, yet omnipresent aspect of our everyday lives. This banality, however, reinforces its, at times magical, political power. Film, television, the internet, apps and other mass media reveal as much as they hide. Masked under the practical utility or seductive entertainment there lies a vast spectrum of means for targeting and exploiting our desires and fears. Whether one is an artist or a politician, to engage with media, then, means to engage with the society and reality we live in.

"Technology becomes ever more ingrained in parts of society, and it is important to have present artistic practices that use technologies in ways that are not easy. Because technology is omnipresent, but very often it is omnipresent in ways that appear to imply no challenges or inherent problems. At times, that is fine, but technology also needs to be questioned and grappled with. Because when you don't struggle with it, you don't challenge normal use or commercial formats. Questioning them is part of a norm-critical attitude. It is also to unleash other artistic potentials, other ways of expressing yourself, working differently. The challenge can also be on a political, economic, societal level, all of these things where

it's also about the role of technology in society. Artistic practices can engage with technology in ways that challenge, complicate and raise questions. That's one place where there's definitely a use for a place like BEK." Trond Lossius, 2020

"It is crucial for us to encourage critical reflection on our own projects, but also, on a larger scale, on technological development and the way in which it affects society. Exploring these ethical and political issues may be done through commissioning, developing and producing new works, but also through engaging scholars and theoreticians, and building a platform for wider audiences to engage in the conversation." Maria Rusinovskaya, 2021

When the importance of electronic media lies not only in its potential for artistic use but also in its obscured influence on everyday life, there are questions to be asked. They may not yield easy answers, nor may they provide a story to tell. There lies a vast field of uncertainty in between. But how to articulate this process? Is there a poetics to a search, an inquiry?

"If I look back at what we were doing, both individually and collectively, we were exploring and investigating the social, material and cultural conditions of the internet and other tools. What do they have to do with space, with how we meet, communicate, engage, express, and how do we negotiate a shared understanding that expresses itself in performative gestures, images, sounds, and how these interconnect. On the one hand, there was experimentation and playfulness in finding what we could do with it. On the other, there was criticality, which was perhaps not articulated explicitly but was very present in the artworks. I'd say that what was going on there was a role model for artistic research. That is also why it was not a coincidence that Trond and Amanda [Steggell] were the first artists to complete the Norwegian artistic research fellowship programme. Likewise, HC [Gilje], myself and others from this milieu. It is because that attitude was fundamentally a set of inquiries occurring through experimentation that wasn't just electronic, digital, technological. It was social and cultural, it was about thinking through what the conditions that we were currently living in were. BEK was one of the forerunners of a field that later came to be known as artistic research. It's not necessarily the *electronic* that is the key; it *never was* the key, actually. It was just a common denominator. There are, for example, artists like Espen [Sommer Eide], who is doing an important inquiry into contemporary conditions of perception. He uses electronic devices, but I don't know if it is interesting to call it electronic art. Yet, it's different from visual art, I think. The difference is linked to inquiry and the forms of investigation and experimentation. The opera libretto and other work that Roar [Sletteland] has been doing is rare and important. A lot of artists do projects where they are both reflecting and experimenting, and using strategies from electronic art. There needs to be a site to support those kinds of investigations happening in other fields. A site where the experience accumulates in a way that can develop as a form of critical reflection. *That* could be BEK."
Ellen Røed, 2020

"Lots of research is institutionalised to a very large degree; there are very few independent and self-supporting, self-funded researchers in other disciplines. In the future, there might be more of this than there currently is, as society or parts of society might become more fragile. Institutions view artistic research as something that only takes place within the institution or is only relevant if considered relative to the institutional context. That kind of artistic research approach is completely meaningless to me. There's a lot of research going on by professional artists, and the venues for disseminating and having conversations about artistic research are very much outside of institutions. One should have the possibility to communicate with artists working outside institutions to also be able to work this way. There is definitely a place for BEK in facilitating artistic research in the independent artistic field." Trond Lossius, 2020

BEK's sound and video studios are, in a way, the flagship of BEK as a centre. A soundproof studio with multiple speakers, a variety of microphones and other equipment is a luxury to most artists. The same goes for a professional video studio.

"Production tools in the digital art scene are *again* so expensive that they are out of reach for artists. We are in a situation very similar to the 1980s, where, for example, film production companies have tools that individual artists can't afford." Ellen Røed, 2020

"BEK and Notam are the only two media labs in Norway, in the old sense of the word." Per Platou, 2020

Whether it is about access to tools, building of new tools, critical approaches to ubiquitous tools or an ongoing inquiry, at the heart of places like BEK is its community and empowerment.

"Technology can be used in any art. If you say 'electronic art', many people wouldn't feel it's them, but they want to use a video studio, a sound studio, etc. Although some insist on seeing it as a field. BEK has been very cross-disciplinary, involving performing arts and visual arts and everything in between, not invested in any particular movement like new media art. In the end, it comes down to the practical level and an interchange of experience. One of the big strengths of BEK is that it only exists because of the people who use it, and that these people are different, and what people create through meetings there is genuine. That's the point of BEK." Roar Sletteland, 2020

"It is difficult to think about alternatives to 'electronic art' to describe BEK. There isn't any good Norwegian translation of media art, because 'media' in Norway is television, so that would be very strange. We live quite happily with 'electronic art' in our subtitle, and as long as we keep the understanding of electronic art as an electronic element into the arts, there is no problem for me. It gives a direction into what we are actually dealing with here. Very few sculptors, photographers and painters engage with us, but a lot of people from every thinkable strand of music and video come to us, and it is we who keep the 'experimental' part of it."
Lars Ove Toft, 2020

"An aspect of crucial relevance for BEK as a production platform is to be creating a community for artists that is very hands-on, very close to the artistic practice taking place, to share conversations and support before it's disseminated to the public. For the art field, these places invite a different work situation than that of the independent researcher working alone and of the institutional researcher with access to a library, research facilities and colleagues to exchange ideas with. I believe independent research-facilitating spaces are *really* needed in the arts, there should be much more of it, and it doesn't need to be media-specific, as long as there's a platform to meet around for that."
Trond Lossius, 2020

INTERVIEWS

Conducted by Dušan Barok, August–September 2020.

Anne Marthe Dyvi
Espen Sommer Eide
Gisle Frøysland
Jørgen Larsson

Signe Lidén
Trond Lossius
Åse Løvgren
Marit Paasche
Per Platou
Maria Rusinovskaya (Aug. 2021)

Ellen Røed
Vilde Salhus Røed
Roar Sletteland
Lars Ove Toft
Marieke Verbiesen

BEK PUBLICATIONS, RESEARCH AND REVIEWS

"Ullen nettkafé" ["Woolen internet café"], *Bergens Tidende*, 30 Oct 2001.

Behrendt, Frauke and Trond Lossius (eds.), *Sonic Interaction Design*, Bergen: BEK, 2011.

BEK, "Call for Action!", bek.no, Oct 2003.

Debatty, Régine, "Bergen Assembly: The End of Oil, the end of the world as we knew it", *We Make Money Not Art*, 6 Sep 2016.

Dyvi, Anne Marthe, et al., *Survival Kit for Age of Technology*, Bergen: BEK, 2019. Video book, 36 min.

Eide, Espen Sommer, "Exercises in Non-Human Listening", in *Spectres: Composer l'écoute / Composing Listening,* Paris: Shelter Press, and INA GRM, 2019.

Eide, Espen Sommer, and Anne Marthe Dyvi (eds.), Rad #7: *Norsk Retorikk,* Bergen: BEK, 2015.

Eide, Espen Sommer, *Language in Time,* Bergen: BEK, 2015.

Eide, Espen Sommer, *Language Memory,* 2008.

Fauskanger, Kari, "Absurd og abstrakt - som selve livet" ["Absurd and abstract - like life itself"], *Bergens Tidende,* 30 Aug 2007.

Fossen, Erik, "Hektisk og håpefullt hos BEK" ["Hectic and hopeful at BEK"], *Bergens Tidende,* 8 Nov 2003.

Frøysland, Gisle (ed.), *Piksel 05: Collective Code,* Bergen: BEK, 2005.

Frøysland, Gisle (ed.), *Piksel 06,* Bergen: BEK, 2006.

Garvik, Bodil, "Lydkunstnere på husjakt" ["Sound artists on a house hunt"], *Bergens Tidende,* 11 Dec 2005.

Hansen, Cathrine, "Fekting, nudler og nettkunst" ["Fencing, noodles and net art"], *Bergens Tidende,* 10 Jan 2000.

Haugan, Dag-Are, and Espen Sommer Eide (Alog), "Unedited text of email interview with Philip Shelburne for The Wire magazine", 2001.

Howse, Martin, "BEK To The Future: piksel04", in *PixelACHE 2005 - Dot Org Boom!,* Helsinki: Pixelache, 2005, pp. 43–45.

Kristiansen, Knut, "Trolleybuss til begjær" ["Trolleybus to desire"], BA, 16 Mar 2001.

Larsen, IdaLou, "Original og ekte Brecht. MANN=MANN", *Klassekampen,* 25 Apr 2008.

Lillebostad, Sissel, "Samtale mellom Nicholas Møllerhaug og Espen Sommer Eide / In conversation with Nicholas Møllerhaug and Espen Sommer Eide", *Kunstjournalen B-post:* "Lyd" / "Sound", eds. Maia Urstad and Sissel Lillebostad, Bergen, 2012.

Ioglady, "Looking Forward, See You Soon log", *lmark.no,* Nov 2001.

Lossius, Trond, "Controlling Spatial Sound Within an Installation Art Context", in *Proceedings of the 2008 International Computer Music Conference,* Belfast, 2008.

Lossius, Trond, "Generative strategier i lydinstallasjoner" / "Generative strategies in sound installations", *Kunstjournalen B-post:* "Lyd" / "Sound", eds. Maia Urstad and Sissel Lillebostad, Bergen, 2012.

Lossius, Trond, "Interview", in *PNEK: produksjonsnettverk for elektronisk kunst: rapport 2001–2005: mellom forandring og kontinuitet,* ed. Janne Stang Dahl, Oslo: PNEK, 2006, pp. 48–52. Interview.

Lossius, Trond, "Lydinstallasjoner og andre tverrestetiske prosjekter (eller kunsten å sveve mellom alle stoler)" ["Sound installations and other cross-aesthetic projects (or the art of hovering between all chairs)"], in *Årbok 2003–04,* Bergen: Kunsthøgskolen i Bergen, 2004.

Lossius, Trond, "Trond Lossius – Losing Myself in the World", *Journal for Artistic Research,* no. 6, 2014.

Lossius, Trond, and Joseph Anderson, "ATK Reaper: The Ambisonic Toolkit as JSFX plugins", in *Proceedings of the International Computer Music Conference,* Athens, 2014, pp. 1338–1345.

Lossius, Trond, Mayra Henriquez, and Aashild Grana, *Escape: foreløpig rapport fra*

forprosjekt ang. etablering av kompetansesenter for flyktig kunst [*Escape: preliminary report from a preliminary project regarding the establishment of a centre of excelence for unstable art*], Bergen: BEK, 2008.

Lossius, Trond, Nathan Wolek, Théo de la Hogue, and Pascal Baltazar, "Demo: Using Jamama's MVC features to design an audio effect interface", in *Proceedings of the International Computer Music Conference,* Athens, 2014.

Lossius, Trond, Pascal Baltazar, and Théo de la Hogue, "DBAP - Distance-Based Amplitude Panning", in *Proceedings of the International Computer Music Conference,* Montreal, 2009.

Lossius, Trond, *Sound – Space – Body: Reflections on Artistic Practice,* Bergen: Bergen National Academy of the Arts, 2007. Critical reflection text.

Lossius, Trond, Théo de la Hogue, Pascal Baltazar, Timothy Place, Nathan Wolek, and Julien Rabin, "Model-View-Controller separation in Max using Jamoma", in *Proceedings of the International Computer Music Conference,* Athens, 2014, pp. 1573–1580.

Mauro-Flude, Nancy, "sister0 report/xxxxx", *sysx.org,* Nov 2007.

Melby, Grethe, "Ikke ubetydelige Nezvanova" ["Not insignificant Nezvanova"], *Kunstnett Norge,* 2002.

Melby, Grethe, "Instrumentmakerne / The Instrument Makers", *bek.no,* 16 Mar 2018.

Oreggia, Eleonora, "Piksel07: Hercules' blog", *piksel.no,* Nov 2007.

Peters, Nils, Trond Lossius, and Jan C. Schacher, "The Spatial Sound Description Interchange Format: Principles, Specification, and Examples", *Computer Music Journal,* vol. 37, no. 1, 2013, pp. 11–22.

Peters, Nils, Trond Lossius, Jan Schacher, Pascal Baltazar, Charles Bascou, and Timothy Place, "A Stratified Approach for Sound Spatialization", in *Proceedings of the 6th Sound and Music Computing Conference,* Porto, 2009.

Pettersen, Trond Erling, "Er dette kunst? Hvert år brukes millioner av skattekroner på kunstprosjekter som det du ser her - en bonde og hans dieseltraktor" ["Every year, millions of kroner of taxpayer's money is spent on art projects like the ones you see here — a farmer and his diesel tractor"], *Dagbladet,* 20 Feb 2007.

Pfeiffer, David G., and Trond Lossius, "Symphony of Eigenvalues: A Prototype for Sonification in System Dynamics", in *Proceedings of the System Dynamics Conference,* 2002.

Place, Tim, and Trond Lossius, "Jamoma: A Modular Standard for Structuring Patches in Max", in *Proceedings of the International Computer Music Conference* 2006, New Orleans: International Computer Music Association, 2006.

Place, Timothy, Trond Lossius, Alexander Refsum Jensenius, and Nils Peters, "Flexible Control of Composite Parameters in Max/MSP", in *Proceedings of the 2008 International Computer Music Conference,* Belfast, 2008.

Place, Timothy, Trond Lossius, Alexander Refsum Jensenius, Nils Peters, and Pascal Baltazar, "Addressing Classes by Differentiating Values and Properties in OSC", in *Proceedings of the 8th International Conference on New Interfaces for Musical Expression* (*NIME08),* Genova, 2008, pp. 181–184.

Place, Timothy, Trond Lossius, and Nils Peters, "A Flexible and Dynamic C++ Framework and Library for Digital Audio Signal Processing", in *Proceedings of the International Computer Music Conference,* New York, 2010.

Pritchard, Alwynne, and Roar Sletteland, *Don't touch me, you don't know where I've been. Commissioning a Piece of Music,* Bergen: Bergen National Academy of the Arts, 2009.

Ralske, Kurt, "Notes from BEK nato.0+55 workshop", */ 55 \,* 11 Aug 2000.

Røed, Ellen, "Equalize All Media!", in *Årsrapport 2015,* Bergen: BEK, 2015, pp. 8–9.

Røed, Ellen, and Christian Blom, *On Balancing,* Bergen: BEK, 2015.

Schacher, Jan C., Chikashi Miyama, and Trond Lossius, "The SpatDIF library - Concepts and Practical Applications in Audio Software", in *Proceedings of the International Computer Music Conference,* Athens, 2014.

Schacher, Jan C., Nils Peters, Trond Lossius, and Chikashi Miyama, "Authoring spatial music with SpatDIF Version 0.4", in *Proceedings SMC 2016,* Hamburg: Hamburg University of Music and Theatre, 2016.

Schacher, Jan, Cathy van Eck, Kirsten Reese, Trond Lossius (eds.), *Journal for Artistic Research,* no. 6: "sonozones: Sound Art Investigations in Public Places", 2014.

Sekkingstad, Steinar, "Elektronisk kunstfest" ["Electronic art party"], *Kunstkritikk,* 24 May 2005.

Steggell, Amanda, "Come on Petunia - the Loglady's story", *bek.no,* Sep 2004.

Taranger, Ragnhild Margretha, "Lek med BEK. Et portrett" ["Play with BEK. A portrait"], Localmotives 5: "Nettkunst?" ["Net art?"], Stavanger: Pineapple Publishing, Jun 2001.

Tårnesvik, Kristin, and Espen Sommer Eide, "A Trial of Weeds", in *The Transmitter Show: Words at a Distance,* Bergen: Hordaland kunstsenter, 2013.

Tårnesvik, Kristin, and Espen Sommer Eide, *Korsmos ugressarkiv* [*Korsmo's weed archive*]*,* Bergen: Entrée, 2014.

Thuestad, Thorolf, and Roar Sletteland, *Kollisjonsindeks: It's Magical and Strange, but it's just Natural,* Bergen: BEK, 2015.

Walker, Jill, "Men hvorfor virker ikke musen?" ["But why is the mouse not working?"], *Kunstnett Norge,* Oct 2000.

Welsh, Jeremy, "Piksel 07: C'mon feel the noyz", *Kunstkritikk,* 26 Nov 2007.

Websites:
bek.no
pilota.fm
lmark.no
piksel.no

including subdomains, event websites and archived versions on Internet Archive

Mailing lists:
bb (http://plot.bek.no/mailman/listinfo/bb),
*/ 55 \ * (http://plot.bek.no/pipermail/55/),
i (http://plot.bek.no/pipermail/i/),
csoundtekno (http://plot.bek.no/pipermail/csoundtekno/),
tt (http://plot.bek.no/pipermail/tt/),
Keystroke (http://plot.bek.no/pipermail/keystroke/),
Petunia (http://plot.bek.no/pipermail/petunia/),
Spatdif (http://plot.bek.no/pipermail/spatdif/),
Max (http://plot.bek.no/pipermail/max/).

REPORTS

Arntzen, Knut Ove, *Rom for en situasjonistisk kunst: evaluering av Rom for kunst-programmet med vekt på noen utvalgte prosjekter* [*Room for situationist art: evaluation of the Room for Art programme with emphasis on selected projects*]*,* Oslo: Norsk kulturråd (Rapport nr. 32), 2004.

Årsrapport. Bergen senter for elektronisk kunst [Annual Report], Bergen: BEK, 1999–2019 (annually).

Dahl, Janne Stang (ed.), *PNEK Rapport 2004,* Oslo: PNEK, 2004.

Dahl, Janne Stang (ed.), *PNEK: produksjonsnettverk for elektronisk kunst: rapport 2001–2005: mellom forandring og kontinuitet* [*PNEK: production network for electronic art: 2001–2005 report: between change and continuity*]*,* Oslo: PNEK, 2006.

Hammer, Erlend, *Rapport om Kunst og Ny Teknologi-ordningen 2003–2008* [*Report on the Art and New Technology scheme*]*,* 2008.

Kaldestad, Gyrid Nordal (ed.), *PNEK Catalogue 2018,* Oslo: PNEK, 2018.

Kaldestad, Gyrid Nordal, and Zane Cerpina (eds.), *PNEK Catalogue 2019,* Oslo: PNEK, 2019.

Magnhildøen, Bjørn, Erlend Olsen, Christian Pettersen, and Viggo Skar, *Digital kunst. Prosjektoppgave i IT og samfunn, IN166A, høst 1997* [*Digital art. Project on IT and society*], Oslo: Universitetet i Oslo/Institutt for informatikk, 1997.

Platou, Per (ed.), *PNEK Catalogue,* Oslo: PNEK, 2010–2015 (annually).

Platou, Per, *PNEK Årsrapport* [PNEK Annual Report], Oslo: PNEK, 2007–2010 (annually).

Paasche, Marit, *Norsk kulturråd og den elektroniske kunsten: evaluering av forsøksperioden og perspektiver framover* [*Norwegian Cultural Council and the electronic art: evaluation of the trial period and future prospects*]*,* Oslo: Norsk kulturråd (Arbeidsnotat nr. 58), 2004.

Simonsen, Mie Berg, Marit Paasche, and Åslaug Krokann Berg, *Å bevare det flyktige. En utredning om et nasjonalt arkiv for videokunst* [*To preserve the unstable. A report on a national archive for video art*]*,* Oslo: Norsk kulturråd, 2007.

Stenslie, Stahl (ed.), *PNEK Catalogue,* Oslo: PNEK, 2016–2017 (annually).

Veiteberg, Jorunn, *Eit nettverk for elektronisk kunst: ei evaluering av Atelier Nord, NOTAM og BEK* [*A network for electronic art: an evaluation of Atelier Nord, NOTAM and BEK*], Oslo: Norsk kulturråd, 2004.

Wiland, Anne, *Skjønnheten og utstyret: produskjonsnettverk for elektronisk basert billedkunst. Innstilling fra arbeidsgruppeoppnevnt av Norsk kulturråd 1997* [*The beauty and the equipment: production network for electronically based visual art. Recommendation from a working group appointed by the Norwegian Cultural Council*], Oslo: Norsk kulturråd (Arbeidsnotat nr. 31), 1999.

"Paneldebatt om nettkunst" ["Panel discussion on net art"], *e-kunst,* Jan-Feb 2001. Contributions by Atle Barcley, Kristin Bergaust, Erik Hesby, Sophie Løssing, Grethe Melby, Børre Nilsen, Platou, Per, Beathe C. Rønning, Amanda Steggell, Jill Walker, Bjørn Wangen, Jeremy Welsh, Anne Lise Wullum, and others.

[a:t] art & technology første presentasjon [*art & technology first presentation*]*,* Oslo: National Museum, 1997.

Ag, Tanya Toft, *Images of Urgency: A Curatorial Inquiry with Contemporary Urban Media Art,* Copenhagen: Copenhagen University, 2017. Thesis.

Andersen, Sindre, Ute Meta Bauer, and Christiane Erharter (eds.), *Sonic North,* Oslo: Office for Contemporary Art, 2005.

Artnode, Jacob Lillemose, and Nikolaj Recke (eds.), *Vi elsker din computer. En antologi om netkunst [We love your computer. An anthology on net art],* Copenhagen: Artnode, and The Royal Art Academy Copenhagen, 2008.

Atelier Nord, "Brev til norske kunstnere" ["Letter to Norwegian artists"], Spring 1997.

Barlindhaug, Gaute, *Teknologi som meningsbærende element i kunst* [*Technology as a meaningful element in art*], Tromsø: Universitetet i Tromsø, 2002. Thesis.

Bergaust, Kristin, "A Field Report from the Norwegian Artscape", *Mare Articum,* 2000.

Bergaust, Kristin, and Kenneth Korstad Langås, *01 null en,* Oslo: Atelier Nord, 1997. With data CD.

Bing, Jon, Paal-Helge Haugen, and Mette Newth (eds.), *Video?,* Oslo: Kunstnerrådet, 1982.

Bjurestam, Maria, Maria Hägglund, Mona Petersson, and Liv Strand (eds.), *LARM: Från munhåla till laptop: ljud i nordisk konst / From Mouth Cavity to Laptop: The Sound of Nordic Art,* Kabusa, 2007. With 2 audio CDs.

Boman, Arild, "Norsk videokunst – Bidrag til dens tidlige historie" ["Norwegian video art – Contribution to its early history"], *Mediekultur-rapport,* no. 2, Oslo, 1989.

Boman, Arild, "Video som grunnlag for kunst" ["Video as a basis for art"], in *Video Works: International Video Art,* ed. Christel Sverre, Oslo: Kunstnernes Hus, 2002.

Boman, Arild, *Videogrammer og mediekultur: forskning og kunst [Videograms and media culture: research and art],* Oslo: Universitetet i Oslo, 1981.

Bonde, Lisbeth, and Mette Sandbye, "Videokunst" ["Video art"], in Bonde, Sandbye, *Manual til dansk samtidskunst* [*Manual for Danish contemporary art*], Gyldendal, 2006.

Bosma, Josephine, "Er det reklame? Nei… – Er det spam? Neeei – det er nettkunst!" ["Is it advertising? No… – Is it spam? No – it's net art"], *UKS-Forum for Samtidskunst,* no. 3/4, Oslo, 1998.

Brøgger, Andreas, "World wide web og den danske kunstscene 1995–2005 [World wide web and the Danish art scene 1995–2005], *Turbulens,* Jun 2005.

Bærøe, Birgit (ed.), *Deterritorializations: Art and Aesthetics in the 90s,* Oslo: Spartacus, 2000.

Cerpina, Zane (ed.), *FAEN: Female Artistic Experiments Norway,* Trondheim: TEKS.press, and Oslo: PNEK, 2019.

Cerpina, Zane, and Espen Gangvik (eds.), *Temporary Library of Norwegian Media Art,* Trondheim: TEKS Publishing, 2019.

Cerpina, Zane, Espen Gangvik, Alessandro Ludovico, and Stahl Stenslie (eds.), *Temporary Library of Norwegian Media Art: Norwegian Media Art in Print 1992–2018,* Trondheim: TEKS Publishing, 2018.

Dahl, Janne Stang, "Norway: Networking Nodes", in *Nordic Media Culture: Actors and Practices,* eds. Minna Tarkka and Mirjam Martevo, Helsinki: m-cult, 2003, pp. 37–55.

Dahl, Janne Stang, and Jøran Rudi, *Elektronisk kunst i det offentlige rom / Electronic Art in Public Space,* Oslo: Notam, and PNEK, 2004.

Doruff, Sher, "Collaborative Praxis: The Making of the KeyWorx Platform", in *aRt&D: Research and Development in the Arts,* eds. Joke Brouwer, Arjen Mulder and Anne Nigten, Rotterdam: V2_/NAI Publishers, 2005.

Ekeberg, Jonas, *Postnordisk: den nordiske kunstscenens vekst og fall 1976–2016* [*Post-Nordic: the rise and fall of the Nordic art scene 1976–2016*], Oslo: Torpedo, 2019.

Finborud, Lars Mørch, *Mot det totale museum. Henie Onstad kunstsenter og tidsbasert kunst 1961–2011 [Towards the total museum. Henie Onstad Art Centre and Time-Based Art 1961–2011],* Oslo: Forlaget, 2012.

Foust, Kevin Thomas, "E-post og postlister som redskap for kunst" ["Email and mailing lists as tools for art"], *Kunstnett Norge,* 15 Feb 2000.

Foust, Kevin Thomas, "Nettet som medium og sosialt fenomen" ["The internet as a medium and social phenomenon"], *Kunstnett Norge,* 11 Jan 2000.

Fritz, Björn, *Dator som media: mediala aspekter på tidens nya bildkunst* [*Computer as media: media aspects of the new visual art*], Lund, 1999.

Gange, Eva Klerck (ed.), *Paradoks: posisjoner innen norsk videokunst 1980–2010 / Paradox: Positions in Norwegian Video Art 1980–2010,* Oslo: Nasjonalmuseet for kunst, arkitektur og design, 2013.

Gange, Eva Klerck, "Museet for samtidskunsts første videoinnkjøp i et museologisk perspektiv" ["The Museum of Contemporary Art's first video purchase from a museological perspective"], *Tidsskrift for kulturforskning,* vol. 11, no. 1, 2012, pp. 57–72.

Gjelsvik, Ingwill M. (ed.), *TUG (The Undercover Girl)*: "New Stimuli", Oslo, 1998.

Grøgaard, Stian, George Morgenstern, Ragnar Braastad Myklebust, and Marit Paasche (eds.), *Øye for tid. Om video, kunst og virkelighet / An Eye for Time: On Video, Art and Reality,* Oslo: Unipax, and Norwegian Academy of Fine Arts, 2004.

Hesby, Erik (ed.), *Kunst.no/01: en guide til norsk kunst på nettet* [*Kunst.no/01: a guide to Norwegian art online*], Oslo: Kunstnett Norge, 2001, 166 pp.

Hokstad, Øystein, *Electra 96: elektroniske medier og sosial posisjon* [*Electra 96: electronic media and social position*], Oslo: Universitetet i Oslo, 1998. Thesis.

Hovdenakk, Per, Lidvin M. Osland, Arvid Esperø, and Øyvind Storm Bjerke (eds.), *Electra 96: electra manual: prosjekt for elektroniske medier* [*Electra 96: electra manual: project for electronic media*], Høvikodden: Henie Onstad Kunstsenter, 1996.

Hultberg, Teddy, *SoundArt: Swedish Contemporary Sound Artists*, Stockholm: STIM / Svensk Musik, 2001. With 2 audio CDs.

Högkvist, Stina, *Med egne øyne 2: om formidling av videokunst* [*With your own eyes 2: on the dissemination of video art*], Oslo: Gan Forlag, 2006.

Ikdal, Irene, "Introduksjon til video som kunstform" ["Introduction to video as an art form"], in *Norsk kunstårbok 1997,* Oslo: Kunstnernes informasjonskontor, 1997.

Ikdal, Irene, *Video som kunst, en studie i norsk videokunst. Pionértiden 1975–1990* [Video as art, a study in Norwegian video art. The pioneer era 1975–1990], Oslo: Universitetet i Oslo, 2000. Thesis.

Karlsen, Anne Szefer, Morten Kvamme, and Arne Skaug Olsen (eds.), *Lokalisert/Localised,* Bergen: Ctrl+Z Publishing, 2009.

Kitsch, no. 14: "Screens", Oct 1997.

Kjønn og IT (Gro Hanne Aas, Elisabeth Gulbrandsen, et al) (ed.), *Kvinneforskning* [*Women's research*], vol. 21, no. 2: "Teknologi og demokrati" ["Technology and democracy"], Oslo, 1997.

Kvist, Per, *Maleri med tid: om modernisme, filmisk avantgarde og videokunst* [*Painting with time: on modernism, cinematic avant-garde and video art*], Oslo: Atopia, 2014.

Larsson, Jørgen (ed.), *Detox Aftershock,* Bergen, 2004.

Larsson, Jørgen, *Håndbok for lydarbeid i visningsrom* [*Handbook for sound work in display rooms*], Bergen: Lydgalleriet, 2018.

Lervik, Linn, and Farhad Kalantary (eds.), *Retrospektiv: film- og videokunst i Norge, 1960–90 / Retrospective: Film and Video Art Norway, 1960–1990,* Oslo: Atopia Stiftelse, 2011.

Lillebostad, Sissel, Julie Lillelien Porter, and Samuel Brzeski (eds.), *Lydgalleriet Retrospective 2005–2020,* Bergen: Lydgalleriet, 2020.

Localmotives, no. 2: "Lydkunst/ Poplyrikk" ["Sound art / Pop poetry"], Stavanger: Pineapple Publishing, Jul/Aug 2000.

Loeffler, Carl E., and Tim Anderson (eds.), *Virtuell virkelighet: teknologi og kultur - muligheter og utfordringer,* Oslo: Spartacus, 1994.

mediumi, nos. 1-7, Helsinki: m-cult, 2001-2004.

Meyer, Peter R. (ed.), *Audio. Ljudkunst* [*Audio. Sound Art*], Stockholm: Moderna Museet, 1983.

Millroth, Thomas, et al. (eds.), *Look at the Music / SeeSound: Antologi,* Ystad: Ystads konstmuseum, Brösarp: Neon Gallery, and Roskilde: Museet for Samtidskunst, 2002. With 2 audio CDs.

Mäkelä, Tapio, and Mattias Erkkilä (eds.), *Breaking Eyes: A Nordic Media Art Exhibition,* Helsinki: Muu ry, 1996.

Nergaard, Ketil, "Glitch Report", 20 Jan 2002.

Norberg, Björn, and Jonatan Habib Engqvist, "The Nordic Pioneers of New Media Art", 2010.

Norsk kulturråds konkurranse: Virtuell virkelighet og tradisjonelle kunstneriske uttrykksformer [*Norwegian Cultural Council competition: Virtual reality and traditional artistic forms of expression*], Oslo: Kunstnernes Hus, 1999.

Orrghen, Anna, "ICT in Art in Sweden 1993–2011: Tool, Medium and Theme", in *4th History of Nordic Computing,* Copenhagen, 2014, pp. 78–89.

Ørslien, Line Ruud, "Kunsten

etter innkjøpsordningen" ["The art according to the procurement scheme"], *Billedkunst,* no. 7, 2007.

Platou, Per (ed.), *Skrevet i stein. En net.art arkeologi / Written in Stone: A Net.Art Archaeology,* Oslo: Museet for samtidskunst, 2003.

Platou, Per, "digi!", *Billedkunst* [*Visual art*], Mar–Oct 1999. Series of articles.

Platou, Per, "Vasulka - Audio-visuelle fikseringer" ["Vasulka – Audio-visual fixations"], *Kunstnett Norge,* 21 Jun 2001.

Paasche, Marit (ed.), *eMotion pictures,* Moss: Galleri F15, 2000.

Paasche, Marit, *Lives and Videotapes: The Inconsistent History of Norwegian Video Art,* Oslo: Feil Forlag, and Oslo: Videokunstarkivet, 2014.

Rajapinnalla / Thresholders: Cross-Media Project on New Media Culture, Helsinki: m-cult, and Koskela Art & Media House, 2003.

Rasmussen, Terje, and Morten Søby (eds.), *Kulturens digitale felt: essays om informasjonsteknologiens betydning* [*The digital field of culture: essays on the importance of information technology*], Oslo: Aventura, 1993; 2nd ed., 1996.

Rudi, Jøran (ed.), *Absorpsjon og resonans – lyd og mening / Absorption and Resonance: Sound and Meaning,* Oslo: Notam, 2008.

Rudi, Jøran (ed.), *Soundscape i kunsten / Soundscape in the Arts,* Oslo: Notam, 2011.

Rudi, Jøran, "Samtidskunsten og det offentlige i den nye medievirkeligheten" ["Contemporary art and the public in the new media reality"], *Localmotives,* no. 4: "Kulturskrift", Stavanger: Pineapple Publishing, Mar 2001, pp. 26–28.

Røed, Ellen, *Skyvelære,* Bergen:

Bergen Academy of Art and Design, 2015. Critical reflection text.

Scacco, Lorella, *Northwave: una ricognizione sulla videoarte dei paesi nordici / Overview of Video Art in the Nordic Countries,* Milan: Silvana, 2009.

Sletteland, Roar, "Landmark", in *Bergen Kunsthall i perspektiv 2001–2013,* Bergen: Bergen Kunsthall, 2013.

Steggell, Amanda, "If only I could touch the mouse, my life would be perfect", *Performance Research Magazine,* vol. 4, no. 2, Routledge, 1999.

Steggell, Amanda, "Per, du lyver!" ["Per, you're lying!"], *Hotrod*, no. 8, 2000.

Steggell, Amanda, *Mind, the Gap: Synaesthesia and Contemporary Live Art Practice,* Østfold University College, Norwegian Theatre Academy, 2006. Critical reflection text.

Steihaug, Jon-Ove, and Kim Hiorthøy (eds.), *Fellessentralen: Norsk kunstproduksjon i 90-årene* [Fellessentralen: Norwegian art production in the 90s], Oslo: Kunstnernes Hus, 1998.

Stenseth, Anne Lise (ed.), *Detox!,* Oslo: Riksutstillinger, 1999.

Stensrud, Lill Kathrine, *I dialog med soniske installasjoner: En studie i sonisk installasjonskunst* [*In dialogue with sound installations: A study in sound installation art*], Oslo: Universitetet i Oslo, 2004. Thesis.

Stjerna, Åsa, and Andreas Engström (eds.), *OEI:* "Ljudkonst" ["Sound art"], Stockholm: OEI, May 2019.

Svensson, Gary, *Det digitala projektet: exempel på digital teknik, dess införande och förekomst vid svenska konsthögskolor mellan åren 1986–1996* [*The digital project: examples of digital technology, its introduction and presence at Swedish art academies over the

years 1986–1996*], Linköping: Linköping universitet, 2006.

Tarkka, Minna, "Electronic Arts and New Media Culture in Scandinavia", *ISEA Newsletter,* no. 98, Aug-Sep 2004.

Tarkka, Minna, Mirjam Martevo (eds.), *Nordic Media Culture: Actors and Practices,* Helsinki: m-cult, 2003.

Teller, Jørgen (ed.), *Ssshhhhh….. Soundbiennale,* Copenhagen, 1999.

Teran, Michelle, *Confessions of an Online Stalker,* Bergen: Bergen Academy of Art and Design, 2015. Critical reflection text.

Thronsen, Mattias, "Nettkunst som utsmykking – en ufarliggjøring av nettkunst?" ["Net art as decoration – a harmlessness of net art?"], *Kunstjournalen B-post:* "00-talet", Bergen, 2007, pp. 68–72.

Toft Ag, Tanya (ed.), *Digital Dynamics in Nordic Contemporary Art,* Bristol: Intellect, 2019.

UKS Forum 1-2, 1999. 2 audio CDs with booklet.

Urstad, Maia, and Sissel Lillebostad (eds.), *Kunstjournalen B-post:* "Sound" / "Lyd", Bergen, Nov 2012.

Ustvedt, Øystein, *Ny norsk kunst: etter 1990* [*New Norwegian art: after 1990*], Oslo: Fagbokforlag, 2011.

Walker, Jill, "Nettverket som kunstrom – en introduksjon til kunst på internettet" ["The network as an art gallery – an introduction to art on the internet"], *Kunstkritikk,* 7 Nov 2003.

Walker, Jill, and Kevin Foust (eds.), *Localmotives,* no. 5: "Nettkunst?" ["Net art?"], Stavanger: Pineapple Publishing, Jun 2001.

Welsh, Jeremy, "Exploding,

Plastic and Inevitable: The Rise of Video Art", in *Video Works: International Video Art,* ed. Christel Sverre, Oslo: Kunstnernes Hus, 2002.

Welsh, Jeremy, "Virtual Reality: Almost Here, Almost There, Nowhere Yet: Two recent conferences, VR Oslo 94 at the Institute for Infomatics, August 1994, and Cybersphere at the Kulturhuset, Stockholm, October 1994, charted the growing enthusiasm for Cyberculture in Scandinavia", *Convergence,* vol. 1, no. 1, Mar 1995, pp. 113–119.

Welsh, Jeremy, and Steven Bode, *Magnetic North: Video Art from Norway and Britain,* Trondheim: Kunstakademiet i Trondheim, and The Film and Video Umbrella, 1992.

Welsh, Jeremy, *The Transit Zone: Projects and Writings 1988-2003,* Bergen: Kunsthøgskolen i Bergen, 2003.

Wiland, Anne, Sissel Ree Schjønsby, and Marianne Zamecznik, *Arkiv norsk videokunst 1970–2000* [Norwegian video art archive 1970–2000], Oslo: Kunstcentralen/Made.no, 2004.

Wrange, Pål (ed.), *Interface / Gränssnitt / Grensesnitt / Sidesnit / Kohtauspinta / Tengildi: Nordic Video Art,* Stockholm: Nordic Video Art Foundation, 1990.

Wullum, Anne Lise, "Internett og world wide web som arena og nettverk for kunstnerisk aktivitet: en brukerguide til nettkunst" ["The Internet and the world wide web as an arena and network for artistic activity: a user guide to net art"], in *Internett i endring,* eds. Gunnar Liestøl and Terje Rasmussen, Oslo: Novus, 2001.

Mailings lists:
Pd-list, music-dsp (https://web.archive.org/web/20000817014121/http://shoko.calarts.edu/~majordom/music-dsp/), LEV (Live Experimental Video) (http://web.archive.org/web/20010430200008/http://shoko.calarts.edu/~cchaplin/lev/archive/), microsound (http://or8.net/pipermail/microsound/)

Alle Tiders Duster.
Foto: Geir Goosen.

1

Baktruppen i 1992. Foto: Baktruppen.

2

Gisle Frøyslands *Propellerhead* installert
på Krydderfabrikken. Foto: Gisle Frøysland.

3–4

Program 81 spiller på Halvsju, NRK, 1982.
Skjermdump fra YouTube: Dušan Barok.

5

Hot Wired Live Art på Landmark, 2000.
Foto: Ukjent.

6—8
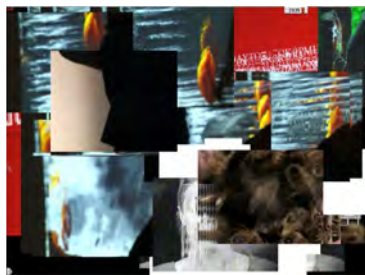
Hot Wired Live Art på Landmark, 2000.
Filmfoto: Ellen Røed. Skjermdump fra ellenroed.no: Dušan Barok.

9—11

12 Trond Lossius og Reinert Mithassels installasjon *Ekkofisk*, her under World Wide Video Festival fra Baby i Amsterdam 2001. Filmfoto: Trond Lossius. Skjermdump fra trondlossius.no: Dušan Barok.
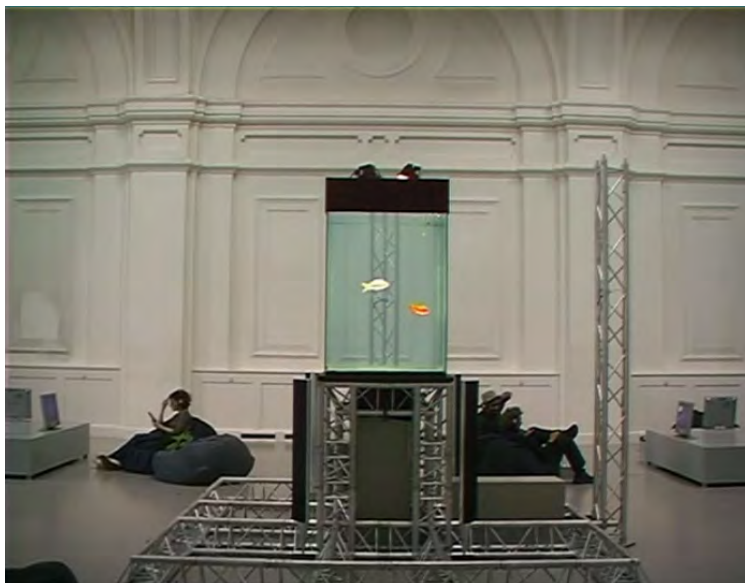
13 *Looking Forward, See You Soon* på Landmark, 2001. Foto: Ukjent.

14 Landmark, ca. 2001. Foto: Ukjent/Trollofon.

Eksempel på en patch i Max/MSP-patch.
Foto: Trond Lossius/BEK.

15

Ellen Røed og Bjørnar Habbestad fremfører
Etterklang på Landmark, 2004. Foto: Jeremy Welsh.

16

Espen Sommer Eide og John Hegre i
Trollofon, 2001. Foto: Trollofon.

17

Espen Sommer Eides programvareinstrument
Alogic, 2001. Foto: Espen Sommer Eide.

18

Grensesnitt i Jamoma.
Skjermdump: Trond Lossius.

19
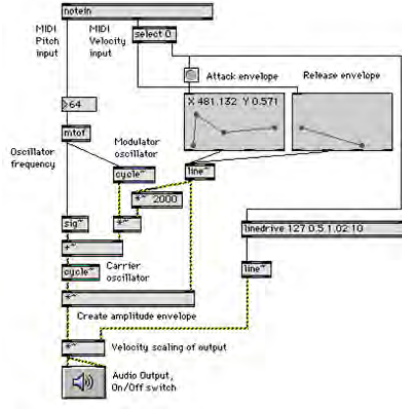
Jørgen Træen, Maia Urstad og Jana Winderen
(fra venstre til høyre) arrangerer *motlyd*, 2001.
Foto: Ukjent.

20
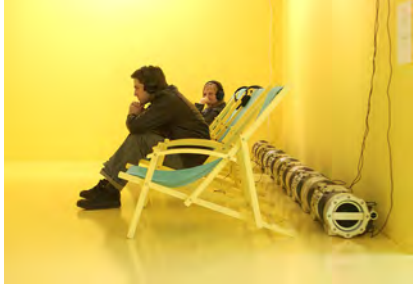
21–22   *motlyd*, 2001. Foto: Thor Brødreskift.

Trolleybussen Škoda 9Tr, 2005.
Foto: Ukjent/Trollofon.

23

24–25 *Beta 2*, 2005. Foto: Ukjent/BEK.
Skjermdump fra web.archive.org: Dušan Barok.

26 *Papercuts* av Ellen Røed og Tore H. Bøe, 2001.
Ellen Røed som Holly og Tore H. Bøe som Kit.
Filmfoto: Ellen Røed. Skjermdump fra
ellenroed.no: Vilde Salhus Røed.

Verdensteatret i 2001.
Foto: Verdensteatret.

27

Verdesteatret: *Tsalal*, 2002.
Foto: Verdensteatret.

28

Hjemmeside for *Beta*, 2004, laget av Ellen Røed.
Skjermdump fra web.archive.org: Dušan Barok.

29

30 Espen Sommer Eide med Tantrix, 2006.
Foto: Marius Watz.

31 Golden Serenades på Lydgalleriet, 2008.
Foto: Jørgen Larsson/Golden Serenades.

32 Maia Urstads *Lydmur* installert i Strandgaten 218,
2004. Foto: Thor Brødreskift.

33 elpueblodechina (Alejandra Pérez Núñez) på Piksel 2007.
Foto: Malte Steiner/Piksel.

34 Marloes de Valk og Aymeric Mansoux opptrer
på Piksel 2006. Foto: Apo33/Piksel.

35 Otto Rössler holder foredrag på Piksel 2007.
Foto: Jonathan Kemp/Piksel.

Grensesnittet ATK for Reaper.
Skjermdump: Trond Lossius.

39
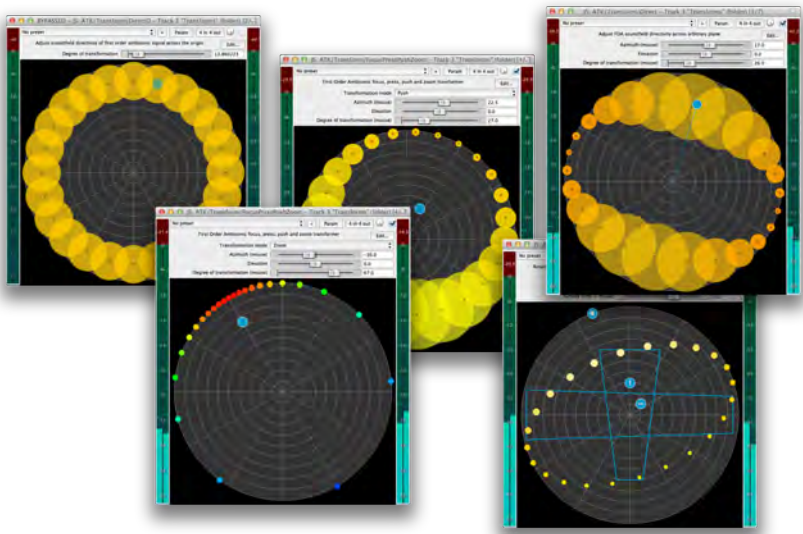
Niilas spiller Multi-konsert på Østre, 2016.
Foto: Vilde Salhus Røed/BEK.

40

Anders Elsrud Hultgreen: *Evighetens avkom* (2013). Laget på oppdrag fra BEK under satsningsområdet video.

41

42–43 Apichaya (Piya) Wanthiang: *Without Waiting for Her Reply* (2014). Foto: Markus Moestue.

86

44   Ellen Røeds *Elektra* i utstillingen *The Ritual of Walking in a Circle*, 2012. Foto: Ellen Røed/CENAPRED. Skjermdump fra ellenroed.no: Vilde Salhus Røed.

45   Kjersti Sundland: *Enduring Portraits* (2012). Foto: Kjersti Sundland/BEK.

46   Marieke Verbiesen: *Moviestar* (2009). Foto: Marieke Verbiesen.

46 Anne Margrethe Konow-Lund leser høyt for publikum på Latinskolen, *RAD #4*, 2012. Foto: Anne Marthe Dyvi/BEK.

47 Bjørn Ekeland holder foredraget *Justismordets dramaturgi*. Dommerens stol ses i bakgrunnen, inntatt av en publikummer. *RAD #3*, 2012. Foto: Anne Marthe Dyvi/BEK.

48 Ellen Røed presenterer på *RAD #1*, 2011. Foto: Maya Økland.

49 Knut Vaage (rommet bak) og Sigbjørn Apeland improviserer på *RAD #2*, 2011. Foto: Anne Marthe Dyvi/BEK.

50 Signe Lidén spiller på Fløyen over Bergen. *RAD #6*, 2014. Foto: Anne Marthe Dyvi/BEK.

51 *Systematismens 1. borg fremført* av Mari Kvien Brunvoll, Kristin Tårnesvik og Espen Sommer Eide. *RAD #5*, 2013. Foto: BEK.

52

53

54

55 Maren Dagny Juell Kristensen: *It fits beautifully in the palm of your hand* (2020). © Maren Dagny Juell Kristensen / BONO 2021. Foto: Thor Brødreskift.

56 Søssa Jørgensen & Yngvild Færøy: *Between Humans & Animals in Bergen* (2020). Skjermdump fra livesending: Dušan Barok.

57 VUMA Projects: *VUMA Soner* - app med stedsutløste lydvandringer i Bergen by, laget for *Den latente byen*, 2020. Foto: Laurie Lax/VUMA.
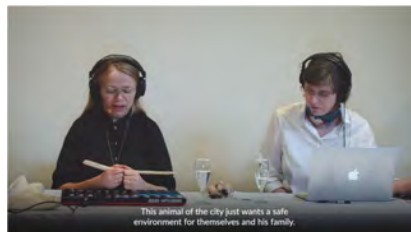
around which
dissonant satellite
cluster

20 år med
Bergen senter for elektronisk kunst

*20 år med BEK – Bergen senter for elektronisk
kunst: en kronologisk oversikt* av Dušan Barok:
https://bek.no/kronologi/kronologi/

Støttet av Kulturrådet

FRITT ORD

BERGEN
KOMMUNE

bek.no

**Bergen senter for
elektronisk
kunst**

BEK