

Sigurd Berge – *Playful Systems*

Introduction

These two CDs contain most of Sigurd Berge's electronic compositions. Composed over a period of three or four years the works provide a picture of a short period in his work as a composer, while at the same time showing the sound qualities that could be created with the tools of the period. Berge was, especially after a long study trip in 1968, well informed about the analogue techniques of the 40s and 50s and the use of computers that was being developed in Europe and North America.

The first CD contains the music and recorded poems for the installation work *Blikk*, a collaboration between Irma Salo Jæger, Jan Erik Vold and Sigurd Berge. The work was commissioned by Henie Onstad Art Center and was performed at fixed times for two weeks in late April/early May 1970. Following the opening of the new building for the National Museum of Art and Architecture in 2022, a reconstructed version of the installation has been part of the permanent exhibition and can be experienced in a form very similar to the original from 1970.¹ *Blikk* is a multimedia work, as they called it at the time, and each performance lasted about 83 minutes.

The second CD contains most of Berge's electronic compositions, except those included in *Blikk*. Sigurd Berge's instrumental music can be found on numerous CDs, however, works from his electronic production can only be found on two: Contemporary Music from Norway (1973) and Early Electronic Works (2010).² Berge composed mainly for ensembles, orchestras and voices, but his use of texture in electronic music is also recognizable in his acoustic works. Berge was one of the first in Norway to use electronic tools to realize musical ideas, and on this CD we have emphasized unreleased works in combination with some of those that have already been published. Some previously published pieces have been omitted on this CD because they fall a bit to the side of the works that otherwise form a coherent whole. The CD contributes to the documentation of the first golden age of electronic music in Norway.³

Background and education

Sigurd Berge (1929-2002) was born at Vinstra in Gudbrandsdalen and grew up in a musical home where his father was a fiddler and organist in the village, and his mother played a foot-pedaled organ at home. Those who knew him have said that he was often found on a rock in the Gudbrandsdalen river listening to the sounds around him; running, bubbling and hissing water from the river's movements, birdsong and steam locomotives puffing at Vinstra station. His home was located between the river and the railway, and Berge found music in his surroundings, not only in what was played on ordinary instruments.

¹ For a thorough description of the reconstruction process and the efforts involved in maintaining authenticity, please refer to Rudi, Jøran: "Balancing Conflicting Types of Authenticity in the Reconstruction of Sound and Music in the Installation Work *Blikk* (1970)." Curator: The Museum Journal, 66 (1), 2023, 85–106.

² Arne Nordheim / Sigurd Berge / Bjørn Fongaard – Contemporary Music From Norway (1973). The pieces *Månelandskap*, *Munnharpe*, *Humoreske*, *Eg beisla min støvel* og *Erupsjon*. Philips – 6507 034. works Sigurd Berge – Early Electronic Works (2010). The works *Eg Beisla Min Støvel*, *Preludium*, *Ritual*, *Sørgemusikk*, *Erupsjon*, *Delta*, and excerpts from *Blikk*. PRISMA CD708.

³ The composers Arne Nordheim, Kåre Kolberg, Sigurd Berge and Bjørn Fongaard are considered the pioneers in electronic music from the 1960s- and 70s. Arne Nordheim's electronic music can be found on the CDs *Electric* (RCD 2002), *Dodeka* (RCD 2030), *The Nordheim tapes* (ACD 5051 2 CD) and *Solitaire* (BR ES11), Kåre Kolberg's electronic works are published on *Attitudes* (BR ES14), and Bjørn Fongaard in the CD-box *Elektrofoni* (Prisma CD711) and *Anders Førisdal - Fongaard: Galaxe* (ACD 5068).

After graduating from high school at Vinstra in 1949, Berge spent a year in the post-WWII military police in Germany. Upon return, he studied at Oslo College of Education, and in 1952 gained employment at Bjølsen School, where he worked until he became member of the teaching staff at Sagene College of Education in 1959. There, he introduced the aesthetic field of study and taught until his retirement. In parallel with his work as a teacher, Berge studied composition at the Oslo Conservatory of Music, and then with Finn Mortensen (1959-60). He made his debut as a composer in 1959 with the work *Pezzo Orchestrale* partly based on folk music from Gudbrandsdalen, and the music was well received and performed in several European countries as well as in the USA. Berge was a versatile composer who felt at home in many musical traditions, and wrote tonal, traditional music, twelve-tone music, educational pieces for various school orchestras, electroacoustic music and music for the stage and multimedia.

A common feature of the works is his attention to timbre and unconventional organizational principles, and this is shown in both composition and authorship. Berge's texts for music education from 1971-2 concern abstract sound-shaping techniques that can be used in both interval-based and electroacoustic music. He shared this way of listening with Canadian Murray Schafer, who at about the same time invented the word *soundscape* as description of both natural and cultural sounding environments and including everything one hears into the listening experience.⁴ This approach has similarities to concrete music, where composers process sound recordings and work with sound qualities rather than intervals, but due to its holistic approach, the soundscape genre diverges from concrete music where composers do not seek attention to the sounds origins or inherent significance.

Electronics and composition

Sigurd Berge became involved in the new music technology early on. And as a trusted composer strongly associated with the new trends, he received both a state travel grant and a grant from the municipality of Bærum in 1967. This enabled him to undertake a longer study trip to the Netherlands and Poland. He was in the Netherlands from January to March 1968, and in Poland in April and May. At that time there was no studio in Norway where composers could work with the new technology, and although NRK helped with what equipment they had, the composers had to travel abroad for professional studio work. Some traveled to Elektronmusikstudion in Stockholm, some traveled to the Studio Experimentalne in Warsaw, some to the Gaudeamus studio in Bilthoven in the Netherlands.

In his detailed travelogue from the Netherlands, Berge wrote that the equipment in the Gaudeamus studio in Bilthoven was very advanced by the standards of the time, and included four sine generators, one impulse generator, two octave filters, four tape recorders (or magnetophones as they were called), three ring modulators, one sawtooth generator, one plate reverb and a 20-channel mixing console.⁵ Thus, the studio made it possible to work with both electronic and concrete music. In 1968, computers had also begun to find their way into studios, and Berge took composition courses with Gottfried Michael Koenig at the National University of the Hague, where they were developing a hybrid studio for digital control of analog equipment. In this relatively common development trend at the time computers were not primarily used to create sound, but to structure music through programmed processes;

⁴ Schafer, R. M. (1977). *The Soundscape*. New York: Knoph.

⁵ Sigurd Berge in a letter to the chairman of the Society of Norwegian Composers, Klaus Egge February 26 1968.

algorithmic composition. The first large studio where this was possible was Elektronmusikstudion in Stockholm, developed according to Knut Wiggen's instructions.⁶

Berge was influenced by both traditional and newly developed music technology, and this can be heard in his music. For a few years it seems that electronic music, more than anything else, captured his interest, and he gave a number of lectures on electronic music around Norway that met with great interest.⁷ He argued for a renewal of the musical life, and in the same breath also for a renewal of education, putting relevant (electronic) teaching materials and equipment to use. With his international experience, he also called for a national studio in Norway and explained that it was difficult to make music of top quality without such a resource. "The development leaves us behind!"⁸ When we think about how extensive and time-consuming the physical work with electroacoustic music for audio tape was until well into the 70s, this was undoubtedly true. The requirement for craftsmanship in the studio was great, and the necessary competence could only be acquired through practical experience. But Berge also looked ahead, writing that "computer composition is still in its infancy. But it will probably soon take over the practical work of the composer."⁹ Berge's reading list shows that he was oriented both towards the tradition and the new use of computers; for example, both Werner Kaegi's introduction *Was ist Elektronische Musik* (1967) and Foerster and Beauchamp's anthology *Music by Computers* (1969) were in his library.

Elaboration of systems and principles that unfold in time is found in much of Berge's music from that period, often in combination with melodic elements that are unlikely to originate from the same algorithmic mindset. It is easy to notice textures where different tempi and articulations gradually develop in their own logic and increase the complexity of the pieces as they play out. In this way, Berge's music shows affinities with the minimalism that was emerging in the United States. Berge's electronic music is often simple in construction and with relatively few voices, most often synthetic and transparent in the sense that one hears what is happening. It is easy to follow the timbral variations in individual voices and phrasing, and although he often uses elements that develop according to a composed logic, it is clear in many of the pieces that much has also been played in real time. The majority of Berge's pieces are mostly developed from electronic sounds and not acoustic recordings, but many audio tapes in his library contain copious amounts of drafts and attempts in that direction. Some of this has been the basis for elements we find both in *Blikk* and in pieces on the second CD.

Berge was a trained educator and responsible for the establishment of Norway's first electronic music laboratory at Sagene College of Education in 1967. The first teaching material for electronic music written in Norway is Sigurd Berge's *Hjelpemidler og musikkteoretiske uttrykk i elektronisk musikk* from 1974. The text was written when it began to become clear that digital technology was going to be an important tool in the future, but Berge concentrated on the available analog tools. He explained tone generators, waveforms, noise and impulse generators, and described tools such as reverberation, synthesizers, oscilloscopes, tape recorders and mixing consoles. The booklet was produced together with a cassette tape and contained descriptions of 60 sound examples. The year before, Berge had published two books in which

⁶ In 1973, the composer James Beauchamp delivered an extensive description of the institutional studios in the world at the time. The article has not been published, but copies can be found in the National Library of Norway and the author's archive. Beauchamp, James (1973) *A Comparison of Electronic Sound (Music) Synthesis Systems for Musical Composition in the United States and Europe*.

⁷ Verdens Gang, October 14, 1969. The heading reads: "We are becoming deaf listening to triads."

⁸ Sigurd Berge in Verdens Gang October 14, 1969.

⁹ Sigurd Berge in a letter to Klaus Egge February 26, 1968.

he described sound shaping techniques and musical forms, and linked them to interval-based music,¹⁰ but in 1974 he focused on the use of technical tools. The important thing in his approach is the desire to “strengthen the sense of musical quality in a way different from singing or playing the recorder nicely.”¹¹

***Blikk* (1970)**

Blikk is a multimedia installation commissioned by Henie Onstad Art Center in 1969 as a collaborative project between painter Irma Salo Jæger, poet Jan Erik Vold and composer Sigurd Berge. Berge had already been performed at the art center on several occasions, and he had also composed the fanfare that welcomed the king to the center’s opening on August 23, 1968. Four brass musicians stood on the roof above the entrance and played when the king arrived, and inside Arne Nordheim waited with the electroacoustic work *Solitaire*.

Blikk was intended as an artistic synthesis of the visual, the literary and the musical, in light, image and sound. The artists were concerned with how technology offered possibilities for new types of multimedia communication, and they wanted to create a complex expression that appealed to many senses. To prevent it from becoming too messy and confusing, they agreed on an aesthetic and conceptual framework that included “simple shapes and colors, simple music and simple words.”¹²



Blikk as it appears at the National Museum in 2023.

Visually, *Blikk* consists of five rotating paddle wheels, each mounted in a rotating frame of aluminum profiles shaped like a cube. The blades in the paddle wheels are made of transparent acrylic plastic foiled with circular shapes in the primary colors. In 1970, the rotation was provided by fans that blew on the cubes and paddle wheels, and in the reconstruction that is

¹⁰ Berge, Sigurd (1973). *Lydforming 1 and 2*. Oslo: Gyldendal forlag.

¹¹ Løkken, Anton (2017), p. 11.

¹² Sigurd Berge in the program leaflet for *Blikk*, 1970.

now installed in the National Museum of Art, the cubes are driven by motors, while the paddle wheels are rotated by fans. Five mirror-clad partition walls (two by two meters) and the floor show the complex movement and light changes, thus the figures on the paddle wheels provide a constant flow of new shapes.

The sound and music in *Blikk* was originally played through 20 speakers that were mounted along the walls of the exhibition room, above the heads of the audience. Berge's electronic music alternated with Jan Erik Vold's reading of his poems, and the duration of the performance was two times 40 minutes plus a three-minute laser show in the middle, where a laser beam "drew" on one of the walls of the exhibition room using a mirror mounted on a speaker membrane. The title of the music for these three minutes is *Bazaine*; Berge liked the works of the painter Jean Bazaine that Henie Onstad Center has in its collection.

Berge and Salo Jæger sought a formal rigor in expression and wanted to employ principles that played out without coordination between movement and sound. The light sequence, on the other hand, was composed according to a permutation principle derived from Jan Erik Vold's poem *blikket du fanger ikke meg*. The poem consists of only five words that Vold has shuffled and reordered, in much the same way as he shuffled the letters in the word *kulturuke*, perhaps his most famous permutation poem. A reading of this poem is also included in the installation soundtrack. Some of Vold's work from this period can be described as concrete poetry, where words are detached from normal linguistic context and semantics. The shuffling of the words in *Blikket* into all possible combinations empties them of all meaning.

The five words in *blikket du fanger ikke meg* provide the basis for the use of five cubes and five paddle wheels, and for the light sequence with 320 permutations. Each of the five light circuits corresponded to one of the words in the poem, and they were turned on and off according to the order of the words in the poem. The duration of the entire performance followed from the audio material, but halfway, after 40 minutes, the permutations in the light control were turned so that the pattern was mirrored and played backwards. In the program booklet from 1970, the score for this resembled a knitting pattern. To get the light to be turned on and off with the necessary precision, an audio tape with control signals that consisted of sinusoidal tones at different frequencies was used, using relays at each light circuit that responded to 'their' frequency by turning the circuit on and off. Berge writes somewhere that the programming was done using a computer, and it was probably these control signals that he had in mind, considering the complexity and accuracy. According to Berge, *Blikk* is also the first artwork in Norway to use a laser.

The realization of such a technically complex work went well beyond the artists' competence - the fusion of roles as composer, artist, engineer and technical developer that we see a lot of today was not yet common. The installation therefore drew on researchers from the Norwegian Defence Research Establishment: Tycho Jæger, Birger Lommedal, Halvor Heier and Harald Schiøtz. *Blikk* was a signature work that clearly demonstrated the art center's ambition for interdisciplinary and multi-media art.

The poem *Blikket* was published in 1966 by Kommet Forlag and is the basis for the structure of the entire installation. The poem's five words are rearranged in 320 ways according to a permutation principle, and recordings of different readings are superimposed so that we occasionally hear several recordings simultaneously. Reverberation is added to one of the recordings, and one of the recordings is also played backwards. Jan Erik Vold has read all the poems himself.

Water is a piece of concrete music in which Berge creates form through the superimposition of many recordings of different bubbles in water, large, small, frequent and scattered, in motion, water that bubbles, flows, cascades, flows, sloshes, drips, beats and trickles. Berge has created a collage without particular electronic processing of the recordings, only adding a short echo and a reverberation effect that occasionally increases the size of the room.

Rooms and Mirrors consists of four short poems taken from the poetry collection *Between Mirror and Mirror* from 1965. The reading is mixed with electronic music, and through echo effects it is as if the music is also reflected in the room “where no door is the last door.” It is essentially a small phrase that is repeated and developed, and the use of reverberation strengthens the feeling of space.

The Redtail is a study of birdsong with several layers of recordings of songs from the Redtail. Some of the recordings are transposed down one and two octaves, and the technique Berge used meant that when the pitch fell, the duration of the sound increased. The piece has a clear formal development that begins and ends with natural sound.

The poem *Revolving Door* was published in 1967 by the Norwegian Association for Literary Art. The poem is a long, slightly surreal story about imagined and actual complications that can arise after installing a revolving door in an apartment. The reading is without effects or overlays of any kind, and the focus is on the story.

Bazaine is the music that is reflected on the walls using lasers, and Berge thus renders some of his impressions from the paintings of Jean René Bazaine, which Berge describes as “full of music” and “with an intense amount of information.” For reasons of space, we have had to reduce this element slightly in duration, but a complete and somewhat different earlier version can be found on CD2.

The poem *He Looks at Her* was published in 1967 as part of the collection *from room to room SAD and CRAZY*. Berge imagines this as the gaze in a concrete situation and describes how the reading should come alternately “from one speaker, and then another.”

The Raindrop Postlude begins with a myriad of short drop sounds, and approximately halfway into the piece the notes begin to fall away, and the texture becomes gradually thinner, so that the element moves towards silence. The form is thus easy to grasp, and attention shifts from texture to expectation of new drops.

A Short Rain Poem is taken from the poetry collection *kykelipi* (1969), and Berge describes that the poem continues as long as the rain lasts, “for the end is the beginning, the end is the beginning.” The reading has not been edited in any way.

The word iteration means repetition, and the small piece *Iteration* (1968) is built from layers upon layers of elements that enter, are repeated and die out while new elements that behave in the same way come into being. *Iteration* ends with a rising noise element that disappears in the distance. Berge has used the same title also for another piece, which can be found on CD2. We have not found any notes from Berge that has made it possible to give the pieces different names.

The Fairytale About the Boy in the Furry Room is taken from the collection *from room to room*, “and is like other fairy tales for both children and adults.” The reading has not been processed in any way.

Beats. Short percussive sounds strike the listener from right and left, and Berge has used a short echo and reverberation to define a hard, small space. The strikes seem randomly placed in the large form of the piece, and Berge’s use of pauses creates alertness and anticipation in the listener.

The Fairytale about the Prince in the Black Box has also been taken from the collection *from room to room*. The reading is not processed in any way, and the focus here is also on the story.

Like the *Raindrop Postlude*, *Staccato* consists of a wealth of short pitches. But here they are not thinned out, rather they increase in both register and speed, until they end abruptly.

Culture Week is perhaps Jan Erik Vold’s best-known poem from the 1960s and is taken from *kykelipi* (1969). He explores different possibilities for creating meaning by shuffling the syllables in the word “kulturuke” and the poem is a good example of concrete poetry, where conventional meaning is broken down and thus opens up for new meanings. The reading of the poem is first played normally, and then the recording is played backwards, as a variant of a well-known technique from *Musique Concrète*.

The poem *Voice* begins with about 3 minutes of heavily processed electronic voice that transitions into relaxed whistling and bird sounds and ends with a large echo chamber. This is followed by Jan Erik Vold’s voice where he describes precise placement of three pieces of furniture, full of whims and digressions. The poem ends with a voice performing musically in an echo chamber.

The poem *Rondel* is from *kykelipi* (1969), and is read completely unprocessed. It does not really represent an end but points forward to something that may happen later.

Electronic works (1968-71)

The pieces on this CD have been found in Berge’s tape archive, and some of the pieces have also been made available by the National Library of Norway from their digitized archive of much of the Norwegian musical heritage. Most of the pieces have not been released previously, but four (*Eruption*, *Preludium*, *Music for Mourning* and *Delta*) have been published on the two CDs mentioned earlier in the article. The piece *Magic Formula* has previously been released as *Ritual*, but on this CD, we have followed the marking on the box of the audio tape, which also corresponds to the registration at the National Library. The recordings appear to have been made in Berge’s home studio, with the exception of the master tape from his stay in the Netherlands. We have removed some noise from tape recorder motors, but many of the limitations of the working methods of the time can still be heard, especially where Berge has mixed together several tracks with different noise profiles. We have repaired damaged sections in the pieces where the original signal had dropped out. Since audio tapes are stored on reels, it often happens that the audio signal spreads between the layers in the reel, and some of this is heard in the pieces on both CDs.

It is easy to hear that the pieces on this CD are made by the same composer; Berge employs a typical working method where algorithmic development along the time axis is combined with performed elements played with artistic intuition. Berge seized the opportunity to work

mechanically with structure with one hand, while the other hand played. The music sounds open and transparent in the sense that the elements are clearly defined and relatively easy to follow. Berge wanted his formal language to communicate, and this means that the music has a refreshingly large amount to offer even today, when technological complexity often clutters the lines and thoughts in the music.

Berge wrote all of his electronic music during a four-year period, and it is characterized by simplicity and clarity in construction and sound. He rarely creates tensions between competing elements or complicates the expression. Rather, he lets the development occur within a main element that often appears as a solo voice. The pieces have clear shapes, as was generally often the case during the pioneering analog period. Sounding and structural means are recognizable in several pieces, and this is also a consequence of the possibilities afforded by the available equipment. Furthermore, it expresses how Berge wanted to use technology, and we see this in more elaborated compositions such as *Gaudeamus*, where his notes explain how he systematically built up the music. All the pieces were made during a short period of time, and it is not easy to point to a particular development of technique or sound. The works on the CD are not arranged chronologically, but according to an idea of how they can fit together sonically and structurally.

The CD opens with the piece *Sad Song*, which is a minor-key and dark melodic study in which small variations in the voice articulate phrases in a calm manner. The piece breathes slowly, and Berge doubles the tone below and above the voice. The calm character and the feeling that there is only one voice being played is enhanced by the fact that the piece is in mono with no difference between the signal going to the left and right ears.

Eruption consists of one voice that Berge probably plays, but this time with a completely different intensity and pitch range. Nevertheless, it is the same type of variation in articulation, frequency and intensity that controls the development, but with greater dramatic effect and stronger impact. *Eruption* is a fast and energetic piece, inventive and full of surprising leaps along both the frequency and time axes, with steady progress without a fixed pulse. A falling phrase is a supporting element in the piece and provides a formal consistency that remains throughout the entire piece until it ends abruptly.

Vibrato is a short mono piece and has a certain feel of consisting of a solo voice with accompaniment. During long stretches Berge operates with a type of question and answer, where reverberation and echo effects build communication between the elements. The echo effect gives the piece a pulse, and the music is airy and light in comparison to, for example, the previous piece. Berge's melodic sense is also evident here.

Ostinato sets up expectations through several sound sequences. The basic element consists of two layers that move systematically and asynchronously in relation to each other, forming a moving accompaniment that supports a melodic voice that relates to the fixed tempo of the basic element and consists only of short notes, extended with echo effects. There is air and space in the composition, and the voice is clearly positioned in contrast to the foundation so that both parts come into their own.

Sawtooth consists of a solo voice with great dynamics and a wide range. The name is probably derived from the waveform Berge used in the synthesis, and the voice quality does not change much over the course of the piece. In parts of the piece, we also hear another solo voice with a lot of echo, and the voices intertwine so that the result becomes more complex, harmonically

speaking. However, the use of counterpoint does not undermine the principal voice which also ends the piece. The piece has a free character, and Berge probably performs all the layers in this piece.

The Birds rests on a noise cushion, and noise is not widely used in Berge's electronic music. *The Birds* appears a purely synthetic piece that has little to do with nature recordings such as those Berge used in *Redtail* in *Blikk*, but techniques used in *Bazaine* are occasionally recognizable in *The Birds*. Many articulations can easily be associated with birdsong, and Berge improvises the 'birdsong' in a very believable manner. Towards the end, a chord surprisingly appears before the noise cushion that ends the piece.

Bazaine (full version) is here in a different version than in *Blikk*. The development is in many ways the same, but the piece is gentler and more dynamic because of its multiple peaks of intensity. The piece is probably a preparatory work for the version found in *Blikk*.

Music for Mourning is a more thoroughly composed work. Following an opening where an element descends to a drone supplemented by fumbling and irregular timpani beats, Berge builds up a theme that, with the use of reverberation, is located some distance from the listener. The timpani beats are slowly drawn into the droning element. The piece continues with a rising pitch that gradually takes over the focus, and the movement is reinforced by fairly strong panning that, with a recapitulation of the timpani drone, provides coordinated direction and development. The piece is rounded off with clear timpani-like beats taken from early in the piece.

Prelude consists of a slow lingering sound in a dark register that develops the impression of constantly descending. Changes in the timbre provide a type of climax, and the piece slowly disappears before it insistently returns and fades out. As an atmospheric sound study, the work is unusual in Berge's production.

Magic Formula sounds refreshingly out of tune, and can, just as *Prelude*, be categorized as a sound study, however more complex and demanding. The intensity is even throughout the piece, and we hear pulsating changes where notes enter and disappear at a steady pace, resulting in an impression of a relentless and authoritative progression. The piece appears as a played organ point with fine stereo effects.

Gaudeamus is named after the foundation that owns the studio where Berge worked in the Netherlands. Berge made extensive notes from his work in the studio, and they show how he systematically explored the possibilities of the equipment in and eventually gathered the results into a composition. *Gaudeamus* is the CD's most technically complex piece and shows the importance of having tools to work with, as Berge pointed out in both travel letters and newspaper articles. Although *Gaudeamus* is a more developed composition than most of the other pieces on the CD, we recognize particular sounds and form development from his other works, as this piece also appears with concentration on one sound at a time. Berge has used classic electroacoustic forms such as action/consequence and impulse/initiation, and the result is more airy than other pieces on the CD. The complexity is higher, and the piece consists of several elements that seem more composed than improvised. The sound quality is varied, and the piece makes good use of the technologies that existed in Bilthoven. In terms of form, the variation is balanced through repetitions of material, and Berge uses proximity and distance, 'dry' sounds and echo effects. Berge uses reverberation and echo selectively, and the effect is thus great when he uses them.

The title *Iteration* must refer to the use of echo. The piece opens with strong whistling tones that unfold and are repeated with the help of a fairly consistent echo effect, and the result is that new elements are placed on top of the elements Berge has already played. The piece is inventively melodic, and whistling tones are replaced by a sawtooth sound in a lower register. Here we hear how Berge plays an oscillator until the whistle tones again take over the focus and end the piece.

Imitation takes up the lilting rhythmic development that Berge introduced in *Ostinato*, and also in this piece he uses echo. The echo is added to longer forms, and thus the piece connects with *Iteration*. This is reinforced by the use of long whistled notes that emerge and disappear in the repetitive element.

Echo is the longest piece on the CD and shows great similarities to both of the previous two pieces. The piece is filled with short phrases in layers that develop with small variations and there is more air in composition. The technique of letting elements play together with themselves in several layers lets the piece raise expectations of what is to come and fulfills the expectations at a leisurely pace.

Delta is a rare piece in Berge's production as it consists of a series of field recordings that used together form a dramatic depiction of a heavy downpour where we sense that the surroundings contain both trains and roads. The downpour increases and decreases in intensity, and Berge mixes in bubbles from another piece and provides a transition to a recording of car traffic where the Doppler effect is used to explain to us that this is a highway where traffic is moving at a relatively high speed. The piece sends Berge back to his childhood at Vinstra and ends with some scattered piano tones. In this manner, *Delta* points away from what was typical for Berge, towards a trend where field recordings is the basis for music and art. *Delta* was made with avant-garde jazz pianist Svein Finnerud in a NRK broadcasting studio, but the part where the jazz starts to carry the piece has been edited out in Berge's recording, and we have chosen to use this version,¹³ and all we hear from Finnerud is scattered piano tones towards the end of the piece.

A little about putting the CDs together

Reconstructing *Blikk* required a fair amount of detective work, and through that effort we became aware that Berge had a far larger electronic production than previously known. He left behind a good pile of tapes, and critically listening through them showed that the music was apparently recorded both forwards and backwards on the tapes, and that misunderstandings could arise about which way the pieces should be played. (This also happened with Arne Nordheim's first release of electronic music, but the composer of course heard the mistake and had the tape turned the right way.)

Pieces could have different names according to the markings on the boxes, and different pieces have also on a couple of occasions been given the same name, without it being possible to find written material that can explain why. The same piece could also exist in many versions and have one name on the box and then another name on one of the LPs mentioned at the beginning. This is not totally uncommon for composers and leaves a degree of uncertainty. It is also not certain that Berge considered all this music finished and ready for publication, but because the pieces in our selection seem to have the same type of execution as the pieces Berge published

¹³ *Delta* also appears on the CD *Svein Finnerud Trio – Preachers – The Unreleased Works 1969–1980*. PSPCD 702.

in 1973, we have chosen to publish them. It should also be said that we have omitted some pieces that more clearly appear as less finished sketches. For names, we have relied on the publications in which Berge himself was involved, and on the pieces he registered in the archive at the National Library. We are fairly certain that we have provided the correct names, even for the piece that had three different names on the boxes.

Enjoy listening!

Jøran Rudi, July 2025

Source material and literature

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