
Norge – et lydrike, Norway remixed: a sound installation

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This paper describes a large, interactive sound installation that was presented in Oslo during October 2002. The installation, in broad terms, brought the presence of the whole country into the one location through sound, and made the sound available for the public as material to play with or explore in a more structured fashion. The sonic results were streamed to the Internet, together with images from the exterior of the installation.

The installation was located at the central train station in an area where thousands of people pass through every day. The curatorial idea was developed by two institutions, as an answer to their missions of providing interesting sonic material and events for the whole country. The idea was given concrete form by three composers, and brought up on a national level through co-arrangement with a large festival of contemporary music. Funding for the installation was provided by both private and public organisations.

The installation serves as an example on how a large and complex work of art can be developed through institutional curatorial effort, artistic intentions and activity, and commercial interests. The installation maintained a high degree of artistic integrity while being accessible and attractive for large audiences.

1. INTRODUCTION

During October 2002, the Norwegian Broadcasting Corporation (NRK) and Norwegian network for Technology, Acoustic and Music (NOTAM) produced a large-scale sound installation, *Norge – et lydrike, Norway Remixed*,¹ for presentation during the Ultima Contemporary Music Festival² – a regular fixture in Oslo for the last twelve years. A sound installation of this size and ambition is an unusual production for both NOTAM³ and NRK.⁴ The project was anchored in common and fundamental values for both partners – in broad terms, national responsibilities to provide creative audio content for many-faceted and wide audiences. Because of the scope, the project signalled an ability and willingness to undertake ambitious projects to reach this goal. This article is written from a curatorial point of view, describing how the idea was crafted in order to show these values in a

comprehensive manner for the public, and also to result in an interesting work of art.

The sound installation was placed in a transit hall at the Oslo Central Railway station, where thousands of people pass every day. The challenges for the project were on many levels. It was necessary to provide something ‘to hold on to’ for the average visitor who could not be expected to have a particularly strong preference for either contemporary music or sound art, so as to not exclude anybody unnecessarily. Easy access for the public to the physical space where the installation was placed was of utmost importance for security reasons, as was the desire to make something that would be unobtrusive to the less interested part of the public, so not to force them to listen to things they did not want to hear. And most importantly, the artwork needed to retain a clear and easily grasped identity, while relating to the placement – a public space not particularly designed for experience of art.

An installation like this unavoidably enters into the public debate, because of its sheer size and presence, and the production of the installation coincided favourably with another NOTAM production; the conference ‘Electronic Art in Public Space’.⁵ Press and public reactions were overwhelmingly positive, and well documented through a guest book that was placed inside the installation.

2. CURATORIAL CONCEPT

The curatorial idea was to bring the whole country together through sound, and to make the sounds available to the public as material for reflection and for creative activity. The title reflects this duality. ‘Norge – et lydrike’, loosely translated into English, means ‘Norway – a country of sound’, but another reading is also evident to all Norwegians. This reading describes Norway’s situation for the 600 years under Danish rule, as a country that had to obey, which is another meaning of the Norwegian verb ‘lyde’. This sort of reminder of a common past points to Norway as a united entity – united against what was conceived as intrusive authority, not originating in Norway. The

¹www6.nrk.no/lydkunst

²<http://www.ultima.no>

³<http://www.notam02.no>

⁴<http://www.nrk.no>

⁵<http://www.kunst.no/konferanse>



Figure 1. The façade of the rail station during the period.

installation displayed some of the man-made environments, actions or natural sounds that bring unity and identity to the Norwegian culture.

Many notes in the visitors' journal state that some of the sounding material triggers memories – memories of childhood, identity, special events and history. Every recollection is unique, but builds on much of the same sonic material. A reference is here made to radio memories, which are often common property in Norway, due to the late arrival of television (1961), and certain well-known radio personalities and programme series. The installation framework with the explicit nationwide perspective was intended to stimulate population self-awareness, and suggest something about the common experiences and background that binds it together – building blocks of culture. The installation could thus be said to provide a room for reflection about what life is like around the country, about what Norwegians have in common and what binds them together, in some ways similar to Bill Fontana's 'sound bridges'.⁶

Much of the material was streamed into the installation in real time. In order to secure authenticity of the sound material, it was selected by the local branch offices of the broadcasting corporation, which was also technically responsible for the delivery. This authenticity was a point of consideration, since it would actively counteract speculations of centralisation, and national romanticism – where the urban elites selected pretty, glossed-over aspects of idealised country life for enjoyment. In fact, political readings of this kind were actually presented during mail-group debates after the installation. This, however, was

hardly the nature of the sounding material, which spanned from negotiations in the Lappish parliament to sounds from aluminium foundries and airport runways, to birdsong in coastal environments. All material was chosen locally for its significance in the different parts of the country.

The second part of the title, 'Norway remixed', points directly to the creative audience participation. Material was brought into the two installation parts. First, as unprocessed sounds from sixteen locations, available to the public through sound showers – speakers with parabolic reflectors mounted above the listener's head, focusing at an average height of the ears. Second, the sounds were piped into the listening room for play/composition through processing and mixing. This section had to do with choice and construction of reality, and processing of information, much like everyday life, where we all play into social situations without knowing exactly how things will be interpreted or understood, and where we often are not fully aware of the significance assigned to some of the things we do. To facilitate the activity in the listening room, a special sound controller was built, allowing the audience to both change the sounding material and combine different sources according to their taste and inclination. All remixes – assignment of meaning and intention – sprung from the same material, becoming different, although related. Everything that was made in the listening room was streamed to the Internet for the benefit of those not being present at the site, and the installation can thus be said to have made Norwegians audible to one another. The installation was an artistic reflection on common mechanisms for crafting social identity and interplay, placed in context with elements intended to relate this to the concept of national heritage and identity.

⁶<http://www.resoundings.org/>

3. ART CONTENT

The initiative for the installation came from Tilman Hartenstein (NRK) and Bjarne Kvinnsland (NOTAM), and the artistic components of the installation were three:

- (1) *Radiophonic work.* As part of the opening of the installation, a radiophonic sonic art piece was performed on the radio. This work was created by the composer Risto Holopainen, and can briefly be described as a pre-rendered montage of the concrete streamed and contributed sound, collected and combined by the composer.
- (2) *Sound showers.* There were sixteen speakers with parabolic reflectors, each playing sound from one of the sources around the country. Four of the sources were streamed in real time, the rest were recordings that were played back from disk. The sounds were all unprocessed, and were played at full bandwidth. The ‘showers’ were placed in the open transit area where people passed on their way to/from the trains. There was no specific artistic effort put into this part on the installation other than what has previously been described in section 2, but this was the area where Norway was ‘brought together’ – Norge et lydrike. The reflectors of the speakers were made from clear plastic, and the placement of each speaker was marked with a foil on the floor, naming the origin of the sound.
- (3) *Listening room.* Two composers brought this part of the idea to fruition, and were responsible for all artistic choices made in the listening room – Asbjørn Flø from NOTAM and Trond Lossius from BEK.⁷ Their artistic work was realised through MSP-programming, which employed both sophisticated vector-based spatialisation⁸ and sound processing algorithms, as well as algorithms for combination of the various (sometimes processed) sound sources. Most of the sound material was granulated in different ways, and the granulation routines would be different for each ‘track’. The routines would not change, but since the sound material streamed in, or played from file, showed great variation, the sonic result was not static. The different musical elements were made available through a specially designed instrument that was equipped with twenty-four buttons, organised in three groups. The user could at the same time choose any two sound sources, or musical gestalts, one of four diffusion algorithms, and one of four algorithms for rhythmical and timbral manipulation. The rhythmical manipulation was executed through applying envelopes on the streams, and the timbral manipulation was for

the most part done with FM modulation. The techniques used were simple and direct, in order to give the players a clear sense of effect when they played the instrument, with quick and immediate results, but complex enough to be interesting.

The computer was rebooted every morning so as to avoid crashes during opening hours.

4. COLLABORATION

In order to make a production of this size in Norway, collaboration is required for both financial purposes and practical reasons. NOTAM was responsible for the curatorial idea and the commissioning of artists for the sound content of the listening room and radio broadcast. NRK was responsible for recording and streaming the sound material into the installation, as well as the construction of the listening room and the mounting of sound-showers, projection and lighting equipment. Asbjørn Flø designed the interior shape of the listening room as well as the controller. The graphic design program was developed by NRK, in close collaboration with NOTAM. The whole front of the rail station was decorated, and printed foils were placed on the floor directly below each sound shower. The outside of the listening room was ‘decorated’ with project information.

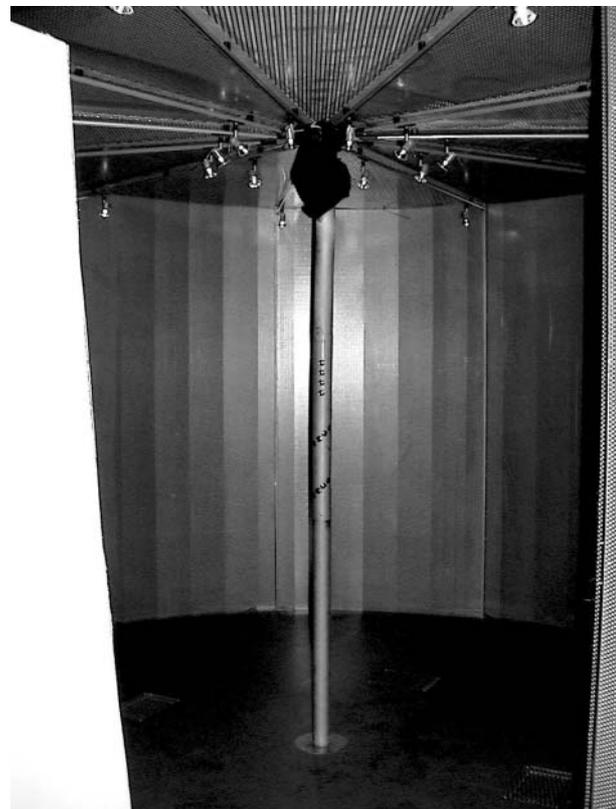


Figure 2. The listening room, with the centrally placed controller.

⁷<http://www.bek.no>

⁸VBAP, by Ville Pulkki, Helsinki University of Technology, <http://www.acoustics.hut.fi/research/abstracts/vbap.html>

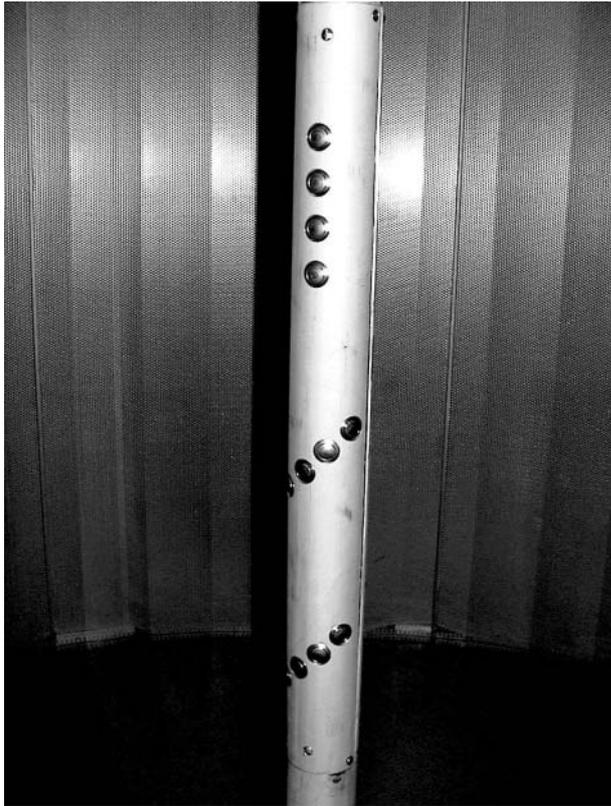


Figure 3. Button layout of the controller, with processing algorithms on top, and sound sources spiralling up from the bottom.

The venue was the Ultima festival, which provided a good framework and great publicity. Practical collaboration with the realty company Selexa and their event production partner Mesén was needed in order to secure the project space in the transit hall, which is owned by the Norwegian rail system. The installation brought added activity into the rail station, and additional business to the various retailers and businesses located in the area.

The actual cash cost for the project was divided between NOTAM and NRK, with in-kind contributions from Ultima and Selexa. Explicit marketing was made through Ultima's advertising programme and in the programme book for the festival, and press releases and other media initiatives were handled by the NRK organisation. There were quite a high number of press notices about the installation, which was well placed in public consciousness even before it opened.

5. DESIGN AND ARCHITECTURE – ACOUSTICS AND TECHNICAL DETAILS

In the transit area, sixteen speakers with parabolic reflectors were hung from the ceiling at a height that made the focal area approximately ear-height for the average listener. The reflectors were made from clear plastic for reasons of security cameras, and on the



Figure 4. Loudspeaker with parabolic reflector, foil on the floor marking the centre spot.

floor below each speaker was a designed foil showing the location of the sound source. The speakers were arranged so as to form a 'path' – the parabolic path – leading the audience to the listening room. This type of loudspeaker was chosen because of its ability to limit the sound field and reduce sound leakage into the open general area. The speakers worked reasonably well for normal sounds, but less well for sounds with large low-frequency content.

The room was built inside a (at the time) vacant retail space, and protruded into the circulation area with entrance openings and an end wall that was used for display of information about the project as well as a projection area for a graphical sequence based on the overall design of the installation.

This entrance led into a custom-made listening space which was an acoustically controlled listening room with twenty-four speakers, and a custom-built controller in the centre of the room – the optimal listening position for the diffusion. The speakers were placed around the listener in as close to a sphere-like shape as possible, in the following manner: eight speakers around the listener at ear-level, because this is the area where motion is most easily detected, four at knee-height, four high on the wall, four in the floor and four in the ceiling. The number of speakers was not chosen for convenience, but based on previous



Figure 5. The outside wall of the installation.

experiences on how many speakers were needed to provide audible continuous motion in a space this size.

The listening room was carefully designed for acoustical balance and colouring; materials and dimensions of absorbents were carefully chosen, and the dimensions of the room were optimised for spectral balance. Some of the absorbents were mounted on plywood in order to have the room give a little bit extra in the high end of the spectrum. The acoustic design was made by acoustician Lars Strand at NRK. The entrance to the room was constructed to limit sound leakage both in and out, and the room was a superb space for diffusion.

Asbjørn Flø's design of the space was developed by architect Morten Kaels, who has previously built acoustic installations and furniture, and exhibited works at galleries and museums in Norway. Technically, the room was expected to need to withstand quite a large amount of expected abuse from late-night visitors, and the inside was therefore covered with perforated metal panels. Behind the panels was cloth that concealed the speakers, and allowed sound to get through without much loss of frequency content.

6. RESULTS

The audience that passed the sound showers numbered in the thousands each of the ten days the installation was open; however, it is dubious use of statistics to count them as true visitors to the installation. The number of people that entered the listening room was 4,739, which is quite a large number for this sort of

installation. This points to public space as an interesting arena for art, although artistic compromises might have to be made in order to make an installation accessible, practical and popular. For example, the visual appearance of this installation needed to compete for attention with nearby stores, hamburger bars, etc. The sound levels of the speakers needed to compete with the background noise of people, restaurant music and announcements, the placement of the speakers needed to take into account security cameras, and the external architecture could not constitute a security risk in case of fire, etc. To address all kinds of questions like this, one needs to be patient and creative, protecting the artistic idea, and learn to work with the circumstances. Nearly always, there is a workaround.

The radio, TV and press coverage of the installation was extensive, on both local and national arenas. The installation was covered as both general news, and as a cultural event for more in-depth consideration.

A guest book with many entries contained an overwhelming number of positive messages about the sounds, the unconventional idea of an abstract sounding artwork like this in a public space, and to the sounding material itself. Although there is always the element of artistic compromise to be considered when presenting art in a space not developed and defined for the purpose, this installation retained idea and identity well enough to provide the many visitors with a multitude of experiences significant enough for visitors to write them down in the guest book – experiences about concrete memories of sounding environments heard in the installation – and of the emotional ties revisited.