

Tonal Sensation in Silence

Ragnhildur Gísladóttir

Iceland Academy of the Arts
Department of Music
Composition

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Ragnhildur Gísladóttir
Supervisor: Kjartan Ólafsson
English Translation: Steinunn Þorvaldsdóttir
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Abstract

This research involves an observation of the way in which people with an inoperative auditory system perceive music. A study is made of whether they distinguish between music and other sounds and a comparison made between their reactions. Their reactions are also compared with those of hearers who are presented with the same sound clips. The possibility of approaching the intent of the composers in writing these pieces of music is also examined, as well as their thoughts and emotions, by using different methods in listening to music.

Inflated balloons, on the one hand, were used when the sound clips were presented to the participants, and sound boards on the other. An effort was made to avoid deep and heavy percussion with an even beat, to the extent possible, in chosen pieces of music. The majority of the compositions were well known and covered a wide range of musical history. Their selection was based on their revealing a broad scale of emotions and their being known for that characteristic. The analysis of the experience of the sound clips is based on interviews with the participants; a comparison of their answers, and how these answers conform to the defined description of the music pieces.

The conclusion of the research indicates a consistency in the deaf participants' perception of the music pieces and that there is a concordance between their experience of music and that of hearers. Thus, it appears as if deaf people make a distinction between music and sound.

The latter part of this thesis is a musical composition rooted in the above-mentioned research. Clearly drawn and strong descriptions of the emotional reactions of people, who are normally not considered able to perceive music, aroused both curiosity and promise of new musical dimensions. The descriptions opened a door to the cultural world of deaf people; the deaf culture that is based on perception in silence. Its form of expression is often more direct than that of hearers and contrasts are more definite. It is the opinion of the undersigned that music has a definite part in this world and with the composition an effort is made to juxtapose positive and negative impressions in order to reflect the participants' descriptions of their musical perception.

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1. Introduction

What originated this research was the question what we perceive when we listen to musical pieces. It is intriguing to consider whether we perceive feelings, thoughts, or even something of which the composers are unconscious when we listen to their compositions. In order to find answers to these questions, information to this effect would have to be available beforehand which is understandably not an easy matter. It is however interesting to consider whether composers unconsciously realize what it is that originates their musical creation. Are there possibly some repeated musical characteristics in their compositions? The thought of estimating such attributes led to the idea of approaching the participants' perception of music and sound in a novel way. Studying how deaf people perceive music and comparing that perception with the musical perception of hearers, offered a research base that would possibly throw an interesting light on the nature of music and its perception.

The intention of this research is to study the musical perception of deaf people and hearers and whether it is possible to approach the intention, feelings, or thoughts of the musical composer, by listening to musical pieces in ways that differ from the traditional ones. The research methods are qualitative and personal interviews are made. The analytical procedure used in assessing the experience of deaf people and hearers of the sound clips, along with the comparison and definition of the musical pieces, as well as the comments, is an addition to what has been done before and described above. Comparable research on the musical perception of deaf people, to what is described in this research paper, does not seem to have been made before in Iceland, apart from the research on which the BA thesis of the undersigned is based. That research revealed that in order to gain more significant results, the scope and execution of the research would have to be changed. In the former research there were only three listeners and they listened to the music simultaneously. Every time it was the same sign language interpreter who interpreted the expressions of the participants of their experience and all the listening hours took place in different locations.

There are thirteen participants in this research and only one listens at each time to prevent any possible influence others might have on the answers. In order to get as exact interpretation of the participants' answers as possible, it was decided, in collaboration with the sign language interpretation services, to have more interpreters involved in the research this time. In this way an effort is made to ensure that the interpretation of the answers is as exact as possible to make sure that the right feelings of the participants are communicated. Furthermore, all the interviews were videotaped in order to enable the verification of the answers by watching the expression of the participants simultaneous to listening to the interpretation. During the interviews the interviewer and the interpreter did their best not to reveal any reactions to the accounts of the listeners.

2. Related Researches

A group of scientists at the University of Oregon has revealed that deaf people use the auditory cortex for processing touch stimuli and visual stimuli to a considerably greater extent than hearers. These results indicate that when the auditory cortex develops without sound stimuli in deaf people, its role changes to the effect that it overtakes the processing of other kind of perception. ¹ The research reveals that the brain can adjust and develop new abilities and connections, as when the auditory cortex does not receive any sound stimuli, it begins to “feel” touch.

Comparable researches have been conducted in other countries e.g. where it is measured whether deaf people can enjoy music to the same extent as hearers. In a research made by Dr. Dean Shibata, Radiologist at the University of Washington, in 2001, it was revealed that deaf people appear to process sound waves in the same area of the brain as people who can hear. The research was made on a group of people consisting of 10 hearing impaired individuals and 11 hearers. The former group held inflated balloons in order to perceive the sound waves of the music. Shibata used an fMRI, functional Magnetic Resonance Imaging, in order to be able to compare the brain function of both teams. This technique enabled Shibata to reveal illuminated areas in the brain when music was played and the surprising thing was that the hearing impaired showed function in a specific area of the brain that is usually only functioning during normal auditory stimulation. Those who could hear showed considerably less function in the same area. ²

The use of blown balloons for transmitting sound waves to deaf people is not an unknown method here in Iceland. Anna Jóna Lárusdóttir, who is a playschool teacher and also deaf, has described how she works with a group of four year old children who are either hearing impaired or able to hear. When they are restless she makes them sit down, each with their inflated balloon and then she plays loud music for them. When the balloon starts vibrating they relax. She says that it makes a difference what kind of music she plays, but that in this way she succeeds in calming them down. She says that the feeling gets through to them even though they can not hear anything, because they learn to listen with the heart. Anna Jóna says that there is a great difference in how much sooner the hearing impaired children receive and process the music than the other children do. She realizes this because they calm down sooner than the ones who hear.

When they listen to music they see pictures in it and their feelings seem to be more open than those of the hearers. Children who get to work with poems and listen to music with an inflated balloon get to mature emotionally, even though they use different methods in their development than those who hear. They learn to perceive the world in this way. Deaf people can not experience the same thing by using headphones, because they have to feel the sound waves and perceive them with their bodies.³

¹ Karns, C.M, “Deaf Brain Processes Touch Differently: Lacking Sound input, the Primary Auditory Cortex “feels” Touch”, *ScienceDaily*, 10.07.2012, retrieved 24.8.2012 from <http://www.sciencedaily.com/releases/2012/07/120710171733.htm>

² “Brains Of Deaf People Rewire To “Hear” Music, *ScienceDaily*, 28.11.2001, retrieved 21.6.2012 from <http://www.sciencedaily.com/releases/2001/11/011128035455.htm>

³ Anna Jóna Lárusdóttir, 2006.

Alice-Ann Darrow, writer and Professor in Music Education and Music Therapy, made a similar research in 2006. The subject of that research was to study whether hearing impaired students who are related to deaf culture, connect the same kind of feeling to music as the students who have full hearing. Sixty-two elementary and junior high school students at a public school for the deaf in the Mid-Western states of the US participated. The music clips in the research consisted of music from twelve films, which had been composed with the aim of describing the elementary emotions – happiness, sadness and fear. The deaf participants used hearing aids inserted in the ear and four to five were placed before two speakers in a Hi-Fi stereo equipment standing on a table. All the participants, both deaf and hearing, were instructed to highlight the appropriate emotion for each music clip. The deaf participants were encouraged to touch the speakers and the tables as they wished. The volume was kept as loud as possible without spoiling the quality of the music.

The conclusion indicated a significant difference between the answers of the deaf participants and those who could hear, as the answers of the latter were more in accordance with the intention of the composer. However, it is mentioned in the conclusions of the research that an emotional assessment of music is dependent on culturally traditional experience. As the musical maturity of the deaf is often later to develop than that of hearers, the researchers believed that it would have been more appropriate to use more personal methods in order to study the tonal perception of the deaf participants.⁴

In a research made by Suranga Chandima Nanayakkara, Lonce Wyse, S. H. Ong and Elizabeth Taylor at the National University of Singapore in the year 2008, the possibility of enhancing the musical perception of the hearing impaired was studied. First, the technique that the hearing impaired used in order to “listen” to music was examined and then how it could be possible to strengthen their listening experience. This research revealed that it is possible to use an interaction between haptic and visual information in order to enhance the musical experience of the hearing impaired. For that purpose the Haptic Chair was designed and visual interpretation of the music was used as well. With the Haptic Chair it was possible to obtain perceptual information in the form of vibration, as it conducts sound waves well and amplifies the vibrations sent out by the music. The visual display transcoded sequences of information about a piece of music into various visual sequences in real-time. The proposed solution consisted of a vibrating Haptic Chair and a computer display of informative visual effects. The research revealed the unequivocal satisfaction of the participants with the Haptic Chair and one of them even remarked, when he no longer had access to it, that now he was “going to be deaf again”.⁵

⁴ Alice-Anne Darrow, “The Role of Music in Deaf Culture: Deaf Students ‘Perception of Emotion in Music”, *Journal of Music Therapy*, spring 2006, 43(1), p. 2-15, retrieved 21.6.2012 from <http://www.ncbi.nlm.nih.gov/pubmed/16671835>

⁵ Nanayakkara, S.C., Wyse, L., Ong, S.H. and Elizabeth Taylor, *Enhancing Musical Experience for the Hearing-impaired using Visual and Haptic Displays*, National University of Singapore, 2008, retrieved 28.4.2012, from http://fluid.media.mit.edu/publications/Enhancing%20musical%20experience%20for%20the%20deaf_Nanayakkara%20et%20al_Final_v5.pdf

The research made by Dr. Dean Shibata, which indicates that the deaf seem to process sound waves to the same extent as those who hear, is indubitably an incentive to this research. Furthermore, the above mentioned methods that have been used in order to study the musical perception of the deaf, have provided an important research basis. In that respect, the research made by Alice-Ann Darrow reveals the necessity of using a more personal method in order to interpret the answers of the deaf than of the hearers. The research made by Nanayakkara, Wyse, Ong and Taylor, where the Haptic Chair is used, reveals the importance of enabling the deaf to experience the perceptual information that music gives in the form of vibrations. Furthermore, that research revealed that the deaf were able to enjoy music with the aid of haptic and visual stimulation.

3. The Research

The research and the composition of the musical piece, on which the MA project is based, were started at the same time. The composition developed in the direction of communicating the tonal experience of people whose hearing is impaired. The composition is divided into four parts. The first one is two-fold in an ABA form and covers the compactness of the listening examples used in the research where a choir performs the participants' descriptions of their musical perception. The second part is written for a quintet of singers and an acoustic image based on the poem "Skuggi minn" ("My Shadow") by Kristín Ómarsdóttir. In the third part an effort is made to call forth two emotional images that the choir is assigned to perform in silence. The last part is based on the poem "Neðansjávar" ("Underseas") by Kristín Ómarsdóttir and is written for a chamber orchestra and alto.

This thesis deals with a research on the musical perception of deaf people, as well as the comparison between the perception of deaf people and those who can hear. Listening sessions are described where the deaf "listen" to sound clips by known and not well known composers and give an account of their experiences. The research involves studying their reactions and assessing how they perceive music, sounds and tones, with the purpose of examining what it is that kindles their different emotions, feelings, images, colours, etc.

The objective is to:

- Study whether there is consistency in the deaf people's perception of the sound clips used in the research and examine whether they make a distinction between music, sound and simple tones.
- Study whether the sound clips call forth comparable emotions in deaf people and hearers.

Furthermore, it is considered whether hearers base their perception of music on preconceived ideas of which the deaf can make no use and whether the perception of hearers is thus more limited than that of the others. It is interesting to study how the deaf experience music and whether they distinguish between certain musical factors in a comparable way to that of hearers, such as the different timbre of the instruments; whether only one instrument or a symphonic orchestra is involved; electronic music, or the drone of a waterfall, sinus tones, or a singing voice.

While listening to the musical pieces, answers were sought to whether the given listening examples had a comparable influence on all those who listened to them, irrespective of whether they were deaf or hearers. In order to examine that further, a group of hearers was called in to listen to a few of the musical pieces to which the deaf people were listening. Although it was impossible to block the hearing of these people completely, arrangements were made to preclude their hearing to the extent possible and study whether they perceived the music differently from the way to which they were accustomed.

3.1. The Participants

The group that participated in the research consisted of thirteen deaf people and six people with full hearing. The deaf participants in the research have either been deaf from birth, or lost their hearing later in life, after having experienced sound and music. Some of the deaf people attended the sessions twice and some three times. The age of the people is between 24 to 55 years. The deaf participants have different musical experiences. Opera music is the favorite of some of them, especially if it is accompanied by film or dramatization; others prefer music on stage, but the majority watch music videos where the visual aspect is obviously important and even plays the biggest part in the experience. Sign language singing, sign language choirs, rap and Lied singing is growing considerably within the deaf culture around the world and there has been a great increase in making music videos. One of the deaf listeners in this project is a professional actress and a (sign language) singer.

3.2. The Sign Language Interpreters

The Communication Centre for The Deaf and Hard of Hearing, represented by Valgerður Stefánsdóttir, joined this program. A meeting was held with the staff and sign language interpreters where the research was presented. Some of the staff knew about the project as they took part in the work preceding it in connection with the BA thesis of the undersigned (2008) on the same topic. At a meeting with a group of deaf people, sign language interpreters and the staff of the centre, it was decided to make a schedule and assign listening sessions that would take one hour each, with one listener at a time accompanied by a sign language interpreter. A total of four sign language interpreters took part in the research. It is preferable to have more than one sign language interpreter take part in such a research in order to prevent any unconscious communication taking place that could possibly change the intended answers of the participants. One sign language interpreter was present in each listening session and it varied each time who interpreted for whom. The questions and answers were sound- and video recorded to enable later reading of the sign language if necessary.

3.3. The Research Method

This research involves studying the way in which deaf people perceive sound clips and comparing their experiences. The way in which the deaf perceive the sound clips in comparison to that of hearers is also studied. The most convenient methods in a research like this one are qualitative as such researches are based on conversations. Qualitative researches have mostly been used in order to gain understanding of behaviour or conduct from the standpoint or experience of that which is being researched. The main emphasis in this research was placed on the reactions of the participants to the sound clips, but not on physical definitions of sounds, or medical analysis. In qualitative researches the scholar approaches the subject without having made a theory beforehand and the research equipment consist of open interviews. The research questions lead the research on and its subject matter develops parallel to the data collection.⁶

⁶ Bogdan, R.C. and Sari K. Biklen, *Qualitative Research for Education: An introduction to theory and methods*, 3. Published, Boston, Allyn and Bacon, 1998. Kvale, S., *InterViews: An Introduction to qualitative research interviewing*, Thousand Oaks, CA, Sage, 1996. Taylor, S. and Robert Bogdan., *Introduction to Qualitative Research Methods. A guidebook and resource*, 3. Published., New York, John Wiley and sons. Strauss, A.L., *Qualitative Analysis for Social Scientists*, Cambridge, Cambridge University Press, 1987.

It is a common attitude that the deaf are unable to enjoy music to the same extent as those who hear and that they have nothing to contribute to music. Therefore, it was important in this research to create an environment and conditions where the deaf would feel safe and be able to trust the emotions that would be aroused while listening to the sound clips presented to them.

As such researches are not common in Iceland nor in any other country, the researcher needed to find out the best form of communication in order to gain an idea of the impression that the sound clips would have on the deaf participants. In the BA research of the undersigned, communication methods had been formed in order to study the impression of the deaf people and their experience of music. They were based on the Deaf-culture and were effective in making the questions on which this qualitative research is based. The results of that work influenced the progress of the research and made a clearer definition of its subject matter.

Deaf people in Iceland, who use sign language on a daily basis and consider themselves a minority language- and culture group, define themselves as “Döf” or Deaf. The manner of communication within the deaf and dumb community is molded by the Deaf-culture. They talk to one another in a sign language that is based on a visual culture.⁷ Similar to the BA research, this one revealed that in order to get answers from the interviewees regarding emotions and perception, it was necessary to ask questions that referred to colours and pictures, because that is the best way in which the deaf listeners are able to express their emotional perception. Emotional expression with colours and pictures is thus intrinsically related to the Deaf-culture. Thus, the colour black or grey e.g. often expresses a negative emotion, whereas yellow, pink or light-blue are on the other hand considered happy.⁸

It was important to create a feeling of trust between the listeners and researchers in order to enable the expression of emotions as unrestrainedly as possible. It was important they understood that here were no “right or wrong” answers, but that their own experience would give the most important information. This method can furthermore be said to be in accordance with the results of the research conducted by Alice-Ann Darrow, mentioned in the introduction, when it was considered obvious that different methods from the ones that were useable with hearers, were considered necessary to approach the minds of the deaf.

Understandably, it takes a few sessions for people with inoperative ears to get used to listening to music by relying on touch and to trust the things that come to their minds. It was therefore important that they expressed themselves about what they perceived and what appeared in their minds, and also if nothing appeared. Everything that was said made a difference. It was important that the one who asked and also the sign language interpreter did not express any reaction to the account of the listeners and their experience, but were straight-faced in order to avoid having an influence. Between the songs and interviews, the listener was encouraged to keep faith in what he/she perceived and was asked to relax to the extent possible while listening, as it was important in the flow of consciousness.

⁷ Rannveig Sverrisdóttir, „Táknmál - tungumál heyrnarlausra”(Sign Language – the Language of the Deaf), *Málfríður*, 21(1), pp. 14-19, 2005, retrieved 9.9.2010 from <http://malfridur.ismennt.is/spring> 2005/vol-21-1-14-19-rs.htm

⁸ Valgerður Stefánsdóttir, telephone interviews, 20 April 2012

At the end of each sound clip the listeners were asked about their experience and feelings. In order to activate the expression of emotions with reference to the visual world of the *döff*-culture, questions were also asked about colours and pictures for the expression of emotional experience, as in the following example:

- What did you perceive ?
- How did you feel?
- Did you see any colours?
- Did you see any pictures?
- What kind of pictures?
- Did you get stronger feelings in any one place of the body while you were listening?

The research data were gathered during the period from November 2010 to March 2012. A total of 24x4 formal interviews were made with thirteen deaf individuals and 6x4 interviews with hearing individuals. These were individual interviews that took place in the workshop of the researcher and one listener was interviewed at a time with a sign language interpreter. The listening and interview sessions differed in length, although each session was intended to take about one hour. Each time there were four sound clips, four minutes long each. At the end of each sound clip the listener was interviewed and he/she asked about the experience of the listening as well as additional questions, such as the ones mentioned above. The interviews were made in sign language and Icelandic, but it was necessary to videotape every interview as the deaf express themselves in sign language. The meaning of the words that were expressed with signs and facial expressions could be richer than the spoken words indicate. It was therefore necessary to write them down with reference to the videotape in order to get both the sound track and the possible additional meaning accompanied by the signs that expressed feeling. The interviewee thus faced the video recorder, sign language interpreter and researcher who asked the questions.

As the ears of the deaf participants are not active, the use of headphones for transmitting music is ineffective. In order to be able to perceive the vibration and frequency of sound and music they need to touch the waves in the air which requires a powerful sound system. It was therefore decided to select a sound system with a clear sound and that had the possibility of a great power. The power was such that it would soon have destroyed normal hearing, i.e. more than 120 decibel. The sound language interpreter and the interviewer, who were in the same room, put earplugs in their ears and also covered them with tight ear protectors. The ones who use hearing aids removed them from their ears while they listened as hearing aids perceive frequencies that can interrupt and are uncomfortable for the listener.⁹ The sounds and the musical pieces have intrinsically different power and are composed with varied changes in strength and in different fields of frequency. The listeners did not get to know beforehand to what they were about to listen. Two methods of listening were used, a) balloons and b) a soundboard, when the listeners were presented with the sound clips.

a) Balloons as “sensors”

As in Dr. Shibata’s research, mentioned in the introduction, balloons were used on the one hand to study the tonal sensation of the deaf and there was a total of thirteen participants in that study. It was conducted by having the listener sit before three big loudspeakers and hold an inflated balloon. Thus, it was assumed that with the sense of touch the listeners would be better connected with the sound waves. They were also free to touch the loudspeakers and whatever would help them sense the sound waves to the extent possible. The majority chose to sit on a chair at about a half to one meter’s distance from the loudspeakers and hold the balloon in their laps.

b) Sound Boards as „sensors”

The idea of using hollow sound boxes or platforms to help deaf people sense sounds as vibrations has been well known for centuries. A known example is when those who teach the deaf stamp their feet on a wooden floor in the classrooms in order to get the attention of the students. One of the leading classical musicians in the UK, Evelyn Glennie, is a percussionist whose hearing is very impaired and she partially “feels” the music through wooden platforms on which she stands when she performs.¹⁰ This idea was presented to the visually impaired and blind when Lilli Nielsen¹¹ started presenting the use of sound boards for children who were visually impaired and challenged with other difficulties. Specially designed sound boards have been used as sound wave conductors in music teaching for people and especially children with impaired hearing and vision. The board is then used as a touch surface which many people can approach at the same time and on which it is also possible to sit, stand, dance or lie down.

Keeping a similar setup in mind, three members of the deaf listening group were called in, as well as six people with full hearing who formed a comparison group. A thick plywood board, 1,20 m wide x 2,40 m long, was placed upon two sawhorses and under this board there were 3 powerful loudspeakers. The cone of the loudspeakers was facing up, keeping a 15 cm space from the board and one powerful subwoofer was placed between them. The listener was asked to lie on the back upon the board and hold crystals (stones) in each hand. Crystals have so-called piezo-electricity, which is the property of certain materials to transform mechanical stress into electricity.¹² This property of the crystal thus enables the listener to make a powerful reception of the sound stimulus. It was not considered necessary to have as much intensity of sound as in method a), because the board transmits the vibration well into the body of the listener. Furthermore, the crystals were good sound wave conductors and replaced the balloons. Although it is not possible to exclude all sound, it was tried to the extent possible to prevent the hearers from hearing with the use of earplugs and also by covering their ears with very tight hearing protectors.

3.4. The Sound Clips

When deaf people are asked about their experience of music they often talk about drum and bass vibration. Normally, this is considered the only and easiest way for the deaf to experience music, i.e. to perceive the even beat of percussion and strong bass which creates a lot of vibration.¹³ In this research it was therefore decided to avoid as much as possible deep and heavy percussion with a steady beat in the music that was chosen, and examine whether it had prevented or excluded the experience and perception of the deaf people of music.

Most of the pieces of music chosen for this study are well known. An effort was made to have them embrace a wide field of music history and their choice was centered on their revealing a broad scale of emotions and being known as such. Thus, the focus was on being able to rely on a description of the atmosphere and emotional range of the work to enable the comparison between the emotions that the composer could be expected to be communicating and the experience that the participants were describing in the research. An emphasis was placed on a diverse range of

9 Kong, Ying-Yee, Cruz, Rachel, Jones, J. Ackland and Fan-Gang Zeng, “Music Perception with Temporal Cues in Acoustic and Electric Hearing”, *Ear & Hearing*, 25(2), April 2004, p. 175-185, retrieved 21.6.2012. from http://journals.lww.com/earhearing/Abstract/2004/04000/Music_Perception_with_Temporal_Cues_in_Acoustic.10.aspx

10 Glennie, E., “Hearing Essay”, 1993, retrieved 19.2.2012, from <http://www.evelyn.co.uk/literature.html>

11 Brown, D., “Resonance Boards”, *Deaf-Blind Perspectives*, 10(2), winter 2002/2003, retrieved 10. 9. 2010, from <http://www.deafblindresources.org/article/resonanceboards.html>

12 Becker, R.O. and Gary Selden, *The Body Electric*, Quill/William Morrow, 1985, p. 122.

13 Fahey, J.D. and Louis Birkenshaw, “Education of the Deaf Bypassing the Ear: The Perception of Music by Feeling and Touch”, *Music Educators Journal*, 58, April 1972, pp. 44-51, doi:10.2307/3394046

musical instruments, bands, individual instruments and vocals. Furthermore, attention was paid to having a wide range of wavelength in each sound clip. Electronic music and environmental sounds were also among the sound clips, in order to examine whether the deaf listeners made a distinction between sound and music. Each sound clip was approximately 4 minutes long and centered on the beginning of works or their specific parts.

The following works were selected as listening examples:

1. Krzysztof Penderecki, (1933, Polish composer and conductor): *Threnody for the Victims of Hiroshima* (1960), for 52 strings.
2. Stomu Yamash'ta, (1947, Japanese percussionist and composer): *Echo* (2005), performed on Japanese stone instruments. A blessing to children who have been mistreated.
3. Stomu Yamash'ta: *Destiny* (2005), Japanese stone instruments, part of the work *Echo* which deals with the destiny and suffering of children who have been mistreated.
4. Trevor Wishart (1946, English composer): *Feeder* (1979), electronic work, environmental sounds and chamber orchestra.
5. Ben Frost (1980, Australian guitarist and composer): *Killshot* (2009), electronic work on a spooked underwater creature.
6. Olga Neuwirth (1966, Austrian composer): *Vamphyrotheone* (1995) work for an orchestra about an underwater monster in the form of a giant octopus.
7. Ludwig Van Beethoven (1770- 1827, German composer and pianist): Symphony No. 3, *Eroica* II Funeral March (1804).
8. Edward Grieg (1847-1907) Norwegian composer and pianist): *Wedding Day at Troldhaugen* (1892), for orchestra.
9. Igor Stravinsky (1882-1971, Russian composer, pianist and conductor): *Rite of Spring*, (1911-13), Dances of the Young Girls, orchestral work Part 1, on the sacrifice of a virgin who is forced to dance herself to death.
10. Claud Debussy (1862-1918, French composer): *Nocturnes* (1899), symphonic poem for orchestra.
11. Hildegard von Bingen (1098-1179, German composer, writer and abbess): *In Principio Omnes* (1151), religious opera.
12. Jón Leifs (1899-1968, Icelandic composer and conductor): *Dettifoss Waterfall* (1964), Orchestra, mixed choir and baritone singer.
13. Jean Sibelius (1865-1957, Finnish composer): *Valse Triste* (1903), orchestral work in waltz form on the death of a sick mother.
14. J. S. Bach (1685-1750, German composer): *Nun komm, der Heiden Heiland* (1724), Cantata for the first Sunday in Advent.
15. Gullfoss Waterfall: environmental sounds, the sound of the waterfall – four versions.
16. Sinus tones, various frequencies.

4. The Answers of the Participants

Apparently, the deaf listeners participating in this project, each uses his or her own method in the listening examples. They do not use the traditional way of describing music as is customary in musical analysis. Instead, they often mention strong emotions that are usually graphic, full of colour and memories. They make comparisons to their childhood experiences and events from stories, films and television. They give accounts of their experiences out in nature, at the seaside, in the country, in their travels abroad, as well as other experiences. Fear, threat, death, sorrow, ghosts, earthquakes and weather are common words used in their descriptions. The sound clips presented to the participants consisted of the first 4 minutes of each work, or its specific parts.

The following answers given by the listeners are their comments on each sound clip presented to them.

4.1. Krzysztof Penderecki, *Threnody* (1960)

The composer, who first called the work 8'37 with reference to its length, originally described it as a sound sculpture and a completely abstract performance with a decisive sound texture. He later renamed the work and called it *Threnody: Dedicated to the Victims of Hiroshima* (in Japan on August 6th 1945). *Threnody* is a symphonic poem composed for 52 strings: 24 violins, 10 violas, 10 cellos and 8 contrabasses. It is written in an unusual way, as instead of traditional notes, bars, chords or melodies, each musician receives instructions in special symbols and time codes. One of the characteristics of the work is a broad range of frequency from very deep tones up to high, strong tones. The sound clip begins slowly and modestly but grows into a great mass of overtone clusters with abrupt changes in dynamics.¹⁴

a) The Experience of the Listeners – the Deaf

Listener number 1. „This time it's a totally different feeling. I felt as if there was a war, or something of that sort going on. Like a great deal of threat or something. It was totally different from before, then it was a good feeling, but this time something dangerous is going on. Yes, as in the beginning it was like a parade, some kind of marching, whether it was a war or something, it was an image I got, a very dark colour in this, a black feeling, like marching, something dangerous.”

Listener number 2. “This was totally different from the first one, much heavier and had that kind of effect. I don't know if that's the right thing to say. I thought it was like a scream, that's the effect it had, I felt as if someone was screaming, some kind of great weight. The first one was calmer, both the songs were calm. This one was different from the first one. I didn't feel badly but still it was like silence.”

Listener number 3. “This was an enormous rage. It felt like it was decreasing but then I thought everything was exploding. It was different from the first one, like some great noise, I thought it was uncomfortable, bad, didn't feel good, I was startled, a bad feeling. I don't know, this was just black, like a ghost, like a threat, I was startled.”

Listener number 4. This was very different, difficult to talk about it, how can I do that, I can't figure it out. It felt like fireworks, bombs, maybe like on New Year's Eve. Then later it became calm like silence out in nature. First it was strong and difficult, then it was soothing, can't quite explain how it was in the end. Don't know, like iron that is pressed together, like tearing something made of iron or metal. It was like a hard car crash, tearing iron apart – No colours.”

Listener number 5. “This felt uncomfortably, it gave me the creeps and in the beginning it was like a war bomb, some explosion and people were scared. There was vibration and then suddenly there was an explosion, another was like there was a ghost and I was a little scared or frightened, it had that kind of effect on me. I thought this was stronger, like a war, explosion, I felt it in my body like it was an explosion. Then it all fell down as if some kind of fear and chaos had emerged. Then it was like a ghost. Not a good effect, uncomfortable. I didn't see any colours, it was only like war, world war, like pictures I have seen on World War II; all the explosions, grey/black, that is the colour of war.”

¹⁴ Burkholder, J. Peter, Grout, Donald J. and Claude V. Palisca, *A History of Western Music*, p. 928, W.W. Norton & Company Inc., 2006.

Listener number 6. “Wow, enormous sorrow, like war or beating, just awful enormous sorrow. I can see like red explosions or beating, yes. This sound clip didn’t make me feel good, in the beginning it was like war, like aeroplanes dropping bombs and people trying to escape. Then it got a bit softer. There was one moment like there was a child, all alone, without its parents. It was calm for a while, as everyone was dead around the child who was wandering around alone looking for its parents, then these explosions started again.”

b) The Experience of the Listeners – the Hearing

Listener number 1. “This had something to do with death, didn’t it? I felt as if I was coming apart, not exactly dead bodies, but signs of human habitation, I have not heard this before, it’s a bit chilly but still beautiful. While the one before took you further back in time, this one was here and now. Cold reality, mortality, rubbish, wasteland. The body vibrated, especially in the stomach, hips and up along the spine. I started thinking about my bones, my core vibrated. It was beautiful and good to experience this.”

Listener number 2. “This was fun because here you listen to the music with the body and not the ears and that is fun. I listen like a child and the story takes place in a cave and we are tidying and the bees came in and we were able to hide from them. I was afraid they wouldn’t leave. This was a thick group of bad bees, but then they left. They looked for us but we were able to hide from them because this was dangerous. In the end, this force went away and we were able to hold a wedding. In work no. 2 I started listening with the ears but in the other one I was able to change a bit and focus on taking in and listening with the body. You need to get used to it because in that way you enjoy the music better.”

Summary - Krzysztof Penderecki, *Threnody*

It is as if the group of the deaf listeners perceived the core of *Threnody*. Black feeling, war, death, threat, anger, screaming and dark colours are their descriptions of their experiences and they seem to correspond to the symphonic poem and the feeling which is heavy and dreadful. It is also interesting that most of the deaf listeners mention a heavy and difficult silence which presumably refers to the parts where the volume and vibrations of the sound waves are quite low. That is where they perceive loneliness and a repressive silence. Some mention a feeling of fear in connection with ghosts and their threat. The bomb, however, plays a leading role according to most of them. No one mentions anything good or positive in this sound clip. In this connection it is worth asking whether the association of the composer to the event through the symphonic poem is strong enough to be able to present itself on the “mental projection screen” of both the deaf and the hearing listeners.

Neither one of the hearing listeners had heard the work before, nor did they know of its existence. It appears as if both of them sensed the misery and threat in the environment when they mention the cold reality and mortality and talk about the group of “the bad bees” that are dangerous. These bees can be compared to war aircraft with bombs that most of the others sensed and are mentioned in the examples above.

It is also intriguing whether it is the clusters with the great mass of overtones, piling up of chords, quartertone clusters or more of such things that arouses fear and anxiety and whether that combination should not also arouse the same kind of emotions while listening to other works, such as *Destiny* and *Echo* by Stomu Yamash’ta or Stravinsky’s *Rite of Spring* and *Nocturne* by Debussy. Because of these piling up of chords and cluster characteristics, it was considered worth examining the effect of the Japanese stone instruments that Stomu Yamash’ta plays in his works.

4.2. Stomu Yamash'ta, *Echo* (2005)

A number of stone instruments of different shape and fretted in *sanukite* stone are used in the work. Each stone has its unique sound which appears to bring us ancient news. "The stones have been in existence since long before the time of man and therefore they possess various things that extend beyond the places that human imagination is able to reach."¹⁵ This work is a prayer for blessing for the children who have experienced atrocities such as war, slavery, sexual abuse and human trafficking. In this work there is a great deal of overtone mass clusters and the range is wide.¹⁶

The Experience of the Listeners – the Deaf

Listener number 1. "I had a sense of calm and relaxation, there is a soothing effect and peace in this. I felt water, like when you throw a pebble into water and it ripples. This is a comfortable movement and there was a blue colour in this. This was not a story. I was watching a blue sky and this was a great relaxation, like something in the environment, in nature."

Listener number 2. "This felt like a release, as if someone were playing; some kind of release. Just some person who wants release. Like when you are watching the ocean; strong release."

Listener number 3. "I felt good, I sensed that this was calm in between like when you are sitting and having a nice talk, no anger or excitement, I felt good – my body tickled, my arms tickled and I wanted more."

Listener number 4. "I don't feel joy in the end but courage, but in the beginning it feels like trust. It's not good to say what I feel in between. To begin with it is as if there is a child who trusts someone but then some time passes and it is as if someone has betrayed that trust. So as the child gets older it gains strength, as if it is climbing a mountain ... not a mountain, but more like it is building itself up within, i.e. showing that no one is able to break me and that is what comes in the end, as if it is saying: "To hell with this, here I am, I'm a strong and proud person."

Listener number 5. "Totally different – there is joy in this – it takes place in summer out in nature – green and beautiful – there is a pond, a lake and the water ripples when a stone is thrown into it. Fresh water and a little cold. Suddenly I was very startled and started thinking about it and got something other than a lake. Don't know what happened there for a while – a little sorrow – but then everything got well again."

Listener number 6. "I felt a lot of peace – not in a church – this was relaxation – like yoga – I had a sense of calm and cleansing of the mind – I was able to relax – there was no story just tranquility and relaxation – a bright colour – if I let go of the balloon and trusted the body but if I held the balloon it led up along the arms to the heart. – Great song. The balloon helps me a lot to get a feeling for the music and just great to be able to listen to music at that high volume so you get the vibration."

¹⁵ Yamash'ta, S., from the cover of the CD, *Bergmál (Echo)*, Smekkleysa, Reykjavík, 2005

¹⁶ Yamash'ta, S., Ragnhildur Gísladóttir, Sigurjón Sigurðsson, *Bergmál (Echo)*, Smekkleysa, 2005

Summary - Stomu Yamash'ta, *Bergmál (Echo)*

One of the participants listened to *Echo* twice: number 1 and number 5, with a month's interval. As in all instances the listeners do not know beforehand what is about to be played for them, but this listener described his perception in the same way both times. In both instances he senses "relaxation, peace and tranquility". Both times he mentions that there is "no story in this work", a picture appears of a blue sky, bright colours and the emphasis is on a feeling of tranquility and wellbeing.

Three of the six listeners mention rippling water. It is as if the listeners sense mental cleansing which the work is communicating to us with water, release, relaxation, confrontation of one's life and courage. "Water that ripples after a stone has been thrown into it" is possibly how the listeners relate to the instruments' intrinsic world of sound; their stories and experiences.

4.3. Stomu Yamash'ta: *Örlög (Destiny)*, (2005)

The composer plays the Japanese stone instruments as he does in the work *Echo*, mentioned above. The range is wide and has a great overtone mass and clusters but the chord process and interpretation in *Destiny* is different from that of *Echo*. The work is the composer's contemplation of the lives and destinies of all the children who have suffered mistreatment as is described in *Echo* of the same title.¹⁷

a) The Experience of the Listeners – the Deaf

Listener number 1. "It was a good feeling – as in nature among animals – I saw rippling water like when you throw a pebble into water and it could also be tranquility and something related to nature, tranquility and leisure. Sometimes the sound went up my arm; different sounds for animals, sound, water, wind, like meditation."

Listener number 2. "I thought this was a bit confusing – not calm – stressed and it went up and down. The music went up and down. The music was like it didn't know what it was doing, fluctuated. I felt pain – I sensed pain and sorrow. More like anger, yes, it became irritated or angry, a feeling of anger."

Listener number 3. "It feels as if I have gained some extra energy now, as if I have been out walking in sea noise and wind. It is difficult in the beginning – it felt like rain that gushed a bit down and just grey, no colours but as it went on the rain stopped and then there was just wind and it was like an island – an island in Breidafjörður (in the west of Iceland), rolling sea and wind. It was still strong. Yes, I was a bit lost but then I found the right way and was at peace."

Listener number 4. "I was very well relaxed - it was like when I was little, then it was as if there were waves hitting rocks – then I thought I heard a loud laugh. Then it felt like there was a lot going on, all kinds of sounds. I was walking along the ocean and there were waves hitting rocks and then it was like someone was holding me and started laughing out loud."

Listener number 5. "I think I was about to fall asleep, it was such good feeling. There was an ocean and a great deal of surge, waves hitting the beach. Then there was kind of an interlude and at last there was a good feeling. I felt good. It was like time rushed by. I could use this to fall asleep at night. I felt like this was good for me. I felt it mostly in my feet, down my legs."

¹⁷ Yamash'ta, S., Ragnhildur Gísladóttir, Sigurjón Sigurðsson, *Echo*, Smekkleysa, 2005

b) The Experience of the Listeners – the Hearing

Listener number 1. “I felt good. The sound came from an unexpected direction. I sensed strong feelings and almost tears at the beginning which was a physical reaction and as it went on I had a very strange feeling, my arms started twitching, some kind of a spaced out electric shock. The same feeling, a trance like feeling, as I was twitching, waking up. The feelings were sweet at the beginning but in the end there was threat.”

Listener number 2. “I thought this was great fun and it was also good to feel the stones, how they spoke to me, also to my feet and that is where I sensed a great deal of these vibrations and then you see all kinds of pictures. And because the stones spoke to me I saw some kind of stone nature as there were stones falling down some crevice. This was not scary, only very beautiful. But then it started playing on my skeleton, as if I were a contrabass and my strings were being pulled. A very physical experience of the music, something more than simply hearing something. Colours of stone, earth colours.”

Listener number 3. “This was great – I went through nature, four pictures, the first one was on a cloud, as if I was lying on a light coloured cloud, then it developed into the feeling of going through some kind of molten iron or lava and I saw pictures within it, stone pictures, molten lava, the colour was rusted iron around, fiery red – in the next one there was suddenly like darkness and then the earth was illuminated like polar pictures, everything was frozen and very dark, like illuminated ice. Unbelievable and I felt very good about this, like the reflection of a full moon on snow. Then it developed into crystals, that’s how it ended. Slips like frost roses – huge, like within crystals, like light within this. Like mountains made of giant crystal slips.”

Listener number 4. “This had the effect on me that it felt like I was in some kind of landscape. Either underseas or ... a whale or something, or in the desert, maybe because the sounds are like metal that clashes together, then I thought I saw big metal fences. I was in a landscape. I felt OK, nothing was being forced upon me, a bit soothing.”

Summary - Stomu Yamash'ta: *Destiny*

Four of the five deaf listeners sensed water in this work. Most of them sensed difficulties at the beginning which then changed into good feeling as it went on. The deaf listeners appeared to feel well while they were listening, with one exception however. Listener number 2 who felt “irritation and anger” and felt as if “the music didn’t know where it was going”. Waves of the ocean hitting rocks or on the beach, are pictures that appear to them, also rain and a lot of wind which then abates. Most of them mention water as in the previous work, *Echo*, and also that in the beginning they had sensed a difficult feeling which then changed into a good one.

Keeping these nature pictures of the deaf listeners in mind and also the picture of the one who “lost directions”, the question inevitably arises whether the listeners are able to relate to the prayer, which Stomu is interpreting in his performance, to the suffering children and his wish for their freedom. It is also interesting to consider whether both groups are able to reach back to the past “long before the time of man” and experience the memory of the stones when they were lying on the bottom of the ocean before they were taken and fretted into musical instruments.

Each of the five hearing participants had different sensations while listening to the work *Destiny* in much the same way as the deaf ones did. They did however all seem to have had similar feelings and pictures as the deaf ones did, in the way that they have a strong relation to nature

and most often the words water, sea, cliffs, beach and stones are mentioned. It appears as if all the listeners gave the work total freedom to take them into unexpected and new areas within the world of nature, perhaps into some world the stones have experienced.

4.4. Trevor Wishart: *Feeder* (1979)

Feeder is an electric work from the album *Menagerie* (1974) comprised of sounds from many directions. Wishart asked a number of well known British performance artists to build small assemblages for an exhibition in which each object would be accompanied by appropriate taped sounds. The outcome was 10 works of art and the artist Mick Banks had a hand in one of them which is called *Feeder*. His work is an album cover television.¹⁸ In the sound clip a child can be heard drinking from a bottle or breast and it is then put into different sound variables. The sound of a child crying and a chamber orchestra are then added to this which leads us to a strange feeling which is in parts like a piercing danger, as when a child is crying too much. This is a rather dark picture with an underlying deep and irregular drumbeat. Only two listeners took part in this listening project, one of them deaf and the other one hearing.

a) The Experience of the Listeners – the Deaf

Listener number 1. “I thought this was fun – it was like a tornado or something – I felt as if I was in America, a bull or something – even the sea or something – like some great weather noise – houses were breaking down – I didn’t feel good. Yes, a bit tragic – like a tornado, much rain and it was breaking everything and it felt like I was listening to the destruction and a great force – I don’t know if this is right – no, I didn’t feel good. Booming rain in the balloon and a great deal of destruction.”

b) The Experience of the Listeners – the Hearing

Listener number 2. “Well, now, this is a bit demonic – cardinal red, terrible, wild madness. Like a burnt out sun, demonic feeling, red and black colours. You twitch about, whether it is because of the bass frequency that triggers the nerve impulses. I only saw these veils, this cardinal red, whether it was a volcanic eruption or something else, very stationary, the voices of some seeress who sang for the sailors and lured them into the depths. You hear so little but I felt more power and energy than in the other song. It was not a good feeling but there was great energy. I had an enormously strong feeling in the third eye, like an explosion.”

Summary - Trevor Wishart: *Feeder*

It is interesting to compare these two listeners because the deaf one has not had any education in music and was taking part in a listening session of this kind for the very first time. His experience of listening to music is therefore almost none. Both experienced a feeling of discomfort and sensed destructive powers, such as the tornado that breaks everything.

¹⁸ Discogs, “Trevor Wishart and friends”, *Menagerie*, retrieved 10.10.2010, from <http://www.discogs.com/Trevor-Wishart-Friends-Menagerie-Beach-Singularity-Vocalise/release/776956>

The hearing listener was aware of the importance of receiving the sound clip without any views or educated attitude to music. It was indeed a challenge for him as he is educated in music and is a professional composer. The picture he perceived was not unlike the one the deaf listener described. He thought the feeling was demonic or a “cardinal red, terrible, wild madness” which corresponds to the other listener’s experience of the destruction.

Both listeners agreed that the feeling was not good and the hearing one added that although he sensed something stationary in the work, it possessed “a great deal of energy”. He also mentioned that he felt “an enormously strong feeling in the third eye, like an explosion”. It is said that the third eye is situated in the forehead between the eyebrows and that it is the “sixth chakra” of the seven main power stations of the body and is said to be the centre of insight, clear vision, imagination, concentration and intent. It is also supposed to contain the roots of negativity such as confusion, depression, denial of the spiritual side and too much rationalism.¹⁹

4.5. Ben Frost: *Killshot* (2009)

The electronic work *Killshot* is on the album *By The Throat* that was released in the year 2009. There is a great deal of gloom over this work which has a very deep and strong electric bass most of the time along with a ripped guitar beat in the leading role. The composer says that the story behind the work is about a threatening beast living underseas that does not pose any threat as long as it is left in peace.²⁰

a)The experience of the Listeners – the Deaf

Listener number 1. “This was a special experience. Tension, as if a lot was going on, there was this special vibration, din, and then I saw a ship being buffeted by waves – first there was tension then it got a bit more calm. Then it was as if everything had become calm and the ship was sailing. Then everything was just finished. First there was this tense situation like fear and insecurity and I was fighting for my life. There was some threat. Two pictures appeared in the beginning – great tension – then there was this bad weather and a lot of rolling sea and I was trying to seek shelter. I felt anger. Yes, but then I got control. First there was chaos but then it got calm.”

Listener number 2. “I thought this was disgusting. I was startled at first, I was bit frightened, felt like this was an earthquake or something. I thought this was uncomfortable and I felt as if I had to stand up because something had happened and that things had fallen all over the place. I just felt the vibration. To begin with I thought I was stuck, but then I calmed down and felt the need to run away. It is like you can imagine an avalanche, you can’t hear anything, you just feel the vibration. I was trying to escape and this was uncomfortable. All I saw was blackness. Claustrophobia. Like when I was living in California and there was an earthquake there.”

Listener number 3. “In the beginning it was as if something were about to happen – I was curious – something exciting. Suddenly it was as if I was falling down Gullfoss Waterfall, I was so very curious and I was fighting – I never got up, just fell down. I was just floating and at last I was two persons. It was like there was another child there and I was telling it “not to watch” because it was so curious and I told it to watch out, but it just fell into the water. I was frightened.

¹⁹ The Chakras, *Jógasetrið (Yoga Centre)*, June 2011, retrieved 2.3.2012, from <http://jogasetrid.is/orkustoðvarchakras/>

²⁰ Conversation with Ben Frost 5 March 2012 outside Laugavegur 18, 101 Reykjavík.

I thought I was about to die very soon and was always trying to tell the other child not to be so curious and be careful, but it just fell also. I was also the child, both the one who fell and also the child who fell, yes, both. I thought I was about to die.”

b) The Experience of the Listeners – the Hearing

Listener number 1. “This was a bit awesome. Terribly cool. Very beautiful and an unusual experience when I was floating on top of the sound. A big project like it was existential, aboriginal in a giant context, existence on earth. It felt very good and I felt good. You were taken and held.”

Listener number 2. “Shall I tell you what this was? Birth, I went through the whole process like when the conception takes place, the peat bogs at Kljáströnd where my mother was conceived. Like when you are going through a tunnel. I was inside the sound, experiencing nature, awesome. Not afraid at all, no.”

Listener number 3. “Wow, this was amazing. A nightmare. Strange, I first went over to Ireland and saw a street organ, then it was as if I was being sucked down to the abyss and it was as if I was within the uncontrollable power of the sea, the waves were so great, you lie down underneath an incubus, dark and heavy and you are unable to move, then it ends when I am on my way to an execution, chained and unable to move. I was on some guillotine, nightmare and powerless.”

Listener number 4. “You could probably cure cancer with this, or any ailment there is! At first this was distant, but then my entire body was filled with it. A strong experience in the middle, hips and the head. The colours were greyish and warlike. This reminds me of the kick you get while you are doing a powerful workout. A knockout kick, an amazing feeling. A positive feeling of fear, because you know you are safe here and enjoy experiencing the power.”

Listener number 5. “This was awesome – Yes ... well ... it is a bit strange the way this affected me – do you know Pluto in astrology? Pluto has this ... the mass, demonstrations, social activity, underlying currents in society which are strong and there is really no one who can control them but the trouble is that in my astrological chart it is in the 12th house which is why I don’t know it so well, it is really the cornet, or the house of secrets as it is sometimes called, so you don’t get to know it until you are old, right before you die maybe. This had a subtle effect on me, also because this is aggressive – you are literally shaking, like physical energy, I experienced it like Pluto energy, dim, dark energy, not solar energy. Sometimes Pluto is related to the Mafia. At first I visualized a big city, traffic and then Pluto entered my mind. I don’t know if I was afraid but this was alien. No, no, not afraid. Not except in the sense that you are afraid of what you don’t know. Yes ...”

Listener number 6. “This was cool, unbelievably strange. I started by seeing you in a striped poncho like some kind of an Inca and was dancing fast like an Indian and there were Indians around you. Then, boom, I went up to the stars, up into the sky and was floating around there, then green tents appeared and I started opening them, enormously big, I swept them apart and in the sky and suddenly Sigridur, my great grandmother, appeared and was wearing a national costume and started dancing the same dance as you were dancing. Then I saw an atomic mushroom and above it rose the Blue Lagoon, greenish murky water for a long time, then I saw unclearly some rocks that were emerging. Then, finally I saw some sort of a tunnel or along some very narrow cave, very narrow. There was so much vibration in the lower part of my body and felt a bit sexual, maybe because of the vibration. An amazing work and the coolest.”

Summary - Ben Frost: *Killshot*

As a rule, the deaf listeners mention the difference between sensing good and bad vibrations. They also speak of a certain vibration and also about “just some” vibration and connect this sensation with different feelings and pictures. Thus, the first listener mentioned that in this work there was a “din, and then I saw a ship being buffeted by waves – first there was tension then it got a bit more calm and the ship was sailing”. In the work there is a great deal of changes in dynamics which mostly involve the appearance of a deep bass alternating with silence. This listener continued his description and said: “First there was this tense situation like fear and insecurity and I was fighting for my life. There was some threat.” The music led the listener between two poles and the pictures that appeared to him were twofold, i.e. on the one hand he talked about a tense situation, a great danger at sea and on the other, there was tranquility and stillness, “I was trying to seek shelter. Felt anger. Yes, but then I got control. First there was chaos but then it got calm”.

Listener number two thought this was “disgusting”. He had a similar feeling to the first one in the sense that he was trapped and had to “escape”. Claustrophobia and insecurity were the feelings he sensed and compared the experience to his experience from childhood when he lived in a country that was an active earthquake area. Listener number three sensed these definite changes in strength like the other two and experienced himself as two persons, the listener himself and also a child that he talked to. The force of nature is part of the pictures of all the deaf listeners, a great deal of rolling sea, an earthquake and Gullfoss Waterfall. Everyone is trapped in some way and fighting for their lives.

In comparison, it is interesting to study what the hearing group had to say about *Killshot*. Contrary to the deaf, who felt as if they were in a dangerous situation and felt insecure among the forces of nature, most of the hearing ones enjoyed it and most of them liked the situation, felt good and secure. They sense threat however, but it is distant and does not concern them directly. One of them mentioned a “positive feeling of fear” and another one “didn’t know whether he was afraid, but that this was alien.”

It appears as if most of the hearing listeners experience a feeling similar to what you get in amusement parks e.g. on the roller coaster, because they enjoyed the excitement rather than being afraid for their lives. They did not, on the other hand, all feel the same because one of them experienced the work in a dramatic way: “I was sucked into the abyss.” This experience is in a way similar to the description of the deaf who were fighting for their lives in Gullfoss Waterfall or out in the middle of the ocean.

4.6. Olga Neuwirth: *Vamphyrotheone* (1995)

Vamphyrotheutis Infernalis is the influence of the work *Vamphyrotheone* and is compared with an underseas monster which is like a giant octopus. The music resembles a whimsical mollusk which revolves around everything, never stops, and goes into itself which again urges it to continue in still new directions. Each movement is led by another, double-jointed and unobstructed in the dark abyss. *Vamphyrotheone* is like the unpredictable whims of people that make them lonely, insecure, unorganized, unfocused, unreliable, and possibly dangerous to themselves and even to others.

The subject of *Vamphyrotheone* is an underseas monster which the artist, Louis Bec (1936 -), captured in his creation of art and gave the name *Vamphyrotheutis Infernalis*. Like other artists

have done, Neuwirth uses the monster to symbolize the terrifying beauty belonging to the depths of the sea as well as to the lairs of the human mind.²¹ The work is composed for three soloists and ensemble. The composer tries to describe the underseas monster and its movements by having the notes and chords shoot and splash between the instruments at a different speed with great changes in dynamics.

a) The Experience of the Listeners – the Deaf

Listener number 1. “I felt loneliness at the beginning, I was sad but then I decided to revolt and break out and be satisfied with myself. I broke out and it was a relief. A knot of loneliness in my stomach but then that feeling went away. I had to be courageous and break out. Yes, I thought I was in a small room and my head was heavy at the beginning.”

Listener number 2. “This felt like calming music, comfortable – like a bit of wind, then calm, but increased in between and I felt just fine. But towards the end there was some anger, like it followed the wind – I thought the wind differed a bit, but in the end it had become quite rough, like a feeling of anger. I saw what appeared to be the sun and good weather – breeze – summer, but then it suddenly changed – more wind but still sunshine, but an angry feeling in the end. I don’t know why the angry feeling came. Yes, I felt a bit bad and I don’t know what it was. Maybe it is related to something – I don’t know. It was mostly in the area around my heart. The chest. It was just like usual anger that you get.”

Listener number 3. “I don’t know – it was like a way that I wanted to go but which closed – then I went another way and it was closed – no matter how I tried my way was always closed. None of the ways was good. The last one didn’t trouble me, but then suddenly everything closed. I don’t know what I want – I don’t know whether I was happy or hurt or disappointed. I just don’t know anything about this. No colour – everything confused. Yes, totally pointless. No matter how I tried, I always came upon a wall. Fighting and pointlessness.”

Listener number 4. “This was not fun – this was like a ghost or a wind, heavy storm or just a ghost, not fun – yes, scared. This was no fun, like a door and storm and something like a tornado, black – dark.”

b) The Experience of the Listeners – the Hearing

Listener number 1. “A completely new picture this time. It was a planet, a future vision on some planet, around this planet which was flat. There was some picture which had this pattern all around and then there were storms that always went through and followed the sound. Electric storms, fragments, suns with orbits around this planet. The planet opens and oval glass pearls come up, the one on top made of inorganic matter, brightest on top and it goes down and is illuminated by this without touching the planet. When the light moves down it gets darker above and changes colour and it moves down and towards the end it becomes totally black on top and then goes out in the end. I did not feel good in this because it was cold and it was bad, bad storms but quite impressive to watch this emerge from everything that was going on. This was something you wouldn’t want to get close to. In the first work I had a memory of the time when I was a

²¹ Eyden, P. “Vampyreuthis Infernalis”, retrieved 5.3.2012, from <http://www.tonmo.com/science/public/vampyreuthis.php>

little boy out in nature somewhere near a holiday cottage. But this was a poisonous work, these storms, a flower that opens and then closes. Poisonous powers, bad electric storms, no life. Fun to see this in such clear pictures.”

Listener number 2. “Wow, this was really something! This was a movie. You approach an incredibly powerful bird flying at breakneck speed; you respect it. Powerful. It can do anything and everyone respects it and senses its power. Then it flies out of its environment, its forest and comes onto an open area. Extremely bright sunshine and it continues being big, but gets smaller as it approaches the sun. Then other birds start coming along and it begins to experience its smallness and there are also other flocks of birds coming. Then it comes to a stop. A bigger bird appears which drives it away, hurts it possibly, and it backs away and crawls back miserably into the forest. Then it ends and you think that the bird has possibly died. An extremely impressive picture. Many feelings. When such enormous power starts experiencing its smallness. There are others that are stronger. In the beginning I sensed the bird’s feelings, or was the one who understood it and this experience, that there are others who are stronger. No fear, much rather surprise at not being almighty. This method of listening arouses the creative power and the experience becomes much stronger than when you listen in the traditional way - when you listen with your ears. It was fun to realize that you can get this jolt of creativity. In comparison, it is somehow so stale to listen with your ears as you normally do. Here the notes are doing their work inside you. Interesting to see how totally different the pictures are that these works present and how strong and clear they are. And amazing to experience fear without being afraid.”

Listener number 2. “This had in some ways the same effect on me as the first work. Except this time I felt as if I was in an environment like before but there was a person there as well. Not a whale, but a person, lonely, modern, belonging to our time, wanted to ask questions but didn’t know how to ask them and there were definitely no answers. Was a bit confused and anxious – a man at my age. Why am I here? Should I do something with this? Should I tidy this up, or, you know – Should I know why I am here or should I ask? It was a bit like that. An existential crisis which is so common in our times. It was as if it was taking place at a factory premises, a container here – the protagonist was this lonely, confused man. Why am I here – am I supposed to want something?”

Listener number 4. “I felt a great deal of vibration under my hands and everywhere and then I started seeing a black pond, very black and very deep and there was a cave around it and it grew and grew and everything became totally dark – this felt like so much depth and multi-layered. A lot of space. Then suddenly I saw swans flying in V-formation and an old Icelandic farm and straws outside and you are looking out. Then I went back to the cave – old and infinitely big. After I saw the window I felt sorrow or despair, uncomfortable and full of despair. Primitive. The colour was purple. A lot of vibration and the consciousness was depth and multi-layered space.”

Summary - Olga Neuwirth: *Vamphyrotheone*

The deaf listeners sensed loneliness and confusion, as if they were wayward in life. It seems to be in line with the core of the work also with the sensation of the one who experienced constant rejection. No matter how he tried to find ways, he always “came upon a wall”. Fighting and pointlessness. “In such circumstances loneliness and discomfort awake and even anger, like one listener experienced who felt calm at the beginning, but then did not know “why the feeling of anger came”. Sometimes it seems as if the listeners are encouraging themselves through the music and that they are fighting difficulties and need to “show courage and break out”. One of the listeners experienced a tornado which he compared to a ghost; something “black and dark”.

When the hearing listeners, who had their ears covered, allowed themselves to receive the music without that experience depending on their knowledge of the work or experience, it seemed as if they experienced some feeling of freedom that lifted them on an unexpected and limitless flight around their own world of ideas. The first listener went on a great adventure that appeared as a movie ready for exhibition. The listeners went on a journey around planets but these were places where he felt bad and where there were “poisonous powers, bad electric currents, no life”.

It is clear that this composition of Olga Neuwirth ignites colourful sensations among the listeners that come as a surprise to themselves, as is the case with listener number two who describes “an incredibly powerful bird”. Then this listener experiences the same as the others, irrespective of whether they are deaf or hearing: that a feeling of confusion, loneliness and insecurity arises. One of the listeners describes this experience of the work with the question: “Why am I here – am I supposed to want something?” It appears as if this monster has managed to reach its tentacles far and wide and touch most of the listeners who experienced insecurity in one way or the other.

4.7. Ludwig van Beethoven: Symphony no 3, *The Eroica Symphony*, 2nd Movement, Funeral March.

Beethoven composed *The Eroica* in the years 1803-4 in celebration of Napoleon Bonaparte. Beethoven, who was a great democrat, had respected Napoleon greatly, but when the latter adopted the title of emperor, Beethoven’s respect for him dwindled considerably. When Beethoven heard about the emperor’s death in the year 1821 he said that he had composed this funeral march 17 years previously to mark the sorrowful event when Napoleon appointed himself an emperor. Furthermore, he said the work was composed to celebrate the memory of a great man.²² The original symphonic arrangement was played for the listeners.

a) The Experience of the Listeners – the Deaf

Listener number 1. “I became sad, as if there were very sick people lying in bed and they were feeling very badly. Couldn’t quite say how I felt, but I was sad; there was heaviness in this. Not light, very heavy, depressing, sickness, heaviness and sorrow.”

Listener number 2. “Difficult. Varying notes, I don’t know. I did not sense much waves. Deep down inside I was with a man. I do not know what he was. Something is stuck and hard to get rid of. I don’t know if it was bad. It went through my bones and marrow. Not exactly anger, but maybe like the process of sorrow from numbness to acceptance and then it turned out to be like something was stuck which then became unfastened. This was very difficult, but I sense something so deep like a deep root.”

Listener number 3. “Now I was having fun. A girl and a boy get together. A chase and love in this. Flirtation. Yes, colours, red or green. Chase and then they got together. Exciting. Yes, I felt good.”

Listener number 4. “Yes, I didn’t think I felt anything much. I thought this was a bit empty. Yes, little movement in this. No effect, just like empty somehow. Yes, just so little somehow.”

²² “Historical Overview”, *Beethoven’s Eroica*, retrieved 12.1.2012, from <http://www.beethoveneroica.com/eroica2.html>

Listener number 5. “Yes, this was a bit special. The feeling was a bit wavelike. At the beginning I was glad, felt good and was glad inside. But then it changed and sorrow or anger emerged. Then I just started crying, regret or something. And some numbness. It was wavelike. I don’t know, it was like there was a little boy or something, the kids in the neighbourhood. It was like I was being left out. Some rejection. Some hurt.”

Listener number 6. “It was like I was starting my car, an old, tired car, I was sitting in it and starting it. Not just the car, I was at a dance and there was loud music and I got confused and didn’t know if it was a car or the noise from the loudspeakers. I felt like when I was young, experienced what belonged to the past. Nothing bad, felt quite good.”

Listener number 7. “I felt bad in this, just uncomfortable, pain and I felt bad in my heart. The beginning was like violence and pain. Constantly being broken down and I felt lonely. Then everything started again and I felt the need to be strong and standing up, but I felt like falling down again. Felt bad, just pain. Yes, but I thought I couldn’t stand up.”

b)The Experience of the Listeners – the Hearing

Listener number 1. “It’s fun to listen like this. This is so physical, the body reacts and the space is so different. It is like being part of some sculpture. This was totally different. The other was like movements coming from different directions, hither and thither. This was like a stream of sounds – the strings rolled through my body and I have never felt this before while listening to music. I got these strange twitches again. Strange – almost like an electric shock, flash. Enormously conscious of the music, mechanical. I heard music that was big and melancholic. A good feeling. Had a good effect on me.”

Listener number 2. “This was a different journey, I didn’t feel like I was taking as much part physically. The experience is however like it is just about to happen ... it is cancelled ... just about to happen ... cancelled. Full of unused opportunities, not exactly satisfaction, but still nothing bad, but like it could have been much more. This time I was simply in some place, colours of autumn.”

Listener number 3. “I see only pictures. I am in a field and in the far distance there is a pitch black mountain and behind the mountain there is a sun and the sun changes like when children are drawing the sun. Then I lost my focus and started to listen, but then my focus reappeared and then it was as if the sun was coming over the field and had transformed into a sunflower, a giant sunflower in the field. Before this happened, there were these golden clouds around the sun, but the sunflower moved a bit and it went up into the sun and then the field got dark, the dark field. It was a bit sad, like the dark mountain indicated. It is like when children are drawing the sun. Like a kaleidoscope. Little clouds in the oboes. You feel the heavy breathing in the music. Unbelievable how clear the pictures are.”

Listener number 4. “It was fun to experience this without the bass, different sounds entered the body, were strong as they came through the hands. I enjoyed feeling the sound waves coming in and I enjoyed it. But in connection with the work itself I don’t know if this was a standard picture that everyone knows, but the opening scene was good. It brings out your most sublime feelings. You feel as if you are capable of doing everything and that you are ready to do good work. I found myself walking into a green pergola, but at that time I lost the feeling of being able to do everything. Everything becomes more complicated as the work gets started. In the end I had reached a door, but then the music stopped. I was about to tackle something, I was completely

ready, but then there was nothing more. It came into the body through the hands with a strong green colour around the middle of the body.”

Listener number 5. “This is where it gets difficult not to let music history affect you. But, if I try to avoid it, I saw an unusually good preacher. A real preacher, someone who knew what he was preaching, someone who had experienced something. Then I get a strong feeling for the narrator as if I was being led from one point to another. The total experience – story from A to B and each moment is rich – and so is A and then I am used to think about this composer in that way. I tried to open up to something you are looking for and then this preacher arrived and I have never heard such a preacher. He was like Gandhi or Nelson Mandela or someone like that.”

Listener number 6. “I went straight to St. Petersburg, then I saw an iceberg floating around and then suddenly little meringues and I felt hideously nauseous for a long time and uncomfortable and disliked the work more. Like I didn’t care about this work at all. For a while I related this work to fluttering eyelashes on a dancing ballerina and for a while I also related this to people I don’t like. One man who treated my mother badly. Not an ugly work, but ... extremely physical characteristics, strong nausea, the solar plexus very active – energy leaking out and people are stealing your energy through your stomach.”

Summary - Ludwig van Beethoven: *Eroica*, Part Two

Of the seven deaf listeners, four describe strong feelings of discomfort while listening to *Eroica*. One mentions “sorrow, sickness, heaviness and a great deal of discomfort”. Another one speaks of “the process of sorrow” and “something deep within yourself”. The third one mentions “sorrow or anger, regret or something” and then he started to cry. He also mentioned rejection and hurt. The fourth one mentioned “a bad feeling, discomfort, pain and loneliness”. Listener number 2 and 5 is the same person who listens to the work with a month’s interval. This listener senses a great deal of sorrow both times. The first time, the feeling is deep and keeps the listener stuck in a great deal of discomfort and the second time a lot of sorrow, rejection and hurt emerged.

The other three listeners mention totally different experiences. The first one uses adjectives such as “fun” and “exciting”. Another one claims he doesn’t feel anything much; speaks of “little movement and emptiness”. The third one compared this to the feeling of “starting your old, tired car” and couldn’t say whether this was “noise from the loudspeakers or a car but still quite a good feeling”.

Of the six hearing listeners, five describe sad or negative feelings while listening to *Eroica*. One of them mentions “big and sorrowful” music; another one speaks about “a lot of unused opportunities”. The third one mentions blackout and “a little sorrow” and “the black mountain”. The fourth one describes the feeling when “you are ready to do good work but then that feeling is lost”. The fifth one mentions a strong nausea and “extremely physical characteristics” and mentions people who “steal your energy”. The reactions of the sixth one neither indicated positive nor negative feelings, but he speaks of “a good preacher” who has “experienced something” but also admits that this picture had emerged when he was finally able “not to let music history affect” him because he knows this composer very well.

4.8. Edvard Grieg: *Wedding Day at Troldhaugen* (1892) Orchestral Version

This work is a memory of the 25th year anniversary of the wedding of Grieg and his wife, Nina, in their home in Troldhaugen in the year 1892. This is one of the 66 works in the group *Lyric Pieces*

for *Piano* and probably the most popular in that group. The work is in an ABA form, light but powerful in the first and the last part and carrying a colourful and adventurous mood. The middle section, which also has its strong characteristics, follows a different theme and is dreamlike, as if coloured with the sensitivity of bittersweet memories and verges on depression.²³

The Experience of the Listeners – the Deaf²⁴

Listener number 1. “It felt good to sense the rhythm in my body and I just saw something like an adventure and some story full of love, quiet music in between but then there was enormous power and then there came this tension like there was some kind of struggle or something going on and personally I thought it was a very good feeling. I felt just fine. Yes, this was just like a story or adventure was taking place. Yellow and happy, also like pink.”

Listener number 2. “I am not used to listening to music, but I thought this was like thunder. I didn’t think this was a heavy feeling. Like thunder. First it was lively, like a party, or something like that. But then just thunder.”

Listener number 3. “I felt vibrations in the pelvis and they increased and decreased. As they increased, the vibrations got really strong. It was fun. A good feeling, good effect, felt good. I saw a green colour and I felt good.”

Listener number 4. “A bit strange, I felt this vibration on me that went up and down in strength, soft and light. It was as if autumn had come and there was this preparation for a hard winter. There was a heavy wind, but then came spring, something new, bright weather and calmer, not so much movement in the weather and then like autumn came back again. My feeling was heavy like it is when autumn comes. The weather affects people.”

Listener number 5. “What I envisioned was like a fight between a married couple or friends. To begin with they are in love. Quiet and then it developed into anger or a fight, a little blues and then it calmed down again and became normal. Up and down. I am not used to music. The feeling was like a choir in sign language. It was light and fun to be alive, but then everything became angry, I envisioned an inner rage and irritation but then there was an anticlimax and everything got quiet and peaceful.”

Listener number 6. “Felt both heavy and light, fluttering and then down into something more heavy. The feeling was both good and bad. There was tension in the beginning and then it felt as if someone was dying and then the feeling went back. The feeling was different as if everything was cut into scenes. I saw pictures, a story. This was like an adventure where lovers meet, satisfaction and happiness, but then the happiness diminished. There was disappointment as if the lover had then died and the one who survived was a bit rambling, but then this reached some heights which then faded out.”

²³ Herresthal, H. *Edvard Grieg's biograf*, retrieved 23.2.2012, from <http://www.mnc.net/norway/EHG.htm>

²⁴ There were only deaf listeners who listened to these sound clips.

Summary - Edvard Grieg: Wedding Day at Troldhaugen

Although the listeners use words like “disappointment, struggling, fight or anger” when they describe their experience of this work, they seem however to sense wellbeing on the whole. They sensed changes in dynamics and often interpreted them graphically and then with strong contrasts like “winter and summer”, or contrasting feelings like “fighting or struggling and happiness”, “anger and irritation” and “peace and quiet”.

The listeners seem to have a strong feeling for the interactions between people, like lovers or a married couple, and the picture is clear as one of the listeners describes: “What I envisioned was like a fight between a married couple or friends. To begin with they are in love. Quiet and then it developed into anger or a fight, a little blues and then it calmed down again and became normal.” Here, there are clear graphic changes in dynamics. The imagery of the listeners is interesting in the sense how often a dramatic picture is drawn of “a fight between lovers”, or “headache and a difficult winter ahead”, but the description of their own feelings is not in accordance with this drama, as they mention a light and rather fun feeling. When they describe their feelings here, they seem to be watching the picture without worrying about the feelings that are taking place in the stories. They sense a fun vibration within the body and the feeling is usually good, although the descriptions are in parts dramatic like the account of listener number 6 who talks about “different feelings ... an adventure where lovers meet ... disappointment, as if the lover had then died and the one who survives is a bit rambling but then this reached some heights which then faded out”.

4.9. Igor Stravinsky: *The Rite of Spring* (1911-13), Dances of the Young Girls

The Rite of Spring is a ballet in two parts for a symphonic orchestra where the music is adventurous and daring with constant changes of meter and repeating chords interspersed with rests in unpredictable ways. The rhythmic ambience is sharp with unexpected and unforeseeable emphases which sharpen the contrasts. In this part of the work, the elders are assembled in a circle where they are watching the primitive dance of young girls and one of them will be sacrificed in order to increase the goodwill of the God of spring.

The Experience of the Listeners – the Deaf

Listener number 1. “I thought this was a bit calm but later it became more powerful like a bass that hits the body. Yes, I felt just fine. I remembered an experience I had in America where I saw a play and they were slamming doors and there was a bit of a commotion and running – it entered my mind now. I thought this was fun and it had a good effect on the body. I sometimes play strong music in my car when my son is with me. He chooses the music and when he is not with me, I look for a similar effect on the radio stations and I have started to find out whether they are talking on the radio or whether there is music.”

Listener number 2. “This was more difficult – a bit foggy – at the beginning it was as if it was sailing on and then there was light and it was like a dance or a party – felt like a disco – feeling of freedom – but something came and disturbed it - some disruption – it wasn’t a positive disruption – it was in parts – and then it was as if the rhythm with the drums in it – more life than before. A positive feeling but then something came and disturbed it. Man power – yes, more masculine.”

Summary - Igor Stravinsky: *The Rite of Spring*

In the BA Thesis of the undersigned²⁵ *The Rite of Spring* was used as one of the listening examples. Three listeners participated and each one of them described their individual experiences. It was considered interesting to present the same sound clip for only one listener at a time and find

out whether there was an accord between the results of the studies, especially because the deaf appear to read the thoughts and emotions of others quite well and it could have had an effect on the experience of those who listened to the work at the same time.

Although this work is based on the piling up of different chords, a dissonant and daring chord process, which has often been considered to cause tension and gloom in a traditional musical analysis, the work kindles a refreshing entertainment and enjoyment in most of the listeners, as the following references reveal.

The listeners referred to in the BA Thesis say: 1. “There is a lot of dancing, action, fun, amusing, full of colours.” 2. “I see people dancing Icelandic folk dances and there is a lot of joy. This is very national and many, many happy colours and a lot of movement. A very good feeling.” 3. “There is a lot of activity and a lot of fun. Before, the feeling was heavy and dark, but now you have a good mood inside, lightness and a lot happening. People running, living, strong and bright colours.”

When examining the perception of the two listeners, who participated in the study this paper deals with, they appear to have a similar kind of feeling, i.e. they think the sound clip is fun and envision dancing. It is as if the disruption was some kind of negative energy which the listener specially notes is masculine and could therefore be concluded that said listener related to the core of the story in some way, about the offering of the young girl to the God of spring. The lively dance of the victim appears to be the part, or perception that captures the minds of the listeners in almost all instances.

4.10. Claude Debussy: *Nuages (Clouds)* (1899), 1st Movement of Nocturnes

The word “cloud” indicates the compelling vision of the sky with the slow, solemn movements of the clouds, which dissolve into a grey colour with a touch of white. The composition is written for a symphonic orchestra and is based on a specific colour of chords in unresolved connections of chords where each one has its own characteristics. Debussy said *Nuages* was as study of grey colours. He said music was “in every sense colours and rhythm”.²⁶

a)The Experience of the Listeners – the Deaf

Listener number 1. “Easy now, I’m not one for expressing my feelings, but I started thinking about a man I met once and suddenly I started thinking about him. Yes, a bit sad – it was as if nothing was allowed to happen – as if he was walking by the flowers and I wasn’t allowed to invite him in – It was like a lot of loneliness.

Listener number 2. “It was like a love song, like a couple dancing in the theatre. Happiness and joy, not a fight or a struggle. A good, calm feeling. Yes, up my arms and over my chest, also in my feet, but mostly a feeling of wellbeing.”

Listener number 3. “Calm, not power, rather calm and I thought it was related to sorrow. The effect was like missing a person that was gone. The effect of sorrow and maybe a funeral. Nature enters this and this is more black than white, more dark, black white.”

²⁵ Ragnhildur Gísladóttir, *Fiðrildi í maganum, bjart framundan*, an unpublished course essay, Iceland Academy of the Arts, 2008

²⁶ Headington, C., *The History of Western Music*, Translated by Jón Ásgeirsson, Ísafold, 1987, p. 344.

Summary - Claude Debussy: *Nuages (Clouds)*

One of the listeners claims the work sparks a strong memory about rejection and loneliness from some time ago. Whether it is the experience of the listener or his long gone relatives, or maybe from the life of the composer, who sometimes had to deal with his depression, or the people around him, is not specified, but here there is a clear description of loneliness and self denial. Another listener expresses himself similarly and says the work is “rather calm and ... related to sorrow”.

Debussy describes his work in a picture of a cloudlet moving slowly and solemnly in the sky. Perhaps it can be believed that the listeners did indeed manage to connect with the tranquility in the cloud itself, the tone language of the composer and have maybe reached a kind of meditative condition.

The third listener also refers to a feeling of love and mentions a couple dancing to a “love song”. He says it does not describe a fight or battle, but that it is a “good, calm feeling”. In comparison to the accounts of the participants in the listening project, referred to in the aforementioned BA Thesis, they also place the strongest emphasis on their feelings of sorrow. One of them compares it to a “sad movie”, another one sees a “king and a tree in a sad and heavy feeling of fog” and the third one sees “the falling of the towers in New York and the sorrow that follows them”. *Nuages* and sorrow seem to have something in common if the total feelings of the listeners are examined. The feeling regarding “the picture” of sorrow and also of the cloud is inward and lonely.

4.11. Hildegard von Bingen: *Ordo Virtutum*, (1151) In Principio Omnes

Ordo Virtutum is composed around 1151 and is a religious opera containing 82 songs on the mystical talents of man. This is an independent composition, i.e. it is not composed for a traditional religious ceremony. Hildegard, who was an abbess, was different because of her unique position, as unlike other women she composed songs and lyrics, as well as books on science and health in her spare time. She had women sing for her but it was not at all appropriate for women to participate in musical performances in churches. The composition is written for female voices and one male voice which is the part of the devil. There are many roles: An Archbishop, a prophet, a happy spirit, an unhappy spirit, a penitent, the Devil, humility, love, obedience, faith, hope, chastity, innocence, mercy and others. „In principio omnes” is the last chorus in the work *Ordo virtutum*. It is invigorating in E-Phrygian, and the melody spans an unusually wide range (D – G’).²⁷

The Experience of the Listeners – the Deaf

Listener number 1. “A totally different feeling from the last one. This time I thought I heard voices, although I am totally deaf. Not as much power. I felt like a tick in the balloon. And suddenly I envisioned a church or maybe Christmas, maybe because Christmas is coming, but I started thinking about Christmas and it had the kind of effect on me that there was peace and wellbeing; a beautiful feeling, but I saw a white colour; peace.”

Listener number 2. “I thought this was like an opera feeling. Refreshing, not heavy, light like a song. Felt better than in the work before. Like peace and quiet, just suitable and cozy. A lot of brightness.”

²⁷ Burkholder, J.P., Grout, D.J. and Claude V. Palisca, *A History of Western Music*, p. 69, W.W. Norton & Company Inc., 2006.

Listener number 3. “This was like a song that turned up and down, of course I don’t know what it was about, it just went up and down and I felt good. This was like an opera, don’t know, rather soothing, just OK. My family plays the piano and I touch it with my hands and it feels good to feel piano music. This is totally different from the piano. Drums e.g. have a bad effect on me, but the piano or singing, the guitar or cello, is good. No, I feel it in my children when there is music going on, you just feel it in the body, feel it when it is over, in the body.”

Summary - Hildegard von Bingen: *Ordo Virtutum*

Although these three listeners have ears that are unable to perceive sound, they all perceived singing. They were not sure if this was exactly singing that they were listening to, but singing was the feeling they had. Two of them are even precise in their analysis and mention opera specifically, but that may be because opera is a usual word for music with singing and that is perhaps what they perceived. They may also have sensed that this was the performance of some play where the text was in the form of a song. Perhaps they sensed a different frequency in the account because of the wide range that the composition spans, but that is often the case in well known operas. Although they say they sensed operas, which often have quite a bit of activity and variations in tone language and overall performance, they sense peace and quiet in this work. They feel good while listening to it and they discern brightness and a white colour in the work.

4.12. Jón Leifs: *Dettifoss Waterfall*, (1964), Poem by Einar Benediktsson

Dettifoss Waterfall is an orchestral composition with a mixed choir and a baritone singer, set to the poem of Einar Benediktsson. The waterfall is presented right at the beginning with very weak and high violins in the main roles, against low and quiet contrabasses and timpani. The strings produce a tremolo sound almost the entire time. It goes between chords with perfect fourth and fifth effects and is performed with wave form changes in dynamics. This creates a powerful anticipation and excitement; something unexpected and big begins to appear in a supernatural way. The composer takes the listeners into the waterfall itself in a slow beat and allows the experience to take its time. The work takes a total of 16’51 minutes which is the time that the composer gives the listener to tumble down with the waterfall.

Jón Leifs chose only the first of the 9 stanzas of the poem which deals with the beauty and power of Dettifoss Waterfall and which could save Icelanders from misery and poverty if it were harnessed in order to produce electricity for other countries.

“Dettifoss”, poem by Einar Benediktsson, first stanza loosely translated:

Sing Dettifoss. Sing loud to the sun in the sky.
Shine, Your Majesty of Light, on the shadow’s throne.
And impel my mind, peal, to poems, that live
on the act of the greatest power our land brought forth.
Let the spirit be touched deeply by your great might
that can budge the rock’s fetters of repose.
I know, I sense in the throbbing of your wondrous beat how it
bolsters human hearts. Beat loud,
you cascading heart. Steel my heart and hand to write. 28

28 Einar Benediktsson, “Dettifoss”, Title, year.

The Experience of the Listeners – the Deaf

Listener number 1. “I felt as if there was a great deal of darkness, as if there was a spaceship flying around. I envisaged stars and a difficult wind. The spaceship was big and heavy and great – similar to a ghost; tension. It was calm at the beginning, then it keyed up but calmed down again. Not a good feeling. It didn’t make me relax, there was tension ahead, something big happening.”

Listener number 2. “A feeling of unrest, turmoil and despair, anger. Do you have a piece of wood that I can borrow because there is too much echo in the balloon? The last time felt good; it was good to touch the wooden wall that was there the last time. But this time I thought of two movies: *Lord of the Rings*, when they were rowing down the river and there were two statues, towers at the river bank and then *Jurassic Park*. Danger ahead – had to go but was afraid to go this way.”

Listener number 3. “This was a bit interesting because I can hardly explain how I felt – first it was like you were waiting for something that perhaps did not show up – doubt about what will happen – what happens – something supernatural – something good – a special feeling. Vibration, mostly in the chest. No colours – just doubt, uncertainty. Unclear. No colours.”

Listener number 4. “I could have fallen asleep over this – it was so calm. Suddenly something appeared like some power like fireworks, but I thought it was just easy to fall asleep over this. I don’t know whether this was just a quiet piano but I could just have fallen asleep.

Listener number 5. “A the beginning I thought this was a strange feeling – cold – wind. Storm and I wouldn’t have wanted to go out – uncomfortable, a lot of vibrations – I just didn’t feel good. As it went on, the feeling was strange, but then towards the end it diminished.”

Listener number 6. “To begin with it felt calm, then there was some disquiet. Just vibrations like what I felt in the wall when my sister was playing music for her friends in the room beside mine – I didn’t hear anything, I only felt the vibrations. The feeling was just irritating like it was when my sister had seven friends for a visit, but I didn’t have any because I couldn’t hear anything. This is just what I was thinking about.”

Listener number 7. “Yes, I felt good – and a few times there came like these fluctuations and vibrations in the balloon – like love or a memory – a good memory of an individual who was like sliding on. A good feeling and I felt just fine.”

Summary – Jón Leifs: *Dettifoss Waterfall*

Six people listened to this work and one of them twice. The one who heard it twice was not sure about his feelings the first time and thought it “interesting to feel like something supernatural was about to happen”. He was “waiting for something that would perhaps not come”. The second time, this same listener felt very well and experienced love and “a good memory” about some person. One of the listeners said he could easily have fallen asleep, because he thought this sound clip had such a soothing effect on him. The same person asked if this was some calm piano playing!

The other four listeners had different opinions. One of them thought he saw “a big spaceship in darkness and a great wind. It was heavy and much like a ghost”. A ghost and a great wind often go together in the descriptions of the deaf. One of them sensed “an impending tension, turmoil,

despair and anger”. He sensed danger ahead and the listener described his fear of going this way. One of the listeners compared this listening to the irritation he felt when he was young and got isolated from his friends who were always listening to music and he could not participate in it because he “didn’t hear anything”.

Despite different descriptions and sensations, it is obvious that the listeners had the feeling that something unusual was about to happen, as the following remarks indicate: “impending tension”, “danger ahead”, “something supernatural about to happen”, “something that maybe doesn’t come”, the feeling of “not being able to participate” and in one instance there is “so much storm” that the listener would not want to “go out into such stormy weather”. Insecurity and a feeling of “floating on air” is therefore a total conclusion of a kind regarding the perception of the deaf of the work *Dettifoss Waterfall*. The sensation of falling down with the heavy cascading waterfall in a free fall, which is such a predominant feeling in the composition, perhaps accounts for this feeling of insecurity that the deaf sense and is maybe best described in the words of the poet about this magnificent waterfall.

The waterfall carries us away. We feel dizzy, we are flying at a terrifying speed out into space, the mind feels dizzy, our willingness weakens, reality disappears. The unchecked power of terror operates like a poisonous drink, it is as if a demon of forgetfulness steals the minds of men. Hypnotized, or as if under a spell, we watch the giant play of nature under the magic glow of the rainbow. 29

4.13. Jean Sibelius: *Valse Triste* (1903)

Valse Triste is an orchestral work, composed in the year 1903 for flute, clarinet, two horns, timpani in D, and strings. Originally, the work was part of the incidental music he composed for his brother-in-law, Arvid Järnefelt’s 1903 play *Kuolema* (Death). The story is about the dying hour of the mother of a little boy who is waking over her. It is night and the little boy falls asleep, but the mother hears the music in the distance. When the sound comes closer it makes her rise out of her bed and dance. She dances with invisible guests and tries to make them look her in the eyes. She finally gives up when there is a knock on her door and Death appears.³⁰

The Experience of the Listeners – the Deaf

Listener number 1. “It is difficult to describe what this feeling was like. Just like anxiety, worries, or something like that. Like when you are reading for an exam, stress. Calm at the beginning but then it was as if the anxiety grew and the exam was about to begin. Then it was over and you were free from the exam. Not sorrow or heaviness – just anxiety.

Listener number 2. “It was like a roller coaster where you go up and down. First joy and happiness, then sorrow and crying, then anger and irritation, then everything was just over – like bad news or disappointment. Yes, bright colours, not grey or dull, not any special colour, everything was very clear; a clear tone. It hurt on the right side of my collarbone when I sensed the crying.”

29 Einar Benediktsson, published in the article „Dettifoss – An Echo from Words Previously Spoken”, by Guðmundur G. Thorarinnsson, *Land and saga*, retrieved on January 20th 2012. http://landogsaga.is/section.php?id=56&id_art=1830

30 Kinscella, H.G., *Music And Romance*, Kessinger Publishing, 2005, p. 322.

Listener number 3. “Yes, I thought this music was fantastic – I felt good – felt a heavy rhythm, don’t know if it was heavy or what – joy, happiness, or love – Snow White and the seven dwarfs – an adventure film – red, blue, white – in the end there was a lot of joy – a good end – great, very good.”

Summary - Jean Sibelius: *Valse Triste*

The first one of the three who listened to *Valse Triste* senses anxiety and stress in the work. Another listener had a clear sense of different parts and emotions in connection with them and compares the experience to a roller coaster ride. This description can easily be compared to the dance parts which are different and go up and down in dynamics and tempo. Sometimes the feeling is sad and tender, but grows away at a terrific speed into great power and anger and then back. The same listener sensed this sad feeling strongly and cried. The third listener, however, enjoyed himself very much and was pleased with this experience which he thought was very satisfying and adventurous and compared it to Snow White and the seven dwarfs.

It is obvious that the deaf enjoy the music differently as this example reveals. *Valse Triste* takes the listener to different places of emotion and it is not unlikely that each listener perceives best the parts of the work that appeal to his or her feelings at that given time. The one who is sad has a strong sensation for the parts where heavier notes are played, but the listener who is happy relates better to the fast and invigorating waltz.

4.14. Joh. Seb. Bach: *Nun komm, der Heiden Heiland*, Cantata No.1.

This chorus is of a religious nature, composed in the year 1724 for the first Sunday of Advent, based on Martin Luther’s chorale “Nun komm, der heiden heiland (Now come, Saviour of the heathens)”. This cantata is in the spirit of joy and freedom related to the birth of Jesus. It is light and joyful and in the constantly repeated refrain in this first part it is announced that now people should be prepared for the miracle that will change everything

The Experience of the Listeners – the Deaf

Listener number 1. “Totally different from the last work, not heavy, something else, a bit ordinary. The feeling is neither bad nor good, just ordinary, like ... usual. No stress, just soft, nothing very calm, but the feeling is just like OK.”

Listener number 2. “Yes, this was light, light like dancing, yes, light and happy people living and dancing. I had a positive feeling, no worries, happy with life.”

Summary - Joh. Seb. Bach: *Nun komm, der heiden Heiland*, Cantata No.1.

There were only two participants in this listening project. Both sensed the lightness of the work. They may not have felt the ecclesiastical solemnity that is often related to the religious works by Bach and it is safe to assume that the constantly repeated refrain and tempo of the work awoke the dance feeling in both of the listeners. It maybe the simple, bright, clean and innocent image of the newborn child that the composer manages to bring across in the work that the deaf listeners sense so clearly.

4.15. Environmental Sounds – The Gullfoss Waterfall

The sound clip used here is a recording made in four different places at Gullfoss Waterfall, in different proximity to the waterfall.³¹ *White Noise*, which is a hiss or a sound with an equal frequency distribution that e.g. causes a buzz in loud speakers and snow on TV screens. This white noise is a combination of the frequency of all the audible sounds at the same time. If the white noise is brought down by an octave it is called pink noise which is similar to sounds in nature such as can be heard in waterfalls.³²

The Experience of the Listeners – the Deaf

Listener number 1. “This was not exciting at all – there were no nuances or anything – just steady, I don’t know what, whether this was singing or what, but I just felt some steady ... something. I didn’t think this was exciting – no. I have been aboard a ship and this reminded me of the vibration from the engine. Everything pretty much the same.”

Listener number 2. “I thought there came an awful lot, then it all stopped. It felt as if I was inside an engine. Like the engine was rasping or rubbing something. I didn’t feel badly but not well either and I didn’t know what was happening. Like a current in my back.”

Listener number 3. “This was more joyful with stops in between. I felt a moment of joy there. I felt a strong vibration in my hands.”

Listener number 4. “Yes, the first time I listened to music with you I sensed some feelings and it was fun, but this time it was like electricity out of order or something – TV with snow. This was like something out of order.”

Listener number 5. “This time it was calmer – before there was stress and discomfort. Now it was like travelling or freedom and I envisaged America with a lot of traffic. Then when it stopped I thought it should continue and mustn’t stop – it was alive. I saw a strong ... like outdoors – in the first clip the colours were dark, but there was brightness in this.”

Summary – Environmental Sounds – Gullfoss Waterfall

Most of the listeners, or four out of five, connected their pictures with engines/machines, but not something in nature. They expressed how boring they thought this sound clip was and said they usually enjoyed these listening sessions, but that this had not been fun because it was not “exciting – no nuances or anything” and “yes, the first time I listened to music with you I had some feelings and it was fun, but this is like something is just out of order”. With regard to this sound clip it appears as if the listeners make a distinction between what is sound and then again what is music. They note that if they do not sense any strong feelings or pictures, in whatever form they may appear; sorrow, joy, or fear, they do not like it and do not enjoy the music.

³¹ Gunnar Árnason, sound technician recorded the sound of Gullfoss Waterfall in June 2006

³² Brain, Marshall, “What is white Noise?”, *Howstuffworks*, retrieved 3.4. 2012, from <http://www.howstuffworks.com/question47.htm>

4.16. Sinus Tones

A sinus wave is a clear sound wave without any overtones where the sound is stationary and positive and negative peaks of the sound waves are equal. These clear wave forms can be made with special instruments and they are often used in sound tests.³³ The participants listened to a procession of a few sinus tones which lasted differently long, i.e. from 2 seconds to 5 seconds. Only one sound could be heard at a time.

The Experience of the Listeners – the Deaf

Listener number 1. “I felt a vibration in the balloon, but as if this was a loud sound, like when a police car has the siren on and then I thought of these gadgets that scare mice. They make these sounds that prevent the mice from coming into houses. Then I had this pain behind my eyes. When I was 16, I had to stop using hearing aids because they had the effect on me that I got this pain behind my eyes. The same kind of vibration.”

Listener number 2. “The only thing I felt was just some tweet or nothing – like a bird tweeting or something.”

Summary – Sinus Tones

When the first participant listened to the sinus tones he felt a pain behind his eyes. He makes a distinction between this vibration and the vibration in the inflated balloon he is holding to be able to feel the sound waves better and he thinks there is little vibration in the balloon. He compares the sound to the siren of a police care or a mice repellent. The other listener also made a distinction between sensing something emotional or not.

As has been mentioned before, the balloon is a technical aid for the deaf in order to get a better connection with what they are listening to and it is clear that the vibration in the balloon affects them differently. Although there is little vibration, their previous comments have shown that it can have as much emotional effect as a lot of vibration. Where the sinus tones and the environmental sounds are concerned, the vibration does not seem to give them any emotional or mental stimulus.

5. Conclusion

Many of the deaf participants in this study indicated their insecurity and incompetence regarding musical perception. Those who came for the first listening session expressed their doubts regarding the right answers, because of their inability to hear and because they were not sure they would be able to feel what they were “supposed to” feel. Gradually, the methodology developed and the communication began to be more centered on the Deaf-culture. The deaf listeners gradually became more secure and were better able to express their feelings while listening to the sound clips. Often the listeners, who were listening for the first time, asked for more volume in the sound system in order to get stronger vibrations, but with training and more “listening confidence” such demands decreased.

³³ Middleton, Chris, *The complete Guide to Digital Audio*, London, Ilex, 2004, p. 186.

The purpose of this study was to examine whether the deaf made a distinction between music, sound and simple tones, in addition to observing whether the sound clips evoked similar emotions in the deaf and the hearing. It was also considered whether hearing listeners only based their perception of music on pre-learned terms which the deaf are unable to make use of and whether the perception of the hearing listeners was thus more limited than that of the deaf. It was examined how the deaf experienced music and whether they made a similar distinction between the various aspects of music as the hearing listeners do, such as the different sounds of the instruments, whether they were listening to only one instrument or a whole symphonic orchestra, electronic music or the hum of a waterfall, a sinus tone or a singing voice, etc. Let us now examine the comparison between the perception of the participants and the distinction between the various aspects of the music.

5.1. Comparison of the Participants' Perceptions

The Deaf

While listening to all the compositions in the sound clips presented to the listeners, the deaf appeared to perceive the emotional messages of the works. On the whole they agree, as their comments indicate regarding the work *Threnody* by Penderescki. The listeners agree that the feeling is heavy, frightening and dark. The threat of an explosion and bombers, of which all the listeners make a special note, makes them very worried and evokes a feeling of sorrow, anger and loneliness. A strong feeling of sorrow also emerges while listening to the works *The Eroica* and *Nuages*. In *The Eroica* the sorrow is deep and heavy with their descriptions of sickness and death, but in *Nuages* it is sorrow caused by regret or heartbreak. Both works awaken strong feelings of sadness and suffering. In *Vamphyrotheone* and *Killshot* the feeling that they get is not unlike what they mention in *Threnody*, about loneliness, rejection, anger, fear, being trapped, and life threatening situations. It is indeed while listening to these works that they experience the forces of nature which bring them trouble and it seems as if they lose control.

The work *Dettifoss Waterfall* is an example of a composition that evokes a feeling of insecurity, like hanging in air and not knowing what is ahead. The listeners are dragged on with the unbribled flow of water full of tension and fear of what awaits them. In *Killshot* they also experience insecurity and try to seek shelter from the fierce bluster and rolling sea. That work arouses the feeling in the listener that he feels as if he will drown in Gullfoss Waterfall. They experience nature differently in the music; both as a great threat, i.e. in tornadoes, earthquakes, blusters and rolling seas. It also awakes a feeling of peace and quiet in the beautiful nature. They see a blue, clear sky; beaches and rippling water, as in the works *Echo* and *Destiny*.

The work *Nuages* made the deaf listeners remember rejection, sorrow and loneliness that they had felt at some time. Whether it was the experience of the listener, some of his long dead relatives, or maybe of the composer's life, who had to deal with his depression at times, or the people around him, we cannot say. Debussy describes his work in a picture of a cloudlet at a slow and solemn movement through the air. Perhaps it can be assumed that the listeners were indeed able to get in touch with the tranquility in the cloud itself, the tone language of the composer and did perhaps relate to that world in which many of them have had to live and which they referred to as fog. It was their world before the sign language ban was lifted. The listeners sense a black and white colour and also grey in this work; the colour of the fog. "Touching loneliness", which makes us feel sad, is often referred to in transcendental meditation.

In most instances, the compositions evoked comparable emotions in the deaf listeners, but there were exceptions that could be explained by the structure of the work and the emotional condition of the listeners. The sound clip of *Valse Triste* indicates this e.g. where the different emotions are touched upon and not unlikely that each listener senses most strongly the parts of the work that correspond best to his or her feelings at that particular moment. The one who is sad has a stronger perception of the parts where heavier notes are played, but the listener who is glad relates better to the fast and refreshing waltz. Thus, they sometimes presented dramatic pictures in their descriptions of the way in which they experienced a given composition. Death and divorce was e.g. used as a criterion for the depth of feelings. They seemed, however, sometimes able to describe dramatic pictures in this way without connecting their personal emotions to them.

The emotions which the compositions evoked were often expressed in colours and pictures and it is obvious how important imagery and metaphors are in the way in which the deaf interpret their feelings and experiences. The listeners sense colours and use them to describe their feelings. When they describe something terrible, sorrow or threatening situations, such as in *Threnody* and *Nuages*, they use grey or dark colours. Sometimes they talk about black and white colours, or emphasize that there is no colour and according to them it is negative and describes uncertainty, as in the works *Threnody* and *Dettifoss Waterfall*. In the works *Wedding Day at Troldhaugen* and *Valse Triste* they mention many colours such as yellow, pink, green, and red. Thus, they sometimes painted dramatic pictures in their descriptions of the way in which a given composition affected them, where e.g. death and divorce were the criterion for the depth of the feelings. They were, however, sometimes able to describe dramatic pictures in this way without making a personal connection to these emotions.

It was also evident that the deaf make a clear distinction between music and other sounds such as their answers indicate in the sound clips that were used where environmental sounds and sinus tones were used. These sounds do not impress them or give them any emotional stimulus. In all the other sound clips where music was played they sensed emotions. It was also obvious in their answers that if the sound clip did not evoke strong feelings or pictures in any form, sorrow, joy or fear, they did not have any fun and did not enjoy the listening.

Furthermore, it is evident that the vibration in the inflated balloon, which is their technical aid in the listening experience, affects them differently. Although there is little vibration, it can, according to their above mentioned comments, have just as much emotional effect on them as a lot of vibration.

The Hearing

The purpose of having a group of hearing listeners participate in the study was to examine whether and if they perceive music, if their ears are blocked and their “normal” hearing thus prevented, to the extent possible. This group consisted both of musicians and laymen in the field. It was evident that those who were best informed had to make an effort not to let their knowledge prevent them from perceiving the sound clips through other channels than the traditional ones. All the hearing listeners seemed however to experience a novel perception of music. Everyone had the common experience of perceiving strong pictures and even the whole stories and it appeared as if their creative flow was turned on. One of these listeners makes a special note of this and mentions the joy of “realizing the jolt in the creative flow”. The same listener also says that traditional listening appears to be almost stagnated in comparison to this way of listening and says that here “the tones are doing their work inside you”. It is interesting that when the listeners

were perceiving music in this way they described their experience very graphically, similar to the way the deaf do. They used metaphors from nature and used colours unsparingly.

The Deaf and the Hearing

In comparing whether the hearing and the deaf experience parallel emotions when listening to the sound clips presented to both groups, it appears as if such is the case. When listening to *The Eroica* the majority of both the hearing and the deaf listeners talked about sorrow and discomfort when they described their sensations and it was interesting how graphic the description of the hearing listeners was, as in “the black mountain” and “a man who treated my mother badly”. The deaf described loneliness and confusion when they listened to *Vamphyrotheone* and the hearing quite evidently experienced that emotion as well, according to the comments “why am I here? Should I want something?” Another one described a powerful bird that loses its self confidence and returns to its home feeling perplexed and confused. The third one talks about an intriguing place on a planet where there are “... poisonous powers, bad electric currents, no life”.

When listening to the work *Killshot* the deaf seem to experience a feeling of being trapped; tension and insecurity. The hearing sense the threat, but it is more distant and does not touch them directly, as in “a positive feeling of fear”. Another one claims not being certain whether he was “afraid but this was alien”. Yet another one says that he had been “sucked down into the abyss”. The reactions of the hearing listeners to the work *Destiny* were different just like those of the deaf. Both groups, however, experienced a strong connection to nature and most often, both groups mention the words water, sea, rocks, beach and stones.

5.2. The Experience of the Participants and the Sign Language of the Composition

As an evident consistency appears to have been common in the answers of the deaf listeners to the sound clips, it was interesting to examine whether their perceptions accorded with the acoustic image that the composer endeavored to create. In short, it appears to have been the case. Thus, the deaf listeners talk about war, bombs, death, threat, anger and fear when listening to the work *Threnody*. This picture corresponds well to the symphonic poem, as the composer dedicated the work to the victims of the atomic bomb which exploded 15 years prior to the creation of its composition.

In the second part of *The Eroica*, the funeral march, which was one of the sound clips of the study, a sad and tragic process of overwhelming emotionality, sensitivity and dramatic dignity emerges. This symphony is composed for and about the great hero, Napoleon Bonaparte. When he adopted the title of emperor, Beethoven, however, believed that he had lost a great hero and the man whom he had admired, and instead composed a funeral march. It is as if the listeners perceive this. They sense how badly the composer feels and hence the appearance of the sad feelings and pictures of death and regret in their minds. In some way they relate to the composer's state of mental and physical illness, because it appears as if they sense the feeling of the work, or the composer, in their bodies.

It is not only sorrow and sadness that the listeners of this project experience, but also emotions related to everyday activities. While listening to the work *Wedding Days in Trolldhaugen*, which is joyful and powerful at the same time, each in their own way senses a love relationship between a man and a woman, an argument and then also a love story. When the deaf listeners have the same sensations while listening to the sound clips, we have to assume that they somehow

manage to connect with the emotions of the composer. It may, however be, that the composer chooses his theme with regard to his own feelings and thus, consciously or unconsciously plays the emotional strings that the deaf sense.

In the works *Destiny* and *Echo*, Stomu Yamash'ta plays Japanese stone instruments. He connects with the energy surrounding the difficult situations of the suffering children in the former work and then, on the other hand, the healing power on behalf of the children in the latter. He has been playing these stone instruments for over 30 years and he claims that the stones are always in charge. They are taken from the bottom of the sea from a mountain whose roots reach far out into the ocean. He says they possess some inexplicable powers and that they have obtained some wisdom and experience that far exceeds what the human mind is able to embrace. Whatever the reason may be, the deaf listeners get a feeling of the sea hitting the beach, or rocks and also water that ripples when a stone is thrown into it. In these songs, it could be assumed that the stones were the composer and Stomu the instrument.

6. The Composition

The composition is based on four parts that are called i, ii, iii, and iv.

The work is composed for a chamber orchestra, five singers and an acoustic image.

The poem ii "My Shadow" ("Skuggi minn") and iii "Underseas" ("Neðansjávar") by Kristín Ómarsdóttir.

In this composition the composer endeavors to arouse reactions and emotions similar to those the music recounted in the research paper evoked in the deaf listeners. The composer selects a number of different ideas that aroused different emotional reactions, such as heaviness, sadness, joy, love, happiness, sorrow, fear and agony.

i. Hearing Impairment, heavy - light

Quintet of singers and acoustic image.

This first part of the work is an acoustic image and lyrics in an ABA form. The material is based on the music presented to the deaf listeners in the research. The compositions are divided into two main categories, on the one hand the category which evoked positive reactions in the listeners, such as joy, love, happiness and tranquility and, on the other hand, the category that evoked negative reactions such as sadness, sorrow, anger, fear and agony. The compositions that correspond to the impact of each respective category are collected into one work and they are mixed so the outcome is a new composition. Each work within the acoustic image thus plays a part similar to one instrument in a band, or one singing voice in a group of singers. An effort is made to make the acoustic image similar to what a deaf individual would conceivably be able to hear. Each member of the group of singers then improvises sentences with some kind of speak-singing and they are the descriptions of the participants of their musical perceptions in the research on which the paper is based. This improvised speak-singing of the singers was based on using the movements between a half step and a whole step in both directions. In the latter part of A the voices start speak-singing into each other with sentences that each singer has grown fond of and repeats. The tempo and dynamics of the speak-singing are free in the interpretation of the performers. The acoustic image is maintained in the ABA form. See acoustic image I in the enclosed CD and lyrics in appendix 8.1

ii. “My Shadow” sadness

Quintet of singers and acoustic image.

The second part of the work is written for 5 singing voices. The acoustic image is the sixth voice and interprets the shadow recounted in the poem “My Shadow”, by Kristín Ómarsdóttir. The Soul, or our inner most core, appears in the form of a shadow. If we cover the light, which is needed in order to call the shadow forth, with aloofness, sadness and gloom, we commit soul murder. The shadow summons us to responsibility and asks his “lifeguard” demanding questions on whether it is time to say goodbye; whether love has died, or whether the escort is over. See acoustic image ii on the enclosed CD and notes in appendix 8.2

iii. “Pictures” joy – happiness

Quintet of singers and percussion

In the A part the focus is on evoking the feeling of “joy” and it is presented by giving the performers “a picture” in the form of a poem of the emotion which the composer wants them to interpret and awake in the audience. This part begins with one jingle of a bell which leads to the standstill and concentration of the performers in total stillness. In this condition the thought transference of the performers of the composer’s “picture” over to the audience begins. Wood chimes are used instead of a bell. “The picture” and its emotion endeavor to evoke the feeling of happiness in the performers and is transferred like that to the audience. The time limit is not exact in the transference of “the pictures” (emotions) and thus, one of the performers is assigned the role of a conductor who decides on the length on each respective part. See “pictures” in I and ii in appendix 8.3

iv. “Underseas” anger – sorrow – anguish - fear

Percussion (marimba, bass drum, cymbals, water harp, clocks and singing in a tub of water), contrabass, alto, accordion, electric bass stud, and acoustic stud.

The electric bass stud and acoustic stud get this name as the instruments are traditional, i.e. electric bass and acoustic guitar, but they are played in an untraditional way. The musician sits with the instrument on a guitar stand in front of him as if he were playing the cello and strokes the strings with a stud or a threaded rod which he holds in his right hand. The rod is threaded all the way and thus pulls the strings when it strokes them. The left hand mutes the strings between the strokes and also controls the sound by touching the strings on either side of the stud. The dynamics and accents are controlled with different pressure on the strings. Sometimes both hands are on the stud and in that way the volume increases.

As these instruments are unconventional and there is no known music system for them available, the undersigned drew a pattern which the musician follows. The other musicians also follow a pattern and two of them, the accordion player and the contra bass player, have notes that support them in their improvisation. In the appendix there are notes and also charcoal and pencil drawings which the musicians follow. The changes in dynamics follow the strength of the colour pattern. The direction of the pattern leads the sound up or down (in case of the electric bass and the guitar by gliding the stud itself between the lines). When the pattern is steady the sound is basically held steady on one line of the guitar neck where the acoustic stud or electric bass stud are concerned. The emphasis on the upper or lower strings follows the strength in colour of the upper or lower part of the pattern. Some of the movements call for the percussionist choosing an instrument where one of the instruments follows the lower part of the pattern, but the other

the upper part. In most cases he only plays one instrument at a time and changes the dynamics according to the strength in the colour of the pattern. An interval in the pattern means silence. It is up to the conductor to lead the length of each movement (A B C D E and F) and also the length of the pattern within it. The variety in the tuning of a guitar opens opportunities in the different texture of the sounds and tones. In this work the acoustic guitar is tuned to clear minor but the bass guitar to clear perfect fourth. The singing voice chooses its key, E-flat minor, G-flat minor, A-flat minor, or B minor and sings freely, but with emphasis on half steps and whole steps. The singing and all the instruments are amplified.

The poem, “Underseas”, is about a small village that is hit by a giant wave from the ocean and destroys it. We experience the beauty of the ocean and the tranquility at the beginning, but are unaware of the subsequent danger. Slowly and calmly we unite with this giant wave and travel with it to the little seaside village where we break it and destroy it. We position ourselves inside one of the imaginary apartments of the village which is now below the surface of the sea. We swim between the rooms and long for life to continue in its customary way; that we would be able to have a cup of coffee and tell tales of fishermen, or put rollers in our hair. We mourn and are angry with fate. The emotion of the work is sought in the world of the listeners in the research which often appears in their descriptions of the forces of nature and are related to water and weather. Some of them enjoyed the strange, alien places and the excitement in their sensations, while others became frightened and insecure. See poem, drawing (explanations) and notes in appendix 8.4

7. Epilogue

As stated above, the deaf participants appeared to enjoy music to no less extent than the hearing ones. They also appeared to experience similar sensations while listening to the sound clips. On closer inspection, there also appeared to be a concordance between their experiences and the feelings of the composers, or the emotions they appeared to have endeavoured to present imperceptibly.

When the hearing listeners tried to perceive music in a comparable way to that of the deaf, they experienced novel emotions which had a strong impact on them and evoked similar pictures to the ones the deaf used when they were describing their musical perception. On closer comparison, there also appeared a concordance between the emotions that the hearing and the deaf described while listening to specific sound clips.

Thus, the conclusion of the research indicates that:

- There is concordance between the way in which the deaf perceive the sound clips as their descriptions of emotions, imagery and colours reveal.
- The deaf make a distinction between music and sound.
- There is concordance between the way in which the deaf and the hearing perceive the sound clips, as their parallel descriptions of emotions reveal.

This research indicates that a broader and a new meaning can be given to the concept of listening. The same applies to the concepts of hearing and deafness. Those who have inoperative ears appear to be able to listen and enjoy what they hear. Instead of restricting listening to the ears, as the hearing are accustomed to, they activate the whole body and presumably apply the auditory cortex, or the part of the brain that controls hearing, to process the sensation. The perception of touch, thus, appears no less suited to receiving and enjoying music.

The latter part of this project is a composition which has its roots in the above mentioned re-

search. The research process had a great impact on the composer and convinced her that deaf people could “listen” to music. It was very instructive to observe how the deaf participants, who were initially insecure in their roles as listeners, gained strength with practice and ended up by describing their experiences with confidence. Therefore, the composition is intended for a bigger group than only the hearing and thus, those who listen by touching are also taken into account. In the composition, the composer seeks to project her experience of the silence within the world of the deaf and how the music manages to find its way over there. Thus, the participants’ accounts of their music perception weaves into the work where the worlds of sound and silence merge and are picked up by one another.

The incentive to the work and the ideology behind it are based on the descriptions given by the deaf participants in the above-mentioned research. It was the composer’s experience that they were to no less extent aware of the emotions in the music than the hearing participants. Therefore, the assumption is made that the composer’s emotions and feelings are portrayed in the composition and are able to reach the listeners. Whether it is silence for a choir in the form of a silent graphic representation and transferred via mental power to the audience, or a composition based on a daring piling up of chords at a broad range of frequency and played on different instruments, or whatever the implementation may be, the compositions always depend on what the composers give of themselves into the work.

The descriptions of the deaf listeners bore witness to strong, emotional experiences where sharp contrasts were vividly portrayed. An effort was made to communicate this impact in the composition by juxtaposing positive and negative emotions. The honesty and sincerity of the participants regarding the expression of their music experiences also had an impact on the approach in the composition. Nothing was given in advance; no glorified or scholarly perception. Therefore, the aim was to approach the work with the same honesty and sincerity. The composition is the yield of a unique experience with people who experienced music in silence and communicated their emotions to the composer. This composition is intended to reveal respect and gratitude to the participants and hope that feeling manages to reach all the way to the junction between sound and silence.

8. Appendixes

8.1.i movement

A

1 voice: I am not used to listening to music but this felt like thunder.

2 voice: This was like a jet plane – I can not give an answer – some noise – I think it's fun, because I felt the vibration.

3 voice: Now I thought I heard voices although I do not hear anything.

4 voice: It's as if the music does not know what it wants and it fluctuates back and forward: "I am going this way, no, I think I'd rather go this way", like it's uncertain, so strange. Everything was just hanging in air. Whether this is love, fun or joy, I didn't feel anything like that. I felt myself swinging a bit along in this confusion.

5 voice: This was like a love song, like a couple dancing in a theatre.

1 voice: Now I thought it was fun. A girl and a boy were getting together. A chase, and there was love in this. A feeling of coming on to somebody.

2 voice: Sensed water, like when you throw a stone into water and it ripples. This is a comfortable movement and there was a blue colour in this. This was not a story.

3 voice: At the beginning it is as if there is a child who trusts somebody but then it is as if someone has betrayed that trust. So as the child grows older it gains strength, as if it is building itself up within; trying to show that no one can break it and it says: "To hell with this, this is just the way I am and I am standing here a strong and proud person."

4 voice: My family is playing the piano and I touch it with my hands and I like the feel of piano music. This is different from the piano.

5 voice: I don't know whether this was just a calm piano – but I could just fall asleep.

B

1 voice: I thought this was disgusting. I was startled at first. I became frightened, - felt the need to escape. All I saw was black. – Claustrophobia.

2 voice: Suddenly it was as if I fell into Gullfoss Waterfall. Then it was also as if I was another child who was falling. I called: Don't be so curious! – I thought I was about to die.

3 voice: It was mainly in the heart area. The chest. It was just like usual anger that you feel.

4 voice: Don't know – it was like a way I wanted to go which was shut – then I went another way and it was shut – no matter what I tried, every way I went got shut.

5 voice: The beginning was like violence and pain. Constantly being broken down and I felt lonely.

1 voice: It felt as if there was great darkness; like there was a spaceship similar to a ghost, tension.

2 voice: I didn't feel well – booming rain in the balloon and great destruction.

3 voice: The feeling was just annoying, - as with my sister, - who had 7 friends for a visit but I didn't have any, because I didn't hear – anything.

4 voice: This was like war. Like aeroplanes throwing bombs and people trying to escape. Then it was calm for a while – but then it was like a child, alone, and everyone was dead around it. The child wandered about and was looking for its parents.

5 voice: I was a spirit and the spirit was on its way up but someone was doing CPR on me.

“Underseas”

Poem by Kristín Ómarsdóttir
(Loosely translated)

here the world starts
there it ends

I want to wake up underseas
begin a new day there
make coffee
put a cloth on the table
wake you up
you swim
into the kitchen

I want to fall asleep
underseas
tuck you
into bed

by the lullaby
of an unknown fisherman

still we are dreaming

nothing

come on let's swim
into the kitchen
I want to scrub

the bottom of the sea
tie an apron around my waist
hang out on a clothesline
put rollers in my hair
comb my hair
underseas

grow longer hair
underseas

set the alarm clock

while listening to the guitar playing
of an unknown fisherman

red nails
float away

1.1. ii movement

My Shadow

Kristín Ómarsdóttir

Ragnhildur Gísladóttir

$\text{♩} = 84$

SOPRANO

ALTO

TENOR

BASS

Bass

4 beats of a playback before entrance

Nasal overtone singing – with mouth closed – la with tongue on each note – touches roof of mouth on every other note and free on the other

ff

ff

5

2

9

Nasal overtone singing – with mouth closed – la with tongue on each note – touches roof of mouth on every other note and free on the other

Measures 9-12 of a musical score for Nasal overtone singing. The score consists of five staves. The first four staves are in treble clef, and the fifth is in bass clef. The first two staves are marked *ff* (fortissimo). The third staff has a dynamic marking of *mf* (mezzo-forte) followed by a crescendo to *ff*, and then *mf* followed by a crescendo to *ff*. The fourth and fifth staves are marked *ff*. The music features a series of eighth notes in the upper staves and a more complex rhythmic pattern in the lower staves, including some rests and a final note in the fifth staff.

13

Measures 13-16 of a musical score for Nasal overtone singing. The score consists of five staves. The first four staves are in treble clef, and the fifth is in bass clef. The first two staves are marked *f* (forte). The third staff has a dynamic marking of *mf* (mezzo-forte) followed by a crescendo to *ff*, and then *mf* followed by a crescendo to *ff*. The fourth and fifth staves are marked *f*. The music features a series of eighth notes in the upper staves and a more complex rhythmic pattern in the lower staves, including some rests and a final note in the fifth staff.

17 *mf* *f*

mf *ff* *mf* *ff* *f*

mf *f*

mf *f*

Unemotional – Flat – Like an organ

23 *quasi f* *bocca chiusa* *mf* *p*

quasi f *bocca chiusa* *mf* *p*

quasi f *bocca chiusa* *mf* *p*

quasi f *bocca chiusa* *mf* *p*

quasi bocca chiusa mf *p*

quasi bocca chiusa mf *p*

4

29 Sorrowful

Hvar sef - ur nú minn skuggi

Hvar sef - ur nú minn skuggi

Hvar sef - ur nú minn skuggi

mf

Hvar

mf

Hvar

34

Hvar

Hvar

Hvar

Hvar

Hvar

Hvar

Hvar

Hvar

Hvar

Hvar

Hvar

Bright and childlike

Heavy and dark sound

38 *mp* 5

sef - ur nú minn skugg-i út í skúr skúr
 sef - ur nú minn skugg-i út í skúr skúr
 sef - ur nú minn skugg-i út í skúr skúr
p sefur skuggi skúr
p sefur skuggi skúr

x = Vocal inhale gasping

42 *mp < f* *pp*

inn í sto - fu stof - u u inn - í stof-u
mp < f inn í sto - fu stof - u u inn - í stof-u
mp < f inn í sto - fu stof - u u inn - í stof-u
mp < f inn í sto - fu stof - u u inn - í stof-u

48

mp *mp* *p*

Á Á Mm a i

mp *mp* *p*

Á Á Mm a i

mp *mp* *p*

Á Á Mm a i

pp *pp*

Á Á með-an ég væt-i kodd-a minn

með-an ég væt-i kodd-a minn

53

p *p*

blóð-i hvíl-ir skugginn í sóf - an - um

p *p*

blóð-i hvíl-ir skugginn í sóf - an - um

p *p*

blóð-i hvíl-ir skugginn í sóf - an - um

p *p*

blóð-i hvíl-ir skugginn í sóf - an - um

56

p

p

Á _____

með - an ég væt - i kodd - a minn

p

Á _____

með - an ég væt - i kodd - a minn

p

Á _____

með - an ég væt - i kodd - a minn

58

bocca chiusa

bocca chiusa

bocca chiusa

bocca chiusa

bocca chiusa

bocca chiusa

blóð - i hvíl - ir skugginn í sóf - an - um m m

blóð - i hvíl - ir skugginn í sóf - an - um m m

blóð - i hvíl - ir skugginn í sóf - an - um m m

Unemotional and flat – no emotional movement – half spoken

The notes unite – sustain – not staccato

60

Á með-an ég væt - i kodd - a minn blóð-i hvíl-ir skugginn í sóf -

Á með-an ég væt - i kodd - a minn blóð-i hvíl-ir skugginn í sóf -

Á með-an ég væt - i kodd - a minn blóð-i hvíl-ir skugginn í sóf -

Á með-an ég væt - i kodd - a minn blóð-i hvíl-ir skugginn í sóf -

Á með-an ég væt - i kodd - a minn blóð-i hvíl-ir skugginn í sóf -

63

an - um fram-m-i tendr-ar skugg - a - vind-ling með stjörn - u - blik - i

an - um fram-m-i tendr-ar skugg - a - vind-ling með stjörn - u - blik - i

an - um fram-m-i tendr-ar skugg - a - vind-ling með stjörn - u - blik - i

an - um fram-m-i tendr-ar skugg - a - vind-ling með stjörn - u - blik - i

an - um fram-m-i tendr-ar skugg - a - vind-ling með stjörn - u - blik - i

65

i _____ myrkur of-ið myrkr i _____ fyllt-er-ið úr myrkr-i _____ and-ar að sér
 i _____ myrkur of-ið myrkr i _____ fyllt-er-ið úr myrkr-i _____ and-ar að sér
 i _____ myrkur of-ið myrkr i _____ fyllt-er-ið úr myrkr-i _____ and-ar að sér
 i _____ myrkur of-ið myrkr i _____ fyllt-er-ið úr myrkr-i _____ and-ar að sér
 i _____ myrkur of-ið myrkr i _____ fyllt-er-ið úr myrkr-i _____ and-ar að sér

68

myrkr-a - - reyk _____ svo _____ augn lo-(o)-kin
 myrkr-a - - reyk _____ svo _____ augn lo-(o)-kin
 myrkr-a - - reyk _____ svo _____ augn lo-(o)-kin
 myrkr-a - - reyk _____ svo _____ augn lo-(o)-kin
 myrkr-a - - reyk _____ svo _____ augn lo-(o)-kin

71

skjálfi- skjálfi- eins og mín undan snert-ing-

skjálfi- skjálfi- eins og mín undan snert-ing-

skjálfi- skjálfi- eins og mín undan snert-ing-

skjálfi- skjálfi- eins og mín undan snert-ing-

skjálfi- skjálfi- eins og mín undan snert-ing-

74

rit.
Emotional and sensitive
mp

u henn-ar sem við hlið mín-a sef - ur

u henn-ar sem við hlið mín-a sef - ur

u henn-ar sem við hlið mín-a sef - ur

u henn-ar sem við hlið mín-a sef - ur

u henn-ar sem við hlið mín-a sef - ur

Submission

Sensitive expression and low volume

11

T. *p*
Líf - vörð - ur minn kær - i

B. *p*
Líf - vörð - ur minn kær - i

B. *p*
Líf - vörð - ur minn kær - i

81 *accel.* - - - - *rit.* - - Churchbells - Flat

hef - ur - for - vitn - in - dofn - að ást þín sofn - að?

hef - ur - for - vitn - in - dofn - að ást þín sofn - að?

86 Bright Dark

Drekk - ur þú myrkr - ið

Drekk - ur þú myrkr - ið

90 Bright *accel.* - - - -

án - þorst - a og van - a - fest - u?

án - þorst - a og van - a - fest - u?

93 Flat - weak - bright - painful

Vilt - u mig ekk - i leng - ur? -

12

98 *mf* *f*

Er fylgd - inn - i lok - ið?

mf *f*

Er fylgd - inn - i lok - ið?

mf *f*

Er fylgd - inn - i lok - ið?

Free tempo

Flat

102 *rit.*

ko - min_ kveð - ju - stund_ Ko - min kveð - ju - stund_

1.2. iii movement

Picture I

Watch this magic stone

I am going to give it to you

The stone is so powerful that the minute you touch it you will feel joy in your heart

So if you make a wish it will come true

Picture II

We are on top of the most beautiful mountain in the world

Look! A honeybee!

I didn't know honeybees went up such a high mountain

Yes, when the sun is shining and the weather is calm

We are astonished!

And this is exactly the way we are happy to die

1.3. iv movement

iv Movement – anger, sorrow, anxiety, fear

Read from left to right between the stroke patterns from Movement A to the end of Movement F

Percussion: Cymbals, clocks and cymbals in a water tub, big bass drum, marimba

Mar: Marimba with mallets

Ma: Marimba with bow

Pe: Cymbals and bass drum

Cy: Cymbals with bow in a water tub

Va: Cymbals and clocks in a water tub

Vatn: Underseas microphone in a glass aquarium

Drum: Dynamic and heavy beat of bass drum

..... : Trill the cymbal

... : Trill the bass drum

Ko: Contrabass w/bow, effect equipment, scraping and overtones

Ba: Electric bass stud, electric bass stroked with a stud

Ka: Acoustic stud, acoustic guitar stroked with a stud

Ha: Accordion

Slamm: Strong, sudden and heavy strike on the keyboard of the accordion

XxXx: Staccato between the lowest and the highest string


XXX: Staccato on the lowest string, the lowest strings


xxx: Staccato on the highest string, highest strings


Time is subtle, the conductor indicates entrances and exits, controls changes in dynamics, length of movements and silences.


There is a box around the lyrics which the singing voice embroiders ad lib in the keys A-flat minor, E-flat minor, B minor or G-flat minor. Singing voice and instruments are amplified.


A Stillness giant wave approaches from the ocean let's unite with the wave

Pe: ••• p  fff Silence



Ha: p  fff Silence


Ko: p  fff Silence


Ba: p  fff Silence



Ka: p  fff Silence



B The wave hits the small seaside village and wrecks it Stillness comes gradually

Pe: ffff  Cy: p 

Ha: ffff 

Ko: ffff 

Ba: ffff  XxXx:p 

Ka: ffff  xxx: p 

C Swimming between rooms underseas

Musicians take turns in making „underseas sounds“ and call one another

Ma, Cy og Va: p

Ko: Contrabass w/bow, effect equipment,
scraping and overtones p

Ba: XxXx p

Ka: xxx p

I want to wake up underseas
Begin a new day there – make coffee
Put a cloth on the table – wake you up

Come – let's swim into the kitchen

C Still underseas – moving between rooms – tranquilly

Ma, Cy og Va: p

Ko: Contrabass w/bow, effect equipment,
scraping and overtones p

Ba: XxXx p

Ka: xxx p

Silence

Silence

Silence

Silence

I want to fall asleep underseas
Tuck you into bed
By the lullabye of an unknown
fisherman

Still we are dreaming nothing

Still we are dreaming nothing

D Despair – (This movement is repeated as often as the conductor wishes and the silences between
the strokes and the lyrics vary in length)

Slamm! ffff
Tromm! ffff

Slamm! ffff
Tromm! ffff

Water: Set the alarm clock
Hang up on a clothes line

Grow longer hair underseas

Set the alarm clock while listening to the guitar
playing of an unknown fisherman

E Slow sorrowful march

Mar: (See scores)

Silence

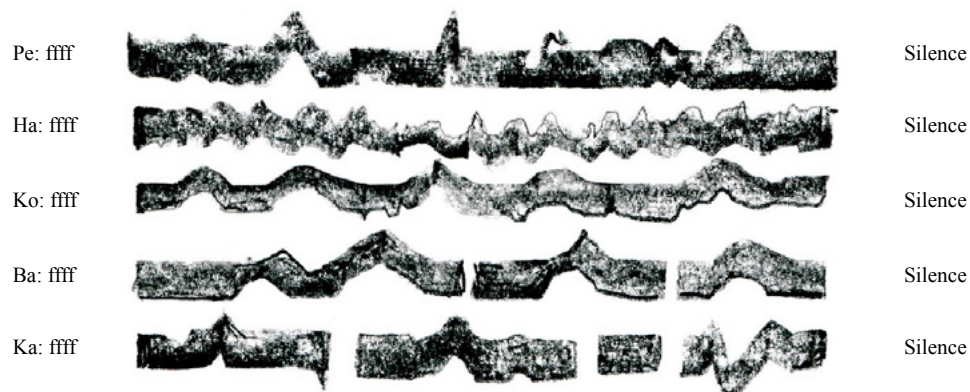
Ko: (See scores)

Silence

Ba:

Silence

Red nails float away



Underseas

Poem by Kristín Ómarsdóttir
(Loosely translated)

here the world starts
there it ends

I want to wake up underseas
begin a new day there
make coffee
put a cloth on the table
wake you up
you swim
into the kitchen

I want to fall asleep
underseas
tuck you
into bed
by the lullaby
of an unknown fisherman

still we are dreaming

nothing

come on let's swim
into the kitchen
I want to scrub

the bottom of the sea
tie an apron around my waist
hang out on a clothesline
put rollers in my hair
comb my hair
underseas

grow longer hair
underseas

set the alarm clock
while listening to the guitar playing
of an unknown fisherman

red nails
float away

iv Underseas – scores for support in improvisation

Ad lib.

A Accordion Follow the diagram

A Accordion Follow the diagram

7

Free playing with effects and overtones

gliss gliss

p p

13

gliss gliss

ff ff

29 D Accordion

fff *fff*

34 E Contrabass
Very slow sorrowful march *8va*

mf *V*

E Marimba Soft and delicate

p *pp*

38 *8va*

mf

p

42 *V*

46

The image shows a musical score for the Contrabass part of 'The Great Wall' by John Williams. The score is in 2/4 time and consists of three measures. The top staff is for the piano, showing a series of chords and a final whole note chord. The middle staff is for the Contrabass, starting with a forte (fff) dynamic and a glissando (gliss.) marking. The bottom staff is for the piano, showing a series of chords and a final whole note chord.

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