

HARDI KURDA

## The Diagnosis Machine



## FOREWORD

The Region Västra Götaland Department of Public Art is the body responsible for initiating the Diagnosis Machine project, a unique art form that seeks to interact with patients, relatives and healthcare staff. Using this installation as a medium, visitors can come away from the hospital with a musical memory using sounds derived from their own body. The project aims to improve people's health and at the same time help the Department of Public Art to identify new ways to encourage artistic creativity at healthcare establishments. The project is being run with support from the Culture in Care initiative, instigated by the Cultural Affairs Committee. Our sincere thanks to everyone who has contributed to the realisation of the first phase of this project.

**Richard Sangwill**

Director, Department of Public Art,  
Västfastigheter, Vänersborg, March 30, 2016



## HARDI KURDA REFLECTS ON THE DIAGNOSIS MACHINE

What we see and hear affects our body both physically and mentally. A diagnostic machine can pick up on our reactions and their external stimuli and translate them into graphic parameters, which in turn produce an abstract image of what we feel.

With the aid of finger sensors (ECG), the **Diagnosis Machine** presents the physical status of your body. I find this interesting from an artistic point of view, as they can link music to graphic parameters. In my research, I am in constant pursuit of new ways of creating music from something that in the normal course of events would not be regarded as a source of music and yet can be interpreted and construed through music.

Acting simple  
hearing complex  
or  
hearing simple  
acting complex





The emphasis in the **Diagnosis Machine** is the capacity to interactively mirror the reactions in the body. I am not able to explain personally how the machine's finger sensors analyse the body's responses, but I do know that they respond based on the way individuals move their fingers, generating tension, intensity and silence. By doing so, the monitor can be viewed as an instrument that can be experimented with in purely visual terms.

To make the experiment more innovative, I have designed software that can translate a visual image via sampled sound. The graphic design of the monitor, with its array of colours and curves, forms the basis for revealing how the human body could sound and how using the finger sensors the body is transformed into a musical instrument or a sound installation in real time.







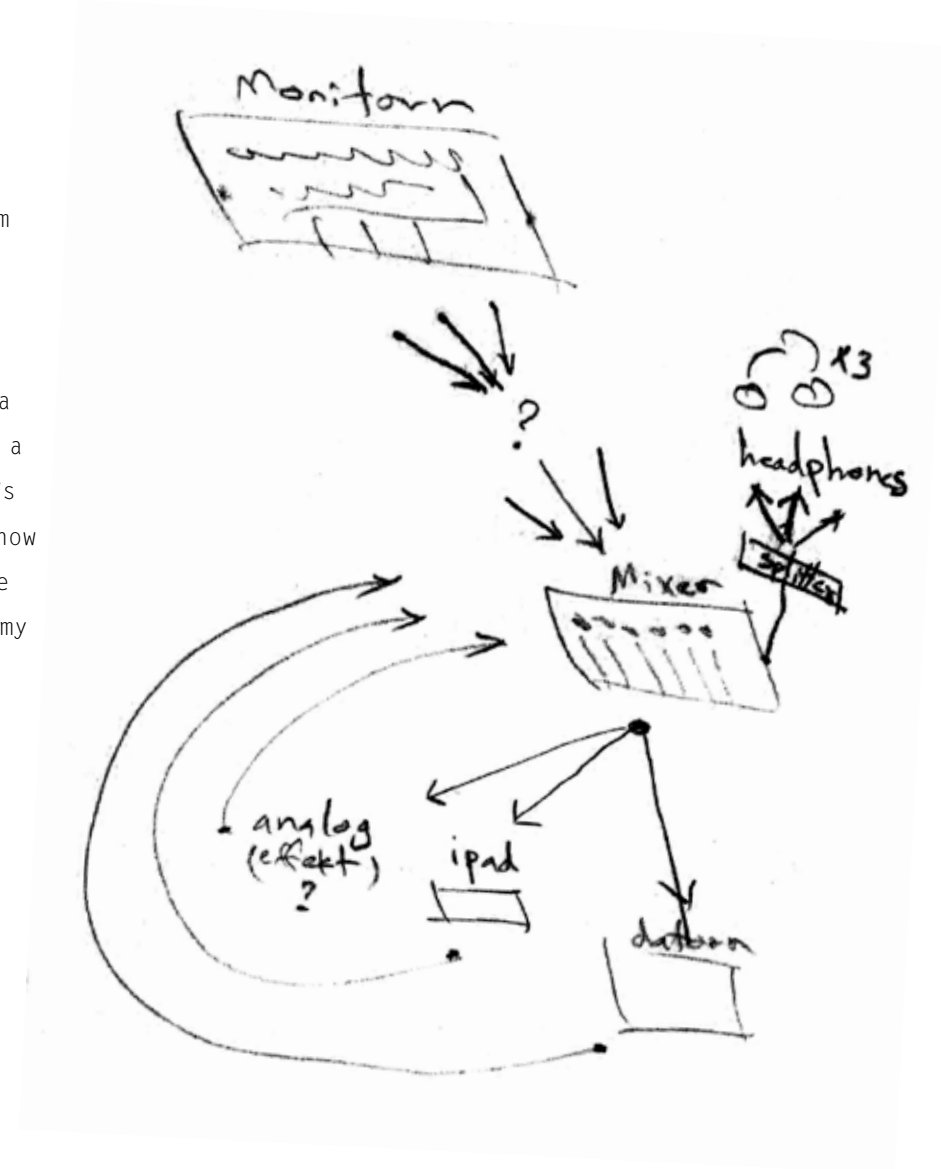
Imagine how it would sound if a hospital had a laboratory where patients were examined and their medication was administered using sounds and music. Research confirmed a long time ago that human beings are affected by sound.





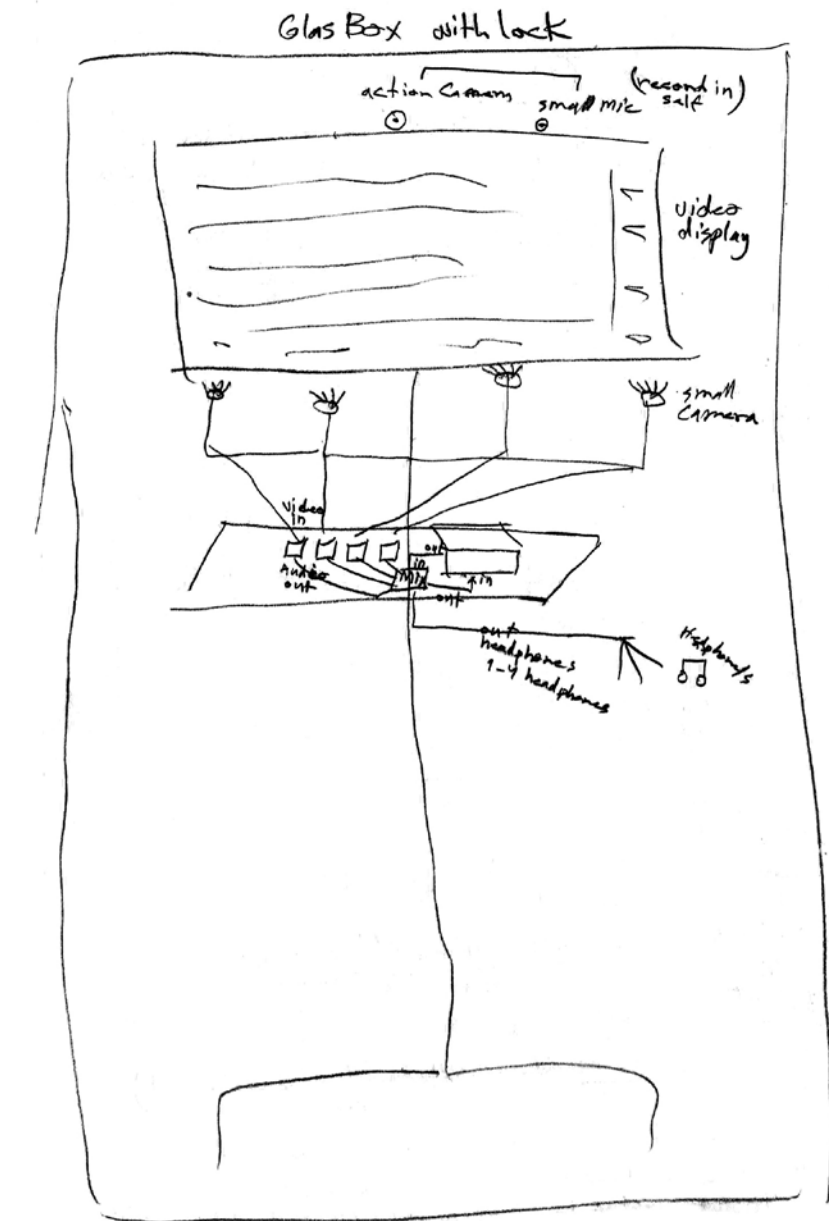
People's experience of hospital environments is seldom enjoyable or inspirational. My personal experiences have been particularly challenging ever since I was a child. My mother was a nurse but she also suffered a great deal from rheumatism, which meant that I often visited her in hospital. My father died following surgery in hospital. Even today, these memories evoke unpleasant and disturbing associations when I find myself in a hospital environment. When my son was born in 2008, a change came about. During the delivery, my curiosity was aroused when I happened to look at one of the patient monitors, which analysed the patient's physical status in real time.

At the very moment that I focused my attention on the monitor I was struck by the various parameters in the form of different-coloured graphic curves. I asked myself what it would sound like if we transformed the monitor into a sound machine that could make a musical diagnosis of the body's internal responses. That was how the name the Diagnosis Machine came about - on the very day my son came into the world!





It is important to discuss how everything from medical technology and architecture to lighting, colour schemes and sound in a hospital environment can contribute to improving the quality of the care that is being provided. It involves viewing from a new perspective how the hospital can address the needs of its patients in a creative atmosphere - through sound and music - and by doing so have a positive impact on the patients' health.



The project is not just about music as a means of promoting better health. It is also about experiencing music in a different and innovative way and in a totally new setting. This could open up new associations with a hospital, which is something that we (I) currently lack and would certainly welcome.

#### NURSES' REFLECTIONS:

*What an exciting idea! Creating sound based on the individual is quite special. When I stood there and listened I thought 'Is that what it sounds like inside me?'*

**Hanna**, nurse, Angered Hospital

*The curves that I observe every day have taken on a new dimension; that they can actually mediate a musical sensation.*

**Barbro**, nurse, Angered Hospital

*When I put on the headphones and sounds appeared after I placed my fingers on the table, it felt as if I had entered a concert hall just at the point when the musicians were tuning their instruments.*

**Annika**, nurse, Angered Hospital



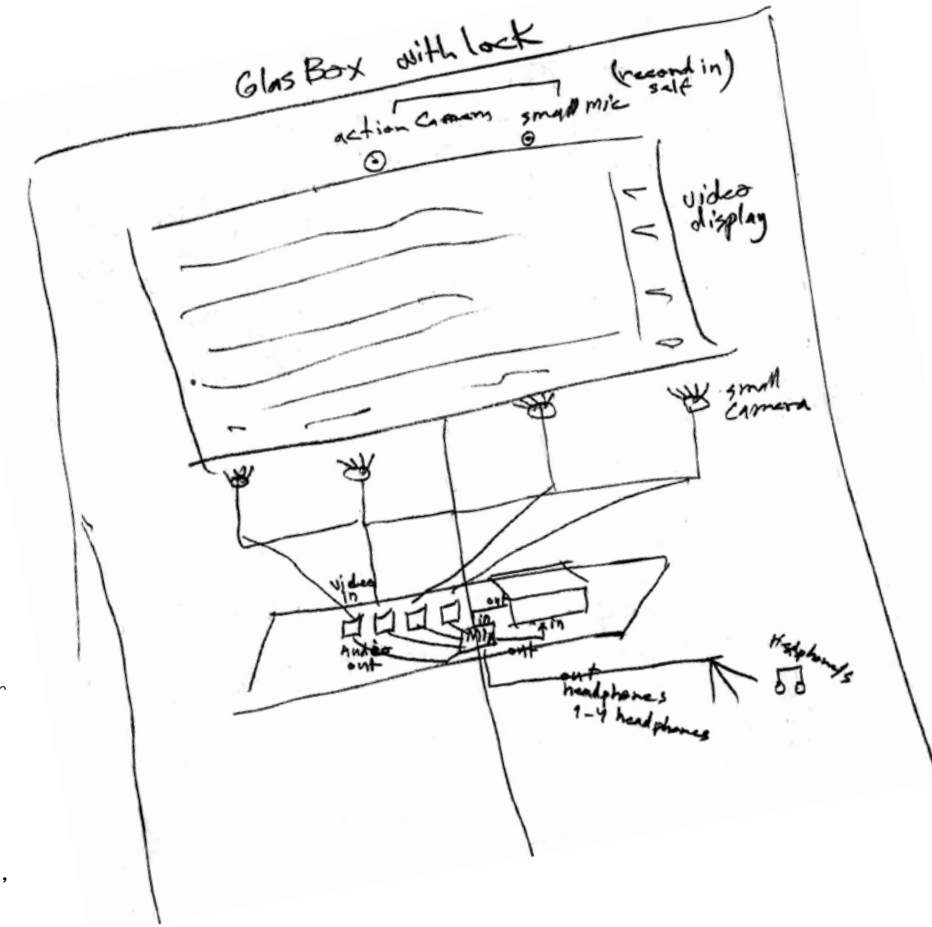


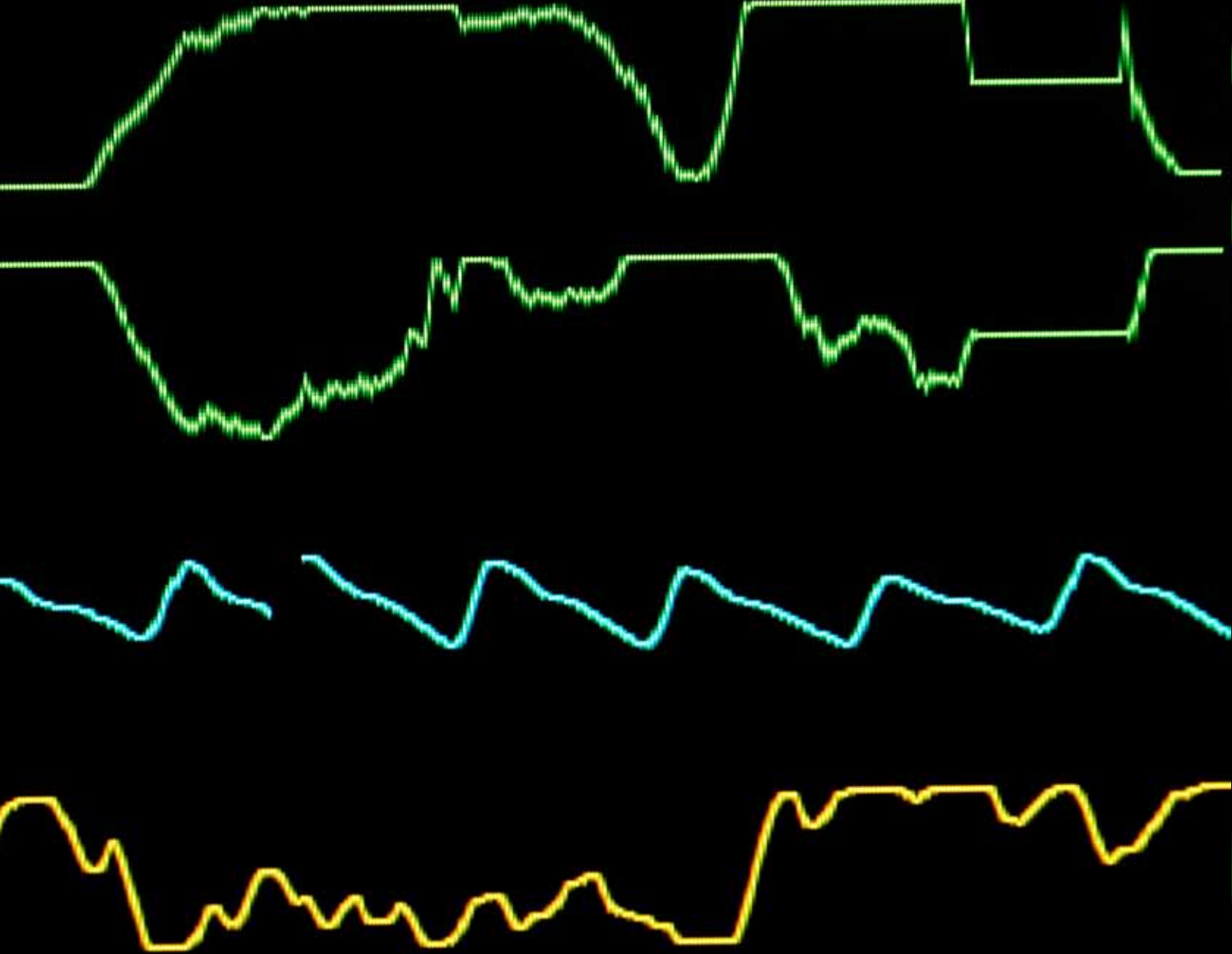


From a musical perspective, the project seeks to identify novel ways of interpreting and contextualising music based on a specific location. The results are linked to contemporary art music. The aim is to open up our minds to new thoughts and reflections on how music influences the way we experience our surroundings and the places and spaces in which we spend our lives.

## THE CREATIVE PROCESS

Initially, I had intended to compose a piece of music based on material from the diagnostic machine monitor. However, my focus changed and instead I endeavoured to make use of the monitor's graphic curves as a real-time notation and interpret the curves musically through improvisation. It was via this alternative way of thinking that I became interested in experimenting with the monitor as an interactive musical instrument. A piece of music could now be produced using a slightly unconventional medium, offering the opportunity for people to reflect on the musicality of their own bodies.



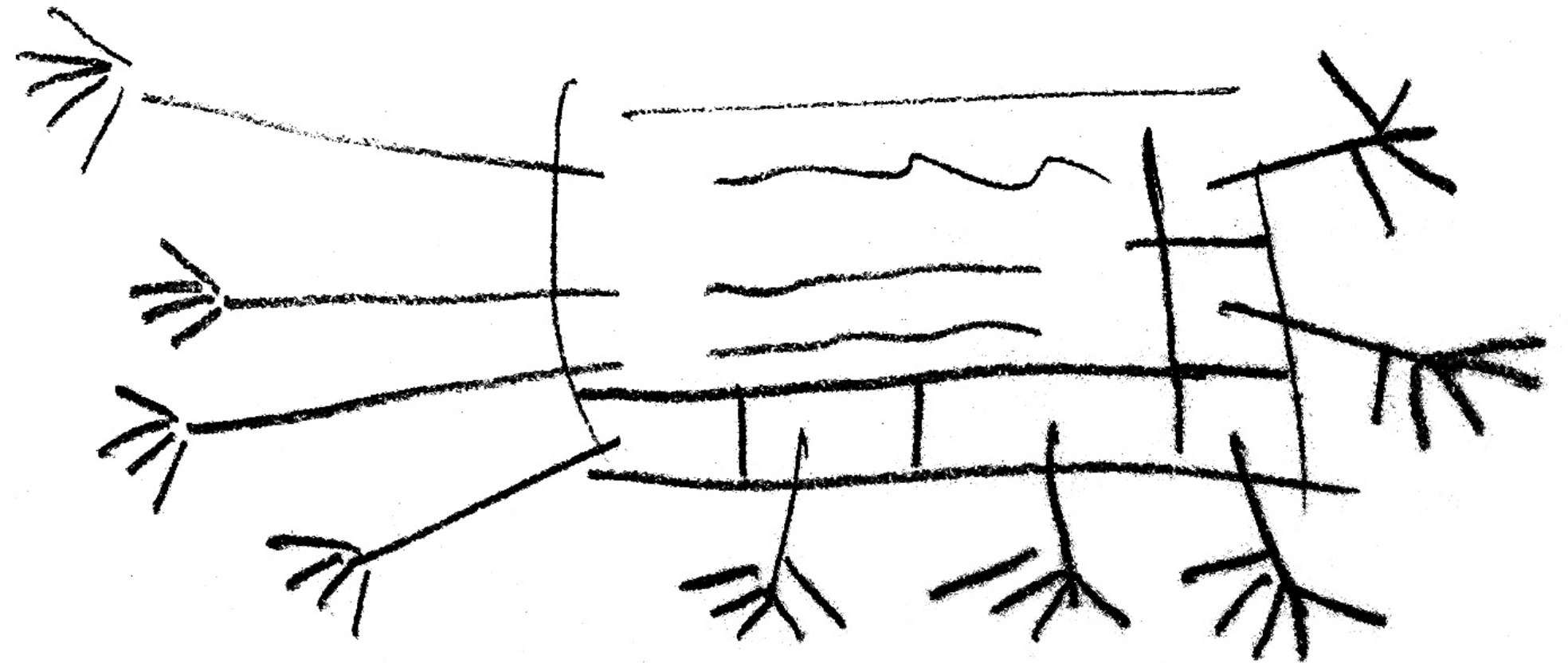


## ART AT ANGERED HOSPITAL. IS IT NECESSARY?

Many of the visitors to the new hospital are struck by its beauty but also by the degree of thought that has gone into choosing the materials in the building and the artistic decor. However, art is not simply there to be decorative. Studies show that art heals, which is also the principal task of the healthcare system. Art promotes thought and stimulates fruitful discussion between patients, relatives and staff. A questionnaire has revealed that 90 per cent of patients and their relatives feel that art is important in the healthcare system. A result that clearly reflects the feeling among the general public! Our patients want to be as healthy as possible in an environment where this is achievable. From this perspective, art in a hospital environment is not a question of embellishment or unnecessary luxury. It is indispensable!

Björn Skog

Head of Communications, Angered Hospital



**Hardi Kurda** is a composer and improviser and he holds a PhD from Goldsmiths College, University of London. Apart from writing music for a classic acoustic and electronic repertoire, Hardi works with a variety of constellations surrounding music and other art forms to bring about new listening experiences. Hardi's compositions often take the form of suggestive sound surfaces and distinctive gestures. The idea is to present the music in a new space on each occasion, thus allowing the music to live in its own timeframe. Hardi's works are performed nationally and internationally. He is also the founder of Non-Ensemble, an interdisciplinary platform for experimental music. Hardi was one of the recipients of a Region Västra Götaland Culture Grant in 2015 and he is also a member of the Society of Swedish Composers.

© Hardi Kurda 2016  
[www.hardikurda.com](http://www.hardikurda.com)



Concept and **Sound Composition:** Hardi Kurda

Implementation in Max/MSP: **Caro Cattano**

Editor: **Richard Sangwill**, Department of Public Art, Region Västra Götaland

Photographs: **Lars Ardarve**

Video editor: **Darya Allaf**

Illustrations: **Hardi Kurda**

Graphic design: **Mirjam Korn**

Text editing: **Julia Lang**, Department of Public Art, Region Västra Götaland

Project owner: Department of Public Art, Region Västra Götaland

The project is funded by the Cultural Affairs Committee, Region Västra Götaland

Printed by: Billes Tryckeri AB, Mölndal, 2016

DVD publishing house: Dicientia AB

ISBN 978-91-639-0936-8



