

Stefan Hakenberg

**Ways to a New Identity**

The Music for *Searching and Knowing*

I came to this project when soprano Joyce Parry Moore approached me to write the music for a dance piece she had begun to develop. The music was going to be sung by herself, there would be some instruments, and it would be a setting of an original text she was writing at the time. It is born out of her personal experiences and reflections as a breast cancer survivor and she is hoping that it will serve as a source of inspiration for other women facing a similar predicament. Joyce surprised me with her wish that the piece should include also a yet to be produced recording of an MRI breast cancer diagnosis sequence. Having been in an MRI machine myself I remembered its sounds as jarring and obtrusive. All this makes this commission ambitious. It required a high grade of sensitivity and compassion towards people dealing with life threatening medical conditions the treatments and aftermaths of which are bound to challenge their identities and personalities to breaking points. I am remembering the cancer treatments my mother endured. – I was moved by being trusted with the task to contribute to this project.

In the beginning of our collaboration Joyce and I discussed what instruments to include. We looked at a number of different combinations. However, none of them really excited me for this project. We were hoping to make performances of the new piece easily affordable for producers, so that only small groups of hand luggage size instruments, two or three, could be considered. But that seemed too small an ensemble for the emotional scope of the subject matter and, as a consequence, the dynamic range I was beginning to conceive for the composition. Also, I thought the combination of acoustic instruments with an actual recording of an MRI sequence, since it was to become part of the work, would make the musical expression less direct than the impact I was beginning to want to achieve with the music.

In the meantime Joyce had finished writing the text I was to set. After reading it carefully I felt even more that the contrast between the sounds of acoustic instruments and the MRI sequence was not quite appropriate for expressing what her text was conveying to me and for reflecting the style of it. Including instruments seemed like an unnecessary step. Reflecting an immensely intense moment in her life Joyce's libretto includes a number of direct acoustic associations with MRI sounds. Her MRI experience together with her wide ranging musical background had suggested to her musical

metaphors like “dueling didgeridoos” or “plucking bassoons.” Other musical references in the text were not directly inspired by the MRI sounds but were born out of the specific iconography of a singer: “saving soprano tones” for instance, or the intriguing “Valkyrie” references including the in this context particularly expressive evocation of “armor plated chests.” The libretto Joyce had written depicts the relation between a patient and the MRI machine. They communicate with each other. Her text encompasses the unrelenting and cold objectivity of medical hi-tech diagnoses of sick or healthy tissue, the psychological drama of the fateful moment of finding out, and the consequential shifts in the perception of the world and of others.

The fact that the libretto is inspired so forcefully by the MRI experience, both emotionally and directly acoustically, led me to want to expose also myself as directly as I could to these sounds. I wanted to let myself sink into them, listen to them closely, analyze them, and eventually create the score directly out of this experience. That was the reason I decided to compose an electronic track instead of using live instruments, making the recording of the MRI sequence the sole base material for it and leaving the live music component of the new piece exclusively to the soprano part. I was accepting and willing to derive all sounds from the MRI recording like a predicament I had to face. The raw sound from the machine, I knew, was going to sound mercilessly hard and violent but I would transform it into music that would represent the subtle feelings as well as dramatic moments of the libretto. To do so would require skills in electronic music, in composing music out of a source sound by manipulating it with electronic means. But, up to working on this commission I had never really composed electronic music. Aesthetically I had just never been interested in it, yet. I had studied in Cologne and at Harvard but wasn't even drawn into the legendary electronic music studios there. *Searching and Knowing* is my first electronic composition. I found myself taking it on as if it was my fate which I had to accept and had to work through with dedication and willpower. I set out to make a meaningful and even beautiful electronic track out of the MRI recording.

Eventually I received the recording of the MRI sequence. Joyce had hired a sound engineer and was able to arrange for him to be allowed and scheduled to record the MRI machine at a hospital in Seattle. I began to listen to it. There are a number of clearly distinguishable patterns. Some are soft, others mind numbingly hammering away, yet others sound like alarm signals suddenly going off. Most of the recorded sounds are generated, I think, by strong electro-magnets being turned on and off at short and regular intervals. Sometimes the switching happens so fast that the frequency of the impulses is in the range of tones. The sounds of the magnets have lots of dissonant harmonics which makes them harsh. Also, since the source of the sounds is a machine, they are quite simple, regular,

and repetitive for long sections of the sequence. Using Digital Performer software I started to familiarize myself with the possibilities of the recorded sound. I cut out short samples and began to play around with them. I looped them, filtered them to come to individual pitches, equalized them, slowed them down again and again so that noises became pitch sequences. I transposed whole sections by particular intervals, and at other moments I transposed patterns or noises dynamically, creating melodic glissandos. For me a particularly helpful and fascinating digital sound processing feature was the so called pattern gate. It allows the composer to switch a track on and off according to a programmed pattern. It also lets you set the amplitude envelope of the sound playing during the “on”-times. With this pattern gate I created most of the rhythms, but also linear sequences like the bass line of the last part, and larger sections. By experimenting for a while I became familiar with the software and more and more fluent in using it to modify sounds to my liking. I was hooked. I created tones, rhythms, gradual and immediate changes, I constructed patterns and improvised sound shapes. It was interesting for me to see that in this for me new medium of electronic composition I was soon constructing and developing music in a fashion similar to the way I am composing otherwise.

I structured the libretto into sections and subsections thinking of them as short acts and scenes. The first of four acts, for myself, I entitled “Tube Dances.” I defined three scenes for it all together a little over eight minutes long. The first one is introductory and ends with the “dive into the capsules void.” Here the central musical idea is the ebb and flow of the loops of a tempo fluctuation I found in the sounds created by the machine at the beginning of the diagnosis sequence. It represents the many mixed feelings and expectations, the hopes and fears, right before being entered into the MRI machine. Scene two is a *largo* and there is a part where I created some sort of “plucked bassoon” line the second half of which is the retrograde of the first half. A retrograde in German is called a *Krebs* which in English means crab but in German is also the word for cancer. The section is alternating with a sound made from the hammering of the magnets. The ensuing scene begins with acoustically depicting the “dueling didgeridoos,” through a phased sound pedal I created out of a “plucked bassoon” note. Above it develops a Warrior Shaman Trance Dance with a polymetric rhythm arrangement of asymmetric meters ending in an affirmative “yes”-chorus, “insisting on life.”

The second act – I call it “Children's' Dances” – presents the cancer patient's reflections on motherhood. They come with contradicting feelings, with worries and envies and a sense of distance from young age and spirit as well as with a longing to connect and participate. The music reflects these contradictions in two sharply contrasting dances, one being what I call a Nursery Dance with a fragile 6/8-like sound and a lullaby melody in the vocal part, and two being throbbing techno music

into which I also mixed a recording of girls' laughter.

The third act, "Stages of Treatment," is divided into four scenes. The first one is particularly defined by the clear separation of events in the left and right channels referencing the "unaffected and affected" sides of the libretto, the second one by spreading stillness through the gradually growing focus on a noise I shaped to be reminiscent of listening to one's own breathing. Scene three is characterized by the fragile sound from the Nursery Dance. Now, however, it is arranged to create the famous rhythm of Richard Wagner's *Ride of the Valkyries*. In contrast with the Wagner version, in this moment in *Searching and Knowing* the rhythm is presented softly and intimately to represent the cellular scope of the healing process and to contrast with the force of the image of the "armor plates" in the text. Only at the end of this scene there is an accumulation of some louder sounds offering acoustic associations with swords or rays. After that the finale of this act is quieting down and down and ending in text whispered by the singer. The calm that has been reached now is that of a healing sleep, of the exhausted sleep after a healing process, after an operation. Everything is finished and done with and achieved. It is a very fragile moment, a moment of reflection, of a new life beginning.

And then starts the last act. At first words are spoken quietly and soberly. It is a matter-of-factly moment with a sense of the enormity of what has happened before. At the end of the spoken text music, now music with a real bass line going through simple harmonic changes is faded in, a new and different dance begins, a Group Dance, perhaps with hand clapping or additional drumming, even audience participation. And then come in long tones forming melodic phrases which are a counterpoint to the beginning vocal part. The atmosphere is relieved but not exuberant. The memory of the hazards and inner fights is still alive but a brighter future can be faced from here on out, we hope. "All shall be well."

At all times during the composition process I enjoyed experiencing that not every result of my sound manipulations came out as expected. I misjudged all sorts of parameters ending in somewhat distorted sounds at times or in electronic clicks, for instance, from switching mute on or off on a track instead of fading it in or out. However, I often found the acoustic results of these "mistakes" good and was glad they occurred. The computer and I were communicating. I liked the flaws because they made the sound more human and thus helped me to adjust to my new identity of an electronic music composer.

As I was composing the electronic track also the vocal part was forming in my head. Both

constitute a subtle counterpoint in which each part expresses a slightly different relation to the libretto and the patient/machine polarity. The vocal part is foremost an articulation of the text as in a dramatic reading. It shows the patient's resolve and her taking on of the results of the fateful diagnosis. The electronic track is a representation or depiction of matters, sounds, etc. that the text describes and a transformation of the MRI sounds. The time relation of the two parts is alternating throughout the piece, not constant, like in a canon, but flexible, as in a fugue. Either of the parts may bring about change and the beginning of new development. The Nursery Dance music is already established in the electronic track before the soprano begins adding its lullaby melody. Then, however, the soprano presents the contrasting idea of discotheque chaos first, before the electronic track switches to the loud and shrill kick bass section. The machine suggests sounds on the one hand but on the other the machine also reflects the patient's experiences. I think that medicine - represented by the machine - is not healing all by itself. That does also and not least the patient - represented by the voice - who has to take and who does take initiative. I interpret and like in Joyce's text the metaphor of the soprano voice for inner healing power, for the spirit that is required to go through and eventually overcome terrible illness and fate.

As I was working with Joyce's text I was becoming curious to hear how she herself would read it. What undertones would I pick up and where would she pause or change the tone? I was pleased to find that Joyce was ready to record herself reading the text. That helped me in deciding how to write the vocal part. When I listened to the recording I had the idea to also include some of Joyce's voice in the electronic part. All voices except for the girls' laughter like "Don't move" and "Silence now" are made out of the recording of Joyce's voice. My intention with lowering the pitch of the voice and slowing it down was to suggest some distance between the patient and the outside world. It is like listening through a veil of consciousness. The actual drama is taking place in the body and the mind itself. The outside world appears bent out of shape.

Composing *Searching and Knowing* has challenged me and made me approach composition techniques new to me and thus finding an aesthetic answer unique for my work. I have found it necessary to expand my artistic vocabulary into the realm of electronic music, an art form I had considered strange to my aesthetic direction so far. I found that I was able to make sense of it, that I could live here, and that I am still myself. I hope that audiences will find *Searching and Knowing* as inspiring for their lives as I did for mine.