

Remediating Music Theatre? A Cybernetics Study on Music Theatre

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Abstract

This paper aims to survey the processes and findings that took place during a performance/experiment on technologically-aided audience-interactive music theatre. The performance was based on Heiner Müller's play: *Despoiled Shore Medea-material Landscape with Argonauts*. It aspired to observe the potential application of the *remediation* concept on music theatre by both drawing inspiration and borrowing methodologies from other artistic practices, such as interactive art and audiovisual installations. On a theoretical level, the research drew principles from media, performance and system studies. Using different strategies such as audience immersion and technological interaction, the performance aimed to develop what J. Birringer calls a *transindividual network system* (2004) between performers and audience - mediated by technology. This paper is a procedural report belonging to a larger scale research.

Introduction

In an attempt to reply to the question of whether music theatre can be audience interactive and if yes, then how, I embarked on a project that attempts to observe the potential roles that both technology and space can have in such a hypothesis. The core idea for this experiment was that both technology and the creative use of space could potentially challenge the distance between performer and audience, while maintaining the overall coherence of the performance experience. To design it I draw inspiration from processes employed in interactive and immersive installations as well as live art and durational performances.

Two scenes - two approaches

The performance took place in November 2015 during my residency at Blast Theory performance collective in Brighton. The performance was an experiment, through which I could understand better both the technicalities of the materials and processes used, as well as the way this context was appreciated by both the

performers and the audience. In an attempt to observe the roles of different potential possibilities, I followed two completely different approaches regarding technological implementations and space usage. I developed therefore two scenes for the occasion: a one-to-one performance based on Heiner Müller's *Despoiled Shore* and another for two performers and a small amount of audience (five audience members at the time) based on Müller's *Landscape with Argonauts*.

Introduction to Heiner Müller's work

Heiner Müller's text, *Despoiled Shore Medea-material Landscape with Argonauts*, abolishes linear narrative; the author uses scattered and fragmented evocative images without maintaining linearity or a clear plot. The post-apocalyptic environment that the author sets the play in is a dystopic landscape that transcends time and history (Birringer, 1990). The work explores the human subject in a hostile environment, where humanitarian principles and ethics are questioned from a posthuman perspective (Kvistad, 2009). The type of text—as Müller describes it—is a *synthetic fragment* (Birringer, 1990, p. 87) constituted on the abundance of interlinked textual images and references, he also notes that "The three different sections *Despoiled Shore*, *Medea Material* and *Landscape with Argonauts* can be performed simultaneously and independently from one another" (Müller & Weber, 1984, p. 126). Regarding the multi-linear aspect of the work, Müller has admitted the text was written in at least three different stages:

The play was completed in the early 1980s, but "Despoiled Shore is thirty years old except for a few lines . . . About half the centerpiece, the Medea play, is probably fifteen years old. Really new is the last segment only, Landscape with Argonauts"

(Campbell, 2008, p. 88)

Ivar Kvistad suggests that the multidimensionality of the play's structure does not only challenge Aristotle's cathartic narrative principles, but also indicates the signs of the "departure" from Brecht's—Müller's mentor— *epic theatre principles* (Kvistad, 2009). Philip Auslander in *Presence and Resistance: Postmodernism and Cultural Politics in Contemporary American Performance* observes how Müller puts the audience in a critical and compromised position against the text.

The fragmentation of the structures and characters in Müller's remaking allows [the audience] to achieve a new sort of "critical distance" by forcing [them] to reconsider, from an admittedly compromised position, the structures and assumptions of the contemporary world.

(Campbell, 2008, p.86)

The audience's compromised position makes *Despoiled Shore Medea Material Landscape With Argonauts* an anti-epic or post-epic play challenging the Brechtian *alienation* notion. The text does not aim to distance the audience from the

theatrical performance in the way Brecht would do. It does not aim to impart, but it manifests as a mirror placed in front of the audience. The text belongs to the author's mature writing stage, the way of writing seems afar from Brechtian influences — although most certainly such influences have contributed greatly to the development of such style of writing. In my point of view it is a "post-Brechtian" play, meaning it is a play that goes beyond Brechtian alienation, as it expands this notion by suggesting the very critical inclusion of the audience in to the play rather than its critical distancing. As it is mentioned in the author's notes "the *I* is collective" (Weber & Müller, 1984, p. 126). Hence, "*I*" transcends the audience-performers boundaries and identities. For Müller we all are in the text or we are the text and what is written in it. We collectively, we, the human kind, we are performers and audience of the events in the text. My interpretation of this version of Medea is that (performer-audience) roles' can be inverted. We are all performers and the audience at the same time: the performance —as much as life— is observed as a collective responsibility.

Moreover, as the "*I*" is collective, the *fourth wall* notion (Stevenson, 1995) separating audience and performers, has become fractured. What the viewer sees through this fracture is a juxtaposition of images, images of humanity's future self, abused by itself until its final destruction, when humanity's left-overs become one with the landscape. For Müller, "we" are guilty and there is no chance for hope (Müller & Weber, 1984, p. 140). The play aims to bring the audience closer to the observation of modernity's destructive face; it is a time wormhole to the viewers' future image. It does not aspire to do anything else except of having them listen in the present, the future desperate cry of the end of humanity. In the essay *Heiner Mueller Out Of Joint*, Žižek depicts Müller as having completely "succumbed to the temptation of catastrophism" (Žižek, 2003). Indeed, Müller's writing is driven by an impulse towards a destructive subject: "Schreiben aus Lust an der Katastrophe"¹ (Birringer, 1990, p.93), the total destruction driven by the exploitation of consumerism and technology, the destruction that we have all collectively contributed to. Žižek's observation suggests that Müller does not aim to induce hope or to indoctrinate a possible resistance. Müller's approach does not believe any more in a larger narrative that can save the world. Without aiming to offer any answers, Müller wants to make us consciously aware of this process of destruction, by presenting us with a devastating and agonizing truth, a reality we have caused and belong to.

Müller's fragmented text and imagery, the importance he gives to the role of the technology, the dystopic landscape and the notion of the collective "*I*" were the reasons I decided to engage with this work and use it as a mean of inspiration — rather than literally— for the development of a hybrid music theatre environment in which audience and performers share space, interact —in different ways— with each other through technology and share a collective "*I*" responsibility.

¹ "Schreiben aus Lust an der Katastrophe" free translation: writing from lust for disaster.

Scene I - Landscape with Argonauts



Figure 1. Detail from the performance

In *Landscape with Argonauts* (Figure 1.) the author invites us to transit in an environment, a scene of decay only a few theatrical seconds before the final apocalypse, before “My [our] body transformed to the landscape of My [our] death” (Müller, 2002, p. 9), as Müller writes at the end of the scene, before “The air-pressure swept the corpses from the Plateau” (Müller, 2002, p.9) -possibly due to a *dues/a ex machina* atomic bomb as interpreted by Kvistad (2009, p.4), as “WHAT REMAINS [...] IS ARRANGED BY THE BOMBS” (Müller, 2002, p.7). In his notes Müller places the *Landscape with Argonauts* scene in a dead star. Destruction and decay, as the bi-products of technology and modernity are ubiquitous; human consumerism has consumed life; *Landscape with Argonauts* is a hostile environment to life. Time in this scene has stopped, is pending as a dominant chord, in limbo, waiting for its resolution, the end, the final total destruction, the end of life, the end of the landscape, the end of the play itself, as Müller voices it through the scene’s character: “DEATH STILL HAS A HOPE” (Weber & Müller, 1984, p. 134).

Observing this landscape, I had to decide how this visceral environment could be interpreted both visually and musically. Questions rose about which should be the role of technology; how the space should be arranged; how the audience should experience the space; how could I convey the imagery of the text, without necessarily using it in its full but rather following a postdramatic —music— theatre approach by suggesting it through visual and musical means. I was interested in immersing the audience in this postdramatic theatrical landscape, the world of *Landscape with Argonauts*. However, the biggest challenge was to find a strategy and incorporate in my interpretation of the collective “I” aspect as described by the author, an “I” that would transcend performers’ and audience’s identities.

For the development of this scene I worked with two performers/improvisers: the musician Nikos Ioakeim and the dancer M. Eugenia Demeglio (Figure 2.). As performance space I used a small fenced terrace at the back of the Blast Theory studios.



Figure 2. From left to right, performers Nikos Ioakeim and M. Eugenia Demeglio

The space was situated within an industrial area in the port of Brighton (Portslade). The actual space helped the formation of the landscape I was after: the strong industrial smells and distant sounds of the port, the scarce evidences of life, all contributed to a naturalistic post-industrial atmosphere I envisioned as scenery. It is worth noting that Müller clarifies at the beginning of his notes that accompany the text the necessity for naturalism in this play (Weber & Müller, 1984). Upon arrival at the main gate of the space, the audience had to walk down a metallic external staircase (fire-escape like), and arrive to a balcony from which one could observe the industrial area and the harbour. There, the audience was given white protective clothing to wear, after they were told to continue downstairs. They were instructed to stay as long as they wanted and to exit they should follow their path back. Downstairs I used plastic sheets (Figure 3.) coming down from the ceiling in order to divide the space into smaller ones; the space resembled a small labyrinth composed by plastic curtains that were "dancing" slowly with the blowing of the night breeze. I wanted to fragment the space, I wanted to intrigue the audience's curiosity for the space, invite them to discover it, I did not want them to become directly familiar with it, to decipher it from the beginning. I also wanted them to move around, exploring, realizing where they were rather than staying static along the walls. This fragmentation of the place was as an allegory to the scattered fragmented text of Müller, it offered a certain aspect of excitement and it was an invention to resolve a technicality that had to do with technology.



Figure 3. The plastic sheets (wrapped) and the performance space

On the walls of the space I placed eleven Infrared sensors (Figure 4.), they were connected to an Arduino micro-controller, which in turn was connected to a laptop computer. Infrared sensors are used as surveillance methods in private and public spaces, they capture body heat and report it to a server computer, hence, any body movement in this performance space was tracked by the computer. Such information was computationally processed through an algorithm that was controlling the occurrence of sound events and the musical density of the performance. Therefore, the musical events were directly proportional to the human density and movement inside the space, as if in an immersive/interactive installation. The computer could observe how much action/movement there was in the space and it reacted accordingly with sound. This human-computer interaction was not perceived as direct: there was not an obvious one-to-one action-reaction between somebody passing in front of a sensor and a sound being generated or altered. The whole process was much more sophisticated and subtle. The computer gathered the information, assessed it and "decided" whether the musical density should or should not change and how. This prevented the audience from realising the interactive aspect of the experience, as they did not see how they effected the musical environment: the ubiquity of the technology was rendered unperceived to the eyes of the audience. Such scenario was intentional for this sketch, as I wanted to observe the effect this



Figure 4. One wired Infrared

type of interaction might have had to the audience. However, the role of the technology had a great further significance for the piece, as the changes in sound density (the occurrence of sounds or silences) were dramaturgical cues for the performers. The role of the two performers the actor/musician (Jason) and the dancer (an Argonaut) was based on improvisation tasks. They had a palette of possible musical, acting and movement instructions they could follow according the sonic events. The performers therefore were reacting to sound as if reading an interactive score; a score that was produced by the presence of the audience in the space. The performers were becoming part of the extended computer algorithm that was controlling the sound. The movement though and the position of the performers in the space could cause audience movement which that in return could generate sound changes, which could then be interpreted by the performers, generating a loop of actions and reactions, a feedback system.

Both audience and performers were part of and feeding into an *instrumented space*, as anyone moving in the whole space was affecting crucially the sound and the action of this hyper-instrument. Musically, the music, also derived conceptually from the study of systems, was all based on sophisticated algorithms done in SuperCollider, where sounds were feeding back to themselves ending up modifying them, creating random fractal-like sound events. The entire performance therefore was a large feedback system.

Scene II - Despoiled Shore

Müller in his introductory notes places the *Despoiled Shore* scene in a peep show: "DESPOILED SHORE can be performed in a peep show, for example, as part of the regular presentation" (Weber & Müller, 1984, 126). Such suggestion is far from coincidental or irrelevant. The idea of a peep show as part of the performance or of the performance itself being a peep show made me consider dynamics of power between audience and performer. In addition, as the "I" in the text is collective, one could wonder who is observing whom, who is being viewed and who is becoming the subject of the performance, who is the audience and who is the performer, who is the peeper and who is to be peeped. The scene *Despoiled Shore* is again a patchwork of strong images; a "theatre of images" as Müller himself describes it (Kvistad, 2009, 1). Scattered words might refer to the original myth and largely to a decaying landscape. The author places the action surrounded by discarded consumers' products, combined with visual taboos such as death, decomposition, bodily fluids and excrements. The overall scene is composed offering a strong misogynist sensation. As Kvistad underlines:

If her [Medea's] opening speech to 'the women of Corinth' in Euripides' play signals Medea's social alienation, the reference to the bloodied menstrual napkins of the women of Corinth in Müller's play signals the horrors of modernity through a misogynist but culturally ingrained link between female sexuality, abject body fluids and gendered paradigms of horror.

(Kvistad, 2009, p. 2)

The challenge in this scene was to make the technological mediation evident and coherent with the play. I was determined to invest on and observe how technological processes applied on a voice could bring forward and convey the text's core features, without necessarily using the entire text. I imagined the voice, human's most intimate mean of expression, mediated, alienated and technologically processed in order to depict the setting illustrated by H. Müller. In addition, I was convinced that a live processed/technologically-mediated voice could assist in revealing Medea as the powerful female character she was. Or as an impersonation of the female aspect of nature, as suggested by Bonnie Marranca in her work *Despoiled Shores: Heiner Muller's Natural History Lessons* (Marranca, 1988). In order to achieve this, I used a series of live sound processes to alter, amplify and alienate the voice of the singer. Hence departing from Müller's "theatre of images" concept I arrived in the territory of "theatre of sound", I found myself exploring concepts of theatricality of sound. Even more accurately said, I was exploring the concept of the theatricality of interactive sound. The interactive aspect of this scene facilitated the emergence of notions of power and dependence between audience and performer, manifesting in a postdramatic manner.



Figure 5. Singer Stephanie Pan

In this scene I worked with the classically trained singer and improviser Stephanie Pan (Figure 5.). We devised together music based on a set of improvisation tasks, a palette of sound qualities, motifs and textures the singer could use in this interactive music theatre sketch. The performance was a one-to-one experience that was happening as an interactive peep show. The member of the audience would be given a coin and would be asked to walk through a room where they could find an arcade-like game with a coin receptor and a joystick (Figure 6.). Behind the arcade-like game there was a window and behind that window the performer was sitting waiting. The interactive performance would not start unless the member of the audience would insert the coin into the coin-receptor. Once they did, both the sound and the video projection would start. Both sound

and video were based on live computational feedback systems. As previously mentioned, the member of the audience would find themselves in front of a joystick, an object heavy in cultural connotations: from either the perspective of consumerism and commodification or —one could interpret it— as a phallic object in front of a woman (a scenic suggestion of an interactive peep show). The use of the joystick allowed the control of parameters in both the image and the sound. The singer, — who at that point was sitting right in front of the audience — looking directly at them, was listening to the manipulations of the sound —caused by the joystick— and would adapt her vocals accordingly. There was therefore a very clear process of feedback taking place between performer and audience: The performer would sing, her voice would be processed, the member of the audience could control certain sound processes and the singer would adapt accordingly. The experience would last only few minutes and during that period, the computer would also trigger ad libitum prerecorded samples of H. Müller's text read by the singer.



Figure 6. From left to right the coin receptor and the joystick

Alike the previous sketch, this also had a clear focus on computer-aided interaction, the whole performance was based on the concept of an extended nervous system between the performer and the audience. They both bore a great responsibility about their actions, as they were very aware of the intriguing fragility of the scene that was co-created. The scene could be described as a unique type of bond, created through the eye contact and the interaction between the two part takers, an extended instrument that was performed simultaneously by both. From the audience feedback —given after the end of the performance— it was clear that the experience was appreciated as particularly strong, emotional and captivating. It was due to the media involved (sound, image, interface) and the interaction that this sketch had such an emotional impact. Our first attempt to create a postdramatic landscape of H. Müller's play without fully adhering to the text had very rewarding results. Regarding the technicalities of the process. The physical computing was based on Arduino micro-controller; the sound algorithms were designed in SuperCollider and the visuals in Jitter (Max/MSP).

Remediating Music theatre?

These two sketches and the process involved offered the contemplation of an art form as medium, which alike any other media —according to media theory—

can be remediated (Bolter & Grusin, 2000). Remediation is the process when a certain medium starts to incorporate techniques/practices/approaches available in the technoscience of a certain era, such processes result to the eventual change/alteration of the medium itself. This experiment started off a theatrical text adapted into Music Theatre, but for its realisation it incorporated technologies, media and processes from other art forms: i.e., in *Landscape with Argonauts* I borrowed processes used in immersive/interactive installations, live art and durational performances, while for *Despoiled Shore* I used techniques from interactive art. According to Bolter and Grusin, the process of *remediation* requires time until one can say that the new medium/art form has taken its final form and can be clearly distinct for its unique features from any other. In the beginning, when a remediation process starts to occur, it is typical that one would observe media inside other media, or certain art forms incorporating others. The process of remediation requires experimentation, research and appropriation from different users/makers in order to be fully developed. It does not happen from one day to another. Also, the process of remediation is a conflictive process. The old medium would resist the new and the process of remediation, while the new medium might try to absorb completely the old. As Bolter and Grusin explain in *Remediation: Understanding New Media*

...the new medium can remediate by trying to absorb the older medium entirely, so that the discontinuities between the two are minimized. The very act of remediation however, ensure that the older medium cannot be entirely effaced; the new medium remains dependent on the older one in acknowledged or unacknowledged ways.

(Bolter & Grusin, 2000, p. 47)

The observation of music theatre as a medium —as questionable and radical this notion can be—, which can be potentially remediated through digital practices, fascinates me as a concept and I believe it does resonate with the posthuman concepts residing in Müller's. To phrase it differently, the mere idea that technology can mediate to modify certain music theatre notions in an entropic and proliferating yet systematic way is what I found extremely fascinating while working on this project.

Hypermediacy vs, Transparent Immediacy

In *Landscape with Argonauts* I used series of *Infrared* (IR) sensors to control the musical density and the occurrence of the musical events. These events, —as cues— defined also the occurrence of the actions of the performers. In this sketch, I deliberately decided that the audience should be completely unaware about the effect they had to the sound and extensively to the structure of the performance —with their presence. Where in the case of *Despoiled Shore* on the other hand, the audience was presented with a clear opportunity to choose whether and how to use the interface —the arcade-like joystick. They were therefore deliberately presented

with the possibility of using a medium and the way they would interact through it with the performer.

These two different interface choices and implementations reflect two different concepts of Media studies, which relate to the concept of remediation: hypermediacy and transparent immediacy. Transparent immediacy reflects the need of the “interfaceless” interface. An interface the presence of which is disregarded by users, who get completely immersed in the processes it offers. That aimed to be the case of *Landscape with Argonauts*, where the interface was invisible to the audience. On the other hand, Hypermediacy stands for exactly the opposite. Hypermediacy is an anxiety or fascination about the medium. The user of the interface becomes actually aware of its existence but also of its cultural significances and connotations (the case of the arcade joystick in *Despoiled Shore*).

A performance systems study

Müller’s text makes strongly evident a series of posthuman notions. These notions inspired me to use techniques and principles deriving from cybernetic theories, the set of transdisciplinary theories that form part of systems studies. Particularly the structure of the two scenes was very much influenced by cybernetics. It was a study on cybernetic systems applied on performance. The observations that derived from it could allow one dare introducing the concept of *performance cybernetics*. One of the core concepts of cybernetics is the one of feedback, when a certain action causes single or a series of concatenative reactions that would eventually get back and affect—in some way—the initiator of that—first—action. Although initially cybernetic studies focused on the behavior of closed systems such as self regulating systems (*homeostasis*), it then developed to incorporate much more complex scenaria in which closed systems could be affected even from the process of their observation (second order cybernetics).

In this experiment I draw inspiration from principles deriving from both cybernetic orders applying them in the devising of the performance. In its macro structure is based on a feedback loop, as the performers’ bodies were interacting in the space with the audience, the audience was—in different ways—generating the sound, the sound was guiding the performers, whose actions and the sounds were then received back by the audience causing further reactions. Likewise in their micro-structure, both performances were based on cybernetics, as both sound and visuals were based on feedback algorithms. Both the audio and video outputs were feeding back into their inputs causing chaotic instabilities in both signals.

The study endeavored to observe how a member of the audience when interacting with technology—knowingly or unknowingly—, in an interactive performance environment could affect the development of the performance and therefore the experience that they might have in it. Basically, how an audience member can potentially become part of a system of *performance cybernetics* and have a technologically aided agency on the development of their very same performance experience. This particular study of cybernetics in performance demands further research both regarding the potential—and whether necessary—role of the technology, as well as the role of audience-performers conditional systems in performance environments.

Conclusions

Both performance scenes touched concepts from different subjects and disciplines, therefore further and closer study on these notions is required before one can confidently claim clear conclusions. However some of the observations from this process were that:

The relationship established between audience and performers, through immersiveness and technological mediation suggested—in a postdramatic music theatrical manner—the collective “I” notion described in Müller’s introductory notes. The music theatrical cybernetic environment developed was conceptually linked with the posthuman notions suggested in Müller’s text. Moreover, the use of media and processes in this study suggested the concept of *performance cybernetics*, the notion that all elements of a performance (performers, audience, media) form together a larger cybernetic body that evolves independently through series of conditional algorithms. The structure of such performances is never the same; it appears very chaotic while being at the same time very systemic. In this study the performers became part of an extended computer algorithm that was controlling their actions, making prominent the posthuman notions described in Katherine Hayles’ seminal work *How we became posthuman: virtual bodies in cybernetics, literature, and informatics* (1999). The technological mediation converted audience presence and behavior to a form of interactive score for the performers: performers and audience became part of a computer network. In this context music theatre practice was observed as a process, a system or a medium. Through this—almost allegoric—observation emerged the idea that music theatre can be potentially remediated by other media or practices of the current technoscience in order to potentially gain new structural possibilities and dramaturgical affordances. I observed the role of the processes used from a media studies perspective and draw links to concepts of *hypermediacy* and *transparent immediacy* and the role these media concepts might have in a music theatre performance. Through this study on music theatre from a media studies and systemics perspective what I found most intriguing and what I am interested in exploring further is this notion of how technological media and processes adapted and incorporated in an art form can question the same nature of that art form itself.

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