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Sound Design as a Holistic Sonic Practice

A Thesis submitted in partial satisfaction of the
requirements for the degree Master of Fine Arts

in

Theatre and Dance (Design)

by

Andrew Lynch

Committee in charge:

Professor Bobby McElver, Chair
Professor Victoria Petrovich
Professor Deborah Stein
Professor Shahrokh Yadegari

2021

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University of California San Diego

2021

DEDICATION

For Katie Melby, my partner and companion.

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ABSTRACT OF THE THESIS

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by

Andrew Lynch

Master of Fine Arts in Theatre and Dance (Design)

University of California San Diego, 2021

Professor Bobby McElver, Chair

Theatre is a deeply collaborative medium that draws upon a wide range of disciplines. While the conventional theatrical production model prioritizes specialization in terms of area of expertise, contemporary new work increasingly showcases the contributions of transdisciplinary theatre artists with more broadly defined creative roles. Many sound designers working in this contemporary context are embracing a hybrid role as composer, sound designer, and performer. Experimenting at the intersection of music, technology, and performance, these practitioners are uniquely positioned to combine these elements in a synergistic fashion to unlock new creative possibilities. This hybrid approach at its best can synthesize this range of skills into a single,

holistic sonic practice. Reflecting on my own experience at UCSD and in the professional world, I will explore the unique advantages and innovative potential of this developing practice.

Chapter 1

Introduction

Sound Design is a dynamic discipline that sits at the crossroads of many sonic arts. In the context of theatre, the Sound Designer is tasked with sculpting the audience's entire aural experience. This can mean anything and everything from composing the score, to recording and engineering content, to designing and implementing the sound system. Given the rather large range of tasks involved, the field includes a diverse set of practitioners with a mixture of skills and backgrounds. Some are highly trained composers with more limited technical capabilities, while others are expert engineers with little formal musical knowledge. Most inhabit the space in between, combining some degree of musicianship with an aptitude for technology to create sonic worlds and experiences. Additionally, many have a background in performance as either actors and or musicians, and some also perform their scores live. As a result, the field of theatrical sound design is a unique collection of curious individuals whose skills lie somewhere between music, technology, and performance. While conventional theatre often encourages specialization, particularly in musical theatre, there is also an alternative hybrid practice. These hybrid practitioners seek to combine their range of skills incorporating everything from live instruments, to electronics, and sound system design into a holistic sonic approach. In this way they expand their palette to include the whole range of sound from a note on a piano, to a sampled sound effect, or an EQ choice for a microphone.

As an MFA Sound Design student at UCSD, it has been my mission to grow and combine my skills as a composer, sound designer, and performer into such a holistic creative practice. In this paper I will reflect on those projects where I was best able to pursue this goal. I will discuss how each of these experiences allowed me to explore a different combination of these skills and the associated challenges and possibilities. Also, I'll note where this approach produced synergistic outcomes, for example where my work as a composer informed and improved my work as a sound designer and performer. These experiences will continue to guide my ongoing research as I strive to synthesize these skills and insights into a holistic sonic practice.

Chapter 2

Case Studies

2.1 An Object Screaming

An Object Screaming was the MFA Dance Thesis Project by choreographer Paulina Colmenares. From my first meetings with Paulina it was clear that her work and process required a great deal of flexibility. The piece was structured in such a way that every performance would be unique. The performers were given guidelines for each section, but within that framework they had significant freedom to explore. Similarly, Paulina gave me a great deal of freedom as the sound designer. After assessing the artistic needs, goals and spirit of the project I determined that I could best serve the piece by taking on a hybrid role where I would use a combination of live instruments, dynamic playback, and real time sonic manipulation to perform a flexible, live score in concert with the ensemble.

I set out to assemble a collection of instruments, sounds, and a sound system that would enable me to create a flexible live score. My musician's nest included an electric guitar, a cello with an AKG C418 microphone, a Yamaha CP5 keyboard, and a floor tom and glockenspiel with Audix ADX51, DP2 and DP4 microphones. This collection of live instruments allowed me to support the action on stage with dynamic musical choices and to change instruments throughout the piece to best suit the dramatic moment. I used my Macbook Pro to run Ableton Live, using an Ableton Push to create a versatile and tactile electronic instrument. This setup allowed me to

control playback of samples and to manipulate audio effects in real time to interact with the dancers. All audio was then routed through the console using 13 audio outputs across 16 speakers. As the performance was in the round, I employed two central clusters with loudspeakers on either side, a ring of loudspeakers on the perimeter of the room, and two subwoofers. This sound system allowed me to create a dynamic live mix and to spatialize sound throughout the space. To accommodate the variable nature of the piece, my Ableton session was populated with numerous clips and scenes which I could play back and loop to suit the moment. For example, in the opening moments of the performance I played a piece of sound until the performer made a dramatic cross through the space at which point I manipulated a grain delay to affect the sound and support the movement. Later during a duet, I played the floor tom and glockenspiel together to support the dramatic contours of the dance. For another sequence, I employed the Ableton Surround Panner attached to an LFO to send the sound spinning around the room via the circle of loudspeakers. I was able to control all of these elements in real time to be an active and responsive member of the ensemble.

This process showcased many advantages of the hybrid composer, sound designer, performer model. First, I was able to devise a unique sonic solution that matched the artistic needs, goals, and spirit of the project. My breadth of skills allowed me to envision and implement a solution that might not occur to a practitioner with a more narrow focus. I incorporated live instruments early on in the rehearsal process, trying out different instruments with different moments to find the appropriate match. I also knew that some pre-recorded music was an integral part of the score and needed to be played back with precision so I included Ableton Live, a powerful tool for sound designers and performers, as my playback method. And as each performance would be unique, I knew that all of the sonic elements would need to be

controlled live to support these delicate moments of improvisation and discovery. My background in composition, sound design, and live performance allowed me to connect those elements into a single sonic palette where I was able to switch between instruments, sound playback, effects, and even sound spatialization parameters in concert with the ensemble. For example, as a composer, I wrote a short piece for the cello which I performed live. As a sound designer, I selected the microphone for the cello, mixed and routed the output to the center loudspeakers, and paired it with an ambient loop played back through Ableton Live in the surround loudspeakers. As a performer, my cello playing was informed by the dance, and together with the onstage dancer I determined the appropriate moment to move on to the next section by triggering the next soundcue in Ableton. As the dance changed from night to night, I reacted in real time using this collection of sonic elements to support each unique performance.

The process also demonstrated some of the challenges of this approach. Between juggling musical instruments and electronic elements the performance was quite demanding. As an active member of the ensemble, my performance was also something of a dance, and there were moments when it was difficult to put down an instrument while seamlessly triggering another sound. With such an extensive sound setup, I did not have the opportunity to rehearse with all of the elements together until tech. The rehearsal process moved from space to space, and while I could transport my live instruments, I didn't have use of the console or loudspeakers. As my goal was to forge all of these elements into a unified sonic expression, it would have been ideal to have more time to rehearse with the complete system. Another persistent challenge that must be taken into consideration is the issue of live mixing position. My musician's nest was located beneath the tech booth and was not ideally located for the purpose of live mixing. I was able to mitigate this issue somewhat by testing sound in the room during tech. I moved around the space

to determine and set appropriate levels, and then I returned to my musician's nest to calibrate my ears to those levels. However successful such mitigation may be, the introduction of a live audience to the space creates a challenging variable. The Shank Theater, where we performed, is perhaps small enough to be manageable with this approach, but a larger space may require the assistance of a front of house mixer to achieve the best possible mix in the house.

2.2 Elektra

Elektra was a production of the classic greek tragedy directed by MFA Director Juliana Kleist-Mendez, for which I composed an original score and many original songs. In early creative discussions with the director it was determined that the amount of original music would be substantial. The final one act production featured nine original musical numbers, as well as a significant amount of incidental music and underscoring. Given the sheer quantity of music involved, the production could be described as something between a play with music and a proper musical. In the world of theatrical sound design, musical theatre is the one territory where the composer and sound designer are virtually always separate and distinct jobs. In this production, however, I was both composer and sound designer, testing the practical limits of this hybrid practice in the sonically demanding territory of musical theatre.

From the beginning, I applied a holistic sonic approach throughout the process. As a composer, I was involved in early creative discussions with the director to determine where new original songs would occur, and what storytelling goals they must achieve. Sections of the greek chorus' text were selected and set to music, while I wrote original lyrics for other musical numbers. I wrote, produced, and recorded demos of new songs to share with the director and

continue our discussions and collaboration. Once the songs were completed to our satisfaction, I then served as music director teaching the songs to the cast. As the production process ramped up and my attention was increasingly needed in other areas, we also added the PHD student Maddie Williams as an additional music director. That allowed me to focus on writing and producing incidental music and underscoring. All the while, I was able to consider how the music and sound would be implemented in the theatre, and to design a sound system that would best support our needs. Early on, we discussed the possibility of adding a live band, but my holistic overview gave me critical insight into how that would add complexity to an already ambitious project. Once in tech, I built cues for playback, while programming and managing body mics for nearly the entire cast, as well as addressing musical questions and concerns. Throughout the entire process I was able to offer a unified sonic approach so that the composition and sound design elements supported and informed each other.

The process highlighted many strengths of the hybrid composer, sound designer model when applied to musical theatre. First, it allowed me to create a seamless and cohesive score from the musical numbers, to the incidental music and underscoring, to the use of sound and sound effects. I incorporated musical themes from the original songs into the underscoring and incidental music to better support the narrative. I crafted seamless sonic gestures from underscoring Elektra in one moment, to adding reverb to her body mic for a dramatic punctuation in the next. The Tutor's Tale was supported with sound throughout including horn fanfares and a dramatic chariot race where the sound of the opposing chariots began on opposite sides of the theatre before culminating in a terrible crash in the center of the theater. In terms of the musical numbers, I was able to produce and mix the backing tracks, and implement them with a bespoke sound system to realize my musical and sonic vision in the theatre. I broke the

backing tracks down into stems enabling me to place backing vocals in the side loudspeakers, which left sonic space for the live lead vocals in the front center loudspeakers. Bass and drums were placed in the subwoofers while other instruments filled out the sonic image. The dramatic climax of the piece was a particularly good example of this hybrid approach at work. The sequence began with a full musical number that seamlessly transitioned into underscoring for the final spoken confrontation which then concluded with an execution by electrocution complete with epic sound effects. As the composer, I wrote the musical number and the related underscoring. As the sound designer, I mixed the backing tracks, live mics, and sound effects appropriately in the theatre. Although I didn't perform this score live, my experience as a performer helped me craft and tailor the sound cues to the dramatic moment, so that sound both led and followed the action on stage where appropriate. For example, during the musical number sound led the way with a backing track that provided a solid rhythmic foundation, but during the electrocution sequence sound followed the action onstage. By approaching music and sound holistically from the start, I was able to create a seamless sonic score that supported the epic story of *Elektra*.

The process also revealed some challenges and limitations of applying this hybrid approach to musical theatre. Particularly during tech, there were a number of times when I encountered a composition or music direction question and a sound design issue at the same time. In those situations, I generally deferred music questions to our assistant musical director, while I focused on the sound design area where I had no assistant. It's interesting to consider how the process might have been different if my assistant had been in the sound design area, or more ideally if I had assistants available in both music and sound. The scale of this production, again in the relatively small Shank Theater, and without a live band, allowed us to navigate these

challenges. A larger, more complex production however would benefit greatly from assistants in both areas. Still, applying the unified hybrid approach to musical theatre shows great promise, and if properly supported could yield innovative work that would help move the form of musical theatre forward. Many of the most innovative new musicals in recent years have been created by composer/performers, including *Hamilton*, *Hadestown*, and *Natasha, Pierre and the Great Comet of 1812*. Perhaps in the future, some ambitious creators of musical theatre will also successfully incorporate the tools of sound design into their practice.

2.3 Continuing Education

Continuing Education was an original devised work, the territory which in my experience presents the most promise for exploring this hybrid practice. I created and performed the piece for the 2020 UCSD Winter Lab in collaboration with Katie Melby, my creative partner in the physical theatre company 3 Sticks. The project was inspired by our shared experience returning to post-secondary education, and in particular by the online classes that Katie had taken. As it turned out, our glimpse into the future of online education proved quite prescient indeed. We generated material individually and together including text, songs, and movement and then we shaped it into the final product. We shared a rough draft of the piece with MFA director Emily Moler who served as an outside eye. We performed the piece one time on Wednesday, March 11th 2020. This was the last time I performed in a theatre before the pandemic related lockdowns began.

The entire piece was fundamentally informed by my hybrid approach as a composer, sound designer, and performer. Rather than simply drawing on these elements to support an

already established idea or approach, they were foundational to the concept and development of the piece itself. In this way, design led and informed the process at every turn resulting in outcomes that perhaps wouldn't have even been considered in other processes. The set was designed around an onstage musician's nest which included my guitar, keyboard, laptop and digital audio interface. Choreography was designed to accommodate the live performance of the score using foot triggers to control sound playback. Backing tracks were composed and arranged specifically to leave sonic space for the instruments I played live. In one case, I played a piano part live at the beginning of a song, but later on the piano part is prerecorded into the track allowing me to step out front to sing and perform choreography. Together, my partner and I built the piece upon the foundation of our specific strengths, abilities, and interests as performers. She is a skilled physical theatre artist and puppeteer, and those skills and approaches were also foundational ingredients in the piece. By working in this way, we hope to connect to what inspires us and makes us unique as theatre artists. This devised approach makes the process deeply gratifying and the product specific and true to us as creators.

Ensemble devised work is also an especially rich territory in which to continue my exploration of the hybrid composer, sound designer, and performer model. The adventurous spirit of ensemble devised work welcomes innovative design led approaches that will continue to explore the outer reaches of what's possible through this hybrid approach. For example, sound can play a critical role in conjuring spaces and environments for physical theatre artists to explore. And together with physical theatre artists, sound can transform a playing space instantaneously into a completely different state, allowing for seamless transitions from one environment to the next. For example, sound design could very effectively support an ensemble as they use their bodies to represent a grove of trees in one moment, and a bustling city square in

the next. Also, the method I used to perform a live score for *An Object Screaming* would be a powerful accompaniment to support the dynamic action and liveness of physical theatre. I've also seen first hand the potential for music theatre in devised work, and my experience with *Elektra* will allow me to apply a more ambitious holistic approach to music and sound for future projects. Devised work has been a consistent source of inspiration for me, and I look forward to applying the skills I've learned at UCSD to future devised projects where they will undoubtedly unlock new creative possibilities.

Chapter 3

Conclusion

The broad reach and interdisciplinary nature of sound design, while at times overwhelming, is also the source of its greatest potential. While conventional models often break the field into areas of specialization, I believe a hybrid approach offers the greatest possibility for innovation. In striving to sculpt the entire sonic experience, these intrepid designers grapple with the sometimes disparate elements of music, technology, and performance to create unified sonic creations. In this way a note on a piano, or a sampled drum loop, or live sound spatialization all become part of a single instrument. As audio and music technology continues its rapid development, the possibilities for integrating these pursuits will only increase, and I anticipate that the hybrid practitioner who understands how to artistically combine these elements will become the new standard. The case studies I described here, in time I imagine will appear as crude experiments that merely scratched the surface of what will ultimately be possible in the broadly defined area of sound design. I look forward to the incredible innovations to come and to playing some small part in moving the field toward the promise of a holistic sonic practice.