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UNIVERSITY OF CALIFORNIA SAN DIEGO

Portfolio of Selected Performance and Academic Work

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

in

Music

by

Alexander Alexandrovich Ishov

Committee in Charge:

Professor Wilfrido Terrazas, Chair

Professor Amy Cimini

Professor Mark Dresser

2020

The Thesis of Alexander Alexandrovich Ishov is approved,
and it is acceptable in quality and form for publication on
microfilm and electronically:

Chair

2020

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ABSTRACT OF THE THESIS

Portfolio of Selected Performance and Academic Work

by

Alexander Alexandrovich Ishov

Master of Arts in Music

University of California San Diego, 2020

Professor Wilfrido Terrazas, Chair

The following thesis is a selection of performance and academic work completed during my first two years as a Graduate Student in the Music Department at UC San Diego. The three-part portfolio consists of two creative projects, as well as a piece of academic writing, as specified by the guidelines of the department. The first Creative Project describes my role in organizing and documenting a two-week workshop in The Alexander Technique, which took place in Spring 2019, and led by Master Teacher Eileen Troberman. The second Creative Project is an Immersive Audio Installation, *Pythmenas*, that I was involved in the creation of. Part 3 is a paper that describes a year-long exploration of various facets of my instrumental practice, specifically in the field of injury prevention and mitigation. These projects all intend to be expanded on throughout my Doctoral work at UC San Diego.

Part 1:

Creative Project 1

Alexander Technique Workshop

When I first arrived at UCSD in Fall 2018, I wanted to find ways to share my life-changing experience with the Alexander Technique (AT) with the musical community. Throughout the Fall and Winter Quarters, I worked with Professor Mark Dresser, as well as Master Teacher Eileen Troberman, to design and implement an AT (Alexander Technique) workshop for undergraduate and graduate students. Professor Mark Dresser worked with the department to secure Eileen Troberman's invitation, and I coordinated the graduate and undergraduate students, and helped design the format of the classes.

The workshops were held on May 24th and 31st, 2019, in CPMC 136. Eileen and I designed a questionnaire that was given out to participating students. Throughout the process, I was in contact with several of my previous AT teachers, including Dana Calvey and Katie Fittipaldi, with whom I discussed their own experiences of implementing AT curriculums at music programs. Dana has taught AT at the Interlochen Center for the Arts, and Katie Fittipaldi at the Eastman School of Music. Eileen Troberman maintains a private AT teaching studio in the San Diego Area.

I wanted to be involved in the design and implementation of the workshop. This was my first experience helping to put together an event like this at the college level. I learned a lot about the unique challenges of securing funding, coordinating logistics, and experimenting with various documentation formats. I designed a questionnaire that collected data about participants' previous experience with AT, as well as other body/mind integration practice. My hope is to use this data in a future research project.

The workshops were video recorded. Video is included as a supplemental file to this Thesis.

My next step (which I plan on exploring during my DMA), is to conduct interviews with my three former AT and flute teachers. I have some specific aspects of pedagogy that I am interested in further exploring, and I am also interested in unpacking memories of my former teachers. I am interested in their memories of working with me. As a working teacher with a studio of students ages 9-19, I'd like to better understand my own musical and artistic development during that age. By going through this self-reflective project, I hope to grow as a music pedagogue. I will be spending Summer 2020 condensing these thoughts into a possible Qualification Topic for my Doctoral work at UC San Diego, which will begin in Fall 2020.

Part 2:

Creative Project 2 Immersive Audio Installation

I participated in Professor Lei Liang's Spring 2019 MUS 206 Seminar, *Seascapes*. The seminar was hosted at Calit2 and was designed to build creative relationships between the music department and UC San Diego's scientific institutions. The theme for this seminar was to explore the ocean as a source for creative inspiration. Joshua Jones, a Staff Research Associate at the Scripps Institution of Oceanography (SIO), provided us with acoustical data collections of marine mammals, as well as sea ice formations.

My group created an immersive, spatialized audio installation, *Pythmenas*. Spatialization and recording was done by Theocharis Papatrechas. My role, along with Rebecca Lloyd-Jones, Ilana Waniuk, and Dimitrios Paganos-Koukakis was to provide improvised musical material.

Here are program notes of the work, written by Theocharis Papatrechas:

“Pythmenas (Greek word for ‘bottom of the ocean’) is a collaborative 3D audio installation work that took place at the Spatialization Lab of the Qualcomm Institute at the University of California, San Diego in May 2019.

Three distinct worlds interact to create a musical experience. The ocean sets the primary component of the triadic entity, inspiring the entirety of the artistic work. The sonic profiles from recordings of several of its living organisms (i.e. whales, dolphins, seals) are being interpreted by members (instrumentalists) of the overwater universe, who carry out a discussion following a line

of instructions for improvisatory action. Technology, the last constituent, intervenes, capturing and processing the activity of the performers as well as manipulating the original recorded media.

The final outcome is the audio registration and fusion of the totality of layers projected and spatialized through an infrastructure of 28 spherically configured loudspeakers laid out in 4 levels; ground level - center (ring of 4), ear level - perimeter (ring of 12), 2 meters above ear level - perimeter (ring of 8), ceiling - center (ring of 4).

The work is influenced by the recording process of underwater sounds, in which the participation of the three worlds (i.e. ocean species, humans, technology) is necessitated.”

A binaural mix of *Pythmenas* is included as a supplemental file to this Thesis.

I am currently working with Theocharis on a Part 2 to this project and hope to build further collaborations in the field of audio spatialization. My broader interests involve music cognition, live visuals, and immersive/interactive technology. The results of these explorations will hopefully be included in a future DMA recital.

Part 3: Paper

The Instrumentalist-Observer: A Case Study in Developing a Personal Methodology for Overcoming Acute Phases of Playing-Related Discomfort

Overview

This three-part paper is a summary of a year-long exploration that explores aspects of my instrumental practices, specifically in the realm of body-mind integration and injury prevention/mitigation.

Part I explores how I dealt with the acute phase of a performance injury, which was exacerbated by a non-playing-related physical issue.

Part II deals with the chronic phase and explores the different ways that the issue manifested in my subsequent performance obligations.

Part III, which is currently ongoing, describes the development of my personal feedback system for going beyond simply reacting to pain and tension, but also anticipating future issues.

My broader goal with this exploration is to find ways to have the format of my written documentation stay true to the values and rhythm of the medium that I am exploring. Because my topics address my day-to-day life as a performer, this document has been written in the style of a practice-research log. It is a living document, and each batch of writing represents my line of reasoning at that moment. This document serves as a basis for the development of my personal research methodology, which in turn will be continually developed and refined throughout my time at UC San Diego.

On a personal note, I have always been intimidated by the idea of research. I have discovered that by allowing my research methods and writing style to be connected with the

physicality and real-time nature of my artistic practice, everything has felt much more natural. In the words of master Alexander Technique teacher Eileen Troberman “Can I find ease?” To which I add: “Can I find ease, in my body, in my instrument, and in my mind?”

Introduction

The following essay examines how the surgical treatment of a minor condition led to complications that affected my performance practice over the course of four months in 2019. I will chronicle the steps I took to go from not being able to hold my flute up for more than a few minutes at a time in mid-October 2019, to being able to successfully perform Morton Feldman’s *Crippled Symmetry*, a 90-minute long piece with no breaks, on November 8th.

In this project, I track the immediate and long-term impacts of my recovery and seek to create a feedback system for actively preventing, tracking, and dealing with future performance-related injuries and playing tension. I explore my experience with the Alexander Technique, Physical Therapy, Deep Tissue Massage, and Trigger Point Therapy. This exploration is centered around the ways all of these affected my own teaching and performance practice. By comprehensively understanding my own body’s mechanics in flute performance, I hope to become a more efficient and healthier performer. I also seek to develop a pedagogy that encourages a high level of body-awareness, in order to more effectively spot students’ bad practice habits before they develop chronic performance-related physical injuries.

I do not seek to prescribe a universal method for overcoming physical issues related to performance practice. Instead, this case study seeks to provide a framework that other practitioners can adapt and use to overcome their own performance-related issues.

The project covered is still in its active research phase. Therefore, materials covered in this essay are being continually reworked, and it can be considered as a status report chronicling my work as of early December 2019. I will continue to develop my research into this subject, the product of which will be submitted as part of my Master's Thesis in the Spring of 2020. As of the writing of this essay, several placeholder names for the thesis are: *Mindful Pedagogy and Performance*; *Personal Guide for Navigating Physical and Musical Challenges*; *Developing Mindfulness Feedback Systems for the Instrumental Performer and Pedagogue*. I envision further work on this topic developing into a Qualification Topic explored during my D.M.A. Work at UCSD in 2020 and beyond.

The performance referenced in this essay was one of my Fall 2019 projects at UC San Diego, which was a performance of Morton Feldman's *Crippled Symmetry*. I chose this project for several reasons; to perform more with my colleagues Michael Jones (percussion) and Ashley Zhang (piano), and to further explore Feldman's sound world, and to challenge myself as a performer. To deepen my exploration of Feldman's music, I self-selected readings from a collection of his essays, *Give My Regards to Eighth Street*, and studied relevant artwork referenced in his writings. I had only performed his music once before — *Quartet & Orchestra*, and found this experience to be immensely satisfying. I was drawn immediately to Feldman's sound world, and the physical space it creates for the performer to inhabit. The performance was set for November 8th, 2019, at the UC San Diego Conrad Prebys Music Center Concert Hall.

I: October-December 2019

During the summer of 2019, a ganglion cyst began forming in my right wrist. According to Mayo Clinic, "ganglion cysts are noncancerous lumps that most commonly develop along the tendons or joints of your wrists or hands." Depending on its location, the cyst can limit the range

of motion of the affected joint, and cause pain and tenderness. In my case, it severely limited my wrist extension, and prevented me from putting any significant weight on the right hand. While this did not prevent me from playing the flute, I had to avoid my usual routine of bodyweight fitness, calisthenics, and yoga. This change led to a gradual decrease in my upper body mobility, strength, and endurance over the ensuing months. As part of my recovery, I explored whether or not elements of my daily routine contributed to my injury.

I initially opted for the least invasive procedure for treating my ganglion cyst, which involves aspirating the cyst's fluid. This minimally invasive procedure would allow me to resume flute playing, as well as yoga & calisthenic workouts, in one or two days. I underwent this procedure in late July, but it was ultimately unsuccessful in aspirating the cyst, and I was referred to a hand surgeon for surgical extraction. This outpatient procedure would involve surgically removing the cyst, with an estimated two- to four-week healing period. Due to my summer playing commitments, the earliest I could schedule the surgery was for September 20th, one week before the start of the Fall Quarter at UCSD.

By early September, I began to notice an increasing level of tension and discomfort in the right side of my upper back and shoulder. The issue manifested itself during flute playing, presenting as a dull ache that would lead to a burning sensation centered on either side of my thoracic spine (more strongly on the right side) and between my shoulder blades. The sensation is akin to the one triggered by carrying an overly heavy shopping bag; one is forced to hold it up by tensing one's biceps, triceps, and shoulder blades. This pain would begin developing as soon as I began playing and would become unbearable within five or ten minutes during a practice session. This would force me to take practice breaks very often, and severely limited my practice

productivity. Interestingly, I discovered that the issue was not nearly as prevalent when I practiced piccolo — I would discover the reasons for this much later in my healing process.

Due to the ganglion cyst, I was still away from my regular yoga and exercise routine. By the second week of September, the pain and discomfort was significant enough for me to seek out new sources of relief. I scheduled a deep tissue massage at Roth Bodywork in Hillcrest, San Diego. The massage therapist immediately discovered a deep web of tight fascia on the right side of my thoracic spine, extending over my right shoulder blade. The tight tissues were triggering myofascial pain, which led to a tightening of my playing posture, all contributing to my pain and discomfort.¹ The 90-minute session provided an enormous amount of relief, and I felt significantly better for the next few days. However, the tension gradually built up again in the week after the treatment, so it was clear that the massage simply addressed the symptoms, without treating the source of the problem. In hindsight, I now understand how one thing led to another: Stopping my strength and mobility exercises contributed to a flare-up of a much deeper chronic issue. The strength exercises I did allowed me to practice for longer periods of time without fatiguing my upper-body muscles. This strength training needs to be balanced with mobility work, in order to relieve post-workout muscle tension. Stopping both elements of my workouts led to both a decrease in strength, and a decrease in mobility. I would later realize that my old routines hid the fact that there were certain fundamental issues in the way I was holding my instrument.

¹According to [Mayo Clinic](#), “myofascial pain syndrome is a chronic pain disorder. In this condition, pressure on sensitive points in your muscles (trigger points) causes pain in the muscle and sometimes in seemingly unrelated parts of your body. This is called referred pain. This syndrome typically occurs after a muscle has been contracted repetitively. This can be caused by repetitive motions used in jobs or hobbies or by stress-related muscle tension. While nearly everyone has experienced muscle tension pain, the discomfort associated with myofascial pain syndrome persists or worsens. Treatment options include physical therapy and trigger point injections. Pain medications and relaxation techniques also can help.

The surgery was conducted by Dr. Reid Abrams of UCSD Orthopedic Surgery on September 20th. Afterwards, my wrist was required to be wrapped in a bulky dressing to heal. I had to significantly limit my practice time due to compromised hand ergonomics until the bandage was off and had to avoid placing any weight on the hand until the stitches were out two weeks after the operation. It was now October, and my workouts had been limited to cardio only since July, due to the weight-bearing limitations on my wrist.

By the second week of October, it was clear to me that I was headed toward a crisis: I could tell that my back situation was getting progressively worse. I conduct an ensemble at the Villa Musica Community Music School, and by October 10th I could barely conduct the group for a 1.5-hour rehearsal, even with breaks; I was in too much pain. On October 15th, I had my first rehearsal of *Crippled Symmetry*, during which I could only get through a few minutes of the ninety-minute piece before requiring a break. Roughly three weeks out from the concert date, I considered cancelling the performance. However, I began to see this significant challenge as an opportunity to go further towards solving an issue that had been the only real factor limiting my practice time. I gave myself until the end of the month of October, at which point I would reevaluate whether or not I could participate in the November 8th performance.

On October 22nd, I visited a Physical Therapist at UC San Diego Health. After examining my back, they confirmed what I had discovered in my self-exploration: the mobility of my thoracic spine was significantly decreased, and the muscles on the right side of my spine/shoulder area were significantly tighter and shortened. The resulting weakening of the muscles lead to the aches that I experienced while holding up my instrument. I was prescribed a regimen of mobility and activation exercises, which I incorporated into my daily routine.

I realized that this scenario was very similar to something I experienced in 2016 and began making connections. During that summer, I broke my right thumb in a biking accident, and was away from practicing for a total of two months. Because my thumb was in a brace (later a splint), I was unable to practice my yoga and exercise routine and resumed playing at the start of a new academic year. Due to the high volume of playing I did right away, it caused a serious flare up of back and shoulder pain. During the Fall of 2017, I began visiting a chiropractor, who discovered similar imbalances to what the massage therapist felt in September of 2019.

While the chiropractic adjustments (and now physical therapy) provided immediate relief to discomfort, as soon as I went back to the instrument the pain would return eventually. Therefore, I realized that it was either my posture, or approach to holding my instrument that was causing this imbalance, tension, and eventual pain. Utilizing my Alexander Technique training, I reevaluated my flute posture with the aid of mirrors and revisited the resources on Jennifer Cluff's flute pedagogy website.² Specifically, I was interested in her descriptions of flute posture. As of December 2019, I am exploring posture adjustments. In March-April 2020, I will add an addendum to this text that will go over adjustments made.

Because the flute is an asymmetrical instrument, some degree of torso twist is required to hold the flute. I discovered that my habitual posture involved twisting my thoracic spine much further than is required. I began to explore whether or not this was in fact the source of the tension build-up. This discovery explained the fact that piccolo playing would not cause a similar tension build-up. Because of the shorter length, the head/spine can be in a much more neutral position while playing. I experimented with changing my foot position, which resulted in a release of thoracic twist. I could immediately feel how this new posture triggered less achiness and pain. (As

² <https://www.jennifercluff.com/posture.htm>

I further explore my posture and develop this project, I envision creating an annotated, illustrated guide that thoroughly explains this change in posture. I am currently tracking the results of this posture change in my daily practicing, which I anticipate will become natural by early Spring 2020.)

While I had gotten closer to pinpointing the cause of my tension, the amount of tension and mobility limitations still required more active therapy. Remembering my experience with the massage therapist, I decided to further explore the topic of fascia-induced pain. This was done partly out of necessity, due to the fact that I could not afford regular deep-tissue massages. I discovered a book by Clair and Amber Davies, *The Trigger Point Therapy Workbook*, which has since proven to be a key component of my recovery process. The book is a well-researched and science-based guide on utilizing trigger point therapy to discover and treat sources of muscular pain. The book describes trigger points as:

“...a small contracture knot in muscle tissue. It often feels denser or tighter than the surrounding muscle tissue. Often you can feel only a taut guitar-like string in the muscle fiber harboring the trigger point. The constant tension in the fibers of the trigger point itself restricts circulation of blood in its immediate area. The resulting accumulation of the by-products of metabolism, as well as deprivation of the oxygen and nutrients needed for metabolism, can perpetuate trigger points for months or even years unless some intervention occurs. It’s this self-sustaining vicious cycle that needs to be broken (Simons, Travell, and Simons 1999; McParland and Simons 2011).”

“The difficulty in treating trigger points is that they typically send pain to some other site. Most pain treatment is based on the assumption that the cause of pain will be found at the site of the pain. However, trigger points almost always send their pain elsewhere. This referred pain is what has always thrown everybody off. According to Travell and Simons, conventional treatments for pain so often fail because they focus on the pain itself, treating the site of the pain while overlooking and failing to treat the cause, which may be some distance away.”

Based on the discomfort I had been feeling up to this point, these descriptions made an enormous amount of sense to me. Finally, here was an explanation for why in both flare-ups of my pain (in 2017 and again in 2019), my therapy methods did little to provide a long-term solution.

The general idea of trigger point therapy is to deactivate active points through self-applied massage, accomplishing several goals. "...[Massage] breaks into the chemical and neurological feedback loop that maintains the muscle contraction; it increases circulation that has been restricted by the contracted tissue; and it directly stretches the trigger point's knotted muscle fibers." (Davies). The book provides extensive illustrations showing trigger point locations, their referral patterns, and effective massage strategies. I purchased the recommended massage tool, a Thera-Cane, and began exploring the active trigger points on the right side of my thoracic spine and shoulder blade area.

After a week of self-applied therapy done three times a day (as outlined in the book), I began to notice a decrease in flute-related pain, and an increase in right shoulder mobility. At this point, my right wrist had healed enough for weight-bearing, and I resumed my yoga routine. I noticed that poses involving shoulder rotation were feeling much more balanced than before. (Note: Specific yoga and mobility exercises will be collected and included as part of my supplementary materials for my thesis.)

On October 30th, I was able to play through large sections of Feldman's *Crippled Symmetry* without pain for the first time. October 31st marked the 2nd Year Jury performance I performed in, which was thankfully pain-free. (In general, performances have always been easier for me than rehearsals, especially during times of heightened stress. I am not sure if this is due to adrenaline/excitement, or if there is a difference in the way I hold up the flute in performance. I do not experience performance anxiety and feel extremely relaxed while on stage.) The success of the

rehearsal and performance on October 31st, gave me hope that I would be able to perform *Crippled Symmetry* on November 8th.

Leading up to the performance date, I continued my regimen of thoracic mobilization exercises, as well as trigger point work. I began to reincorporate bodyweight fitness/yoga into my daily routine. Successful run-throughs of the Feldman on 11/5 and 11/6 confirmed to me that my routine was working. The concert on 11/8 went extremely well, musically as well as physically.

The hyper-intense period leading up to the November 8th *Crippled Symmetry* performance showed that aggressively targeting and treating a source of acute muscular tension has the potential for relatively quick results. This single example is not proof of a long-term solution but provides me with a model which I will further develop in the future. As of December 2019, I am currently planning out my performance commitments for the first half of 2020. Due to the large amount of new repertoire, I will map out the specific physical challenges present in each work, in order to more efficiently craft my practice strategies, and to better anticipate further flare-ups of my back issue.

Ultimately, this project aims to better articulate my values and priorities as a performer, as a pedagogue, and as an artist. I seek to maintain a constant state of growth and curiosity, searching for new ways to increase the effectiveness of my message, as well as the efficiency of my methods; this includes prioritizing body awareness and physical well-being. I believe that while traditionally considered to be ancillary to music-making itself, the topic of mindfulness, injury prevention, and the physicality of instrumental performance is deeply fundamental to what we do as musicians.

II: January-April 2020

As of April 2020, I am in a much better place physically in terms of flute playing. While I have not entirely solved my playing-related tension, I now have a system in place for alleviating the tension when it arises and have a better understanding of my personal tension triggers. By following the exercises I referenced in Part 1 of this paper, I have greatly increased the mobility of my shoulders and upper body. I have also applied these principles to other parts of my body and am currently working on increasing the mobility and range of motion of my hips. My right wrist has recovered completely, and I am able to do my bodyweight exercises, now with an added regimen of pre and post-workout dynamic stretches. This comprehensive approach has eliminated some of the blind spots I previously had in my workout and yoga routines and has so far proven to be effective and sustainable.

Part 2 of this paper will provide a self-reflective report on the efficacy of some of the discoveries I made in Part 1, as well as an overview of my flute performance practice in the months of January-April. Due to the Covid-19 pandemic, I began my home quarantine during the first week of March. One of the silver linings of this situation is the fact that my daily routine now has much less overall physical strain: less driving, no conducting, and no commuting with instruments to and from the UC San Diego campus. I anticipate that in the coming months I will be able to more accurately track how the changes I make to my physical routine and flute practice habits affect the way my body feels. The goal of this upcoming period of self-study is to further decrease my overall tension, while increasing my flexibility, strength, and endurance, both in flute playing and beyond.

At the beginning of 2020, I planned out my performance commitments for the first half of the year. The academic year would culminate with my MA Degree Recital, planned for May 21st. I knew that my practicing would need to be extremely efficient, more so than usual, simply due to the volume of new repertoire I needed to learn. The varied repertoire for my upcoming performances would give me an opportunity to track how various settings would affect my body. These would include conducting a chamber ensemble, playing piccolo/flute/alto flute in a small chamber ensemble, playing flute in an orchestral setting, making an audition tape, and performing a solo recital.

On January 26th, I conducted a performance of the Villa Musica Community Flute Ensemble in a classical program. This performance went well, both musically and physically. Since beginning my work with this group in September, I have been working on cleaning up my conducting style, in order to make it crisper and more precise, and therefore more efficient in its movements. By minimizing the amount of added conducting “fluff,” I was able to more clearly figure out whether or not my choice of movements was contributing to tension. I worked on eliminating overuse of the left hand, which is sometimes used by beginner-intermediate conductors (a group which I consider myself to be a part of) as a mirror image of the right (drum major style). While useful when conducting a large group of musicians from a distance (on a field), this style is unnecessarily bulky when working within the small group setting. I explored ways to show precision without stiffening my hands, as well as how to show strength without forcefulness. I built up the ensemble’s interconnectedness by working on group musicianship and worked on building a group interpretation of our repertoire. As we got closer to the performance date, this allowed me to decrease how much conducting I needed to do to simply keep the group together, and greatly freed up my body. As a result, the conducting I did during the performance on January

26th felt light and effortless, and much less taxing on my arms and shoulders. I continued to work on my conducting movements in my weekly rehearsals throughout February, as well as in my MUS 210 conducting course with Steve Schick.

Next was the Reed Family Concert on February 1st, where I performed with the orchestra sized Renga ensemble. The concert featured the music of Beethoven, Dallapiccola, Thorvaldsdottir, and a new work by Pamela Z. I have always felt the most physical freedom when performing in a large ensemble setting, and this concert was no exception. Sitting in the middle of an ensemble performing large-scale works has the effect of allowing my body to settle. The ensemble's woodwind section was a mix of UCSD graduate students and members of the San Diego Symphony. Perhaps the acoustic created by a full woodwind section is a stimulus for my body to feel relaxed. Or, it is simply the fact that I really enjoy performing in that setting. Throughout the entire rehearsal process, as well as the performance, it felt incredibly easy to create, and therefore easy to feel openness in my body. Since moving to San Diego in 2018, I have had as many large ensemble experiences as I am used to. Therefore, this project reawakened the physical memories I have of performing in that setting. I connected the dots with an earlier experience of mine: as an undergraduate student at the Eastman School of Music, my studio teacher Bonita Boyd would often note that I sound best when performing in an ensemble setting. In the future, I would like to explore more how various performance settings affect the somatic and psychological experience of instrumentalists.

Out of the projects I participated in during the month of February, the one that gave me the most interesting body-related information was a Palimpsest Ensemble concert featuring the music of Mario Davidovsky, led by Aleck Karis. In each piece, I was constantly switching between piccolo, flute, and alto flute. In addition to these logistical demands, Davidovsky's flute writing is

challenging due to its often highly articulated, exposed flute lines that are wide in their tessitura. I anticipated that this concert would be especially aggravating for my tension. However, as the rehearsal process continued, I found that the program was actually quite easy on my body. I have several hypotheses for this:

1. The constant switching between instruments prevented me from stiffening up in one particular position and is a built-in mechanism for relieving tension build-up. One of the tenets of the Alexander Technique is that there does not exist one proper position for holding the body. In fact, through AT work students learn how to stop “holding” altogether and allow the body to maintain a constant state of movement.
2. As with many other contemporary chamber music pieces, the flute writing often included periods of rest between short sections of melodic material. This fact, combined with #1, gave me many opportunities to reset. This is a huge contrast with the performance of Morton Feldman’s *Crippled Symmetry* I wrote about in Part 1, which was 90 minutes of nonstop playing.
3. By February, my body and mind had incorporated enough tension-reducing strategies that my mind was no longer fixated on searching for tension.

To me, hypothesis #1 provides the most body-centric and physiological explanation. #2 focuses on how the musical material dictates my body’s build-up and response to tension. #3, while similar to #1, brings the discussion out of the body and back up into the mind, which is an aspect of these explorations that I would like to address next.

I have spent most of my time so far in this essay discussing body mapping and anatomy, workout and stretching strategies, and occupational-related sources of tension and stress. It is fair to note that, so far, my strategy for alleviating my playing-related tension has been corporeal in

nature, and I have spent very little time discussing my mental and emotional relationship to practicing and performing the flute. I now realize that in my quest to discover solutions to physical issues, I am not always certain of the intent behind my practicing. There exists a disconnect between what and how I choose to practice on a daily basis with what my goals are, because I am realizing that too often I go into instrumentalist autopilot-mode. While my classical training has provided me with a stable foundation upon which to now build, at this point I am not entirely sure what I am building. For the last several years, I have felt the need to maintain and refine this foundation, in a quest to continually refine the “sound.” Not necessarily my sound, but “the” sound. I have not yet been able to make the link between my personal instrumental practice with the vast array of ever-increasing sonic and aesthetic possibilities that I explore in my listening time away from the flute. Perhaps this disconnect is one of, if not a primary source, of my physical issues. Answering the questions brought up by this realization goes beyond the reach of where I currently stand in April 2020.

Ultimately, what I seek is to feel honest to myself about the intent behind my flute playing and music-making. Specifically, I would like to answer the following questions: Why do I create the sounds that I create? Is it fair to myself to allow myself to continue playing with tension and pain? Is it fair for an audience to see me perform on stage when I am dealing with these things? Why do I wish to solve these issues?

What is outlined in this essay is a snapshot of what has consumed the vast amount of my practice time for the last several years. I know that my interest in solving physical issues will not go away entirely, but I look forward towards a future in which I can go beyond the mechanics of instrumental playing. There is still much work to be done unpacking the strengths and weaknesses of my high degree of classical conditioning, and how to best use them to develop and project my

artistic vision. I look forward to completing my master's degree at the University of California, San Diego, and seeing where my journey here takes me next.

III: May 2020

To me, it makes sense that issues on the right side of my body must be at least partially caused by the transfer of weight from the flute into my right hand. The improper weight balance then causes me to exert additional force to keep the flute up. This causes muscle fatigue, followed by stiffness, aches, and pain (if I don't put the flute down). This hypothesis is also supported by the fact that when I take breaks from playing (several days), while also maintaining my yoga and stretching routine, I build up a higher degree of tolerance for this tension. I feel great when I go back to playing, but issues quickly come back. The more work I do to counteract the tension, the more headroom I have before I start noticing it again. My issue isn't a permanent injury, or even one that takes a long time to heal (e.g. tendons). I have already discovered ways to find almost instantaneous relief to my muscle tension (e.g. foam rolling, trigger point therapy, etc.), but the issue is stopping the tension at the source. Therefore, finding the optimal right-hand position should, in theory, lead to quick results.

To find solutions, I have begun exploring a dissertation written by Dr. Susan D. Fain, titled "An Application of the Principles of Anatomy, Physiology, and Neurology to the Balancing and Playing of the Flute." Because this text covers such a broad range of issues, I wanted to first focus in on my main topics of concern: right hand finger tension, forearm tension, as well as right shoulder girdle aches.

First, I wanted to analyze the ergonomics of my right-hand wrist position. From Fain:

“...the wrist is in a neutral position when it is neither flexed nor extended. But the more ergonomic functional position with 30 degrees of extension and 10 degrees of ulnar deviation provides a better mechanical advantage for hand and finger action. The correct amount of wrist extension can be approximated by making a gentle fist and laying the forearm and hand down on a tabletop. When the hand is raised from this position without moving the wrist, the thumb continues the line of the forearm and the back of the hand (giving it a little ulnar deviation), and the wrist is at a small angle to the forearm (wrist extension).

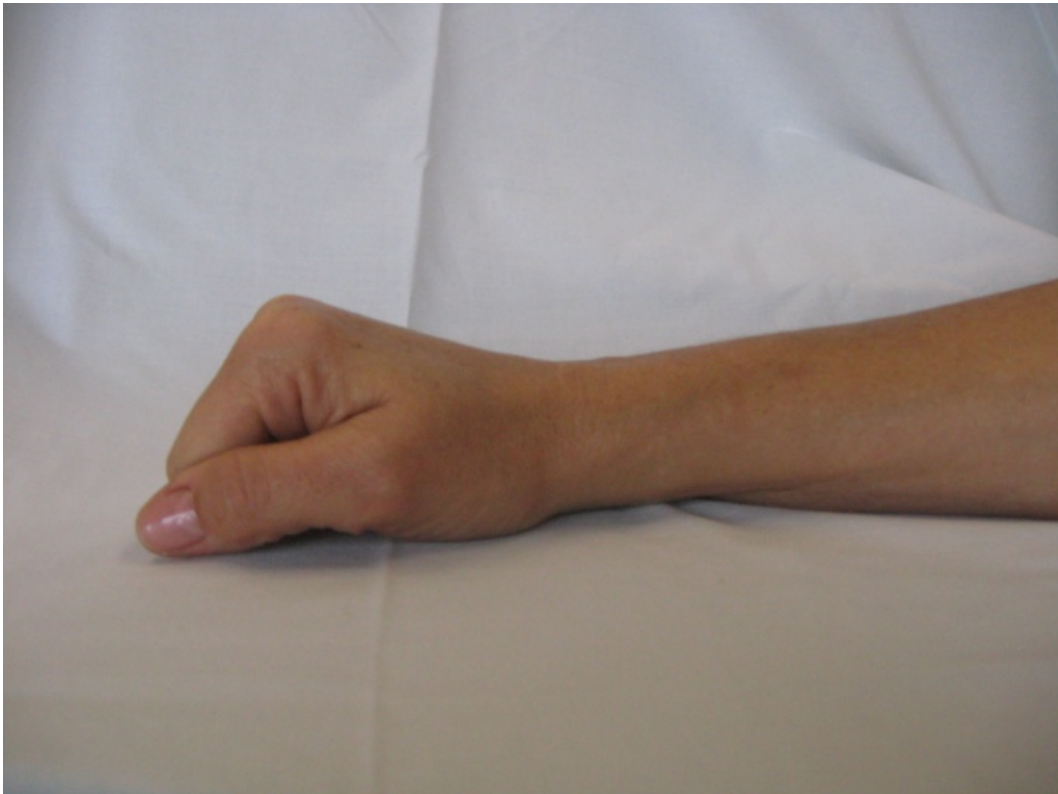


Figure 1: Ergonomic Functional Position of Wrist (Fain 219)

When I compared my own wrist position to this description, I discovered that instead of having roughly 30 degrees of extension, I played with a wrist at 10-20 degrees of flexion. So instead of being angled *under* the flute, my right hand was actually at a parallel angle to the tops of my keys. What this means is that instead of the flute's weight transferring down into my forearm, which

would allow it to rest in my hands, I was in a position where the flute's weight was transferring directly into my right shoulder.

For many years, I have been playing using a rolled-in (modified Rockstro) headjoint position. Even before finding this text, I have been transitioning to being more rolled out, and closer to the standard flute position. I wanted to see how this change in balance would affect my posture. Fain discusses the topic of Rockstro/standard flute position in length throughout this dissertation. Here is how it applies to right hand wrist position:

“For the right hand of the flutist, the flutist must try to assume a position as close to the functional wrist as possible. The problem with the Rockstro position, modified or not, is that it requires the right wrist to be either in a neutral or zero-degree position, or flexed to some degree. Neither the neutral nor the flexed position of the wrist place the hand in an ideal set-up to accomplish the finely controlled repetitive actions required of flutists. The medial nerve and the flexors tendons of the forearm are pulled against the flexor retinaculum and movements result in more friction of the tendons within their sheaths. In the true Rockstro position, additional anatomical accommodations in the shoulder and arm are required to bring the right hand over the flute so that the fingers can reach the keys. **A kinetic chain of muscular contractions all the way back to the shoulder girdle and the vertebral column are required to support the Rockstro hand position. Added to a tilted cervical spine, the results are problematic at best; disastrous at worst**” (220).

In order to track whether or not altering my right hand's angle in relation to the flute would affect my shoulder tension, I came up with a practice plan that would minimize the number of variables to deal with. Here is what I came up with:

1. Start every day going through the mobility/stretching routine I created for myself, as outlined in Part 1 of my essay. Allow for ample time to go through each exercise mindfully. Allow for time afterwards for a cool-down.
2. Before doing any computer work, cooking/eating, or other physical activity, set aside some time for flute warm-up. Choose a simple tone exercise that I'll begin with every day. (Below: pg. 15 from Trevor Wye's *Practice Book for the Flute, Book 1*. I chose this

exercise because each line begins with a note that uses only the left hand, in order for me to start with a neutral right hand each time. For each starting note, my right pinky is down, which also acts as a stabilizer for my right hand (RH pinky is one of the four points of support for the flute).

Slowly

Figure 2: Trevor Wye's *Practice Book for the Flute, Book 1*, pg. 15

3. Using a mirror as a reference, set up in playing position, keeping in mind the preferred 30 degrees of right-hand wrist extension. In this position, the right wrist should be at a 90-degree angle relative to the floor. Keys are pointed up. It should feel like the flute's weight

is transferring down into the wrist/forearm/elbow, instead of it being held up by the back muscles. Shoulder blades are retracted and loose.

4. Play through each line, noticing what sensations arise. Am I able to stay relaxed as I add RH fingers? Does adding RH fingers alter my wrist position?
5. Use peripheral vision to keep track of RH wrist flexion/extension. Is my habit of flexing my wrist & lifting my forearm coming back? What triggers this?
6. Feel the weight of the flute in my hands. Allow the weight of the flute to transfer into my body. Try not to brace my RH in anticipation for the weight of the flute.
7. Upon noticing any kind of tension, put the flute down. Walk away from the flute. Where is my neutral position?

My idea is that using a simple exercise sketch like this will allow me to track individual aspects of my posture. By changing one variable at a time (in this case my wrist angle), my goal is to explore the range of positions in which the flute feels the most balanced, with the least amount of physical exertion needed to hold it up. It's important for me to point out that I am not looking for a *one* spot to then attempt to permanently recreate. This exercise, which can be adapted to explore any variable, seeks to create a sandbox in which I am exploring balance, mechanics, as well as the transfer of the weight of the flute to my body.

My plan now is to keep a practice log in which I will write down my observations. Below are two entries of this log, which I will continue to develop throughout Summer 2020.

4/27

I've noticed the emergence of two new trigger points. These, unlike the ones I discovered before, are symmetrical on both sides of my body. The points are located either in Teres Major / Minor,

or one of my rotator cuff muscles. Applying treatment 3x daily to deactivate trigger point. Flute playing wouldn't generate such symmetrical trigger points, so at this point I think it's related more to my computer work.

5/7

My practice sessions are still following the routine outline above. I have added several more exercises from the Trevor Wye book but am still limiting myself to short sessions. My initial hypothesis about RH wrist position seems to be true, although I will give my body the rest of May to adjust to this new posture.

It is now mid-May, and I am coming to the end of these three quarters of self-analysis. While I have not entirely solved the issues I addressed in Parts I-III of this paper, I am much closer to a long-term solution for this shoulder issue. By being more consciously aware of how the mechanics of my posture affects my body, I can move away from simply reacting to tension, and instead be able to anticipate and prevent future issues before they begin negatively affecting my creative practice.

For the first time in many years, I have a summer entirely free of playing commitments and large-scale projects. I am lucky to have the time to spend this summer working on further testing the hypotheses I've brought up in this paper, which I hope will develop into a substantial and codified practice and teaching method. I hope to continue this exploration throughout my Doctoral work at UC San Diego.

Physicality (and the potential for physical issues) come with the territory of my creative practice. The goal of my research is to use knowledge and awareness to achieve a state in which I can create music without unnecessary tension. Ultimately, I desire for my act of music-making to feel light, free and at ease.

References

Group 1: Alexander Technique and Mind/Body Topics

1. Kleinman, Judith, and Peter Buckoke. *The Alexander Technique for Musicians*. Methuen Drama, 2018.
2. Klickstein, Gerald. *The Musician's Way: A Guide to Practice, Performance, and Wellness*. Oxford University Press, 2009.
3. McAllister, Lesley Sisterhen. *The Balanced Musician: Integrating Mind and Body for Peak Performance*. The Scarecrow Press Inc., 2013.

Group 2: Flute Pedagogy and Posture, Body Mapping

1. Jen Cluff ~ Flute Pain Cures, www.jennifercluff.com/deathgrip.htm.
 - a. This site, along with “The Flutist’s Pain Points,” gave me some first leads in my search for what exactly was causing my issues. There is a lot of useful information here. It’s simple and very relevant to the flute player.
2. Fain, Susan Dawn. “An Application of the Principles of Anatomy, Physiology, and Neurology to the Balancing and Playing of the Flute.” University of Oklahoma, 2009.
 - a. The author of this text provides an in-depth analysis of flute playing physiology and brings a scientific method to analyzing flute playing posture. After I read this text, I reexamined certain aspects of my playing posture, in particular the angle of my headjoint relative to the body of the flute. This text includes interviews with flute pedagogues/performers (including my undergraduate teacher) about the way they approach flute posture.
3. “The Flutist's Pain Points.” *Innovative Ideas in Performance and Pedagogy (IPAP)*, 17 June 2011, innovativeperformanceandpedagogy.wordpress.com/2011/06/17/the-flutists-pain-points/.
4. Pearson, Lea. *Body Mapping for Flutists: What Every Flute Teacher Needs to Know about the Body*. Columbus, 2006.
 - a. I first worked with Lea over 10 years ago. She was the first flute teacher to introduce me to the concept of Body Mapping. I was young at the time and hadn’t yet experienced any performance-related injuries. Her descriptions are anatomically correct, and very relevant for the flute player.
5. Quantz, Johann Joachim. *On Playing the Flute*. Northeastern University Press, 2001.

- a. This text is considered to be one of the most important and in-depth treatises on eighteenth-century performance practice. The text also includes useful descriptions of general playing techniques. The Baroque flute is a much lighter instrument than the modern flute and is very different ergonomically. However, some general points still carry over to the modern instrument.

Group 3: Rehabilitation and Practical Guides

1. Engum, Jon. *Flexible Steel: an Insider's Guide to Ultimate Flexibility*. Dragon Door Publications, 2013.
2. Gamble, Ernie. "5 Thoracic Mobilization Drills to Improve Overhead Mobility." BSR Physical Therapy, 19 Jan. 2018, www.bsrphysicaltherapy.com/2018/01/01/thoracic-drills-overhead-mobility/.
3. Davies, Clair, and Amber Davies. *The Trigger Point Therapy Workbook: Your Self-Treatment Guide for Pain Relief*. New Harbinger Publications, Inc., 2013.
4. Lefkowitz, Cori. "Thoracic Extension Exercises: Redefining Strength." Thoracic Extension Exercises Redefining Strength, 20 Dec. 2015, redefiningstrength.com/thoracic-extension-exercises-thoracic-bridge/.
5. Robertson, Mike. "Self-Myofascial Release." Robertson Training Systems, Robertson Training Systems, 2008, robertsontrainingsystems.com/downloads/SMR-manual.pdf.

During the Fall, I went to see a Physical Therapist at UCSD health to help me with my shoulder issues. However, I found the session to be ineffective. Unfortunately, the specialist I saw did not have experience working with musicians. However, they did confirm my general suspicions about what exactly was causing my discomfort and gave me a few good physical therapy exercises. The references in Group 3 are some of the additional resources I used to create a daily regimen. The daily mobility exercises combined with *The Trigger Point Therapy Workbook* has given me the most relief.