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Learning to “sing through the instrument” is the center of many wind players’ approach to gain a more vocally expressive quality to their playing. A commonly used technique is voicing. Voicing can be defined as the way in which a wind player manipulates and uses their vocal tract to affect sound and also ease of tone production. Because voicing takes place inside the body, and the instrument itself eliminates the possibility for externally observing oral cavity activity, assessing one’s voicing technique can be difficult. There have been multiple studies observing the vocal tract activity of both brass and woodwind players through the use of a laryngoscope capturing the imagery inside this portion of the musician’s body as they play. However, there is a lapse in the use of this information in oboe pedagogy, specifically in regard to voicing. By conducting surveys and interviews with oboists as well as a vocal professional, the intention of this document was to learn more about current research on voicing and use this information to create new approaches to both teaching and playing the oboe. Gathering this information resulted in gaining new insight into what playing with a singing style really means for oboists, and also inspired the creation of new exercises to help oboists of all levels utilize voicing and other vocally based approaches to their playing.

SINGING THROUGH THE OBOE - VOICING AND OTHER VOCAL TECHNIQUES WITHIN PLAYING AND TEACHING

by

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APPROVAL PAGE

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TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER I : INTRODUCTION AND SURVEY OF LITERATURE

INTRODUCTION

When teaching a student to be expressive, oboe teachers often instruct their students to "sing through the instrument." Whether it be in a lesson, masterclass, or an ensemble, oboists intuitively make changes to replicate the human voice through the mechanics of the instrument. If asked how an oboist can sound like a singer, one would hear many descriptions of conceptualized and metaphorical nature, yet the change in sound is actually physiologically produced inside the human body. While mimicking the human voice is commonly justified and explained through vibrato usage, phrase shaping, and changes in tone color, the physicality of "singing through the oboe" lacks anatomical and pedagogical understanding. Conceptualizing voicing is one thing, but the physical process of voicing has been under explored in oboe pedagogy. How does an oboist find an effective way of simulating the human voice through their instrument? Does an oboist have to be a trained singer to effectively *sing* through their instrument?

Comparisons between the human voice and other musical instruments have fascinated musicians for centuries. It is no different for oboists, who are on a constant quest to improve their playing. The ultimate goal to no longer sound like a human controlling an inanimate object to produce tone, but to have the oboe serve as an extension of the self, a conduit for extrinsic transmission of intrinsic musical expression. On the surface, to "sing" when playing the oboe is a seemingly simple and well-founded goal. The human voice is widely perceived as the ideal model for musical freedom and expression, due to the sound being solely produced from and within the body; free from the physical imposition that an externally controlled wind instrument,

such as an oboe, possesses.[1] While the origin of sound begins with the breath for both oboists and vocalists, the way in which tone is produced is contrasted by the way in which it is either externally or internally transmitted, respectively speaking. Both oboists and vocalists utilize many of the same metaphors and conceptualizations in their studies to improve their technique and optimize musicality. Comparatively, the physical aspect of a vocalist's body serving as their sound resonator in comparison to the oboe itself serving the same role can result in aspects of "singing through the instrument" that can become lost in translation.[2] While vocalists consistently refer to the human anatomy as part of their pedagogical approach to effective singing, oboists (among many other instrument families) utilize what is referred to as voicing to achieve all of the aforementioned characteristics that are associated with a singing quality in oboe playing. Definitions vary between instrument families and individuals, but voicing can be described as the way in which an instrumentalist shapes and utilizes their vocal tract, which consists of the oral cavity, tongue, pharynx, and larynx[3]. Despite its frequent use in pedagogy and performance, there is a disconnect between talking about voicing beyond a conceptual level and having specific exercises to help oboists develop their voicing abilities. This term, voicing, while not incorrect in its usage and effectiveness in oboe playing, is broad and envelopes numerous internal processes that may need individual attention in different circumstances. Perhaps this is due to the physical instrument being paid more attention as the manufacturer of actual sound, but these metaphors and conceptualizations have yielded positive results in enhancing the technique and tone of oboists. Clearly, the internal processes that correlate and respond to these musical ideas yield positive results.

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[1] E. Schubert, *Which Nonvocal Musical Instrument Sounds like the Human Voice? An Empirical Investigation*. Empirical Studies of the Arts. (2019). Vol. 37, pg. 93.

[2] I. Titze, *The Human Instrument.* Scientific American. (January 2008). Vol. 298, No. 1

[3] See chapter II

Physically, the internal structures which assist in tone production are the same in both oboists and vocalists. The components of the vocal tract[4] all work together to manipulate air speed, pressure, tone color, dynamic level, vibrato speed and depth, and intonation. For vocalists, the use of the larynx, or what is also referred to as the voice box, entails the passing of air through vibrating vocal folds and glottis, which is then manipulated and shaped by tongue positioning, and spacing within the oral cavity, i.e. vowel shapes. While the latter is where oboists and vocalists find common ground, the exhalation of air passes through all of these same internal structures; however, the tone is not created through vibrating vocal folds, but through the reed and oboe itself, which is an external resonator and ultimate producer of actual sound. This seems like a monumental difference between vocalists and oboists, suggesting that the two belong in separate musical categories. Yet, oboists have been looking to singers for centuries to harness the flexibility and freedom of expressivity in their own playing, indicating significantly more overlap between the two than what appears on the surface.

As for my own experience which led to the exploration of this topic, outside of being an oboist, I have had extensive experience in studying voice. Before deciding to major in Oboe Performance, I was pursuing a major in voice. I participated in choir during my youth and young adulthood, took lessons for several years, and initially wanted to be a collegiate choral director. Throughout the duration of my undergraduate degree, playing the oboe and singing were in two different categories, and I treated them as entirely separate entities. For a short period of time, my oboe and voice lessons were scheduled back-to-back during my undergraduate degree. This did not last very long, due to my voice teacher commenting on the amount of physical tension that I would carry into my lessons after coming directly from my oboe lessons. My voice lessons

[4] See Chapter II.

would consist of me singing vocalises while lying on the floor, turning my neck from side-to-side, bent over with my arms hanging, or looking in the mirror while massaging my jaw. These instructions were coming from my voice teacher, all in an attempt to "undo" what I thought to be normal oboe habits that I was bringing into my vocal technique. What I did not realize until later in my studies, was that separating my oboe playing and singing from one another was actually doing myself a disservice.

Utilizing the perspective of a singer in playing the oboe was introduced by my former teacher and mentor, Dr. Andrew Parker of the University of Texas at Austin. Parker is also a very gifted singer in addition to being an incredible oboist and pedagogue and centers his own playing style around that of a singer. He recorded an album of German *Lieder* and art songs on oboe, thus instrumentally standing in for the role of the singer. In the program notes from his album, *The Singing Oboe*, Parker said this:

> I was often told to 'sing' when I play my instrument. The concept always sounded so good and right, but what does it really mean? Is it simply a way to think about using vibrato? Is it a way to better understand voicing intervals? It is those things, without a doubt, but I believe it is far more intimate than a method by which to approach the mechanical facets of playing an instrument; it is an act of alchemy. Instrumentalists must, through mindful, passionate practice, transform our instrument into our voice. Our instruments must become another singing part of our body. It is ultimately an act of letting go of the belief that the instrument is a 'thing' that is separate from ourselves in any way. Only then can the music be channeled through us with clarity, depth, and emotional heft.[5]

Finding a "mind-body" connection with an instrument is a culmination of years of study and diligent practice, ultimately allowing a musician to feel uninhibited and free to fully express themselves through their playing. As an oboist, I did not find that feeling until much later in my studies, and as I discovered through my research, many other oboists did not find their "voice"

[5] Andrew Parker, *The Singing Oboe - Romantic German Lied Transcriptions.* MSR Classics, 2014. Program notes.

on oboe until later as well. When utilizing voicing in playing the oboe, the quality of sound, pitch accuracy, and musical flexibility can be executed with more ease and effectiveness. Through becoming comfortable with this technique, my oboe playing became much more expressive, and it allowed me to overcome several technical challenges that had plagued me for years. While I teach and utilize voicing in my own playing on a daily basis, it has remained mostly metaphorical and conceptual in how I understand and explain it to both myself and my students. What I have realized more recently is that beyond the experiential relationship that most oboists have with voicing, a lapse exists in available information in regard to the internal, physiological side of voicing, and correlating exercises to develop these skills in oboists of all levels. Both performers and teachers of the oboe are in need of additional steps, tools, and ideas, to assist in achieving this singing quality in their own playing and explaining it with clarity and effectiveness to their students.

Research has been conducted in regard to vocal tract activity of wind instrumentalists[6] - some of which has come from oboists. Many of these studies involved using a laryngoscopic camera to observe the inner workings of a wind player as they produced sound on their instrument, and a few of the studies involve an oboist as one of the participants. While valuable information has been gathered from these studies, I have not found any research or texts that uses this information to apply to the pedagogy and application of voicing in oboe playing specifically. Furthermore, no current document exists today that combines this research with developing exercises for oboists of all levels to gain mastery over voicing and other vocal techniques that benefit and enhance multiple areas of oboe playing.

[6] See Survey of Literature.

To gain a clearer understanding of how oboists are conceptualizing voicing and other vocal techniques in oboe pedagogy and performance today, I created and sent out a survey to forty-four professional oboists in both academia and full-time orchestras, asking them to share their insight on the topic. I also conducted five interviews - four with professional oboists around the country, and one with a professional singer and Professor of Voice at The University of North Carolina at Greensboro. These answers provided more clarity of how oboists are conceiving of and utilizing these vocal techniques in their own approach to playing. Using the information gathered from the interviews and surveys, combined with research and findings in regard to vocal tract in producing tone on the oboe, I developed several exercises to be used by oboists of all ages. The intent of these exercises is to serve as an aid for allowing a singing quality to enter the realm of their playing approach earlier in the evolution of their studies through the development of voicing.

SURVEY OF LITERATURE

The currently available texts on oboe pedagogy are vast and varied in their focus. The intended ability level of the audience differs between texts, some being more discussion based, while others are similar to a method book approach with many exercises included after certain topics are addressed. Many include sections or entire chapters on tone production and do mention “singing.” A few even included tonal development exercises to improve airflow and/or embouchure control. Despite this, I did not find an existing oboe pedagogy book that mentioned voicing specifically, or a book that also included correlating exercises to help students develop their understanding of it. Only one book that I reviewed mentioned the internal structures of the

vocal tract, the larynx, in reference to developing vibrato, but did not include a correlating exercise.[7]

Additionally, there have been numerous studies that used a laryngoscopic camera[8] to observe the role and usage of the vocal tract within wind playing since the 1980's. Following the oboe pedagogy portion of the literature review, I will detail several studies that observed the pharyngeal and laryngeal activity in wind players, as well as usage and overall health of the vocal tract. While some of the following include an oboist within the pool of wind instruments observed, none are specific to the vocal tract usage of oboists as its sole subject. The results of the following studies provide a general overview of the vocal tract behavior of different wind instruments, with some focusing on smaller groups or pairs of wind instruments.

OBOE PEDAGOGY BOOKS

Complete Method for Oboe, first edition, A.M.R Barret (1850): The Barret Oboe Method is one of the most popular and revered method books amongst oboists. Having been used as a tool by oboists for over one hundred and fifty years, this staple in oboe pedagogy is a wonderful method book that includes applicable information for oboists of any level. The first section "Principles of Music" is a condensed version of necessary music theory that is used throughout the book. This is followed by information on the mechanics of the oboe itself, as well as reed making. The most commonly used sections of this book are Scales and Exercises, Forty Progressive Melodies, and Fifteen Grand Studies. While the Barret Oboe Method is a great all-encompassing text for oboists of all levels to improve on their instrument, voicing is not

[7] Martin Schuring, *Oboe - Art & Method.* Oxford University Press. 2009.

[8] To view the vocal tract of wind players, a numbing spray is administered inside the participant's nose and throat where the scope is inserted, so the internal activity of the pharynx and larynx can be viewed as the participant plays their instrument.

mentioned. There are interval exercises in the Scales and Exercises section, but it includes no mention of technique in regard to playing intervals, i.e. air support, embouchure, voicing.

***Oboe*, Leon Goossens and Edwin Roxburgh (1977):** *Oboe*, co-written by Goossens and Roxburgh serves as more of an all-encompassing overview of the oboe, from its history and development, to reed making, sound production, vibrato, and the differences in performing baroque and contemporary music. This book is best suited for more experienced oboists who do not need much introduction to basic fundamental concepts but can benefit from learning others' approach to improve their own. The book does not contain any voicing exercises or comparisons between playing the oboe and singing.

***Essays for Oboists*, Jay Light (1994):** This book contains a multitude of essays that all focus on different topics. Some of the subjects of discussion include thoughts on proper embouchure, long tones, articulation, dynamics, practice habits, professionalism, and audition tips. There is mention of a "singing vs. non-singing" embouchure in the book, meaning the difference between what is referred to as an anteater or cabbage patch doll embouchure, the latter not conducive to "singing" due to embouchure corners being pulled back with too much vertical pressure on the reed. While singing is mentioned in this book, there are no instructions of voicing in the essays or exercises, nor is voicing itself mentioned.

***Oboe Technique*, *The Oboist's Companion vol. I - III*, Evelyn Rothwell (1962 and 1974):** English oboist Evelyn Rothwell authored multiple oboe books during her lifetime. The first, *Oboe Technique*, consists of an introduction and seven sections: breath control, embouchure control, tongue control, finger control, care of instrument, reeds, and practicing. In regards to voicing, Rothwell does not reference this specifically, but does speak about the danger of throat vibrato and using these throat muscles to control air flow and volume in basic tone production.

She mentions that involving these muscles unnecessarily can cause tone to sound nervous and tight. Rothwell also introduces exercises for embouchure control through long tones, octave leaps, and dynamics. Regardless, there is no mention of voicing, and the emphasis being on controlling the embouchure as opposed to air focused, raises questions on the benefits of these exercises for non-European players.

As for *The Oboist's Companion* series, these three volumes cover oboe fundamentals and exercises that are geared towards different ability levels, as well as a reed guide. Volume I is intended for beginners or inexperienced oboists, shifting to more intermediate to advanced players in Volume II, and then pivots to reed making in Volume III, which serves as a comprehensive reed guide. Included in this volume is a brief overview of different reed styles. It does not address actual playing fundamentals, but rather how certain characteristics of reeds can affect it. *The Oboist's Companion* does not discuss voicing or include any exercises to introduce and explain to students.

***Oboe - Art and Method*, Martin Schuring (2009):** Schuring's *Oboe - Art and Method* is intended to serve as an all-encompassing book for oboists who do not have access to consistent or quality oboe instruction. Schuring covers all facets of fundamental oboe playing and being a working musician with chapters on practicing, professional etiquette/career development, fundamentals, reed making, instrument care/maintenance, and more. Developing a "singing tone" is mentioned numerous times through the sections on tone production and vibrato, but Schuring does not refer to voicing in the book. Schuring does talk about vibrato being ultimately regulated in the larynx and details correlating developing exercises. Within this exercise, Schuring talks about vibrato shifting its "placement" in the throat and its ability to move up and down and change speed. There are parts of this description that also lend themselves to voicing,

and Schuring likens his approach to both tone and vibrato to singing, but there are no specific references being made to the process of voicing itself.

Blow the Oboe! **Sue Taylor (1984):** Taylor's book is intended for beginner to intermediate oboists. The text covers five concepts: slurring, tonguing, lipping (Taylor's term for embouchure control), listening, performing. The book also contains correlating exercises for breathing, clapping rhythms, and playing and singing. While singing is a component of the exercises in the book, it does not reference or include voicing.

Oboe Unbound - Contemporary Techniques**, Libby Van Cleve (2004):** This book by Libby Van Cleve is the only oboe pedagogy book that contains a comprehensive look at all aspects of extended technique on the oboe and English horn. This includes multiphonics, double and flutter tonguing, circular breathing, and an additional chapter that serves as an introduction into oboe repertoire involving electronics. The book comes with audio examples of each technique corresponding to every chapter being modeled by Van Cleve. There is a short section in the introduction that covers "standard technique." Van Cleve mentions the embouchure and air changes needed to move throughout the entire range on the oboe, but it is only a brief overview and does not mention voicing. Being that voicing is not an extended technique, this section serves more as a precursor to the main subject of the book, which is difficult to master if proper oboe fundamentals are not habitual.

EXISTING RESEARCH ON THE VOCAL TRACT AND INSTRUMENTAL WIND PLAYING

Vocal Tract Discomfort and Voice-Related Quality of Life in Wind Players, **Juliane Cappellaro and Barbara Costa Beber (2018):** This study surveyed thirty-seven wind musicians in Brazil regarding self-reported vocal tract discomfort and overall quality of life in regard to their vocal health. Participants answered a questionnaire inquiring about their status as

musicians (seasoned professionals, young professionals, amateurs), current job or position, and additional information regarding the physical discomfort they associated as a result of playing their instrument. The most frequently reported symptoms were dryness, ache, and irritability within the throat, as well as fatigue after playing for an extended period of time. The study found that the severity and frequency of physical discomfort and ailments amongst the participants showed a direct correlation between experience level and comfortability while playing. Cappelaro and Costa Beber reported that musicians with fewer years of experience, both at the amateur and professional level, reported more vocal tract related discomfort that occurred after playing. The study did not specify findings pertaining to specific instruments, only the findings of the entire pool of participants.

***Glottic Configuration in Wind Players,* by Claudia Allessandra Eckley (2006):** Eckley's study observed the vocal tract health of wind players, from the amateur to professional level. The musicians' use of their glottis, larynx, pharynx, and base of the tongue during blowing was viewed by a laryngoscopic camera. The study found that great discomfort, such as throat strain, was more prevalent in the musicians with less playing experience. Its results also coincided with previously mentioned studies by confirming that airflow control and blowing control were related to changes in glottic opening and closing. The study did not mention airflow control having any relation to pharyngeal muscle involvement but found that the glottis can greatly affect wind playing in both positive and negative regards. In all of the participants, the vocal cords were slightly abducted (coming together), although not completely closed, to varying degrees. As participants played passages that were personally more challenging for them, there was a tendency for strain in the larynx and constriction within the vocal tract to occur. This study

did not specify what kind of wind instruments were used in the study, making this data difficult to apply in oboe specific research on vocal tract usage while playing.

Laryngeal Control While Playing a Wind Instrument,* by Susumu Mukai (1989)*: Several of the studies I came across during my research for this document referenced this 1989 study by Mukai. This was the first extensive study not only involving a laryngoscope, but also a large pool of wind players, the participants consisting of beginner, amateur, and professional levels. The study was key in understanding the importance of glottic[9] involvement in wind playing. Mukai found that a narrowed glottic aperture was associated with a more mature sounding tone and ease between interval shifts. The less experienced a player was, the larger the glottic opening was when blowing air into the instrument, suggesting that the glottic opening is integral in air flow management in wind playing. The study also detailed the involvement of the glottic opening between the non-vibrating vocal folds during vibrato. The speed in which the glottic opening contracted varied depending on the individual or specific instrument, but it clearly showed that the glottis is directly involved in vibrato production. While this study did specify that the oboist's laryngeal behaviors varied from its counterparts, the overall findings of glottic involvement in all woodwinds was proven to be of utmost importance in relation to advanced wind playing.[10]

***Observations of Laryngeal Activity of Woodwind Instrumentalists During Performance Using a Fiberoptic Laryngoscope*, by Charles Veazey (1987):** This study, conducted by oboist Charles Veazey, observed the pharyngeal and laryngeal activity of four woodwind instruments: flute, clarinet, bassoon, and oboe. [11] Pharyngeal and laryngeal movements were observed while

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[9] See Chapter II and Appendix C: Glossary

[10] Susumu Mukai. "Laryngeal movements during wind instruments play." *Nippon Jibiinkoka Gakkai Kaiho,* 92(2), 1989. pgs 260-270.

[11] Charles O. Veazey, "Observations of Laryngeal Activity of Woodwind Instruments During Performance Using a Fiberoptic Laryngoscope," *Flutist Quarterly*, vol 13. 1988. pgs 47-49. https://www.nfaonline.org/docs/default-source/fq-issues/1988spring.pdf?sfvrsn=4a5aa4260

each performer demonstrated different kinds of articulation, register changes, vibrato, and dynamic shifts. While results varied between individual players, Veazey found that the internal workings of the oboe were consistently different than that of its counterparts in the study. Veazey concluded his study by stating that, while useful data was gathered from the study, he hoped that his findings would serve as an impetus for future research regarding further lifting the veil of mystery surrounding certain aspects of woodwind pedagogy and performance.

***Some Effects of the Player's Vocal Tract and Tongue of Wind Instrument Sound, by* J. Wolfe, A.Z. Tarnopolsky, N.H. Fletcher, L.C.L. Hollenberg, and J. Smith (2003):** Addressing the impact of vocal tract geometry on timbre and sound on the didgeridoo and trombone, this study showed that internal physical manipulation of the oral cavity and pharynx had a much more profound effect on tone of the conically shaped didgeridoo, in comparison to its cylindrical counterpart, the trombone. Even though both of these instruments' sounds are produced by the buzzing of the lips, the findings in this study suggested that the shape of the bore and amount of physical resistance the player is experiencing when playing the instrument makes the use of the tongue, oral cavity, and vocal tract much more malleable in sound and pitch manipulation. The study found that vocal tract shaping and manipulation could raise and lower pitch by as much as 20 cents, as well as result in a more noticeable difference in timbre on the didgeridoo, compared to the trombone. This study is the only one to include different bores shapes in its variables when looking at vocal tract involvement, leading me to hypothesize that the conical bore is to be marked with great significance in regard to altering tone and pitch with the tongue and oral cavity.[12]

[12] J. Wolfe et al. "Some Effects of the Player's Vocal Tract and Tongue on Wind Instrument Sound." *Proceedings of the Stockholm Music Acoustics Conference.* School of Physics, University of New South Wales Sydney, University of Melbourne. 2003.

PURPOSE OF STUDY

As one can infer from the lack of oboe specific research in vocal tract usage, there is a need for further study regarding voicing on the oboe. Through reviewing various studies, survey responses, and conducting interviews with professional oboists, the purpose of this dissertation is to address and answer the following questions:

1) How commonly used is voicing by oboists today?
2) How do oboists define voicing on the instrument?
3) Can voicing be taught to oboists of any age or ability level?
4) Is vocal training necessary to learn how to use voicing and feel a strong connection to singing while playing the oboe?
5) What are some effective voicing exercises that can be taught to and used by performers, teachers, and students alike?

Each of these questions will be addressed in the following chapters. The intention behind this document is to share a source of new information and resources to the oboe community in regard to lifting the veil on voicing and vocal tract usage of oboists. This dissertation details effective performing and teaching techniques that have been developed from my research on the physiological processes that result in oboists playing with a singing-like quality.

CHAPTER II: THE ANATOMY OF VOICING

The internal movements involved in voicing consist of different variations between instrument families, and they will be addressed later in the document. However, it is important to note that vocalists themselves do not commonly use this term to describe their own internal processes of proper singing. Dr. Robert Wells, Professor of Voice at the University of North Carolina at Greensboro,[13] described the process of "voicing" as an all-encompassing term used to depict what singers do to produce quality tone with proper technique. Vocalists, he said, are always "voicing," but this encompasses many different processes and aspects of how a singer conceptualizes and produces their own sound through feeling resonance in different parts of their face, vowel shape, tongue position, larynx height, and more.[14]

Before diving into this area of research, the physiological actions performed within my own body were completely unbeknownst, as I was introduced to voicing through a largely conceptualized idea. To understand the role that our internal structures play in voicing, zooming into and beyond the generalized term of voicing can help oboists - both as performers and teachers - to more effectively identify, diagnose, and remedy a multitude of common issues that affect oboists of all levels. Voicing is widely used in practice and performance in other families of wind instruments. The definition of voicing varies between players, and the way in which different kinds of musicians comprehend and perform this process is unique to specific wind instruments based on the physiological requirements to play them. Approaching voicing through a metaphorical lens can be very effective for some students and oboists, but it is not a universal panacea for proper tone production being created by every oboist whose learning styles vary.

[13] A more thorough synopsis of this interview is in Chapter III.
[14] Robert Wells, Interview. (December 4th, 2020)

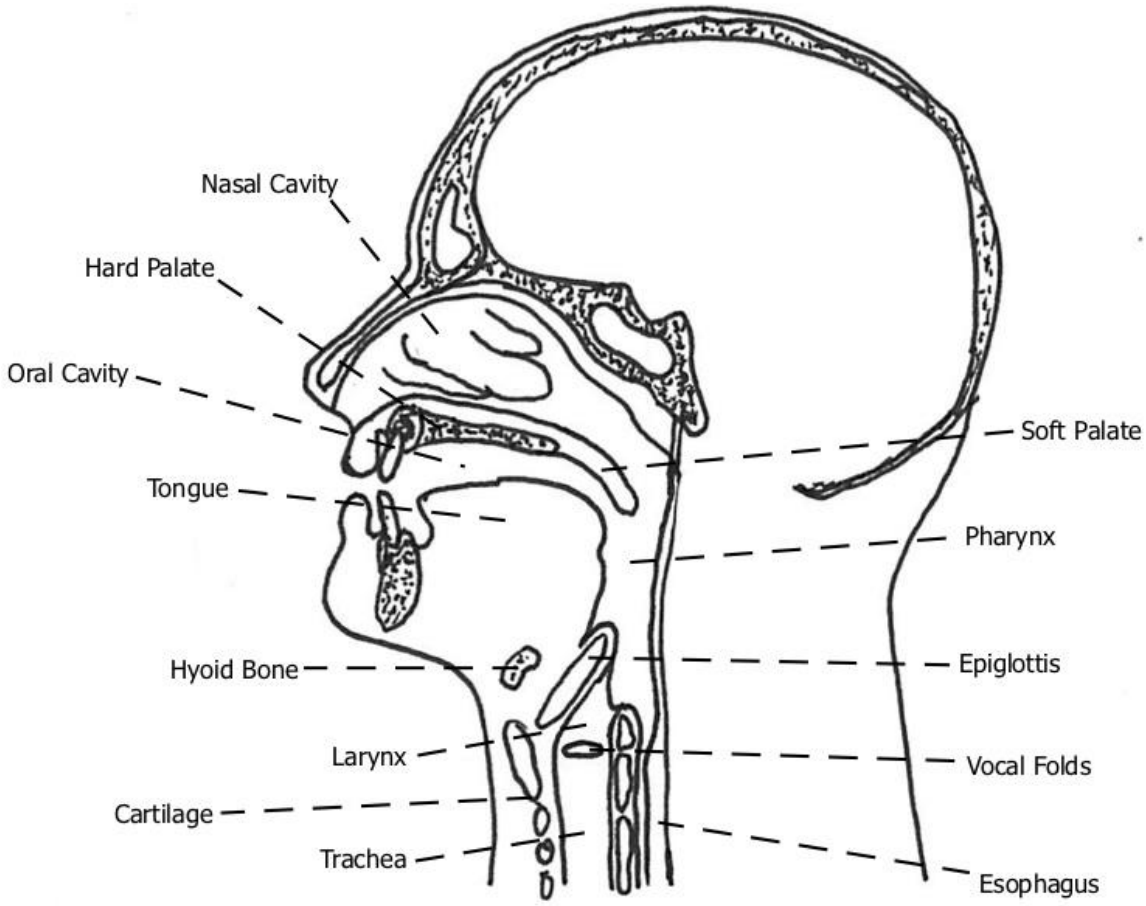
To better understand voicing and improve its implementation in playing and teaching the oboe, it is advantageous to learn the internal processes that are taking place inside of the body to manipulate air speed, volume, and shape. While oboists mainly think of the voicing processes taking place within the oral cavity and throat, within these two parts of the human anatomy exist many different structures, composed of numerous smaller parts that all work together. Some of the terms that are used in current oboe pedagogy are well-intentioned; however, a portion are physiologically incorrect. This may not seem like an urgent matter to be corrected, but for a student who is displaying fundamental issues in their playing and may be engaging the wrong internal structure in response to an instruction, understanding the non-visible aspect of oboe playing can assist in avoiding potentially damaging habits to the oboist.

ANATOMY OF THE VOCAL TRACT

The throat itself consists of four large components - the pharynx, larynx, trachea, and esophagus. The pharynx is used for both digestion and respiratory functions, as it connects the nasal and oral passages with the larynx and esophagus. During inhalation, air passes through the nasal (nasopharynx) or oral (oropharynx) cavities, which are joined by the pharynx and routed into the larynx. This is where the air is directed past the epiglottis, which acts as a lid during swallowing and blocks food from entering the larynx (constricting muscular walls within the pharynx)[15]

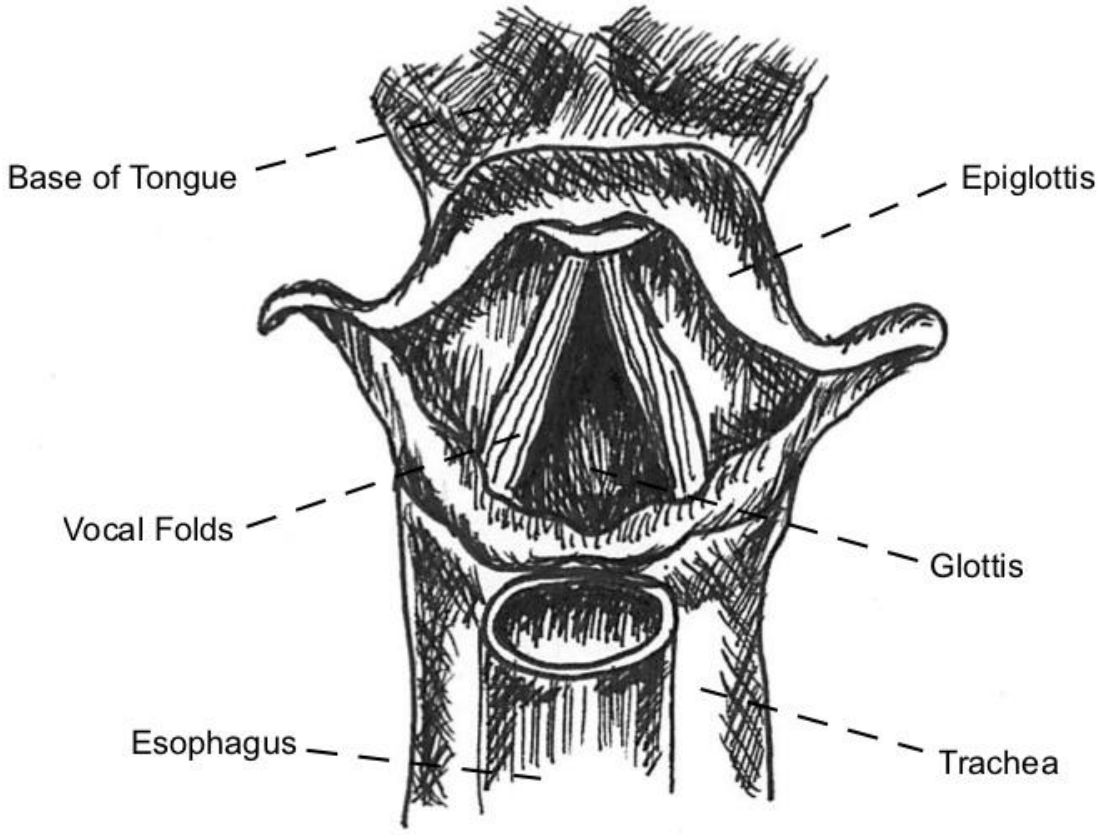
[15] See Figure 1 below.

Figure 1. Profile View of Vocal Tract Anatomy. Drawing by Geralyn Tracz (2021), modeled from original illustration by Catherine Musinsky



The larynx is a complex structure that houses what is commonly called the "voice box." The entire larynx is suspended from the hyoid bone and is made up of cartilages and connective muscle tissue. The epiglottis and surrounding cartilage that are located directly under the hyoid bone, are the visible and sometimes protruding structure beneath the skin which is what people refer to as the Adam's apple, and more visible in men. The hyoid bone is connected to the base of the tongue, which allows the larynx to be lifted or lowered, depending on its positioning. For oboists, this is most relevant through the use of different vowel shapes, of which certain shapes are more effective in tone production throughout the entire range of the instrument.

Figure 2. Anatomy of the Larynx. Drawing by Geralyn Tracz (2021), modeled from original illustration by Krystal J. Thompson



The larynx also houses the vocal folds (cords), which vibrate together as air passes through to create various sounds. When playing a wind instrument, the vocal folds do not vibrate to produce audible tone, but are slightly abducted (open),[16] to allow air to pass through from the lungs and into the oral cavity. The space between the vocal folds is called the glottis, not to be confused with the epiglottis. The glottis plays a pivotal role in airflow management in wind playing, as well as vibrato production.[17]

[16] Susumu Mukai, "Laryngeal movements during wind instruments play." *Nippon Jibiinkoka Gakkai Kaiho,* 92(2), 1989. pgs 260-270.

[17] More information on each of these functions can be found in Chapter IV.

VOICING ON THE OBOE

As previously mentioned, there are numerous studies that assess the vocal tract involvement of wind players.[18] Many involved using a laryngoscope being inserted into the nose of the participant and then fed into the pharynx until reaching the top of the larynx, where the camera captured imagery of its functionality while playing a wind instrument. Several studies included an oboist in their pool of participants, but none included an oboist as the only instrument involved in a singular study. The results from these studies do discuss physiological processes taking place during playing various wind instruments. However, I am not aware of any oboe pedagogy books that refer to the results and data of these various studies, with the intent of using the information to create or explain developing exercises for voicing on the oboe.

Acknowledging this disconnection between the currently available information and its presence in modern day oboe pedagogy, the next phase of my research involved reaching out to the oboe community directly. The intention behind this was to learn more about individual viewpoints on voicing and perceptions of the relationship between playing the oboe and singing. This was achieved through surveys and interviews with dozens of professional oboists around the country, as well as a voice professional.

[18] See Survey of Literature and Bibliography

CHAPTER III: SURVEY AND INTERVIEW RESULTS

Understanding how oboists around the country perceive a singing style within playing the oboe was an important step in approaching this topic. I created a survey asking various questions about achieving a singing style within the participants' own playing and teaching. This survey was sent to forty-four professional oboists in both the academic world, as well as members of full-time orchestras in the United States. Twenty responded to the survey, and multiple participants agreed to be interviewed for further discussion. I conducted four digital interviews via Zoom with the following professional oboists: Dr. Jackie Leclair of McGill University, Mary Lynch - Principal Oboe of the Seattle Symphony, Carolyn Hove - Solo English Horn of the LA Philharmonic, and Dr. Andrew Parker - Professor of Oboe at the University of Texas at Austin. I also conducted an additional Zoom interview with Professor of Voice at the University of North Carolina at Greensboro, Dr. Robert Wells, to understand the various approaches singers use to strengthen their vocal technique.

SURVEY

The survey consisted of eight questions.[19] Participants were asked about their past or current vocal training, their opinion of what a singing or vocal quality on the oboe is, what the difference is between oboists who possess this quality in their playing vs. those who do not, as well as how they utilize voicing and other vocal techniques within their own playing and teaching. Out of the twenty respondents, half had participated in some type of choir in their high school through college-aged years. Five had taken voice lessons during their time in college as a

[19] See Appendix A

secondary study, and one individual was currently taking voice lessons, which she began in 2017.

When asked what constitutes a singing or vocal quality while playing the oboe, several common themes and characteristics emerged amongst the participant surveys. Some key words or phrases that appeared multiple times throughout the twenty returned surveys were as follows:

- Ringing and buoyancy in the tone
- Resonance, throughout the entire range
- Bel canto style[20]
- Even timbre and intonation throughout, no notes "sticking out"
- Vibrato variation, and control, integrated into the sound itself
- Flexible, free, flowing, fluid
- Playing the intervals and not the notes
- Natural melodic phrasing with direction and inflection
- Legato, malleable, connected lines

Regarding what one would hear in an oboist who did NOT play with a singing or vocal quality, the participants gave the following answers:

- Notey, angular, stiff
- Pressure in tone
- Lack of support
- "Space" between notes when playing legato

[20] Italian for "beautiful singing," this term is used to describe operatic singing, with an emphasis on long, lush, connected lines. Originating in the sixteenth through early nineteenth centuries, *bel canto* singing focuses on precise control of vocal intensity. Preceded 20th century singing style that was in favor of a heavier and more dramatic approach.

- Note swelling on certain notes, sticking out
- Vibrato starting mid-note, only one speed available
- Wrong vowel shapes in certain registers
- Physical tension in body, embouchure, throat
- Flat notes being “voiced” incorrectly within throat

Many of the survey answers specified particular tongue positions and oral cavity shapes (vowel) as a main component of voicing. The following vowel shapes were noted as being beneficial to voicing on the oboe.

- *Oh*
- *Ooh*
- *Eu*
- *Ah*
- *Tü (beginning with tongue articulation)*

The overwhelming majority of participants agreed that voicing could be implemented in teaching oboe at any age or ability level. The importance of a balanced, in tune, responsive reed was also heavily emphasized. Reed style varies from oboist to oboist, and specifics about each participants’ individual reed style was not asked for, but the general consensus in the survey was that the oboe reed should not cause any kind of physical struggle or discomfort when playing. In other words, having to work against the reed in any fashion while playing will make it extremely difficult to achieve a singing quality while playing the oboe.

INTERVIEWS

The surveys provided invaluable information in regard to the implementation of voicing and other approaches to singing quality in both playing and teaching amongst oboe professionals today. All of the responses were very insightful and useful in my research. Additionally, getting to speak directly with some of the participating oboists, allowing them to expand upon their current thoughts and ideas was very informative, and also reassuring that this vein of research is important to the oboe community. Prior to interviewing the oboists, I spoke with Dr. Robert Wells, Professor of Voice at the University of North Carolina at Greensboro. I hoped to learn more about what vocalists actually do and how much of what we recommend as oboists is directly related to professional singing. Wells provided a closer look into how singers operate - Both from a technical and mental perspective. This information allowed for more parallels between oboe and singing to be made, which ultimately played a large role in the developing exercises that are detailed in the following chapter.

Although oboists and many other instrumentalists utilize the term voicing, as previously mentioned in Chapter 1, Wells noted the lack of "voicing" within singer terminology. Voicing in itself is the all-encompassing process of singing. It involves imagining and placing resonances in different parts of the vocal tract, adjusting tongue positions to aid in resonance enhancement, and paying attention to the changes in the larynx and the effects it has on the sound and articulation, to name a few. Wells drew many comparisons between singers and oboists. First, the use of vowel shapes. While there are numerous vowels and syllables that singers use to enhance tone, change color, and perform while remaining relaxed and free in the vocal tract and body, the range of these vowel shapes exists on a spectrum from *Ohh* (furthest back) and *Ee* (furthest forward). Due to the resonator of singers being internal, as opposed to oboists' being external, the available options of these shapes and syllables is extensive, whereas the options are more

limited, yet still hugely important for oboists, who cannot take their lips off of the reed while playing.

Wells has worked with singers who also play a wind instrument, or vice versa. A challenge that these students commonly face is adjusting to changing pitch in either a tactile or non-tactile way, i.e. pressing a valve on a trumpet and changing the embouchure vs. changing pitch with the voice. A common phenomenon that occurs in both singers and oboists is "chewing" the notes. For oboists, this is caused by embouchure manipulation at the beginning and ends of notes, typically overcompensating for inconsistent and ineffective airstream. With singers, this same type of manipulation occurs, but in the larynx, causing the opening of the glottis to affect the air flow. As Wells said, the sound becomes "sausagey" or what we would also recognize as a "wah wah wah" kind of sound. To combat this, singers use many exercises such as lip trills. Wells said that this is done to "remove the control of pitch change or vowel change from here (larynx) and let it be much more a connection of that breath flow and that consistency of air flow that I think we all are working for."

Speaking with Wells made me view the oboe reed and vocal folds in a very similar light. In response to this, Wells mentioned Ingo Titze, a prominent researcher in the singing world. Titze has published many studies about straw phonation - an exercise for singers to strengthen their voice by singing into various diameters of straws. The smallest of the straws used for this exercise is a coffee straw, which is of similar diameter to the top of an oboe reed staple. The idea behind this exercise is to dramatically increase resistance against the voice, encouraging the singer to remain open, alleviate the larynx of tension, and allow freedom and comfortability while still having control of the voice.

> A lot of the research has been about straws of different diameters. It all falls in this bigger category of semi-occluded vocal tract exercises so essentially having a smaller opening of the vocal tract. And what we found is that with that really small opening, the air pressure that builds up from here back to to the vocal folds, so from essentially the air pressure building up from the lips back down to the larynx, balances the air pressure underneath the vocal folds, so the subglottal air pressure. And with that balance of air pressure above and below the vocal folds, the opening and closing is much more efficient so you get better vocal fold function so the phonation is much better.[21]

As Wells described the benefits of straw phonation, I could not help but notice parallels between singers and oboists trying to achieve virtually the same things. For example, straw phonation carries many of the same benefits as that of reed alone exercises for oboe.[22]

> It's great as a therapeutic exercise so for people that are going through different kinds of voice therapy it's really helpful. But singers are using it all the time now. And what the research has shown is that you can do straw phonation for a short period of time and the benefit to that actually will last through a practice session or a performance that you have that follows it so it actually is pretty long lasting. It's not just when you're actually engaged in that. And so for me that's a little bit, there are some similarities, I think maybe, to double reed just in terms of that small opening and feeling that air pressure build up here but really keeping the integrity of the air flow. The difference for us (singers) is that we're also still engaging vocal folds whereas wind players are keeping the glottis open, so you're not actually phonating while you play.[23]

Another subject that was discussed in my interview with Wells, was the concept of feeling where certain notes and sounds "live" within the body of a singer and oboist when singing or playing in different registers, changing tone, or dynamics. After discussing reed alone exercises, Wells spoke about working with students on feeling their sound resonate in different parts of their body.

> Everybody feels things differently, right? Sound perception and resonance feedback is so different from one person to the next. I learned a lot about how to think about these things and explain them differently when I had a student that had a history of polyps in his sinuses and his nasal passageway and he'd had several surgeries and essentially suffered a ton of nerve damage. So he had no sensation in his face or in his sinuses so none of that vibratory sensation that we all rely on. He didn't have any of that. He had no feedback at

[21] Robert Wells, Personal interview. 3 December 2020.
[22] Reed alone exercise in next chapter.
[23] Robert Wells, Personal interview. 3 December 2020.

> all so coming up with ways of explaining that to someone who can't actually feel it was fascinating, actually.[24]

Speaking with Wells inspired more ideas in regard to using what I had learned about singers and applying them to voicing on the oboe. The way in which Wells described his experience with the student with nerve damage made me wonder how many oboists learning voicing have been presented with very conceptual ideas, but had a difficult time grasping the concept due a lack of understanding on how to achieve a physical sensation they may not be familiar with. Fortunately, the oboists that I had the pleasure of interviewing all brought different experiences and perspectives on how singing and voicing on the oboe have interacted with one another in their own lives as performers and pedagogues. Speaking with Carolyn Hove of the LA Philharmonic, Mary Lynch of the Seattle Symphony, Dr. Andrew Parker of the University of Texas at Austin, and Dr. Jackie Leclair of McGill University only furthered my understanding of the connection between these two worlds.

The way in which the interviewees were taught voicing was a different experience for each of them. Some made connections through singing in choir or taking voice lessons, others were introduced to the concept for the first time in their oboe lessons. Regardless, becoming more knowledgeable about their own singing voice, and subsequently applying that information into voicing on the oboe, was repeatedly noted as being beneficial to have a physical connection to creating a resonant tone when playing. Allowing vs. forcing resonance was discussed as being the key to finding that mind-body connection with the instrument, to feel free and uninhibited, as close as possible to singing while playing the oboe. For Carolyn Hove, who has been playing in the LA Philharmonic since 1988, beginning to take voice lessons only a few years ago

[24] Ibid.

transformed how she connects to her instrument. The way in which her voice teacher showed her how to connect to her own voice allowed for more resonance in her oboe and English horn playing. “From a vocal standpoint, my teacher was trying so hard to get me to understand where my voice needed to be in my throat for resonance. That blew me away and now I understand. It made me think so much more about how I use that when playing oboe and English horn.”

Mary Lynch recalled taking voice lessons during her studies at New England Conservatory, and how learning more about her own voice also taught her how to conceptualize and perform the correlating physical motions more effectively on the oboe.

> Part of my voice lessons included learning about the physiology of what’s happening internally when somebody sings. I remember looking at a diagram of your trachea, the vocal folds, and all that stuff, and that was an image that really stuck with me, just being able to visualize what’s happening internally. That was something I certainly didn’t get from my oboe lessons. I think that helped me conceptualize things in a more realistic, tangible sense.[25]

Andrew Parker was consistently involved in choir and regular voice lessons throughout his youth and collegiate studies, although the application of voicing on the oboe was not something he was overly familiar with early on. The concept of voicing was introduced to him during his studies at Eastman with Richard Killmer, who taught him a basic reed alone exercise that Parker then expanded into his own interpretation.[26] Consistently playing on well crafted, stable, up to pitch reeds is key for voicing and singing on the oboe for Parker. If this is not obtained, a student will have a very difficult time grasping the concept.

> Usually when they’re having a problem playing vocally, it’s because the reed is either too flat, too loose, which is oftentimes flat, but it could also just mean tonally loose, like the tone is very wild and spread, or too resistant, and oftentimes, a combination of those things. And so what happens is then, the student is expending the greatest deal of their energy playing just by kind of having to essentially mash the reed into submission. And when you have to really be tight at that point of vibration, that would be like a singer

[25] Mary Lynch, Personal interview. 4 December 2020.

[26] My interpretation and expansion of this reed alone exercise can be found in next chapter

> trying to sing by constricting their vocal folds, rather than building freedom into them. So, since the reed is sort of the stand in for our vocal folds, we have to be playing on a reed that kind of has enough stability built in, that we can get out of the way of the reed, and allow it to vibrate as it's meant to if we really want to create, resonance and good shape of the tone, good spin in the tone, and good vibrato, and all those things that make it really feel and sound truly vocal.[27]

Jackie Leclair's emphasis on the reed alone reinforces Parker's point. Speaking on the notion of the oboe actually serving as an amplifier for the reed itself, Leclair stated, "Once you plug it into the amplifier that we call the oboe, I think this is actually the oboe. So, I mean, maybe to lose the idea of it's just the reed. No, this is the heart of the instrument. You've got nothing without this, this is the instrument."[28]

The interviewees shared different strategies and approaches that they have tried with their own students to help them understand voicing. For Leclair, having a student simply place their hand on their throat while they sing ascending intervals allows them to feel the physical change of the larynx moving vertically, which has then resulted in more connection while playing intervals on the oboe.

Lynch encourages her students to sing in their lessons to help cultivate their ability to hear something, and then translate that through the oboe.

> When you sing you can get that sensation of playing in the line of your wind which is something that every oboe player has to learn. Every wind player has to learn, and it can be a really illusive concept for some students. So I find that having them sing it and have that sensation of sustaining the phrase with their voice, it's like a more immediate connection to their body than having an instrument in between. So playing in the line of your wind.[29]

[27] Andrew Parker. Personal interview. 4 January 2021.
[28] Jackie Leclair. Personal interview. 4 December 2020.
[29] Mary Lynch, Personal interview. 4 December 2020.

For those students who don't feel comfortable singing, or do not have refined physical control over their voice, Parker emphasizes the importance of listening to and watching singers perform.

> I find that even if you can't really do it yourself, that if you listen and watch singers closely enough over a long enough period of time, you will start to, through osmosis, kind of get a sense of what that must feel like and look like, to sort of support the tone that way, to resonate that way, to use your oral cavity, the top of your head, the forehead, your resonating mask, all of those things. I think students begin to kind of… It may take them a little bit longer. It may not, but as long as they're really listening and watching and studying and observing, they will begin to at least be able to kind of conceptualize those things.[30]

To aid this process, Parker also has his students perform a vocal art song or Lieder on the oboe for studio class. They discuss ways in which they can emote through the oboe and observe the differences in their playing before and after listening to recordings of singers and fully understanding the text. "Even though we're not using any words, we'll talk about what it took to make our playing match the singers a little bit more, and what that means exactly."

Studying the vibrato of singers was also a constant thread amongst the interviewees. Lynch and Parker both spoke of the importance of having vibrato as a part of the line of wind, or also serving as something that reinforces the pitch and stability of the tone as opposed to being placed on top of tone. Lynch recounted learning to conceptualize her vibrato as the relaxation of something as opposed to tensing something, which she had become accustomed to, having originally learned throat vibrato, or a style of vibrato that involves muscle activation in the pharyngeal wall. In a lesson with Linda Strommen at Juilliard, Strommen drew a visual representation of an oboe long tone with vibrato on a chalkboard.

> She drew a line, like this is the pitch, and then she drew waves going underneath the line getting deeper like, progressively deeper and then back to sort of shallow, fast waves.

[30] Andrew Parker, Personal interview. 4 January 2021.

> And she's like "This is a visualization of a long tone with vibrato," and that image has really stuck with me. So I've drawn that for quite a few students of mine too.[31]

Parker's point of view in regards to oboe vibrato is closely aligned with the way in which singers' vibrato is an inherent part of their sound. He spoke about how the best singers' clarity in their sound is never distorted or disturbed by the vibrato, but rather, is reinforced by it. In oboe playing, vibrato can become inflexible, stagnant, and disrupt tone production in younger or inexperienced players. "I hear a lot of autopilot ornamentation on the sound, too fast can make it sound nervous, too slow all the time can actually make the pitch sink or push against the ceiling… It's all about how you conceptualize the placement of the vibrato in the sound."

The oboists who were interviewed for this document were inspiring in their words, ideas, and conviction in their personal, mental, emotional, and physical connections to singing and playing the oboe. My interview with Parker concluded with a beautiful and almost all-encompassing quote of why I chose this particular topic as the focus of my dissertation.

> If there's one thing that I discovered over time in my own practicing and listening, is that more and more, everything about what we do on the oboe really is quite literally, in a lot of ways, the same thing as singing. It's not just an abstract idea or concept that's useful, you know, for musicality or thinking about vibrato. It's that too, but it's how we sculpt our physical landscape, how we shape our oral cavity, how we think about the way we focus our air, the way we use the resonance of our bone structure. All of those things are so similar. When I watch singers sing, and when I listen to them talk about it, I'm like 'yes, that's exactly what I'm doing. That's exactly how I'm trying to feel that and think about that.' I think there's a very literal connection.[32]

[31] Mary Lynch, Personal interview. 4 December 2020.
[32] Andrew Parker, Personal interview. 4 January 2021.

CHAPTER IV: DEVELOPING AND APPLYING VOICING THROUGH SINGING-INSPIRED SOLUTIONS

To gain the singing-like qualities described by the surveyed oboists, approaching oboe fundamentals, with voicing serving as the foundation, helps students avoid "notey-ness" in legato lines, stagnant vibrato that cannot change depth or speed, and a flat, inflexible playing style that is antithetical of a free and flowing singing voice. This chapter will address several common issues within oboe playing - present in all ability levels - and offer exercises and solutions inspired by or derived from singers.

INTRODUCING VOICING

As previously mentioned by many of the participants of the survey and interviews, a singing style within oboe playing consists of a resonant, fully supported tone throughout the entire range of the instrument. The tone is even, and the notes are connected together in a *bel canto style*, with consistency of timbre, even when blowing through large intervals. Oboists who have mastered this ability are utilizing voicing. Particularly in the early stages of their studies, many oboists experience difficulty finding the correct balance of proper vowel shape, air speed and/or density, and reed placement to successfully produce instantaneous, clear, supported, and in-tune sound in the extreme parts of the range. It is common for younger or less experienced oboists, the upper and lower registers of the oboe are usually associated with being pinched and under supported or having difficulty getting the note to speak. Introducing voicing to students of every age and experience level can help them find success earlier on and approach any part of their range with confidence in their ability to create a full, supported, in-tune, beautiful sound on the oboe.

To successfully introduce voicing to a student who may be completely unfamiliar with the concept, peeling back the layers and giving instructions in broken down, specific steps helps the student to internalize and understand its mechanics. While the ultimate goal is to be as expressive and free as possible when playing the oboe, the bare bones of the voicing process begins with the reed itself. The first exercise detailed below can be used with any age of student and ability level to improve support and flexibility through the entire range.

EXERCISE #1 – REED ALONE EXERCISE

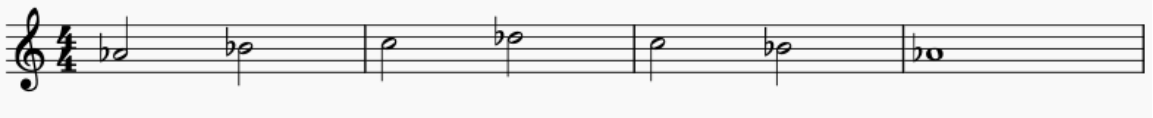
In both of the surveys and interviews that were conducted, the importance of reed alone exercises were stressed amongst several oboists. Reed alone exercises are commonly used as a teaching tool to increase embouchure strength and flexibility, as well as develop strong and controlled air flow while blowing through the reed. There are multiple versions of reed alone exercises, the pitches being produced in the exercise itself being the main variation between them. I have learned several different reed alone exercises throughout the course of my studies, but the specific exercise detailed below is what I believe to be the most beneficial in regard to introducing the concept of voicing.

I learned this original exercise from Andrew Parker, and since then, have expanded it and used it both in my own studies and with students as young as sixth grade. The exercise yields positive results regardless of age or ability level on the oboe. The most common issue that both young and even more mature players face is that of tension in the embouchure, or the use of musculature involvement to overcompensate for lack of proper air support, i.e. biting. Although the oboe does not require a large amount of air to produce a sound due to the small opening of the reed, the significant amount of back pressure commonly causes many players to respond to this invisible force with tensing of the embouchure, jaw, and throat. This particular reed alone

exercise allows a student to learn how to blow into the natural resistance of the reed, and ultimately resonate through the oboe, without sacrificing embouchure integrity, placing the brunt of the physical work on air speed and spacing inside the oral cavity and throat due to the manipulation of the pharynx and larynx through vowel placement.

When asking an oboist to sustain a pitch on their reed alone, the natural tendency, particularly for younger players, is to sound around a B-flat4 to C5. Oboists who carry tension in their embouchure are generally able to raise the pitch of the reed much easier than lower it, for lowering the pitch of the reed requires relaxation, which this reed alone exercise addresses directly. This exercise uses the first four notes of the A-flat major scale, notated below in the corresponding position on the treble clef staff. These four notes correspond with different note ranges on the full scale of the oboe. If one were playing a full range chromatic scale on the oboe and it were possible to hear what the reed[33] itself was sounding independent of the oboe as it ascended and descended throughout the range, these four notes (and all partials of the notes in between each of these), would be what was heard on the reed alone starting from the low B-flat, all the way up to high G.[34]

Figure 3. Full reed alone exercise with vowels



Oh - - - - - - -- - - - - - - - - - - - - Eu- Oh

[33] This exercise description assumes that the reed being used is a working, flexible, and stable reed. Meaning, the reed itself has immediate and easy response, is up to pitch so the oboist does not have to bite. The resistance of the reed is that of not being too difficult to blow through, yet not too easy where an oboist would have to help regulate airflow through the reed by manipulating the opening of the reed with their embouchure.

[34] Video of exercise in Appendix D

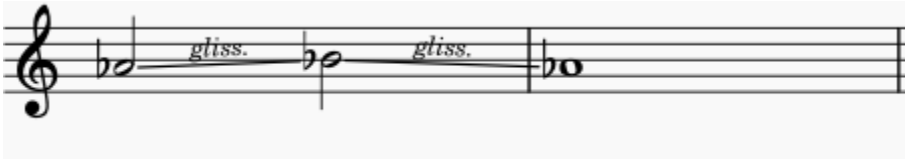
When performing this exercise, I begin by using the vowel shape *Oh*, reshaping my oral cavity space as I ascend in pitch by slightly and very gradually lifting the back of my tongue, ending on an *Eu* shape. Slowly speaking '*Oh Eu'* and noticing the change in tongue and oral cavity shape as you ultimately end up at *Eu* is the same kind of internal feeling that the oboist should be trying to achieve during this exercise. *Oh* keeps the tongue low, and away from the front of the oral cavity, creating lots of space internally. *Eu* lifts the back of the tongue towards the upper molar area of the mouth, while bringing the front of the tongue further forward. The reason for choosing *Eu* over *Ee* for the peak of the exercise, is because *Eu* maintains the roundness and space inside the embouchure while bringing the tongue forward, whereas *Ee* encourages the corners of the embouchure to pull backwards, collapsing the space inside the embouchure. This will make the tone thin, lacking complexity in its color, and result in the student biting down on the reed.

The exercise should be taught by first beginning at the A-flat, and then adding one note at a time as the oboist successfully sounds each subsequent note and then returns to the A-flat. Reaching the A-flat is commonly the most challenging part of this exercise. To fully support the A flat, the oboists should have approximately ⅓ of the reed inside their embouchure and have a fair amount of space between their teeth. To help a student find this position and gain the ability to audiate the pitch before playing on the reed, have the student sing the low A-flat on an *Oh* vowel. Depending on where the oboist's singing range is most comfortable, the specific A flat may vary, but singing the lowest and most comfortable A-flat for them is recommended to maintain space inside the oral cavity and keep the back of the tongue pulled further down. While the oboist is sustaining the low A flat, the lips should then come together to become "Mm," while still maintaining the internal spacing previously set by the *Oh* vowel shape. Once they find

this embouchure shape, they can stop singing, then bring the reed up to their mouths and form their lips around it. To create a seal around the reed, pulling the lips slightly inward is necessary. This will only turn into biting if the *Oh* vowel collapses inside the embouchure. This is the proper voicing for the low A flat. If a student is still having difficulty getting the pitch of reed down low enough to reach an A flat, sustaining a pitch on the reed wherever they initially sound, and then glissing down like a miniature trombone will allow them to feel the opening of their embouchure and lowering of their tongue. To gliss down will require releasing or "spitting out" the reed so only one third remains in the embouchure.

The next note in the exercise is B flat. To raise the pitch of the reed from the A flat, increase the air speed, bring the back of the tongue slightly higher, thinking of gathering the smallest bit of reed with the upper lip. Starting from the A flat, perform these movements in tandem very slowly to hear all of the microtones in between the A flat and the B flat, then to descend, release the upper lip of the embouchure to push the reed back out and lower the back of the tongue to the *Oh* position.

Figure 4. Reed alone exercise, A-flat to B-flat

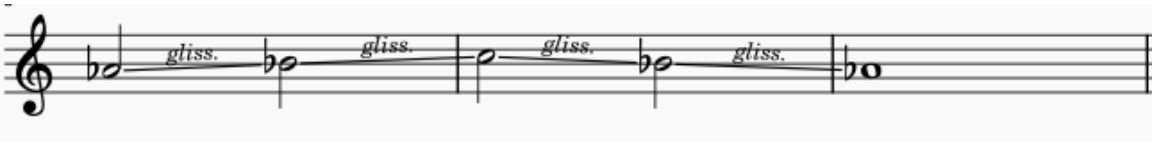


As the pitch ascends, the resistance will increase. Many oboists with air support and embouchure flexibility issues tend to interpret resistance as an uncomfortable and negative aspect of playing. With this exercise, the resistance of the reed allows the oboist to feel the resonance shift on a vertical plane inside their vocal tract, oral cavity, and up against their soft palate. The higher the note, the higher one physically feels the resistance. When playing the

oboe, healthy resistance is necessary. Healthy, meaning, the natural pushback of the oboe is being played on a flexible, responsive, and in tune reed.

The next note in the exercise is C. To keep the note from being flat, air speed must be increased, the back of the tongue should be raised a bit higher to form an *Eu* vowel shape, and another small portion of reed is gathered inside the embouchure. At this point in the exercise, the internal pressure pushing against the oral cavity will increase. The natural tendency in response to this resistance is to collapse the embouchure and bite down on the reed to raise the pitch. This explains the tendency for students to compress their embouchure and produce a pinched and nasally tone when playing around the side octave key note range. By remaining open in the embouchure welcoming this healthy resistance by continuing to blow faster air when achieving this C on the reed, the resistance will turn into resonance felt behind the nose (oropharynx area), much like a singer would feel if they were beginning to shift to their head voice.

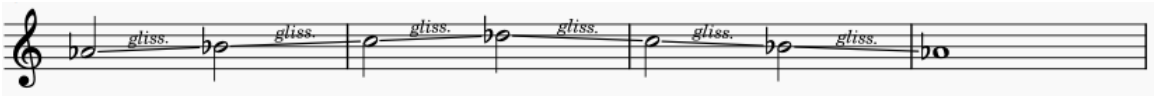
Figure 5. Reed Alone Exercises, A-flat to C



The last note in the exercise is D-flat. It is important to rely on intensifying air speed and maintaining embouchure spacing to achieve all of the separate pitches in this exercise, but particularly in the two highest notes. It becomes more difficult to release the reed from the embouchure as the pitch raises on the reed. Increasing flexibility and control of gathering and releasing the reed through the ascension and descension of the notes in this exercise correlates with better pitch adjustment and evenness of tone through various intervals while playing the oboe. Just as before, remaining open in the oral cavity, while taking in a bit more reed while increasing air speed, will transform the heightened resistance of the D-flat to resonance felt in the

oropharynx (nasal cavity), with some sympathetic sensations in the sinuses due to the intensity of the pressure. With an *Eu* vowel shape, thinking of sending the air stream "up and out" the top of one's head, just as a singer in the upper extremes of their range, will allow the D-flat to be fully supported, and easier to release the reed and lower the tongue back to *Ah* as the reed glisses back down to the A flat. The entire reed alone exercise looks as such.

Figure 6. Full Reed Alone Exercises



Oh - Eu -Oh

When teaching this, advise the student to work on the exercise at the very beginning of any practice session. Preceding scale work with this reed alone exercise is most beneficial as it allows the student to feel the vertical voicing plane in all ranges of the instrument. Mastering this flexibility and control of the oral cavity and vocal tract teaches proper vowel placement and mechanics of voicing.

APPLICATION OF VOICING WITH REED IN OBOE

The next step in learning how to voice throughout the entire range on the oboe is to now insert the reed into the oboe itself. No longer being able to hear the pitch changes of just the reed by itself, in addition to the added resistance of the air now passing through the oboe, supports the idea of becoming comfortable with the reed alone exercise first before applying these new ideas to playing the actual instrument. Just as Jackie Leclair mentioned in her interview, the oboe is the amplifier for the reed itself, so becoming very comfortable with the first exercise is key. It is common for students to associate notes below and above the staff as difficult to articulate and support with proper tone and good intonation. Voicing helps disassociate these specific ranges of

the instrument as being “more difficult” than others. In a lesson with Dr. Erik Ohlsson a few years ago, he spoke with me about the challenging, yet very beneficial skillset to play any possible interval on the oboe, in tune with good tone. By providing the student with specific instructions and skills to know exactly how to approach every note or interval while playing the oboe.

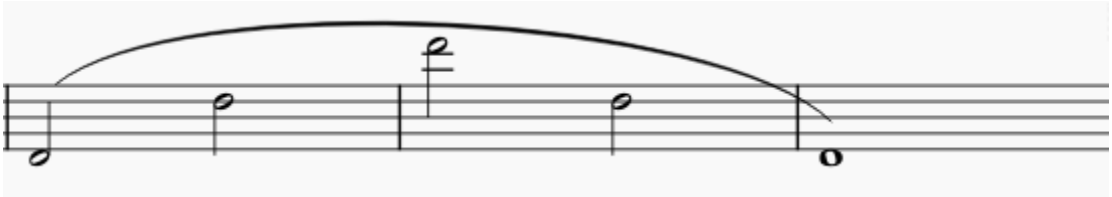
While it is tempting to immediately begin playing scales once the reed is in the oboe, becoming familiar with the resistance and resonance changes while playing in different parts of the range is beneficial. Just as a singer feels these same sensations in different parts of their body when singing in chest, middle, or head voice, the location of where an oboist feels resonance when playing a C4 versus a C6 for example, greatly differs on the oboe. Locating the proper placement of these note ranges in the vocal tract through vowel shapes and proper air speed, allows an oboist to produce sound with the ~~most~~ optimal amount of resonance and ring, regardless of the range.

EXERCISE #2 – SCALES, OCTAVE LEAPS AND INTERVALS

The first section of this exercise can be performed on any note that is able to be played in three separate octaves on the oboe. Starting on low D, to half hole D, and then high D, is the preferred starting point of this exercise, due to blowing through the half hole break and up to the D above the staff being a relatively smooth use of air and fingers to focus on the voicing aspect of the exercise. This exercise incorporates the skills learned from the reed alone exercise, enabling the added resistance of the oboe itself, and allows the oboist to feel the resonance of each note the closest way in which a singer would place and feel their chest voice, mixed voice, and head voice. By slurring through such large intervals in the exercise, this encourages

anticipation of the voicing changes, to fully support the tone through the ascension and descension of the octaves.[35]

Figure 7. Octave Leap Exercise



Oh - - - - - - -- - - - - - - - - - - Eu- Oh

As stated in the surveys, numerous oboists associated a singing style in oboe playing as being fluid, legato, and connected. If this exercise is sounding forced or constricted at first, have the student play each note separately with a new breath and articulation, all while thinking of where each note would lie on the reed alone exercise. Once feeling comfortable with the placement of each note, add the slurs back in, and encourage the student blow into each new resonance space on the way up, focusing on air speed, tongue position, and avoiding throat tension, so that descending back down the octaves can maintain the same tone quality and proper intonation. A common tendency for oboes who carry embouchure and throat tension is to have difficulty letting go of the reed when descending, causing pitch to rise, and thinning tone.

In the survey responses, “playing through the intervals” was listed multiple times by participants as a characteristic of singing through the oboe. Once this octave exercise feels comfortable and secure, working on connecting through any and all intervals allows a student to approach and play any interval that may appear in music with confidence. Most oboists are familiar with learning broken scales in thirds. Getting creative with interval work can be

[35] Video of exercise in Appendix D

beneficial to an oboist's support throughout the entire range. It can also help a student memorize the feeling of shaping their oral cavities in all parts of the range. Below are three examples of interval exercises that can be challenging yet rewarding. For the purpose of these examples, I have shown all interval patterns in the context of C Major; however, these patterns can be applied to any scale.

The first and second exercises are scales in fourths and fifths. These can be practiced both slurred and articulated. This pattern would also descend back to the starting pitch, using the same intervals. Expanding the intervals beyond fifths or applying this to a chromatic scale would also be beneficial. Any and all interval work helps an oboist become familiar with the tendencies of the instrument in regard to pitch, and where they need more support or different vowel shape.

Figure 8. Full Scale Intervals, 4ths

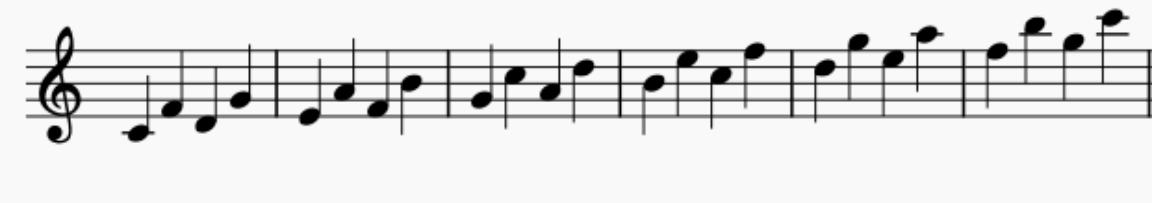
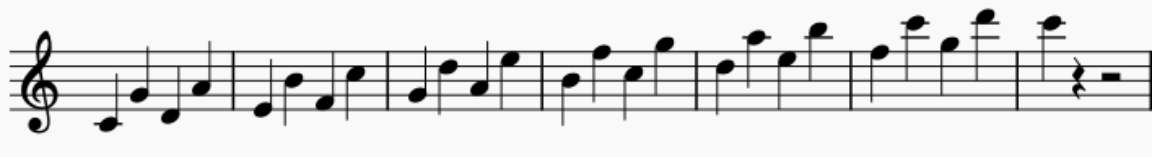


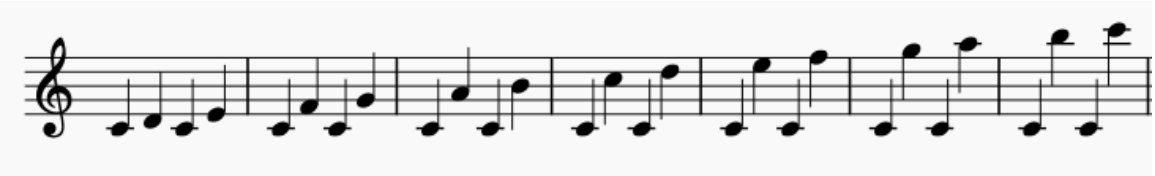
Figure 9. Full Scale Intervals, 5ths



This last interval pattern is quite challenging. Again, this is written in the context of C Major but can be used in any key. The idea of this exercise is to begin on the tonic of the scale, moving up one interval at a time, while always returning to the tonic as the intervals increase. This can be done both slurred and articulated, however slurred greatly increases the difficulty.

This exercise also follows the same pattern as it descends back down the scale to end on the tonic.

Figure 10. Full Scale, Progressive Intervals from Tonic



FLEXIBLE AND SUPPORTIVE TONE

One of the most common problems that oboists of all ages and levels experience, is producing a consistent quality tone on the instrument without physical tension. Many different facets contribute to tone production - opening up or broadening the tone to add complexity, dynamic range, intonation, vibrato, and more. While metaphors and comparisons to singing have been widely used to speak about oboe tone, this is an area where the physiological differences between oboists and singers must be addressed or the risk of unnecessary tension - or worse - physical harm, can be induced.

Before looking into specific exercises for freedom of movement and releasing tension, confronting a common oboe myth surrounding proper tone production is necessary. Most oboists can recall a moment in their studies when they were told that in order to play with more depth and projection to the sound, they must "open their throat." Oboists commonly equate "openness" of the throat with a lack of tension and ease of air movement from the lungs and through the oboe. Because the oboe embouchure encloses around a comparatively small reed opening, the idea of having openness behind it is to enhance the ability to expand the tonal spectrum dynamic and color. While this is a well-intentioned notion, the dangers of "opening the throat" can actually induce other issues that are a result of unneeded muscular constriction due to an attempt

to open a part of the vocal tract that does not serve the same purpose for oboists as it does for singers.

As previously stated, the role of the larynx and pharyngeal cavity greatly differ in wind tone production. When using a broad term like "throat," differentiating the separate components of the vocal tract is no longer the focus in the mind of oboists. The pharyngeal cavity can indeed change shape, but in height and circumference through the position of the tongue, as well as the constrictor muscles lining the pharyngeal wall that aid in swallowing. The latter is a physical movement that oboists need not employ to produce tone. Employing the constrictor muscles may be a result of misunderstanding the intention behind opening the throat, and can carry the potential to become an automatic action that is existing within what is thought to be proper fundamentals of oboe playing.

Dr. Stephen Caplan, Professor Oboe at the University of Nevada, Las Vegas and author of *OboeMotions*, mentions the very dangers of this idea in oboe playing. To experience the feeling of pharyngeal constriction, Kaplan uses the examples of "sucking in air" and taking a deep, foggy breath, where the tendency of younger players or those with inefficient breathing is to constrict the back of the throat. The involvement of the pharyngeal muscles is easy to detect in both of these scenarios. However, taking a full breath, free from tension, does not require these muscles. Kaplan warns against these kinds of breathing habits, or what he refers to as "swallowing air." This is not only unnecessary movement, but also gives the illusion of tension-free playing when the muscle constriction is released upon the blowing of the air. This can cause an oboist to feel that their throat is "open," but only through the physical comparison of the previously constricted air passage in their pharyngeal cavity.

One may argue that "opening the throat" has had a positive effect on their playing. The challenge to this is that however an oboist is performing this action, the internal movement is unable to be viewed or detected by a teacher. Unfortunately, poor fundamentals can go undetected for long periods of time, and can result in causing tension when playing, and even great discomfort that begins to exist outside of playing the oboe. The previously mentioned Eckley study concluded that discomfort and injury from throat strain and tension was reported more often by oboists with less playing experience. The study also concluded that air management was controlled by the opening and closing of the glottis, and not pharyngeal musical involvement/constriction.

This is not to say that the pharyngeal cavity bears no significance in tone production. It is involved, but its participation is contingent upon its surrounding neighbors, the oral cavity, tongue position, and larynx. Vowel shaping, implemented by tongue placement, raises and lowers the larynx, subsequently affecting the size of the pharyngeal cavity. In singing, the pharyngeal cavity is a sound resonator for the vibrating vocal folds. In oboe playing, the air passes through the double reed, which is operating in a similar fashion to the vocal folds by vibrating together to produce tone, and then being resonated externally by the instrument itself.

So how does an oboist identify - either within their own playing or by observing this issue in a student - when a muscular obstruction in the vocal tract is impeding the ability for an oboist to produce tone properly, without tension? Although muscle constriction in the throat can cause physical strain, audible clues can assist in detecting the issue. "Grunts" or glottal attacks (vocal fold activation) at the beginning of or within the tone itself can be a sign that an oboist is employing unnecessary muscle usage. Another indicator of constriction is when a player is unable or having great difficulty increasing or decreasing their volume. Veazey's laryngoscopic

study of vocal tract activity in woodwind playing possessed a dynamic component, where the tongue movement of wind players producing tone at different dynamic levels was observed. In all of the instrumentalists, tongue movement - albeit varying slightly for each instrument - was involved in dynamic shifts.

EXERCISE #3 – DIAGNOSIS AND FREEING OF PHARYNGEAL AND ABDOMINAL CONSTRICTION

Singing tone on the oboe cannot be produced if physical tension is present in the vocal tract. If so, the tone will be inflexible and stagnant, making it difficult to manipulate the speed and depth of vibrato. This is due to the pharyngeal cavity having a direct impact on ease of tongue movement and positioning. If tongue movement is impeded or compromised while playing the oboe, accessibility to tone color variance, dynamics, and intonation adjustment are significantly limited, if not impossible.

In singing, the ability to rotate one's head back and forth while vocalizing without pitch changes or tone distortion signifies that the pharyngeal cavity is not restricting airflow or physical movement. Although an oboist's vocal folds are not actively vibrating when air passes through the glottis, this same idea can apply to diagnosing potential pharyngeal cavity activation. Along this same line, the abdominal muscles - while engaged during exhalation - should not be impeding upon the ability to rotate one's torso from the waist. Singers implement physical movement into their performance while conveying a character in an art song or an opera role. Being locked at the waist, due to abdominal wall inflexibility, adds limitations to a singer's expressivity - both musically and physically.

Due to the need for stability in the embouchure surrounding the double reed, the upper body of an oboist does not have as much freedom of movement without the sound being affected as that of a singer; however, the difference between the choice to move and the ability to move

while producing sound is important. This freedom of movement while playing the oboe indicates that no major muscle groups are unnecessarily activated, since they should not be involved in tone production. It is no coincidence that many of the world's greatest oboists are also quite physically animated as they play. This includes movement of the neck and torso. While rotating the neck side to side to the extreme ends of its range of motion would negatively affect the sound, the mobility of the neck should be accessible for an oboist while producing an in-tune, supported tone. The same rules apply to abdominal flexibility and rotational capability.

It is quite common to physically confuse support with tension in oboe playing, and this can affect oboists of all ages and ability levels at different points in time. Many oboists would agree that to produce quality, flexible, expressive tone, one must also feel physically flexible and free when playing. In short, good oboe playing should also feel good on a physical level. Unnecessary tension can cause a waterfall of physical problems such as overuse injuries in different parts of the body, which in turn can induce negative mental symptoms such as frustration with one's playing and lack of focus. Doing simple check-ins on one's tension level when playing the oboe can help diagnose issues such as unnecessary musculature involvement, or even expose inadequacies in the reed, such as lacking flexibility, pitch stability, or possessing too little or much resistance, which is then compensated for in other parts of the body.

The first tension check is in the vocal tract.[36] This movement is very simple but feels quite odd at first since most oboists do not purposely attempt to move this part of the body while playing. I recommend these movements be included as part of a warm-up routine. Long tones and slow legato scales are best for tension check exercises. Setting the tone for a quality practice session from the very beginning should transfer from our warm-up into our etude or solo work.

[36] Video of exercise in Appendix D

A solution for singers who carry tension in their vocal tract is to vocalize while also gently rotating their head, comfortably, and slowly from left to right. If free of tension, tone should remain unchanged in quality and intonation, not pinched, and vibrato should still be accessible. This should be the ideal physical scenario for oboists as well. As previously mentioned, sharp movements of this part of the body can cause the reed to be jostled, which immediately affects intonation and tone, but attempting to master this movement in a slow warm-up at a comfortable dynamic can carry into all other facets of playing the oboe with freedom and expression.[37]

A great way to start off with this exercise is to pick a scale that is appropriate for the ability level of the player (one vs. two octaves, less challenging keys), playing each note for eight counts at a moderate tempo. For each note played, slowly turn the head to one side, approximately forty-five degrees or wherever it remains comfortable and not strained for the individual, then rotate to the other side on the next note. As the scale ascends and resistance naturally increases, this exercise will quickly reveal if tension is being harnessed in the vocal tract alongside the rising air pressure, by hearing dynamics drop, pitch fluctuating drastically, or tone color becoming more thin and brittle as the player ascends. If feeling tension in the vocal tract, vowel shape and air speed may need readjusting to allow the oboe to resonate, as opposed to forcing sound. Once this is comfortable, the exercise can be made more challenging by playing in different dynamic levels and also adding vibrato.

[37] Reeds are personalized to every oboist, and levels of resistance vary between persons. My reeds sit high in the crow, (almost a C#), are very light, and free blowing. When testing a reed, I also briefly play from the sides of my mouth, to ensure that the reed is very stable without much embouchure reinforcement. This exercise not only reveals how much tension is present, but also the ease, stability, and reliability of the reed itself. Moving the neck side-to-side may have a different effect on harder more resistant reeds, but the exercise works well with a lighter reed style.

This same exercise can be applied to torso movement.[38] If an oboist cannot rotate from the waist while playing, the abdominal muscles have surpassed supporting, and ventured into constricting. The abdominal muscles are necessary for air to exit the lungs but should still have access to rotational movement. The same exercise with the neck can be done with a bit more flexibility with the torso rotation. Try rotating while doing a long tone or scale exercise. Additionally, this tension check could be used while practicing repertoire since the reed is in a stable position and movement from the waist can now be more broad.

If a student is having difficulty doing this exercise with the oboe, scaling it back to just the reed alone can help diagnose what may be causing problems. Doing the reed alone exercise with these rotations can detect whether the problem is with the air flow, presence of tension, or the possibility of a reed being non-responsive or too resistant.

VIBRATO PRODUCTION, FREEDOM, AND CONTROL

Vibrato on the oboe is a necessary skill to add color and dimension to one's playing. Some students naturally develop vibrato on their own through experimentation, but all can benefit from going through the process of learning how to produce vibrato in a healthy way. Healthy vibrato is categorized by its flexibility in terms of speed variance, which is contingent upon its ability to vertically "shift" with the larynx, allowing an oboist to have choice in their placement or resonating space; or where the physical sensation of the vibrato is felt. The oscillations must not be layered on top of the air stream, but incorporated into the wind itself, just as a singer's vibrato is an inherent component of their sound production.

[38] Video of exercise in Appendix D

I have spoken with many oboists who have had to make fundamental adjustments to their vibrato, years after they had already been incorporating it into their playing. The reason for this is likely associated with how vibrato is commonly thought of and taught early on. Many oboists are familiar with being instructed to "pulse air from their diaphragm" to cause a surge of air to produce the oscillations, when in actuality, the diaphragm is an involuntary muscle that is only engaged in inhalation, not exhalation of air. A common beginning vibrato exercise is to have the student to think and perform "huh huh huh" with support from what is said to be the diaphragm, resulting in the oboist learning quite physically involved vibrato. This also enforces a form of vibrato that is conceptualized and originates very low in the abdomen. Thus, a rather heavy and inflexible kind of vibrato is learned, which does not allow an oboist to adjust the speed with much ease. There are times when low, more weighted vibrato is appropriate, but by only possessing one speed and intensity of vibrato, the options within an oboists' musical coloring palate is greatly decreased. This kind of vibrato is also more difficult to implement in the softer dynamic range and can feel more tedious to initiate at the very beginning of tone production, causing the vibrato to be delayed.

Laryngoscope studies of woodwind players by both Mukai and Veazey, found that vibrato on oboe originates in the larynx, the opening and closing of the glottis regulating the air flow exiting the lungs. One of the reasons that some oboists may have gravitated towards a relatively physical vibrato is the fact that while the glottic opening is able to be voluntarily controlled when blowing air, the actual movement of the glottic opening is not able to be physically felt. Seeking the tangible evidence of vibrato within the body (low set or abdominal) could very well be an excessive compensatory mechanism that is coinciding with the movement

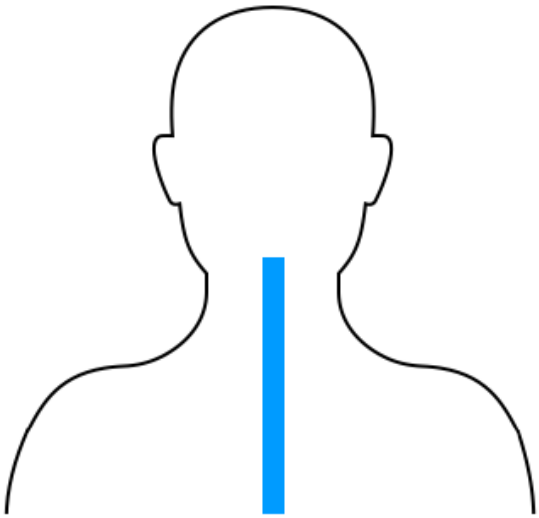
of the glottic opening, giving the illusion of controlling vibrato in areas of the body that are not actually adding much assistance to the management of airflow.

EXERCISE #4 – VIBRATO FLEXIBILITY AND VARIATION THROUGHOUT THE ENTIRE RANGE

In both the interviews and surveys, the idea of vibrato existing on an "elevator" appeared multiple times. Instead of learning vibrato from solely abdominal pulses, thinking of the vibrato existing from the chest (middle of sternum) to the top of the neck prevents vibrato from being too physically involved and inflexible.

Much like a singer feels the resonance of vibrato in the lower part of their range in the chest, compared to singing at the upper end of their range in their head voice and feeling it resonating in their face, oboists should strive for this kind of flexibility and tangibility in their vibrato production.

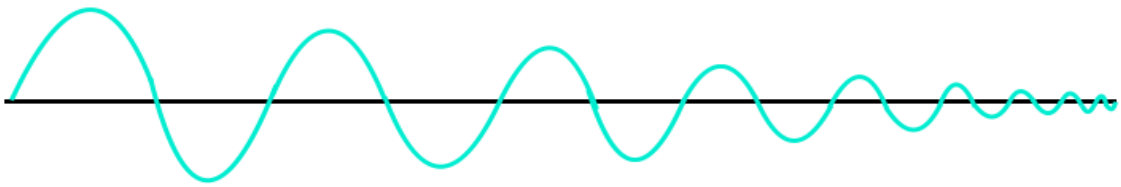
Figure 11. Graphic by Kelley Tracz, air column "elevator" for proper placement of vibrato conceptualization.



With the “huh huh huh” exercise, oboe students tend to slow down, or stop the air completely to produce those pulses, increasing the need for more forceful movement in the abdomen. While purely abdominal-driven vibrato is not ideal, the abdominal wall is engaged in any kind of blowing of air from the lungs. Thinking of the abdominal wall as the structural foundation for the elevator to move up and down from, keeps these muscles engaged and supporting the air, as opposed to over tensing and restricting the ability to still move side to side, as the previous exercise detailed.

Vibrato was a major point of discussion in the interview portion of my research. There were several commonalities between the oboists in regard to how they conceptualized a vibrato and compared it to a singer’s, but the main objective in producing natural sounding, singing vibrato was to have the vibrato exist within the line of wind itself, just as a singer’s vibrato is an inherent part of their sound. Below is a visual representation of flexible vibrato that contains stable, supported tone at its core.

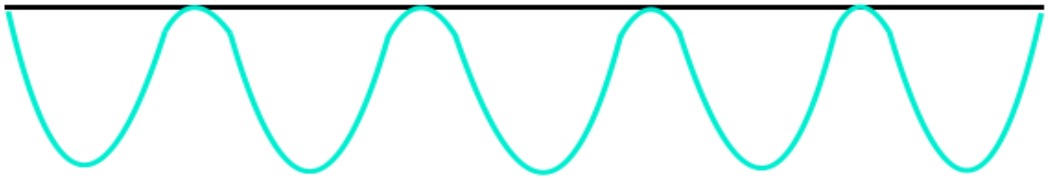
Figure 12. Natural vibrato, gradually increasing in speed. Inspired by Mary Lynch’s account of what she learned from Linda Strommen



Antithetical to this kind of vibrato are two common types that Dr. Parker spoke of in his interview: Fast nervous vibrato that is pressed on top of the tone (figure 13), and slow wobbling vibrato that hangs below (figure 14). Not only are both inflexible, but they can greatly distort pitch by pushing it up against the ceiling or weakening the air support and causing the pitch to go very flat or dull.

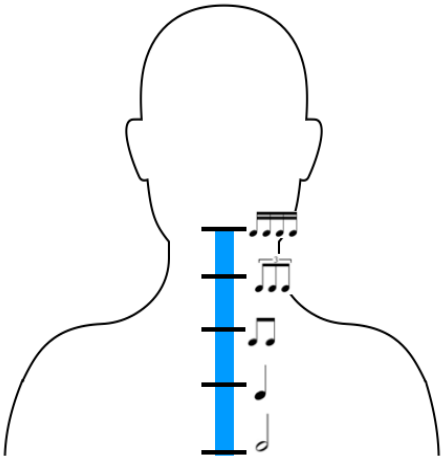
Figure 13. Fast, nervous sounding vibrato, existing on top of the line of wind

Figure 14. Slow, wobbly vibrato, sagging below the line of wind



There are two main components to this exercise. The first: Helping the oboist find and feel the vibrato placement in their "elevator," by assigning note values to be conceptualized as pulsing from certain parts of the neck or chest. As you can see from below, the quicker the note value, the higher it is conceptualized and placed within the elevator.

Figure 15. Vibrato air column "elevator" with note values

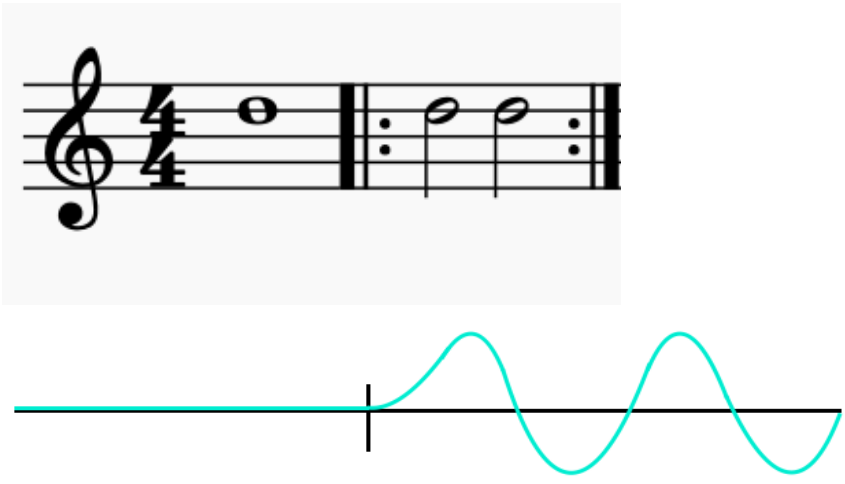


Second: Integrating the pulses into a constant, ever flowing stream of air by introducing certain rhythmic combinations that require constantly moving air, and also including visual aids for students who are having difficulty conceptualizing vibrato within the line of wind.

The following exercise can be done on any note, as different levels of resistance exist throughout the range of the instrument.[39] However, I have chosen half hole D for the rhythmic notation of this exercise, due its median level of resistance and ease. 60 - 80 bpm is a good tempo range to begin this exercise with, and a metronome should be used throughout. The tempo can be increased or decreased, depending on student need and progress. This exercise is progressive, as it increases in subdivisions each step of the way. Video and audio examples of the following exercises are listed in the Appendix.

To establish the free blowing, supported, stable air, have the student play a whole note before each rhythmic pattern. This ensures that the air is moving, and the pulses will have a solid foundation to emerge from. The first note pattern is simple half notes. These half notes should be conceptualized as coming from the middle of the sternum. Engaging the abdomen as a base of support for air, but thinking of the placement of the vibrato, is key to keeping it from only pulsing from down low. Having a visual representation of both the air and the pulses, can help the student conceptualize their consistent air flow and see how the vibrato relates to it.

Figure 16. Vibrato exercise with half note subdivision, Graphic of vibrato exercise with half note subdivision



[39] Video of exercise in Appendix D

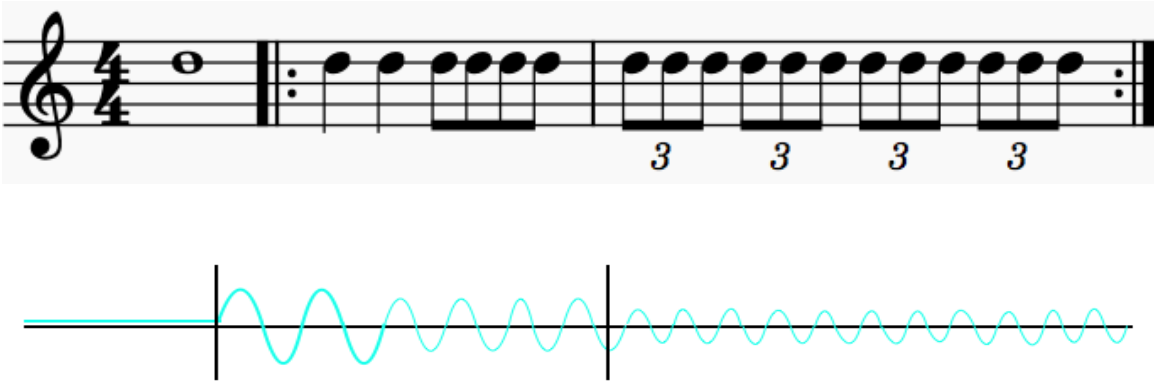
Each exercise increases in note value, while still beginning with a whole note to ensure that the air is “set” before pulsing. Next, add quarter note pulses, while conceptualizing the pulses originating from the collarbone region of the elevator. As previously mentioned, the increase in note value will correlate with upward placement of the vibrato within the air column elevator. The next step involves eighth notes, which are to be conceptualized in the collarbone region of the oboist.

Figure 17. Vibrato exercise with quarter note subdivision, Graphic of vibrato exercise with quarter note subdivision

Figure 18. Vibrato exercise with eighth note subdivision, Graphic of vibrato exercise with eighth note subdivision

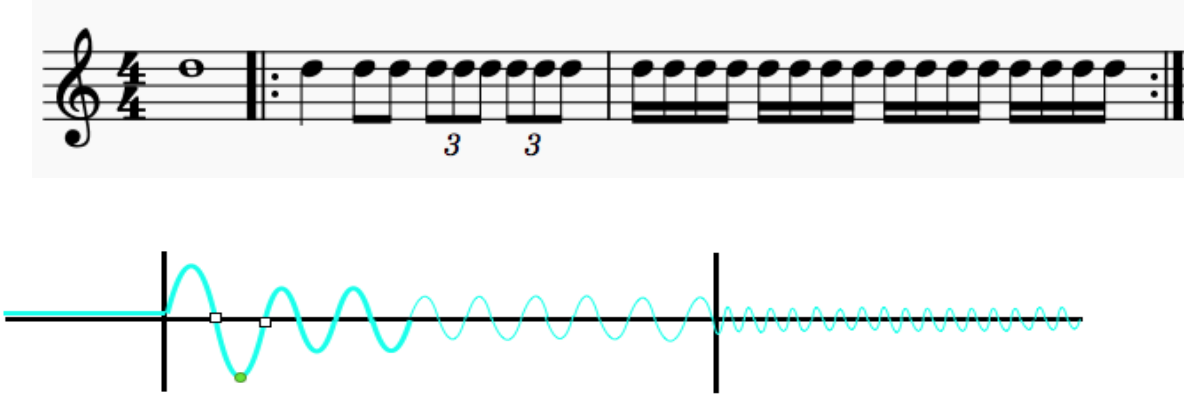
After eighth notes, the oboist should increase the vibrato speed by subdividing the pulsations in triplets, which are to be placed in the neck area of the vibrato elevator.

Figure 19. Vibrato exercise with triplet subdivision, Graphic of vibrato exercise with eighth note subdivision



Lastly, the placement of sixteenth notes exists in the highest portion of the elevator, being conceptualized and originating from the top of the neck, or directly under the chin.

Figure 20. Vibrato exercise with sixteenth note subdivision, Graphic of vibrato exercise with eighth note subdivision



As a student becomes more comfortable with these exercises, they will be able to utilize this newfound flexibility and freedom in their vibrato. Vibrato will begin to feel like a core part of their sound, as opposed to a separate component of their playing. This provides the oboist with more options in their musical coloring palate, giving them access to more effective expression and a singing-like quality in their oboe playing.

CHAPTER V: CONCLUSION

Throughout the course of my research and writing, I received an immense amount of support and encouragement from the oboe community, which was indicated by the overwhelming excitement and curiosity expressed within the interviews and surveys. This positive feedback affirmed that this topic is in need of further attention and can benefit students and teachers of the oboe alike. The introduction of this document outlined the following questions that I had hoped to find answers to by the end of this process.

1) How common is voicing used by oboists today?
2) How do oboists define voicing on the instrument?
3) Can voicing be taught to oboists of any age or ability level?
4) Is vocal training necessary to learn how to use voicing and feel a strong connection to singing while playing the oboe?
5) What are some effective voicing exercises that can be taught to and used by performers, teachers, and students alike?

I am pleased that all of these questions were able to be addressed in some capacity, despite the limitations of the pandemic. To begin, oboe professionals are familiar with voicing, but there are differences in what it means to them and how they think about and use it in their own playing and teaching. The ways in which oboists define voicing, varying between players, all possessed commonalities that alluded to achieving the same goal, knowing how to use their vocal tract in the most effective way, which allows the oboist to have the same flexibility, expressivity, and freedom as that of a singer. Everyone possessed their own conceptualization

and approach, yet the emphasis on the importance of voicing in being a major component in achieving a singing style in oboe playing was prominent in the interviews and surveys.

According to the survey, the majority of oboists believe that voicing can be used in teaching from a very early age, although how one would approach this in lessons would be fairly unique based on a case-by-case basis. This was supported by the majority of participants not believing that an oboist had to be a trained singer to develop a singing quality in their playing, although the ability to match pitch and have a decent amount of control over one's voice was stated as being a desired skill in the oboist. However, differentiating between a student who cannot physically control singing tone through knowing how to use their vocal folds vs. the student not being able to actually hear the pitch in their head can be a disqualifier for being able to understand and retain this information. Finally, the exercises that I created or expanded upon from existing material, were developed from the research I conducted. My findings allowed me to understand and implement better approaches to help students improve their voicing abilities on the oboe, regardless of their age or ability.

FURTHER RESEARCH

Moving forward, there are a few aspects of this document of which would benefit from conducting further research and expand into new territory to add to the currently available information as well. First, performing a laryngoscopic study on oboists as its sole subject would allow more data and information to be gathered in regard to how the vocal tract is used, affected by certain internal movements, and interacts in terms of human anatomy. In my research, I was able to come to my own conclusions through commonalities and questions that I was able to address through the process of elimination and numerous sources. However, having access to footage and additional knowledge in the form of an oboe laryngoscopic study would allow for

more concrete inferences to be made to fully understand the internal workings of what it means to voice and use the vocal tract while playing the oboe. Several of the studies I came across made associations between wind instruments that possess a high amount of air resistance within the vocal tract while playing and the impact of tongue position on tone production. This leads me to hypothesize that studying the vocal tract of oboists specifically could provide even more detailed information that would expand and improve upon our existing knowledge of voicing.

Secondly, due to COVID-19 restrictions, I was not able to conduct in-person research. Looking forward, taking voice lessons to improve the control and flexibility of my own voice in conjunction with researching vocal tract usage when playing the oboe will allow for further connections to be made between the two, both from a physical and psychological perspective. This knowledge will be critical in creating more exercises to present voicing to oboists in more tangible and straightforward ways.

Lastly, the ability to teach in-person lessons with oboe students of varying age, ability level, and learning style, would expand and improve upon the current exercises. Through working with and observing the results in oboe students that possess different physical and learning style variations, the effectiveness of the developed exercises could be tested, and necessary improvements made if needed.

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APPENDIX A: SURVEY QUESTIONS AND PROMPTS

1. Name
2. Current Position/Job
3. Have you ever received vocal training or have a vocal background? If yes, what is your experience?
4. What defines a singing/vocal quality in wind playing, oboe specifically?
5. What types of differences would you see or hear in an oboist achieving a singing quality in their playing vs. another who does not achieve the same type of effect?
6. Were there any vocal techniques like voicing or others, utilized in your own studies on oboe? If so, how did they assist in your development as an oboist?
7. What types of exercises would you use to help a student achieve a more singing quality in their playing?
8. Can equipment inhibit a singing quality in oboe playing? If so, in what ways? (Reed style, oboe issues, physical issues)

APPENDIX B: SURVEY PARTICIPANTS

Euridice Alvarez, Professor of Oboe at Baylor University

Nancy Ambrose King, Professor of Oboe at the University of Michigan

Mary Ashley Barret, Professor Oboe the University of North Carolina at Greensboro

Emily Brebach, Solo English horn of Atlanta Symphony Orchestra

Stephen Caplan, Professor of Oboe at the University of Nevada at Las Vegas

Sara Fraker, Professor of Oboe at the University of Arizona

Sarah Hamilton, Professor of Oboe at the State University of New York at Fredonia

Erin Hannigan, Principal Oboe of Dallas Symphony

Mark Hill, Professor of Oboe at the University of Maryland

Carolyn Hove, Solo English horn of the Los Angeles Philharmonic

Jackie Leclair, Professor of Oboe at McGill University

Nora Lewis, Professor of Oboe at Lawrence Conservatory

Mary Lynch, Principal Oboe of Seattle Symphony

Galit Kaunitz, Professor of Oboe at the University of Southern Mississippi

Richard Killmer, Professor of Oboe at The Eastman School of Music

Bill McMullen, Professor of Oboe at the University of Nebraska at Lincoln

Mark Ostoich, retiring Professor of Oboe at Cincinnati Conservatory

Andrew Parker, Professor of Oboe at the University of Texas at Austin

Jennifer Stucki, Professor of Oboe at the University of Wyoming

Matt Sullivan, Professor of Oboe at New York University

APPENDIX C: GLOSSARY

Bel Canto - Italian for "beautiful singing," this term is used to describe operatic singing, with an emphasis on long, lush, connected lines. Originating in the sixteenth through early nineteenth centuries, *bel canto* singing focuses on precise control of vocal intensity. This style of singing preceded 20th century singing style that was in favor of a heavier and more dramatic approach.

Diaphragm - A dome-shaped muscular structure that separates the chest cavity from the abdominal cavities, which contracts during inhalation.

Epiglottis - A flap of cartilage at the base of the tongue that covers the opening of the windpipe during swallowing.

Glottis - The space in between the vocal folds which can expand or contract to affect airflow.

Laryngoscope - A flexible tube equipped with a light that can be inserted into the oral or nasal cavity and down the back of the throat to observe the pharynx and larynx.

Larynx - Also known as the voice box, this is the hollow passageway between the pharynx and the trachea that houses the vocal folds.

Oral Cavity - The orifice in which food and air enters the body, the space between the lips and hard palate inside the mouth.

Pharynx - A tube-shaped passageway that connects the oral and nasal cavities with esophagus and larynx.

Trachea - Also called the windpipe, this tube connects the larynx to the lungs.

Vocal Folds - Also referred to as the vocal cords, are two bands of smooth muscle tissue that lay horizontally across the larynx and vibrate together during speech or singing.

Vocal Tract - Consisting of the oral cavity, tongue, and pharynx, this passageway above the larynx has the ability to change shape and is the resonating space for the vibrations from the vocal folds to be transmitted through.

Voicing - The way in which a wind player manipulates and uses their vocal tract (the internal space above the vocal folds. i.e. oral cavity, tongue, pharynx) to manipulate characteristics of sound and also ease tone production.

APPENDIX D: YOUTUBE LINKS FOR EXERCISES

Reed Alone Exercise: https://www.youtube.com/watch?v=xGkEWtKyxvE

Octave Leap - https://www.youtube.com/watch?v=Xs1kA4ztFg8

Tension Check (neck) - https://www.youtube.com/watch?v=MAzCGCmGMvI

Tension Check (waist) - https://www.youtube.com/watch?v=eT98kMikcN4

Vibrato Exercise #1 - https://www.youtube.com/watch?v=7fre47E6ZPc

Vibrato Exercise #2 - https://www.youtube.com/watch?v=htA9CwlcC6U

Vibrato Exercise #3 - https://www.youtube.com/watch?v=ekkFd5RzpMM

Vibrato Exercise #4 - https://www.youtube.com/watch?v=OLPnApwemco

Vibrato Exercise #5 - https://www.youtube.com/watch?v=cv1FCntpxXk

APPENDIX E: DR. ROBERT WELLS – PROFESSOR OF VOICE AT THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO INTERVIEW EXCERPT TRANSCRIPTION, DECEMBER 3RD, 2020

KT: So as a voice teacher and a vocalist, how do you define voicing for singers?

RW: Well it's kind of an interesting question because I don't think we use that term, right? So we talk about things like resonance and placement and sort of separate or differentiate between things that happen in the larynx where the sound is actually produced and then everything that happens above it which is where articulation happens, resonance happens where we change the shape of our resonating space right? We change our resonator, our instrument, and for the oboe and that doesn't change much. But everything that we do as singers really requires us to manipulate the vocal tract. If we just simply changing vowel sounds is changing the shape of the resonating space so we talk about it in terms of vowel articulation, vowel tuning, resonance and resonance placement, breath flow, those kinds of things.

KT: In regards to vowel usage, with oboe we do a lot of that and everyone utilizes different vowels for them. Some kind of correlation with, you know, we have the reed so we can't really do much with the shape of the front of our embouchure. It's all on the inside. So when we do things like playing up in the, kind of the stratosphere, I lift my tongue a little bit and it's just a different shape. But if I think *Ee*, which, you know, is what a singer might do for certain phrases and things, that implements biting on the reed which is a no-no for us. (laugh)

RW: Right.

KT: Which gets rid of the resonance cause as soon as we do that, it totally takes out the the bottom portion of our sound.

RW: Right.

KT: So in different vowel shapes, if you are trying to increase resonance or change the color, can you just talk on that a little bit in kind of how you use vowel shapes?

RW: Sure. So for singers, vowel articulation is really determined by the position of the arch of the tongue. So like for an *Ee* vowel, the arch of the tongue is going to be high in the front of the mouth. For an *Ooh* sound, the arch of the tongue is going to be higher father back in the mouth, right? That's kind of the two big extremes. *Ooh* is the farthest back and *Ee* the farthest forward and then the vowels that occur in between, right, *Ee, Ih, Ai, Eh,* and *Ah*, the arch of the tongue is slightly lower and slightly farther back for each of those vowels. And for the back vowels, *Ooh*, *Uh*, *Oh*, *Aw*, and then *Ah*, the arch of the tongue again, gradually lowers but the arch of the tongue is relatively farther back in the mouth for those vowels.

So if we're changing vowels or if we want to improve resonance, we can do that by adjusting the position of the arch of the tongue without moving the jaw or by doing a little bit of both, right, so moving the jaw and moving the tongue. It gets a little bit more complicated for treble voices, sopranos, and mezzo-sopranos when they sing higher, because they also have to think about modifying, because you can't sing, like you said, you can't do an *Ee* vowel with the reed in your mouth because if it, if it impacts what happens with you for biting on the reed or for resonance purposes. There are certain limitations for certain vowels for higher frequencies, so sopranos are constantly modifying, right, actually adjusting the position of the arch of the tongue for more efficient resonance the higher they go. So it's a slightly larger opening, the jaw drops farther as you go higher, and the vowels will adjust towards more open tube vowels. In general terms, more toward, toward ah or an uh vowel, if you're going you know stratospheric for a soprano, the impact of that is that the resonance more proficient and the listener actually is going to hear a vowel that's pretty close to the target vowel. So even though it may not appear that they're articulating an *Ee* vowel, you, as the listener, would hear something that sounds pretty close to an *Ee* vowel.

KT: Okay. Yeah that's interesting too because oboe is pretty much the same range as a soprano.

RW: Right.

KT: Our third octave, high E above the staff & higher in that area is really towards our top end so we think of a lot of those things. When I was taking voice lessons in undergrad, I remember one year, just for scheduling purposes, my oboe and voice lessons had to be back to back. And it was kind of a disaster (RW chuckles) but also shed some light on many, many things...

RW: Right.

KT: ...and it caused me to have to address some things in both realms. But I remember the biggest thing that I would come in from oboe lesson and my oboe teacher and I would start singing and she would be like "Lay on the floor and pull your jaw back" and we'd spend the whole lesson laying on the floor, undoing my oboe lesson. However, after kind of reshaping my reeds and doing some work on just fundamental changes, my oboe playing has gotten a lot closer to how I would sing. And the main thing when I was in undergrad was I was playing on these reeds that didn't allow me to be totally free and flexible. I could fool people a lot because I had a really dark sound and everyone was like "Oooh oh my God , dark sound," but they didn't know how hard I was working.

So with all of the surveys that I'm reading, everyone is talking about this freedom physically and the ability to get away from the instrument as much as possible. It's like the goal is that we want

to feel like we're not having to control an instrument. It's just that it's coming from within us and we're either connected or we're not even thinking about it at all.

RW: Right.

KT: So something that they had me do, I remember, was my oboe teacher asked me if I could play a scale and move side to side from my torso and I couldn't do it, which was eye opening and learning how to detach that way. And so I wanted to know about signs of, like, strain or kind of locking up that you would see in singers, and solutions you would have for them.

RW: So actually that's very interesting. I was going to ask which lesson came first, your oboe lesson or your voice lesson?

KT: Oboe lesson, yep.

RW: Ah oboe, yeah. It would have been interesting to flip them and see what would have happened if you'd done them the opposite.

KT: Yeah.

RW: But the other thing you just kind of did that torso move, right. I actually do exactly the same thing with my singers right? Have them do the twist so they're really just rotating their hips and keeping the upper body because we talk about breath in very similar ways right. Feeling expansion low around the abdomen and keeping that expansion as your singing. So for me if I see areas of tension when someone is singing, I work actually with a lot of movement with my singers so we move the things that are tense, right. So it can manifest any number of ways. If the tongue tends to want to retract or constrict and get narrow when somebody sings, we actually move the tongue in the mouth while they're singing. Move varying parts of the body. If there's tension here that's related to alignment kind of issues, we do some upper body movement first to break down the tension and then to find a more efficient alignment position. So it's really just a matter of, for me anyway, sort of identifying the specific location of the tension. And sometimes what shows up as a visible sign of tension is actually a symptom that the cause is actually a little bit deeper or a little bit earlier in the process or farther down in the body. So it's important to find out what the source of it is and then to actually use some kind of movement. We do a lot of footwork and legwork. That kind of thing. Just walking in place or doing some high step walking which frees up tension around the lower torso and around the hips which again, is something we have to think about for breathing purposes and also because we move a lot right. Particularly in stage work the whole body has to be free. So that's at least one way of going about it.

Another thing that often happens with singers, and I think also with wind players in general, is that we tend to see tension arise from inefficiencies in air flow. So if either the air flow is there's too much pressure, too much valving that happens in the larynx, we work on it in those terms right. So by changing the breath coordination and the breath management so working on breath flow to alleviate tensions is another big kind of source.

KT: I notice this a lot with oboe players who are really tense, who can't move. Their air just gets locked up. And with singing and oboe, I mean the biggest difference is that there's no resistance in singing where you kind of have to create your own resistance sometimes. And oboe and horn are the most resistant wind instruments so we are having to take in massive amounts of air to achieve the speed, the air that we need.

RW: Right.

KT: But a lot of times we're having to exhale mid-phrase. Otherwise, we get, what Dr. Barrett and I both call getting stacked with air. It's like trying to fill up a full glass of water, so you're just in trouble when that happens. So usually oboists who don't have that ability yet to let air out and still realize they still have a lot left, you'll see someone and they just kind of totally lock up.

RW: Right.

KT: So I've had students before try and move side to side. Dr. Barrett had me stand on a chair, which was kind of terrifying in a lesson but it was good (both laughing). It fixed a lot of issues but she was making a point but it was a little scary but it worked. I wouldn't have a young student do that but it was good.

I had a question for you. In terms of introducing voicing to a younger student and your experience working with more inexperienced singers, introducing vowel shape and movement. If they just have never really thought of that before or they don't really know how to go into head voice or mixed voice, what are some things you would do to explain to them or vocally use any exercises that you would give them to introduce that concept?

RW: Yeah. I think it's sort of working with the individual at their own level but also keeping in mind where they are age wise right. So if you're working with somebody who's a teenager, whose body hasn't fully developed, they may just be out of adolescence, so there's still a lot of physical changes that are happening. But even for those who are fifteen, seventeen, eighteen, there's still a lot of physical change and growth that happens. So working on basic coordination kinds of things. Obviously breath coordination, breath management. But those ideas about vowel articulation, you can do at any age. You can identify tongue position for vowels, jaw movement,

the efficiencies of jaw movement, you can kind of address those kinds of things with anybody at any age. And so we do lots of exploratory kinds of exercises, right? Five note scales are big, either starting, you know, going up and down five note scales or starting at the top and coming down. Doing lots of sigh exercises, particularly for somebody who's not been in that head resonance before. Siren kinds of things (*Ee* siren sound), right? And just kind of exploring sounds. For me with younger singers, especially a lot of movement here while they're doing it, so maybe chewing, maybe some people can flip your tongue over?

KT: Yep.

RW: Right so if you can do that, just doing the siren exercises or basic arpeggios kinds of things right, it already begins to eliminate any kind of control that might happen in the base of the tongue as you're making some registration adjustments right. And it actually facilitates, with younger singers who have not explored that, it facilitates getting access to those place because they're not doing anything manipulative to prevent it. With your own singing, when you found that head resonance sound, it maybe was a little bit, it sounded a little bit different? Maybe it wasn't as satisfying to you because there was more internal resonance that happened? We tend to like to sing in that lower spot where there's a little bit more of that mouth resonance, because it sounds a little bit more like how we think we sound to the rest of the world. So the more that we can do to move and get some of the inhibitions out, some of those manipulations out, to explore those kinds of registration changes, that's kind of the way I kind of approach it with younger folks.

KT: Yeah, that's kind of the same thing as oboe, playing in tune, with full resonance, and good support up in the high register is really difficult. And everyone loves to stay in that F,G A, kind of range.

RW: Right.

KT: Because you can play big and warm and you're like "I'm so great" (RW chuckles) and then you're exposed when you go up high. You said something about chewing, which if you could expand on that it would be great. Because in oboe, with a lot of young players or people I'm working with who were kind of flipping their fundamentals upside down, trying to create good habits, there's this tendency to kind of "chew" every note when you're going up the scale and not fully let go. And so that's something there's a disconnect between the support and the trust of blowing through the scale, but it kind of seems like it's almost a kind of safety for them? Kind of trying to protect each note. So where does that come from and what do you do to usually fix that? You were just talking about exercises, but if you could just talk more about that "chewing" phenomenon.

RW: Yeah, so you're talking about oboe players as they're doing a little bit of physical manipulation with pitch change? Right, singers will do the same thing, but it will tend to be in the larynx. So it will be at the vocal folds themselves, and they'll change air flow a little bit. And it sort of sounds like it's sausagey right? *Wah Wah Wah* right? And they do that by manipulating the air flow and or by manipulating the tongue and jaw. So the chewing movement, just to do that (makes chewing movement while singing *wah*) right, frees up all those muscles that we use habitually while you're doing it and it just shifts pitch change here, into the larynx, where it's not really something you can feel when it happens. And those changes are so minute. So for me or for singers, then the chewing is actually a process of getting relaxation into the singing process and whatever skill set you might be working on. Whether it's just moving easily and smoothly from one pitch to another, or even moving from one vowel to another, vowels may be distorted by the chewing movement, but you actually get more efficiency of movement if that happens. So it's a way of actually getting a more consistent stream of air without any kind of manipulation here, right?

One of the things that I find working with singers who have played an instrument, which is great, because they come with a lot of other musicianship skills based on that. But there's something, obviously tactile. I played saxophone and a little bit of piano before I started singing, so you can change pitch by fingering and that's very tactile. It's very easy to manipulate, but you don't have that same sensation with pitch change in singing. And it's really much more trusting your ear and your brain sending the right signals to your vocal folds for all of those changes that happen. And so that we just do a lot of that kind chewing stuff, a lot of other kinds of things like lip trills, or (demonstrates), and do those same kinds of exercise to remove the control of pitch change or vowel change from here and let it be much more a connection of that breath flow and that consistency of air flow that I think we all are working for. Does that answer your question?

KT: Yeah it does, and you lead me to something else. When you're working with students who play an instrument, are there things you notice that are unique to wind players taking voice lessons, that you know is a common theme with either things they do really well or have a harder time kind of grasping?

RW: Yeah, I think you know because when you play a wind instrument, that place of resistance where you feel the resistance to the air flow, shifts depending on what the instrument is right? For oboe players, obviously a lot of it is right here. When I've worked with brass players, depending on the technique that they have, their technical approach, a lot of them will actually use a glottic closure before they start to play. So there's actually a little bit of an '*uh*' right before things get happening here. And that little glottic closure is something that we don't want in singing. And I don't think you do that in oboe do you?

KT: No.

RW: You can't, right, so those kinds of things I think, depend on the kind of instrument that they're playing, right? I do think wind players tend to have a better sense of breath coordination and some understanding but it is a shift to going from a point of resistance someplace, whether that's in the reed for the double reed instrument or a mouthpiece for a single reed. It's different for flute. That's a little closer to what we do a little bit. I think as singers, there's an awareness of breath coordination and breath management. With wind players, I think that's actually easy to adapt to what we do as singers.

KT: Cool. Everything you're saying is kind of like, it originates or ends up in a different spot in oboe playing just cause we have a reed in our mouth. But there was an oboist in the survey who was comparing the double reed to your vocal folds. It's just in a different place. And so when we make, reed making is a whole different ball game as I sit at my reed desk that I'm not showing you the giant (RW laughing) right now, But it's going to be hard in this dissertation to kind of focus on just the voicing aspect and just focusing on not to many things because the reed is such a huge part of what we do, and it affects so many things and it has to be flexible and stable and instantly vibrate when we want it to vibrate. And so a lot of this stuff, we can do all these things but that's assuming that we have equipment that's going to just do what we want it to do.

RW: Right, yeah.

KT: So it's kind of like a catch twenty-two sometimes the type of equipment that we have.

RW: With singers there's this, one of the things that we've been doing now the last six to eight years, based on some research that comes out of the voice science field, is straw phonation. Are you aware of that?

KT: I feel like I've heard of it but don't know details.

RW: So one of the really good voice scientists, Ingo Titze, who is with the National Center for Voice and Speech started doing this, his research on Straw Phonation and it essentially is taking a straw and putting it in where your oboe reed would be, and singing with the straw in the mouth. And a lot of the research has been about straws of different diameters. It all falls in this bigger category of semi-occluded vocal tract exercises. So essentially having a smaller opening of the vocal tract. And what we found is that with that really small opening, the air pressure that builds up from here back to to the vocal folds, so from essentially the air pressure building up from the lips back down to the larynx, balances the air pressure underneath the vocal folds so the subglottal air pressure. And with that balance of air pressure above and below the vocal folds, the opening and closing is much more efficient. So you get better vocal fold function, so the phonation is much better. It's great as a therapeutic exercise, so for people that are going through different kinds of voice therapy, it's really helpful. But singers are using it all the time now. And

what the research has shown is that you can do straw phonation for a short period of time and the benefit to that actually will last through a practice session or a performance that you have that follows it so it actually is pretty long lasting. It's not just when you're actually engaged in that. And so for me, there are maybe some similarities to the double reed, just in terms of that small opening and feeling that air pressure build up here but really keeping the integrity of the air flow. The difference for us is that we're also still engaging vocal folds, whereas you guys as wind players are keeping the glottis open, so you're not actually phonating while you play. Do you ever do that? Do you actually sing and play at the same time?

KT: We can. It's really hard once you feel that back pressure. It's easier to do on the reed alone. Which when you were talking about that, I need to look into Inzo Titze, is what you said? Do you know how to spell that?

RW: Yep. First name is Ingo. Last name Titze.

KT: Okay. On academia.edu I'm always getting suggested articles, and I feel like his name has come up quite a few times. But when you're talking about the coffee straw and doing things like that, we use that to learn circular breathing, the coffee straw, and use it in water to observe the bubbles. But something you were also talking about with that. We do reed alone exercises all the time and it's really easy to neglect them because they're annoying (RW laughing), you don't get any satisfaction. You're just making these weird squeaks and you annoy everyone in your house and younger students really do not like doing those, because they're just itching to play, you know. They don't really understand.

RW: Of course.

KT: But the more I talk to people, you know, I need to get back to that. I used to do them all the time, but you just kind of neglect them from time to time, but it really does help. Like doing pushups for your wind and your face and all of those things, and it just makes everything work more efficiently. Because the reed itself is kind of like a lie detector. If you were playing and I were magically able to yank the oboe off and hear what the reed was doing, I'd be able to tell what was causing all these issues. So I'm real excited to read up on that, because I think I'm going to find a lot of similarities and things to relate to those ideas.

RW: If you look at the Journal of Singing, and you can find that actually at NATS.org. NATS.org and you can search articles on straw phonation, and I think you'll probably get way more than you want, but there's lots of great articles on that.

KT: That's awesome. Great stuff. Every person I'm talking to, it's just so cool, because I feel I'm opening up another worm hole to jump through.
RW: Right.

KT: It's gonna be a really cool thing for the oboe world to figure out what we're actually doing when we talk about you know, sending air out like a blow hole at the top of our head and a unicorn horn and all the weird things that we talk about that we can't explain what's actually happening so it's good stuff.

RW: Yep there are lots of very similar images that exist in the singing world and you know, lots of us have tried to figure out exactly what's going on right, that makes it feel like that thing happening.

KT: One of my past teachers that I studied with who really changed my concept of how I play, is also a really great singer. He's the oboe professor at UT- Austin and he's just one of those people who is just musical all around. He plays oboe and he sings really well, and so his whole idea of teaching is very conceptual and everything is always linking back to singers. And his reed alone exercise is all about voicing and moving the tongue and feeling it vibrate behind your sinuses when you're playing up high. And all that stuff really works for me really, really well.

RW: Cool.

KT: And I'm using it with my own students but I'm realizing I'm going to have to expand that because not everyone learns the same way as me.

RW: Right.

KT: It's all good stuff.

RW: And everybody feels things differently right - sound perception and resonance feedback is so different from one person to the next. I learned a lot about how to think about these things and explain them differently when I had a student had had a history of polyps in his sinuses and his nasal passageway and he'd had several surgeries and essentially suffered a ton of nerve damage, so he had no sensation in his face or in his sinuses, so none of that vibratory sensation that we all rely on. He didn't have any of that. He had no feedback at all so coming up with ways of explaining that to someone who can't actually feel it was fascinating, actually.

KT: I was caught off guard with my little twelve year old student. He was so funny. Just whip smart but I would use a metaphor and he's like "I don't have a unicorn horn. I can't send air off the top of my head" I'm like "I know" (RW laughing) and he was so funny. But he kind of

inspired me to come up with other ways, because he's just one of those people where metaphors just don't make sense to him, and that's okay.

RW: Right.

APPENDIX F: DR. JACKIE LECLAIR – PROFESSOR OF OBOE AT MCGILL UNIVERSITY INTERVIEW EXCERPT TRANSCRIPTION, DECEMBER 4TH, 2020

KT: ...Singing quality as increasing air pressure and to create that connection. And how tongue position is an underexplored area. And I wanted to just kind of hear you talk about that a little bit, if you would.

JL: Sure. I'm not sure if I'm on thin ice or thick ice, but I can tell you what my experiences have been. It's funny, you're introduced as an expert and then you think, "What do I really know?" But for example, let me think. For example, just the other day I was in a lesson, an in-person oboe lesson, thank goodness, distanced and all that. But the student, who's, he's 26 years old, he's a doctoral student. He was going over some excerpts and doing a highly specialized practice technique that I am a huge proponent of. I've been probably doing for 20 years, and I ask people to do, which is [sings]. So it's a long note followed by two very, very fast, very suddenly loud notes. It's a practice technique that works great, but only if you do it really really well. Like if you just go, [sings], it doesn't really do anything. But if you do it in a very, very dynamic way, it fixes every problem in the universe. I was understanding that he was blowing into the oboe and he was fingering the notes correctly, but they weren't really popping. I wasn't really hearing it in a way that sounded complete and full and authentic and convincing and solid. And my understanding is that that is a lack of voicing. I don't know if my teachers did or did not talk about it, but I know that I don't remember them talking about it. So I'm not sure if I feel comfortable saying nobody ever taught me about this, but I didn't learn it. But I learned as a person who performed a lot of complex music over the years, the only way to get these huge intervals and fast and all that, high notes speaking, it's voicing. You can do everything else, you can have the best reed in the world, a great oboe, and if you're not [sings], using this part of your anatomy, that's the tongue, that's the easy part. It's a big piece of meat, goes all the way down here. If you're not doing that and you're just blowing at it and pushing the buttons, my success rate would go way down. I know this because, and I'm doing an aside, when I was practicing an oboe concerto by say, Charles Vernon: very fast, very technical, huge range of leaps. To me, it has to be singing. Nobody wants to hear that [sings]. So I reduce it to, I play everything in the smallest intervals possible. I practice as if it's a minor 9^{th}, I make it a minor 2^{nd}, you know what I mean. All that. So that I play it melodically and sing it with my voice. And the same is true of CPE Bach *G minor, A minor.* Same thing [sings], to play it all in one tri-tone. And I was practicing this, this very challenging, fast, you know, doesn't lie that well on the oboe. But it doesn't matter because I was the soloist, I had to play it. But I reminded myself, "Oh, you have to sing the high E in order to get it from the, whatever," and sure enough, there it was. And I just, I had to remind myself, "This is the key to success." So my student was playing in this way and I had him sing it. It was Mozart concerto, first movement, just the exposition, but with this practice technique of long and two super, super short notes. And we sang it, and I had him grab his throat [sings]. It's not subtle; you're physically moving a part of your body. It's not spiritual,

you know? And do that a few times. Now, do that, when you're doing that, bam, it worked. Now I hear it. Then it seemed to be authentic, it seemed to be sung, it seemed to be convincing, solid, it seemed reliable. And if that's missing, that's as concrete a way as I know how to say it without hooking up scientific devices that I can't afford to do motion MRIs and everything. But that's my experience. This, if you're just going [sings], you know, we all know vocalists do that. I'm not a singer, I'm a terrible singer, but I know it, I've tried to gobble it up and eat it so that when I play the oboe I am very, very much, 100%, most important thing by far, is singing. It's some kind of singing. Anything sounding instrumental or technical I have a severe allergy to.

KT: It's interesting. I like what you said about feeling it because something I was talking about with Dr. Barret the other day was, a lot of us when we talk about voicing, there's a lot of metaphors used. A lot of conceptual things about air direction, all of those things that you can't really pinpoint what is physically happening. And I've had students before that don't understand metaphors. I was teaching a young 6th grade student, and he's super smart. And I was talking about sending the air up and out and he was like, "That's physically impossible, I can't do that." So I was like, "You're right." And he goes, "You have to tell me exactly how to do that." And so I had a moment where I had to think, how do I explain these concepts that are just so inherent to me? And some other students I have, when maybe they can't sing, maybe they don't know how to voice, what does that feel like, what are they doing? And so I like what you said about that.

JL: Just grab it, yeah! It's a big chunk of your anatomy moving all over the place. Another thing I do if I'm talking about legato, [sings], that's what the oboe does and nobody wants to listen to that. And the way you technically achieve it is for a brief, brief moment, a fraction of a second while you're going from this note to that note, you increase the air pressure. That's widely known knowledge. But words don't work. So I have the student, and no one objects to this yet. I have them put their hand on my back here, with their palm down, and I play [sings]. And it's not subtle at all. You can feel the muscles that blow the oboe while I'm changing notes. It's like, "Brother, that's how I play the oboe." I'm not going [sings], you know? Every time I go from one note to another note, I'm doing that. It's a lot more work than just blowing at the oboe, but that's how you get the possibility for artistry. And you know, we do listen to vocalists. Monkey see, monkey do. We do want to study bow speed. There's a Chopin C# minor of Joshua Bell playing, it must be an encore because he's all sweaty and there's an orchestra sitting behind him. But what's great about it is the video is very close up. And just the first minute and 30 seconds, there's a piano on stage. Why, I don't know, it's very weird. But it's a Chopin C# minor, and for just the first minute you can study his bow speed. It's just hypnotizing and if you gobble it up, not watch it but gobble it up, eat it, and then go play Ferling like that, you'll sound like the best oboist in the world. Where if you're just a regular person like you and I am and you sit down and just play Ferling, it's like, oh that's nice. Watch Joshua Bell play that four times in a row, play the oboe like that, and you're the best oboist in the world. So there's different ways to do it, depending on people's brains. But those are some of the most concrete ways I know. What's

great about violin is it's like, "Watch it! He's doing it. it's in front of your eyes. It's happening." He's not just going [sings]. That's how children play the violin. It's not that I'm a big Joshua Bell fan, there just happens to be that video and he's respectable at least. And so it's like, "Wow, that's really interesting." And that's not my idea. A lot of people have the same idea.

KT: As you're going higher, when you were talking about putting your hand on your back. You were talking about in your survey about certain vowel shapes you use, and some of them, depending on my age and who I was studying with and what I was working on at the time, were told things like, "Use *Ee* and *Ah*," and all those things. But for me, I make my reeds pretty sharp on purpose. I go almost a C# just because I want to be as open as possible. And so I would rather have to create more space than do any biting at all. So I usually have a problem with *Ee* in general because whenever I think, that's what happens.

JL: Yeah, *Ee* equals biting. That's my understanding.

KT: This vowel shape, the e-u,

JL: *Eu*, yeah. It's a narrow *Oo*. It's *Oo* with the tongue up [demonstrates]. So you get all the benefits of this, which precludes biting, but you get the benefit of this, which causes focus, perhaps, non-scientific. And of course there's the availability of anything you want in terms of vowels. Self-reporting is one of the most unreliable things. I can tell you what I'm thinking. That being said, I don't think about vowels when I'm playing at all, ever. You know? If you ask me about it, I can tell you. But I don't think I ever, only if I'm playing a piece that requires [sings], which happens once every 15 years. But I think it is a technique that is advantageous, and it's great to advance our body of knowledge by people like you exposing what we collectively know. Because like Mr. Kilmer says, none of us has all the knowledge, everybody has a part of it.

KT: And I'm the same way, in the sense that I'm a very conceptual learner. And so when I'm playing, I'll think of what I was talking to that student about, like feeling the sound vibrate behind my sinuses and feeling it go up and out. And I'll be doing that and it'll be working, but I'm not paying attention to what's happening with my tongue. And then I'll encounter a student who doesn't learn the same way that I do and they'll have to think about that type of thing.

JL: Right.

KT: So when you're doing that vowel shape, as you're going up and down in the range, where would you say the average kind of position of your tongue is? Would you say it changes with dynamic, does it change with color? And I'm asking you to think about things that normally you don't think about.

JL: Well, my subconscious is a rockstar at all of this. My conscious mind doesn't have anything to do with it, but I do have some answers for that. For example, if I want to make a very pale sound on a note, an easy one to do it is C on the staff. Most flexible note on the horn, god help us all. I think it's kind of like raising the tongue, but then almost making the embouchure wider in a good way. To reduce the complexity of the tone, it's the opposite of what you do to increase the complexity of the tone. To increase the complexity of the tone is to squeeze the reed more from the side and restrict the vibrations of the reed. So to simplify the sound, which you normally don't want to do but once in a while you want to get a pale or translucent sound color. But the tongue is moving all the time, going up to get sharper or get higher notes, or going down to get, generally speaking, get lower notes. And it's not unrelated to, where are my reeds? [crows reed]. These are half soaked, I soaked them an hour ago. The way I play the oboe, it's a little too closed. For me, the break of the oboe is G to A. If you don't move the embouchure and the tongue and the air up, that's the break. A lot of people think the break of the oboe is B to C# or something, or C to D. I understand that's a big transition, but to me that's not the break at all. I mean, I understand that, but to me the acoustic break is G to A. So, voicing of some kind is required. Let me get this thing going [plays]. So if you don't change anything [plays], you get this [plays]. To get the A to sit up to where it needs to be [sings], for me it's a raising of the tongue but it's also moving the embouchure in a little bit. And then for the extreme tuning that's needed for even an expensive oboe, maybe someday we'll just be able to blow into the oboe and it'll be in tune, but I kind of doubt it. I wouldn't live that long. But, it doesn't exist. So for extreme tuning, like A to C#, [plays], what I'm doing, because if I just blow at the oboe [plays], that's an unusable C#. That's horrible. In a concert, in context that would sound horrible unless something really weird was going on. So the oboe wants [plays] but that's unusable because the C# in order to sound in tune with an A has to be quite flat, as we all expert musicians know. So I go like this [plays]. That's exactly what I do when I play. So the tongue is going down a little bit, but the embouchure's moving out like that [demonstrates]. Nothing's rolling, I don't use the word roll, roll's a passive word. I've never used the word roll in my life other than to say I don't use it. It's grabbing the reed with the embouchure very firmly and [sings]. And the tongue's doing its thing too but [plays], I can put it anywhere I want. So, for me, the embouchure position is primary [plays] and the lips are very, very intelligent. The lips, as you know, are packed with a bajillion nerve endings. And beginner oboists, they're chewing on their reed [plays] to tune, you know? "Oh, I'm sharp on a G, I'll drop by jaw." No, no. And you already spoke about being open, and that's the big tragedy in oboe-land, chewing on the reed, which doesn't work because it draws out a stupid part of the body. And the lips is a super bright, one of the brightest parts of the body if you measure it by nerve endings, which of course we do. And it's just like a brain, actually. I think of this as the visible brain, the embouchure. As far as I'm concerned, it's part of the brain, like the eyes, you know?

KT: Right.

JL: It’s your brain. So [plays], I couldn't play the oboe with voicing only. In my opinion, moving the embouchure around like that very precisely is absolutely the way I play the oboe to get color, intonation, dynamics, everything. And that’s not universal at all, but it’s the way I play successfully. And if you’re talking, you’re focused mostly on tongue use?

KT: Yes, mainly. The purpose of these interviews is I had one idea: I wanted to create some type of document that says what’s going on, how we can explain it to students, developing exercises that correspond with those things. But it’s one of those things that when you start talking about it it opens up all of these rabbit holes so I have to be careful, as well. Because I only have a limited amount of time.

JL: Yeah, your research has to be narrow. What I like about this [crows reed], well, [plays], you just do it on the oboe. And even a little kid can understand that once you get them doing it the right way. I can grab their chin so the chin’s not going up and down, the jaw I mean, [crows reed]. Okay, now do that on the oboe when you go from A to C#. Boom. It's pretty easy to monitor and to check when you’re home alone: “Am I doing it right?” Well, check. I think the reed alone is very under-utilized. And I've used it in my teaching. Some students have become less receptive to it, so I think in my microenvironment I'm not using it at the moment, but that’s for reasons other than my pedagogical beliefs. The way flute is used, the headjoint and whistle tones, brass players use mouthpiece exercises, I think oboists are way behind and we could do a lot more with what you’re studying and with embouchure practice. I mean, to me, [crows reed], I'm not moving my jaw. And even a ten year old kid can do that if you show them. To play the oboe, the note you should be playing is about a B, C# everything will be sharp, Bb-A everything will be flat. It’s really that simple. So if you’re basically playing a B or C, okay, good start. And [crows], once in a while you need to raise the pitch, rarely. As you said, show me an oboist who has a tuning problem and I'll show you someone who is playing sharp, right? [crows] That is all the flexibility you need to play any normal note on the oboe in tune, right? [plays]. With a good tone. So what you’re talking about, making it concrete and obvious and clear, well [crows]. Alright, when you play E you’ve got to be [demonstrates], you just do it with the oboe and the tuner will help you. To me, teaching wise, the embouchure use is way more principally important. And the tongue is important but subtle. Well, I mean it’s not subtle. The example I gave you of my student. He was not sounding convincing and then he did that with his tongue and then he employed it and then he did sound convincing. It’s not unsubtle in that respect. But the embouchure position is so mechanical and it lets the oboist know that you’re never stuck sharp. You just move your embouchure out, and you can do it like that. So even if you do start a G#, and we all do, well, in 1/1000 in a second you can bring it down to where it needs to be to be in tune. So the mechanical genius of the flexible embouchure is really key. Because then you’re just free to play the oboe. It’s easy, you’re not stuck anywhere. And then to develop the tremendous sophistication with good voicing that for a lot of people comes naturally, actually.

KT: When you're teaching a reed-alone exercise to a younger player, so someone who's learning an embouchure for the first time. I've learned a couple of reed-alone exercises over the years.

JL: Oh, good.

KT: And the thing about reed exercises is I think they die because everyone just hates doing them, you know? They just hate doing reed-alone exercises and little kids get really bored with them, too. Because they're just sitting there making peeps on their reeds. So I've found it difficult for beginner students to maintain their consistency with it. And when I'm working with them on reed-alone exercises sometimes I run into a student making the pitches change on the reed, but I can tell that they're doing it through pressing down.

JL: Yeah, that's completely wrong.

KT: Right. So trying to explain to them how to move the reed out from their corners instead of gnawing up and down, some of them have a really hard time with that physical movement.

JL: I often tell them it's like playing the trombone. The pitch is going down because you're making the instrument longer. It's exactly the same as a trombone. So you're not, a lot of times it's because they have this other idea. It's just taking that and moving the whole thing out and the whole thing back in. It's not sliding, it's not letting go, it's not opening up. It's just a good little miniature trombone [sings]. And that's exactly how it works. And you know, what I did, and I did publish an article about this in the IDRS about nine or ten years ago. You can find it, it's about reed-alone exercises. I wrote exercises in duets and I actually commissioned a piece for three oboe reeds and english horn. To record, I did a lecture recital on this at NYU at the IDRS conference about reed and embouchure and about how there's three ways to change pitch on the oboe and only one is a good way, by moving the embouchure. But it's really like a trombone. But you can write, one of the melodies is, you play an accompaniment on the oboe or piano. One of the melodies I wrote, because the range is pretty much from C to G, [crows reed]. And most people can't do that, they can't get down farther than that but you just learn to do it by having a strong, flexible embouchure [crows reed]. The other thing that's happening is my embouchure is moving out and then back in. So the reed, this has been several years now, [crows reed]. That's hard to play, actually.

KT: Especially on one of those metal staples, too. I use those.

JL: They're heavier, that's exactly right. But if you play that with an accompaniment or send out a sound file with the accompaniment and play it in tune, it's actually pretty fun and much more engaging than [sings]. So I think there's a lot, as I was saying before, I was planning, I had very concrete plans to write an exercise etude book. Like, this is what you do with the reed, now play

this on the oboe, this is a skill you use. Now do this with the reed alone, with these pitches, and now play low D to high A. Well, there you go, that's how you do it. And I just haven't done it for no particular reason than what I've already mentioned to you. But in the article I published in the IDRS journal, the three students, I was in Ohio at the time. Each one of them kept a journal because when they each played the three oboe reed parts and they had, even though I taught them all basic oboe reed skills, they couldn't play their oboe reed parts at all. It sounded horrific, like really horrible. Because it was just English horn and then three oboe reeds and it had to be in tune. So it was actually really sweet, they played each other's parts, they sang their parts, they played it on piano. I didn't tell them to do that, they did it on their own, I was really impressed. And when I applied to do the performance at the Ohio IDRS conference, it was in Miami, OH, so that was 2011 or 2010. And they said, "Oh, no students are allowed to perform," and I twisted their arm and said, "My students are going to perform." And we performed in a concert and it was really cute. We sounded good, which mainly was them, they learned to play the reeds in tune with crescendo and decrescendo, staccato and accents, all of which increases the challenge. And they journaled about it. And I published all of that and you can read it. It's in that IDRS journal article.

KT: What year was that, that you published that article?

JL: It was either 2011 or 2010.

KT: Okay. I'll look for that.

JL: That's exactly where I'm coming from. And I think, I'm imagining that if you took those three students who are off living their lives now, but I'm imagining if you did a motion MRI of them unsuccessfully playing the reeds, and then three months later playing successfully in tune, I would bet they were refining a lot with their tongue position. I'm sure they are, even though the mechanical devices, the embouchure position, but the support device is the tongue position, the voicing.

KT: That's awesome. There's something about the reed-alone exercises I've learned and then talking to people, I've started to view the reed and the reed-alone as kind of a lie detector test. If you can't totally tell what's happening if something's not working on your instrument, I could just magically yank the oboe off your reed while you were playing, I'd be able to hear what's going on. So when students are complaining about doing reed-alone exercises it's like, "Well, if you can't do it convincingly on the reed, then when you add the oboe to it it's going to make it way harder."

JL: Yeah. And you know, this is the oboe. This is an oboe. Try to disagree with me. This is an oboe. It's a very small oboe. But you are sometimes asked to play it in concerts. I've gotten paid

money for playing this oboe, you know? It's not, "Oh, just the reed." It's the instrument, people. It's not just a toy, though it sounds like a toy. So maybe it's just the idea of this is the first oboe that we're going to play this oboe. We're going to play this oboe really well. And then we transfer those skills into the extension of the oboe, the oboe amplifier, what's that guy's name who plays on original instruments? He calls the romantic oboe the reed amplifier. Once you plug it into the amplifier that we call the oboe, I think this is actually the oboe. So, I mean, maybe to lose the idea of it's just the reed. No, this is the heart of the instrument. You've got nothing without this, this is the instrument. Maybe that would help, because it really is true.

KT: Have you ever done anything like, when you're practicing excerpts or pieces of running through the piece or excerpt on your reed alone?

JL: A little bit, yeah, sure. I'm a big proponent of when you're practicing to do as much intelligent, disciplined variety too, as opposed to just trying something over and over again to get better. That doesn't work, that's terrible, which is what most of us think is a good idea at first. But, no, to do six to seven different kinds of approaches to mastering any given excerpt, come at it from all different angles, all different ways, all different tempos, different rhythms, different articulations. And to isolate anything you possibly can so that when I play it as it goes, it really is reassembling something that I've pulled apart into bits. And part of that is the reed skill, for sure. Because you're right, it exposes everything. Another huge advantage is if you can get someone to have a good attitude about playing the mini-oboe, because if I'm the mini-oboe you're practicing these skills. All that emotional complexity, and worry and judgment of when you're playing, "Oh, the way it goes," is gone. Nobody cares, you're just having fun [crows reed]. You know? Nobody's going to get too wound up about that, "Oh it doesn't sound right!" No, it sounds fine. Whereas if you're playing a C or a C# and it's out of tune, "Oh my god, I'm sharp!" So there's, it's kind of a safe space to use the mini-oboe as a training ground and anxiety-free zone and fun zone. And to experiment with embouchure and tongue position freely, and then transfer it to something concrete on the oboe. I'm a big fan of that for sure.

KT: When you have students learning reed making, and they're working on it, they're not the same reeds they're going to be playing on. I always think what my senior recital reed would feel like now, I'm just curious. What if I played on it now, what would I think? And I think of it kind of like, oboe and reed-making being shoe size. You outgrow what you're doing and you have to step up and you can't go back. When you're working on reed-alone, voicing, all of those things with your reeds aren't the most flawless, i mean, we'd love to have the perfect reed all the time. But when you have a student who's starting to implement their own reed-making and they're working on them but obviously they have a way to go. How do you approach that with them?

JL: When you're doing reed-alone but their reeds are still not quite refined?

KT: Yes. they're working on reed-making and their reeds are a little rough but they're working on it, but they're trying to play in tune and do all of those things.

JL: Well, I guess I would reply this way: that we're not, we don't have license to play the little oboe and the big oboe until it passes some very concrete test. That when you peep it [crows], that it's an okay sound. And it's okay pitch. I don't test the pitch of a reed that way, but it's going to be a B, Bb, or C. So even if you're not a very experienced oboist, yeah, I could play that on the oboe. It would feel okay. It's not noisy, it sort of feels like I can play it okay, like I'm playing it as an instrument. I'm not squawking it, I'm not doing anything [crows]. It's a completely useless, horrible habit, I wish oboists across the globe would stop doing that. You're doing nothing to get any positive information for yourself and it bothers anyone within earshot. So many oboists [crows reed], like, what are you doing? It's completely pointless. You're vibrating the reed, why? It's just a bad habit in my opinion. Whereas peeping, [peeps reed], that's elegant, that gives me information. And then the crow [plays], so this one you know is going to be a very contained reed, it's barely crowing. So now I have permission to play it on the big oboe. But if a reed is not peeping easily or a sound is not attractive to our expert ears, everyone else thinks it's a baby crying, and the crow is the right pitch meaning C for me and C# for you, whatever. And it's an elegant crow, meaning when you start the air pressure low and gradually increase the air, [crows reed], squawking it, again. Annoying to everyone within earshot and it doesn't give me any information. But if I gradually dial up the air pressure [plays], I can tell how it's going, not quite crowing enough. But then I'm allowed to play it in the oboe because I'm reasonably certain it's going to be successful. So I think that's a hard and fast, to have a reed not peeping well, or it's out of tune or not crowing, you're not allowed to play it in the big oboe. So that's the way I marry those two topics. That you have to be able to make a reed good enough that it passes those tests, otherwise it's not good enough and you should not be allowed to put it in the oboe.

KT: I crow the same way. I studied with Andy Parker at UT for a few years. I just took time off down there, I wasn't in school, I was just studying with him. I completely changed my reed making style because I was one of those players that could make a really good sound but I was playing on really flat reeds. And I was tricking everybody, but I was working way too hard. So I start from pianissimo and ideally it just kind of blooms from there. But I've never understood the New Years Eve party favor thing you were describing.

JL: It's just, very nice, intelligent people, they just get in a bad habit. It's like, I have a colleague who always has his hand in his pocket jangling his coins. He doesn't hear it, he doesn't know he's doing it. You don't know you're doing it. It's one of those things, like, what are your habits annoying everyone around you? And I tell students, you know, I am the only person who's going to tell you this. Everyone else will be embarrassed to tell you in a professional situation. But yes, if a reed doesn't pass the test, then you can't even get your oboe out of the case. You're not allowed to. So I think that's a good motivator.

APPENDIX G: MARY LYNCH – PRINCIPAL OBOE OF SEATTLE SYMPHONY INTERVIEW EXCERPT TRANSCRIPTION, DECEMBER 4TH, 2020

KT: So just looking at your survey I wanted to go through and just have you expand upon some things that jumped out at me. You talked about at New England Conservatory taking voice lessons and I wanted to know if this was something that was required of you or if you sought that out yourself?

ML: It was not required. I just thought it sounded like a good idea.

KT: Okay. Did you notice anything kind of clicked for you with voice lessons and oboe or making parallels or connections or things?

ML: Definitely. Yeah, let's see. I remember. So if there's one thing that I discovered over time in my own practicing and listening, is that more and more everything about what we do on the oboe really is quite literally in a lot of ways, the same thing as singing. It's not just an abstract idea or concept that's useful, you know, for musicality or thinking about vibrato. It's that too… but it's how we sculpt our physical landscape, how we shape our oral cavity, how we think about the way we focus our air, the way we use the resonance of our bone structure. All of those things are so similar. When I watch singers sing, and when I listen to them talk about it, I'm like yes, that's exactly what I'm doing. That's exactly how I'm trying to feel that and think about that. I think there's a very literal connection.

I also remember just the sensation of singing and like learning how to sing, not that I was particularly good at it, but you know learning how to sing with like some sort of proper technique right, like sustaining the air and what it means to support when you're singing versus when you're playing the oboe.

I think it also helped me understand vibrato better. As an oboe student I kind of struggled with the vibrato that was a little intense and fast side and not really integrated with the sound. So I think voice lessons, just the sensation of singing with vibrato that kind of happens naturally, not deliberately forcing it to happen, feeling that sensation, I was able to kind of bridge it to the oboe.

KT: Was that part of your studies prior to coming to New England Conservatory? Because I saw you mentioned that Mr. Ferrillo did a lot of singing in lessons and was utilizing that a lot. Was this something you started thinking about once you got there or was it implemented earlier in your studies?

ML: No, I think the first time I ever took voice lessons was at NEC. Although I've always enjoyed singing as a kid, I did musical theater and stuff like that.

KT: I did too.

ML: That's nice.

KT: So you're talking about the physical sensations of singing and how to connect to that when you're playing. I read you were talking about having your oboe students sing and then try to imitate that feeling, and for you personally with your students, what type of physical sensations are you trying to get them to feel singing and also on oboe as well?

ML: I think it boils down to two things. One is I think when you sing you can get that sensation of playing in the line of your wind which is something that, its, that's something that every oboe player has to learn. Every wind player has to learn and it can be a really illusive concept for some students so I find that having them sing it and have that sensation of sustaining the phrase with their voice, it's like a more immediate connection to their body than having an instrument in between. So playing in the line of your wind.

And then the other physical sensation that I find singing to be really helpful for as a teaching tool, is getting my students to develop a mind/body connection with the instrument. So cultivating the ability to hear something and just translate it into the instrument, translate it into music, and not have this kind of intermediate step where you're like thinking "Support, corners in, is my tongue too low in my mouth?" Thinking about all the physicality. I think when you sing a lot of that comes naturally to people who are already musical and have an ear. So it can be helpful getting people to feel more of a sense of ease when they play, and I think also a detailed connection to the inflection. You know, like singers, you can do anything with the human voice. So I think having students feel how much they can manipulate sounds with their voice, it helps train their ear to then create sounds on the oboe that mimic that level of specificity.

KT: Right. You were talking about vibrato earlier and I was kind of the opposite as you were. I had just kind of figured vibrato out when I was in middle school and I had singing vibrato so I'm like "I'm just going to do it the same way." But I had one speed, it was down low, and that was kind of it for a very long time. And I got to college and did fine. I had a lot of people fooled because I was playing on very flat reeds and I was sounding really good, but no one knew how hard I was working. I didn't know how hard I was working. So then I started studying with Andy Parker at UT and everything he does is based around singing. And so we changed my reed style which kind of changed everything. I make my reeds pretty sharp so I can let go, but that feeling of being able to let go is crucial. And dealing with reeds, I'm trying to not go down a rabbit hole in this research because there's so many things with oboe that affects the ability to sing through your instrument.

ML: Yeah.

KT: I could write a whole dissertation on just the perfect reed, but I can't (both chuckle). With reeds, what do you tell your students who are you know, in the beginning
stages of reed making and they're trying to incorporate this freedom and their reed making is, it's on its way, but your abilities in reed making kind of move in tandem.

ML: Exactly.

KT: So how do you deal with that as a teacher?

ML: I focus on my three priorities which I think are very much in line with most oboe players in this country. First, you get response. Then you prioritize overall pitch, but also holding pitch in the upper register. And then the tone will usually just result from having those first two things exactly where you want them. So I work with my students on getting those two things. And I have my own way of balancing a reed. I basically do the same exact scrape on every reed and, assuming I've sorted my cane properly and my gouging machine is working, the reeds turn out into something playable. So I try to steer my students away from scraping the reed for the perfect tone or trying to make a reed do something that the cane just doesn't want to do. That's, I guess it boils down to that.

KT: Yeah. I had a teacher who'd call it "don't spend your emotional money working on reeds that are just not going to work out" (ML laughs) cause it's a very, very sad day when you spend two hours on something that's just not going to work out.

With reeds, I've seen a lot of people talk about reed alone exercises and I had this interview this morning with one of the voice professors at UNCG and he's been talking about this study, which I found super interesting, for straw phonation. With singers, there's this researcher who has been taking video of what's happening inside and it's all based around singers. But he was doing it with phonating through different sizes of straws all the way down to a coffee straw which is like an oboe reed basically, so looking forward to looking into that. With reed alone exercises, are there any specific ones that you do that you find help with tongue position or thinking about that kind of thing?

ML: Yeah, the one that I practice myself and all of my students practice, is articulating on the reed alone without holding onto it with your hand and the goal is to be able to have a smooth and clear articulation without the reed flapping around all over the place. And then if you're able to do successfully, that tells me that the student has their tongue you know, in that high and sort of high and forward position like, this is my front tooth you know, and that they're making contact with the very tip of the reed with, you know, I'd say close to the tip of their tongue. I don't think I play on the very, very tippity-tip of my tongue, but somewhere close to there.

KT: You mentioned studying with Ms. Douvas and the vowels she was talking about. You mentioned I believe *Ter*, *Tah*, *Te*, and *Tu*? Were there specific ranges that she would associate those vowel shapes for or how do those come into play with a singing style?

ML: That's a good question and it actually makes me think of... Have you seen, there's a video of a functional MRI of Sara Willis I think.

KT: Yeah.

ML: I remember watching that video for the first time several years ago and thinking "I'm pretty sure exactly the same thing is happening when I'm playing oboe." Like high notes, it's probably more of a forward, you know, *Ter*. I like tü as an umlaut - tü because that's what (indistinct) would have said, and I think it gets your tongue in the perfect position for articulation and also for high notes. And for low notes I probably do something that's more like a *Tah* or…. I remember a syllable that I learned from Nigel Shore, who's, he plays oboe in the Komische Oper in Berlin, I think. But he plays on short scrape reeds. He recommended this syllable of *Daw*, like if you're a British man and you say "door" with a really exaggerated British accent - *Daw* (both chuckle). And I think that syllable actually works pretty well for like, middle and low register notes. (both laugh). Definitely a more relaxed tongue positioning I think for those notes.

KT: Yeah, everyone talking about their vowel shapes, it's different but everyone's trying to achieve the same thing basically. And talking to Dr. Wells this morning, it's interesting because wind players talk all the time about wanting to sound like singers and voicing, and voicing this and voicing that, and they don't really use the term voicing at all in their studies and how they explain things so I thought that was just interesting. With vibrato, if you have, like you said sometimes there's bad habits with students where it will be really like, kind of tight and high and fast or really low and kind of wide and just the flexibility is not there. What are some things you would do to free that up or does that kind of naturally happen as you're freeing that up the body and having more space up here and better wind?

ML: Yeah. I think it's a combination. It's something that was for me as a student, and particularly like my later student years like when I was in grad school, I was thinking about this a lot. So let's see, I worked on, like for my own personal experience, I remember working on conceptualizing the vibrato as a relaxation and I think the way I learned to produce a throat vibrato was the opposite. It was through tensing something to get the vibrato. And so making that shift mentally was really important for me, and I remember a lesson with Linda Strommen. She came four times a year to Julliard so all of the students got four lessons with her, and I remember she drew something on a chalkboard. She drew like a line, like this is the pitch, and then she drew waves going underneath the line getting progressively deeper and then back to sort of shallow, fast waves. And she's like "This is a visualization of a long tone with vibrato," and that

image has really stuck with me so I've drawn that for quite a few students of mine too (chuckles).

But I try generally work from big concepts to small concepts, so I mostly talk about the fundamentals of support, keeping the tension away from the reed, keeping it low in your body. And I talk about blowing and like a healthy air stream and usually if those things are in place, major problems with the vibrato don't happen.

KT: Right.

ML: And I think that was true for me as well. When I was having issues, and when they creep back into my playing, usually it's because there's just too much tension up here. I've gotten into a habit of like holding tension here instead of sitting back on my support and producing the sound from the neck down and so (chuckles).

KT: That's been a challenge for me right now cause just sitting on my butt all day in front of Zoom for hours. I feel like I've aged ten years in eight months and I've had to swap out my chair for an exercise ball because of back pain. I've started wearing glasses. It's like, what's happening! (both laugh) I would stand up to play and everything is creaking and cracking. Everything was so tense. This is great right now to just digging into this research just to go back to what is fundamentally healthy, effective, musical playing you know? So this is really, really great.

If you have students who, you know, hopefully people who excel at oboe usually have a good ear but may not be able to produce that very well with their actual voice. If you have a student who really can't match pitch very well with their voice and you're trying to get them to sing through things, or they're really shy, some students just do not want to sing. You ask them to sing and they just shut down. What are some ways or situations you've come across and how you've dealt with that perhaps?

ML: Yeah, I mean, I don't think I've ever come across a student, that I've actually agreed to teach, who can't sing. I don't think it's possible to be a good oboe player and to not be able to match pitch with your voice. I mean, that's my opinion. So that, I haven't really dealt with. I've certainly dealt with shy students (chuckles). But I don't know, I usually am just good natured and energetic and inviting about it and I'll demonstrate. I'll sing ridiculously loud and even if it's a little out of tune, you know, I give them all of these qualifiers like "I don't care what it sounds like, I don't care if you're in tune, I don't care what pitches you sing, I just want you to like, go for it and let's see what comes out." And then we're usually able to work with something.

KT: Yeah. My best students have always been able to sing things but…. When I lived, I lived in Texas for three years and did that whole like, crazy amount of teaching and I had like 35 students at one point and it was (both chuckle). That's how I paid my rent. I mean I learned a lot.

ML: Wow.

KT: In a short amount of time I learned a lot by teaching eight fifth graders a day. That was a lot.

ML: Wow.

KT: But trying to, you know, they were placed on oboe, maybe I didn't place them on oboe, and trying to teach them concepts to them when they can barely keep their feet still and are looking around all over the place. That's why I'm trying to explore if these concepts can be transferred to the very beginning stages of oboe development if someone doesn't have the natural ability with singing. So we'll see where this all leads but that was always pretty interesting down there.

ML: You know I have thought about that. I have worked with students who have struggled with that. Not who are incapable, but students who have struggled with that. And if I stuck to perfect intervals that usually would help them hear and then they'd slowly develop the ability to hear on a more acute level. I would have them play a note and then sing the pitch or I would play like a low C and have them sing a high C or something like that. But yeah, it's certainly easier when you're teaching, I don't teach it to too many younger students generally but yeah, it's helpful to teach when you're in a college music program. They have ear training classes so people are doing that (laughs).

KT: Yeah.

APPENDIX H: CAROLYN HOVE – SOLO ENGLISH HORN OF LOS ANGELES PHILHARMONIC INTERVIEW EXCERPT TRANSCRIPTION, DECEMBER 14TH, 2020

KT: In your survey you are the only one who mentioned that you are currently taking voice lessons. I wanted to know if this has changed your perception at all after having played for so long?

CH: It's really been mind boggling, and I've been playing forever - I joined the LA Philharmonic in 1988, so I'm technically more at the end of my career. From a vocal standpoint, my teacher was trying so hard to get me to understand where my voice needed to be in my throat for resonance. That blew me away and now I understand. It made me think so much more about how I use that when playing oboe and English horn - now whenever I teach students I always talk about having their throat open with the round 'O' shape. This reinforced what I was doing as a player.

Now, the thing that has really been difficult for me is the difference in the production of vibrato on the oboe, English horn, and singing. I struggle with the singing vibrato because it's not natural for me. When I'm singing on a regular basis and if I'm not thinking about it, then all of the sudden the vibrato comes and it feels natural. Whereas on oboe and English horn I stopped thinking about it a while ago. I had to change my vibrato twice, because I was nine years old when I started learning the oboe. I was so desperate to sound like a big kid on the oboe and I started this lip vibrato. Then later when I was a senior in high school I was studying with Grover Schiltz and he's the one who said, "You can't control your vibrato this way, we got to change it." It was so hard for me to get that vibrato up in my throat. I had previously been taught all this nonsense. We are expecting our stomach to do all this support, but then also asking it to do vibrato? It can't do those two things at the same time. Whereas if you got the support and the vibrato in the throat then you can make it work.

What I've been trying to figure out is how to use my body as a type of resistance. The amount of air needed for singing is overwhelming to me as we use so little air on oboe and even on English horn compared to singing. At some point if I am able to get the vocal vibrato to where I want it I will be able to differentiate between them. Even now when I sing I feel like I am approaching vibrato as an instrumentalist since that's what I've been forever.

KT: In this semester and last summer it gave me a moment to break everything down and look at everything I was doing at face value. While being almost entirely alone in my day-to-day responsibilities it's given me the opportunity to see through the mud and see my practice for what it is.

CH: I have found that with yoga the breathing has been really helpful in terms of being a musician. In terms of the whole breathing and throat thing, I think on English horn I'm more aware of it than I am on oboe. You have to be pretty open in order to play the English horn. So many times I've seen players approach the English horn like it's the oboe - which makes them automatically more tight and often they blow too much through the instrument. When I really started to figure out how to play the English horn, when it really started to feel good, I realized I just needed to let the instrument vibrate on its own and not force it. I've noticed in my singing when I'm forcing it feels like forcing on the oboe when everything shuts down and it's not vibrating.

KT: When you're thinking about having your voice down and back in your throat - we're doing a lot with our tongue when we play. We're not really aware of what we're doing all the time with it and it varies person to person, but are there any vowel shapes you used before or after voice lessons?

CH: It's always *Oh*. Learning the diphthongs is crazy from me being from the Midwest. I've come to think about how differently we say and sing *Ee*, *Ay*, or *Ah*. In my own playing I've always found that Oh always gives me the most roundness and the most depth of tone. In all of the audition committees and teaching that I've done so much of the time I hear the partials as high, middle, and no low partials. That's why I use Oh because it can get the depth- or at least a better chance of getting it. If I were to use a different vowel for each note it would drive me mad.

KT: When you're teaching and if you have a student who has a lot of tension, they're dealing with reeds, they are also physically tense, and which one would you address first?

CH: First of all, I don't do much teaching now, it used to be more but with being in LA - it's a huge place. As for my masterclasses that I used to do with a really tense student the first thing I always recommend is that they do yoga. To me it made all the difference in the world. I feel that you have to address the tension in one's body before the reeds. Although my posture when I play English horn is not perfect, it's far from it and I feel that to get the sound I want my head has to be lower to have the angle of the instrument I want. For me I'm always looking at the whole tension thing and then go to the reeds. There may also be other factors such as instrument sealing and if the bocal is even right for the horn. There needs to be a connection between their support and their stomach. It takes time to change vibrato.

APPENDIX I: DR. ANDREW PARKER – PROFESSOR OF OBOE AT THE UNIVERSITY OF TEXAS AT AUSTIN INTERVIEW EXCERPT TRANSCRIPTION, JANUARY 4TH, 2021

KT: When I started studying with you, a lot of my approach really changed with how I played. And I think it helped because I was a voice major. I am a singer. And so I could pick up on those things, and I know that you can sing as well. So my whole approach is how to use vocal techniques to teach and play oboe, and really sing through your instrument. So...

AP: Perfect.

KT: A lot of this is stuff I've learned from you, but also things that I've figured out and shaped into my own thing that I use with students. But I wanted to get into some specifics and more detail of stuff that I've learned from you.

AP: Yeah.

KT: But just also hear more about it. So, I'm going to just prompt you and let you go.

AP: Okay.

KT: I want to talk about how this idea of singing and oboe intersecting really came about for you, and if this was something that developed over time through your own singing? Or was there a particular teacher you had, or moment, or experience that kicked this into high gear?

AP: Yes, that's a great question. Well, so, singing has always been a part of my life from a very young age. I was in the church choir at my church when I was probably 6, 7, 8 years old. I joined the boy choir when I was 9, and I was in that for several years. I was in show choir in high school. So, singing has always been something that I've done, something that I've enjoyed, something that I was pretty good at. And I don't know how much of that informed my love of the voice or if that was just... I mean, I assume there's some relationship there, but from a young age, my mother used to listen to a lot of choral music. A lot of, especially like Renaissance, Palestrina, Monteverdi, Gesualdo. A lot of that kind of stuff. So, I've always had sort of a real relationship with vocalizing, whether it's myself or listening to it. And, that kind of blossomed or evolved into a love of opera when I was an undergrad in college, and I started becoming obsessed with various opera singers, Renee Fleming in particular, Fritz Wunderlich. Those were my two first really big, big, kind of opera loves. And I went through a period of time where I was listening to them obsessively. So, this kind of coincides with sort of what you asked about, any teachers that I had that may have influenced directly. And I will say that I never really had any teachers that talked about singing on the oboe as much as, and as directly as overtly as I do in my own teaching, and in my own understanding of my practice. But most of my teachers, you know,

Richard Killmer for example, did talk about singing on the instrument, and voicing being sort of an action of using your inner ear and inner voice to sort of make the pitch and sound where it needs to be, rather than letting the instrument and the reed determine that for you. So, that's been a thread in the pedagogy I received as a student, but it wasn't as consistent, and overt, and direct, and literal as I think I've now made it. So that was probably a byproduct of hearing it in a more abstract way as a student, coupled with my own love of, and experience with singing in my own life.

KT: Cool.

AP: Does that make sense?

KT: That does make sense.

AP: Great.

KT: And I wanted to also talk to you about the reed alone exercise that you… Was that reed alone exercise something that you developed, or was that something that you'd already known, but then kind of linked singing ideas to it?

AP: That's another thing that kind of evolved over the course of a few different influences. I will say, most of that exercise I owe to Richard Killmer. I did learn from my high school oboe teacher a little bit about reed alone exercises. It wasn't quite as fleshed out, and formal, and organized as what I do now. But I already had sort of a concept of reed alone. And then Kilmer really… He was the one that taught me the A flat to D flat as being sort of the primary sort of range of voicing on the reed alone that we should be really developing. So, I kind of inherited that from him. But I will say that I think I place more emphasis on the reed alone exercise, and I do a little bit more with it. Like I never was taught to do sort of long tones on the reed alone, or to use the reed alone to help develop quality and consistency of articulation, or to use it to help you figure out how to sort of integrate the vibrato into the beam of sound so it actually reinforces the center of the pitch, and those other things. That's all stuff I sort of developed on my own, but the foundation of it… I got a little bit from my high school teacher, and then a great deal more from Killmer.

KT: Okay. Cool.

AP: And I think associating it with something that's more vocal and major is entirely of my own creation. If there's one thing that I discovered over time in my own practicing and in my own listening is that, more and more everything about what we do on the oboe really is quite literally in a lot of ways the same thing as singing. You know, it's not just an abstract idea or concept

that's useful for musicality or thinking about vibrato. It is that too, but it's also really like… how we sculpt our physical landscape, how we shape our oral cavity, how we think about the way we focus our air, the way we use the resonance of our bone structure. All those things are so similar. When I watch singers sing, and when I listen to them talk about it, I'm like yes, that's exactly what I'm doing. That's exactly how I'm trying to feel that and think about that. I think there's a very literal connection.

KT: Right. I would agree with you. You just said something in there that I haven't talked to you about with vibrato. And I know when I changed how I supported my sound and how I voiced that, I had a lot more control over the speed and placement of vibrato.

AP: Yup.

KT: And I started to kind of be able to develop, like, putting just like a little sparkle on like an eighth note, which I could not do before. So, you said something about reinforcing the core of your sound with vibrato. Can you talk a little bit more about that?

AP: Absolutely, absolutely. I think vibrato is… It can be a lot of different things for different oboe players. But one thing I've noticed about the best singers is that the vibrato never distorts the pitch of the tone. It never disturbs the clarity. It actually serves to reinforce that. And when I listen to a lot of oboe players play, I hear… a lot of times, vibrato is just kind of the, sort of an auto pilot ornamentation on the sound, which you can sometimes be too fast all the time and makes the tone have this sort of nervous energy. Or it can be too slow and sound like a wobble. It can actually make the pitch sink, and sag below itself. Or it can push the pitch up against its ceiling. Regardless of what it is, it doesn't sound to me like that oboe player has really considered, and worked on, the vibrato as being not just beautiful and correct and interesting, but actually something that helps reinforce the centeredness and stability of your playing. And that's all about how you work on creating the vibrato, how you work on conceptualizing its placement in the sound, right? If the vibrato has too much heaviness to it in its creation, it will oftentimes cause the sound to sag, or the pitch to sag. If it has too much tightness, or over-energization of it, then it will cause the pitch to raise, or to, the tone to sound frantic and nervous. So, really working on integrating the vibrato into a very stable, centered tone, I think is very important for oboe players. And that's, I think, what I meant when I brought that up.

KT: Right. Okay. In terms of reed making and this kind of physical and mental approach to approach of to playing, did this… is there a certain type of reed… Well, I know how your reeds feel, how my reeds feel, and I can always pick out which students that are friends of mine who you have taught, who have learned from you just by how they play.

AP: Right.

KT: But if you're teaching in a masterclass situation like that, and you're trying to teach this way of playing and singing at the same time, is there a way to do that when the reed is clearly a problem? Do you know what I mean?

AP: Well, yeah, that's a fabulous question. And you know, that's something that you'll have to take a little bit, obviously as you know, on a case by case scenario. It kind of depends. There's a spectrum, right? There's a spectrum of quality, and it kind of depends on how far away from a balanced place you're talking. And being a good masterclass clinician, in a lot of ways, has to do with having the savvy to know where that, you know… To really be able to analyze where you are on that spectrum. Because I'll have students play for me, and they'll have a lot of problems in their playing. And it'll become obvious to me quite quickly, even just from listening, but sometimes I'll even ask them if I can try their reed, that there's virtually nothing we can do to improve any of that with the reed that they're currently playing on.

KT: Right.

AP: Sometimes the reed is sort of in a medium place where, yes, it's sort of contributing to some, if not many, of the issues that are present here, but there's still things we can accomplish even with that reed, so being able to quickly diagnose that is very important if you want to be a really good masterclass giver. But I would say that nine times out of ten, when a student is having problems really playing vocally, whatever that means to you, I know clearly what that means to me and I think it means something similar to you, but usually when they're having a problem playing vocally, it's because the reed is either too flat, too loose, which is oftentimes flat, but it could also just mean tonally loose, like the tone is very wild and spread, or too resistant, and oftentimes, a combination of those things. And, so what happens is then, the student is expending the greatest deal of their energy playing just by kind of having to essentially mash the reed into submission.

KT: Mhhm.

AP: And when you have to really be tight at that point of vibration, that would be like a singer trying to sing by constricting their vocal folds, rather than building freedom into them. So, since the reed is sort of the stand in for our vocal folds, we have to be playing on a reed that kind of has enough stability built in, that we can get out of the way of the reed, and allow it to vibrate as it's meant to if we really want to create resonance and a good shape of the tone, and good spin in the tone, and good vibrato, and all those things that make it really feel and sound truly vocal.

KT: Cool. I'm learning a lot right now. I'm loving this. I just have a couple more questions.

AP: Good! No problem.

KT: So, when you're teaching students that play oboe who obviously can't… If you can't match pitch in your head, I have a feeling that you're probably not going to be able to do that very well on the oboe. So, most of the time, students can match pitch and audiate and things like that. But sometimes, you have students who really can't sing, you know? So, how do you find teaching students who maybe don't know what mixed voice is, or, kind of like, sending a head voice note out up, out of their forehead or something like that? How do you convey those ideas to a student who maybe physically can't do them with their own voice?

AP: Well, that's totally… Let's first just make it clear that you don't have to be able to do these things physically with your own voice in order to, kind of, connect with them on some sort of level, whether it's conceptual, or just kind of imagining it as a physical sensation somehow. In fact, I don't really often have students sing that much. And there are a lot of students I have that I never have them sing, because I know they're not comfortable with it, and they don't really do it that often. Every once in a while, I'll try to force a student that I know just needs a little push to be able to do it. And, honestly with oboe players, nine times out of ten, they end up having a pretty good voice. But before I fully answer that question, let's unpack the beginning of the question first, because you mentioned not being able to match pitch. Now, when you say that, do you mean simply with their voice, or do you mean like if I played a note on the piano like a C or a B, and I tried to get them to play that note on the reed alone, they wouldn't be able to do that? It may be because their embouchure is not right. I mean, they literally wouldn't be able to kind of recreate that pitch on the reed.

KT: Yeah, I mean more of like… Like, I've had students when I… students I inherited at certain schools that I've tried to have them just hum a note, and they couldn't match the note.

AP: Right.

KT: We had to work on just them being able to match the note, not anything with their singing technique or anything like that at all. Just, you know, I'd be like (hums), and they'd be like (hums). And they could not do it.

AP: Right. Well, the reason that I ask is because I think there's a difference between people who can't hum or sing a note to match because their ear is deficient versus because they don't know how to use their vocal chords.

KT: Right.

AP: And so, I think it's important first to diagnose that, which is why I ask. If somebody, like for example, can't match a note that you hum by humming it back to you, that may not mean that

they can't hear the pitch correctly. It may just mean that they don't have even a modicum of control over their resonance of their voice to make the correct pitch out of it. So, then I have them try to play a note on the reed and match piano. And if I have a student that simply cannot match a pitch at all because they can't hear it, which I don't even remember when that's ever happened. That's pretty rare. Then I usually suggest to that student that they, you know, play a percussion instrument. Because really, that's at the level of the ear. I do think you can fix that. Or improve that. But it takes a lot of work. So, unless a student is really, really driven at a young age, then I suggest maybe they consider a different instrument. But, I'm telling you, that's probably only ever happened once in my entire career.

KT: Okay.

AP: Okay, so we've unpacked that. First, you have to figure out if it's a deficiency of hearing or deficiency of vocal control. So, to answer the rest of the question, which is essentially, how do I allow a student or get a student to understand things at a vocal level when they don't necessarily connect with their own voice in that way? So, I think that's where a lot of listening needs to come into the equation. This is why I give students lists of singers to listen to, specific recordings and pieces to listen to, because I find that even if you can't really do it yourself, that if you listen and watch singers closely enough over a long enough period of time, you will start to through osmosis kind of get a sense of what that must feel like and look like, to sort of support the tone that way, to resonate that way, to use your oral cavity, the top of your head, the forehead, your resonating mask, all of those things. I think students begin to kind of… It may take them a little bit longer. It may not, but as long as they're really listening and watching and studying and observing, they will begin to at least be able to kind of conceptualize those things.

KT: Okay.

AP: In terms of practical ways to work on these things we're talking about, one of the things I like to do myself, and have students do, is learn a piece for voice on the oboe. Like an aria, Handel or Mozart aria, or a Schubert lieder, or a Schumann lied, something like that. And I'll have them find a couple recordings that they like, and play along with the singer and try to match their sound and their intonation and their vibrato. And then I'll have students from the studio come perform their piece, and we'll talk about the text, the poetry, whatever it is. And we'll talk about how we're able to kind of create and bring about the meaning of the text, even though we're not using any words. And we'll talk about what it took to make our playing match the singers a little bit more, what that means exactly. So, I think doing stuff like that, learning pieces for voice on the oboe and playing along with singers is a really good way, maybe in particular for those students you talked about that have a little bit of trouble with their own singing. Maybe that's a good way to help them feel it more and more on that level as well.