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The Philadelphia Influence on the Art of Reed Making

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ART OF REED MAKING

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ABSTRACT

The oboe reed is both a blessing and a curse—the bane and the delight of every oboist. There is nothing greater than the satisfaction of creating an amazing reed that will do everything an oboist requires. A great reed allows one to play for hours and not become exhausted. It helps produce easier articulation and response from the instrument, as well as a better musical line to help the oboist sound more fluid in his phrasing. A bad reed, however, will cause a lot of stress in the life of an oboist, forcing him to spend countless hours behind a reed desk.

Due to the uniqueness of each reed and each oboist, no two players will ever produce an identical tone on the oboe. This is true even if two players use the same oboe with the exact same reed.1 The whole purpose behind reedmaking is not to create another level of difficulty for the oboist, but to uniquely bring out the best qualities of the oboe and the oboist’s individuality. Reedmaking, while stressful in the early stages of learning, eventually becomes a very personal endeavor for each oboist. The more knowledge that is gained in the reedmaking process, the greater is the drive to perfect it. In reality, there is no such thing as a perfect reed.

An oboist’s goal, when making reeds, is to strive for response, correct pitch, stability, and a tone that is unwavering in beauty. The tone should not be so strident and shrill that it lacks depth, yet also not be so dark that the flexibility of the tone is hindered.2

As the majority of reed making taught today is based on the American style of reed making, few students get the opportunity to learn about reed making from the

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Philadelphia point of view. There are many guides already published and available for oboists today, but not many refer to the oboe reed through the Philadelphia influence. This paper does not intend to state that the Philadelphia reedmaking process is the only correct way to make a reed. It is intended to enlighten young and professional oboists, and to tweak their interest in experimenting with their own reeds to create an even better product. It is also the goal of this project to present ideas of reed making to both amateur and professional oboists, who have not had the opportunity to study within the aforementioned Philadelphia music schools. It will allow them to take a look at their current reedmaking skills and apply new ideas. One of the most beautiful aspects of reed making is that it is constantly changing. It is my hope that the information provided in this document, some of which is supplied from other oboists influenced by the Philadelphia style, will prove new reedmaking ideas to many oboists.

This treatise contains all information I have accumulated in the years of study in Philadelphia and present the knowledge of reedmaking through my eyes. It will follow the process of reed making from raw materials through the finished reed, and discuss each detail that goes into creating the Philadelphia reed. Surveys on reedmaking, from other graduates from the Philadelphia area, are included in this study to serve as reinforcement to the ideals and principles that still hold true in the Philadelphia area today. Reedmaking has always been one of my strongest passions as an oboist and it is my wish to share the knowledge I have obtained throughout my years of study.
INTRODUCTION

Based on the time spent studying at The Curtis Institute of Music, it is this oboists belief that the majority of sound and tone produced from the oboe comes mainly from the reed and the style of reed, used on the instrument. One of the most beautiful aspects of the oboe is that not one oboist in the world sounds like another. Many sound similar, but none are exactly the same. In four years studying with Richard Woodhams, the author learned that just the tiniest scrape on the reed can create a completely different response, changing the entire quality of the reed. The Philadelphia reed style is very complicated and takes much patience and focus to fully grasp. In many teachings of reedmaking, students are taught to create a reed that will produce a dark, rich sound. This generally results in a reed that is stiff, nonresponsive, and lacks in the ability to vibrate properly. It is my hope that an insight into the Philadelphia reedmaking style, will help broaden the horizons of all reed makers.

The Philadelphia reed style is the bridge between the French school of playing and the American school of playing. The majority of oboists in the United States now play on what we consider the American, or “long scrape” reed. All American oboists can trace their reed heritage back to Marcel Tabuteau, the first oboe teacher of The Curtis Institute of Music, and his successor, John de Lancie and Richard Woodhams and the influences of Philadelphia. Without the changes that occurred to the oboe reed in Philadelphia, the tone and timbre of the oboe, heard today in the United States, would not exist. There are still a select few that teach and play on the Philadelphia style oboe reed. Graduates from the Philadelphia area music schools (Curtis Institute of Music and Temple University)
hold many of the top oboist jobs in the country.

In describing the sound qualities produced on the Philadelphia reed, many say it creates a brighter sound than the American style of playing. This is a fair statement, as it is a bridge between the French and American styles. It can be categorized as focused, flexible, more colorful, articulate, lithe, and vocal than the American style. The tone produced from playing on Philadelphia reeds is extremely unique in its combination of rich, dark, and round timbres accompanied by vibrancy. It allows a wide range of dynamics, expression, and contains a certain effortlessness to its sound. Jonathan Fischer said it best, when he stated “The concept of the Philadelphia sound is a blend of strength and suppleness. It is firm but malleable, dark but alive, round but focused with a glow to the sound. I’ve heard it described as the hardest substance on earth in the center of the sound, surrounded by the softest–A diamond in a velvet bag.” All of these qualities would not be possible without the advancements in reed making from Marcel Tabuteau and the reed seen today from the Philadelphia style of playing.

To fully illustrate the thoughts of prominent contemporary performs from the Philadelphia style, please refer to the Appendix C. These artists were kind enough to share much of their knowledge about their reeds, equipment, concepts, and thoughts on their individual artistry.

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3 Katherine Needleman, Questionnaire.

4 Jonathan Fischer, Questionnaire.
CHAPTER 1

METAMORPHOSES OF THE OBOE REED IN PHILADELPHIA

So how did the reed, referred to as the Philadelphia reed, come into existence? The answer lies with the first teacher of oboe at the Curtis Institute of Music, Marcel Tabuteau. Of all oboists that played in America, none are as venerated as the great Marcel Tabuteau. Tabuteau came to the Philadelphia Orchestra in 1915, after a short stint in San Francisco and a few years with the Metropolitan Opera. It was under the direction of Stokowski, the current conductor at that time of the Philadelphia Orchestra, that Tabuteau was encouraged to experiment with new ideas of tone and phrasing and shown much appreciation for his imagination. Stokowski made this statement about Tabuteau later in his life:

In working with the Philadelphia Orchestra, my dream was, and we partly achieved that dream, to express to the utmost the spirit, the inner spirit, of every kind of music. I say “every kind” because every composer as an individual, as his life develops, produces—creates, different kinds of music….And, of course, the differences between two composers who lived in the same period, like Brahms and Wagner, are like the difference between the North Pole and the equator… In order to do all that with the Philadelphia Orchestra, I begged the players to notice all those differences and I said to them, “Each one of you must be a poet as well as a great player of your instrument, and through your poetic feeling, You can express every kind of music.”…Do not permit yourselves to become, as is the tendency in the world today, standardized, so that you all think and feel the same way…. Give your personality, all your inner feeling, give that expression through music. Do not all be alike. Be different as you really are in your natures. No two violins are alike. No two bows are alike. No two hands are alike. No two nervous systems are alike. No two minds are alike. No two emotional characters are alike.

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6 Storch Laila, Marcel Tabuteau: How Do You Expect to Play the Oboe If You Can't Peel a Mushroom? (Bloomington, IN: Indiana University Press, 2008), 90.
You are all different. Be different! Don’t standardize yourself. And put all those difference, all that richness of different coloring of personalities into music.” They finally did that and the orchestra became so flexible and so extraordinary!\(^7\)

In his quest to fulfill Stokowski ideals for the Philadelphia Orchestra, Tabuteau worked diligently to find the best possible tone and expression demanded for each composer. This led Tabuteau to find flexibility in a reed that a simple “short” scrape reed, at that time, would not allow. His search for the perfect color of tone and sound must have affected his lifelong work to make the exact oboe reed needed for a specific piece. He painstakingly scraped the cane to the point that best allowed the expression of his musical ideas and allowed him to achieve specific qualities in sound that were essential to appropriately demonstrate Mozart, Brahms, and Wagner.\(^8\) The short scraped reed refers to a reed that was produced in French oboe playing. This reed was generally scraped only on the top half of the body of cane and was extremely thin at the tip. The remainder of the reed was still covered in its original bark. Most likely Tabuteau, coming from The Conservatoire national supérieur de musique et de danse de Paris and having studied under Georges Gillet, played on a short scraped reed. Tabuteau eventually took this short-scraped reed and not only made the scrape thinner for more vibration, but extended the scrape almost to the point where the scraped cane met the thread. This scrape became known as the long-scrape reed. Its design is intended to establish a balance between vibration and resistance, by allowing the reed to vibrate freely, while at

\(^7\) Leopold Stokowski interviewed by Gordon Stafford, March 1956, quoted in Storch Laila, Marcel Tabuteau: How Do You Expect to Play the Oboe If You Can’t Peel a Mushroom? (Bloomington, IN: Indiana University Press, 2008), 89-90.

\(^8\) Storch Laila, Marcel Tabuteau: How Do You Expect to Play the Oboe If You Can’t Peel a Mushroom? (Bloomington, IN: Indiana University Press, 2008), 90.
the same time possessing the stability to produce a rounder and more lush tone. Another major factor in the development of the Philadelphia reed style, by Marcel Tabuteau, was the many different and distinct styles that occurred at the same time in the Philadelphia Orchestra. These different styles were largely due to the orchestra importing French musicians for the flute, oboe, and clarinet sections, while gathering German musicians for bassoon, horn, and brass sections. With the mix of different styles of playing came a greater need for a more dolce sound that blended equally with not just woodwinds, but brass and strings as well. Tabuteau’s sound, which was already more delicate and refined compared to the French oboists, became even more refined and focused and flexible. His style of playing required gentle tongue strokes, also noted in teaching today as “articulation on the wind.” His staccato became crisp but delicate, something that could not be done, to the extremes of Tabuteau’s ideals, on the short-scraped reed. This led Tabuteau to create a reed that allowed his sound to blend with all the other colors presented in the orchestra. This new understanding of reedmaking led to greater mastery of some of the hardest concepts and control exercises on the oboe, which could only be mastered by playing on a more fully-scraped reed. Tabuteau’s system of dynamic intensity (often demonstrated in long tones, played pianissimo to fortissimo and back to pianissimo, and was written as 1-9-1) was so daunting that a harder reed, at times, exhausted an oboist after only fifteen minutes of playing. This is also known as


10 Ibid, 200.

Tabuteau’s number system\textsuperscript{12} It is important to understand the essence of tonal shading Tabuteau tried to encapsulate in his number system. It involved volume, vibrato, air speed, and the intensity of the wind one was able to blow through the reed. This could not have been achieved on a reed that was only half scraped.\textsuperscript{13} The tradition of the Philadelphia sound and Tabuteau’s teachings prevail today in Philadelphia at The Curtis Institute of Music Through Tabuteau’s predecessors, John de Lancie and Richard Woodhams. Tabuteau’s pupil, John de Lancie replaced Tabuteau after his retirement in 1954 and de Lancie’s pupil Woodhams replaced de Lancie in 1984.\textsuperscript{14} Almost fifty years after his death, Tabuteau still holds unrivaled esteem amongst American oboists. His revered status most certainly stems from his teachings and lessons given at The Curtis Institute of Music in Philadelphia. The principal technical elements that distinguish his form of playing from all others are made possible from the style of reed he developed, which allows oboists to play with more control and in a more relaxed manner, in order to create the most dolce yet vibrant sound on the oboe.\textsuperscript{15}

\textsuperscript{12} Storch Laila, \textit{Marcel Tabuteau: How Do You Expect to Play the Oboe If You Can’t Peel a Mushroom?} (Bloomington, IN: Indiana University Press, 2008), 219.

\textsuperscript{13} Geoffrey Burgess and Vruce Haynes, \textit{The Oboe} (New Haven and London: Yale University Press, 2004), 199.

\textsuperscript{14} ibid, 206.

\textsuperscript{15} ibid, 207.
CHAPTER 2

CANE SELECTION

Before getting started with the process of selecting cane to create the reed, I would like to note that all tools mentioned in the next several chapters are pictured and labeled in Appendix B. For a clear visual reference, please see this list.

Selecting cane is the first step in the long process of reed making. It is highly important to be as selective and particular with your cane as possible, as a bad piece of cane yield unfavorable results. The most important thing about the cane, which will be stated in almost every chapter, is symmetry. If one begins with a piece of cane that is not entirely symmetrical, the end product will not be of good quality and will most likely cause frustration at some point in the reed-making process.

When looking through tube cane, choose the straightest and most even cylindrical pieces. Cane is usually sold by weight, typically by the pound. One pound of cane generally holds anywhere from 100 to 140 tubes of cane. When looking at tube cane, look for tubes that are between 10 and 10.5 in diameter. If possible choose tubes with thicker walls, with smooth bark and no large grains. The color should be golden brown without too much discoloration. Below are pictures to show what is desirable and what is not.

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Figure 1: Tube cane displaying walls with desired thickness.

Figure 2: Acceptable tube cane.
Splitting the Cane

After you select your piece of tube cane, split it in order to get the most precise piece of cane that you can. Generally, I only get one piece of cane from one tube. If I am extremely lucky I will get two. Before dissecting the cane, locate its flattest part by rolling the tube over a flat surface and looking for the part that has no space between the cane and the surface. It should be noted that it is okay if part of the tube is lifted off the surface, as it can be guillotined off during the cutting process. Splitting is accomplished in one of two ways. Many people will take a cane splitter and push it down the tube creating three equal cuts from the tube cane. If you want the absolute best piece of cane, this method is not recommended. Cane splitters are imprecise and often deliver an inferior piece of cane. My personal preference, as taught to me by Richard Woodhams and John Mack, is to use a single-edge razor blade. After locating the flattest part of the tube, where there are no grooves or bends, take a single-edge razor blade and make a
mark at the top of the tube cane. It is important to use the freshest razor blade possible; the sharper the blade, the better. One razor blade generally splits ten to twelve tubes. Once the cane is marked, slowly push the razor blade down the length of the tube. If it is sharp, and the piece of tube cane is good, the razor should move down the tube like a knife cutting through butter.

**Guillotining and Pregouging the Cane**

The next step after splitting the cane is the process of guillotining the cane. Following the splitting process are guillotine and pregouge, but before it can be done, the cane must be soaked in hot water with the inside of the tube cane floating upright. This allows the cane to become fully saturated. If the cane floats with the bark side up, the water will not soak through the bark, which raises the risk of the cane cracking during the guillotining and pregouging stage. Soak the cane for approximately one to two hours. There is no real secret to this process. Just make sure that you locate the flattest, most symmetrical part of the cane cut from the tube and then cut the cane to the proper measurements of the guillotine. Many gougers have guillotines already built into them. I highly recommend buying a guillotine that is not connected to the gouger and is adjustable in length. This allows you to cut a piece of cane the exact length of your easel, which makes the later steps in the reed-making process much simpler and less accident prone.
The cane must now be put through the pregouging system. The purpose of pregouging is to remove the top surface of the cane to make it presentable and easier to gouge in a gouging machine. There are many types of pregougers. One type includes a straight blade attached to a bed on which the reed-maker pushes the cane under the knife with a wooden block. Another format consists of a metal plate that has a cane bed in the center, over which a planer is pushed until the cane until it is shaved perfectly flush with the metal plate around the bed. The final type of pregouger is a turned based pregouger. This pregouger, always less stress on the cane and the user. It consists two blades. One blade is flat, to smooth the surface, and the other is a curved and digs through the middle of the cane. The purpose of a two-bladed pregouger is to remove a larger portion from
the center of cane early to conserve the life of the gouging machine’s blade. The turned based pregouger is by far the easiest to use, but it works best to when the curved blade is removed, as it tends to cut too much matter from the center of the cane, creating an uneven gouge later when it is put through the gouger. A straight blade pregouger yields a much better product. If the cane does not stay in the pregouger during the plaining, then it is apparent that the cane will not be a good fit for the gouger; this will save a lot of time and eliminate frustration in later steps. Note that through each step—splitting, guillotining, and pregouging—using the sharpest possible tools will generate the best product.

Figure 5: Pregouging cane on crank gouger. Photo by Christina Rowe

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After completing these steps it is time to ensure the cane is ready for the gouging process by putting it through the “straight and symmetry” test. First, take the freshly pregouged piece of cane and lay it on a flat surface. Double check to make sure the piece of cane is completely flat. Figure 6 displays a perfect piece of cane that meets the “straight and symmetry” test, while figure 7 shows a piece that fails the test. After performing the final tests, the cane is now ready to be gouged and prepared for tying.

Figure 6: Pregouged cane passing Straight and Symmetry Test. Photo by Christina Rowe.
Figure 7: Pregouged cane failing Straight and Symmetry Test. Photo by Christina Rowe.
CHAPTER 3

GOUGING

Many oboists will tell you that gouging is the most important process of reed making. I will tell you that it is not. It is only part of the process. If anything goes wrong during any part of reed making, the end result will not be good. There are many oboists who consistently struggle with their gouger and blame their bad reeds on either a “bad gouger” or “bad cane”. The latter is most often the case, as, according to my teacher, Richard Woodhams, gouging is probably the most inexact part of the process. In my own gouging experience, I have had amazing reeds where the center of the gouge is .63 or even as low as .55. The most important thing when gouging is the sharpness of the gouger blade and the symmetry of both the cane and the gouger cuts. Symmetry is of the upmost importance, as it plays a large role in the equilibrium of vibrations produced by the finished reed.

Types of Gougers

There are a few types of gougers used today by American oboists. The first is a gouger where the blade is slightly offset. This means that when gouging, the cane must be turned around 180 degrees multiple times in order to get the desired end result. While many oboists prefer this gouger, I do not recommend it for its inaccuracy in producing a piece of cane that is equal on both sides. The second type of gouger is a

18 Richard Woodhams, personal lessons, 2000 - 2004

symmetrical gouger. This machine gouges in only one direction, which allows the cane to come out completely symmetrical. One of the greatest aspects of this machine is if the cane is not going to work or is bad, the machine will not gouge it. I recommend this gouger, as it is a great way to test what cane will work and what will not. Additionally, it comes in the form of a turn based gouge, making the process even more efficient and less taxing. These machines also gouge cane dry, which saves a great deal of time. If you choose to use a non turned based gouger, you will have to soak the pregouged cane for at least an hour before you commence gouging.

When gouging, I aim for the center of the cane to come out at .59 to .60μm, with the cane’s sides around .48 to .50μm. A firm piece of cane gouged to these measurements most consistently assures a vibrant, stable reed that will sustain a long life. However, if the gouge is slightly thinner or thicker than these measurements, it will still work as long as the dimensions are symmetrical.

When gouging, the cane should come off in smooth curls. This goes for both types of gougers. If the curls coming off the blade have splits or show signs of dividing, then there is a great chance the piece of cane has a hidden crack in it. In this case, it is best to immediately discard the piece of cane and move on to the next one.

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Figure 8: Cane in gouger bed. Photo by Christina Rowe.

Figure 9: Cane being gouged. Photo by Christina Rowe.
After gouging the cane, next use a micrometer to precisely measure for perfect symmetry across the piece of cane. If at any point during this process the cane does not meet expectations of perfect symmetry, throw the piece of cane out and move on to the next. The following figures illustrate the desired measurements for the cane. These photos are enlarged so the reader can see the exact measurements on the micrometer.

Figure 10: Middle of cane measurement. (0.60µm) Photo by Christina Rowe.
Figure 11: Ends of gouged cane measurement. (60µm) Photo by Christina Rowe.
After gouging the cane and checking the measurements, next check the feel and strength of the cane. Do this by twisting the cane slightly in both hands. If the cane snaps back to its original position, it is considered a strong and hard piece of cane. If it takes time to get back to its original position, most likely the cane is soft and unusable. If the cane is weak and does not show signs of strength, it will likely not produce a usable reed.

Figure 12: Sides of gouged cane measurement. (.48µm) Photo by Christina Rowe.
The cane will also most likely not seal on the sides.\textsuperscript{21} Make sure the cane is still straight and, throughout the process of gouging, it has not warped. This will ensure the reed will have tight sides on a finished reed. If the cane is not properly and thoroughly checked after it is gouged, the reed may end up with loose sides and will never feel right in the embouchure. The result for the oboist is rapid fatigue, which is contrary to the purpose of the Philadelphia reed. \textsuperscript{22} Once the gouging process is complete, it is time to shape and tie the reed.


\textsuperscript{22} Jonathan Fischer, Questionnaire.
CHAPTER 4

SHAPING AND TYING

Shaping cane is idiosyncratic. This has a lot to do with the numerous shaper tips that exist. The most important thing for the oboists when shaping is to make sure the shaper tip yields a comfortable reed when playing. Accurate and precise shaping can only be accomplished by using a perfectly symmetrical shaper tip. The tip must hold the cane tightly in place so no shifting or movement occurs during the shaping process. Many tips are wider than others; while some are so narrow they create a rather straight-looking reed as opposed to one that flares at the top. I recommend a shape where the top of the reed is slightly wider and the bottom is extremely narrow. This helps create the vibration in the reed that characterizes the Philadelphia sound. It also creates stability in pitch and, since the bottom of the shaped cane is narrow and fits tightly to the staple it is tied to, it does not let the pitch sink. Both Katherine Needleman and I perform on Yamaha’s professional “Duet” series oboe and both of us prefer the Mack ++ tip. This tip meets all of the expectations to create a Philadelphia style reed. Another factor for finding the correct shape is the oboe it is played on. Every oboe is different, especially when comparing those of different companies, so that a tip that works on one oboe may not work well on another. Other popular tips with Philadelphia oboists include, Gilbert -


25 Katherine Needleman, Questionnaire.
All of these tips vary, but share in common the ability to achieve a good seal on a stable when tying is complete.

**Soaking the Cane**

Before the cane is shaped it must first be soaked in hot water for ten to fifteen minutes. This is an extremely important step, as it further tests the usability of the cane and, ultimately, the quality of the reed. Many oboists wait for their cane to sink and then proceed to make the reed. However, I recommend cane that does not sink, as it ensures the cane is of good quality. If, at any point during the ten to fifteen minutes, the cane sinks, discard it. Almost 100 percent of cane that sinks too early will bow during the folding process and crack when it is tied. I watch my cane soak for the ten minutes and remove it promptly. If it has not sunk by this point, it is highly likely it will result in a very nice reed with a stable vibration.

**Shaping the Cane**

Once the cane is removed from the water, it is time to prepare it for shaping. The first step is to scrape the bark off the ends of the cane on an easel. This is done so that when tying the cane to the staple, it will fold easier and mold around the staple without cracking up the center.

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26 Elizabeth Koch, Questionnaire.
Once the bark is removed, fold the cane in half to create the double reed effect. This can be done in two different ways: The first way is to place the cane over a finger and make the ends of the cane meet as it is folded over. Continue pressing the sides of the cane until a crease appears in the middle. Make sure the cane is able to close on its sides without gaps or spaces between the folded blades. The second way to fold the cane is to score it in the middle, with a razor blade, over an easel. After scoring the cane, the scored part should be placed over the edge of an object. This can be done with the blade of a knife, razor blade, or the edge of a flat table.

I recommend the second method. It yields the most accurate and best results for tying purposes and prevents the cane from splintering.

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28 Ibid, 28.
Figure 14: Cane scored on easel. Photo taken by Christina Rowe.

Figure 15: Cane folded over razor. Photo by Christina Rowe.
After shaving the bark off the ends and folding the cane properly, check the fold to make sure the middle crease is even and does not spread open. The cane should fold smoothly and create a perfect crease that does not have any openings. When looking at the crease, the fibers on the inside of the cane should be visible in a very thin narrow line. The sides of the cane should also close completely parallel, giving the appearance of a complete seal on both sides. Figure 15 is enlarged to clearly show a proper crease.

![Figure 16: Crease in folded cane. Photo by Christina Rowe.](image)

The cane is now ready to be fitted to the shaper tip. During this step, it is once again important to focus on the symmetry of the cane. Remember, when gouging, the purpose was to create equal measurements across the entire piece of cane. In order to fit the piece of cane to the shaper tip, the reed-maker will most likely have to shave thin slivers off both sides of the folded cane. This must be done with extreme precision. Take a sliver off both sides then test it on the shaper tip. If it fits, proceed to shaping the
cane. However if it does not fit, continue to remove slivers off each side, repeating the
aforementioned process of fitting it to the shaper tip.

Once the cane fits perfectly on the shaper tip, use the clamp on the handle to
tighten the cane and hold it in place. Many people tighten the clamp until it will not go
any tighter. This should never be done, as it will create indents in the cane, which will
later affect the vibration of the reed or possibly eliminate vibration entirely.\textsuperscript{29} Approach
the cane like a newborn baby. Be delicate with it, showing it as much care as possible.
Tighten the clamp only to the point where the cane does not move or slide on the tip.

Once the cane is locked in place, use a single edge razor blade to take the excess
cane off the sides of the shaper tip. Either place the handle against the sternum of your
chest and brace the weight of it against your body,\textsuperscript{30} or place one of the ears against a
stable surface.\textsuperscript{31} I prefer bracing the shaper handle against the sternum, as it provides
much better control, whereas placing the shaper tip’s ear against a fixed surface creates
the chance it will slip off the surface, since the ears are so small. And as your other hand
will be applying pressure to a very sharp razor blade, it is best to remove any variables
that could lead to injury.

With the handle placed against your sternum, grip the tip of the shaper in one
hand. Slowly move the blade down the sides of the shaper tip, keeping it completely
parallel to the sides of the shaper tip. \textit{Never} let the blade turn or have more influence on
one side of the cane than it does the other. This destroys the symmetry of the cane, which

\textsuperscript{29} David B. Weber and Ferald B. Capps, \textit{The Reed Makers Manual} (United States of America, David B.
Weber and Ferald B. Capps, 1990), 47.

\textsuperscript{30} Eric Ohlsson, private lessons, 1997-2000.

has been the focus since the beginning of the reed-making process. When shaping, always use a new razor blade. It is not worth trying to sharpen a razor blade for each new piece of cane. They are not expensive and you will want the newest and sharpest blade to accomplish the best and smoothest shaping possible. The following figure shows the correct way to position the razor blade on the shaper tip.

![Figure 17: Shaping with razor blade. Photo by Christina Rowe.](image)

Before finishing the shaping and taking the cane off of the shaper tip, run your fingers up and down the shaper tip as the cane is still held on tightly. Check for flushness between the freshly shaped piece and the shaper tip. Both the cane and metal should feel as smooth as if they were one piece. If any nicks or imperfections are still apparent, use a new razor blade and go over the shaper tip again. Once again, check for perfect symmetry.
Tying the Cane

Once the cane is properly shaped and and suitable in all areas, it is time to move to the tying process. Some people may find it beneficial, after shaping, to let their cane dry over night before tying. “In his book *The Oboe: Art and Method*, former student at The Curtis Institute of Music, Martin Schuring urges not to store the cane after shaping. Rather, tie the cane immediately and quickly move on to clipping the tip open. This helps to preserve a tight seal at the tip and back of the reed, where the cane meets the staple.” I strongly recommend this method as well.

Before tying the cane, it is best to take the ears of the cane off with a straight edge razor blade. Some oboists suggest removing the ears after the tying step, but the benefits of doing so beforehand much outweigh the benefits of removing them after, as it allows the reed-maker to see the seal at the tip of the reed on either side. This is highly important, as you want to make sure the blades of each side of the reed firmly grip each
other. If the ears are removed after the cane is tied it can allow a leak to appear that could have been noticed before the tying took place.

Figure 19: Removal of shaped cane’s ears. Photo by Christina Rowe.

To begin tying, first select a spool of thread. Tie the thread to a secure object that will not move when the thread is pulled with great force. I highly recommend a table vice that can be securely locked onto the end of a worktable. This provides great support for the tension applied to the thread as the reed is tied. Many people use beeswax on their thread with the idea to help create a stronger seal on the finished reed. However, beeswax at the top of the thread, where it comes in contact with the cane, creates an unhelpful resistance if and when it finds its way in between the blades of the reed, severely reducing the reed vibrations. Since the goal of the Philadelphia reed is lightness with maximum flexibility, I highly recommend avoiding the use of beeswax until the end of the tying process, when it can be used to help hold the knot in place.
Next place a staple on the end of the mandrel. This process works best if the staple is a perfect fit for the mandrel, in order to avoid the collapse of the staple when the thread is pulled forcefully and the staple has nothing to brace its structure against. There are many kinds of staples to choose from. I prefer the *Stevens Pro No. 2 thinwall with the oval eye*. They have a big enough opening to resist a great volume of air pressure.

Staples also come in many lengths. The great Tabuteau used to play on staples that were 46.5mm in length. This could only be done by filing the staple and rimming the inside out. I have adopted this method, generally purchasing 47mm staples, then filing the fat ends down with a large bastard file. I then rim the bottom of the staple to create a smooth finish. Many oboes these days are flat in pitch, and I find the slightly shorter staple helps comfortably raise the pitch.

Once you have the staple set on the mandrel and your thread securely tied to a stable surface, it is time to place the cane on the staple. The cane should be tied so the bottom of the cane that meets the tube to create a perfect seal when the thread is pulled tight against it. There is no perfect answer in regard to how long the total length of the reed should be when tied. The simple answer is to tie it as long as possible, while allowing the cane to seal at the bottom. This can mean anywhere from 74mm to 71mm in length. To begin tying, place the spool of thread in one hand and the reed on the staple in the other. Make three loops around the cane with the thread. Do not tighten the thread yet though. First, check that an equal amount of cane is on both sides of the staple, and then gradually tighten the loops over the cane.

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32 Richard Woodhams, personal lessons, 2000-2004
Before the thread is pulled tight enough to seal the sides of the cane, displace the front blade of the reed slightly to the right of the rear blade. This is called “the overlap” and doing this correctly allows the string to pull the blades together more tightly and securely. If the overlap is done incorrectly or in reverse, it can cause the blades of the reed to pull away from each other, resulting in loose sides.\textsuperscript{33} Make sure the overlap is set about 2mm apart and check that the cane is still straight on the staple.\textsuperscript{34} The reed in its finished state should never look crooked as this distorts the symmetry and will result in a faulty reed.

After the thread is pulled tightly around the cane, check that both sides seal properly. A great trick to figure out if the reed is properly sealed is to with the thread must be tightly,

\textsuperscript{33} Martin Schuring, \textit{The Oboe: Art and Method}, (Oxford, University Press, 2009), 117.

\textsuperscript{34} Michelle Duskey, Questionnaire.
place the mandrel, with the reed, in the hand holding the spool. With both the spool and the reed in one hand, remove the mandrel from the reed and place the bottom of the reed in your mouth and suck all the air out of the inside of the reed. If the seal is perfect, the reed will make a popping sound. You are then ready to finish the tie. This method saves an abundance of time, as there is nothing more frustrating than discovering a leak after the reed is tied, and then either having to throw it out or rewrap it.

With the reed sealed on both sides, overlap the thread and wrap it in a downward motion toward the cork on the staple. The crossover on the thread should be placed in the middle and not on the side of the tie, so as not to put extra pressure on one side of the reed and cause an unsymmetrical tie. This imbalance in pressure will not allow the reed produce the proper vibrations for a clear and constant sound.\(^{35}\) It is also important, when creating the crossover, not to wrap over the length of the staple. This pinches the reed and creates another obstruction to its necessary vibrations. The wrap should only be as long as the length of the staple, but to avoid over-wrapping and thus interfering with the reeds ability to vibrate, it is recommended to wrap at least one half millimeter shorter than the staple. So in my case, I use 46.5mm staples, and tie at 46mm.

\(^{35}\) Elizabeth Koch, Questionnaire.
With the sides of the reed sealed and the reed tied straight, continue to wrap the thread down the remainder of the staple toward the cork, leaving enough room to tie it off with a few knots. At this point, it is helpful to cover approximately two to three inches of the thread in some beeswax. Next, wrap two loops of thread around the index and middle finger of the hand holding the spool. Place the reed between the two loops, approaching it from the bottom of the loops to the top. Remove fingers from the loops and pull the thread firmly. This creates two knots at the base of the wrap. Repeat this step twice until there is a total of four knots. At this point put a little beeswax on the end of the thread to help prevent the reed from ever unraveling and coming untied.
Figure 22: Final tying stage. Photo by Christina Rowe.

Figure 23: Thread being prepared for knot. Photo by Christina Rowe.
Figure 24: Knot at base of thread. Photo by Christina Rowe.
Figure 25: Finished tied blank reed. Photo by Christina Rowe.
CHAPTER 5

SCRAPING

The most important step to create a reed that represents the Philadelphia style is scraping. During this phase, one should strive to obtain response, correct pitch, stability, and a pleasing tone. The reed should be easy to blow in with vibrancy and flexibility. It is important to remember, during the scraping phase, to never force a good quality of sound on the reed. Doing so will cause the end result to be false sound and not true to the reed’s actual quality. This also causes the oboists to worker harder and will result in a fatigued embouchure. In my experience this is one of the largest factors that separate the Philadelphia reed from other American reed styles. Many oboists, who play the American style, scrape a reed to a certain point, and deciding it is good enough, muscle the remainder of the reed to achieve a desirable tone. The intention of the Philadelphia reed is to make playing the oboe effortless.

The first step in scraping is to form the tip of the reed. To begin, first remove the bark from the tip of the reed only, using a very sharp knife. The reed should never be touched with anything less than the sharpest possible knife. Even when removing the bark, a sharp knife allows a precision a dull knife will not, and prevents from cutting too deeply into the reed. I recommend keeping three to four knives in top condition at all times. It is helpful to use the thumb of the hand holding the reed as a fulcrum for the end of the knife blade, as it allows for more control as you scrape. The motion of scraping

36 Richard Woodhams, personal lessons, 2000-2004

37 Ibid, 38
should come from the wrist of the hand in which the knife is held. The hand itself
should never create extra force by pushing the knife against the reed. Each scrape should
be gentle and done with precision. I like to compare to the scraping strokes to the
delicaecy of a woman applying finger nail polish to her nails. A sharp knife aids in this
goal. While some pressure is exerted in order for a reasonable amount of cane to curl
off, the weight of the knife, plus the sharpness of the blade should be enough to aid this
process. If the knife begins to feel dull and does not easily remove cane, stop scraping
and sharpen the knife.

Begin by forming the tip on each side of the reed, scraping out to the corners
rather than straight up the tip.

![Initial scraped corner of tip. Photo by Christina Rowe.](image)

**Figure 26: Initial scraped corner of tip. Photo by Christina Rowe.**

Repeat on the opposite corner of the reed. After you finish one side of the tip, the reed
should have an obtuse, inverted “V” shape, which connects the tip to the rest of the reed.

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39 Ibid, 20

40 Michelle Duskey, Questionnaire.
Figure 27: “V” shape defining tip from bark. Photo by Christina Rowe.

Flip the reed over and repeat this process on the other side. Take special care as you scrape the opposite side of the reed that it remains symmetrical. If the reed does not maintain symmetry through the scraping process, the vibrations and comfort of the reed will feel awkward and unstable.

Figure 28: Symmetry between both sides of reed. Photo by Christina Rowe.

Next, place the knife at the back of the reed about 4mm = above where the thread meets the cane. Make long, smooth scrapes all the way up one side of the reed, until the knife meets the beginning of the tip. During the step, make sure to leave bark on the sides
of the reed. This is referred to as “the rails.” The rails are highly important as they provide stability for the reed. At this point in the scraping process, the reed should consist of two channels with a spine between them. Do not scrape too much cane out at this point; scrape only as much as will prepare the reed to be clipped open to produce vibration. Greater detail will be paid after the reed is clipped.\textsuperscript{41}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{knife_placement.png}
\caption{Knife placement at back of reed. Photo by Christina Rowe.}
\end{figure}

\textsuperscript{41} Ibid.
To clip the reed open and test for vibration, use a tip clipper. The cane on the tip of the reed should be slightly thick to prevent the corners from tearing during initial tip scraping and a tip clipper will help preserve the life of your razor blades. Leave plenty...
of room to scrape on the tip. It will be clipped repeatedly until the desired result is achieved. You do not want to come to a point where you have to extend your tip further into the reed’s heart if you run out of room. At this point, the tip, from back to front, should measure approximately 8 to 10mm in length.

![Reed being clipped open. Photo by Christina Rowe.](image)

**Figure 32: Reed being clipped open. Photo by Christina Rowe.**

Enough cane should have been removed from the tip, during the initial scrape, that once clipped, the reed readily and easily vibrates and creates a pitch. The goal is to get as much vibration in the reed as possible so that when the reed is placed in the oboe, it produces every note comes with ease, A wide range and rattle in the crow of the reed is highly desirable, and generally means the reed will be highly effective.\(^\text{42}\) Take this time, as well, to check the opening of the reed. It should have a symmetrical oval shape to the opening, which comes to points on each end where the edge of the tips of the reed meet. To test symmetry, slowly pinch the reed closed on each side of the tip; if it closes evenly and lays flat in the center, it has amazing symmetry. If the tip closes on one side before the other and does not meet in the middle, then it does not have good symmetry and will most likely not turn out to be a reed producing a good sound.

\(^{42}\) Jonathan Fischer, Questionnaire.
Once the reed is clipped open and has maximum vibration, set the reed aside for a day or two before finishing the scraping process. Always clip the reed open before letting it sit. A closed reed, unless in extremely humid areas, will collapse, hindering an optimal and effective opening.

Clipping the reed open and letting the reed to rest, allows the cane to adjust back to its natural texture, which is extremely important after the many subtle ways the reed has been manipulated throughout the reed-making process. Think of the reed as having a long day at work; it needs to relax in order to function to its utmost potential. Do not be
concerned if the reed sounds flat at this point. There is still plenty of reed to work with
and as for mentioned, vibration, and ease to play are the most important aspect at this
point in time.

After the reed has rested and dried for several days, soak it for about 30 seconds
in warm water before the finals steps of the scraping process. Make sure the water is not
extremely hot; this will cause the reed’s opening to swell and distort the actual tip
opening, which fully represents the reed. The resoaked reed should still be able to play
up and down all the registers on the oboe. Next, set the reed up by forming the heart to
its appropriate measurements. I strongly recommend using a micrometer dial indicator
on which you can measure the thickness of the tied reed to get specific measurements on
the heart of the reed. Place a plaque in the reed and start to form the heart of the reed by
scraping 10mm behind the back of the tip, up to where it meets the tip. Both sides of the
reed should measure equally, with the heart neither extremely thick, nor extremely thin.
The reed has two hearts, one on each side of the reed. Within each heart, there are two
sides connected by a spine in the middle. Each side of the heart should also contain the
rails, which were left from the initial scrape. The sides of the heart, all four of them,
should measure approximately 42 micrometers (µm) in thickness. When scraping the
sides of the heart, it is best to use the very tip of a sharp knife. This allows precision, and
prevents the possibility of cutting into the spine in the middle of the heart.
The spine of the heart should measure approximately .50µm. If you partially use the tip of your knife the spine may be slightly thicker than .50µm; it is alright to slightly scrape the spine at this point. As a precaution, constantly measure with the micrometer to ensure heart’s spine doesn’t dip below .50µm. If the heart of the reed is too thin, the reed sinks in pitch and plays flat. This cannot be fixed and will cause the oboist to bite the reed in order to adjust pitch. Not only does this mean you’re playing the oboe incorrectly, but it defeats the purpose of the Philadelphia reed: to eliminate strain and effort when playing.

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43 Eric Ohlsson, Private Lessons, 2006-2012
With a stable and symmetrical heart, it is time to return to work on the tip of the reed. When the reed’s heart is scraped and thinned, it is normal for it to play very flat and crow at a concert pitch “B.” When many young oboists hear this, they try to remedy the flatness by Reclipping the reed, as they believe scraping it will make the reed flatter. Continuing to clip the tip to raise the pitch will result in a higher pitch, but it also results in a harder and less vibrant reed. However, scraping the reed correctly will actually help it to rise in pitch and play with much more ease. To do this, select the sharpest knife in your toolset, place the plaque back in the reed, and scrape on the sides of the tip, being careful to avoid the center of the tip and the definition between the heart and the tip. Only scrape the very sides of the tip, from the back point where they meet the heart, to the top, and off onto the plaque. See figure 36.

Figure 36: Spine of reed measurement. (0.50 µm) Photo by Christina Rowe.
Continue scraping the very sides of the tip until the pitch will not rise anymore. Once this is achieved, the tip is ready to be clipped.

To clip the tip, use a fresh razor blade or the sharpest knife available to make the cut as clean as possible. Unclean and jagged cuts will result in the loss of vibration. Clip only the smallest amount from the tip of the reed as possible. It is better to clip, miss, and try again, than to accidentally remove too much of the tip. You can always take more cane off, but you can never put it back on. Continue clipping small amounts of cane, and alternately testing the rise in , by placing the reed in your mouth with the lips touching the thread, and blowing with full force. The desired pitch should be a concert “C.” It is best to hear two octaves in the crow, and although rare, optimal to hear three. After testing the crow, place the reed in your lips and form your embouchure around it as if playing the oboe and blow into the reed with amount of air used to create a mezzo forte dynamic. This pitch should also be a concert “C.” If these two tests do not align in concert “C” pitches, continue clipping slivers from the tip until the pitches match.
Once the reed is up to pitch, it is time to focus on its tone. To retrieve the vibration lost after clipping, use the knife to create a small amount of definition between the heart and the tip. This will likely cause the reed’s pitch to sag slightly, but can be fixed by re-thinning the sides of the tips. This is referred to as the “seesaw effect”: continue to alternate defining the heart and tip, and thinning the sides of the tip, until it feels comfortable to blow through. The tip should be very thin as the end of the process is approached, as the tip of the reed is where all the vibration occurs. The rest of the reed works as a funnel for those vibrations through which to travel.44 This is a main characteristic in the Philadelphia reed; it should vibrate so easily that the middle register C, all the way to the low F, should speak with as little effort as possible. “When Tabuteau’s pupil, John de Lancie, was a young oboist starting out in Philadelphia, he lived in an apartment with extremely thin walls. de Lancie created a reed so successful in

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44 Geoffrey Deemer, Questionnaire.
its effortlessness, it was able to play the aforementioned register at pianissimo, without any articulation on the reed.\textsuperscript{45}

Continue the seesaw effect until the pitch is stable at a concert “C” and the reed plays freely with a vibrant, clear, and responsive tone.\textsuperscript{46}

![Figure 39: Finished tip with measurement. (.01\(\mu\)m) Photo by Christina Rowe.](image)

At this point, the reed should be very pliable and feel comfortable to perform on, with only a few final touches remaining. Until now, there has been no work done on the channels in the back of the reed, as this is the last step. Manipulating the channels too early in the scraping process can cause the reed to sound deceptively good, hiding characteristics of the reed that still need attention. Keep in mind, the channels in the back of the reed act much like the heart works, functioning as part of a funneling device to carry the vibrations produced in the tip through the entire reed and into the oboe. Saving


\textsuperscript{46} Michelle Duskey, Questionnaire.
the channels until last allows the oboist one final way to adjust the reed and add depth to the tone. There is no correct measurement for how thin to make the top of the channels, but it is generally helpful to scrape in the channels, just behind the heart, aiming for an average measurement of \(0.38\mu m\). Focus mainly scraping out cane until the pitch of the concert F-sharp and concert G start to sag. If these notes fall below the 440 mark on the tuner, the reed is unusable. It will never sit up and pitch and the oboist will struggle with the reed until it is retired.

As has been stressed throughout the process, use a sharp knife to scrape in the channels, and scrape only small amounts, alternately testing the reed on the oboe. Dark timbres and a more mellow tone should now begin to emerge from the reed. Continue until the desired sound is produced, remembering to not scrape so much that the reed goes flat. There is no way to correct a flat reed, where the pitch has been established in the back of the reed.

A finished reed generally measures between 68mm and 69mm in length, with the tip measuring about 3 to 4mm in length, and the heart around 5 to 6mm in length. The channels in the back of the reed stay around 10mm in length and there should be about 4mm of bark between the channels and the thread.\(^47\) After final measurements, the reed is ready to be tested and finished. The following figures show a finished reed under the light and out of the light. This allows a view of the proper shading seen in a finished reed.

\(^{47}\) Michelle Duskey, Questionnaire.
Figure 40: Finished reed being measured. (68mm) Photo by Christina Rowe.

Figure 41: Finished reed. Photo by Christina Rowe.
Figure 42: Finished reed displayed under light. Photo by Christina Rowe.
CHAPTER 6

FINAL TESTING

In the final testing of the reed, one should look for the following qualities: the reed should respond in every register and play in every required dynamic range; the tone should be flexible but not sluggish, stable but not rigid; the reed should feel comfortable in the oboist’s embouchure and not create any tension or strain; the reed should do all the work, allowing the oboist to blow freely into the reed, experiencing its vibrations in a smooth, colorful and vibrant sound, which should be neither too dark, nor too bright and shrill. 49

To test the reed, place it in the oboe and play a G major scale for two octaves. G major is the most open note scale on the oboe; it speaks the truth about how in tune the reed is. Play the scale slowly, listening carefully to all the pitches. Each note should ring with vibrancy and clarity. As previously mentioned, test the piano and pianissimo dynamics of the reed. Blow lightly into the reed from middle C down to low F. Do not articulate the reed when doing so. Assuming the oboe is in proper adjustment, and is of good quality, each note should speak with little effort.

Next, test the evenness of the vibrations in the reed. Play a concert A and slowly depress the next key, moving in a downward motion to the concert G. If the vibrations are completely smooth in the reed, the pitch should bend slightly without breaking, and the G should come out smoothly and clearly. After this test, play the concert B and the

48 Elizabeth Koch, Questionnaire.

concert C on the instrument. These notes are generally the hardest to play with a beautiful sound. With the Philadelphia style reed, however, the oboist should be able to blow the notes freely without resistance. The notes should not spread and the sound should not be bright or shrill. The reed is now finished and capable of accomplishing the majority of the work for you. Finally, enjoy the new reed and the ability to play without forcing your desired sound.
CONCLUSION

The Philadelphia reed is not for every oboist, but those who learn how to make reeds similar to this style will unlock much more potential from the oboe than those who focus on a harder reed that more closely resembles the American-style reed. The American-style reed can range from being stuffy, unchanging, and heavy to sounding bright, pointed, and direct.  The rigid nature of this reed makes it extremely different to portray the qualities a Beethoven or Mahler symphony requires. While oboe parts in the two symphonies should never sound the same, playing on rigid reed inhibit the necessary variances and cause the parts to sound the similar. A reed made to the Philadelphia standards is unique because of its flexibility to produce a variety of colors in the tone.

While there many reed-making manuals available, not one exists on creating a reed that closely resembles those used by Philadelphia oboists. This document fills that gap, serving as a strict guide on how to produce a reed of high quality that encompasses all the great characteristics of the Philadelphia sound. This treatise is written for an audience of professionals and higher-level students to help them incorporate new ideas and theories into their current reed making. Tabuteau, who to this day is considered one of the greatest reed makers in the world, saw reedmaking as a creative journey, and as one that is never ending and full of possibilities. Playing on a reed created from the influences of the Philadelphia style will help oboists produce a more vocal tone on the oboe and achieve a new level of expression not otherwise obtainable.

50 Michelle Duskey, Questionnaire.

51 Ibid.

Photo 1, items listed left to right:

- Cutting block
- Plaques
- Easel
- Mandrel
- Ruler in (mm)
- Staples
- Thread (size FF)
- Single edge razor blade (Pictured top right)
Photo 2, labeled left to right:
   Shaper tip
   Shaper handle with shaper tip inserted
   Double hollow ground knife
   Needle nose pliers
Photo 3, labeled left to right:
Micrometer for measuring finished reeds
Tip clipper
Photo 4, labeled left to right:
Diamond stone
India stone

Photo 5, labeled top to bottom:
Ceramic crock sticks
Steel burnishing rods
Photo 6: Guillotine for chopping cane

Photo 7: Crank pregouger
Photo 8, labeled top to bottom:
RDG gouger (adjusted for asymmetrical gouging)
Innoledy gouger (symmetrical gouger)
APPENDIX B

SUPPLIERS

Boston Double Reed Inc. – www.bostondoublereed.com

Charles Double Reed Company – www.charlesmusic.com

Forrests Music – www.forrestsmusic.com

Hodge Products – www.annhodge.com

March Chudnow Woodwinds – www.mcwoboe.com

Midwest Musical Imports – www.mmimports.com

RDG Woodwinds – www.rdgwoodwinds.com
APPENDIX C

QUESTIONNAIRE SUBMITTED TO SUBJECTS

Oboe Reed Questionnaire

Name: 
Education: 
Job/Title: 
Address: 

1. Describe what drew you to Philadelphia as an oboist. Were there certain qualities in sound and artistry that made you feel Philadelphia was the best place for you to develop as an oboist?

2. How would you describe the sound created by oboists under the Philadelphia influence versus the sounds of other American schools of playing?

3. On what kind of oboe do you currently perform? Explain the setup of your instrument and how it affects your reeds.

4. Please list the tools that you use for reed making. (gouger, shaper tip, knives, staples, plaques, micrometers, sharpening stones) Talk about the brands you use and why you use them. Are there any specific stores you like to deal with when buying your tools and supplies?

5. How do you go about your start up process for reed making? Please discuss your cane selection and gouger setup. How do you feel this affects the final result in your reeds?
6. What characteristics do you find good about the current shape you use? Do you find that you switch shapes as the weather changes through the year? If so, explain why.

7. Discuss your tying process. What measurements do you use when measuring from the base of the staple to the top of the freshly folded cane? Do you use a certain type of staple and if so what are the measurements of the staple and brand?

8. After tying your reed, explain your scraping methods. Please go into as much detail as you see fit. Talk about certain areas of the reed and what qualities you are looking for as your scrape in them. Drawings and diagrams are welcomed if you wish to include them.

9. In your finishing steps of the reed, discuss the fine details you are looking for. How would you describe the sound from a finished product?
Michelle Duskey:

1. My oboe teacher in Pittsburgh was Philadelphia-trained, so starting at age 12, I was inspired to sound like the Philadelphia masters of oboe: Marcel Tabuteau, John, de Lancie, and Richard Woodhams. The richness and vibrancy in the Philadelphia tone along with the changes of color in the expression and long lines of phrasing were very attractive to me and drew me in.

2. The Philadelphia tone is rich, dark and round while also having vibrancy and flexibility in the sound. This is a very special and unique combination and allows a wide range of dynamics, flexibility in expression, projection and a certain light of “effortless” sound.

3. I perform on a Yamaha oboe YOB0841 made of Grenadilla wood. This instrument has a dark, round tone with a certain amount of resistance, The scale is very focused and stable with low notes responding readily and the high notes being “up” without any sagging tendencies. This setup allows me to have more flexibility and vibrancy in my reeds. I do not have to worry about trying to build a covered tone into my reeds or try to make a reed that is too heavy or overly stable. I find this allows more flexibility in my playing when it comes to dynamics, expression, projection, and response.

4. **Graf gouging Machine** – Reliable, even gouge with consistent measurements
   **Gilbert -1 shaper tip** – Stable, vibrant reeds that are up to pitch
   **Landwell DHG knives** – I am able to get these knives very sharp so I can scrape lightly and evenly. This is important when it comes to getting the reed to vibrate.
   **Stevens #2 silver thinwall 47mm staples** – Easy to seal reed and keep pitch up.
   **Rigotti hand-held Micrometer**
   **Rigotti flat medal plaques**
   **Norton India Oil Stone** – Great for sharpening without taking to much off the knife at a time. It might take a little more time to get a shaper result, but well worth it.

   *I like to order form Midwest Musical Imports*
5. I like to use hard cane with a 10 – 10.5 mm diameter. These tubes have thicker walls and have a smooth, shiny bark with no grains. They are healthy yellow-gold color with little to no brown, purple or white spots or discoloring. My gouger is set to gouge .60 in the center and .48 on the sides. The hard cane gouged to these measurements produces a vibrant, responsive reed. I find that soft cane produces reeds with a nice tone more easily, but they tend to be without vibration. If the measurements of my gouge were any thicker, this would produce a heavier reed also without as much vibration.

6. My shape produces reed that are stable and vibrant. This allows me to open up while playing instead of biting the reed up to pitch. I am able to produce a bigger tone when needed and can also play softly with a decent response from the reed.

7. I tie my reeds to measure 72 mm on a 47 mm Stevens staple. I make sure to set the overlap about 2 mm, checking the seal of the sides and the straightness of the piece of cane on the staple after a few turns of tying the reed. I cross the thread over on the middle back of the reed instead of on the side. I also make sure not to tie the reed too tightly, as this will cause the reed to be too open with loose sides.

8. I divide each blade into four sections. I begin by forming the tip on each side of the blade, scraping out to the corners instead of scraping straight up the tip. I then scrape long, even channels over where I will later form the heart and back in more detail, making sure to stay away from the center of the reed and leave the rails on the side. I will then clip open the reed and continue developing the tip and blend, forming an inverted “V” for vibration. Then, I balance the heart so that it is not too thick against the Thinned tip and blend and develop the windows and spine in the back. I continue to balance the reed until it crows without a harsh rattle and clip it until it crows octave “C’s.”

9. The Measurement of my finished reeds are 69 mm overall length, 65-66mm for the blend and 60 mm for where the top of the back meets the heart. I look for a balanced reed, especially the heart and blend not being too thick for the tip. I also look for smoothness between the different sections of the reed. There should be no abruptness, as this will limit the vibration. The corners of the tip need to be thinned for stability after clipping the reed up to pitch. I also check to make sure enough bark has been taken off the back of the reed, allowing for more darker vibrations while still leaving the rails and spine in tact. I find my finished reeds have a dark, round tone in addition to being vibrant, stable and responsive.
Geoffrey Deemer:

1. When I first heard the Philadelphia style of oboe playing, I was amazed at the singing quality and musicality of their playing. There was a vocal quality to their sound and phrasing, I couldn’t imagine the oboe being played any other way. When I realized all my favorite players had studied at The Curtis Institute, I knew that I had the best chance of learning to play that way in Philadelphia.

2. I find the “Philadelphia sound” to be very colorful. It is not afraid to change too fit the style of music being played. I feel the tone quality of people who studied in Philadelphia is a result of a music and musicianship first attitude, rather than a tone first approach.

3. I play a Loree model 125 anniversary, RZ66. My last oboe was an ak model. The only change I made was to a shorter staple.

4. I use a Graf gouge set up by John Symer, a Gilbert -1 shape, and Ando beveled knives. I use these knives because I find them very easy to sharpen, and I like the way the weight of the blade feels in my hand. I use Shapton water stones and a Norton India stone to keep them sharp. For staples I use Stevens 46mm or 47mm depending on circumstances.

5. I always look for a straight piece of cane to start. When I’m gouging the cane, I pay close attention to the way the blade interacts with the cane. If I’m not happy with the way it is gouging I throw it out. I like a gouge where the sides are around 50 and the middle is between 61 and 62. After shaping and tying, I scrape the tip a little and cut it open. I always let my blanks dry out and then re-soak them to check for leaks. If the blank leaks I throw it out and move on to the next reed.

6. I’ve been using the same shape for over 15 years. I have tried and occasionally use others, but I always seem to go back to a Gilbert -1. I don’t feel there is anything particularly unique about it. It just works for me.

7. When using a 47mm staple I tie at 73mm from the bottom of the staple. I like the way the Gilbert -1 looks coming off the tube at this length. My staple preference is Stevens #2 student. Again they just seem to work for me.

8. I feel the tip is the most important part of the reed. I make a very thin tip and try to have the vibrations travel freely through the heart and the back. I will ideally spend a few days making and completing a reed. I start the tip at 65mm from the bottom of the staple and the heart ends at 60mm. The most difficult thing for me to remember is to scrape enough out of the heart to allow the vibrations through. How far down the back, and how much I take out of the back depends on the individual reed.

9. I’m looking for a reed that makes me feel like I am singing through the oboe. I want a reed that has good response at all dynamic levels and in all ranges. I want a reed
that plays A 440. I also look for how stable the reed feels as I put more and more air through it. My reeds are generally light and easy to play. I feel my tone comes from the way I blow through the reed. I feel one of the biggest mistakes I can make is to make a reed for a “dark” sound. I will usually end up with a reed that does not vibrate well with that approach. I go for ease. If the reed helps make the oboe easier, I can spend my energy on the music rather than trying to force a sound out of my instrument.

Jonathan Fischer:

1. I did not know very much about the “Philadelphia sound” when I was applying to colleges. I was following the advice of my teachers, and was influenced by the reputation of Curtis and Richard Woodhams. I applied to Curtis of its reputation, and I went because it was the only music school I was admitted to.
2. This is very hard to describe with words, but I would say that the concept of sound is a blend of strength and suppleness. It is firm but malleable, dark but alive, round but focused with a glow to the sound. I have heard it described as the hardest substance on earth in the center of the sound, surrounded by the softest — “A diamond in a velvet bag.”
3. I play on a Loree AK bore oboe. I find the scale to be even, both in intonation and color. The sound is very alive and colorful.
4. I have bags and bags of cane from many different sources. It tends to be pretty hit or miss. I use an Innoledy gouger because it is consistent and easy to use, a Joshua/Caleb shaper. I use Landwell and Jende Knives.
5. I mostly just look for straight, un-warped pieces in order to ensure tight sides. Loose sides are the kiss of death for me. If the sides of the reed are not tight, I feel like I have to hold on to the reed with my embouchure too much. I like to “let go” of the reed when I play which is impossible if the sides are loose.
6. I always use the same shaper. I like to keep a limit on the variables.
7. I use 47 Mm Stevens tubes and I tie my reeds at 72 mm. I find this length gives me a great tight seal.
8. My first priority is vibration. I try to get as much vibration as I can out of the particular piece of cane. I like as much range and rattle in the crow as I can get at the beginning of the process. Then I try to focus that vibration down to an octave by refining the tip. For me, it is mostly about the tip/heart relationship. The back enhances the reed, but the tip and heart create the reed. I try to stay focused on function as opposed to tone. If the reed responds, is stable, balanced and in tune, it usually has a nice sound. It is easy to be seduced by a beautiful tone, and sacrifice function. I try to avoid this, though it can be difficult.
9. I think it is very important to play the reed often when finishing it. It can be hard to stop scraping, and it is very easy to “over-finish” the reed and have nothing left to work with. I leave them almost finished and then take them to work with me and try to play/scrape them in the acoustic in which I perform. First and foremost, the reed must respond. Nobody cares how beautiful the sound is if the notes do not come out! The finished reed must be responsive, comfortable, stale, flexible, and in tune with a beautiful sound. Good Luck!

Elizabeth Koch:

1. I didn't really know about the Philadelphia school of oboe playing early on in my development. I studied with a Mack student, and was introduced to Mr. Mack's orchestral and solo playing recordings first. I went to the Interlochen Arts Academy for my junior and senior year of high school. In the reed room we had a lot of recordings of different orchestras, and we listened to them when we made reeds. We were studying the "Fountains of Rome" and playing it in orchestra, so I decided to put that recording in. It happened to be the Philadelphia Orchestra, under Ricardo Muti. The first note that Mr. Woodhams played amazed me. I never had heard something as beautiful as that "E". I probably listened to that recording 100 times that year. I did my research and found out that Mr. Woodhams taught at Curtis and decided that I needed to go there to study.

2. I believe the "Philadelphia sound" is more flexible, more articulate, more colorful, and more vocal than other schools of playing. Although I appreciate some qualities of other schools, and sometimes try to imitate them, I identify most with the Philadelphia sound.

3. I currently play on a Covey oboe. I find that its very vibrant, and easy to play. I have played a Josef, Yamaha, and many Loree's as well. The Covey is pitched slightly lower than my previous Loree so I make my reeds a little differently, but not much.

4. I have an Innoledy gouger, (actually 2), I have been using a Mack plus shaper tip since high school, I have many knives ranging from a Swiss Army knife that Mr. Woodhams gave me, to a Landwell M knife that I use most of the time. I use Stevens "2" staples (47mm brass), I have a micrometer, but I hardly use it, usually only when I am in a rut, and I have a variety of sharpening tools. I have the Jende system, crock sticks, diamond stone, ceramic stone, leather strap, but usually I use an India oilstone. Honestly I am not committed to anything except my gouger and shaper tip. I find the Innoledy gouger extremely efficient, and easy to use. It saves so much time and energy and consistently produces a gouge that allows me to do what I want with my reeds. I have used a Ross, and Gilbert gouger before, but I really love the Innoledy. I find the "Mack plus" shape to be great for me. I have used it for years, and produced many good reeds, with all of the tendencies, and qualities that I want. I think that the width of the various points of a "Mack plus" tip produces a high register that is easy blowing, and in tune. It
also produces a full, in tune mid range, and a low register that is easy to articulate. I use flat steel plaques. I have a couple students who swear by wooden thick curved plaques, but I just end up ripping of corners if I use it. The kind of knife I use doesn't really matter to me as long as it can stay sharp, and is not too light. A knife where the steel is too light makes lots of chattery uneven reeds for me. I like the Stevens staples because I find them to be very consistent, and they were cheaper than most of the others! I like a "football" shaped opening instead of an oval shape. I find that "oval" shaped openings in the staple make my high notes saggy, and I end of pinching and squeezing the high notes up to pitch. The Jende system is very good, and will get a very sharp knife. It does take a long time so I usually do it once a month, and then use my India Oil Stone in-between.

5. If the piece of tube cane is obviously crooked I will throw it away, other than that I use just about everything that is straight, and not obviously discolored. I have no idea about gouger setup either. I know that I get the middle of the piece of gouged cane to .60, and the sides to .48. I am learning more and more about how much the gouge affects the reeds. If I gouge a batch of cane a little too thick I end up with reeds that are a little low because I end up scraping too much out of them to get them to vibrate, and if the reed is gouged a little too thin I end up with a more closed feeling reed.

6. I never switch shapes. I do change other steps in my reed making process depending on how humid it is outside though. When its hot here in Atlanta, usually May-Oct I will tie on reeds and let them sit closed for a couple days before I open them. I find that this helps the opening stay under control. If I were to open them right away the opening of the reed would be too large to use comfortably. In the colder dryer months I will either let the reed sit for one day and then open it, or open it right away. This will produce the right opening for me.

7. My measurements for tying are as follows. The total length of the reed should be 72, no more, no less. I use Steven "2" staples, which are 47mm long. I believe that the "cross-over" of the thread should be directly in the middle. I think that if it is on the sides it will put a bit of pressure on the cane on that side, and it will effect the whole reed. I use thread that I get from Hobby Lobby. Its slightly thicker than the standard "FF" oboe thread, but it NEVER BREAKS! There is nothing more annoying than sitting down to tie a reed, almost finishing, and then the thread breaks. Also it comes in many fun colors, which we all know is the most important part of the reed making process!

8. After tying my reed I take off the ears with a razor blade, and then scrape out a really basic tip. I then leave the reed closed for 1-3 days depending on the time of year. I will then scrape the tip down thinner, and then clip open. I focus on taking off a lot of cane on the sides of the tip even at this step. The reed should then be scraped in the heart. I remove all of the bark and make the spine by continuing to scrape down the back. I then will go back to the tip and scrape it enough so that its responsive, and vibrant. The bottom of the tip should go down no farther than 65mm. My best results are if the definition of my tip ends at 66mm, and from 64-66 there is a blend between the heart and tip. There is a spot of the reed that I think is very important to achieve the ease of blowing, and response that I am looking for. My students and I call it the "magic spot"
because it fixes a ton of problems. The spot is right below the tip only on the very sides. I scrape this area down very far on most of my reeds. It solves, pitch, tone, and basic 'feel' problems. I have windows on my reeds, at the top of my back, right behind the heart. These add resistance, and usually put them in at the end as needed.

9. First I am most concerned about response. I try to fix those problems first. Once the reed responds in every register I think that then its time to fix tone and pitch. For me a reed that can play in all dynamic ranges, respond in all registers, is flexible but not flabby, and stable but not rigid is what I am looking for.

Katherine Needleman:

1. Both of my teachers (Rudy Vrbsky and Joe Turner) told me to apply to Curtis. I applied and was surprised to get in, and so, I went. I was young and hadn’t had a lot of exposure to the Philadelphia style when I arrived at Curtis, but was pretty immediately won over by the artistry of my teacher, Richard Woodhams. My favorite recordings that I listened to as a student were with the Cleveland Orchestra and George Szell and Marc Lifschez playing oboe.

2. Focused, flexible, lithe. Other schools call us "bright," and I agree that the sound is brighter than what comes out of Cleveland or New York, for example.

3. Yamaha Duet. There is no set up I’m aware of. These are very focused instruments and many people find them to have a lot of surface noise. I used to find this also, but don’t feel that way now. I think I’ve come to accommodate that unconsciously. The natural focus of these oboes makes it really difficult for me to want to make reeds for anything else. I also own a new cocobolo Laubin and have played a few concerts on it.

4. I own everything. I’ve tried most everything. Most of my supplies that I use frequently are on the cheap end. Old Graf gougers set up by John Symer and then messed around with by me. Nielsen wedge knives. Stevens tubes (old ones as big as I can find them—this seems to help with the messed up F on the Yamaha.) Old bullet micrometer that was $35. (I don’t like the expensive ones with the needle which pushes so hard—I like the handheld, hand-twisted mechanism.) Mack ++ shape.

5. I like hard, pretty, yellow, non-grainy cane. I couldn’t begin to discuss gouger set up. The most important thing for me is to be in a good mood and have a clean working environment. I don’t understand how people make good reeds at a messy desk. My mood is very important and I don’t even bother making reeds now if my mood is not right unless I’m really desperate.

6. I just stick with the Mack++. I like it because it’s loud and stable. I’m sure there are better ones, but I don’t know of them.
7. I use the Stevens staple. I think he calls his widest, biggest opening #3 now, but I believe what I use were some sort of even larger mistake. They are very large at the opening. They take a lot of air, but are nice and high and correct the faulty Yamaha F. I tie as short as possible. 71.5-72mm, otherwise the reeds don’t seal. I try not to pull the thread too hard (I use E thread) and turn the thread around as soon as the cane closes or is nearly closed. I don’t mind if it leaks a bit at the thread (this is easily fixed with wax if it doesn’t close itself upon scraping), but I do mind if it is over-tied, or even tied to the end of the tube, or if the thread is pulled too hard and strangles the vibration at the throat of the reed.

8. I cut the reed down to 70mm immediately upon tying and spend 10-15 minutes scraping it. I do not believe in putting any kind of extra long tip on the reed and thereby creating an inherent imbalance in the rest of the reed. Again, my mood is of utmost importance and I watch TV while doing this so that I don’t overthink anything. I take as much as I know I will need out of the back and heart (err on the thick side, but trying not to be too thick) and then put the tip in starting at 65mm. I can’t begin to say what to do between the tip and the heart, but if I get this right, I’ll have a good reed every time. I try not to let the pitch fall, below a crow of C while making the reed because I think it’s a waste of time and creates a sub-optimal result in the end. I do minimal clipping upon finishing, and it’s usually based around tone and response issues. If my mood is good and I’ve done everything right, I have the willpower to put it down as soon as it starts vibrating, when things usually sound pretty good, the scale is good, and the reed is a little bit heavy. I could play it at this point. Then I finish it up after it dries out and I soak it again, the next day, or in a few hours. I frequently change my approach to scraping, especially in getting the blend between tip and heart right. If I do one good thing for too long, it stops working for me.

9. The sound from the finished product isn’t really from the reed. I play reeds that are pretty variable depending on what I am doing that week, what I am going for, and how successful I have been that week. I play on very mediocre reeds sometimes. I think most of playing is based in one’s attitude and intention. I try not to think about my reed most of the time. I try not to spend too much time making them and try to always practice first so I know what I’m looking for.
APPENDIX E

BIOGRAPHIES OF OBOISTS COMPLETEING QUESTIONNAIRES

Michelle Duskey is currently acting second oboe with the Saint Louis Symphony Orchestra. She previously served as the second oboe of the Baltimore Symphony Orchestra and second oboe with the Philadelphia Orchestra, which included their Tour of Asia in 2010. She also served as a member of the Haddonfield Symphony in New Jersey and has performed with The Chamber Orchestra of Philadelphia, Network for New Music, and IRIS Orchestra. In 2005, Ms. Duskey was named the winner of the Yamaha Young Artists Competition. She has also attended the Aspen Music Festival and National Orchestral Institute.

Ms. Duskey is a native of Monroeville, Pennsylvania, and received her Bachelor and Master of Music degrees from Temple University. She also received an Artist Diploma from The Curtis Institute of Music. Ms. Duskey was a student of Richard Woodhams and Jonathan Blumenfeld of the Philadelphia Orchestra.

Geoffrey Deemer, a Cape Cod born oboist, has been principal oboe of the Chamber Orchestra of Philadelphia since 2002, and was recently appointed principal oboe of the Opera Company of Philadelphia. He is principal oboe of the Academy of Vocal Arts orchestra and is a core member of the chamber music ensemble Dolce Suono. He has also performed with the Philadelphia Orchestra and the Baltimore Symphony.

Dubbed “[a]mong the most consummate musical artists” in the region, Mr. Deemer has performed concerti with a number of ensembles and orchestras, including the Chamber Orchestra of Philadelphia, the Pennsylvania Ballet, and Schola Nova. He also played solo concerts of Bach cantatas and orchestral suites during his summers at the Verbier Festival in Switzerland. A recording of his solo performance of Philadelphia composer Romeo Cascarino’s “Blades of Grass,” under the baton of Joann Falletta, released by Naxos in 2006, was considered one of the “hottest new releases” by BBC Radio-3.

Mr. Deemer received his early training at the Longy School of Music (Cambridge, MA), the New England Conservatory of Music (Boston), and he spent summers studying at Tanglewood. In 2001, he graduated from the Curtis Institute of Music, where he studied with Richard Woodhams, principal oboe of the Philadelphia Orchestra, and held the Friends of Curtis Fellowship.

Mr. Deemer is on faculty at Franklin & Marshall College and Immaculata University.

Jonathan Fischer, A native of South Carolina, Jonathan Fischer has recently been appointed Principal Oboe of the Houston Symphony. Prior to this appointment, Mr Fischer served as Associate Principal Oboe of the San Francisco Symphony for 9 years.
Other positions include Principal Oboe with the Savannah Symphony, the
Canadian Opera Company, the Lyric Opera of Chicago, the Grant Park Symphony and
Assistant Principal with the Cleveland Orchestra.

He has played as a guest Principal with the Boston Symphony, the Chicago
Symphony, the Los Angeles Philharmonic, the Baltimore Symphony, the Atlanta
Symphony, the St Paul Chamber Orchestra, the National Arts Center Orchestra and the St
Louis Symphony.

Mr. Fischer is a graduate of the Curtis Institute of Music where he studied with
Richard Woodhams.

Elizabeth Koch, a native of Hamburg, New York, began playing the oboe at age
nine. She studied at the Interlochen Arts Academy under Daniel Stolper and the Curtis
Institute of Music in Philadelphia under Richard Woodhams. She was appointed principal
oboist of the Atlanta Symphony in the fall of 2007. She has also served as guest principal
oboist with the Buffalo and Rochester Philharmonics, the Orpheus and St. Paul Chamber
Orchestras, and the Baltimore and St. Louis Symphony Orchestras.

Ms. Koch has performed as soloist with the Great Lakes Chamber Orchestra, the
World Youth Symphony Orchestra, the Colorado College Summer Music Festival
Orchestra, the Orpheus Chamber Orchestra, and the Atlanta Symphony. She is also a
member of the Atlanta Chamber Players.

Ms. Koch has been featured on NPR’s “From the Top” and “Live from Studio A”
programs. She has participated in the New York State Summer School for Orchestral
Studies, the New York String Orchestra, the Eastern Music Festival, the Colorado
College Summer Music Festival, and the Pacific Music Festival. She has been a guest
artist with Army Band, the Cape Cod Chamber Music Festival, the Tannery Pond
Chamber Music Festival, the Chamber Music Society of Lincoln Center, Amelia Island
Chamber Music Festival, and the Ritz Chamber Players. She is also a member of the
Grand Teton Music Festival, and has been a guest oboist with the Sun Valley Summer
Symphony. She is currently on faculty at Kennesaw State University.

Katherine Needleman joined the Baltimore Symphony Orchestra as principal oboist in
2003, the same year she won first prize at the International Double Reed Society’s Gillet-
Fox Competition. Since then, Ms. Needleman has been described as the “BSO’s sterling
principal oboist” and a “boon for the orchestra.” The Washington Post cited her
“deliciously plaintive tone,” the Baltimore Sun noted her “startling agility, endless
breaths . . . and prism of sonic colors” and her “unequalled dose of sentiment” was
praised in Barcelona’s La Vanguardia.

In addition to her appearance with the BSO, Ms. Needleman made solo
appearances with the Philadelphia Orchestra, the Saint Paul Chamber Orchestra, the
Concerto Soloists Chamber Orchestra, the Haddonfield Symphony, and the Orquesta
Sinfónica Nacional de Colombia, among many others. She also appeared as guest
principal oboist with the New York Philharmonic, the Saint Paul Chamber Orchestra, and
the symphony orchestras of Boston, Atlanta, San Diego, and New Zealand. Prior to her
appointment in Baltimore, she was principal oboist of the Richmond Symphony, and
before that, the Chamber Orchestra of Philadelphia.
Ms. Needleman is a founding member of the oboe trio, Trio la Milpa, the first American chamber ensemble to perform in Greenland; the woodwind quintet, Astral Winds; and the Mico Nonet, an improvisational ambient chamber music ensemble involving colleagues from the Berlin Philharmonic, Philadelphia Orchestra, Richmond Symphony and 1970s synthesizers. Ms. Needleman’s other chamber music engagements took her to Carnegie Hall, Weill Recital Hall, and the Metropolitan Museum in New York; Jordan Hall and the Isabella Stewart Gardner Museum in Boston, as well as the Freer Gallery in Washington D.C. She has appeared at the Verbier Festival in Switzerland, Italy’s Spoleto Festival, the Alpenglow Festival, and the Newport Music Festival. A frequent participant at the Marlboro Music Festival, she also appeared on two tours with “Musicians from Marlboro.”

Devoted to the music of our time, Ms. Needleman has premiered numerous works and commissioned works by Luis Prado, Chia-Yu Hsu, and David Ludwig. She holds the distinction of having given the American première of Brenno Blauth’s *Concertino*.

Astral Artistic Services, a Philadelphia nonprofit organization, has provided Ms. Needleman with invaluable career assistance, including the presentation of a recital, in which the *Philadelphia Inquirer* claimed she “defied at the million different turns her instrument’s reputation as a bear . . . she is as nimble and virtuosic as they come, and her tone fools you into thinking that a sweet oboe sound is an easily found commodity.”

A Baltimore native, Ms. Needleman attended high school at the Baltimore School for the Arts, but left early to attend the Curtis Institute of Music where she received a Bachelor of Music degree as a student of Richard Woodhams. She is a Yamaha Performing Artist and a member of the faculty at the Peabody Conservatory. She resides in a 132 year old home in Dickeyville with her husband and their large shelter mutt.
APPENDIX F

HUMAN SUBJECTS APPROVAL

PI Name: Reid Gerard Messich
Project Title: The Philadelphia Influence on the Art of Reed Making
HSC Number: 2012.7735

Your application has been received by our office. Upon review, it has been determined that your protocol is an oral history, which in general, does not fit the definition of “research” pursuant to the federal regulations governing the protection of research subjects. Please be mindful that there may be other requirements such as releases, copyright issues, etc. that may impact your oral history endeavor, but are beyond the purview of this office.
BIBLIOGRAPHY


Ostoich, Mark “The Influence of Gouge and Shape on Pitch and Tone Quality of the Oboe.” DMA dis., Louisiana State University, 1980


Storch, Laila. *Marcel Tabuteau How Do You Expect to Play the Oboe If You Can't Peel a Mushroom?* Bloomington, IN: Indiana University Press, 2008.


Reid Messich received his Bachelor of Music at the Curtis Institute of Music, where he studied extensively with Mr. Richard Woodhams. He also holds a Masters of Music and a Doctorate of Music in Oboe Performance from The Florida State University where he studied with Dr. Eric Ohlsson. His other principal teachers include Jennifer Sperry, Elaine Douvas, John Mack, and Joseph Robinson.

From 2001-2004, Mr. Messich held the Aspen Academy Conducting Orchestra Fellowship where he served as principal oboist under Maestro David Zinman. In 2004, Messich toured Japan as co-principal oboist of the Curtis Chamber Orchestra, under the direction of Maestro Joseph Silverstein. Dr. Messich is currently a member and co-principal oboist of The IRIS Orchestra, under the direction of Maestro Michael Stern in Memphis, Tennessee. Dr. Messich serves as Assistant Professor of Oboe at The University of Georgia’s Hugh Hodgson School of Music, and is an active member of the Georgia Woodwind Quintet and the Georgia Woodwind Trio.

Since 2009, Messich has been on staff and participated as instructor of oboe at the Masterworks Festival in Winona Lake, Indiana. Dr. Messich has been a featured soloist with the ARCO Chamber Orchestra, The Carolina Youth Symphony, and the Masterworks Festival Orchestra. He has been a guest artist with the Georgia Music Educators Association, and the International Double Reed Society.

Dr. Messich has been a featured soloist with The IRIS Orchestra, The ARCO Chamber Orchestra of the University of Georgia, The Masterworks Festival Symphony Orchestra, and The Carolina Youth Symphony.

Throughout his career he has played under the baton of distinguished conductors such as, Christoph von Dohnanyi, Christoph Eschenbach, Otto-Werner Mueller, Sir Roger Norrington, Sir Simon Rattle, David Robertson, Mstislav Rostropovich, Wolfgang Sawallisch, Robert Spano, Yuri Temirkanov, and Hans Vonk. In high demand as a performer, Dr. Messich has and continues to perform throughout the United States Southeast. He has recently played with the Jacksonville Symphony, Tallahassee Symphony Orchestra, Miami City Ballet, West Palm Beach Opera, and the Boca Raton Symphonia. Mr. Messich performs on a Kingwood Yamaha YOB 841.