CRYSTAL CLEAR: A PERFORMANCE GUIDE AND ELECTRONIC ACCOMPANIMENT OF MARIO LAVISTA’S MARSIAS

FOR OBOE AND CRYSTAL GLASSES

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Mario Lavista (b. 1943) is a dominant figure in Mexican classical music. In the second half of the twentieth century, he promoted the use of contemporary techniques, leading to a series of collaborations with expert instrumentalists to explore extended techniques. *Marsias for Oboe and Crystal Glasses* is one of those pieces. Due to the nature of contemporary techniques, different oboes and reed styles produce different effects with the same fingerings. This document analyzes the contemporary fingerings in the two published editions of the work in consideration of the long-scrape reed style and oboes commonly used in the United States. The contemporary techniques were played on twelve professional oboe models as a way to collect data on how the printed fingerings work. The data is the foundation for the performance guide, which details every contemporary technique in the work. The performance guide also provides comprehensive information about the crystal glass logistics. The document also presents an electronic accompaniment created with Max/MSP in the event that the crystal glasses or crystal glass players are unavailable.
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by

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of Purpose</td>
<td>1</td>
</tr>
<tr>
<td>State of Research</td>
<td>3</td>
</tr>
<tr>
<td>CHAPTER 1. TWO EDITIONS</td>
<td>8</td>
</tr>
<tr>
<td>The Original Edition</td>
<td>8</td>
</tr>
<tr>
<td>The Revised Edition</td>
<td>11</td>
</tr>
<tr>
<td>CHAPTER 2. DATA PRESENTATION AND ANALYSIS</td>
<td>16</td>
</tr>
<tr>
<td>Buffet Green Line</td>
<td>19</td>
</tr>
<tr>
<td>Covey</td>
<td>21</td>
</tr>
<tr>
<td>Fox Sayen 880 with Maple</td>
<td>22</td>
</tr>
<tr>
<td>Fox-Laubin</td>
<td>24</td>
</tr>
<tr>
<td>Howarth XL</td>
<td>26</td>
</tr>
<tr>
<td>Howarth XL with Cocobolo</td>
<td>27</td>
</tr>
<tr>
<td>Laubin</td>
<td>28</td>
</tr>
<tr>
<td>Lorée AK Bore</td>
<td>30</td>
</tr>
<tr>
<td>Lorée Royal</td>
<td>32</td>
</tr>
<tr>
<td>Lorée Royal 125</td>
<td>33</td>
</tr>
<tr>
<td>Marigaux 901</td>
<td>34</td>
</tr>
<tr>
<td>Yamaha YOB-841 Custom Duet with Kingwood</td>
<td>36</td>
</tr>
<tr>
<td>Conclusion</td>
<td>37</td>
</tr>
<tr>
<td>CHAPTER 3. TECHNICAL AND LOGISTICAL GUIDE</td>
<td>38</td>
</tr>
<tr>
<td>Timbral Effects</td>
<td>38</td>
</tr>
<tr>
<td><em>Glissandi</em></td>
<td>42</td>
</tr>
<tr>
<td>Multiphonics</td>
<td>48</td>
</tr>
</tbody>
</table>
CHAPTER 4. ELECTRONIC ACCOMPANIMENT ................................................................. 84

Genesis ..................................................................................................................... 84
Hardware ................................................................................................................... 85
Max/MSP .................................................................................................................... 86
Recording and Processing Audio Files ................................................................. 91
Performing with the Patch ....................................................................................... 95

CONCLUSION .............................................................................................................. 97

APPENDIX A. MUSICAL EXCERPTS ........................................................................... 100

APPENDIX B. WRITTEN MULTIPHONIC FINGERINGS ............................................... 104

BIBLIOGRAPHY ........................................................................................................... 106
LIST OF TABLES

Table 1: Multiphonic Response .................................................................................................... 17
Table 2: M12 Alternatives ............................................................................................................ 18
Table 3: M5 Variants .................................................................................................................... 50
Table 4: Recording Tempo and Printed Tempo ............................................................................ 67
Table 5: Lavista Glass Assignments ............................................................................................. 69
Table 6: Mieses Glass Assignments ............................................................................................. 75
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C6 Transformative Multiphonic Fingering</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>Six Main Oboe Key Names</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>Altered M8 Fingering</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>F#6 Trill Fingering</td>
<td>24</td>
</tr>
<tr>
<td>5</td>
<td>Original Edition M3 Fingering</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>Alternate M6 Fingering</td>
<td>52</td>
</tr>
<tr>
<td>7</td>
<td>M3A Fingering</td>
<td>53</td>
</tr>
<tr>
<td>8</td>
<td>Original M9 Fingering</td>
<td>54</td>
</tr>
<tr>
<td>9</td>
<td>Custom-made Sponge Mute</td>
<td>63</td>
</tr>
<tr>
<td>10</td>
<td>“CTLIN” Receiving the MIDI Pedal</td>
<td>87</td>
</tr>
<tr>
<td>11</td>
<td>Adding the “counter”</td>
<td>88</td>
</tr>
<tr>
<td>12</td>
<td>Establishing Seventeen Events</td>
<td>88</td>
</tr>
<tr>
<td>13</td>
<td>Loading Audio Files</td>
<td>89</td>
</tr>
<tr>
<td>14</td>
<td>Connecting Audio Files to ‘Sel’</td>
<td>90</td>
</tr>
<tr>
<td>15</td>
<td>Audio Files Connected to “Ezdac~”</td>
<td>90</td>
</tr>
<tr>
<td>16</td>
<td>Logic Pro X EQ</td>
<td>94</td>
</tr>
</tbody>
</table>
INTRODUCTION

Statement of Purpose

Mario Lavista’s (b. 1943) Marsias for oboe and crystal glasses (1982) is a singular work, both in its instrumentation and its historical significance. As a dominant figure in Mexican classical music, Lavista has been an advocate for contemporary techniques. He was one of the earliest Mexican composers to embrace and encourage extended techniques in concert music, calling for a “new ‘virtuosity’” from performers and hailing a new “Renaissance that [composers] cannot, nor should not, avoid.”¹ He saw that “[acoustic] instruments [were] being reinvented” in ways that introduced the “existence of unsuspected sonic worlds” not previously imagined.² Interested in exploring the potential expansion of color, virtuosity, and expression that extended techniques could produce in concert music, Lavista wrote pieces in collaboration with expert instrumentalists in order to learn how to use extended techniques. Marsias is one of those pieces.

Marsias is a work that juxtaposes expressive, melodic gestures in the oboe with sustained pitches played by eight crystal glasses. The piece is notated in six lines on a large score, and a performance lasts between seven and nine minutes, depending on how the oboist interprets the space for rubato in the score. The oboe’s melodic fragments include extended techniques, consisting of multiphonics, timbral effects, glissandi, harmonics, double harmonics, and the use of a mute. It is the oboist’s challenge to control the extended techniques and execute them in such a way that they contribute to the expressive quality of a phrase. The crystal glasses play up

to four pitches at a time, and five to six players perform the crystal glasses. The crystal glasses create a meditative backdrop that supports the soloistic yet introspective gestures in the oboe line.

The title of the work comes from the Greek myth of Marsias. He was a satyr who found a discarded *aulos* on the ground, which was left by the goddess Athena, who, after seeing her reflection playing the instrument, became displeased with her visage—an experience with which all oboists can empathize. He picked up the *aulos* and began to learn the instrument. After developing technique on the instrument, he brashly challenged Apollo, the god of music, to a duel of virtuosity. Marsias played the *aulos* and Apollo played his lyre. The Nine Muses judged the duel, and even though Marsias played admirably, they could not judge against the god. For his audacity, Apollo punished Marsias by flaying him alive. Many scholars and performers compare the oboe and crystal glasses in the work to Marsias’ *aulos* and Apollo’s lyre in the myth. Four lines of a short story by Spanish poet Luis Cernuda recounting the myth are printed as an epigraph on the score.

While it has become perhaps the most performed Mexican work for the oboe, there remains a lack of information addressing the notational, technical, and logistical obstacles presented in the piece. Additionally, there is hardly any information addressed to oboists using the long-scrap reed style and oboe models commonly used in the United States. The purpose of this study is to encourage more performances of the piece through: 1) a detailed performance guide of the work and all its extended techniques in consideration of the long-scraper reed style, and 2) an electronic accompaniment of the work, which allows an oboist to perform the piece

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with recorded audio of the crystal glasses and a MIDI foot pedal with Max/MSP, a computer program used in performance.

State of Research

The present state of research strongly suggests that there is a need for a performance guide for Lavista’s *Marsias* addressing the notational, technical, and logistical challenges in the work, specifically for oboists using the long-scrape reed style.

The most relevant study is a master’s thesis in Spanish by Mexican oboist and pedagogue Carmen Thierry wherein she created a “pragmatic edition” of the work, in collaboration with Lavista. Her “pragmatic edition” became the current and official edition in 2006. In her thesis, Thierry addresses all the changes she made in her revised edition, which range from small changes such as text formatting to significant changes of multiphonic fingerings, correcting some of the original fingerings that did not speak consistently for her performance set-up. In addition to the documentation of revisions, she addresses all the extended techniques in the piece and describes how to execute them in a technical manner. She also addresses some of the logistical issues with the piece surrounding the crystal glasses and the use of the mute. While this study is an already published performance guide of the piece, the thesis is in Spanish and not widely accessible by many oboists in the United States. Furthermore, Thierry’s discussion of the multiphonic fingerings at times comes across as contradictory and requires clarification. Moreover, her performance guide is based on her performance set-up, consisting of a European short-scrape reed style and a *Dupin* oboe, not relevant to oboists in the United States.⁴

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A majority of the remaining relevant studies focus on the poetic interpretation of the work, connecting the oboe and crystal glasses to the figures of Marsias and Apollo in the Greek myth. Musicologist Ana Alonso-Minutti’s dissertation, “Resonances of Sound, Text, and Image in the Music of Mario Lavista,” is broadly encompassing of Lavista’s entire oeuvre, but she does address Marsias specifically. Interested in the extramusical elements in his music, such as epigraphs printed on his scores, her study investigates Lavista’s inspiration from poetry and intertextuality in his works. Regarding Marsias, she analyzes the aesthetics of the music, comparing the perfect intervals of the glasses to Apollo’s lyre and the crass and unrefined sounds of the oboe to Marsias’ aulos. She presents three themes personified in the work, including the duality of mortality and eternity, the embodiment of Marsias in the aulos, and the idea of struggle. Her analysis of the piece is meaningful for any oboist interested in developing a point of view in performance, but her poetic and symbolic interpretation of the work does not address any of the technical issues found in the score.5 Similarly, a 2018 article published in The Double Reed by oboist Euridice Alvarez describes the interplay between the crystal glasses and the oboe as a representation of the duel between Apollo and Marsias. Through her analysis, Alvarez guides the performer in creating a personal interpretation of the piece through poetry, metaphor, and harmonic analysis. The article includes valuable information from interviews with Lavista and musicologist Leonora Saavedra, the oboist for whom Lavista wrote Marsias. The article is another useful source for artistic symbolism, but it does not primarily examine the notational and technical aspects of the score. She identifies various extended techniques in the work and briefly

addresses the corresponding challenges, but her primary focus is on expressive and symbolic understanding.\(^6\)

_Marsias_ is referenced in two catalogs of oboe repertoire. One is an undergraduate thesis by Mexican oboist-composer Alejandra Odgers Ortiz, which is a catalog of Mexican chamber music for the oboe from the second half of the twentieth century. In the one-page entry for _Marsias_, she lists title, composer name, date of composition, approximate length, publishing company, range, and difficulty level. In the description of the work, she summarizes the Greek myth of Marsias and compares the crystal glasses and the oboe to the characters in the myth. She states that the work has extended techniques, but she does not provide any specific details.\(^7\) The other catalog is by John Walker titled “Latin American Wind Chamber Music for Oboe: An Annotated Bibliography.” In the two-page entry for _Marsias_, Walker lists title, composer name, composition date, instrumentation, duration, dedicatee, and publishing company. He includes an incipit of the first phrase and a half of the work. His description mostly recounts the Greek myth of Marsias.\(^8\)

Presently, there exist two professional CD recordings of _Marsias_. The first is by Roberto Kolb, prominent oboist, scholar, and pedagogue in Mexico City.\(^9\) The second is by Thierry.\(^10\) Kolb’s recording was made using the original edition, and Thierry’s recording was made using

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\(^7\) Alejandra Odgers Ortiz, “La Música Mexicana de Cámara para Oboe Escrita en la Segunda Mitad del Siglo XX” (bachelor’s thesis, Universidad Nacional Autónoma de México, 1994).


\(^10\) Carmen Thierry, oboist, “Marsais,” by Mario Lavista, on Oboemia, Tempus 10062, 2011, compact disc.
her revised edition. The two recordings give insight to how the editions differ sonically while also informing interpretation.

The first chapter discusses the two editions of the work, detailing the individual features found in each version and changes made from one to the other. The analysis informs performers on how to identify both printings when obtaining the piece from a music retailer or academic library. The work’s place in history will give context to the untraditional notation used in the score and how to approach unresponsive fingerings. Understanding original markings may inform how an oboist revises fingerings for their particular performance set-up.

The second chapter presents and analyzes data from performance. Oboists in the United States play on a variety of oboe models. I have performed and recorded the piece on twelve professional models commonly used in the United States to reflect the diversity of set-ups possibly used to perform this work. I compile and present data for each instrument, offering alternate fingerings and recommended changes as necessary.

The third chapter presents the performance guide to the work. I address each contemporary technique in the piece and describe its execution and context in the piece. This chapter presents the contemporary techniques in generalities, as specifics are addressed in the second chapter. This chapter includes a detailed logistical guide for the crystal glasses, addressing finding the glasses, tuning and playing the glasses, and performing with the glasses. The chapter closes with a discussion of interpretation.

Finally, the fourth chapter introduces and presents my electronic accompaniment. I describe the design of the Max/MSP patch, how to process the crystal glass audio files on the Apple software Logic Pro X, and the hardware necessary for performance. The use of the
electronic accompaniment will allow oboists to perform the piece when crystal glasses and/or crystal glass performers are unavailable.
CHAPTER 1
TWO EDITIONS

The Original Edition

*Marsias* was written in 1982 for musicologist-oboeist Leonora Saavedra. Many Mexican works for the oboe in the twentieth century were written for her, including Manuel Enríquez’s *Oboemía* (1982) for solo oboe and Rodolfo Halffter’s *Égloga* (1982) for oboe and piano. She gave the world premiere performance of *Marsias* on October 24, 1982 at the Museo Nacional de Arte in Mexico City.11

The score is arranged in six lines on a double-page spread score. The score identifies Saavedra as the dedicatee. Four lines of a Cernuda short story are printed at the top left corner:

> Marsias alentó, suspiró una y otra vez a través de las cañas enlazadas, obteniendo sones más y más dulces y misteriosos que eran como la voz secreta de su corazón.

(my translation:)

Marsias breathed in, breathed out, time and time again across the intertwined reeds achieving sounds more and more sweet and mysterious that were like the secret voice of his heart.

The oboe system is constant throughout the score. The crystal glass system is intermittently shown. Lavista shows the second system when introducing a note, ending a note, or to show continued sustain with tie markings. There are eight crystal glass pitches: B4, F5, Ab5, A5, C6, D6, Eb6, and F#6. Differing sections are designated by a tempo indication and a suggested tempo marking, totaling eight specific sections. During the two crystal glass “interludes,” Lavista indicates duration by seconds. Long rests in the oboe part are also indicated by seconds. The

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11 Juan Arturo Brennan, liner notes to *Cuaderno de Viaje*, Mario Lavista, Quindecim Recordings QP056, CD, 1994.
The oboe part ranges from B3 to G6. *Marsias* is published by Ediciones Mexicanas de Música, A.C., based in Mexico City.

The oboe’s notation is mostly traditional. An instruction sheet is included with the score in both English and Spanish that explains the various untraditional markings in the score. Lavista uses square note heads to identify timbral effects. Timbral effects and multiphonics are generally accompanied by a fingering, in a tablature style—meaning a fingering chart diagram. To indicate microtonal pitches (generally found in the notated pitches of a multiphonic), Lavista uses quarter flats, quarter sharps, and two other markings that indicate “slightly sharp” and “slightly flat.” The instruction sheet also briefly explains how to play the glasses and basic glass logistics.

When collaborating on the work, Saavedra and Lavista used notation and multiphonic fingerings from Lawrence Singer’s *Metodo per Oboe*. Singer was the oboist who consulted with Bruno Bartolozzi in his seminal book *New Sounds for woodwind* (1967). While Singer’s style was to use tablature notation with numbers specifying certain keys, Lavista substituted the numbers for the letter names of the keys. Lavista’s notation makes it easier for performers to understand at a glance what keys to use. Singer also indicated half-opened keys by a bolded line around an empty circle. This indication, at a quick glance, does not obviously convey a half-opened key. Lavista used a half-filled circle to indicate a half-holed key.

When Thierry created her revised edition, she did so to improve upon various issues in the original. The main concerns in the score are the multiphonic fingerings. It can be inferred that all the original fingerings worked for Saavedra’s performance set-up. My performance set-up is the long-scrape reed style and both a Lorée Royal and a Lorée Royal 125. For my set-up, many of the fingerings in the original edition do not work consistently or at all. In her thesis, Thierry

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comments that because of the variety in oboe models, reed styles, and personal tone production, there is a need for a “personal version” of the piece, implying that performers use extended technique fingerings that work for their individual set-up.\textsuperscript{13} The multiphonics must not all have worked very well on her set-up either, leading her to offer alternative fingerings in her revision. She also sought to ‘clean up’ the score by revising formatting and printing issues that distracted from the music.

The following traits indicate the original edition: 1. single word tempo indications, like \textit{lento} and \textit{andante}, were printed in all caps throughout the score, 2. timbral pitches were printed as boxed or square note heads that do not appear obviously different from the regular note heads, 3. the score’s engraving appears hand-drawn, 4. the first instance of a \textit{glissando} in a line is accompanied by the word “port,” and 5. the final note of the score is printed as 3” long. The work is generally much easier to perform from the revised edition.

The boxed note heads in the original edition are difficult to distinguish from the regular note heads. Thierry emphasized the straight lines of the boxed note heads to make a more obvious distinction from the normal note heads. The text formatting changed in order to follow modern expectations: foreign words were italicized, and tempo indications were limited to capitalization of only the first letter of a phrase.

A noteworthy change is in the amount of multiphonic fingerings between editions. In the original, Lavista wrote thirteen different multiphonic fingerings. In the revised edition, Thierry used twelve multiphonic fingerings. One multiphonic fingering was particularly unplayable, but its notated pitches closely matched those of another multiphonic fingering (refer to Figure 5).

\textsuperscript{13} Thierry, “Revisión Editorial,” 45.
She decided to combine those two multiphonics into one fingering, becoming the most used multiphonic in the piece: M3.

Referring to Kolb’s recording of the piece, all the multiphonic fingerings speak. The details about his set-up are not presently available, but since all his multiphonics speak in his recording, one may infer that his set-up is similar to Saavedra’s or that he made his own changes to accommodate his playing style. His performance emphasizes the multiphonics, in that they pop out of the texture. He expertly produces expressive lyricism and strident multiphonics and segues seamlessly between the two. His recording lasts nine minutes and two seconds.

Just as many of the multiphonics and techniques in Singer’s and Bartolozzi’s books are outdated, several of the multiphonics and timbral fingerings in Lavista’s original edition do not consistently work for modern instruments and the long-scrape reed style. The next section will discuss Thierry’s revisions and any remaining problems.

The Revised Edition

Thierry’s edition became the current edition for the third and fourth reprinting of the work, in the years 2006 and 2016, respectively. The revision corrected and improved many issues found in Lavista’s original edition. As a prominent oboist in Mexico’s new music scene, Thierry is an authority in standardized contemporary oboe notation, and her revision has succeeded in many ways.

The spacing of the notes at the end of the second line and the start of the third line was adjusted. The final Eb5 before the ascending grace notes was originally located at the beginning of the third line. Thierry considered that final Eb5 as the end of the previous phrase, and she changed its placement to visually conclude the phrase. She believed that the line break could
visually influence the phrasing.¹⁴ The last note was lengthened from three seconds to six seconds, which reinforces the sense of finality to the work’s ending.¹⁵ In the original version, at the first instance of a *glissando* in a line, Lavista included the abbreviation “port.” for a *portamento*. In Singer’s method, he differentiates between *glissandi*, *portamenti*, and *acciaccatura-portamenti*. He writes that *glissandi* are meant to be done by “sliding the fingers from one fingering to another, shortening or lengthening the sounding portion of the tube progressively, so as to obtain an even *glissando*.” *Portamenti* are achieved by using the embouchure to move the pitch upwards or downwards. The *acciaccatura-portamento* is achieved by “passing quickly from the normal lip position to an upper or lower one at the moment the *portamento* is begun, thus, squeezing in the initial note, followed immediately by a *portamento* to the next one.”¹⁶ By notating “port,” Lavista is indicating that the oboist should use the embouchure to achieve the *glissando* effect rather than the fingers. Lavista, working with Saavedra, would be aware that the sliding of fingers is not an effective *glissando* for many note combinations on the oboe. In the revised version, Thierry removed the “port” indication, leaving only the straight lines that typically indicate a *glissando*. In her thesis, she describes every instance of *glissando* in the work and references both finger sliding and embouchure movement. She even goes so far to say in her thesis that *portamento* and *glissando* mean the same technique.¹⁷ By removing the “port” indication, Thierry is granting oboists the freedom to achieve the *glissando* effect by any means they see fit.

Thierry revised the amount of muted oboe in the work. In the original, with the indication “sord.,” Lavista indicates muted oboe from the beginning of the fourth line to the fermata immediately before the “Molto Lento.” At the start of the final line, Lavista indicates muted oboe again until the breath mark immediately before the “Più lento.” In her revision, Thierry keeps the mute in use in the fourth line until the “Più mosso,” where the ten second rest is located. Thierry believed that the mute would help the oboist achieve the dynamic marking “il più p possibile” on the three repeated multiphonics M3A. She also did not believe the oboist would have enough time to remove the mute in the moment with discretion. Additionally, she keeps the mute inserted for the entire final line, again justified by the quiet dynamic markings at the end of the piece. Because the original indication to remove the mute was at a breath mark with the indication “corto” or short, she believed the oboist would not have enough time to remove the mute. The use of muted oboe in the final line, though, impacts the response of the final two multiphonics. This will be discussed in more detail in chapters two and three.

She changed all timbral fingerings using the third-octave key to use the first-octave key instead, arguing that not all oboes have a third-octave key. She combined two different multiphonic chords into one single multiphonic fingering (M3). She changed one multiphonic fingering completely while altering others. In the original version, if a multiphonic was repeated, Lavista did not print the fingering again. For the performer’s convenience, Thierry included a printed fingering for every multiphonic.

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18 Thierry, “Revisión Editorial,” 60.
20 Thierry, “Revisión Editorial,” 47.
Referring to her recording, the overall tempo is quicker than Kolb’s. While his multiphonics popped out of the texture, hers are more controlled and nuanced, acting as melodic parts of the phrase. She also allows for space between gestures. Not only that, she allows for slow tempi or for long notes to take their total time. Even though her recording is shorter than Kolb’s, it does not ever sound rushed. Her recording is seven minutes and twenty-four seconds long.

As a whole, Thierry’s edition is a vast improvement that allows oboists to more ably achieve the various multiphonic sonorities in the work. Due to the nature of multiphonic production, dependent on multiple variables including “exact dimensions of inner bores, placement and cut of tone holes, reed types, and even the inner cavity of the individual player’s mouth,” not all the multiphonics consistently work from oboe to oboe, making the inclusion of multiphonics in any work a variable in performance. In this work, due to the mute in the last line, the final two multiphonics are unreliable. Chapter two will document the way they respond with various oboe models. In her thesis, Thierry states that through the revision process, her suggested fingerings to Lavista did not always reflect the exact pitches written in the multiphonic chords on the page. She assures performers that pitches on the pages are not essential but that the sounds produced by her corrected fingerings are what the composer desires. It can be inferred that her fingerings must be used, no matter what sound is produced. The data presented in chapter two will prove that her fingerings will not always produce what is indicated in the score. Her statement creates dissonance with her endeavor to revise the score and present new multiphonic fingerings that work for her individual set-up. However, later in the thesis, she

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encourages performers to find new ideas for fingerings that do not work, so long as the alternate fingerings fit the character, dynamic, and context of the work.\textsuperscript{24}

This conflict introduces doubt in the preparation process. When the composer prints fingerings in the score, the expectation is to use the fingering. When a fingering does not work, it is not immediately understood if the fingering is to blame or a performer’s technique. Oboists new to extended techniques may blame their technique before criticizing the fingering. The inability to play the printed fingerings may discourage performers from learning the piece.

This study aims to acknowledge the variability among the multiphonics and to grant oboists the peace of mind to seek out alternatives in the event that a printed fingering is ineffective. The data shows that not one oboe can play all the printed fingerings in the score. Having the permission from Lavista, albeit granted through the words of Thierry, to change fingerings is freeing, particularly in the learning process. The performer can now be curious and inquisitive when a multiphonic fingering does not work, instead of being anxious and doubtful.

The following chapter presents and analyzes the information collected from playing the work on twelve professional oboe models.

\textsuperscript{24} Thierry, “Revisión Editorial,” 74.
CHAPTER 2
DATA PRESENTATION AND ANALYSIS

The revised version came into being in part to address the reality that multiphonics and other extended techniques are executed differently depending on an individual performer’s set-up. Knowing that Thierry revised the fingerings to accommodate her set-up, it can be inferred that not all of her fingerings will work for oboists using a long-scrape reed style and an oboe commonly used in the United States. I have conducted a playing experiment where I played the entire piece and isolated extended techniques on twelve professional oboe models. In this chapter, I will document the data and use that as evidence for changing fingerings to accommodate for different instruments. Briefly, my long-scrape reed set-up consists of the Sara shape and brass Chiarugi 47 2 staples. The instruments detailed below are made of various woods: grenadilla, cocobolo, maple, and kingwood. The bore dimensions vary slightly from instrument to instrument, thus making twelve unique environments for multiphonics and other extended techniques. The twelve oboes detailed in this chapter offer a sample of the kinds of instruments used by oboists across the United States.

In Marsias, the multiphonics are the most inconsistent of the extended techniques. For clarity, the multiphonics will be numbered M1-M12 in the score excerpts found in Appendix 1. The multiphonic fingerings are shown in Appendix 2. Refer to Figure 1 for a chart describing how the twelve oboes performed the twelve multiphonics. A box with a Y indicates that yes, the oboe played the multiphonic as written. A box with a U indicates that the multiphonic is unstable. A box with an N indicates that no, the multiphonic could not be played as written. Not one instrument could play all twelve multiphonics as written. M11 and M12, the final two multiphonics in the work, are the most problematic. Most instruments could not play those
multiphonics at all. The double harmonic trill, M8, was the next most problematic multiphonic.

The evidence shows that oboes paired with the long-scrape reed will not perform all the multiphonic fingerings as written. In order to achieve the effects written in the score, the oboist will have to seek alternate fingerings. In this chapter, I will discuss each oboe model individually, recommend fingering changes as necessary, and record notable observations. In the following sections, if a wood is not specified, then the oboe was made from grenadilla wood.

The following oboes will be discussed in alphabetical order: Buffet Green Line, Covey, Fox Sayen 880 with maple, Fox-Laubin, Howarth XL, Howarth XL with cocobolo, Laubin, Lorée AK bore, Lorée Royal, Lorée Royal 125, Marigaux 901, and Yamaha YOB-841L with kingwood.

<table>
<thead>
<tr>
<th>Oboe Model</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>M5</th>
<th>M6</th>
<th>M7</th>
<th>M8</th>
<th>M9</th>
<th>M10</th>
<th>M11</th>
<th>M12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffet GL</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Covey</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>U</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Fox Sayen</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Fox-Laubin</td>
<td>Y</td>
<td>U</td>
<td>Y</td>
<td>Y</td>
<td>U</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>U</td>
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</tr>
<tr>
<td>Howarth XL</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>Y</td>
<td>Y</td>
<td>Y</td>
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</tr>
<tr>
<td>Howarth C.</td>
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<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Laubin</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>U</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Lorée AK</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>U</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>U</td>
<td>N</td>
</tr>
<tr>
<td>Lorée Royal</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>U</td>
<td>N</td>
</tr>
<tr>
<td>Lorée R. 125</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Marigaux</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Yamaha</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>U</td>
<td>U</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
</tbody>
</table>

When discussing M12, I present three fingering options: the written fingering, the written fingering with the B key (instead of the Bb key), and a C6 transformative multiphonic. A transformative multiphonic is “[one] that can smoothly transform from a standard tone into a multiphonic or visa versa.”

Lavista indicates a transformative multiphonic in the score by

notating a monophonic C6 pitch and then transforming into a multiphonic that contains that initial pitch. The C6 transformative multiphonic fingering is the traditional C6 fingering with the second octave key (refer to Figure 1). When the embouchure slides towards the heart or plateau of the reed, a traditional C6 can transform into a multiphonic. I began to use this fingering as an alternative for M12 when the written fingering and the B key fingering both would not work on my set-up. With the C6 transformative multiphonic, I can play a C6 at a quiet dynamic and then subtly produce a reliable multiphonic, which is precisely what the score requires. Table 2 will show how each oboe plays the three M12 fingerings (N for no, U for unstable, and Y for yes).

<table>
<thead>
<tr>
<th>Oboe</th>
<th>B-flat Key</th>
<th>B Key</th>
<th>C Transformative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffet Green Line</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Covey</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Fox Sayen</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Fox-Laubin</td>
<td>U</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Howarth XL</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Howarth Cocobolo</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Laubin</td>
<td>N</td>
<td>Y</td>
<td>U</td>
</tr>
<tr>
<td>Lorée AK Bore</td>
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<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Lorée Royal</td>
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<td>Y</td>
</tr>
<tr>
<td>Lorée Royal 125</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Marigaux</td>
<td>N</td>
<td>U</td>
<td>Y</td>
</tr>
<tr>
<td>Yamaha</td>
<td>U</td>
<td>U</td>
<td>Y</td>
</tr>
</tbody>
</table>

Figure 1: C6 Transformative Multiphonic Fingering

In the following sections, extended techniques are identified by a letter and a number (e.g., T5). Techniques identified with a T are timbral effects. Techniques identified with an M are multiphonics. Techniques identified with a G are *glissandi*. Techniques identified with a V are vibrato effects. See the score excerpts in Appendix A for reference. When discussing fingerings using the six main keys on the oboe, refer to Figure 2 for key names.
Buffet Green Line

The Buffet BC3613G is a part of Buffet’s multi-instrument “Green Line” series, which is created from reconstituted grenadilla wood (95%) and a polycarbonate fibre (5%). This design is meant to retain Buffet’s characteristic sound while increasing longevity and preventing cracking. The special blend can allow an oboist to play indoors and outdoors without fear of cracking. The Green Line’s composition is distinctly different from how the rest of the models discussed in this study are made. I played on a Green Line Buffet with the serial number G11797.

M8 does not speak with the written fingerings. The first trill fingering speaks as a double harmonic, but the second fingering responds as a monophonic pitch. If trilled quickly, the general effect can be conveyed, but to accurately play the technique, an alternate fingering is necessary. The solution I found for oboes that could not play both double harmonics was to find a nearby double harmonic fingering. By nearby, I mean a fingering that can be accessed by only adding or subtracting one key. When I half-holed the E key on the first trill fingering, I discovered that the double harmonic played slightly higher in pitch. If the performer begins the double harmonic trill by half-holing the E key and then covering the small hole in the key, he or she can achieve the double harmonic trill, only slightly sharper in pitch than what is written on the page. Refer to Figure 3 for the fingering. The ability to execute a fast trill is hindered by having to cover and uncover the hole on the same key. To circumvent that issue, the performer

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could alter hand position in order to hold the edge of the E key down with one finger and then trill with another finger. There is time in between the previous gesture and M8 to allow the oboist to alter his or her hand position. This is a better solution than playing what is written and trilling between a double harmonic and a monophonic.

Figure 3: Altered M8 Fingering

M11 does not work with the Bb key. The multiphonic works when using the B key instead. It may require some embouchure manipulation to keep the dynamic from getting too loud, but it is much preferable than not playing a multiphonic at all. The quality of the multiphonic, compared to other oboes, is strident. It does not have the smooth and subtle quality that the same fingering produces on other oboes, but it at least generates the multiphonic. With that in mind, the performer will have to work a little harder to convey the correct character with this fingering.

M12 also does not work with the Bb key. When using the fingering as written, an A6 is produced instead of the C6, which is a considerably higher pitch than what is written. Furthermore, when changing the embouchure pressure and position, a multiphonic refuses to speak. When using the same fingering with the B key instead, the monophonic pitch is closer to a C6, but a multiphonic still does not form. The written fingering does not work for this oboe. The multiphonic speaks when using the C6 transformative multiphonic fingering. This is the recommended fingering the Buffet Green Line.
T6 in the second line is shaky. A low amount of air will cause it to generate a multiphonic. Fortunately, the multiphonic that it slurs to is stable on this instrument, so there is not much air preparation needed between T6 and M6 that may distort its quality during the slur.

T1 and T5 are traditional half-holed fingerings with the first octave key added. On this oboe, the first octave key does not produce an obvious pitch change when added. The original fingering used the third octave key, but it was changed in order to accommodate for oboes without a third octave key.27 Because the octave key is added to those notes to raise the pitch and cause dissonance with the crystal glass playing the same pitch, the fingering should cause an obvious pitch change. With the Green Line, using the third octave key will create more of a pitch change than the first octave key.

Covey

Paul Covey, a student of John Mack, designed this model of oboe. Covey describes his oboes as having a “dark centered tone, excellent projection, flexible nuance, even scale and sensitive linkage.”28 Covey oboes are made in the United States to reflect the needs of players in United States orchestras. Starting in 2015, oboes include a liner in the top joint to protect from cracking. The oboe I played on had the serial number A256.

M9 is unstable on the Covey. When played on most oboes, this fingering produces a beating multiphonic, which is when a multiphonic “[includes] two prominent adjacent pitches that cause a beating effect.”29 On the Covey, this fingering creates multiple effects. If the embouchure is too close to the tip of the reed, a monophonic pitch is produced. With more reed

27 Thierry, “Revisión Editorial,” 47.
29 Cleve, Oboe Unbound, 31.
in the mouth and more embouchure pressure, the beating multiphonic is produced; however, with even more embouchure pressure exerted on the reed, a higher and clearer multiphonic is produced. When playing M9 on the Covey, the performer should learn where “to aim” the embouchure so that the desired multiphonic is produced on command. Because the fingering produces two distinct multiphonics, the performer can decide which one is more appropriate in the context. Lavista wrote a tie between the preceding F#5 and the multiphonic, so it stands to reason that M9 should relate in some way to the F#5.

M11 as written does not work on the Covey. It will play using the B key instead. M12 also does not play as written. With the written fingering, the initial pitch is a C#6, and a multiphonic is not produced. With the B key, the initial pitch is in between a C6 and a C#6, but a multiphonic still does not produce. The multiphonic speaks using the C6 transformative multiphonic fingering.

T6 is fickle. The embouchure and airstream easily affects the pitch of the note. If the performer is anticipating the multiphonic and preparing the embouchure, it may change the pitch of the C5. M6 produces the higher pitches more easily than the lower pitches. The lips positioned further back on the reed, towards the thread, will help the lower pitches speak. Also, reduced embouchure pressure will help the lower pitches to speak. The T14 trill at the end of the third line is notably stuffy, requiring more air pressure.

Fox Sayen 880 with Maple

Fox Productions is based in South Whitley, Indiana, and its professional oboe model is the Sayen 880. According to Fox, the Sayen has a larger body than traditional oboes. Maple wood is softer than grenadilla wood, making the maple Sayen “16% lighter than its grenadilla counterpart.” Visually stunning, the maple Sayen is intended to add sustainability to the Sayen’s
tone and intonation, according to the company.\textsuperscript{30} The lighter wood may affect the oboe’s overall
tone and projection. Some would praise its soft tone and ease in blending with other woodwinds
in an orchestra, while others would criticize its lesser capacity to project through a large
ensemble. The maple Sayen I played on had the serial number 35004.

M11 and M12 were the only multiphonics unplayable as written with the maple Sayen. 
M11 needs to be played with the B key. Even with the B key, the multiphonic hesitates to speak. 
It responds more readily with less reed in the mouth and results in a fuller multiphonic. This 
requires a quick embouchure change from the Ab5 immediately preceding the multiphonic. As 
the fingers move to the M11 fingering, the embouchure will have to quickly change position 
towards the tip of the reed, both to allow the multiphonic to speak and to avoid a pitch bend. 

M12 does not play as written. With the Bb key, the initial pitch produced is a C#6, and no 
multiphonic can be produced. With the B key, the initial pitch is difficult to produce. It takes 
considerable effort to muscle out the note, which is a flat C#6. It is unlikely to articulate at the 
soft dynamic marked in the score, if at all. Additionally, the multiphonic is not produced. The 
only fingering that works is the C6 transformative multiphonic fingering. 

M6 is marked at \textit{pp}, a dynamic marking that makes it difficult to play most multiphonics. 
Among most of the other oboes, the higher pitches of M6 tend to speak easily, but the lower 
pitches are less willing to speak. The maple Sayen plays this multiphonic notably well, and the 
lower pitches of the chord are the more stable part. 

M7 speaks easily and somewhat loudly. This multiphonic occurs as part of a \textit{diminuendo} 
and it requires more effort on this instrument to fit it into the phrase.

\textsuperscript{30} “Fox Professional Model Oboe Maple Sayen,” Fox Productions, accessed May 21, 2019, 
In G9, a C6 grace note glisses up to an F#6. Considering the grace note as a short duration, I typically use my embouchure to fill in the gap between C6 and E6. From there, I use the fingerings from E6 and F6 and then the trill F#6 fingering to produce a finger glissando. The maple Fox Sayen does not play the F#6 trill fingering very well. Refer to Figure 4 for the F#6 trill fingering. The full fingering may be used for a reliable F#6. After some trial and error, I was able to produce the F#6 with the trill fingering repeatedly if I was careful to perform a finger glissando between E6 and F#6, smoothly removing my fingers from the A and G keys. The high note will not readily respond if picking up the fingers as if playing a scale, but if sliding the fingers off in a glissando, the F#6 will respond. A glissando effect can also be created with a quick chromatic scale that fills the gap between the C6 and the F#6, ending on the full F#6 fingering for stability.

![Figure 4: F#6 Trill Fingering](image)

The Fox-Laubin oboe is the result of a collaborative effort between the two United States firms Fox and Laubin. According to Fox, this model “features Fox’s well-known reliable mechanics and Laubin’s legendary dark sound.” These oboes are assembled in Indiana at Fox and tuned in New York at Laubin.31 This collaboration is meant to provide the Laubin sound with minimal wait and reduced price. The Fox-Laubin oboe I played on had the serial number 10027.

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M6 is a shaky multiphonic, particularly noticeable in its lower pitches. It requires fast air and a focused embouchure to control the balance of the pitches in the chord, especially at the quiet dynamic.

M11 does not work as written. There is a hint of a multiphonic at times, but it does not fully sound with any embouchure. The multiphonic speaks well using the B key.

M12 does respond with the printed fingering; however, the initial pitch is sharp, and the multiphonic is unpredictable. While it can work, it may not work in performance. In my experience, M11 and M12 respond less reliably in performance due to how much manipulation the reed endures during the piece. By the time a performer reaches the end of the work, the reed is more closed than it was at the beginning and therefore less prone to playing the final two unstable multiphonics, especially with the mute inserted. Due to the unsteady nature of the multiphonic on the Fox-Laubin, I recommend using a more reliable option. With the B key, the multiphonic responds more quickly, but the initial pitch is still slightly sharper than the C6. The C6 transformative multiphonic fingering produces both the correct pitch and a smooth transition into a multiphonic.

M2 responds readily, but the pitches can change very easily depending on the embouchure pressure. Any change in air or lip pressure results in a change in pitch. The performer will need to aim for the same position to obtain the same pitches each time. This multiphonic may also produce a glissando effect if the embouchure moves while playing the note.

T13 is the third of the harmonic timbral trills at the end of the third line. It requires additional embouchure pressure to avoid transforming into a multiphonic. The first two timbral
trills are stable, but the third will transform into a multiphonic unless the embouchure firms up around the reed and holds it in place.

In G9, the high F#6 may not play reliably with the trill fingering (refer to Figure 4). The performer may need to use the full F#6 fingering instead. To produce a glissando effect, the embouchure can be exaggerated on both notes or a chromatic scale can fill the gap between the two notes.

Howarth XL

Howarth is the highly successful oboe firm headquartered in London. They design oboes with the French Conservatoire system as well as the thumbplate style, which remains used in England. They produce three professional oboe models: the XL, the XM, and the LXV. According to Howarth, the XL model “has a large bore, and the wall thickness has been developed to give a big sound with classical projection.”32 The Howarth XL that I played on had the serial number 7623.

Alongside the Marigaux 901 and the Lorée Royal 125, the Howarth XL oboe can execute most of the fingerings printed in Marsias. The Howarth XL plays all but two multiphonic fingerings: M11 and M12. As written, the Howarth cannot produce M11. Using the B key, the multiphonic can be produced. The correct lip position must be found, because the multiphonic can produce varying qualities. If there is too little reed in the mouth, M11 sounds harsh and forced. With the lip position closer to the heart or back of the reed, the multiphonic produced is sweeter and much more appropriate in context.

M12 also does not work with the printed fingering. All that can be produced is a stuffy sounding high note. Using the B key, there also is only a stuffy high note produced and no multiphonic. Both fingerings are inflexible and do not generate a chord. The C6 transformative multiphonic fingering does work on the Howarth XL and should be used in performance.

M6 is slightly unsteady. At the quiet dynamic, the lower pitches in the chord hesitate to speak. Less embouchure pressure and a lip position on the heart or plateau of the reed will allow the multiphonic to sound more balanced.

M7 is slightly top-heavy compared to the same fingering on other oboes. The lip position will need to move towards the heart or plateau in order to create a balanced multiphonic.

T17 and T18 sound too similar to the standard F#4 fingerings in the series of repeated notes. The performer will need to exaggerate the altered F#4s with the embouchure.

The Howarth XL is well equipped to play Marsias. It plays almost everything with the printed fingerings. Little alternatives are required for this instrument.

Howarth XL with Cocobolo

Cocobolo is an alternative hard wood from grenadilla that can be used to make oboes. It is typically grown in drier stretches of Central America. It additionally provides a visual aesthetic to the instrument since the wood is streaked with red, yellow, pink, and black.33 According to Howarth, the cocobolo wood creates a “warm, rich palette” that contrasts the grenadilla’s “dark and powerful sound.”34 The Howarth XL with cocobolo that I played on had the serial number 8351.


The two Howarth XL oboes are consistent in producing the same multiphonics. Like its grenadilla cousin, the cocobolo Howarth XL also did not play M11 and M12. M11 does not work with the Bb key, but it plays very well with the B key. M12 is where the grenadilla and cocobolo Howarths XL differ. The cocobolo Howarth XL cannot play M12 as written, but it can play it with the B key. When using the B key, the initial pitch is in between a C6 and a C#6, but in order to produce the multiphonic, the embouchure must slide back towards the very tip of the reed. In doing so, the pitch drops. While the multiphonic works with the B key, the noticeable downward glissando distracts from the subtly of the effect. The cocobolo Howarth XL also can play M12 using the transformative C6 multiphonic, resulting in an in-tune C6 and a delicate and piano multiphonic.

M5 begins as a monophonic D6 slurred from a C5. On this instrument, the D6 struggles to speak when slurred. A light articulation may be enough for the note to speak and still sound slurred.

Both Howarth XL oboes play this piece quite well. The last two multiphonic fingerings must be altered, but the oboes are a good fit for the remainder of the work.

Laubin

Laubin is a United States oboe firm, based in New York. According to Laubin, its oboes have garnered a reputation for being “truly handmade.” Laubin oboes have received almost a cult following where potential buyers wait up to nine years on a waitlist to buy a new Laubin. With such a high demand and low supply, the price is among the highest of all oboes. The Laubin oboe I played on had the serial number 2551.

The Laubin oboe produced fewer multiphonics than the Fox-Laubin. M8 cannot be played as written. The upper double harmonic speaks, but the lower double harmonic speaks only as a monophonic. As described above with the Buffet Green Line, the performer can produce two double harmonics by venting the small tone hole in the E key (refer to Figure 3). Trilling can occur with the open hole E key and then covering the hole to produce two distinct double harmonic pitches. One finger may have to hold down the E key while another finger executes the trill.

M9 is unpredictable. This fingering responds quite differently than it does on most other oboe models. In general, this fingering produces a beating multiphonic. The Laubin produces multiple distinct chords, and the one it tends to produce more easily is a purer, less dissonant multiphonic. It is higher in pitch than the beating multiphonic. The higher chord is produced when the lip position is on the back of the reed. To achieve the beating multiphonic, the lip position should be on the heart or plateau of the reed, and the air should be “directed” downward, towards the pitch floor of the reed. Otherwise, a monophonic or alternate chord will be produced. This multiphonic fingering on the Laubin gives the performer a choice. The performer could pick which multiphonic he or she prefers, though, the written pitches on the page should serve as a guide for which chord to use. The preceding F#5 ties into M9, so the chosen multiphonic may have an F# in the chord. Be aware that sometimes the beating multiphonic can transform into the higher chord with minimal embouchure or air change.

M11 does not work with the written fingering. With the B key, the multiphonic responds very well. M12 also does not work with the written fingering, which cannot produce both the C6 and the multiphonic. Using the B key, both the C6 and the chord speak easily. If the lip position is a little too far onto the reed, the multiphonic may speak too soon before the initial pitch is
played alone. The C6 transformative multiphonic does not work well for the Laubin. The chord produced is weak and stuffy. For the Laubin, I recommend using the written fingering with the B key.

T4 is unstable. The pitch can drastically change depending on the embouchure pressure and lip position. T6 is also fickle. If the lip position is too far onto the reed, the note may transform into a multiphonic.

M7 responds very quickly and easily. As part of a diminuendo, the embouchure will need to cover it to keep it from popping out of the phrase.

The timbral harmonic trills T11, T12, and T13 are notably easy on the Laubin. The third trill requires no extra embouchure support to play it. The second trill on most oboes does not produce an audibly distinct pitch from the first trill. On the Laubin, it does have a noticeable pitch change that sits in between the first and third pitches. Similarly, the Laubin plays the altered fingerings of the repeated F#4s in the middle of the fourth line with obvious pitch distinction. In general, the pitch sounds too similar on other oboe models. On the Laubin, the altered fingerings provide an obvious pitch change.

The F#6 in the beginning of the fifth line does not play up to pitch using the trill fingering (refer to Figure 4). It produces plenty of sound, but the pitch sags flat. The intonation is important since the F#6 is also being played in the crystal glasses at the same time. The performer may need to use the full F#6 fingering, which will change the way the glissando is executed. The embouchure can smear the two notes closer together or a chromatic scale can be played to fill in the gap between the pitches.

Lorée AK Bore

Lorée has been the quintessential United States oboe since Marcel Tabuteau’s generation
emigrated from France and settled around the U.S. Long has there been a relationship between the Lorée oboe and the long-scrape reed style. Lorée oboes from the 1930s have been praised “as some of their finest” and Lorée created the AK model to recreate those oboes. It is named the AK bore because the 1930s oboes’ serial numbers started with “AK.”36 I played on an AK oboe with the serial number PL04.

M6 is shaky. At the ppp dynamic, achieving a balanced chord between the higher and lower pitches is challenging. On the AK Lorée, the lower pitches are hesitant to speak. The quality of the multiphonic can change, almost morphing into a beating multiphonic when more air pressure is added. Keeping an open embouchure and applying less pressure on the reed helps M6 speak more easily.

M8 does not completely work on the AK Lorée. The first trill fingering produces a double harmonic; however, it requires a particular embouchure position to achieve. The second trill fingering produces a monophonic pitch. In order to achieve a double harmonic trill, another fingering must be used. When uncovering the small tone hole in the E key, a double harmonic should sound (refer to Figure 3). Use another finger to press the E key and then trill by covering and uncovering the hole in the key. That will allow for a double harmonic trill as written.

M11 actually works, although inconsistently. It speaks when there is almost no pressure on the reed and the lip position is at the very tip of the reed. In context, the embouchure will have to move quickly between the Ab5 and the multiphonic to achieve the slur. The same fingering with the B key is more secure. The performer will need to perform the work several times to see how secure the printed fingering is. If it is determined that the fingering is not reliable, the

fingering with the B key should be substituted.

M12 does not work as written. The multiphonic will not speak after the initial pitch. When using the fingering with the B key, the chord speaks easily. The C6 transformative multiphonic also works, but it does not sound as full and smooth as the B key fingering. For the AK Lorée, the fingering with the B key is the better option.

T13 at the end of the third line requires extra embouchure firmness. The third trill is prone to becoming a multiphonic, so the embouchure pressure must increase and the lip position must move closer to the bottom of the heart or plateau to sustain its quality.

Lorée Royal

According to Lorée, its Royal model has thicker wood resulting in a darker and rounder tone.\textsuperscript{37} The Royal is heavier than the AK model. It was with this model that I first became acquainted with Marsias. The Royal I played on has the serial number QC94.

M6 is unstable. The lower pitches are hesitant to speak. Less pressure on the reed will allow the lower pitches to speak more easily. T6 preceding M6 has the tendency to produce a multiphonic with too much air or lip pressure.

M8 does not consistently work. The first trill fingering produces a double harmonic but the second trill fingering produces a monophonic pitch. Referring to the Buffet and Laubin sections, a double harmonic trill is possible by trilling above the first printed fingering (refer to Figure 3). Because there is time between the previous gesture and the double harmonic trill, the performer can change the hand position so that the pinky holds down the E key (since it’s the smallest finger and can avoid hitting nearby keys) and the middle finger can trill by covering and

uncovering the small tone hole in the center of the key. Using this method, the performer can achieve a double harmonic trill. This will work especially well if the performer uses the left Eb key.

M11 does speak yet not reliably. Like with the AK Lorée, the multiphonic requires minimal embouchure pressure and a lip position as close to the tip of the reed as possible. That being said, at a soft dynamic, it may speak immediately or it may hesitate too long in the context of the performance. The multiphonic responds more securely and immediately with the B key.

M12 does not work as written. The initial pitch is too high and the multiphonic does not speak. With the B key, the multiphonic speaks, but the initial pitch is still slightly higher than a C6. The B key fingering will work fine, but the C6 transformative fingering produces the correct pitch and a smooth transition into a chord. That is the recommended fingering.

T13 at the end of the third line is unstable. It requires additional pressure from the embouchure to keep it from transforming into a multiphonic.

Lorée Royal 125

The Royal 125 model was created in 2006 to commemorate the 125th anniversary of Lorée as a company. It retains most of the features and bore design of the Royal model. Additions include a gold-plated reed well and gold-plated rings and posts. The 125 oboe that I played on has the serial number TZ93.

The Royal 125 plays most of the work as written, like the Howarth XL and the Marigaux 901. The Royal 125 is a good fit for the work, except for the final two multiphonics. M11 does not work as written. The multiphonic speaks using the B key. M12 does not work as written, nor

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does it work when using the B key. For the Royal 125, the C6 transformative fingering works well.

T4 immediately preceding M2 is unstable. It is sensitive to adjustments in air and lip pressure and may result in a pitch change.

T13 is unreliable, like it is on the other Lorée models. The first two harmonic trills are stable, but the third trill has a tendency to produce a multiphonic. The embouchure pressure around the reed must increase to keep the pitch in place.

T14 is notably stuffy on the Royal 125. The quality is helpful for the piano dynamic, but it may produce a dynamic closer to pp. More air pressure is required to create enough sound and fullness.

The Lorée Royal 125 is a good fit for the piece as written, requiring minimal alternatives to achieve the effects in the score. It performs the piece with both power and subtlety.

Marigaux 901

According to the company, the Marigaux 901 is boasted as its centerpiece offering. It is intended to offer “a much easier and sharper low register.”39 I played on a Marigaux 901 oboe with the serial number 39631.

The Marigaux 901 is the oboe that performs more of the multiphonics in Marsias than any other model. Even some of the timbral fingerings that are unstable on many other models are quite stable on the Marigaux. M11, which does not speak easily on any other oboe model, is produced quite easily on the Marigaux. It also works with the B key, but the printed fingering works remarkably well, even with the mute inserted. It responds easier when the lip position is

on the back of the reed, but it does not require much embouchure manipulation at all.

M8 does not speak as written. The first trill fingering produces a double harmonic, but the second trill fingering produces a monophonic pitch. One alternative that works is starting with the first printed fingering with the E key half-holed (refer to Figure 3). Use the pinky to hold down the key and then trill with another finger by covering and uncovering the small tone hole in the center. Using that method, both fingerings produce a double harmonic.

M12 does not work as printed. When using the Bb key, the initial pitch is sharp, sometimes squeaking, and it produces a quasi-multiphonic. The quality of the multiphonic produced is pure but harsh, and it requires a forced airstream to initiate. When using the B key, the initial pitch is still sharp, but the multiphonic produced speaks more easily and with a more appropriate character. The initial pitch could be lowered with the embouchure, if the performer likes the quality of the chord. When using the C6 transformative multiphonic fingering, the chord produced is subtle and quiet, but not as pleasant as the one produced with the B key. Both options will work, but the recommended fingering is the one with the B key.

When slurring to M5 from the preceding C5, the slur is not always smooth. The M5 fingering does not consistently produce the D6 pitch on command. It responds better with a tightened embouchure and the lip position on the heart of the reed, but this will also result in a higher pitch, especially compared to the D6 written earlier in the phrase with the standard fingering. Match the pitch as much as possible. The D6 also responds better with a light articulation to initiate the note. The chord itself speaks easily and loudly.

T4 on many oboes is shaky, but it feels comfortable on the Marigaux. T6, though, is slightly wobbly. It has the tendency to transform into a multiphonic a little more easily than on other oboes. The performer must use very little air on that note. M6 is remarkably stable.
An observation with the Marigaux is that half-holed notes with the octave key added, like T1 and T5, produce almost inaudible pitch changes from their regular fingerings. If the performer wants more obvious pitch variation from the traditional fingerings, he or she should consider using the third octave key instead, which produces a considerably more obvious pitch change.

T17 and T18 in the series of repeated F#4s do not produce much pitch variation when using the timbral fingerings. The performer will need to exaggerate the pitch change with the embouchure on those altered notes.

Overall, the Marigaux 901 plays the work with a flowing lyricism and control over the extended techniques. This instrument is well suited to perform Marsias with the printed fingerings.

Yamaha YOB-841 Custom Duet with Kingwood

According to Yamaha, the YOB-841 was designed with an open bore style that complements the “American” or long-scrape reed style. The top joint is lined with ebonite, a material mainly made from rubber.40 Usually made from grenadilla wood, this instrument was made with kingwood (or violetwood), which is a dense wood found in Brazil41. The oboe I played on has the serial number 008818.

M8 is unstable. Both fingerings speak as double harmonics, but the air and lip pressure can cause the double harmonics to transform into squeaks and squawks. The Yamaha requires a

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specific embouchure and lip placement for the double harmonics and anything else will create undesired sounds.

M9 is unpredictable. The fingering can produce different effects, some multiphonics and some monophonic pitches. The performer will need to learn where the lower, beating multiphonic sits on the reed in order to recreate it every time. A lip position on the heart or plateau and a “downward” airstream direction should help the beating multiphonic speak.

M11 does not work as written. It works when using the B key. M12 mostly works as written. The initial pitch is a D6, higher than the written C6, but the chord does come out, with a little effort. The written fingering with the B key plays a C#6 with a harsh multiphonic. While the initial pitch is closer to the C6, the resulting chord has a hard quality that does not fit the character. The C6 transformative multiphonic is shaky, though capable of producing the desired effect. The resulting chord is weak and dull. The recommended fingering for the Yamaha is the written fingering, even if the initial pitch is too high.

T4 is unsteady. The pitch slides easily when the air or lip pressure changes at all.

Conclusion

The data presented in this chapter shows that Lavista’s multiphonics are produced differently across various oboe models. The evidence should encourage oboists to explore alternate fingerings that work for their particular set-up. My recommended fingerings are a starting point. Other performers may find other and better solutions, but the priority should be to find a fingering that reliably works in the context and character of the music. In the next chapter, I will discuss all the extended techniques in general terms that can be applied to all oboes and all players.
CHAPTER 3
TECHNICAL AND LOGISTICAL GUIDE

*Marsias* showcases many extended techniques. To produce them as part of the melody requires finesse from the oboist. In this chapter, all the techniques in the piece will be discussed in depth. Information and recommendations for execution will be described in generalities. For any instrument-specific information, refer to chapter 2. Refer to the musical excerpts in Appendix A.

Timbral Effects

The work contains 24 unique timbral fingerings, and they are addressed in chronological order as they occur, organized by line. Timbral changes can be easily achieved on the oboe from “the addition or subtraction of keys” on standard fingerings.\(^\text{42}\) This definition applies to most of the timbral effects found in this work.

Line 1

T1 occurs in the first melodic gesture of the work. It is a traditional half-holed D5 adding the first octave key, which results in a sharper pitch and somewhat muted color. It occurs right after the D6 pitch in the glasses begins and causes dissonance with the glass. This timbral fingering occurs three times in the first line. In Lavista’s original version, the fingering used the third octave key. Thierry changed it to accommodate oboes that only have the first octave key, but the performer should explore both fingerings to identify which key creates more dissonance.\(^\text{43}\) In her thesis, she states that she does not detect any noticeable pitch change among

\(^{42}\) Cleve, *Oboe Unbound*, 18.

\(^{43}\) Thierry, “Revisión Editorial,” 47.
the octave keys, but I observed significant differences among the twelve instruments used in this
study.\textsuperscript{44} Thierry later says that the third octave key can be used, if desired.\textsuperscript{45} The performer
certainly can use the embouchure to create more dissonance if necessary, but the fingering could
do all the work instead. It should be obvious to the audience that the performer is not merely
playing out of tune with the glasses.

T2 ends the first phrase of the piece. The written dynamic is \textit{pianissimo}, so the purpose of
the fingering is to mute the C5. Following G1, keep the air sustained so there is no bump on T2.
This fingering is repeated in the middle of the first line, followed by a \textit{glissando} to a quarter-flat
C5 without a fingering. It is curious that Lavista would not include a fingering for that altered
pitch, so it must be assumed that the embouchure will cause the \textit{glissando} and the pitch change.

T3 occurs at the end of the third phrase. It is the third of three D6s in a triplet rhythm.
The first is a traditional D6, the second is T1, and the third adds the B key to the T1 fingering.
The B key mutes the volume to allow for a true \textit{pianissimo}. The B key also changes the pitch and
makes even more dissonance with the crystal glass. Because the pitches in each fingering are
distinctly different, the triplet rhythm should be clearly heard in performance.

T4 occurs immediately before M2. It is an altered C5 like T2. In general, this fingering is
highly unstable. On most oboes, even the tiniest change in air or lip pressure will alter the pitch.
This becomes a problem when the performer intends to prepare the air and embouchure to slur to
the following multiphonic. In order not to disrupt the pitch of T4, the performer must wait to
change the air and embouchure until the moment of moving the fingerings for the multiphonic.

\textsuperscript{44} Thierry, “Revisión Editorial,” 47.
\textsuperscript{45} Thierry, “Revisión Editorial,” 48.
Line 2

T5 first occurs in the *Andante* section, reminiscent of T1. It is the traditional half-holed Eb5 with the added first octave key. Similarly to T1, the performer should identify whether the first octave key or the third octave key creates a greater dissonance with the Eb6 playing in the crystal glasses. Obvious dissonance is the point of the fingering. When the same event occurs towards the end of the line, the notes with the added octave key should sound audibly distinct. To have repeated pitches against a drone with inflected pitch fingerings shows influence from Luciano Berio’s *Sequenza VII* for solo oboe (1969). This influence is found in the second line with the repeated Eb5s, in the third line with the various F5s, and in the fourth line with the repeated F#4s. In all instances, the timbral notes must be clearly discernible.

T6 is unreliable among most oboes, with the tendency to evolve into a multiphonic. It happened in Kolb’s recording. In the original edition, T6 is marked as *p* sub. That may be the reason why Kolb’s T6 produced a multiphonic. His conception of *piano* air may have been too much for that fingering to remain a monophonic note. In the revised edition, Thierry changed the dynamic to *ppp*, saying that the fingering does not permit a *piano* dynamic, only a *ppp* dynamic.46 She recognized that it is easy to create a multiphonic with that fingering. Like with T4, any embouchure or air preparation for the following multiphonic may alter the note. The preparation must be delayed to when the fingers are in motion for the note change.

Line 3

The third line includes many timbral F5 fingerings. The progression of fingerings shows a thoughtful consideration of the pinky keys so as not to create any awkward combinations.

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46 Thierry, “Revisión Editorial, 53.”
Lavista is effectively transitioning from a “regular F” fingering at the start of the Andante to a “forked F” (T10) in preparation for the harmonic fingerings in T13, T14, and T15. During the Andante, one of the crystal glasses is playing a F5 drone, so the more dissonance the performer can obtain from the timbral fingerings, the better. These timbral F5 fingerings consist of T7, T8, T9, and T10.

Line 4

T16 is a timbral fingering amidst many glissandi. This fingering is the final note of a section marked sempre p, and it essentially mutes the traditional B4 fingering. Something to note is that the B4 before T16 is a standard fingering. Lavista intends for the performer to gliss up to an eighth note B4 and then change to the T16 fingering, essentially causing a subito timbral and dynamic change. It would be reasonable to think that the G#4 will gliss directly to T16, but there is an eighth note of standard B4 between the G#4 and T16.

T17 and T18 are a part of a series of F#4s. On some oboes, these timbral fingerings do not change the pitch all that much, in which case the embouchure must help exaggerate the pitch change. During this moment, one of the glasses is playing an F#6 and requires dissonance against the drone. Referring to Thierry’s recording, the repeated F#4s sound quite rhythmic. She expertly adheres to the articulation markings to create a dance rhythm. It gives this section a spirited character in between the legato glissandi section and the static multiphonics.

Line 6

T24 is a timbral F5. What is most curious about this line is that Lavista provided a fingering for the timbral F5 but not for the normal F5. What makes it curious is that T24 is a “forked F” fingering with a half-holed D key. In order to create a smooth transition between the two fingerings, the normal F5 fingering would have to be a “forked F” fingering (or a T10
When an oboist sees a normal F5 fingering, the assumption is to use the “regular F” fingering with the F key. If the performer were to use “regular F” and then attempt to gliss to T24, there would not be a smooth transition, as the third finger would have to slide from the F key to the D key and add an E5 in between the notes. While the performer could use the left F key, the resulting *glissando* would still not be completely smooth. It remains curious that the composer, who has specified most of the fingerings in the work, including “forked F” fingerings (T10) in the third line, would omit the fingering here. In order to transition smoothly from a normal F5 to T24, the performer should start on a “forked F” fingering (T10) and then slide the sixth finger to uncover the tone hole in the D key. The F5 may serve as a root of the harmony with the crystal glasses; however, the T24 fingering creates a sharp F5. The dissonance should be emphasized.

*Glissandi*

*Marsias* contains a large amount of *glissandi* for the oboe. This is not a particularly idiomatic technique for the instrument. A non-keyed instrument would produce excellent *glissandi*, but our modern oboes cannot produce them “[consistently] over an extended range.”47 Furthermore, the oboe cannot produce a smooth *glissando* over the break (between C5 and C#5 or C6 and C#6). The embouchure will often assist with the illusion of a *glissando*. Singer’s *Metodo* identifies three types of *glissandi*: *glissandi*, *portamenti*, and *acciaccatura-portamenti*, which have been previously described. The original edition described the first instance of *glissando* in a line as a *portamento*, which, according to Singer, was executed by embouchure manipulation48. In Thierry’s thesis, she describes a continuous transition between intervals as

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mostly impossible. She advocates for an “apparent” glissando whenever necessary. To describe this concept, consider G2 in the first line. Her apparent glissando would entail playing the F#4 low and using the embouchure to scoop the pitch upwards as far as possible and then changing the fingering to the Ab4 and immediately changing the embouchure to play that note low and raising it up to pitch. The effect, while not continuous, gives the impression of a steady glissando. She also states that real glissandi are possible between some intervals by sliding and lifting the fingers off the keys (e.g., the G4 to B4 in event G7). By removing the “portamento” marking in the score, she intends for performers to achieve the glissando effect by whichever means possible, whether it is from the fingers, the embouchure, or a combination of the two.49

The use of glissandi in the piece refers back to the Greek aulos, which was a pipe instrument without any keys. That instrument would have been able to produce smooth and continuous glissandi, and the oboist’s challenge is to emulate that facility in this work.

Line 1

G1 occurs in the first phrase, between E5 and a timbral C5. The E5 is quite flexible, and the performer can bend the pitch downwards a considerable amount with the embouchure and then change the fingering, creating an “apparent” glissando.

G2 is a difficult glissando to produce, since the F# and Ab keys do not have any tone holes nor can they be moved slowly enough in the space of a triplet to hear much sliding movement. The embouchure will create most of the effect, and the performer can consider adding a G4 in between the notes.

G3 is a glissando from T2 and a quarter flat C5. The quarter flat C5 has no fingering

assigned to it. The T2 fingering will already be flatter in pitch due to the many covered keys in the right hand. Since no fingering is specified, the performer must produce the *glissando* with the embouchure. Because the note is notated specifically with a quarter flat, the performer should use a tuner to execute the correct pitch consistently.

Line 4

G4 encompasses the entire phrase up to the Bb4. The initial grace note C#5 to the Eb5 quarter note triplet, as described by Thierry, is achieved by an “apparent” *glissando*. She describes starting the C#5 low in pitch and pushing it sharp and then changing the fingering and playing the Eb5 low and bringing it up to pitch. At first glance, it seems like too long an event for a grace note. Referring to the instruction sheet, Lavista describes the grace notes in the score as appoggiaturas and, in parentheses, “*sempre cantabile*.” It should be understood that grace notes in the work are not played as fast as possible. They are singing parts of the phrase, which allows for time to add the *glissando*. One could raise the question: if the grace note is not as fast as possible, why not write an actual rhythm? Perhaps Lavista is after the spirit of a grace note and the relationship it has with the main note without the speed.

The Eb5 to the D5 is achieved a downward push in the embouchure. Additionally, lifting the pinky from the Eb key slowly can assist with the *glissando* effect. The D5 to the Bb4 is also pushed down with the embouchure. The Bb4 to the C5 grace note can be achieved by sliding the second finger off the A key. The C5 grace note to the G4 can be achieved by the embouchure and/or by adding the fingers onto the second and third keys in the left hand while removing the first key on right hand. The G4 to the E4 can be done with the embouchure as an “apparent”

50 Thierry, “Revisión Editorial,” 70.
The next two glissandi are seemingly the same but are written differently. The E4 is written as a half note with a glissando to the Gb4, implying continuous motion for two beats. This glissando is executed with the embouchure as an “apparent” glissando. The Gb4 is written as two quarter notes tied together, and the glissando occurs only during the second quarter note to the Bb4. The oboist is playing continuous glissandi from the beginning of the line up to the first Gb4 quarter note, at which point the glissandi take one beat of respite before continuing to the Bb4. It is a subtle observation, but it is what is written on the score. The Gb4 to Bb4 glissando can be achieved by sliding the third finger off the G key and/or with the embouchure.

G5 encompasses the next phrase before the T16 fingering. It starts with another grace note glissando, which can be achieved by an embouchure “apparent” glissando or by a chromatic scale filling in the gap between A4 and Eb5. The next glissando occurs in the time of a sixteenth note, so one could conceive the glissando occurring from the A4 all the way to the F5. The Eb5 can easily gliss to the F5 by sliding the second finger in the right hand off the E key, ending at a “forked F” fingering or from using the embouchure. From there, the glissando downwards can be executed with the embouchure to the B4 (with or without a scale filling the wide interval). The glissando from B4 to G#4 can be done with the embouchure alone. The glissando upwards from G#4 to B4 can be executed by sliding the second and third fingers off the A and G keys. The eighth note B4 must be played with the standard fingering before changing to T16.

G6 encompasses the next phrase at forte. The three grace notes leading to A5 do not have any glissando markings. The glissando begins with A5 going to Bb5. This can be achieved by the embouchure. Though, since there is plenty of time on the dotted quarter note A5, closing down the F# key slowly with the first finger on the right hand can achieve the effect as well. Bb5
to E5 can be produced by the embouchure. E5 to C6 can be done by the embouchure, with or without a scale to fill in the large interval gap. The *glissando* from C6 to B5 can be achieved by slowly lifting the F# key or by using the embouchure. This entire phrase is marked at *forte*.

G7 encompasses the next phrase to the repeated F#4s. The F5 grace note can gliss down to the Eb5 by starting on a “forked F” fingering and sliding the second finger on the right hand onto the E key. The *glissando* from the Eb5 to the G4 will be an “apparent” *glissando* achieved by the embouchure, with or without an added scale to fill the large interval gap. The G4 and B4 are a true *glissando* executed by the fingers sliding off the A and G keys in the left hand. The eighth note B4 must be sustained before initiating the next *glissando* over the time of a half note. This *glissando* between the B4 and E4 will be another “apparent” *glissando* done by the embouchure. Notably, there is no *glissando* from the E4 to the F#4. There, the performer will need to cue the F#6 crystal glass player at the same time he or she begins the half note F#4.

G8 occurs at the end of the fourth line, after the ten seconds of rest. At this point, the mute has been removed. The first *glissando*, between the A5 and the C6, can be achieved by sliding the second finger in the left hand off the A key and slowing pressing the F# key in the right hand. The next one can be done as an “apparent” *glissando* with the embouchure. The *glissando* between the Ab5 and E5 can be done both with the embouchure and with the fingers. The fingers can slowly slide onto the F# and E keys. The performer can also do a mix of both techniques. The last *glissando* is from E5 to F#5, which can be executed by the embouchure.

Line 5

G9 encompasses the first five notes of the line up to F#6. The *glissando* between C6 and Ab5 can be done with the embouchure. The interval between Ab5 and E6 is quite wide, and it involves the second octave break. This can be an “apparent” *glissando* produced by the
embouchure alone or it can involve the fingers filling in the gap with a chromatic scale. The next one, from E6 to C6, can be done with the embouchure alone. The final one has many possibilities. It can be done as an “apparent” *glissando* by the embouchure. Filling in the gap as a chromatic scale can also emulate a *glissando*. In order to make it as smeared as possible, I play an “apparent” *glissando* from C6 to E6, and from there, I slide my fingers off the A and G keys on the left hand to reach the F#6 trill fingering (refer to Figure 4). On my oboe it is a loud and stable note. On other oboes, the trill fingering is not reliable, in which case the performer has to end up on the full F#6 fingering. In that circumstance, the performer should do an “apparent” *glissando* with the embouchure between the C6 and the F#6.

G10 encompasses two *glissandi*. The first one between A4 and C5 can be done with the fingers. The second finger in the left hand can slide off the A key and the first finger in the right hand can slowly press down the F# key. The second *glissando* can be done with the *embouchure*.

Line 6

T24 was discussed in the timbral section, but it is briefly mentioned here, as it is a *glissando*. In both instances in this line, the first F5 should be played as a “forked F” fingering (T10), without the E-flat key. To create the *glissando*, the performer will slide the third finger on the right hand off to the side of the key, allowing the tone hole to be uncovered but keeping the key pressed. This makes the *glissando* effect smooth since one finger is moving instead of moving between a “regular F” fingering and the T24 fingering. To enhance the pitch change, the embouchure can tighten to raise the pitch a little. Especially in the last gesture of the work, closing the reed down will help achieve the dynamic and it can also help raise the pitch.

The *glissandi* in this work are meant to emulate an instrument without any keys. The
ultimate goal is to create smeary glissandi. Thierry’s revision eliminates one constraint from the score, allowing the performer to achieve the glissandi through whatever means is most effective for the individual.

Multiphonics

Multiphonics are an acoustical phenomenon on a monophonic instrument when multiple pitches are played at once. Because of the oboe’s conical bore shape, vibrations and frequencies are produced in an irregular way, causing most oboe multiphonics “to be dissonant and oddly tuned.” Multiphonics are not created equally in that “pitches vary in degrees of intensity,” timbres vary from “raucous” to “delicate wisps,” and pitches are not confined to the standard tuning.51 Considering the ambiguous qualities of multiphonics, composers and oboists have struggled to find a notation system that aptly represents them. Some, like Singer and Heinz Holliger, have focused on tablature fingerings, while others, like Peter Veale, have provided detailed representations of the pitches included in any chord. There remains a lack of multiphonic notation standardization, causing composers and performers to discuss how particular multiphonics should be performed.

Multiphonics have been detailed in depth in chapter 2 for how they are played on specific instruments. In this chapter, the multiphonics will be discussed in general terms that can be applied to a wide spectrum of oboe models. Refer to Appendix 2 for a chart of all twelve printed multiphonic fingerings.

Line 1

While Table 1 shows that M1 is playable on all twelve oboe models, it still is a generally

51 Cleve, Oboe Unbound, 30.
shaky multiphonic. The fingering is what causes the crux of the problem. The A key must be
half-holed after slurring from an Eb5 fingering that fully covers the A key. Most of the instability
that results in this multiphonic comes from fingers moving at slightly different times or from the
A key not being adequately half-holed. For the half-hole technique to work, the key must be
pressed down but the tone hole must be fully uncovered. Half-holing requires finessed finger
motions. The embouchure pressure should be minimal and the lip position should be on the heart
or plateau of the reed. Special care must be given executing M1 consistently, because it is the
first multiphonic of the work. The performer does not want the audience to think that a poorly
executed multiphonic was a bigger mistake on a traditional technique. The performer needs the
audience to know that the timbral effects and the multiphonics at the beginning of the piece are
intentional and not poor technique.

M2 is also generally unreliable due to the A key also being half-holed. It follows a
generally unstable altered C5 fingering. The pitch of T4 can move easily on many oboes, which
stifles the performer’s preparation for the multiphonic. It is part of a slurred phrase, so there
cannot be a break or pause between fingerings to allow for the half-hole to occur. M1 and M2 are
playable but not the friendliest fingerings to perform at the start of the piece.

M3 is the most used multiphonic in the work, and it is one of the more stable fingerings.
It is used nine times. In Lavista’s original edition, a different fingering was used for this
multiphonic in the first line (refer to Figure 5). With my set-up, it never worked, and it possibly
did not work for Thierry’s set-up either. M3 was used elsewhere in the original edition, with
similar notated pitches as the Figure 5 fingering. She settled on one stable fingering for both
multiphonics. It responds well in both loud and quiet dynamics. It can be found at fortissimo in
the first line and at il più p possibile in the fourth line. It requires a lip position on the heart of the
reed, particularly when used in a slurred passage. If the multiphonic does not immediately respond, it is likely because the lip position is too close to the tip of the reed.

![Figure 5: Original Edition M3 Fingering](image)

**Line 2**

M4 is one of the more raucous multiphonics in the work. It also uses a half-holed fingering in a slurred passage. The lip position must be on the heart or plateau of the reed for it to speak at its fullest quality and loudest dynamic. Fortunately, the dynamic is written at a comfortable *forte* that allows the performer to consistently produce the multiphonic.

**Table 3: M5 Variants**

<table>
<thead>
<tr>
<th></th>
<th>Two fingerings</th>
<th>One fingering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffet GL</td>
<td>Stable, small pitch change</td>
<td>Small pitch change, still loud</td>
</tr>
<tr>
<td>Covey</td>
<td>Stable, loud, change in pitch</td>
<td>Stable, change in pitch, still loud</td>
</tr>
<tr>
<td>Fox Sayen</td>
<td>Full and loud</td>
<td>Thin and less stable</td>
</tr>
<tr>
<td>Fox-Laubin</td>
<td>Full, loud, slight change in pitch</td>
<td>Strong core, less volume</td>
</tr>
<tr>
<td>Howarth XL</td>
<td>Bright, full, change in pitch</td>
<td>Dissonant, less pitch change</td>
</tr>
<tr>
<td>Howarth Coco.</td>
<td>Noticeable pitch change</td>
<td>Stable and loud</td>
</tr>
<tr>
<td>Laubin</td>
<td>Slight pitch change, higher frequencies</td>
<td>Stable, slightly sharper</td>
</tr>
<tr>
<td>Lorée AK</td>
<td>Stable and full</td>
<td>Unstable, greater pitch change</td>
</tr>
<tr>
<td>Lorée Royal</td>
<td>Louder and fuller</td>
<td>Quieter and thinner</td>
</tr>
<tr>
<td>Lorée 125</td>
<td>Louder, noticeable pitch change</td>
<td>Softer, no pitch change</td>
</tr>
<tr>
<td>Marigaux</td>
<td>No pitch change, full, loud</td>
<td>No pitch change, full, loud</td>
</tr>
<tr>
<td>Yamaha</td>
<td>Pitch change, fuller, louder</td>
<td>Small pitch change, thinner</td>
</tr>
</tbody>
</table>

M5 is stable across all oboe models. I have explored variants with this multiphonic due to the fingering in the original version. The original fingering is a transformative multiphonic fingering, using the first of the two fingerings in the revised score (M5A in Appendix 2), which is just the A and G keys pressed. The original fingering intrigued me because, in context, it
provided more dissonance against the Eb6 in the crystal glasses. In the revised edition, the second fingering (M5B) raises the pitches of the multiphonic, resulting in a pitch closer to Eb6. I have documented my findings in Table 3, bolding the option I believe is better. In some cases, both fingerings work well in their own ways. In most cases, the revised version prevails, usually with a louder, fuller, or more stable multiphonic. Only in one instance, with the cocobolo Howarth XL, did I find the original fingering superior.

Considering the data, the performer using the revised edition should use the embouchure to create the illusion of a transforming multiphonic even when using a fingering change. The initial D6 pitch may be sharp due to the more open fingering. Keep the pitch low and sustain it through the multiphonic by adjusting the pitch with the embouchure even when adding more fingers. If the D6 pitch is not too high, the dissonance will be heightened when the Eb6 enters in the glasses.

M6 is problematic for various oboe models. The dynamic marking is one of the quietest in the entire work: \textit{ppp}. Producing a balanced multiphonic at that dynamic is difficult enough, but this particular fingering does not favor a quiet dynamic. Furthermore, T6 is generally unstable, creating a shaky gesture for the oboe. In Kolb’s recording, T6 is played as a multiphonic and M6 is played at a considerably loud dynamic. When Kolb recorded the piece, the original edition printed ‘\textit{p sub.}’ Thierry changed the dynamic to \textit{ppp} because of T6.\textsuperscript{52} Should the dynamic have changed again for M6? Her only reference to that multiphonic is to exaggeratedly relax the embouchure to facilitate its production.\textsuperscript{53} The entire reason to use the \textit{ppp} dynamic marking was for T6, not for the multiphonic. It stands to reason that the performer can

\textsuperscript{52} Thierry, “Revisión Editorial,” 53.

\textsuperscript{53} Thierry, “Revisión Editorial,” 75.
conceptualize the moments in between the loud outbursts to stay in the realm of piano, with the exception of T6 so it does not produce an unwanted chord. The performer may not have to worry about the ppp on the multiphonic, since its execution at that dynamic is impractical. So long as the fortissimo following M6 is considerably louder, the balance should work.

By trial and error I found a satisfying alternate fingering for M6. Using the written fingering, use the B key instead of the first octave key. The pitch is closer to the written Eb6, and the multiphonic speaks much more easily in a soft dynamic. Consider using this multiphonic fingering for M6 instead of the written fingering.

![Figure 6: Alternate M6 Fingering](image)

Line 3

M7 is generally stable. It should be played as part of the phrase and not as an interruption. The phrase essentially ends with Bb5, C#6 (the high note of the multiphonic) and Ab5. The high note in the multiphonic should be inflected as a note in the phrase that blossomed into a chord instead of playing it as a stagnant multiphonic amidst the phrase. Some oboes play that multiphonic stridently, and the embouchure will need to temper it to fit in the diminuendo of the phrase.

M8 is the double harmonic trill. Double harmonics are produced from variants of standard harmonic fingerings, producing fifths. They are difficult to produce on many instruments. Berio wrote double harmonics in the Sequenza for Holliger, who played on a Rigotaut oboe. The Rigotaut was particularly capable of producing double harmonics, yet its
instrument design is different from many other oboe models.\textsuperscript{54} Considering this, oboists using other instruments may have to alter fingerings. In chapter 2, I identified which instruments can and cannot play the double harmonic trill. In general, the desired effect is a ghostly trill. When the double harmonic is produced, both pitches are foggy. There is no strong or piercing pitch that prevails, so the trill is a spatially distant effect. If one of the fingerings produces a monophonic pitch, find an alternate double harmonic that can be trilled (refer to Figure 3).

Line 4

M3A in the \textit{Molto lento} section is marked at \textit{il più p possibile}. With the printed fingering, the multiphonic is produced well. The performer will need to articulate with just the air, no tongue, to avoid a strong start to the note, and the lip position must be on the back of the reed. While using an incorrect fingering, I found a better one for these three multiphonics. Using the printed fingering without the C key allows for the multiphonics to be played at a softer dynamic. The overall pitch hardly changes and the quality is subtler. Additionally, this fingering allows for a quieter articulation. With the C key, the pitches do not always play simultaneously at the written dynamic. In her thesis, Thierry describes Lavista’s intentions with the three repeated multiphonics: he wants very long, static notes without any expressiveness and no \textit{vibrato}.\textsuperscript{55} This altered fingering can achieve all his intentions to a better extent.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{m3a_fingering.png}
\caption{M3A Fingering}
\end{figure}

\textsuperscript{54} Cleve, \textit{Oboe Unbound}, 39.

\textsuperscript{55} Thierry, “Revisión Editorial,” 75.
M9 is the work’s most raucous beating multiphonic, though some oboes produce a purer form. In general, this multiphonic is produced more fully when the lip position is on the heart or plateau of the reed. At the end of the fourth line, it is played at a *piano* dynamic, and in the middle of the fifth line, it is played at a *mezzo forte* dynamic. The multiphonic should work at both dynamics, though it is easy to play it at a louder dynamic. In the fourth line, the preceding F#5 is tied to M9, implying that the F# pitch is sustained from the previous note, like a transformative multiphonic. Because of the strong beating quality of the chord, it is not overtly obvious which pitch is heard over the rest, but if the F#5 can be isolated or emphasized in any way, it appears to be Lavista’s intention.

This multiphonic fingering was changed in Thierry’s edition. Refer to Figure 8 for the original fingering. According to Thierry, the original fingering did not produce a multiphonic, and she found a more reliable option.56

![Figure 8: Original M9 Fingering](image)

Line 5

After the timbral trills T19-22 is another occurrence of M3. It is marked at *pianissimo* and the performer should consider using the M3A fingering in Figure 7. The B4 is tied to the multiphonic, and often there is a slight hiccup between the trilled note and the chord. The altered fingering could help better connect the two techniques as well as produce the multiphonic at the

written dynamic. The lip position will need to move to the heart/plateau or the back of the reed during the tie.

Line 6

M3 and M10 are written after the first melodic gesture of the line. The multiphonics are connected by the tied C6s found in both multiphonics. Both chords are produced easily. The gesture works particularly well if the air grows from M3 into M10.

In chapter 2, I described which oboes can and cannot play M11 and M12. Most oboes could not play both of these multiphonics. It is likely that the inserted mute affects the way the air escapes the instrument when the Bb key is pressed. Refer to “The Mute” for more details on how the muted oboe works. In general, alternate fingerings must be used to perform these multiphonics in context. M11 can usually be played using the B key instead of the Bb key. The preceding Ab5 adds to the difficulty of the fingering. The oboist will have to play the Ab5 using the right Ab key in order to use the Bb or B key with the left pinky. Considering the half-holed fingering as well, the slur between the Ab5 and M11 can cause many inconsistencies for producing the chord, which is why the oboist should find a reliable fingering for performance.

M12 also requires alternate fingerings. It is a transformative multiphonic, starting on a C6 and evolving into a chord at a pp dynamic. Most oboes cannot play both the C6 pitch and the multiphonic with the printed fingering. On most oboes, the C6 transformative fingering works well (refer to Figure 1). Just as the oboist wants to perform the first multiphonic of the piece with intention, the oboist will want to leave the audience with a well-executed final multiphonic of the piece. Performing a subtle transformative multiphonic with an alternate fingering is more effective than using the writing fingering and producing a stuffy or unresponsive multiphonic.

Refer to Table 2 for suggestions on which fingering to use for M12.
**Vibrato**

*Vibrato* is an almost universal technique that colors an oboist’s tone. As composers have considered the “speed and amplitude” of *vibrato* and how “variable and independent of each other” they can be, performers have had to conceptualize new ways of producing *vibrato*. In extreme cases, *vibrato* is produced by the lips and even the jaw.\(^{57}\) In Singer’s *Metodo*, he defines five different types of *vibrato*: non *vibrato*, slow *vibrato*, normal *vibrato*, progressive *vibrato*, and *vibratissimo*. The definitions are accompanied by illustrations of lines that would be used as notation in a score. In *Marsias*, Lavista has used Singer’s slow *vibrato* idea. In his instruction page, Lavista includes “*Vibrato lento*” or slow *vibrato*, paired with the abbreviation “Vib.” and a squiggly line. He notates three instances of “Vib.” in *Marsias*.

Upon examination of Singer’s *Metodo* and *Marsias*, one important question arises: how slow is slow *vibrato*? Singer’s description of slow *vibrato* is that it be “played as pronouncing ‘A’ repeatedly at slow speed.”\(^{58}\) There is merely the idea of a slow pulsing at regular intervals. Another question is about consistency: is each iteration of slow *vibrato* in the score the same degree of slowness? When Thierry describes the notated *vibrato* in her thesis, she describes the first use as very fast and wide. The second is a fast and tight *vibrato*. The third is slow and wide.\(^{59}\) This contradicts the score’s instruction page. By looking at the score, the squiggly line is uniform in each usage; however, the descriptor “slow” or “lento” does not appear on the actual score–only in the instruction page. On one hand, Lavista is explicit in his intent in the instruction page, but on the other hand, he is not that specific on the score. With this issue, Kolb’s and Thierry’s recordings are insightful.

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\(^{57}\) Cleve, *Oboe Unbound*, 69.

\(^{58}\) Singer, *Metodo per oboe*, 5.

\(^{59}\) Thierry, “Revisión Editorial,” 76.
In Kolb’s recording, V1 is played fast and tight. V2 sounds like his normal vibrato heard in the rest of the recording. V3 sounds like emphasized pulses, but not particularly slow. Kolb’s interpretation is based on Lavista’s original edition that printed “slow vibrato” on the instruction page. In Thierry’s recording, V1 is played pronounced but not particularly slow or fast. V2 is played similarly to her normal vibrato, and V3 is pulsed emphatically, but not particularly slowly. Both recorded interpretations do not follow Lavista’s instructions of slow vibrato.

Thierry states how the vibrato should be played but her recording does not even reflect her own descriptions. How should performers approach the vibrato? One cannot go wrong following Lavista’s instructions. Logically, notated vibrato in a score should sound different than one’s normal vibrato. If Lavista indicates slow vibrato, the effect should sound significantly slower than the vibrato used elsewhere in the piece. Along that train of thought, if the score itself does not have the word “slow” or “lento” printed, the performer can interpret the vibrato notation as something noticeably different from one’s normal vibrato. Similar to what Thierry states in her thesis, it could be fast or slow, wide or tight. Each instance could be the same or different each time. Based off the recorded interpretations, I believe the individual performer can choose how to produce vibrato. It should fit the character or mood of the moment. At V1, the oboe is playing a dissonant multiphonic against the first instance of an interval in the crystal glasses. They happen to be playing a perfect interval, and a fast and wide vibrato can enhance the dissonance in that moment. At V2 and V3, the two instances of vibrato can be conceived as two parts of a whole. The vibrato at V2 can begin to decelerate with the diminuendo, and the vibrato at V3 can continue the deceleration to finish a cohesive gesture. The vibrato can be what connects the phrase together, despite the interrupting Eb5 eighth notes. Concerning the vibrato, the context of the music should inform how it is performed.
An additional issue with vibrato in a contemporary work deals with multiphonics. Should multiphonics be completely still? Or can multiphonics be played with vibrato? In this work, the context of the music should also inform this question. Some of the multiphonics are beating multiphonics. They are rife with tension and likely do not need vibrato. Some instances could use added tension. M5 is a moment very similar to V1. The interval in the glasses changes and the oboe plays a fortissimo multiphonic. Even though it is not marked, it would be appropriate to vibrate the chord to give it the intensity the moment demands. Lavista, through Thierry’s words, explicitly wants no vibrato in the three repeated M3A multiphonics in the fourth line.

A final thought about vibrato in this piece is that it is a way to show life against the crystal glasses’ stagnancy. The glasses are still. Even as the playing of the glasses creates a natural pulse at times, the vibrato the oboe creates is vivid. It establishes a clear division between the soloistic oboe gestures and the atmospheric drones of the glasses. Using vibrato thoughtfully in this work is paramount to achieving the fullest interpretation possible.

Timbral Trills

A timbral trill oscillates between intervals smaller than a semitone, typically starting on a traditional fingering and trilling to a timbral fingering. They sometimes emulate vibrato, but usually they provide a unique color to a sustained note. There are four instances of timbral trill in Marsias.

Line 3

T11, T12, and T13 are a peculiar kind of timbral trill. They are timbral trills built on harmonic fingerings. They are built on top of the fingerings for Bb4, Bb+4, and B4, resulting in pitches an octave and a fifth above the fingered notes: F5, F+5, and F#5. Harmonics on the oboe are typically used to create an ethereal or ghostly note, sounding softer than the typical oboe
note. Like a string harmonic, it could be played without vibrato, but vibrato can be used for color. In this instance, Lavista intends to produce a quiet and distant color by using timbral trills on harmonics. In all three trills, the third finger on the right hand trills the D key. In general, T11 and T12 play consistently and easily. T12 often sounds too similar to T11. To execute T12, Lavista instructs the performer to uncover the E key, but on many oboes, that open key does not provide enough pitch change. In an attempt to emphasize the pitch change, I lean on the first note of T12 before trilling, like a Baroque trill, so that the ear can hear the fundamental pitch before the trill obscures it. Additionally, I squeeze the embouchure slightly to raise the pitch so that T12 sounds distinctly different from T11. T13 often behaves differently from the other two trills. As a stand-alone harmonic, it is stable and will play quietly with little air. On some oboes, once the trill is introduced, the fingering has a tendency to create a multiphonic. This is especially true with the Lorée models, but refer to chapter 2 for details for other models. For those instruments with a tendency to multiphonic, the embouchure must tighten to hold the effect steady. Less lip pressure increases the chance for the multiphonic.

T14 and T15 are more normal examples of timbral trills, except that the fundamental fingering is also a timbral fingering. Lavista’s intention with these trills is to create a distant character from two quiet fingerings. They work on all models of the oboe. They are just awkward fingerings since they bear no resemblance to the note written in the staff. The performer will have to learn and memorize the fingerings and get used to reproducing them despite seeing the B4 and C5 on the staff. The trills are only marked piano, but these fingerings are particularly quiet, thin, and sometimes stuffy.

Line 5

In Singer’s Metodo, he describes a technique called Pedal Key:
a way of colouring a phrase in situations where holes or keys can be trilled which are not used in the playing of the actual phrase. Thus, real trills between one sound and another are not obtained, but a continuous ‘trilling’ of sounds (like a ‘pedal’ sound) which adds a particular timbre to the whole phrase.60

He seems to be describing a string of timbral trills. T19-T22 are an example of Singer’s Pedal Key almost directly lifted from his Metodo.61 In the original edition, he designated different keys for the trill: the G4 trills the D key, the A4 trills the Eb key, the Ab4 trills the D key, and the B4 trills the Eb key. In her revised edition, Thierry changed the trilled fingerings to the D key or both the E and D key. She says that the Ab4 and B4 trills are not audible enough with only the D key, so she added the E key to the timbral trill.62 I have observed that the trills with only the D key trilled also do not sound so audible. I recommend that the performer explore which timbral fingerings can be trilled at a high speed and a pianissimo dynamic. Be aware that the key noise may be louder than the timbral trill. The trill squiggly line stops at the multiphonic. The multiphonic is not trilled. At the end of line three, the squiggly line ends on the final C5 but Thierry includes “(non tr)” for clarity. That same notation should be printed over the multiphonic to avoid any confusion.

The final timbral trill is T23 on the A5. This is a typical example of a timbral trill, using a traditional fingering for the fundamental note and a timbral fingering for the trilled fingering. This trill was also changed from the original. Lavista indicates using the first octave key, even though the standard A5 fingering uses the second octave key. In parenthesis, he indicates the second octave key. The trilled key is the F key. Thierry changed the trilled key to the D key, which makes a more obvious timbral trill color. Additionally, the original edition marks T23 as

60 Singer, Metodo per oboe, 11.
61 Singer, Metodo per oboe, 52.
mezzo piano without a diminuendo. She states that Lavista decided to add a diminuendo on that note from mezzo piano to ppp. The dynamic change is possible with the written fingering, but the performer should be careful to exaggerate the big dynamic difference.

The Mute

Despite the increasing use of muted oboe in contemporary works, muting the oboe and other woodwind instruments was common practice in the 18th and 19th centuries. The use of a mute with a woodwind instrument could be interpreted as an expression of an emotion. Specifically, “the sound of the muted oboe [represented] sorrow” and scores sometimes asked for muted oboe and woodwinds in funeral marches and other pieces of “great sadness.” The muted oboe was also “associated with the death of Christ”–a specific moment of great sadness.63 Based on the use of muted oboe in works by German opera composer Reinhard Keiser, the sound of muted oboes was also connected to “the appearance of a ghost.” More relevant to Marsias, some instances of muted oboe were a way to convey “an effect of quietness and distance,” which could be either physical or psychological.64 The idea of distance is an essential part of the interpretation of Marsias, since Lavista has already acknowledged the link between the oboe and crystal glasses with the figures of Marsias and Apollo. The audience can interpret the muted passages as psychological space between the god and the satyr. The oboe’s diminished sound is Marsias falling behind Apollo’s musical skill. They could also interpret the muted passages as the general metaphor for humanity falling further from the divine, an idea that Alonso-Minutti describes in her dissertation.65 The idea of space also relates to the physical space of the

64 Page, “The Muted Oboe,” 69.
65 Alonso-Minutti, “Resonances.”
performance hall. The crystal glasses having a certain amount of space from the oboist establishes a point of reference for the audience, and when the oboe is muted, that creates additional space, as if the oboist is farther away. The muted passages in a way increase the sonic space in the performance hall, much like offstage brass passages create additional sonic space in Mahler symphonies.

A mute may dampen the sound of the oboe but not uniformly across all registers. As Thierry describes it, the sound of the oboe does not only come out of the bell; sound is exiting from any tone holes open along the instrument. The sound will dampen mostly in the lower notes since most tone holes are closed and the mute then is blocking some air from exiting the bell.66 The oboe’s lowest notes, Bb3 and B3, are produced with all the instrument’s tone holes closed. A mute will prevent those notes from speaking.67 Because of this, M11 and M12 in Marsias have a particularly difficult time speaking.

While learning Marsias, I decided to explore different types of mutes. By the late 18th century, the “most common material used to mute the oboe…seems to have been cotton.”68 Still today, cotton cloths or swabs are used to mute the oboe. In fact, in the instruction page for Marsias, Lavista states: “Use as sordina a piece of cloth, preferably cotton.” Thierry states that a cotton cloth or a piece of cotton both will work as a mute.69 By 1802, theorist and violinist Heinrich Christoph Koch wrote about “raw cotton” and “a damp sponge” being used as mutes.70 Contemporary oboist Libby van Cleve writes that “any soft material” can be made into a mute,

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67 Cleve, Oboe Unbound, 74.
69 Thierry, “Revisión Editorial,” 78.
70 Page, “The Muted Oboe,” 75.
stating that her preferred mute is “a knee-high nylon stocking.”71 Musicians also used custom-made mutes. “Pear-shaped wooden mutes” from the 19th century that would fit into the oboe bell survive today.72 Inspired by this and encouraged by my professor, I made a special mute for use in Marsias.

In my early days of learning the piece, I was already skeptical of using a cotton swab or cotton cloth. I felt that a swab could easily fall out of the instrument unless it was stuffed in, effectively blocking all air from escaping the bell. Depending on how it was inserted, the tail of the swab could dangle outside of the oboe and distract from the performance. A cloth also mostly blocked air from exiting the bell, contributing to issues with M11 and M12. I created a mute from a cellulose sponge and cut it into a ‘T’ shape. The mute is inserted with the ‘T’ top down, so that the long portion sticks up into the bell and the ‘T’ top pushes against the sides of the bell, holding it in place. The mute’s rectangular shape does not fully block the round bore, allowing air to exit the bell even when all of the tone holes are closed. The mute will not fall out during performance. Refer to Figure 9 for a photograph of the mute. This is the mute used in the trials with all twelve oboes.

The mute is in the instrument when the piece concludes. Remember to remove the mute from the bell if playing other pieces after Marsias.

Figure 9: Custom-made Sponge Mute

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71 Cleve, Oboe Unbound, 74.
72 Page, “The Muted Oboe,” 76.
Notation

The notation in Marsias is notable for its lack of bar lines. The phrases in Marsias derive emphasis and direction from the melodic fragments themselves instead of their placement in a measured bar.

The tempo markings are all approximate, accompanied by the “ca.” or “circa” descriptor. The tempi are left to the performer, but the rhythms are specific. Beats are often divided into triplets, juxtaposing simple and compound divisions. Despite the exact rhythms, Lavista invites space for rubato with the way he has organized the melodic fragments. In the first line, the music is divided into four distinct phraselets. The way he has placed them on the page clearly shows four individual entities. He has done this by using slur markings to create distinct units, and he has separated the musical fragments with space. The first phrase consists of two juxtaposed gestures, indicated by the two large slur markings. Between T2 and the quarter rest is space. This space is used to differentiate the phraselets into separate ideas, requiring an end to the gesture instead of continued energy into the next melody.

While Lavista welcomes rubato between gestures, the melodies themselves are played mostly in time. The rhythms are too precise to allow for much deviation because then the rhythms would transform to something different. Preceding the second phraselet in the first line, the quarter rest acts similarly to a pick-up note to a phrase. Lavista has isolated the second gesture with space. The quarter rest reinforces the space, but it should be counted in the tempo of the following material to establish the correct relationship between rests and notes. Similarly, the next phraselet begins with a sixteenth rest. The space between the second and third gestures is much smaller, but Lavista has clearly organized them into separate ideas. The sixteenth rest should be counted in the same tempo as the following material.
In the third line after the crystal glass interlude, Lavista has visually organized the music close together without any space. Lavista shows this as one long phrase, from the Andante to the two eighth rests before T10. The tempo should remain constant through the entire phrase, with the exception of the grace notes before T8, since Lavista has instructed grace notes to be played as sempre cantabile. Regarding the grace notes, the performer can decide if the grace notes have their own time in a phrase, separately from the rhythms surrounding them, or if they should steal time from the neighboring rhythms, like the traditional approach to grace notes. This applies to the grace notes at the beginning of the third line as well. The grace notes are notated very near the eighth rest and could be interpreted as occurring in the time of that eighth rest. Alternately, they are placed after the eighth rest, and they could be performed in the time of a second eighth rest.

Because there are no bar lines, the performer is free to find the emphasis within the gesture, instead of relying on beat placements in a measured bar (e.g., beat one is strong while beat two is weak). The first note of a gesture may not have the strongest emphasis. For example, refer to the first two quarter notes of the Andante in the second line. The emphasis could be put on the first quarter note, as if it is the first beat in a simple meter. On the contrary, the first quarter note acts as a pick-up note to the second. The C4, with the help of the grace note, leads to the Db4. Refer to the beginning of the last line. The quarter note Eb4 is not the most stressed note in the phrase. The two quarter notes act as pick-up notes to the D5 half note, which then resolves to an Eb5. The oboist will need to study each gesture and decide how to phrase it convincingly, without the aid of placement in a measured bar.

While Lavista’s use of space is a way to organize the gestures on the page, other notated elements cause confusion. In the last line, Lavista notates many breath marks marked as “corto”
or short, which is how they are generally played in traditional scores. How short is short? How do they relate to rests? The short breath mark is confusing because Lavista has used many types of rests in the score, including a sixteenth rest in the first line. Because the tempo in the last line is significantly faster than the tempo in the first line, Lavista may have used the short breath marks similarly to the sixteenth rest in the first line. Another ambiguous notation is the fermata over the quarter rest in the fourth line, immediately preceding M3A. Why use a fermata? Should it be conceived like the general fermata that adds half the value to the notated value? If so, it would only be a quarter rest and an eighth rest, which could easily have been notated. Is it double the value? If so, a half rest would have sufficed. He also could have used seconds to convey the rest, like he does in many other parts of the score, especially since the tempo is very close to quarter note = 60. Lavista must not have wanted a specific timing for the rest, but that leaves the performer to speculate how long it should last.

For a work with mostly notated elements, ambiguous notation causes confusion and uncertainty. In times of equivocation, the performer must prioritize the gesture. Understanding how the phrases relate to each other will provide clarity for unclear notation.

Tempo

As aforementioned, all of Lavista’s tempi are approximate. The tempo markings are paired with a tempo indicator, some of which use an emotional descriptor. Like with the spacing, the tempo markings offer ambiguity in place of clarity. In line four, the approximate tempo marking at the *Tranqillo, ma espressivo e poco rubato*, is quarter note = 56. For an approximate marking, 56 is oddly specific. How much deviation below or over the tempo marking is the oboist allowed to take? In order to find any sort of guidance on this issue, I turned to the two recordings. As the only points of reference, Kolb’s and Thierry’s recordings can be studied to
compare performance tempo with printed tempo. Refer to Table 4 for tempo marking comparisons between the recordings and the score (8th stands for an eighth note and 4er stands for a quarter note).

<table>
<thead>
<tr>
<th>Table 4: Recording Tempo and Printed Tempo</th>
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<tbody>
<tr>
<td>Score</td>
</tr>
<tr>
<td>Kolb</td>
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<tr>
<td>Thierry</td>
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Measuring the recorded tempi cannot be exact, since the spacing in the piece allows for *rubato* throughout gestures and in between phrases. The values in Table 4 are approximate, but they give an idea of how each performer played each section. Both performers took liberties. The most drastic difference is in the second section, marked *Molto piú mosso* at eighth note = circa 126. An eighth note at 126 is equal to a quarter note at 63. Both performers took this section close to quarter note = 120. That is twice as fast as what is written. It appears as both oboists took the *molto piú mosso* and the *nervoso* descriptors more to heart than the approximate tempo marking. To perform that section at the marked tempo feels sluggish, yet it is certainly *molto piú mosso* compared to the opening tempo. The music flows at the faster tempo. Additionally, the glasses are playing a tritone at this moment. The dissonance fuels motion.

Both performers took the first line above the marked tempo as well, yet both recordings feel spacious and *lento*. They fully communicated the idea of melancholy at their respective tempi. To play the first line at the marked tempo, quarter note = 26, might be too slow. It is curious that the first and last sections have the same descriptor: *Lento, con malinconia*, and similar melodic fragments, yet they have very different tempi. The last line is more than twice as fast as the first line. It stands to reason that the first line can be taken faster, as Kolb and Thierry both did, to create a little more cohesion throughout the piece.
Performers preparing *Marsias* should consult the tempo and mood descriptors as a guide for tempo and overall character. The approximate tempi can be a second priority. While Kolb and Thierry stayed close to only half the tempo markings, they both played with expression and commitment. Performers would do well to consult both recordings when preparing the piece. There is a considerable amount of difference between the two recordings. Whatever tempo is settled on, make it the vehicle for expression and lyricism. Those are the building blocks of the work.

**Crystal Glass Logistics**

Up to this point, the material discussed in this document has been for the oboist alone: notation, extended techniques, and execution. The other equally important half of a *Marsias* performance includes the crystal glasses, instruments with which most oboists do not have experience. This is the only piece in the oboe repertoire with crystal glasses, so oboists are not well prepared to approach the logistics of finding, tuning, and performing with the glasses. This section will provide information from personal experience for oboists interested in performing this work. The crystal glass staff is sporadically shown above the oboe staff. Pitches are shown as whole notes. A stemless black note head signifies the end or cut off of a pitch.

Half of Lavista’s instruction page refers to the crystal glasses:

The piece is written for oboe and at least 8 crystal cups played by 6 performers. The sound is produced by sliding the finger, continuously, on the cup’s edge. According to the acoustic conditions of the hall, the number of cups might be doubled or tripled, so will be the number of performers. The different pitches are obtained according to the amount of water in each cup. The pitches and their registers are written in the score. However, the register could be different for each one of the pitches, depending on the size of the cups, but in any case, the tuning will be modified. It is recommended to have a conductor to coordinate the performers of the cups.

He also assigns pitches to each performer. Refer to Table 5 for Lavista’s pitch assignments. His instruction page is certainly a starting-off point, but a performer is left with remaining questions.
Table 5: Lavista Glass Assignments

<table>
<thead>
<tr>
<th>Performer:</th>
<th>1</th>
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<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>Glass Pitch:</td>
<td>C6</td>
<td>D6, B4</td>
<td>Eb6</td>
<td>F5</td>
<td>F#6, A5</td>
<td>Ab5</td>
</tr>
</tbody>
</table>

Glass Material

To consider a crystal glass as an instrument, it is important to understand how it is played. A crystal glass is an idiophone, though, instead of being struck like a percussion instrument, it is rubbed, like “the sticking and slipping of the bow on the strings” of a violin. Continuing the comparison, the wet finger on the glass’s rim is like the rosin on the bow over the strings. Glass needs to be thin enough for the fingers to cause vibrations and thus create sound. In the form of wine glasses, the material that tends to be thin enough is crystal. Normal glass tends to be cut more rigidly, not allowing a smooth contact for the finger. Crystal is cut more roundly, creating a better point of contact for the finger.

Finding Glasses

Unlike looking for oboe supplies, there is not a one-stop music shop selling crystal glasses. There are websites that sell wine glasses for the purpose of playing music. Many of those even have printed lines marking water levels for various pitches. These sources tend to be expensive. A set of two glasses can cost $68, and a set of eight can cost $245. The set of eight spans an octave. Even though Marsias does call for eight pitches, the range is an octave and a fifth, larger than the set of eight, and it is not likely that the lowest pitch will be a B4. In his instruction page, Lavista does allow for changes in octaves for the glasses, but finding the correct [Gerhard Finkenbeiner and Vera Meyer, “The Glass Harmonica: A Return from Obscurity,” Leonardo 20 (1987): 142.]
glasses is well within the realm of possibility. It is best to plan ahead and take the time to find the right glasses.

In my experience, I looked to second-hand and discount stores. I found a set of four Luigi Bormioli brandy glasses at a discount store, and three of those glasses play pitches in the work. I was lucky to find a set at an affordable price, and that brand provides good quality glass. After that, I started going to discount stores like Marshall’s, T.J. Maxx, and HomeGoods. Those stores usually have a kitchenware section with sets of wine glasses. I would check for pitch by tapping the glass to hear its natural pitch. The pitch heard when empty is the highest pitch the glass will play. Once water is added, the pitch will lower. This was especially helpful when finding the F#6 glass. If a tapped glass sounded lower than an F#6, I did not have to waste any more time on it. After tapping the glasses for pitch, I would examine the glasses and try them out to see if they actually played. The F#6 and B4 glasses were the most difficult glasses to find. Respectively, they are the smallest and biggest glasses, and stores often do not carry a wide selection of extreme sizes. I found a set of Michelangelo wine glasses that played three of the pitches in the work, and I found a set of Rona champagne flutes, that played the F#6 pitch. Even though I only needed one for the F#6, the price for the entire set was still affordable.

Nermis Mieses, oboe professor at Bowling Green State University, has performed Marsias often in her career. When consulting her, she shared that she had the most luck at second-hand stores like Goodwill. Her experience is that glasses are sold individually—eliminating the need to purchase an entire set of glasses, and they are not packaged and easily tested in the store. She recommends taking a tuner and a water bottle into the store. First, she taps the glass to hear the fundamental pitch, which she recommends should be no more than a third higher than the pitch desired. She suggests that glasses with a fundamental pitch exactly at
the pitch desired should not be bought, because there is no wiggle room for tuning that pitch with the others, if necessary. She thinks it is best to find a glass slightly sharper so that the glass could be tuned down.

She found many glasses playing the same pitch, and she would tap them to discern which glass had the louder sound and better acoustic qualities. Glasses will have different timbres and tone qualities across different brands. She would then fill the glasses with water and test them in the store to hear how they sound filled with water. Adding any water to the glasses will muffle the sound, and some glasses will naturally have a duller quality. She also found the B4 glass to be the most difficult glass to find. It was the biggest glass, and she observed that the bigger glasses play more quietly.

Something Mieses shared that I found noteworthy was her impulse to not just find glasses that played the desired pitch. She would return to the store to find glasses that provided a certain voicing in a chord. If she needed one of the pitches to pop out of the texture and be a more active drone to her oboe line, she would search for a glass that provided that timbre. If she needed a pitch to sound louder, she would find one. Not ever having worked with crystal glasses, I was content on finding the pitches I needed. Some of the glasses are not optimal. My B4 glass has an unpleasant timbre and the glass shakes when being played, which could create extramusical sound in a performance. After communicating with Mieses, I am inspired to continue searching not just for adequate glasses but for the best glasses.74

Playing the Glasses

Sound is created when a wet finger rubs against the edge of the glass. Human fingers

have natural oils on them, and the oils can inhibit continuous vibrations. Performers will need to wash their hands before rehearsals and performance to remove as much oil from their fingers. Keeping several bowls of water on the table for the performers’ fingers is a good idea. Some pitches play for minutes at a time, and a finger will surely dry in less time. A performer can dip multiple fingers in the water and as one dries, switch to another finger. Anytime the oboe is playing, the performer can take that time to dip the finger in water and continue playing, in an effort to mask a rearticulation. The glasses should be washed to clear away any residue. Before a performer begins to play in rehearsal or performance, he or she should wipe off the rim of the glass to clear away any debris. The smallest glass tends to be the more difficult glass to play. The performer who naturally plays the F#6 glass best is assigned that glass. Some glasses require a faster speed around the edge, and some require a slower speed. The important thing is to keep the speed consistent for a steady sustain in pitch. When stopping a note, there may be a slight rise in pitch as the glass stops vibrating. The larger glasses tend to produce a larger rise in pitch. Dampening the glass with the hand can stop the pitch suddenly before the pitch rises, similar to dampening a ringing percussion instrument.

Tuning the Glasses

Each glass has its own pitch range. A completely empty glass will ring its highest pitch, and a completely full glass will play its lowest pitch. When water is added to a glass, essentially mass is added to the glass and the pitch lowers. During the process of fine-tuning the glasses, a dropper will be useful in taking out or putting in small amounts of water without pouring and possibly spilling water. When the ideal pitch is realized, mark the glass with a sharpie or marker so the glass can be tuned quickly each consequent time.
I used just intonation when tuning the glasses. Throughout the work, the pitches are presented in mostly perfect intervals and major and minor triads. These intervals should be precisely tuned so that the crystal glasses sound pure. First, I tune the A5 and D6 interval of a perfect fourth. The D6 only plays in the first line, and the A5 plays through half of the second line. They do not participate in any perfect fifths or triads. I typically tune the A5 to A440, and I tune the D6 in relation to that. In just intonation, perfect fourths are tuned almost two cents flat on the tuner. The only issue with this is that my oboe’s D5 intonation tends to be sharp. With this in mind, I am mindful to keep the pitch down, or I tune the A5 slightly flat and tune the D6 in relation to that.

The next interval I tune is Ab5 and Eb6. This perfect fifth is the most played interval in the work. It begins in the second half of the second line through the first third of the third line, and it plays during the entire final line and ends the piece. I tune the Ab5 with the tuner, and I tune the Eb6 two cents sharp in relation to it. Because this interval is played alone for so much of the piece, the fifth has to be tuned precisely. The next pitch I tune is C5. In the third line, the C5 enters during the twenty-five second interlude as the major third of an Ab major triad. The C5 must be tuned fourteen cents flat. The only major problem this creates is in the middle of the third line. There is a C5 in the oboe line immediately preceding four grace notes. If the C5 in the glasses is tuned fourteen cents flat, that C5 in the oboe must also be fourteen cents flat to play in unison.

Next, I tune the F5 in relation to the C5. Since the C5 is already fourteen cents flat, the F5 will be tuned sixteen cents flat, to keep the perfect fifth interval between them. When the F5 joins the Ab5 and C5 in the twenty-five second interlude, they create a minor triad. The F5 and C5 are tuned together, but the Ab5 has been tuned in relation to the Eb6. Fortunately, a minor
third should be raised fifteen cents, so the intonation relationship between all three pitches is close.

The last two pitches I tune are the B4 and the F#6. Even though they are over an octave apart, I tune them in relation to each other as a perfect fifth. I typically tune them at pitch, separately from the F5 and C5 intonation. Otherwise, the pitches are too flat. Tuning each of the perfect fifths is the top priority. The two fifths are simultaneously creating minor seconds and tritones with each other, so dissonance is unavoidable.

Mieses also tunes the glasses in just intonation, tuning the thirds and fifths in relation to root pitches. She also considers tendency tones on the oboe, tuning the D6 in the glasses to her D5 instead of the other way around. She also considers the pitches produced by a multiphonic and may tune glasses to those pitches. An example would be M3A. The glasses could be tuned to that multiphonic to enhance the connection with the oboe part.

She did mention that tuning to the glasses in performance proved difficult because she could not always hear the glass pitches over her own sound. Because of that, tuning the glasses to the oboe may solidify intonation during the performance.75

Performing with the Glasses

Now that the oboe part is learned, and the glasses are found and tuned, how should the piece be performed? Lavista suggests having a conductor to coordinate the glasses. I have tried three different approaches, and I will share the pros and cons for each below.

First, the glasses will be set up on a table with all the performers sitting around so they all more or less face the audience. A tablecloth should be used in addition to individual cloths to

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75 Mieses, “July 22, 2018.”
ground the glasses. Some glasses shake when being played. The cloths can be used to dampen any clattering against a table surface. Furthermore, sometimes a glass is light and the pressure from the moving finger around its edge could knock the glass off balance. Having the other hand covering the base of the glass with a cloth will secure the glass during performance.

For parts, Mieses conceived of a color-coded system. She assigned each pitch to a color. She then made copies of the score and highlighted the glass pitches with its corresponding color, that way the performer can follow along with the score and play when their part is highlighted. Two or three people can look at one score and not be overwhelmed by all the colors in one part. If the parts were completely blank, performers might be confused as to when their pitch begins or ends and enter at the wrong time. The color helps focus the performers’ eyes on the correct part. Taking that idea one step further, I have attached discs to all of my glasses with their own color, so that the performers—especially those playing multiple glasses—know they are playing the correct glass.

Lavista instructed six performers to play the glasses (refer to Table 5). Mieses has devised a plan where only five performers play the glasses. Refer to Table 6 for her configuration. Each performer playing two pitches has plenty of time between glasses. The only quick change is for the performer finishing playing the F#6 and starting the Ab5 six seconds later (at the end of the fifth line). Her configuration is useful because there will not always be enough people available to play the glasses. Scheduling rehearsals and performances with five other schedules is easier than with six.76

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</thead>
<tbody>
<tr>
<td>Glass Pitch:</td>
<td>C6, D6</td>
<td>F5, A5</td>
<td>Ab5, F#6</td>
<td>Eb6</td>
<td>B4</td>
</tr>
</tbody>
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76 Mieses, “July 22, 2018.”
In my first performance of *Marsias*, I had a conductor to facilitate the glasses. He was not conducting or beating the entire time; he mostly nodded and cued entrances or exits. I would give a cue and make eye contact with him, and he would cue the glasses. What went wrong in this performance was just an accident, but one of the glasses performers was playing in the wrong spot. The conductor was seated at the table with the glasses players, but he did not intervene or solve the problem. It is entirely possible that after preparing the piece, I know the score very well while the conductor and glass players are still just learning the piece. They may not have realized that something was wrong. Regardless, for consequent performances, I decided to abandon the role of the conductor.

In my second performance of *Marsias*, I decided to more or less be the conductor. There are moments in the piece when a glass entrance or exit occurs in sync with the oboe, such as the end of the first line when the A5 in the glasses enters as the oboe plays M3. In those moments, I cued the glass players myself. During the glass interludes, the glasses begin or end notes separately from the oboist (in the third line and the fifth line). In this performance, I added cue numbers to each entrance and exit, a total of four in both interludes. I then would show numbers one through four with my fingers. This approach is not ideal. While it gave me, the oboist, all the control, it does not look particularly good from the audience’s point of view. I received feedback that my finger cues were distracting from the ambience of the performance.

In my third performance of *Marsias*, I decided to try Mieses’ approach. She designates one of the glasses performers to be the ‘leader’ or ‘conductor.’ That player will nod throughout the piece to cue the other performers when they enter or cut off. I kept the cues in the glass interludes, but this time the lead glass performer gave the cues. This performance went very smoothly, and the lead glass performer’s cues were subtle. This approach makes the work more
of a chamber work than a solo and accompaniment work. The oboe is communicating cues with the lead glass performer, and that individual is communicating with the rest of the glasses players. The performance is more organic with this approach.77

Additional Logistics

When preparing for rehearsals, factor in time to set up and tune the glasses. Also factor in time to empty, dry, and pack up the glasses at the end of rehearsal. Be sure to find a solid table for rehearsals and performance.

Theatricality should be considered when performing the work. When interviewed by Alvarez, Lavista acknowledged the necessity for theatricality. He thinks the oboe should be on one side of the stage and the glasses on the other. He suggests that the lighting should be low or for the glasses to be offstage so the audience would not know what was causing the sounds.78

The instruction page invites the possibility for the glasses to be double or tripled, which certainly would be dramatic. In my third performance, I experimented theatricality by adding a lighting element to the performance. I designated certain colors with certain sections or intervals. Anytime dissonance occurred in the glasses, red or yellow light, anxious colors, would fill the space. Purple light accompanied the Ab5 and Eb6 interval, as a comforting and positive color. I conceive the two crystal glass interludes as cleansing moments where the sonic space is refreshed. During the interludes, white light filled the room to be visually cleansing. I found the lighting theatrics as affective by visually enhancing what the audience heard in the music.

77 Mieses, “July 22, 2018.”
78 Alvarez, “Metaphor,” 146.
Interpretation

Lavista describes an interpretation of *Marsias* too concerned with technique as undesirable. He believes that a good interpretation will use the extended techniques to enhance the “poetical content” of the music instead of obscure it. This document focuses on the extended techniques not to prioritize its importance in performance but rather to provide oboists with the knowledge to master the technique. In doing so, the oboist will be able to express his or her musical perspective to the fullest extent. This section will offer several interpretations of the work.

Alonso-Minutti identifies three main metaphorical elements in *Marsias*: the embodiment of Marsias through the *aulos*, the duality of mortality and eternity, and the idea of struggle, represented both by Apollo and Marsias and Marsias and the *aulos*. She describes the oboe’s opening gesture—which includes a tritone—as a way to tie Marsias’ imperfect and earthly nature to the sound of the oboe. The opening gesture is akin to a *leitmotif* for Marsias. The oboe’s gestures in the final line are designed the same way, thus creating continuity through the entire work. Furthermore, the oboe plays 23 tritones throughout the piece, reinforcing the idea of imperfection in the oboe’s voice. The oboe and crystal glasses, representing Marsias and Apollo respectively, personify the duality of mortality and eternity. The crystal glasses play mostly perfect intervals, which “are generally associated with divinity.” The glasses play the pure intervals with unwavering sustain to illustrate heavenly perfection. The oboe multiphonics attempt to create a polyphonic texture like that of the crystal glasses, but the multiphonics are

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79 Alvarez, “Metaphor,” 144.
80 Alonso-Minutti, “Resonances,” 89.
harsh and crass instead of pure. This example of Marsias attempting to achieve divinity and failing is a representation of earthly mortality. Alonso-Minutti references additional excerpts from Cernuda’s short story to emphasize the importance of struggle in interpretation. In the story, Marsias is frustrated by the unenthusiastic and sometimes mocking reception his music receives from his village. This personal struggle to prove himself leads to him challenging Apollo to a duel, convinced that his artistry will finally be recognized. She suggests that the dissonance between the oboe and the crystal glasses throughout the work depicts the struggle between Marsias and Apollo. She also believes the multiphonics are used to portray the physical struggle between Marsias and the aulos. She describes live performances of the work where she witnesses oboists struggling to produce the multiphonics.

Oboists can use these principles to inform their performance. Emphasizing the many tritones in the oboe’s phrases will create cohesion in the work while also giving voice to Marsias. The performer can exaggerate the imperfections of the various extended techniques to create contrast between the oboe line and the crystal glasses’ pure intervals. In order to express the idea of struggle, the performer can physically grapple with playing the multiphonics, communicating with body language the challenge of producing them. Instead of playing them delicately, they can be accented to sound more crass and imperfect.

Alonso-Minutti references the final line of the short story and introduces the poignant comparison between Marsias and the poet:

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84 Alonso-Minutti, “Resonances,” 94.
What is symbolically figured in the myth of Marsyas? It is that the poet should know how to stand before all creation, in his divine as well as human aspect, enmity so uneven that the poet, if he is truly [a poet], should remain conquered and dead.\textsuperscript{85}

This idea expands on that of Marsias attempting to achieve Apollo’s divinity, where the poet stands somewhere in between humanity and heaven, destined for failure. Cernuda uses the myth to illustrate his self-perceived existence as a poet and an artist. Literary scholar Esperanza Rodríguez Ortíz describes the short story as a way for Cernuda to represent the Romantic poet, who remains isolated with his poetry–describing Cernuda’s experience as an exiled artist from his homeland.\textsuperscript{86} According to Lavista, Cernuda uses Marsias to emulate the “poet in his search for the right and precise word, for the perfect expression.”\textsuperscript{87} Despite his efforts, the poet will never achieve perfection, thus always achieving failure. Lavista, by including Cernuda’s text in his score, is using Marsias to also represent the musician, who seeks the right note or the perfect performance but never achieves perfection. The oboist can realize this interpretation by embracing the imperfection of the extended techniques. Considering consonance as a metaphor for heaven, the dissonance created from the oboe extended techniques represents the oboist’s failure to achieve divinity. Producing extended techniques with less refinement is in keeping with Alonso-Minutti’s perspective.

Alvarez’s interpretation is largely influenced by Alonso-Minutti’s writings. In her article, Alvarez expands on the crystal glasses representing Apollo. She describes the glasses as “a harmonic field of the divine world of Apollo.” The perfect fifth Ab\textsubscript{5} and Eb\textsubscript{6} is the most used interval in the work, both representing the sanctity of Apollo and his “final victory” as it ends the

\textsuperscript{85} Alonso-Minutti, “Resonances,” 95.


\textsuperscript{87} Alonso-Minutti, “Resonances,” 95.
piece. She sees the tritone A5 and Eb6 in the second line as Apollo’s anger and jealousy, referencing Cernuda’s story when Apollo “furiously destroys” a tree trunk while listening to Marsias play. She attributes specific emotions to the crystal glass intervals, which the oboist will have to communicate through his or her tone since the crystal glasses cannot change timbre or color. M3 is written as a minor ninth on the score. She views the minor ninth interval and the nine iterations of that multiphonic as the Nine Muses in the story. Moreover, she describes the three static multiphonics at M3A as the “the muses contemplating the contest,” referring to the story where the muses paused and appeared indecisive.

Alvarez’s interpretation of the gestures on the score connects to specific events in the narrative, contrasting with Alonso-Minutti’s analysis of ideas. Oboists can assign events to the phrases in the score and attempt to tell Cernuda’s story through their performance in a programmatic approach.

While Lavista described a good interpretation as one expressing “poetical content,” he also states that when he includes poetry in his scores, he does not intend to create tone poems. His aim is not to “narrate stories or describe the psychology of the characters.” He describes the relationship between his music and poetry as “more arbitrary” and “more subjective” rather than a literal representation. Because of this, he does not think it necessary for the audience to know about the epigraph or the myth. Alvarez disagrees, thinking the story will guide the audience’s imagination during performance. She suggests including the story or epigraph in program notes.

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89 Alvarez, “Metaphor,” 139.
90 Alvarez, “Metaphor,” 140.
or reading it aloud before performance, similar to how many oboists perform Benjamin Britten’s *Six Metamorphoses after Ovid, op.49* (1951). Due to the work’s title, the programmatic connection to the myth is inescapable.

My interpretation is based solely on the epigraph on the score. Even if Lavista did not intend to narrate a specific event, I believe he included the epigraph for a reason. When reading the text, one does not find competition. There is neither violence nor punishment. There is no ego. The text describes the moment when Marsias falls in love with his art and discovers what music can tell him about his inner self. He breathes through the intertwined reeds and creates sounds that resemble the brightest and darkest places in himself. I conceive the piece as an exercise in meditation. Alonso-Minutti describes the entrance of the glasses as “an extension—or echo—of the ‘real’ tone played by the oboe.” The glasses evolve from the sound of the oboe and create a sonic bubble in which Marsias experiments on his new instrument. The static nature of the crystal glasses creates a meditative headspace for Marsias. At first, he plays short melodic fragments to explore what he can produce on the instrument. In one gesture, he accidentally plays a multiphonic in the middle of the phrase that pops out of the texture. Later, he adds more multiphonics as he learns to control them. He learns to play *glissandi* on the instrument, playing series of them to see how long he can go. The phrases get longer and the range gets higher, showing his ability to master and further develop his technique. By the end of the piece, his finesse allows him to play quiet phrases and fade away to nothing. The gestures in the work do not resemble a virtuosic competition; rather, they evoke vulnerability and discovery. This interpretation aligns with Lavista’s compositional approach. By removing the parameters of the

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93 Alvarez, “Metaphor,” 146.
94 Alonso-Minutti, “Resonances, 89.
narrative, the performer can explore the epigraph’s intimate and introspective sentiment. Additionally, this perspective removes the negative connotations of failure and loss in order to focus on the special moment of falling in love with music.

To bring this interpretation to the score, the oboist will need to study each melodic fragment and discover the novelty in each one. The first line is divided into four individual gestures. Establish the first four notes as Marsias’ *leitmotif*, which returns throughout the work. Linger on T1, the first timbral pitch of the work, to heighten the dissonance. The grace note and the *glissando* are his first explorations on the instrument. The second phrase is an embellishment of the first, building on the ideas in the opening gesture. M1 is marked at *mezzo forte*. Play the first multiphonic as if Marsias accidentally produces a loud polyphonic effect that surprises himself as well as the audience. Then, seeing the beauty in the multiphonics, he adds more in the final phrase of the line, with intention as he demonstrates greater control over the new technique. The crystal glass interludes are purifying moments where Marsias reflects on his music. The harmonies transform during the glass interludes, as if giving him time and inspiration for his next exploratory episode.

This offers an idea on how to approach the piece with this interpretation in mind. The various extended techniques are tools Marsias uses to express himself. I believe this perspective more clearly connects to the spirit of the music. The score is notated with approximate tempo markings and without bar lines. Lavista is allowing the oboist to prioritize gesture over timing. Allowing for vulnerability in the work reinforces the need for reliable multiphonic fingerings in order to play the last line with subtlety.

Before a performance, I recite the epigraph in Spanish and in English. This way, both the audience and the performers are in the same state of mind.
CHAPTER 4
ELECTRONIC ACCOMPANIMENT

*Marsias* is an excellent work for the oboe, but the crystal glass logistics in some way may impact the playability of the work. If an oboist who has included the piece in his or her repertory gets the opportunity to perform the work in another city, the crystal glasses would hold the performer back. In this chapter, I will present my electronic accompaniment, which will allow oboists to perform the piece when crystal glasses are unavailable.

Genesis

I had the opportunity to give a lecture-performance at the Chicago Poetry Foundation about a work of my choice connected to poetry. *Marsias* immediately came to mind, but I was unsure that I would be able to pack up the glasses and fly without them breaking. Similarly, I was not confident that I would be able to land in Chicago and find eight crystal glasses in a timely manner. Even if I did, I would buy and leave eight crystal glasses in Chicago. Additionally, I would have to find enough volunteers to rehearse and perform the glasses. When and where would we rehearse beforehand? The logistical problems deterred me from playing *Marsias* and I turned to another work with tape accompaniment.

When I returned to school, an idea came to mind when I was brainstorming final project ideas for my Introduction to Computer Music class. I thought to create an electronic accompaniment for *Marsias* so that I could perform the work when I travel. It could serve other oboists as well, who want to perform it at a masterclass, a conference, or on a touring recital. Furthermore, it would allow oboists a chance to practice with the crystal glass pitches outside of rehearsal time.
At one point, Lavista considered creating an electronic accompaniment to the piece but abandoned the thought “because he found the electronic sound too ‘rigid’ and lifeless.”\(^5\) In an effort not to disappoint Lavista, this accompaniment is created from actual recordings of the crystal glasses and is used with the computer program Max/MSP that starts and stops the pitches in a sequence. This electronic accompaniment does not contain any digitally created sounds. The end result will sound similar to a performance with actual crystal glasses.

Hardware

While designing the patch, I aimed to create a convenient set-up for travel, using small equipment that can fit in a suitcase. For this electronic accompaniment, the performer will need a laptop or computer, a speaker or speaker system, a MIDI sustain pedal, and a MIDI keyboard.

I designed and performed this accompaniment on a MacBook Pro. The speaker or speaker system is the one part of the set-up with which I do not intend to travel. I expect the space I will be performing to have a speaker or a speaker system, and if not, I expect to be able to rent or borrow a speaker easily. For the MIDI keyboard I use the Akai Professional MPK mini compact keyboard and pad controller. It is portable and fits in a suitcase or even in a backpack. For a MIDI pedal, I use a Proline keyboard sustain pedal, which connects to the MPK keyboard in the back.

I can perform the piece with only this equipment. A MIDI interface is not required nor is a large MIDI keyboard required. The keyboard connects to the laptop via USB leaving the headphone jack available for the speaker system.

\(^5\) Alvarez, “Metaphor,” 137.
Max/MSP

Max/MSP is a “graphical data flow programming language by cycling74.com and based on software originally written by Miller S. Puckette.” It has become popular “for composers and visual artists,” since its language inspires more creativity and innovation than text-based programs. Max/MSP programs are called patches, which are “made by arranging and connecting objects within a patcher, or visual canvas.”96 Patches are made up of objects, buttons, and messages that are linked together by patch chords. Max/MSP interacts with MIDI (Musical Instrument Digital Interface) language. Creating on Max/MSP is both a visual and creative endeavor.

My patch works by inputting the crystal glass audio files and organizing them into a sequence of seventeen events triggered by a MIDI pedal. The MIDI pedal connects to the computer (via the MIDI keyboard) and is detected by Max/MSP by the object named “ctlin,” which receives a MIDI device into the program. The “ctlin” object is connected to a ‘numbers’ object, which is then connected to two objects: “sel 0” and “sel 127.” These two numbers represent the highest and lowest numbers in MIDI use, a total of 128 digits. Without getting into the weeds about MIDI’s binary-based system, when a MIDI pedal is stationary, it sends the numerical signal of “0” and when it is fully pressed, it sends the numerical signal of “127.” The “sel” identifier stands for “select,” and it will selectively send out the value (called an argument) in the object to a “bang” object, which triggers an event. The ‘numbers’ object is included merely to show the numerical value (0 or 127) when the MIDI pedal is connected. Refer to Figure 10 for a diagram. These five boxes will receive data from the MIDI pedal and transform it

into a signal that goes to the “bang” object (the box with a circle inside). This signal will initiate an action.

![Diagram](image.png)

**Figure 10: “CTLIN” Receiving the MIDI Pedal**

The “bang” will connect to an object called “counter.” “Counter” is the object that makes the sequence of events work. The “counter” object includes two numbers. The first number indicates the value required to send out data to the next object. The second number is the maximum amount of events or outputs the object will send. The MIDI pedal created a value of 127 when it was pressed. The “bang” object translates that to a binary signal. Each time the MIDI pedal is pressed, that 127 value is turned into a “bang,” which becomes a “1” sent to the “counter.” *Marsias* has seventeen events in the glasses, both starts and stops of pitches. The “counter” will always count up to seventeen and then stop sending out data. The “counter” object will send data in a sequence to other objects that will turn on and off the audio files. A message, “set 1,” is attached to the “counter” object for performance efficiency. The “set” message will set or reset the connected object to the value indicated. In this case, when the “set 1” message is clicked, no matter which event the “counter” object was on, it will reset to 1, or the first event. This is helpful to the performer, because in the event of a false start or a technical problem in performance, the performer can click “set 1” and start from the beginning instead of pressing the pedal through the remaining events until back at 1. Refer to Figure 11 for a diagram.
Next, the “counter” is connected to another “numbers” object to allow the performer to see which numbered event is occurring at the moment. That “numbers” object is then connected to another “sel” object, this time with sixteen values. The entire object will read “sel 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16.” Each bang generated by the MIDI pedal will go through the “counter,” which will send bangs out to the events in that order. There are seventeen events total, but the way the “sel” object works, zero is an event. Seventeen total events starting from zero through sixteen. Refer to Figure 12 for a diagram.
The next step is setting up the audio files. I created nine audio files. Eight are the individual pitches, and the ninth is a file consisting of the Ab5 and Eb6 fifth played simultaneously. The eight individual pitch files are timed to last longer than they would in a performance, just to have some wiggle room. The ninth file has a set duration where the pitches end together. Instead of having Max/MSP cut off the pitches abruptly at the end of the piece, I opted to have a file where the glasses end with a taper. In the next section, I will discuss recording and processing the files.

Each audio file will consist of an “sfplay~” object, which houses an audio file from the disk for the program to play. Max/MSP will play the following types of files: AIFF, WAVE, MP3, M4A, NeXT/SUN(.au), and Raw Data. I saved each pitch as an AIFF file, nine files total. Drag the file on top of the “sfplay~” object and it will be added to the object. This needs to happen every time you open the patch. Connected to the “sfplay~” object is a “toggle,” which is a switch between on and off (1 and 0, respectively). Two messages connect to the “toggle.” One message contains the value “1” and the other message contains the value “0.” When a trigger from the “sel” object connects to a “1” message, it will turn on the toggle, and the audio file will play. When a trigger from the “sel” object connects to a “0” message, it will turn off the toggle and the audio file will stop. I also add a “comment” around the “sfplay~” object to label and color code the pitch. Refer to Figure 13 for a diagram.

Figure 13: Loading Audio Files
Once all nine files are set up and loaded, the next step is to connect them all to the “sel” object. The “sel” object will have seventeen outlets on its bottom side. Each outlet will connect to a “1” message or a “0” message for a particular pitch. By the time everything is connected, some messages may have multiple connecting wires because some pitches are started or stopped more than once. Be sure to go through the score and follow the sequence of events to get the correct event connected to the correct message. Refer to Figure 14 for a diagram.

![Figure 14: Connecting Audio Files to ‘Sel’](image14.jpg)

Finally, the audio files must be connected to an “ezdac~” object, which is an audio output object. The “ezdac~” object has two inputs on its top side. Both outlets will connect to each “sfplay~” object to engage both the right and left speakers for surround or stereo sound. When performing, ensure that the “ezdac~” object is activated or turned on. If the icon is dim, it is turned off and no sound will play. Refer to Figure 15 for a diagram.

![Figure 15: Audio Files Connected to “Ezdac~”](image15.jpg)
While Max/MSP requires learning a special vocabulary, this particular patch is quite simple, as far as Max patches go. This patch was designed to allow oboists to comfortably perform the work, and the more simple it is to create and understand, the more likely performers will use this accompaniment. Once everything is connected and the audio files are added to each “sfplay~” object, a glass pitch should play or stop playing every time the pedal is pressed. At the bottom left of the Max/MSP window is a lock icon. Make sure the icon appears locked when ready to perform. If it appears unlocked, it is in editing mode.

Recording and Processing Audio Files

Recording the glasses, just like rehearsal or performance, involves extra time for set-up. The glasses must all be transported, filled, and tuned. I recorded the glasses at the University of North Texas Recording Studio. Set up just like a professional recording studio, they have professional grade microphones and high-tech audio workstations and audio interface equipped for recording, engineering, and post-production work. An engineer set up a microphone above the glass, and I played long takes on each of the glasses. It was not until I heard the raw files that I noticed how many sounds are created when playing the glasses. Some glasses emit a high-pitched scratching sound as the finger moves around the edge. The sound gets bumpy at times when the finger pressure inevitably varies on each cycle around the glass rim. Even the sound of the glasses, which, from far away appears steady and sustained, up close pulses at regular intervals.

I used Logic Pro X to process the files to be used in performance. Logic Pro X is a professional audio production software created by Apple. It allows users to create audio tracks using MIDI files on the program or from outsourced MIDI libraries. Users can record directly into the program and process the audio immediately. It also allows users to input audio files for
processing using a myriad of audio tools and techniques. Logic Pro X’s processing tools will be discussed for the purpose of this document.

Note length is an issue for the Max patch because some pitches play for up to three minutes at a time. I was unable to record a pitch in one take for that long, since my finger would get dry and the sound would stop while I rewet the finger. Luckily, the glass’ pulsing sound wave makes it easy to cut and paste audio files together to make one long track. The Horizontal Zoom slider allows for a close up view on the audio file where the individual pulses or waves can be seen. After finding a stretch of the file you like, it can be copied and replicated various times. In the top menu bar, select “Smart” for “Snap” and “X-Fade” (which means crossfade) for “Drag.” Crossfade allows for a smooth transition between two audio files. When you drag an audio file to another, line up the waves so they match and Logic Pro X will smoothly connect them for you. This feature will allow several shorter tracks to be combined into one track that sounds continuous. Make the files a little longer than you think so that you have plenty of buffer zone when performing the piece.

Ideally the glasses were tuned as desired during the recording session, but in case some pitches are slightly off, Logic Pro X can adjust pitch. It has a feature called “Pitch Shifter.” With this feature, the pitch can be moved up or down by semitones or by cents. What is likely in this project is that a glass pitch will need to be adjusted five or ten cents to balance with another pitch. “Pitch Shifter” allows for that to happen without distorting the sound quality.

Depending on how the glasses were recorded, it is likely excess noise may have to be reduced. If the audio files were not recorded in a professional studio, there is likely to be ambient noise and possibly extramusical noises like traffic noise and creaks. Logic Pro X can remove noise from audio files. Logic Pro X has multiple ways of removing noise. One way is using the
plug-in called “Expander.” Expander is a tool that sets a threshold of decibels and expands, or enhances, the dynamic range above the threshold. When processing an audio file, listen to the ambient noise before the playing begins. Consider how loud that is, and move the “Threshold” bar (on the left side of the screen) up so that any of the ambient noise falls below that mark. The “Ratio” bar (on the bottom left) sets the ratio for the signal when exceeding the threshold. This and the “Gain” bar (on the right side of the screen) can help boost the sound of the glasses, while the Threshold bar suppresses room noise.

There is another technique to use if using Logic Pro X to record the glasses directly to the computer. “Noise Gate” is a tool that sets up parameters for what is heard by the microphone. It works like an actual door. The “Threshold” knob indicates the level sound must reach before the microphone picks it up. In the “Track Header,” the “Volume Fader” will show when sound is heard (generating green, yellow, and red lights). When at rest, the Volume Fader will show any ambient noise it is picking up. Turn up the Threshold knob in the Noise Gate screen until the Volume Fader is completely still. Record the glasses at that setting and ambient noise will be diminished.

In the event that one or more of the glasses recorded high, scratchy glass noise, there is a feature that will minimize or remove that noise. The EQ opens a window showing the various register ranges of the audio file, from low on the left to high on the right. When playing the file with scratchy glass noise, the main glass pitch should be somewhere in the middle of the screen and the glass noise will be popping up on the right side of the screen. The central line has various “band dots” that can be dragged around the screen. When the band dots are moved, they either increase the frequency of a particular area (if they are dragged above the center line) or they dampen the frequency of a particular area (if they are dragged below the center line). Drag the
band dots down towards where the spiky glass noise occurs and they will disappear. Refer to Figure 16 for a diagram. In Figure 16, the band dots are dragged all the way to the bottom of the screen on the right side, effectively suppressing the higher frequencies. The high-pitched glass noise is no longer audible. If the glass pitch itself sounded quieter, the other band dots could be dragged up above the center section to enhance the frequencies of the glass pitch.

After removing auxiliary noise, the next step is enhancing the sound quality and ensuring the volume among all files is the same. From this point on, enhancements are subject to taste. Performers are free to do more or less, depending on the quality and sound desired. Adding reverb is a way to emulate a performance in a big space, where the crystal glasses would interact with a venue’s acoustics. A newer plug-in with Logic Pro X is called “ChromaVerb.” It has fourteen presets simulating various performance spaces, such as a “Chamber” hall or a “Concert Hall.” These presets make it easy to add reverb to an audio file, and it makes it easy to add the same kind of reverb to all the files, which will make them all sound like they are produced in the same space. Using the Volume Fader for each track, match the decibel level among all tracks so they sound the same. Alternatively, if there is a need to make one or more glasses louder or softer to fit the voicings in a chord, the glasses can be individually adjusted. The ultimate goal is
to make all the glasses sound like they are coming from the same space, so that in performance, they sound organic.

Performing with the Patch

Performance is ready once all the crystal glasses are recorded, the Max patch is created, and the equipment is set up. Despite the tedious work to record the glasses, process the audio files, and design the Max patch, once it is done, everything is ready for any performance opportunity that arises. Before performance, make sure the audio files have been added to the “sfplay~” objects. Once connected, the computer will detect and receive data from the MIDI pedal (connected to the MIDI keyboard) through the “ctlin” object, and it should cause the “bang” object to light up when pressed. Make sure to press the pedal down completely to achieve the 127 value.

On top of learning the oboe part, the performer will now have to learn the glasses part to the extent of when the pitches enter and end. Instead of cuing the glasses players, the performer will now control everything. Keep the dominant foot close to the pedal so that it is within reach for use. For performers who move during performance, do not stray too far from the pedal. In a way, performance with the Max patch ensures that joint entrances between the oboe and the glasses are precise. For theatricality’s sake, the performer will have to exude character and drama during the crystal glass interludes, in order to distract the audience’s attention from the pedaling and retain attention on the performer. Because the glasses were tuned a certain way during recording, the performer can practice with the computer before performance and feel comfortable about playing in tune with the glasses. The electronic accompaniment doubles as a practice tool, since rehearsal with glasses players is often limited to once or twice before a performance. It can also allow the performer to practice the rests. The rests in the piece are often
pregnant with tension and the performer is reacting to it in performance. Practicing with the Max
patch can allow the performer to internalize the moment and learn not to rush through the
seconds of rest, as well as to understand how to communicate the drama through body language
to the audience. If it is not ever used in performance, the Max patch will certainly contribute to
practice and preparation for performance.
CONCLUSION

Lavista’s determination to research and promote extended techniques made an impact on Mexican classical music. Along with Manuel Enríquez’s *Oboemia* for solo oboe, *Marsias* showed the younger composer generation what the oboe is capable of producing. In tandem with prominent oboists in Mexico, including Saavedra, Kolb, and Thierry, Mexican composers have been writing works for the oboe well into the 21st century. Some notable works for oboe with extended techniques include Horacio Uribe’s *Dos Estudios de Expresión* (2002) for solo oboe and Jorge Calleja’s *La Voz del Viento* (2008) for oboe and tape. A common thread with all the mentioned works is collaboration between composer and performer. Only through the sharing of knowledge can the pieces succeed at the highest level.

This study shows the development and improvement of notation through multiple editions of *Marsias*. The composer and performer both acknowledge that specific fingerings will not work exactly the same across oboe models and reed styles. Lavista has allowed for Thierry to change fingerings to accommodate her performance set-up, and she in turn has communicated the same freedom to other oboists. This grants any oboist in the United States using a long-scrape reed style the right to seek alternate solutions to nonresponsive or unreliable fingerings printed in the score. The oboist now can profit from studying the changes between the original and revised editions. Knowing that the original version was based on Singer’s notation is valuable in preparation. The oboist can refer to his *Metodo* and understand which techniques and ideas are outdated, which have been updated through the decades, and which are still effective. With the wealth of knowledge presented in this study, the oboist will be able to approach the piece and create a personal version for himself or herself.
Conducting a playing experiment with various instrument models and presenting concrete data is a way performers and composers alike can understand how differently instruments produce certain techniques. This gives performers an armor of legitimacy when communicating about their instrument’s capabilities and limitations. By recording the performances and analyzing the data, composers can see how successful or not the techniques will be on a variety of instruments. As mentioned before, collaboration is an essential component to successful composition, and this type of experiment can help composers and performers pick the right techniques and fingerings that will be utilized by most potential performers, ensuring as many performances of a work as possible. The experiment presented in this work does have its limitations. Twelve professional model oboes were used, but they do not encompass the entire spectrum of instruments used in the United States. Some also do not represent the more likely instrument available; for example, the maple Fox Sayen 880 is less likely to be used in a performance of Marsias than a grenadilla Fox Sayen 880. Also, a grenadilla Fox Sayen 880 and a grenadilla Yamaha YOB-841 may produce different results than the maple and kingwood instruments. For the purpose of this study, those were the instruments available on hand, and they do demonstrate the different variables to consider in contemporary performance. Additionally, oboes of the same brand and model will vary, producing certain effects differently. My reed set-up will likely differ from other oboists in the United States. What this experiment does offer is a model that other performers can use in studying contemporary techniques on their instrument. This type of experiment could be applied to various works for various instruments.

This study may prompt other oboists to conduct a similar study for Marsias using the short-scrape reed style and instruments commonly used in Europe. Furthermore, oboists could conduct this type of study with performers in Mexico, showcasing the varied performance set-
ups found in the country, which include both short-scrape and long-scrape reed styles and various oboe models.

This study shows the need for research in bore and tone hole measurements of various oboe models and brands. Understanding how the oboe models differ physically may impact how various oboes produce extended techniques.

This study also aims to encourage more performances of this work, both through the study of notation and the introduction of an electronic accompaniment. If possible, the work should always be performed with the crystal glasses, as intended by the composer; however, if these are not available, the electronic accompaniment is a viable substitute. More performers will be able to play it, and more audiences will be able to experience it. This Max patch is one example of a practical solution. Other performers could improve upon this patch or use a completely different means to produce electronic accompaniment.

Mario Lavista is a composer who should be better recognized. His work is clever, finessed, and profound. His compositions have influenced future generations, and they have encouraged the use of extended techniques among many instruments. Marsias is not only an important work for oboists, it is a unique work in the chamber music repertoire. The extended techniques in this piece, as well as the crystal glass logistics, should not be a deterrent. Understanding the imperfections of producing multiphonics across oboe models should encourage more performers to approach the piece with a spirit of discovery.
APPENDIX A

MUSICAL EXCERPTS

All musical excerpts containing extended techniques are reproduced with permission from the composer and the publishing company Ediciones Mexicanas de Música A.C.
Excerpt 5:

Excerpt 6:

Tranquillo, ma espressivo e poco rubato \( (\dot{J} = \text{ca. 56}) \)

Excerpt 7:

Excerpt 8:

Più mosso \( (\dot{J} = \text{ca. 63}) \)
APPENDIX B

WRITTEN MULTIPHONIC FINGERINGS
BIBLIOGRAPHY

Scores


Journal Articles


Dissertations


Theses


Books


**Discography**


**Liner Notes**


**Websites**


