2014

An Annotated Catalog of Selected I.D.R.S. Bassoon Articles, with an Appendix of Categorized Bassoon Articles

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ABSTRACT

The IDRS and its publications are the primary scholarly resource for all double reed performers. Authors that contribute to these journals typically consist of professional orchestral performers and university professors. Articles published in the periodical address most aspects of double reed performance, reed making, music literature, and pedagogy. This treatise focuses on those articles published in the IDRS periodicals specifically addressing topics related to the bassoon.

The purpose of this treatise is to provide an annotated guide to the many articles available and an easily accessible reference for research. As there is currently no catalog of bassoon articles for the IDRS, this reference guide seeks to fill the void and create an effective and efficient reference tool.

Literature included in this catalog comes from The Double Reed (the quarterly publication by the IDRS), The Journal of the IDRS, and the newsletter To The World’s Bassoonists. The organization of articles into categories appears in chronological order. Each article is listed in bibliographic citation format, which includes the author’s name, title of the article, and date of publication. Annotations follow with the description of contents. Additional categories of articles without annotations are included in the appendix. This treatise provides annotations for 175 articles, with an additional 500 articles not annotated categorized in the appendix.

Parameters for selecting articles used in this treatise includes instrument development, references for students and teachers, music analysis, pedagogy, and methodologies. This treatise does not include music reviews, recording reviews, letters to the editor, anecdotal articles,
current events, or musicians in the news, even if listed in the “article” section of the periodical.

With the abundance of articles presented in this treatise, not all entries will contain annotations; a list of categorized titles appears in the appendix.
CHAPTER ONE

INTRODUCTION

This treatise focuses on those articles published in the IDRS periodicals specifically addressing topics related to the bassoon. The purpose of this treatise is to provide an objective guide to the many articles available and an easily accessible reference for research. As there is currently no catalog of bassoon articles for the IDRS, this reference guide seeks to fill the void and create an effective and efficient reference tool.

The division of articles into categories of similar topics will include annotations. Additional categories of articles without annotations are included in the appendix. This reference guide will allow an individual to view and select the appropriate article needed for research, practical application, and pedagogical purposes.

Literature to be included in this catalog comes from The Double Reed (the quarterly publication by the IDRS), The Journal of the IDRS, and the newsletter To The World’s Bassoonists. In addition to the IDRS journal articles, this author used several doctoral treatises as guidelines in formatting this treatise. These documents can be found in the bibliography.

The organization of articles into categories appears in chronological order. Each article is listed in bibliographic citation format, which includes the author’s name, title of the article, and date of publication. Annotations follow with the description of contents. Additional categories of articles without annotations are included in the appendix.

This project required the gathering and selection of articles from the three periodicals available from the IDRS. This treatise provides annotations for 175 articles, with an additional 500 articles not annotated categorized in the appendix. Certain parameters for selecting articles
used in this treatise include the historical importance, instrument developments, references for students and teachers, music analysis, pedagogy, and methodologies. Specific sections listed as “articles” in the periodicals are not present until the publication of vol. 26, no. 1, 2003 of *The Double Reed*. Before this date, articles chosen for this treatise required substantial information regarding bassoon topics. This treatise does not include music reviews, recording reviews, letters to the editor in response to articles, anecdotal articles, current events, or musicians in the news, even if listed in the “article” section of the periodical. Few exceptions occur when the information of the article is relevant. With the abundance of articles presented in this treatise, not all entries will contain annotations; a list of categorized titles appears in the appendix. A comprehensive annotation of all of the articles extends the scope of this project beyond the practical limits of this treatise; in addition, due to ongoing publishing of articles in *The Double Reed* the treatise will be out of date at the time of the publication.

Several problems occurred when preparing this treatise. Two publications of *The Double Reed*, vol. 11, no. 1 and vol. 15, no. 2 contained no substantial bassoon articles and *The Double Reed* vol. 5, no. 3 contained no bassoon articles altogether. Inconsistencies appear between the archived publications found in the IDRS website and the published periodicals. Several publications in the printed versions contain incorrect dates, volumes, and numbers. There are also incomplete article listings and publication information found in the online archive. This required cross-referencing between both the printed publication and online archive. The lists below indicate volume and number corrections for *The Double Reed*. 
Table 1. Volume and number corrections for *The Double Reed*.\(^1\)

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Table 2. Volume and number corrections for *The Double Reed* online archive

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The IDRS and its publications are the primary scholarly resource for all double reed performers. The IDRS issues four copies of *The Double Reed* each year.\(^2\) Authors of articles that appear in these journals typically consist of professional orchestral performers and university professors. Articles published in the periodical address most aspects of double reed performance, reed making, music literature, and pedagogy.

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\(^2\) Edgar Kirk, “From the President,” *The Double Reed* vol. 20 no. 3 (1997): 12.
The history of the IDRS began with a newsletter for bassoonists titled *To The World’s Bassoonists* in 1969 by Gerald Corey, which discussed orchestra life, reed lore, performance ideas, vibrato and other topics concerning the bassoon. As popularity and interest in the newsletter grew, an additional newsletter was created for the oboe titled *To The World’s Oboists*. By December of 1971, the two newsletters merged to create the International Double Reed Society. *To The World’s Bassoonists* appeared from 1969-1977. The simultaneous publishing of *The Journal of the IDRS* and *The Double Reed* occurred between 1973-1999, and *The Double Reed* is the only journal published from 1999-present. Another confusing aspect of this research is the simultaneous publication of both *The Double Reed* and *Journal of the International Double Reed Society*. Publication of *The Journal of the International Double Reed Society* began in 1973 and continued to 1999. The first three quarters of the publications belong to *The Double Reed* and the last quarter is devoted to the journal. This periodical and labeling process ended in 1999, and *The Double Reed* has been published four times a year since 2000. A description of the society states, “The International Double Reed Society (IDRS) was established in December of 1971 and is a world-wide organization of double reed players, instrument manufacturers and enthusiasts. The society has over 4,400 members from 56 countries.” The IDRS also maintains a website for members and includes an archive of all the publications.

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CHAPTER TWO

CANE PROPERTIES

2.1 Cane Selection


This essay describes the growth and harvest of cane as well as the characteristics of the two types of cane; porous (hard) cane identified as “male” and nonporous (soft) cane as “female”. Information includes the differences between the two types of cane and the porousness of cane that grows from the offshoot of the main stem.


The author advises how to distinguish between good and bad cane by buying the highest quality product based on experience, gouging, and observing the cane during the reed making process. Schwartz concludes that through experience and personal observation, bassoonists can identify potentially good or bad pieces of cane and will avoid wasting time making reeds from bad pieces of cane.


First presented at a seminar, Enzo Prestini highlights information about cane harvesting. This is followed by Prestini’s experience of reed making and the detail needed in examining cane by the individual reed maker. Lastly, Prestini recommends twelve retailers that sell cane.
Trentacosti, Michael J. “An Early Approach for Detecting a Good or Bad Piece of Cane.”


Based on his experience examining the quality of bassoon cane throughout the reed making process, Trentacosti advises the purchase of gouged cane, profiling, forming, cutting the tip of a blank reed, and the crowing pitch of the reed. The author describes good and bad qualities of cane by observing the color, grain pattern, and feel of the cane throughout the reed making process.


This selection from Intravaia’s dissertation focuses on the different effects of cane hardness and stiffness upon tone quality and response. The article thoroughly explores the specific testing done by the author, which includes descriptions of equipment used to test the cane and graphs depicting the tone quality of reeds examined. The author concludes that by examining these two aspects of cane and reeds, the reed maker will have a greater understanding of the quality of reed produced.


Cooper provides a detailed set of notes that examines the selection of gouged cane through observation of the type of gouge, consistency of gouge thickness, and the diameter and contour of the cane. Next he describes testing the cane before gouging for hardness, flexibility and density. Lastly, instructions for preparing the selected gouged cane include soaking and sanding procedures.

Reprinted from the *Journal of the International Double Reed Society*, vol. 6, 1978.


Lacy describes a procedure for testing the density of gouged cane by using simple, household materials. The author concludes that measuring the density of cane leads to reeds that are more consistent in regards to playing characteristics. This process also eliminates using undesirable or unusable cane.


This study examines three experiments of testing reed hardness and flexibility. With detailed notes of each experiment, Poe concludes that testing cane hardness and flexibility enhances a reed maker’s productivity and results in consistency of reeds specific to the individual’s preferences.


Bassoon pedagogue James Kopp poses two questions, “Are any qualities of reeds (hardness, density, flexibility, etc.) synonyms or antonyms for one another, or are they conceptually distinct?”5 Additionally, “if certain qualities of cane may be distinguished from one

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5 James Kopp, “Counting the Virtues of Bassoon Reed Cane,” *The Double Reed* vol. 26 no. 4 (2003), 45.
another in concept, do they occur in correlation with one another?” Answers to these questions come from the perspectives of three different professions: scientific, cane growing, and playing.


Boldt-Neurohr expands on the cane testing procedures previously introduced by Edwin Lacy, James Kopp, and Lawrence Intravaia. Duplicated comparison tests using modern equipment produced a second set of results. Further explanations include graphs of the test results.

### 2.2 Growing and Harvesting Cane


Reid provides systematic instructions on selecting, gathering and harvesting domestic cane, as well as testing hardness and flexibility of cane during the gouging stage.

**Stewart, Lawrence J.** “Raising Cane!” *The Double Reed* vol. 23, no. 3 (2000): 77-78.

Stewart reports on an experiment of growing *Arundo donax* in the backyard of his New Jersey home. Through trial and error, the author justifies the benefits of growing cane from home, citing the control one has in the process of growing and harvesting.

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An interview with the owner of the Glotin company located in France provides an inside look into their cane growing and harvesting. Glotin is one of the major suppliers of cane to musicians around the world.


This investigation presents the findings of four different studies of home grown harvests over a four-year span. Descriptions detail the climate of each harvest (temperature, precipitation, etc.), as well as the time and process used to season the cane. This follows by comparing hardness, flexibility, and density tests of each harvest including graphs of the results.


A continuation of Boldt-Neurohr’s experiment of the climate effects on *Arundo donax* tests the playing characteristics of the cane. Forty reeds, made as consistently as possible, used the same dimensions and equipment. The playing test of these reeds resulted in categories of hard, favorable or good, stable, unstable, and unfavorable, with a description of playing characteristics of each group. The author concluded that cane grown and harvested in a moderate climate over a two-year period produced the most favorable reeds. This study underscored the direct relationship between the quality of cane and the climate.
2.3 Cane Soaking and Treatment

Fox, Ron L. “The BFC Cane Treatment for Prolonging and Enhancing the Playing Qualities of Reeds.” The Double Reed vol. 10, no. 1 (Spring 1987): 18-19.

Fox discusses the theory of chemically treating cane through Bifunctional Coupling (BFC), which prevents the breakdown and decay of reeds. Through this process, reeds will last longer without decaying from the bacteria in a musician’s mouth. The author also addresses the molecular and cellular levels of cane composition.


Based on the method used by bassoon pedagogue L. Hugh Cooper, Lacy experiments and analyzes the amount of time cane should soak before making a reed. The experiment focuses on the leaching of sodium from the cane and the amount of time required for the sodium levels to reach an undetected level. Lacy concludes that the sodium content leached from cane during a five to six day period produces more consistent reeds for the performer and that reeds from this cane will require less break-in time and last longer.

2.4 Cane Anatomy


An examination by Veselack analyzes Arundo donax L. (cane) from a scientific perspective. A brief history follows, summarizing cane growing and harvesting before and after World War II, which affected the quantity and maturity of cane growth. Lastly, the author presents a scientific analysis of cane cell structure, discussing the various levels of cells found in cane. This includes a microphotograph cross section of cane showing the various cell structures.

Boldt-Neurohr describes the anatomy of *Arundo Donax* and the process of growing, harvesting, and selecting of cane for musicians done by commercial sellers.
CHAPTER THREE

REED MAKING, ADJUSTING, AND ADVICE

3.1 Strategies from the Pros


Edouard Flament suggests seasoning cane for four years after purchasing before making the reed to minimize break in time and extends the reed’s life. George Zukerman and John Bulmer describe how to make a fine point sanding stick for reed finishing. Sol Roberts details the best approach to wire tightening.


Will Jansen provides general thoughts on the reed making process. Louis Skinner comments on pitch aspects of reeds during construction. Gerald Corey explains how to shorten the length of gouged cane.


William Santucci suggests storing reeds and cane in a refrigerator. Robert Pfeuffer comments on checking the balance of blades when scraping a reed blank. Gerald Corey provides information on reed making pliers.


André Sennedat suggests soaking reeds longer if they haven’t been played for at least a week. Robert Schaffer provides a method for scoring reeds by using a piece of a hack saw blade. Gerald Corey offers a method for cutting the collar of a reed by using a scalpel blade.
Otto Eifert instructs how to make a drying rack by using left over spools of thread. Paul F. Philips comments on his method of soaking cane for seven to eight days to stabilize reeds and minimize cracking during forming. Gerald Corey details how to wrap a turks head with an invisible knot.

Norman Tobias explains the benefits of using steam during the reed forming process. Lawrence F. Beste provides instructions for holding reeds in place in reed boxes. Gerald Corey instructs how to strip bark from cane before profiling by hand. Also included are tips on adjusting and tuning the bassoon by Gerald Corey and L. Hugh Cooper.

Corey describes the process of forming bassoon reeds, tightening wires on the tube, and cutting the corners off the tip of the reed.

Former principal bassoonist of the Philadelphia Orchestra, Bernard Garfield highlights his reed finishing style. He begins by addressing the types of music played, the environment performed in, and the type of sound style produced. Additional advice includes reed dimensions for specific orchestral works and a technique of scraping reeds, including a diagram of areas to scrape on the reed.

Hedrick describes common problems of reed making with advice on correcting these issues. The author includes obstacles that occur during reed making, reed finishing, and playing.


This list presents fifteen areas on the bassoon reed that involve resistance when played. The author includes a method for bassoon reed making that incorporates the points of resistance to maximize reed playability.


Clark provides four steps to finish a reed: by filing the rails, scraping the tip at 1/16”, scraping diagonal triangles at tip, and scraping to blend the thumbnail profile. This follows a description of the method to adjust wires on the reed. Clark includes figures and design dimensions of his reeds as well as the four-step method of reed finishing.


Kopp presents three strategies for minimizing reed-making errors caused when holding the reed while scraping, cutting the collar on bassoon reeds, and narrowing the tip of a reed shape.

Schwalje describes the method of scraping the thumbnail shape of the reed tip from his studies with William Winstead, Yoshiyuki Ishikawa, Per Hannevold, and Kim Walker. Instructions for scraping the reed blade include detailed figures.

3.2 Contending with Reeds at High Altitudes


Klimko comments on several reed making and adjusting concepts when performing at high altitudes. He offers advice on adjusting reeds when performing at venues at various altitudes, as well as six other professional bassoonists’ reed adjustment advice.


Moody reports on his experiments with making and adjusting reeds at high altitudes. Tips offered include using a softer reed, using a wider tip shape, moving the 1st wire away from the collar on a thin tip shape, and using a thicker gouge. Moody asserts that the use of various gouge thickness provides the best solution for reeds to perform well in high altitudes, which requires some experimentation and adjusting by the individual reed maker.


This method conveys the cause and effect of reed performance at high altitudes. Solutions to performing at high altitudes include using softer reeds, thinning the reed scrape, and using a wider shape. The author also suggests lengthening the reed, using a thicker gouge of cane,
preventing leaks in the reed tube, sanding the inner blades of the reed, and finishing reeds at the higher altitude instead of adjusting finished reeds.


Crawford provides three reed-making strategies to increase the response of bassoon reeds at differing altitudes. The author illustrates a graph of nine cities across the US by elevation, percentage of air density decrease, and percentage of crow pitch rise. The first strategy compares the specific pitch produced by the crow of the reed at different altitudes and determines which reed will work best according to the graph. The second strategy advises making reed blanks without changing the outside dimensions by using softer cane, larger diameter cane, and gouge with more taper to the sides as well as gouging the tube between the butt end and the collar. The third strategy suggests changing the outside dimensions of the reed by lengthening the blade, cutting the collar back, as well as using a wider blade and shape. The author also includes non-reed strategies of using different bocals.

### 3.3 Reed Shaping and Forming

**Marcus, Frank. “Opening the Reed Tube with Steam.”** *To The World’s Bassoonists* vol. 2, no. 2 (Summer 1971): 4-5.

Frank Marcus presents his method of forming reeds. By soaking the reed for three to four minutes in nearly boiling water, he then holds the butt end of the reed with pliers over the steam for 15-30 seconds before inserting a heated mandrel to form the reed. This method of reed forming prevents cane from cracking beyond the first wire. The author also includes instructions for making a forming mandrel by grinding down a steel rod as well as the remaining steps of his reed making methodology.

Feinsmith addresses the problems with the change of dimensions of cane after it has been soaked, dried, and shaped with a shaper. After listing the differences of cane dimensions, the author gives a method for hand shaping bassoon reeds.


Adamo shares a method for preventing cracks in the reed forming process by using four wires, allowing the reed blank to dry, and continuing with standard reed making practices. The added support supplied by the extra wire justifies the author’s use of four wires in the forming process, which eliminates splitting of the cane into the blade of the reed. This reed making process features systematic instructions, with additional attention given to the forming process.


Cooper begins this study with a description of the beveling function. Next, he highlights three standard methods of beveling, traditional symmetric (four-sided), 30° down from vertical, and full (100%) depth bevel. This continues with the bevel applications and creation of personalized bevel, including four pages of detailed illustrations describing the beveling methods.

This report details the cause and effect of reed blade slippage during the reed making process. The authors provide methods for manipulating blade slippage that benefit the performer, negative aspects of reed slippage caused by the reed maker due to incorrect workmanship, and illustrations of reed slippage.

3.4 Reed Designs and Examples


Plaster contributes detailed drawings and dimensions of reeds made by Wilhelm Knochenhauer, Carl Mechler, and a maker named Eisenhardt.


Rino Vernizzi of Italy, former student of Enzo Muccetti, offers his personal reed making dimensions and figures. Vernizzi also states the type of instrument used and his professional employment.


Vincent Ellin gives dimensions and pictures of his reed making style. He also comments on the type of cane used, the type of shaper, the instrument played, and his professional employment.

This presentation describes the reed making method of Frederick Moritz, including steps for gouging, forming, scraping, and two stages of blade finishing. Pictures include detailed measurements of the reed.


Gudwin’s method of reed making combines the processes used during his studies with Lou Skinner, Norman Herzberg, Philip Kolker, Keith Bowen and Mark Popkin. Systematic instructions are given for the entire reed making process. The author prefers using MonoKote shrink-wrap in place of the third wire and he supplies instructions for applying the adhesive.


Klimko’s interview with fulltime reed maker Scott Vidger begins with an overview of his musical background and reed making business. An in depth description of Vigder’s reed-making methodology provides initial cane selection, cane preparation, reed making process, and reed finishing method.


Ewell’s detailed reed finishing method begins with a description of terms and figures of the parts of a bassoon reed. Next, the author describes the process for finishing four types of reeds, normal, high note, low note/pianissimo, and concerto. Additional comments on reed
adjustments list common problems and their solutions. An extra resource for teachers provides a written reed-making test for students.


This catalogue features bassoon reed measurements of 23 reeds made by professional bassoonists from around the world. The bassoonists include Rose Corrigan, Arthur Grossman, Robin Howell, Michael Rabinowitz, Terry Ewell, Paul Hansen, and one unknown maker. Each reed includes detailed measurements of multiple dimensions and includes graphic representations of reed design, wire placement, and blade thicknesses.

**Herzberg, Norman. “Reed Making.” *The Double Reed* vol. 24, no. 1 (2001): 41-42.**

Herzberg discusses the method and reasons of his reed making process. The primary focus centers on the need to create symmetrical reed blades and the elimination of human error or variation. Herzberg’s method of producing symmetrical blanks discusses four factors, shape, thickness, wire placement, wire adjustment, and the influence of the bevel. A brief explanation also includes Herzberg’s manufacturing of a flat shaper and profiler that work together to minimize human error.


This index provides graphs and measurements of eight bassoon reeds from professional North American bassoonists Lee Goodhew, Michel Bettez, Yoshi Ishikawa, Cynthia Estill, Leonard Sharrow, Sidney Rosenberg, and Arthur Weisberg. Detailed dimensions of each reed include reed design, wire placement, and blade thicknesses.
Cooper, L. Hugh and Mark Avery. “Reed Making Notes Two: Cooper’s Cubist Reed Concept.” *The Double Reed* vol. 31, no. 4 (2008): 79-94.

Cooper and Avery contribute a method of making a parallel scrape (tip taper) Knockenhauer style reed that includes specific dimensions and illustrations. The reed making method provides instructions for hand profiling cane, folding and shaping the profiled cane, forming the tube, cutting the basic blade pattern, measuring the reed design and blade thickness, and seven finishing procedures.


Griswold analyzes and compares the reed making methods, dimensions, and reeds of Louis Skinner and Leonard Sharrow. Additional observations include the bocals used, reed adjustments, and finished reed tests.

3.5 Alternative Approaches


The author summarizes the process for making bassoon reeds on metal staples, which he has used for twelve years as a professional orchestral musician. All measurements and dimensions for making reeds on staples are included, as well as the benefits of making reeds in this manner.


Schwartz declares that hand profiling bassoon cane is better than using a profiling machine.
Michel, Dennis. “An Experiment in Bassoon Reed Making.” *To The World’s Bassoonists* vol. 2, no. 3 (Summer 1972): 8.

Michel provides benefits of making bassoon reeds on metal staples. Commentary describes the pros and cons of using reeds on staples as well as dimensions and instructions to make staples.


Edwards discusses the use of plastic bassoon reeds and an alternative method for adjusting these reeds. The author presents three problems specific to plastic reeds that require adjusting and a method for correcting.


Echols reports his experiments with making a reversed curve on the collar of the bassoon reed and includes a picture comparison of the opposite curve done by Knochenhauer.

Riggs, Bob. “On Restoring a New Bassoon Reed.” *The Double Reed* vol. 6, no. 3 (Fall 1983): 42-44.

Riggs begins with a personal story of performance hardship and difficulty understanding reed making. He follows with descriptions of two methods to break-in reeds and play-in reeds.


Snow experiments with ultrasonic cleaning techniques for reeds. The test ran water through the reed and applied ultrasonic waves to clean the reed. After the ultrasonic cleaning, the
author compared tone color, pitch level, dynamic range, and resistance. The results suggested that this process does prolong the life of reeds but does not specify the how much longer.


Snow continues with the experiment of using ultrasonic waves to clean old reeds. Pictures include reeds in various playing states and the contact information to purchase the ultrasonic wave machine.


Edwards describes a method for adjusting plastic bassoon reeds by adding a fourth wire, using model glue, and using a unique knife technique. Pictures of the reed include details for adjustments.


Gibson suggests using a fourth-wire in the reed forming process, instead of the traditional three-wire method. Observations include the benefits of using four wires as well as measurements for making a reed with four wires.


Bartlett details his reed-making method, which offers anti-aging and anti-warping solutions and a technique for fixing reed cracks using shoe glue. The author details the construction of a reed storage box with humidity control to counteract aging and warping in
The technique to fix small cracks in bassoon reeds that do not extend into the heart of the blade requires the use of shoe glue.


Former principal bassoonist of the New York Philharmonic, Manuel Zegler offers a tip on storing finished and unfinished bassoon reeds in the refrigerator. Zegler asserts that reeds never shrank or dried out, leading to more consistent and better reeds.


Koster presents his method for hand gouging bassoon cane and his opinion that hand gouged cane allows the reed maker the opportunity to experiment with different gouge diameters, which is not easily done when purchasing pre-gouged cane or using a gouging machine. Information about the necessary tools and systematic instructions detail the process for hand gouging cane as well as pictures of equipment and the various steps of this method.


Fetters offers tips and procedures for extending the life of student bassoon reeds. Suggestions include attention placed on completely soaking the reed without it becoming waterlogged, removing any buildup of material on the blade surface, and cleaning the inside of the reed. Five additional steps provide advice that can be used to extend the life of a reed.
3.6 Scientific Interpretations


This excerpt from Noel Lames Gagnon’s master’s thesis tests several reed designs both from the player’s perspective and from the audience’s perspective. Testing of eleven reed designs between players and audience led to a reproduction of three reeds selected as satisfactory. A second round of testing of the three reeds selected led to the creation of a composite design of the best qualities from the three reeds produced. Examples of reed design measurements include illustrations.


Heinrich details the anatomy of cane and bassoon reeds as well as giving a detailed description of the reed making process.


This scientific description states a reed’s physical, chemical, and biological makeup. An analysis provides information about reed deterioration from chemical and bacterial processes. At the end, an overview discusses cane-harvesting procedures.
Cooper, L. Hugh and Mark Avery. “Other Reed Making Observations – Basic Reed Dynamics: The Functional Topography of the Reed Blade.” *The Double Reed* vol. 32, no. 3 (2009): 81-84.

The authors convey reed blade functional topography by graphing the frequency vibrations on a bassoon reed that run the length and width of the reed. Detailed illustrations describe the different levels of vibrations on a reed and how the design of a reed creates a bright or dark sound.

### 3.7 Using A Dial Indicator


Frank Schwartz remarks that the measurements of blade thickness and taper as the most crucial element in finishing reeds. Graphs include his reed-blade thickness measurements.


This overview details the use of a dial indicator by William Winstead in his reed finishing method. Dimensions of Winstead’s reeds depict two types of blade styles used, parallel and wedge. Graphs of reed blade thicknesses and the process of scraping and breaking in reeds contain measurements of the reed blade after each scraping. Finally, a process for calculating
proportional measurements includes Winstead’s reed as a guide for the reed maker to calculate ratios of reed scraping thicknesses.


Pool’s introductory reed making method details the use of a dial indicator during the reed finishing process. Pool supplies advice using a dial indicator to check reed blade measurements. His measurements provide a guide to follow this reed finishing process, including illustrations of the reed blade measurements.

3.8 General Reed Making


Corey comments on the preference of using metric measurements based on the prominence of published articles and dissertations using this system. He suggests that bassoonists using English measurements should switch to the metric system to standardize bassoon reed measurements.


Hermann Windeler explains his method of reed making. He first addresses purchasing tube cane, which he splits and gouges before a storing period for five to six years to mature. After the storing period, Windeler sands the interior of the gouge before profiling. After forming and drying the blanks, he play tests reeds three to four times, each time smoothing the blades with fine grit sandpaper on both the outside and inside of the reed.
Carland, June. “An Annotated Survey of Literature about Bassoon Reed Making.”


This excerpt from Carland’s doctoral thesis “A Waveform Analysis of Bassoon Reed Profiles,” Florida State University, 1987, lists annotations of bassoon reed making literature and includes a bibliography of books and articles at the end. Authors in this annotated survey include Lyndesay Langwill, Don Christlieb, Thomas Palmer, Lawrence Intravaia, Hans Lotsch, Verner Seltmann and Gunter Angerhofer, J.M. Heinrich, Frank Schwartz, Paul Lehman, Ronald Klimko, Mark Popkin and Loren Glickman, Christopher Weait, William Waterhouse, and William Spencer.


Bassoon reed maker Don Christlieb reveals his experience learning how to make reeds over a lifetime. He includes general observations of the reed making process and reed finishing.


Girton comments on the problems that making reeds from hard cane often leads to cane splitting during the forming of the tube and the tendency of pitch to be higher when using this type of cane. To minimize splitting of the cane during forming, the author suggests using a heated mandrel and includes instructions for the forming process. To correct higher pitch tendencies of harder cane, several manipulations of the wires can alleviate this problem. The author also suggests using a small Dremel tool to ream out the tube of the reed, which corrects the interior taper of the tube from plateaus that reamers can create.

This bibliography lists oboe and bassoon reed making books, theses and dissertations, journal articles, and video recordings published between 1962 and 1991.


Avery supplies a conversion chart between decimals of an inch to millimeters and fractional inches to decimal equivalents in millimeters. This reference makes reed-making comparisons between standard and metric measurements easier.


Christlieb continues his analysis of reed blade thicknesses by deconstructing finished bassoon reeds and comparing measurements of both blades. Measurements of acceptable variances of reed thicknesses focus on the collar to tip and lateral measurements from rail to spine. Diagrams include comparisons of the reed blade dimensions. Tube shape effects on the reed blades include advice for correcting reed tube forming.
CHAPTER 4

PHYSICS OF CANE AND REEDS


Palmer’s experiment measures the air gap between blades of a reed by immersing it in a resin solution, letting the resin dry, cutting sections of the reed, and measuring the distance between points on the reed. The results of the study, according to the author, indicate, “The important mechanical factors in a reed are the air gap ratios in relation to the profile at points along the blades.” Measurements plotted on graphs compare reeds made by Dominic Weir and Schober.


Schellenberg’s study investigates the relationship between air pressure and rate of flow when performing on double reeds by testing the advanced abilities of seven oboists and seven bassoonists. The results indicate the increase of air pressure and decrease rate of flow from the rise in pitch. The study also suggests that air pressure and rate of flow relates to the range being played. Graphs and charts include both data and results.

Cooper, Lewis Hugh. Edited by Mark D. Avery. “Reed Contribution (First of Two Installments).” *The Double Reed* vol. 13, no. 3 (Winter 1990): 59-68.

Cooper explains the requirements needed of bassoon reeds to complete the harmonic acoustics of the bassoon. Analysis includes static volume (reed cavity), vibratory contribution,

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and damping of reed designs from Germany, North America, and Bernard Garfield. Percentages of each reed tested provide three ways a reed may contribute to the acoustics of the instrument, followed by measurements of the three reed designs. Additional examination considers the influence of the bocal length on the missing volume, influence of the bore angle conicity on the missing volume, and bassoon reed criteria. Illustrations included address acoustics and reed design.

Kopp, James B. “A Conversation about Resistance and Compliance in Bassoon Reeds.”


This fictional interview of a reed-making discussion between a student and teacher reviews reed acoustics, air pressure, and methods for correcting reed problems.


Kopp’s report focuses on the vibrations produced when playing a reed. Illustrations provide reference of reed and instrument acoustics, air stream effects on the reed vibration, and the embouchures effect on reed vibration.


Gillette surveyed reeds from 36 advanced bassoonists’ measuring the pitch of bassoon reeds using a constant air pressure test he created. Over a testing period of several days, notes on each reed include air pressure used, pitch of first vibration, and the amount of pressure that closed the reed and vibrations stopped. Additional aspects include the monitoring and measurements of reed tip openings over the course of testing.

This review summarizes the differences of reed damping through the use of vertical and horizontal cushioning of the embouchure, as well as horizontal and rotary torquing in reed making. Explanations and illustrations describe each method of damping.
CHAPTER 5

REED EQUIPMENT

5.1 ReeDuAL


Three articles describe the benefits of the ReeDuAl machine, a motor driven reed profiler that duplicates copies of a reed model invented around 1967. In addition to Gerald Corey, Bernard Garfield also published two commentaries about his experience with the machine.

5.2. Modifying Profilers


Polonchak suggests using clear scotch tape on the barrel of profilers to thin the profile of cane without changing the overall setup of the profiling machine. By using tape, the amount of change in thickness is not dramatic, but helps when using assorted types and thicknesses of gouged cane.

Avery contributes advice for customizing a single barrel profiler by adding scotch tape to the barrel to create a near finished reed that minimizes the amount of hand scraping. Detailed instructions, illustrations, and measurements used by the author offer a starting point for reed makers to experiment with this method.

### 5.3 Reed Machines

**Palmer, Thomas H. “Palmer Bassoon Reed Profiling Machine.” *To The World’s Bassoonists* vol. 3, no. 2 (Summer 1973): 5-6.**

Palmer discusses the aspects of his modernized version of a motorized reed-profiling machine invented in 1973.

**Ishikawa, Yoshiyuki. “Innovations of Herzberg Profiler/Shaper, the Symmetrical Machine.” *The Double Reed* vol. 27, no. 3 (2004): 45-52.**

Ishikawa provides information on the reed shaping and profiling machine created by Norman Herzberg.

### 5.4 Hand Crafted Equipment

**Orcutt, Ronald H. “Reed Storage – A Simple Solution.” *Journal of the International Double Reed Society* vol. 3 (1975): 31.**

Orcutt provides instructions for making humidity controlled reed storage boxes.


Vigder offers an alternative shaping method when using a fold over shaper. He suggests placing cardboard cutouts of the shaper design on the shaper, underneath the cane, to prevent
cane from splitting during shaping. Vigder provides instructions for measuring, cutting, and gluing the cardboard to the shaper tip.


James proposes scraping reeds on an easel before forming. The author found that using a glass tube allows light to pass through the easel and cane easier and aids with correcting imperfections that occur in scraping cane. Instructions list materials available for purchase in hardware stores and illustrations for assembling the easel.


Vigder presents a method and assembly instructions of making a scoring tool with five to seven blades as well as a scoring easel from a wooden dowel. The author indicates materials needed, instructions for assembly of each tool, and illustrations of the finished product.


Corey provides updated and missing instructions and illustrations for creating a glass easel presented by Cecil James in the *Double Reed* vol. 1, no. 2, 1978 publication.


Dietz supplies instructions and illustrations to make humidity controlled reed storage containers using a sealable airtight plastic container with a bag of rock salt to control the humidity levels. This method best serves those bassoonists who live in an extraordinarily dry climate to prevent the shrinking and warping of reeds.

Corey provides two methods for executing soft dynamic playing. First, a description of the three mute designs used, by inserting a cloth in the bell of the instrument, inserting a brass tube covered in felt into the bell, and fixing a permanent adjustable-valve mute to the bass joint of the instrument. All three mute designs include instructions for assembling the mute. The second method provides soft dynamic playing by using alternate fingerings for each note of the bassoon spanning from $B\flat_1$ to $b_1$. 

Cooper contributes mute fingerings for the lower register of the bassoon, from $C_1$ to $f#$.


Cooper supplies mute fingerings for $G_1$ and $G_1#1$ and three $A_b 1-b b$ trills.

### 6.2 Helpful Fingerings in Orchestral Excerpts


This article exhibits difficult fingering combinations for five orchestral passages, the $a1-b2$ trill in Tchaikovsky’s *Nutcracker*, the opening passage of Mozart’s *Marriage of Figaro*, $c#-d$ trill in the fourth movement of Beethoven’s *Second Symphony*, the opening statement in Respighi’s *Pines of Rome*, and the tremolo in Prokofiev’s *Violin Concerto no. 1*.


Four fingering preferences by David Carroll, Gerald Corey, Mordechai Rechtman, and Frederick Moritz include two fingerings for $pppp$ dynamic for $a$, a tremolo between $f-a$, a basic fingering for $f#$, and trilling between $a b 1-b b 2$.


Cooper offers fingering solutions for the Ragtime solo from Stravinsky’s *L’Histoire du Soldat*, $a b -b b$ trills, $f1-g1$ trills, $e b$ trill in Mozart’s *Sinfonie Concertante*, $e b-g b$ and $f-a b$.
tremolos in Britten’s *A Midsummer Night’s Dream*, a $b\cdot b$ trill in Stravinsky’s *Octet*, and fingerings for $d2$ and $e2$.


This contribution supplies fingering options from Gerald Corey, Arthur Kubey, and Mordechai Rechtman for $e2$, $e\flat2$ in Schoenberg’s *Kammersymphonie no. 2*, and three trill fingerings for $a\flat1-b2$, $a1-b2$, and $e\flat1-g1$.


Roehmildt provides his fingering preference to the opening passage of Respighi’s *Pines of Rome*.


Moritz offers alternate fingerings to simplify playing the high register solos in Stravinsky’s *Rite of Spring* and Ravel’s *Bolero*. The fingerings focus on the notes $a\flat1$, $a1$, $b2$, and $c2$ at the top of the bassoon’s register. These fingerings also require some modifications to the bassoon, specifically a “g-ring” on the boot joint and drilling a small hole in the bocal. Excerpts of the two solos offer fingering solutions for these passages.

DeBolt, David. “Some Solutions for Bassoonists’ Problems.” *The Double Reed* vol. 11, no. 2 (Fall 1988): 34.

DeBolt discusses three tips for high note playing. The first involves the use of a piccolo swab and a drinking straw to remove moisture from the tone holes. The second suggests a fingering for a high $c2$ for use in a rapid passage and in *Rite of Spring*. The third requires the
addition of cork under the right hand thumb b flat key to improve intonation when playing octave
b flats.

6.3 Alternate Fingerings


Schwartz considers the intonation and fingering problems with e♭. From the author’s experience playing contra, which has a separate e♭ key, he justifies the addition of this key as he has done to his bassoon.

Klimko, Ron. “From the Bassoon Editor’s Desk.” The Double Reed vol. 7, no. 2 (Fall 1984): 56.

The editor suggests two solutions to the fingering of middle register d1.


Williams describes the use of basic fingers and focuses on the use of the vent keys. Additional alternate fingerings included consider intonation, technique, resonance, attack, and orchestral passages.

Herzberg, Norman. “Years of Innocence, Ignorance, Neglect and Denial: The Importance of Speaker Key Use on the Bassoon.” The Double Reed vol. 18, no. 3 (Winter 1995): 53-63.

This discussion emphasizes the need to standardize the use of speaker keys in modern practice compared to the minimal use back in the late thirties. Herzberg justifies the use of speaker keys based on observations from his career. Practice methods for using the speaker keys in all aspects of playing include several musical passages to familiarize with this technique.
CHAPTER 7

EMBOUCHURE, ARTICULATION AND TONGUING

7.1 Embouchure


Oromszegi articulates his method for teaching embouchure, defined as upper embouchure, where the upper lip fixes to the top blade of the reed and the lower lip breaks contact with the bottom blade when breathing. He also compares the opposite embouchure method of fixing the lower lip to the bottom blade allowing the upper lip to break contact with the top blade.


Stees addresses problems associated with air leaks from the sides of the embouchure. Observations include possible causes to these problems and solutions for fixing air leakage from the embouchure.

7.2 Double Tonguing


Moritz analyzes the technique of double tonguing and difficulties students encounter when learning this technique based on his observations. A practice method advises a slow and continuous approach to double tonguing. The author believes there are no shortcuts in this
learning process, outlining a practice method of slow and continuous approach to double tonguing.


Adams compares the use of different syllables and tongue placement for double tonguing. A practice method outlines speaking the syllables, adding the reed and bassoon, and incorporating simple and compound rhythms.


Allison presents an approach to teaching double-tonguing by learning to execute the second part of the technique followed by repetition on single notes. After gaining command of the second part of the technique, the method adds the first half of the technique. The author suggests using the syllables “doo” and “goo” for learning to double-tongue. Additional advice includes tips, illustrations of the embouchure, and embouchure position on the reed. Once the basics of double-tonguing are learned, the author refers a method book to continue the development of this technique by Jerí Formácek and Otakar Tvrd titled, *A School of Multiplex Staccato*, published by Panton.


Ewell offers a method for double tonging that incorporates different tonguing patterns to the solo in the fourth movement of Beethoven’s *Symphony no. 4*. The practice technique varies single and double-tonguing patterns of: TKTT, TTKT, TTTK, and KTTT.

This double-tonguing practice includes five pages of musical exercises varying articulation length, rhythm, and accented patterns. Practice exercises focus on learning a limited range but also include some extended range.


Falcone suggests a method of double tonguing based on his observations of performance, especially when executing the fourth movement passage from Beethoven’s *Symphony no. 4*. This approach uses only one “K” in each of the groupings of sixteenth notes, as well as changing which note uses the “K”. The author rationalizes this approach with a list of criteria for using “K”, providing tips for executing the technique and excerpts for practice.

### 7.3 Articulation


Ewell examines breath, embouchure, and jaw involvement when articulating on the bassoon. The conclusion conveys that breath and embouchure are the most important aspect in articulating on the bassoon, and movement of the jaw when articulating is only acceptable in a few performance aspects.

Ewell provides a definition of the expression mark *rinforzando* and its comparison to *sforzando* and *sforzato*. A list of Weissenborn etudes allows for the analysis and practice of these expression marks.


Caplan discusses the procedure for tonguing by analyzing anatomy. Illustrations provide visual descriptions of muscle movement when tonguing and continues with explanations of interior workings of the mouth and throat in order to optimize articulations.


This interview details the teaching method of Hugh Cooper for developing a fast tonguing speed. Discussions include both single and double tonguing techniques with detailed descriptions of proper execution. Illustrations and graphs provide comparisons of breath, pitch, and embouchure pressure. Examples from etudes and rhythm exercises supply practice strategies.
CHAPTER 8

HISTORICAL BASSOON METHODS


Will Jansen reports on early bassoon tutors composed by twelve historically famous bassoonists, which include general biographical information and background of the tutors. The article begins with the oldest “real bassoon tutor” by Etienne Ozi in 1788. Other authors include Jean Baptiste Joseph Willent-Bordogni, Louis Marie Eugene Jancourt, Jean Francois Barthelemy Cokken, Friedrich (Frederic) Berr, Otto Langey, Carl Almenräder, Josef Fahrbach, Joseph Frohlick, Christian Julius Weissenborn, Jakob Satzenhofer, and Ludwig Milde.


This annotated list of bassoon tutors spans from the earliest known fingering chart for bassoon by Daniel Speers in 1687 to the publication of the Weissenborn Bassoon Method. An emphasis compares the development of the German and French system bassoons between 1780 and 1820. Each annotation includes a description of the method (if known), the location of a copy of the tutor, and/or the source of the citation for the method.


Peeples reports on two American bassoon method books published prior to the 19th century. The first is W. W. Jones’s The Bassoon Preceptor, published in New York City
sometime between 1897 and 1910, owned by the Duke University Library. The author reviews the contents, historical background of the method, information on the author, and publisher. Additional examination of preliminary pedagogic exercises and musical selections include musical examples from the book. The second is G. E. Blake’s *An Introduction to the Art of Playing the Bassoon*, published in Philadelphia in 1826, owned by the Library of Congress. The same approach is applied to present Blake’s *An Introduction to the Art of Playing the Bassoon*. This method includes several extra points of instruction, including: reeds, bassoon maintenance, body position, embouchure, and fingerings.


Griswold’s research presents information and comparison of four historical bassoon tutors from the late 18th and early 19th centuries. Methods include *Le Basson* by Pierre Cugnier, *Fagottschule* by Joseph Frölich, *Méthode nouvelle et raisonnée* by Etienne Ozi, and *Versuch einer Anweisung die Flöte traversiere zu spielen* by J. J. Quantz.


This article examines the development of the bassoon by analyzing Étienne Ozi’s bassoon tutor *Méthode nouvelle et raisonnée pour le bassoon* (1787), the first complete tutor for the bassoon. An overview discusses instrument makers and historical iconographic examples of bassoon, a listing of current research on Ozi, and other historical bassoon treatises of instruments. This continues with a detailed history of bassoon development from late eighteenth century through early nineteenth century focusing on specific makers, key work on those
instruments, and the instrument known to be played by Ozi. A description compares Ozi’s original 1787 French treatise, *Méthode nouvelle et raisonnée pour le bassoon* with the 1803 French version and the 1807 German version. The focus of this article speculates that “a synchronic view (the simultaneous existence of the treatise in multiple languages and areas) may be more appropriate when speaking of musical instruments in their historical perspective,”8 ...(and that) “Ozi’s manual was so complete that it transcended national lines,”9 as seen by the 1807 German translation. In addition to a reference section of both primary and secondary sources, an appendix includes historical bassoon figures, copies of the covers from the three versions of Ozi’s methods, and fingering charts.

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9 Ibid., 49.
CHAPTER 9

MODERN BASSOON METHODS


Alan Leech provides his syllabus outlining bassoon etudes and solo literature progressing from high school through professional level players. Designation of each etude/method book and piece of solo literature ranges from beginner to advanced. Difficulty levels encompass multiple categories of solo literature, such as solo bassoon works, collections with piano, and musical eras. Categories include an “Emphasis On” section, which describes a brief overview of the concepts addressed, as well as publisher information for each. An “Additional Study” section lists works that contain the bassoon in chamber music of concerti, woodwind quintets, and orchestral excerpts.

Weait, Christopher. “Key Relationships of Bassoon Studies.” The Double Reed vol. 12, no. 2 (Fall 1989): 53.

Weait compiled a list of etude books and created a chart that corresponds to the given key relationship. Eleven etude books from the standard list for college level students include the composer, title of etude book, publisher and date published. Key relationships listed begin with no flats or sharps, followed by the relative minor key, and progress with the addition of one sharp and one flat.

Holland presents an overview of the *New Millennium Bassoon Method* by Michael Curtis, an addition to bassoon pedagogy that presents a modern approach from beginning bassoon players through college level students. This report begins with information regarding instruments, supplies, and general aspects of the bassoon. This method focuses on the transition of students from one instrument to the bassoon. Reading notes, rhythms, and fingerings on the bassoon progress in a fast pace. Concepts address bassoon technique, including extended techniques, musical terms, and a variety of modern musical styles from jazz to rock.


Bernard Garfield contributes his composition *Rubato Etude* that he wrote for John Clouser, Principal Bassoon of the Cleveland Orchestra. This etude spans the range from $B \flat$ to $e^2$. Indications for adding *rubato* are found throughout, in addition to large interval slurs, chromatic passages, and repeated arpeggios.
CHAPTER 10

USER FRIENDLY BASSOON TUNES


Daryl Durran provides these articles from his research and lectures presented in 1996 and 2012 titled “User Friendly Bassoon Tunes”. These lists of bassoon works include some of the standard repertoire for bassoon, but also incorporate lesser-known works, which Duran says “stand out as deserving of more frequent performances.” A difficulty scale for both the bassoon part and the piano accompaniment range from 1-3 with a brief definition of the rating. The works are separated by the eras of baroque, classical, romantic, and 20th/21st century. Each listing supplies the composer, title, publisher, price, difficulty rating, and a brief description of the work.

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CHAPTER 11

EUROPEAN AND ASIAN TEACHING


This translation presents a brief history of the bassoon and summarizes the teaching method developed by UC S. Doodi in Russia. The focus of this teaching method includes folk songs by Glinka and other influential Russian composers. Further examination of the bassoon method describes embouchure and facial muscles, breathing, endurance, and finger technique.


Allard provides the bassoon repertoire and methods used between 1957 and 1984 at the Paris Conservatoire. The outline begins by stating that students only perform on the French bassoon. He lists scale studies, etudes, and orchestral studies worked on each year. Allard explains that the focus for each year is placed on the solo literature used for the concours.

The second contribution comes from Karl Ohlberger’s 1982 study guide for bassoon at the Hochschule fur Musik und Darstellende Kunst, Wein. This outline, divided into an 8 year plan, references specific scales, methods, etudes, and solo literature as well as listing additional studies in reed making and contra bassoon studies.

Masier provides a brief history of the Prague Conservatory and list of bassoon professors from the founding of the school in 1811 to 1995. This list includes Ludwig Milde, who taught between 1886-1894, and Josef Füger and Karel Pivonka who were the most recent professors in 1995. Maiser also includes famous students who studied bassoon at the conservatory, including Karel Duda, Julius Fucik, and Karel Bidlo. The author concludes by referencing the dissertation “Prague Bassoon School,” a complete history written by Jaroslav Bedná.


Spieler begins with a short history of the Conservatoire National and the École Normale de Musique in Paris, France. The most pertinent information presented describes the works covered at the Conservatoire during Gustav Dherin’s tenure, including Bitsch 25 Etudes, Bozza 15 Etudes, Gambaro 18 Etudes, Milde 50 Etudes, Piard 90 Etudes, Piard 16 Characteristic Etudes, Dherin *La Nouvelle Technique du Basson*, and Bourdeau 30 Etudes as the etudes to be covered during the year. This follows with an explanation of the studio class schedule from week to week; a list of solos worked on up to that point of the year, and a general outline of etudes worked on each week. The number of etudes covered in a week ranges from 6-10. Additional explanations describe the performance setting of the studio class and the class practice of all playing solo works, etudes, and scales together.

Toschi presents an historical look into the bassoon teaching of the 19th century at the Conservatorio di Milano and its connection to the performances at the Teatro alla Scala. An overview begins with a list of the first teachers and students at the Conservatorio as well as the teacher’s additional involvement with the La Scala orchestra. This article focuses on Antonio Torriani, who was a student at the Conservatorio and later teacher there from 1868-1908. He was also well known for his chamber compositions and arrangements. His editing of the French bassoon tutor by Étienne Ozi into an Italian edition published by Ricordi is still a standard textbook in Italian Conservatories. Torriani’s edits of Ozi’s tutor add several etudes, removes the “Grandes Sonates” for two bassoons and all of the section on embellishments, and supplies an additional section on reed making with full-scale drawings and dimensions. The appendix contains the publications by Torriani and an excerpt from *Tramonto*, a solo work he composed for bassoon.


*The Double Reed* vol. 27, no. 2 (2004): 83-88.

A panel discussion of bassoon pedagogy contained international representation. The panel representatives were: Meyrick Alexander from London, Judith Farmer from Southern California, Kiyoshi Koyama from Japan, Kim Walker from Indiana, and Liu Zhaolu from Shanghai. Questions asked of each panelist cover technique, musicality, vibrato, reed making, individual lessons, methods and etudes, solo repertoire, chamber repertoire and orchestral excerpts.


This doctoral dissertation excerpt from “A Description of Selected Aspects of Three Approaches to College-Level Bassoon Instruction,” by Svetoslav Atanasov, provides the teaching philosophy of Gilbert Audin, the Professor of Bassoon at the Conservatoire National Supérieur du Musique de Paris. The majority of information presented surrounds the philosophy of instruction by Gilbert Audin. Performance concepts address technical mastery, tone, style, fundamentals, solo literature, etudes, orchestral repertoire, and studio learning. The dissertation also intersperses commentary from Audin comparing the teaching style of the French conservatory and that of the North American professor Kim Walker. The biggest distinctions between the French and American school of teaching, according to Audin, are the strict methodology of fundamentals including embouchure, breathing, and body position, as well as the difference in emphasis of solo literature in France and the emphasis on orchestral excerpts in North America.


A second excerpt from Atanasov’s doctoral dissertation “A Description of Selected Aspects of Three Approaches to College-Level Bassoon Instruction,” describes the teaching philosophy of Eleanor Froelich, a bassoon teacher and performer in Vienna, Austria. Performance aspects of Austrian pedagogy address musicality, tone, intonation, style precision, fundamentals, standard literature, technique, and studio lessons. Performance practice in Austria, explained by Froelich, differs not only from the rest of the world but also between the Austrian and Germanic performance styles, especially in the use of vibrato, articulation, and posture.
Vibrato is rarely used in orchestral performances in Austria and Froelich states “the Viennese have a much wider palette of articulations than Americans or Germans.” Atanasov also compares the Austrian and French, Austrian and American, and French and American pedagogy. Austrian and French similarities of pedagogical approach cover the teaching of tone, embouchure, and the use of solo literature. According to Atansov, a similarity between the Austrian and American pedagogies includes the approach to studio classes.

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CHAPTER 12

NORTH AMERICAN TEACHING


Milan Turkovic and William Waterhouse were invited to provide outside observations about teaching in North America. These two international soloists and pedagogues taught at Indiana University for one year and presented opinions about the level of student playing and differences of teaching systems.


This response provides a view into the teaching method of Lewis Hugh Cooper, including a brief overview of his educational background, performance experience, and teaching philosophy. Cooper’s teaching method addresses method(s) of teaching fundamentals, solo and orchestral literature, musicianship, theory and history, and style. Cooper also comments on additional aspects of bassoon study including choosing an instrument, equipment needed for playing, and instrument acoustics.
CHAPTER 13

TEACHING AIDES


Blackman describes the advantages of using a video camera to record individual lessons. The first point addresses the quality of the recorded sound, which - in the author’s opinion was close to the live sound of a performance. Next, the author lists several instances of using the video camera in studio lessons. This allows him to point out to students flaws in embouchure and posture, since these flaws are unable to be self identified nor corrected. Finally, the benefits of students watching the recorded lessons include giving them an idea of how an audience might receive their playing, a better understanding of the comments made during the lesson, and an observation of embouchure, fingers, and body movement.


Ojanto provides a reference list of standard double reed terminology and translations of each term into Finnish, English, German, French, Italian, and Swedish. Each language is organized into five sections of terms, with each section listing a specific instrument, accessory, or instrumental concept. To translate the desired term, one would choose the language, look at the desired section, and finally search the section for the translation of the term. Each section is numbered, and each term in a section is given a letter. Searching another language to translate a term requires cross-referencing the term and number from one section to the other.

Glenn describes a systematic approach to creating a double reed website, including equipment needed and a list of suggested content. The layout and basic information included suggests the minimum needed to create a useful online resource. Glenn begins with an overall design concept, pointing out considerations that include the projected audience to the website, simplicity of layout, and navigation. This follows with the author’s process for creating a website for the bassoon studio at the University of Georgia. Proposed content includes meet the instructor, link to your school’s home page, picture gallery, sound files, upcoming events, student roster, bassoon instruction, and links to other websites. Relevant advice also includes details to direct searches to your website.


Ewell proposes the benefits of using keyboard technology to supplement teaching materials and improve student intonation. He begins with an overview of the keyboards used in his studio. Ewell states that the use of tuners causes a student to tune only by the visual representation on the meter. The author rationalizes that using a keyboard to provide a drone requires the student to tune by ear. Ewell presents specific practice exercises in detail, covering scales and arpeggios using varied articulations and dynamics, in solo, etude, and orchestral repertoire. He also includes musical examples for each of the drone exercises and provides online references for sound files available through the IDRS website.

This experiment offers an alternative method for teaching using Skype. Skype is a program that allows users to make video calls to other users. Using the videoconference function makes it possible for a teacher and student to have lessons from two separate locations from any two places in the world. In addition to suggested equipment and setup, Ewell includes responses from a test group experimenting with Skype to teach lessons.

Ewell supplies a teaching primer for young bassoonists based on observations of music educators’ difficulty in dealing with the complexity of the bassoon. Ewell’s method describes how to select a bassoon student, ten model lesson plans, and four selected method books. The method books referenced include the Rubank Method, Paine’s Studies, Herfurth and Stuart’s Tune a Day, and Weissenborn Op. 8, vol. 1. Each of the ten lessons presented come from Ewell, with additional lesson materials listed from each of the method books. The author concludes with the publisher information for each method and a short list of solo materials for beginning bassoon students.


Dee’s commentary remarks on the need for a teaching method that combines the basics of teaching beginning bassoon students with building a relationship between the teacher and student. First, the author expresses the necessity of the teacher/student relationship that incorporates musical approach with life perspective. An additional description of teaching concepts for the teacher also includes an outline for teaching beginning bassoon students.

Wolfe-Jensen comments on high school aged bassoonists performing advanced literature for solo and ensemble contests. From her observations judging solo and ensemble and teaching high school level bassoonists, she suggests the need for students to perform less technically demanding works and focus on performing with more musicality. Wolfe-Jensen remarks that the benefits of focusing on musicality trumps technical display. Within the article she examines solo works that showcase students’ abilities and not their weaknesses. A list of appropriate repertoire at the end contains suggestions for solo literature a high school bassoonist should master before attempting more technically demanding works.


The authors summarize the concept of musical performance as a synthesis of multi-contextual abilities, which includes a combination of: performing technique, psychophysical development, communication skill, and what García-Trabucco calls “inner musical world”, “an individual’s musical background acquired throughout life.” A description of these abilities explains the interaction of the “flowing” concept: “those acts in which thought, intention and feeling are focused towards a single goal.” A description of using a didactic approach follows, which combines the four multi-contextual abilities.

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14 Ibid., 126.
CHAPTER 15

UNIVERSITY TEACHING ADVICE

Goodrich, Andrew. “Introducing Improvisation in a Double Reed Methods Course.” The

Goodrich advocates for teaching improvisation to music education majors who play a
double reed, reasoning that they will most likely be required to teach improvisation in public
school systems. Since most double reed players have little to no experience with improvisation,
the suggestion of adding an introduction to improvisation to an existing methods course provides
students some insight into improvisation, without the complexity of creating an additional
curriculum. A basic lesson plan for introducing improvisation covers singing, singing and
playing a simple song, and introducing improvisation.

Nelson, Susan. “The University Gig: How to Prepare for the Application and Interview

Nelson addresses aspects of preparing materials for university jobs, and begins with a
description of required application materials, including curriculum vitae, cover letter, recording,
references, and how to package the materials. She provides an outline of what to expect during
the interview process, including performing a recital, giving a master class, progressing through
several interviews with committees, and teaching a class in a secondary subject. Nelson includes
in the interview section several topics that should be prepared in advance.

This guide provides the dos and don’ts of first time teachers in a university job. Advice covers familiarity with the campus, textbooks, senior mentors, professionalism and collegiality, email, social interactions, media, classroom preparation, classroom management, academic honesty, creating a professional retention file, and tenure.
CHAPTER 16

BASSOON RESEARCH


This list includes theses and dissertations of double reed literature from 1950-1970.


Borst’s dissertation abstract presents a discussion on the study of teaching a master class. The abstract refers to the first aspects covered in the study, including past and present practice, European and American approaches, concepts addressed in master classes, and problems that occur when presenting. The second part of the dissertation presents a method for incorporating year round master classes in weekly studio classes.


Corey, Gerald. “Recent Dissertations and Masters Theses on Oboe and Bassoon.” *The Double Reed* vol. 7, no. 3 (Winter 1984): 49.


This excerpt from the Carland’s doctoral thesis “A Waveform Analysis of Bassoon Reed Profiles,” Florida State University, 1987, lists annotations of bassoon reed making literature and includes a bibliography of books and articles at the end. Authors in this annotated survey include: Lyndesay Langwill, Don Christlieb, Thomas Palmer, Lawrence Intravaia, Hans Lotsch, Verner Seltmann and Gunter Angerhofer, J.M. Heinrich, Frank Schwartz, Paul Lehman, Ronald Klimko, Mark Popkin and Loren Glickman, Christopher Weait, William Waterhouse, and William Spencer.


This bibliography lists oboe and bassoon reed making books, theses and dissertations, journal articles, and video recordings published between 1962 and 1991.

Fetters’ provides an annotated list of twelve articles and books on bassoon pedagogy, as well as twenty composers of literature for beginning bassoonists.


This article summarizes the most important bassoon articles published in Chinese music journals. Forty-seven articles divided into three main topics include the history and development of the bassoon, techniques of playing and teaching the bassoon, and bassoon music and performers. Each section contains the author, title of the selected article, and includes a summary of contents.
APPENDIX A

REED KNIVES AND SHARPENING

Rosenberg, Michael. “Knife Sharpening or Bearing the ‘Burr-Don.’” *The Double Reed* vol. 3, no. 3 (December 1980),


APPENDIX B

HISTORIC BASSOON REEDS


APPENDIX C

MODERN BASSOONS


APPENDIX D

BASSOON PARTS AND MAINTENANCE


APPENDIX E

BASSOON REPAIR

Immonen, Delight Lewis. “W. Hans Moennig, Clarinets and Flutes.” *The Double Reed* vol. 6, no. 3 (Fall 1983): 18-23.

Webster, Daniel. “Farewell to the Master Leaving His Musical Mecca.” *The Double Reed* vol. 6, no. 4 (Winter 1983): 8-11.


APPENDIX F

CHOOSING INSTRUMENTS AND BOCALS


Stein, Robert M. “To Heckel or Not to Heckel, That is the Question.” *The Double Reed* vol. 28, no. 4 (2005): 95-96.

APPENDIX G

INSTRUMENT ACOUSTICS


Williams, Robert S. “Bad Notes on the Bassoon… And What You Can Do About Them!” The Double Reed vol. 28, no. 2 (2005): 133-139.


APPENDIX H

HISTORIC BASSOONS


and the Cuciureanu System Bassoon.” *The Double Reed* vol. 4, no. 3 (December 1981):
6-7.

Reed* vol. 6, no. 4 (Winter 1983): 56-59.


8, no. 2 (Fall 1985): 24-33.

Tables by Carl Almenräder.” *Journal of the International Double Reed Society* vol. 14,

Oromszegi, Otto. “Connections between the Bass Bombard and the Bassoon.” *Journal of the

Semmens, Richard. “The Bassoons in Marin Mersenne’s *Harmonie Universelle (1636).*” *The
Double Reed* vol. 10, no. 2 (Fall 1987): 57-61.

Waterhouse, William. “A Newly Discovered 17th Century Bassoon by Haka.” *Journal of the

Griswold, Harold E. “Changes in the Tonal Character of the Eighteenth Century French


APPENDIX I

BASSOON EQUIPMENT


Ewell, Terry B. “Another Make-It Yourself Bassoon Guard.” The Double Reed vol. 18, no. 3 (Winter 1995): 83-84.


APPENDIX J

INTERVIEWS


APPENDIX K

BIOGRAPHIES


APPENDIX L

DOUBLE REED SECTIONS OF ORCHESTRAS


Corey, Gerald E. “Prof. Albert Hennige – A Strong Bassoon Class and Tradition in Germany.” The Double Reed vol. 1, no. 3 (December 1978): 24-25.


Stolper, Daniel. “Corrections and Additions to Double Reed Sections in Major Orchestras.” The Double Reed vol. 24, no. 2 (2001): 30.
APPENDIX M

AUDITIONS AND MUSIC JOBS


Cramer, Trevor. “So You Want to be Published? Part 2: I’m Going to be Published!” *The Double Reed* vol. 35, no. 4 (2012): 118-120.
APPENDIX N

ART AND ADVOCACY


APPENDIX O

MOZART CONCERTO


APPENDIX P

VIVALDI CONCERTOS


APPENDIX Q

ORCHESTRAL EXCERPTS

Reid, John W. “Britten’s Albert Herring; The Bassoon Part is Playable.” *The Double Reed* vol. 4, no. 3 (December 1981): 1-2.


APPENDIX R

SOLO BASSOON LITERATURE BEFORE 1900

Eubanks, Mark. “A New Version of Weber’s Andante and Hungarian Rondo.” The Double Reed vol. 6, no. 3 (Fall 1983): 17.


Peeples, Georgia. “Greatest Bassoon Hits of 1750.” The Double Reed vol. 11, no. 3 (Winter 1988): 41-42.


APPENDIX S

CONTEMPORARY BASSOON LITERATURE


APPENDIX T

CHAMBER AND ENSEMBLE LITERATURE


Green, Cynthia. “Published Woodwind Quintets by Women Composers.” *The Double Reed* vol. 12, no. 2 (Fall 1989): 13-15.


Lyman, Jeffrey. “*La Vraie Musique Française*: Folk Song Sources in Joseph Canteloube’s *Rustiques*.” *The Double Reed* vol. 29, no. 1 (2006): 88-94.


APPENDIX U

PERFORMANCE PRACTICE


APPENDIX V

BASSOON COMPETITIONS


APPENDIX W

PRACTICE TECHNIQUES


APPENDIX X

TEMPO AND METRONOME PRACTICE


APPENDIX Y

EXTENDED TECHNIQUES


Vigder, Scott. “A Table of Quarter-Tone Fingerings for the Bassoon.” *The Double Reed* vol. 4, no. 2 (October 1981): 44.

Carland, June. “Funny Fagott Feats.” *The Double Reed* vol. 6, no. 3 (Fall 1983): 40-41.


APPENDIX Z

VIBRATO


APPENDIX AA

INTONATION


APPENDIX BB

CONTRABASSOON


Biggers, Cornelia A. “A Supplemental Repertoire List for Solo Contrabassoon.” *The Double Reed* vol. 11, no. 2 (Fall 1988): 38.


APPENDIX CC

PERFORMANCE ANXIETY


APPENDIX DD

MEDICAL ADVICE

White, Chester W. “Painful Left Index Finger, an Occupational Hazard for Bassoonists.” *The Double Reed* vol. 2, no. 3 (December 1979): 4-5.


REFERENCES


Van Dessel, Joan E. “Reexamining the standard clarinet repertoire: a selective annotated bibliography of transcriptions for the solo clarinet and clarinet with piano.” DM Treatise, Florida State University, 2006.


BIOGRAPHICAL SKETCH

Bassoonist Shaye Bowman is a native of Geneva, Illinois. He holds a Bachelor of Music degree in bassoon performance from The University of Iowa (2005), a Master of Music degree in bassoon performance from The University of Akron (2010), and a Doctor of Music degree from Florida State University (2013). His primary bassoon teachers were Jeff Keesecker, Barrick Stees, and Benjamin Coelho.

Dr. Bowman held teaching assistantships for the bassoon studio at The University of Akron, the bassoon studio at Florida State University, and the Early Music Ensemble at Florida State University.

In addition to studies of modern bassoon, he has also performed on historic instruments, including the bass dulcian and baroque bassoon. In June 2013, he was a member of the Florida State Early Music Ensemble invited to perform at the Young Performers Festival at the Boston Early Music Festival.

He has performed with regional orchestras in Iowa, Ohio, and Florida. He is an active member of the International Double Reed Society and is a member of Pi Kappa Lambda, the National Music Honor Society.