

Spring 4-23-2015

The Evolution of the Cello Endpin and Its Effect on Technique and Repertoire

William Braun

University of Nebraska-Lincoln, willie.braun@gmail.com

Follow this and additional works at: <http://digitalcommons.unl.edu/musicstudent>

 Part of the [Musicology Commons](#), [Music Performance Commons](#), and the [Music Practice Commons](#)

Braun, William, "The Evolution of the Cello Endpin and Its Effect on Technique and Repertoire" (2015). *Student Research, Creative Activity, and Performance - School of Music*. Paper 90.
<http://digitalcommons.unl.edu/musicstudent/90>

This Article is brought to you for free and open access by the Music, School of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Student Research, Creative Activity, and Performance - School of Music by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

THE EVOLUTION OF THE CELLO ENDPIN
AND ITS EFFECT ON TECHNIQUE AND REPERTOIRE

by

William E. Braun

A DOCTORAL DOCUMENT

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Doctor of Musical Arts

Major: Music

Under the Supervision of Professor Gregory Beaver

Lincoln, Nebraska

May, 2015

THE EVOLUTION OF THE CELLO ENDPIN
AND ITS EFFECT ON TECHNIQUE AND REPERTOIRE

William E. Braun, D.M.A.

University of Nebraska, 2015

Advisor: Gregory Beaver

This document investigates how the concept of a lifting device has evolved into the modern endpin that is now a standard part of the cello. The endpin has a unique history that, prior to this writing, has not yet been fully documented. The evolution of the endpin has caused significant changes to cello technique, as its use, or lack of, alters the basic posture and setup of the instrument on the cellist's body. Written and iconographic evidence show that endpins and other lifting devices have been used throughout all eras of the cello's history. There are many instances when an observable change in the repertoire can be traced to technical developments made possible by changing the lifting device, thereby affecting posture of the cellist.

There are four main sections in this document. The first (Chapter 2: Construction) establishes the definition of the cello endpin and how this concept has changed throughout history. This includes the description of a wide variety of materials and devices have been used to make endpins. The second section (Chapter 3: Usage) looks at when endpins and other lifting devices have or have not been used. There was no standard method of holding the cello until the mid-eighteenth century, when the position of holding the cello off the floor with both legs was adopted by almost all cellists. Eventually, endpins grew to be preferred because they enhance acoustic properties of the cello and facilitate more advanced techniques. The third section (Chapter 4: Technique)

examines the evolution of cello technique and performance posture from the perspective of the endpin. Each stage in this evolution has allowed for increased efficiency while reducing tension throughout the body. This culminates in the final section (Chapter 5: Repertoire) which discusses the ways in which these technical developments affected compositions for the cello.

Two appendices follow the document that detail my reactions to and experiments with different endpins and associated postures. The first appendix discusses my perceptions of acoustic changes made on my cello by trying endpins described in Chapter 2: Construction. The second addresses my experiments with the postures and setups discussed in Chapter 4: Technique, giving my reactions to technical benefits and disadvantages created in each instance.

Copyright © 2015, William E. Braun.

ACKNOWLEDGEMENTS

There are so many people to whom I would like to express my sincerest gratitude for everything they have done for me during the past three years.

To Gregory Beaver: thank you for all of your help with the preparation of this document and for being an incredible mentor and teacher over the past three years. I have learned so much from working with you and your colleagues, Rebecca Fischer, Hyeyung Yoon, and Jonah Sirota. I am truly honored to have had this opportunity to study under the guidance of the Chiara Quartet.

To my committee members, Dr. Karen Becker, Dr. Therees Hibbard, Dr. Guy Trainin, Dr. Robert Woody, and Dr. Peter Lefferts: thank you for all your work and support, attending all my recitals and helping to guide me through this degree.

To Dr. Richmond, the faculty of the Glenn Korff School of Music and the Hixson-Lied College of College of Fine and Performing Arts: thank you for believing in chamber music and supporting my colleagues and I by beginning a graduate string quartet residency at UNL.

To those who helped me with research for this document: thank you to Sarah Gray, Andrew Dipper, and Justin Lepard.

To my family: thank you for all your love, support, and encouragement.

To Sarah Pizzichemi, James Moat, and Justin Kurys: Thank you for always being there for me. You have been my family for the past five years, musically and personally and I can't wait for all the adventures we will share together in the future.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
A Brief History of the Cello	2
Clarification of Terms	6
CHAPTER 2: CONSTRUCTION	8
Early Lifting Devices	8
Wooden Endpins	14
Adjustable Endpins	20
Acoustic Lifting Devices	26
CHAPTER 3: USAGE	30
Documentation from Treatises and Iconography	32
Women and the Cello	52
Historically Informed Performance Practice of the Baroque Cello	59
CHAPTER 4: TECHNIQUE	63
Early Technique	63
<i>Da Gamba</i> Posture	70
Early Endpins from the Nineteenth Century	75
A Longer Endpin	77
Technical Restrictions Imposed on Women	79
CHAPTER 5: REPERTOIRE	84
The Cello as a Supporting Instrument	84
The Cello as a Solo Instrument	87
Virtuosity in the Twentieth Century	90
CHAPTER 6: CONCLUSION	102
APPENDIX A: THE AUTHOR'S REACTION TO ACOUSTIC EFFECTS OF DIFFERENT ENDPINS	106

APPENDIX B: THE AUTHOR'S REACTION TO TECHNICAL DEVELOPMENTS AND HINDERANCES BY EXPERIMENTING WITH DIFFERENT ENDPINS AND SETUPS	108
Bibliography	114

LIST OF MULTIMEDIA OBJECTS

Figure 1.1	“The King” Violoncello by Andrea Amati, Cremona, mid-sixteenth century	3
Figure 1.2	<i>Diagram showing the differences between a baroque cello and a modern one</i>	6
Figure 2.1	Bonifazio de’Pitati, <i>Concert champêtre</i>	8
Figure 2.2	Simone de Passe, <i>Music-making Company</i>	9
Figure 2.3	Simone de Passe, <i>Musizierende Studenten</i> or <i>Die neugierigen Frauen</i>	10
Figure 2.4	Jan Jozef Horemans II, <i>Lesson of Singing</i>	10
Figure 2.5	Johan Gustaf Ruckman, <i>Fägne-Spel på Fader Didriks Namnsdag</i>	11
Figure 2.6	Leonard Bramer, detail of drawing depicting a bass violin held by strap	12
Figure 2.7	Photograph of procession holes in the back of a ca. 1725 cello by David Tecchler	13
Figure 2.8	Photograph of Sigiswald Kuijken	14
Figure 2.9	Carl Schroeder, <i>Catechism of Violoncello Playing</i> , “General View of the Violoncello”	16
Figure 2.10	Photograph of Baroque model endpin by Bois d’Harmonie	18
Figure 2.11	Photograph of Mirecourt model endpin by Bois d’Harmonie	18
Figure 2.12	Photograph of 19th century style ebony endpin by Bois d’Harmonie	18
Figure 2.13	Photograph of a long wooden endpin, fixed length	19
Figure 2.14	Photograph of a hybrid endpin	20
Figure 2.15	Photograph of a long, adjustable wood endpin	21
Figure 2.16	Photograph of Mstislav Rostropovich playing cello with bent endpin	24
Figure 2.17	Photograph of the “Grand Concerto” Tone Acoustics endpin	25
Figure 2.18	<i>The Violinist Wilma Norman-Neruda in a String-quartet Recital</i>	27
Figure 2.19	Photograph of the “SoundPodium,” portable version	29
Figure 3.1	Gaudenzio Ferrari, detail of fresco in Santa Maria delle Grazie, Saronno, Italy	33
Figure 3.2	Michael Praetorius, <i>Syntagma musicum</i> , “Bas geig de bracio” with endpin	36
Figure 3.3	Caylus after Jean-Baptiste Oudry, <i>Dancers</i>	37
Figure 3.4	Photograph of Adrien Servais	42
Figure 3.5	Jules de Swert, <i>The Violoncello</i> , “On Holding the Violoncello and the Attitude of the Performer	43
Figure 3.6	F.A. Kummer, <i>Violoncello School</i> , Op. 60, posture illustration	44
Figure 3.7	Edmund van der Straeten, <i>The Technics of Violoncello Playing</i> , posture illustration	47

Figure 3.8	Arthur Broadley, <i>Chats to Cello Students</i> , posture illustration	52
Figure 3.9	Jean-Marc Nattier, <i>Anne-Henriette de France, Dite Madame Henriette</i>	54
Figure 3.10	Photograph of H�elene de Katow	57
Figure 3.11	Thomas Sword Good, <i>The Power of Music</i>	58
Figure 4.1	Jan Molenaer, <i>Family Portrait</i>	65
Figure 4.2	Jan Jozef Horemans, <i>A Musician Playing the Violoncello in a Landscape with Classical Statuary and Ruins</i>	66
Figure 4.3	John Gunn, <i>The Theory and Practice of Fingering the Violoncello</i> , left hand illustration	67
Figure 4.4	Eug�ene Fichel, <i>The Violoncello Player</i>	71
Figure 4.5	Bernhard Romberg, <i>Violoncellschule</i> , posture illustration	72
Figure 4.6	Percy Francis Gethin, <i>A Sonata of Daicellos</i>	75
Figure 4.7	Photograph of Beatrice Harrison sitting side-saddle	81
Figure 4.8	Photograph of Beatrice Harrison sitting on a table	81
Figure 4.9	Augustus John, <i>Madame Suggia</i>	83
Figure 5.1	Caterina Assandra, “O salutaris hostia” from <i>Motetti � due e tre voci</i> , <i>Op. 2</i> , excerpt from score	86
Figure 5.2	Domenico Gabrielli, <i>7 Ricercars for Unaccompanied Cello</i> , excerpt from No. 6	89
Figure 5.3	Anonymous, <i>Portrait of Luigi Boccherini</i>	94
Figure 5.4	Henri Dutilleux, <i>3 Strophes sur le Nom de Sacher</i> , excerpt from third movement	98
Figure 5.5	Iannis Xenakis, <i>ST/4-1,080262</i> , excerpt from score	99

CHAPTER 1: INTRODUCTION

A wooden or metal attachment to the bottom of a cello or double bass to assist in lifting the instrument off the floor and holding it securely.¹

The story of the evolution of the endpin over the past four hundred years is but one aspect in the larger history of the development of the modern cello. The cello as we know it today has a long and well-documented history. As scholars have researched and published extensively on this matter, this document presents only a brief summary of important and relevant information. Very little has been specifically written about the endpin. However, its use, or lack thereof, has consistently played an important role in the overall development of the instrument, the technique used to play, and the music being written and performed in many eras.

The use, or avoidance of, an endpin has significant ramifications for the basic posture and setup of how a cellist approaches the instrument, which affects not only how one plays but in many instances, what one plays. In some instances, the developments made possible by the endpin were but one of many in cello construction, so it can be difficult to prove that one individual component, such as the endpin, was responsible for a change.

This document will explore the history of the endpin from four parallel perspectives, divided into four corresponding chapters. The first narrative examines various methods of endpin construction throughout the centuries. The second version uses primarily iconographic evidence and method books to determine when endpins have or have not been used. The third looks at the impact of the endpin on technique, or how

¹ Tilden A. Russell, "Endpin," in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/08788?goto=endpin&type=article&pos=1> (accessed March 2, 2015).

the cello is played. The final chapter brings the previous three narratives together to discuss possible impacts on the repertoire.

A Brief History of the Cello

The history of each chapter runs in tandem with the evolution of the cello. There is still no simple story about the origins of the modern cello. The exact lineage of the cello and its nomenclature is complex and convoluted.² The cello emerged in the early sixteenth century as a member of the violin family.³ A variety of terms were used for the instrument before *violoncello* (cello) was eventually chosen as the standard term: *bass violin*, *basso de braccio*, and *violone*, to name a few. Many of these instruments were of larger dimensions than the modern cello. The body of the bass violin, for example, was generally around 77 to 80 centimeters long, while most later cellos are between 71 to 75 centimeters in length.⁴

A cello built by Andrea Amati in the mid-sixteenth century is the oldest surviving instrument made in the shape of the modern cello.⁵ There is disagreement about when “The King,” (as this instrument is nicknamed) was built; some sources are as specific as 1572,⁶ while others state it was after 1538⁷ or sometime around the mid-sixteenth

² Dimitry Markevitch, *Cello Story*, trans. Florence W. Seder (Princeton: Summy-Birchard Music, 1984), 8.

³ Roland Jackson, “Cello,” in *Performance Practice: a Dictionary-guide for Musicians* (New York: Routledge, 2005), 70.

⁴ Paul Laird, *The Baroque Cello Revival: an Oral History* (Lanham, MD: Scarecrow Press, 2004), 1.

⁵ “Medical Scans Reveal Secrets of World’s Oldest Cello,” *The Strad*, October 11, 2013, accessed March 11, 2015, <http://www.thestrad.com/cpt-latests/medical-scans-reveal-secrets-of-worlds-oldest-cello/>.

⁶ Jackson, *Cello*,” in *Performance Practice: a Dictionary-guide for Musicians*, 71.

⁷ “Medical Scans Reveal Secrets of World’s Oldest Cello,” *The Strad*.

century.⁸ “The King” Amati was cut down in 1801 by Sebastian Renault by about two inches.



Figure 1.1 “The King” Violoncello by Andrea Amati, Cremona, mid-sixteenth century⁹

In the 1660s, a significant development in string construction was made: the ability to create a tight wire winding around gut strings.¹⁰ These new strings were thinner and easier to play than their plain gut predecessors.¹¹ Prior to this invention, gut strings, especially the low cello strings, needed to be either quite thick or quite long to produce a

⁸ Margaret Downie Banks, “Unveiling the Mysteries of the King Cello,” Google Cultural Institute, accessed March 11, 2015, <https://www.google.com/culturalinstitute/u/0/exhibit/unveiling-the-mysteries-of-the-king-cello/QQtYGFbM?hl=en&position=1%2C0>.

⁹ “Violoncello by Andrea Amati, Cremona, Mid-16th Century,” National Instrument Museum, University of South Dakota, accessed March 11, 2015, <http://orgs.usd.edu/nmm/Cellos/Amati/Amaticello.html>.

¹⁰ Laird, *The Baroque Cello Revival*, 3.

¹¹ Ibid.

sound. Thick strings produced less volume and tended to be rather out of tune with the overtone series. As such, longer strings were preferred; bass violins or *violones* were accordingly larger to accommodate the longer strings.¹² With the technology of wire-bound strings came smaller cellos, known as *violoncino* or *violoncello* (literally, “small violone”). The earliest use of the term violoncello comes from 1665, found in printed music by Bolognese organist Giulio Cesare Arresti.¹³

It was many decades until the modern cello was standardized into the size we use today. Stradivarius created the “B Form” for his cello design in 1707, which has become the overwhelmingly standard size used for cello design ever since.¹⁴ For the first two centuries of the cello, there were no standard sizes, shapes, or tunings for these bowed bass instruments. Martin Agricola described a three-string cello, tuned in fifths (F-C-G) in his 1529 *Musica instrumentalis deudsch*, while others from the same era characterized the cello with four strings.¹⁵ Hans Gerle gave the tuning as *C-G-d-a* (*Musica Teusch, auf die Instrument der grossen und kleinen Geygen, auch Lautten*, 1532) while Philibert Jambe de Fer listed the strings tuned at *B -F-c-g* (*L'Épitome musical des tons, sons et accordz, es voix humaines, fleustes d'Alleman, flesustes à neuf trous, violes, & violons*, 1556).¹⁶

¹² Stephen Bonta, “Violoncello,” in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/44041?goto=violoncello&type=article&pos=4> (accessed March 11, 2015).

¹³ Marc Vanscheeuwijck, “Violoncello and Violone,” in *A Performer’s Guide to Seventeenth-century Music*, ed. Stewart Carter, rev. Jeffery Kite-Powell, (Bloomington: Indiana University Press, 2012), 232, accessed March 22, 2015, MyiLibrary.

¹⁴ Jackson, “Cello,” in *Performance Practice: a Dictionary-guide for Musicians*, 72.

¹⁵ *Ibid.*, 70.

¹⁶ *Ibid.*, 70.

Perhaps the bowed bass instrument that seems the most removed from the cello is the *viola da spalla*.¹⁷ The *viola da spalla* was a smaller variant of the cello, played across the chest and shoulder, held up by a strap around the neck.¹⁸

The eighteenth century brought many innovations in construction of the violin family at large.¹⁹ James Talbot, (1664–1708) gave the length of the neck of a cello as ten inches and the fingerboard thirteen inches in a manuscript from ca. 1695 that records many details about a variety of instruments.²⁰ Luthiers discovered that by angling the neck back, they could increase the tension on the strings.²¹ This allowed instruments to produce more volume. To compensate for this added pressure on the top of the instrument, the bass bar was also lengthened and with the sound post, was made to provide more structural support. These changes are depicted in Figure 1.2, seen in Dimitry Markevitch's *Cello Story*: the instrument on the left is labeled "Baroque Cello," while on the right is a "Modern Cello." The length of the fingerboard also increased as cellists began to require an instrument that they could play in four octaves and the use of thumb position became more widespread.²²

¹⁷ *Da spalla* translates from Italian as "of the shoulder."

¹⁸ Gregory Barnett, "Viola da spalla," in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/29449?goto=violadaspalla&type=article&pos=1> (accessed March 2, 2015).

¹⁹ Markevitch, *Cello Story*, 19.

²⁰ Anthony C. Baines and Darryl Martin, "Talbot, James," in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/27413?goto=talbotjames&type=biography&pos=1> (accessed March 11, 2015); Suzanne Wijsman, "Violoncello," in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/44041?goto=violoncello&type=article&pos=4> (accessed March 2, 2015). A fingerboard of this length would allow one to stop notes only about one octave above the open string.

²¹ Markevitch, *Cello Story*, 19.

²² Wijsman, "Violoncello," in *Grove Music Online, Oxford Music Online*.

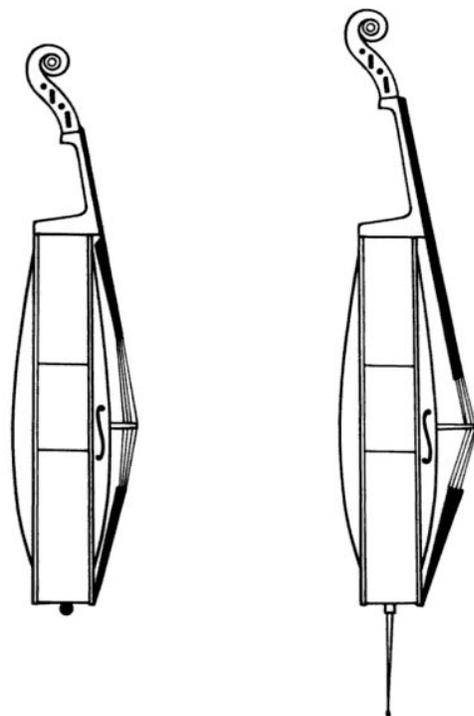


Figure 1.2 *Diagram showing the differences between a baroque cello and a modern one*²³

Clarification of Terms

The earliest endpins were made from wood; metal later became the preferred favorite. It should be noted that there are now other composite materials being used for endpin construction, to be explored in greater detail in Chapter 2. Furthermore, several other instruments use the endpin as well to support the weight of the instrument, notably the contrabassoon and bass clarinet. There is even a guitarist, Paul Galbraith, who plays a custom designed instrument, the Brahms Guitar, that is played vertically like a cello and uses an endpin.²⁴

²³ Markevitch, *Cello Story*, 17. Although Markevitch describes the increase of the neck angle in prose, the diagram seen here unfortunately does not depict this change.

²⁴ Nemanja Rebic, "Guitarist Paul Galbraith at Walter Reade Theater," *The Epoch Times*, April 18, 2011, accessed April 18, 2015, www.theepochtimes.com/n2/arts-entertainment/guitarist-paul-galbraith-at-walter-rea-de-theater-54897.html.

Many other terms have been used for the endpin over the centuries. English alternatives include tail-pin, pike, spike, peg, rest pin, and pin. Several of these terms are also found in translations of ‘endpin.’ In French, *pique* (pike) is commonly used, as well as *bâton* (stick), in German *Stachel* (sting, as in the sting of a bee) but also *Pflock* (peg) and *Fuss* (foot), and in Italian, *puntale* (tip).²⁵ This document will largely use one term, endpin, only referring to the other names while discussing various sources.

Just as there was much variety of types, shapes, and sizes of bowed bass instruments, there was equal variety in the manner of holding and supporting the early cello.

Documentary sources, repertory, and iconography show us bass violin-type instruments being ... held *da gamba* (between the legs), *da spalla* (on the [right] shoulder), *da braccio* (against the chest), across the player’s lap, or standing on the floor, on a stool, with some sort of endpin, or hung with a rope around the neck or shoulders.²⁶

Throughout this document, many cello postures will be explored. The two most significant postures discussed here are with the endpin and without. For simplicity’s sake, the latter posture will be referred to by the nomenclature used in the above quote: *da gamba*²⁷ posture or style describes the cello supported solely by the legs, without an endpin.

As “cello” is now the standard English name for the instrument, the term shall be used throughout this document in place of the original Italian word *violoncello* or the formerly used abbreviation “cello,” except when used in direct quotes from other sources.

²⁵ Russell, “Endpin,” in *Grove Music Online, Oxford Music Online*.

²⁶ Vanscheuwijck, “Violoncello and Violone,” in *A Performer’s Guide to Seventeenth-century Music*, 233.

²⁷ *Da gamba* translates from Italian as “of the legs.”

CHAPTER 2: CONSTRUCTION

The concept of an endpin or other lifting device to support the cello has changed over the past four hundred years. This chapter will explore the physical evolution of the endpin in terms of its construction and design. Other types of lifting devices will also be discussed, whether they were used for technical reasons, acoustic reasons, or both.

Early Lifting Devices

Many of the earliest images of the large bass violin depict musicians playing *da gamba* style with the instrument resting on the floor. The girth of these instruments was often too large to hold comfortably with the legs.¹ *Concert champêtre*, an undated painting from the studio of Bonifazio de' Pitati (1487–1553), shows a woman playing in such a manner, with the instrument on the ground.



Figure 2.1 Bonifazio de' Pitati (1487–1553), *Concert champêtre*²

¹ Valerie Walden, “Technique, style and performing practice to c. 1900,” in *The Cambridge Companion to the Cello*, ed. Robin Stowell (Cambridge: Cambridge University Press, 1999), 178.

² N.S. Lander, “Artists-B,” Recorder Home Page, accessed March 9, 2015, <http://www.recorderhomepage.net/recorder-iconography/artists-b/>.

Simone de Passe (ca. 1595–1647) presents a similar depiction of cello playing in a 1612 engraving, *Musizierende Gesellschaft*. Here, however, the cello appears to be elevated off the ground, resting on the musician's left foot.



Figure 2.2 Simone de Passe (ca. 1595–1670), *Music-making company* (1612)³

Another engraving by de Passe, also from 1612, again shows a cellist lifting the cello off the floor with his foot, but in this image with his right foot rather than left.

³ Andrew M. Hartig, “Renovata Cythara – Artwork Picture Gallery,” Renaissance Cittern Site, last updated June 21, 2012, accessed March 9, 2015, http://www.theaterofmusic.com/cittern/art/passe_music_making.html.



Figure 2.3 Simone de Passe, *Musizierende Studenten* or *Die neugierigen Frauen* (1612)⁴



Figure 2.4 Jan Jozef Horemans II (1719–1790), *Lesson of Singing* (ca. 1750)⁵

⁴ Tilden A. Russell, "The Development of the Cello Endpin," *Imago Musicae* 4 (January 1987): 338.

⁵ Emil Krén and Daniel Marx, "Horemans, Jan Jozef II," Web Gallery of Art, accessed March 10, 2015, http://www.wga.hu/html_m/h/horemans/jan_ii/.

In addition to the feet, other lifting devices were also used to elevate the cello off the floor. Figure 2.4 is a painting from the 1750s, *Lesson of Singing* by Dutch painter Jan Jozef Horemans the Younger (1714–1790). It shows a cellist propping up his instrument on a stool. There are many examples in the cello's iconography of other such lifting devices elevating the cello to a variety of heights. Some were low, as seen in Figure 2.4, but others raised the cello quite high so it could be played whilst standing, seen here in Figure 2.5



Figure 2.5 Johan Gustaf Ruckman (1780–1862), *Fägne-Spel på Fader Didriks Namnsdag*⁶

Some cellos were fitted with a strap so the instrument could be played while walking and standing. Jambe de Fer gave some a brief description in 1556:

⁶ Russell, "The Development of the Cello Endpin," 341.

It [the bass violin] was held up by means of a strap attached to a hook in a loop of iron - or some other material - which was fastened to the back of the instrument in such a way that it did not interfere with the playing.⁷

Ludovico Zacconi stated that the cello was largely used in popular contexts in his 1592 *Prattica di musica*; this implies the cello was played at events such as weddings, dances, and processions, where the cello was likely held standing, supported by a strap.⁸



Figure 2.6 Leonard Bramer (1596-1674), detail of an unknown drawing depicting a bass violin held by strap⁹

The strap was attached with holes drilled into the back of the instrument, known as procession holes. This practice eventually fell out of favor and procession holes were

⁷ Markevitch, *Cello Story*, 16–17.

⁸ Jackson, “Cello,” in *Performance Practice: a Dictionary-guide for Musicians*, 71.

⁹ Markevitch, *Cello Story*, 17.

filled in. Jacqueline du Pré described a procession hole in her cello, the “Davidoff” Stradivarius in a 1964 article:

That this cello was used by monks in religious processions is proved by a hole which is now refilled, in its back. Through it the monk secured a looped cord which he slung around his neck: he was then free to pace in slow procession playing the instrument suspended on his portly front.¹⁰

Although du Pré’s quote seemingly adds a little fiction, (how was she to know the monk was portly?), the general message is true. Many surviving cellos show evidence of procession holes, now filled in. Figure 2.6 shows three filled in holes from the back of a ca. 1725 cello made in Rome by German luthier David Tecchler.



Figure 2.7 Photograph of procession holes in the back of a ca. 1725 cello by David Tecchler, provided by the owner Gregory Beaver.¹¹

Perhaps the use of a strap with the cello was inspired by the *viola da spalla*, the smaller bowed bass instrument played across the chest and shoulder, held up by a strap

¹⁰ Elizabeth Wilson, *Jacqueline Du Pré: Her Life, Her Music, Her Legend* (New York: Arcade, 1999), 60.

¹¹ Gregory Beaver, e-mail message to author, March 24, 2015.

around the neck.¹² Renowned Baroque musician Sigiswald Kuijken demonstrates the posture used to play *viola da spalla* in Figure 2.7, revealing a bit of green rope just left of the tailpiece and right of his neck.



Figure 2.8 Photograph of Sigiswald Kuijken demonstrating *viola da spalla*¹³

Wooden Endpins

There are only a handful of written sources that document early endpins. These few sources indicate only that endpins were made of wood, providing no more detail about their construction. The first complete cello method book, written by Michel Corrette, *Methode, Théorique et Practique pour Apprendre en peu de temps Le Violoncelle dans sa Perfection* (1741) mentions the endpin with the term “bâton.” which translates literally as ‘stick [of wood]’ in French.¹⁴ Another early treatise by Robert Crome, written ca. 1765 uses the term “Wooden Peg.”¹⁵

¹² Barnett, “Viola da spalla,” in *Grove Music Online, Oxford Music Online*.

¹³ “Sigiswald Kuijken,” La Petite Bande, accessed March 10, 2015, <http://www.lapetitebande.be/sigiswald.php>.

¹⁴ George Kennaway, *Playing the Cello, 1780–1930* (Surrey, England: Ashgate, 2014), 2.

¹⁵ *Ibid.*

Musikalisches Handwörterbuch, a sort of music pocket dictionary written by an anonymous author (Weimar, 1786), states that it is relatively easy to drill a hole to install an endpin. The author also addressed an issue that still plagues cellists today, instability created if the endpin slides uncontrollably across the floor as the instrument is played. The document recommends attaching a half inch sharpened metal spike or nail to prevent the instrument from moving. By specifying the tip be made of metal, the author implies the endpin itself was made of something else, most likely wood.

A century later, Carl Schroeder gave a similar illustration of the endpin: “The peg, when it is of wood with an iron point at the bottom, is fastened or screwed into the button or tail-pin.”¹⁶ One must look closely to see this fine point of the cello depicted in Schroeder’s book, Figure 2.9. He continues, “If the peg is entirely of iron, it is so arranged that when not required for use it can be pushed back into the Violoncello.”¹⁷

¹⁶ Carl Schroeder, *Catechism of Violoncello Playing*, 2nd ed., trans. John Matthews (London: Augener, 1893), 11.

¹⁷ *Ibid.*

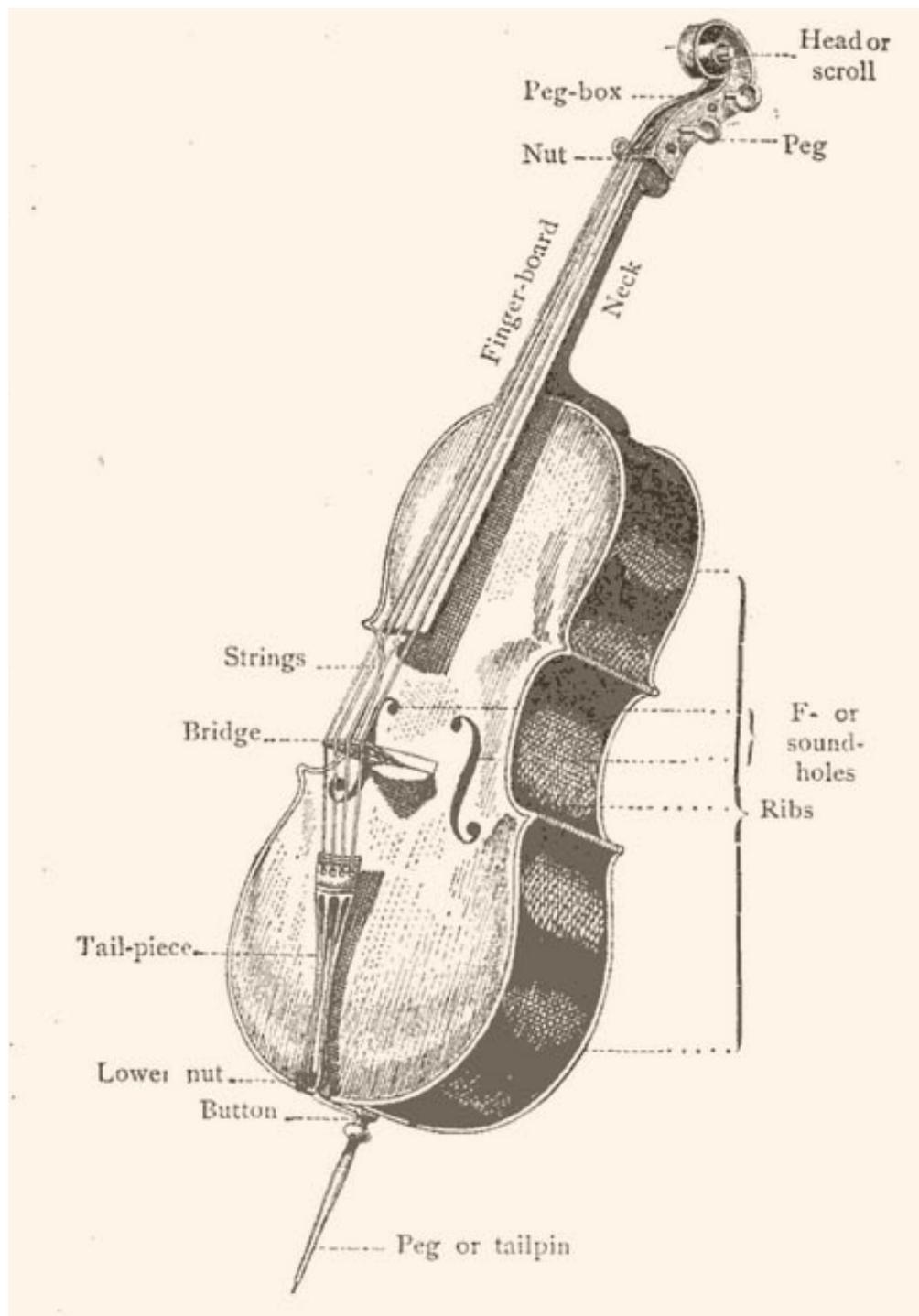


Figure 2.9 Carl Schroeder, *Catechism of Violoncello Playing*, “General View of the Violoncello”¹⁸

¹⁸ “General View of the Violoncello” in Carl Schroeder, *Catechism of Violoncello Playing*, 2nd ed., trans. John Matthews (London: Augener, 1893), 9.

No sources discovered so far provide reliable information about the types of wood used for the earliest endpins. As such, only speculations as to what was used can be made. Assuming that most endpins were supplied by luthiers, they were likely made with woods a luthier might reasonably have in their workshop. Maple, spruce, mahogany, and ebony were all woods commonly used in instrument construction so it is likely that they were also used for the earliest endpins.

The wooden endpin had a fixed length and was removed from the instrument when not in use. This allowed cellists to easily switch between using the endpin and playing *da gamba* style. Some sources, to be discussed in more detail in Chapter 3, only endorse the endpin when the cellist plays standing.¹⁹ Tilden A. Russell, who has written many of the most prominent articles on the endpin's history, envisions the possibility of "an 'authentic' modern performance of an eighteenth-century cello concerto in which the soloist is seated without endpin, while the ripienists stand with endpins."²⁰ It is logical to assume that cellists were expected to play both sitting and standing, depending on the role in the music they played.

As the endpin was standardized in the second half of the nineteenth century, endpins varied in their fixed length. At first, pedagogues recommended relatively short endpins, about seven or eight inches.²¹ However, in the early twentieth century, cellists began experimenting with longer endpins, which are still favored today.

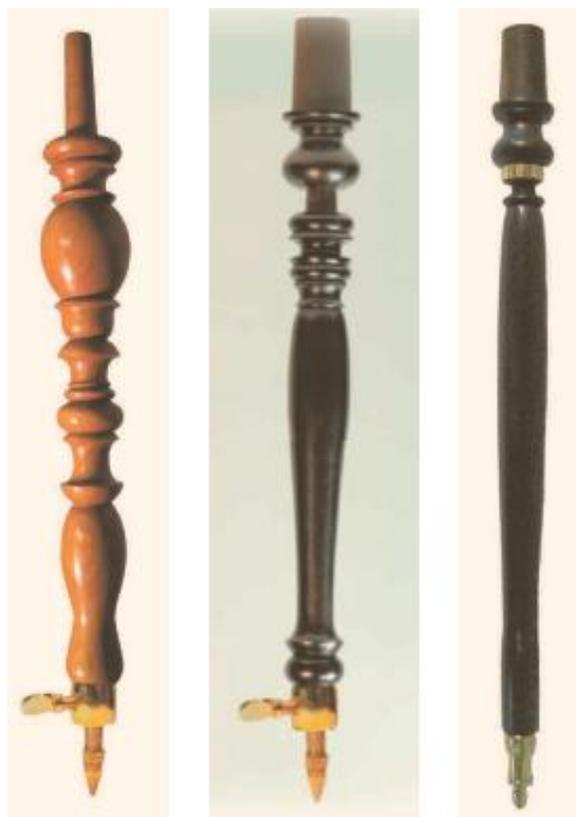
Wooden endpins were eventually replaced by adjustable metal endpins that retract into the instrument through a housing when not in use. The practical benefit of not having

¹⁹ Tilden A. Russell, "New Light on the Historical Manner of Holding the Cello," *Historical Performance: The Journal of Early Music America* 6, no. 2 (Fall 1993): 73.

²⁰ *Ibid.*, 75.

²¹ Kennaway, *Playing the Cello*, 9.

an extra component for the cellist to carry around is obvious. Adjustable endpins are now the overwhelming standard on nearly every cello. A handful of luthiers and companies list information online about modern wooden endpins. It is such a niche market that many offer only custom made-to-order products.



From left to right: **Figure 2.10** Cello end-pin Baroque model, take-down in 2 parts, boxwood, 18K gold plated stalk; **Figure 2.11** Cello end-pin Mirecourt model, take-down in 2 parts, boxwood, 18K gold plated stalk; **Figure 2.12** Ebony endpin, 19th century style²²

Bois d'Harmonie, a French company that specializes in string instrument fittings such as pegs and tailpieces, lists several wooden endpins on their website, although there is no information given about pricing or how to purchase the product. Three wooden

²² "Catalogue," Bois d'Harmonie, (2013), accessed March 10, 2015, <http://www.harmonie.net/images/pdf/catalogue2013eng-lis2.pdf>.

endpins are shown in an online catalog. The wording in the captions of each pin above is taken directly from their label in the catalog.



Figure 2.13 Photograph of a long wooden endpin, fixed length, provided by the owner, the Dipper Givens Collection of Musical Ephemera²³

Wooden endpins are now so outdated that there is very little published information about them. During my research, I was able to find a collection of antique wooden endpins, owned by the Dipper Givens Collection of Musical Ephemera (Figures 2.13, 2.14 and 2.15). Luthier Andrew Dipper graciously sent me photographs of several examples of wooden endpins. These endpins were found in Birmingham, England during the Handsworth Riots of 1981. After putting out a house fire, firemen discovered a sealed-off room that contained the remnants of a violin maker's shop.²⁴ Found under such circumstances, unfortunately there is no more available information about these endpins. However, based on the research in the document, it is reasonable to assume that these endpins date to the late nineteenth or early twentieth century. The endpin seen in Figure

²³ Andrew Dipper, e-mail message to author, March 20, 2015, Copyright Dipper Givens Collection of Musical Ephemera.

²⁴ Andrew Dipper, e-mail message to author, March 20, 2015.

2.13 is strikingly similar to that pictured in Schroeder's treatise (Figure 2.9). It is tapered at both ends and sits at a fixed height in the custom housing that accompanies this pin. Also note that it is tipped with a sharp metal point.

Adjustable Endpins

There is little evidence of who invented the adjustable endpin. Grove Music Online states, "The adjustable endpin was introduced after 1890," but gives no further details or specific citation to prove this claim.²⁵ Hybrid endpins, such as those pictured above by Bois d'Harmonie in Figures 2.10 and 2.11 and below in Figure 2.14 (another example from the Dipper Givens Collection of Musical Ephemera), are wooden, yet also have an adjustable metal tip that extends from the bottom.



Figure 2.14 Photograph of a hybrid endpin, provided by the owner, the Dipper Givens Collection of Musical Ephemera²⁶

Note a tapered end in this example as well, similar to the endpin seen in Figure 2.13. Again, the taper allows the endpin to fit securely in the housing, without risk of

²⁵ Wijsman, "Violoncello," in *Grove Music Online*, *Oxford Music Online*.

²⁶ Andrew Dipper, e-mail message to author, March 20, 2015, Copyright Dipper Givens Collection of Musical Ephemera.

sliding. However, this endpin is not pictured with its housing. It is possible that it did have a custom housing at one time that has now been lost.

Some early adjustable endpins were made of wood, as seen in Figure 2.15, a third example provided by the Dipper Givens Collection of Musical Ephemera. Although the endpin itself is made from wood, as is the housing, a heavy metal nut secures the endpin at the desired height.



Figure 2.15 Photograph of a long, adjustable wood endpin, provided by the owner, the Dipper Givens Collection of Musical Ephemera²⁷

Eventually, wooden and hybrid endpins were disregarded for the popular favorite, steel. While the length of early wooden endpins (Figures 2.12 and 2.13) was fixed, the length of adjustable endpins is relatively irrelevant. These endpins must merely be long enough to adjust to whatever length the cellist prefers. The housing that the endpin inserts into has some kind of device, generally a thumb screw, that tightens to hold the endpin in place at its desired length. Most endpins now come in two sizes, either with an eight or ten millimeter diameter. Wooden adjustable endpins likely needed to be thicker to

²⁷ Andrew Dipper, e-mail message to author, March 20, 2015, Copyright Dipper Givens Collection of Musical Ephemera.

support the weight of the cello without bending or breaking. Based on its length and the size of the housing, the wooden endpin in Figure 2.15 appears to be much thicker than eight or ten millimeters, probably between twelve to fifteen millimeters.

While metal was eventually favored over wood, there was, at first, some debate as to which material was best for the transmission of sound. Overall, steel was thought to be stronger and could be extended more easily.²⁸ Edmund van der Straeten advocated for use of a steel endpin in his 1898 treatise, *The Technics of Violoncello Playing*:

If the tail pin be of steel, as is now generally the case, it will prove even a stronger medium than a tail pin made of wood, metal being a better conductor of the vibrations of sound.

A wire fixed to the soundboard of a piano will communicate sound quite distinctly from one room to another; in the telephone it fulfils a similar function.²⁹

Wooden endpins were preferred by some for aesthetic reasons and were also believed to conduct sound better than metal.³⁰ Jules de Swert described the endpin in his 1882 treatise: “a stem made of wood or metal (wood is preferable) about seven or eight inches long.”³¹ Luigi Forino also preferred wood, but also was accepting of hybrid pins,³² (such as those seen in Figures 2.10, 2.11 and 2.14).

Others were more indifferent to which material was best. Arthur Broadley initially seemed to endorse wood, noting that Hugo Becker used a wooden pin: “Some players - I believe Herr Becker is one - affirm that a wooden end-pin is preferable, that it carries

²⁸ Russell, “The Development of the Cello Endpin,” 353.

²⁹ Edmund van der Straeten, *The Technics of Violoncello Playing*, 3rd ed. (London: “The Strad” Office, 1915), 18.

³⁰ Russell, “The Development of the Cello Endpin,” 353.

³¹ Jules de Swert, *The Violoncello* (London: Novello, Ewer and Co., 1882), 4, quoted in and translated by Kennaway, *Playing the Cello*, 9.

³² Russell, “The Development of the Cello Endpin,” 353.

vibrations to the floor.”³³ However, he continues with his opinion that “it is of little consequence whether the endpin is of wood or metal.”³⁴ Schroeder also gives equal weight to both options without emphasizing one over the other.³⁵

As adjustable endpins retract into the instrument, they are in some ways more practical than wooden endpins, which must be removed and carried separately.³⁶

Since the adjustable endpin was invented, only one other major innovation has changed its fundamental design. French cellist Paul Tortelier (1914–1919) invented what is now commonly known as the “bent” or “Tortelier” endpin.³⁷ Today there are several products featuring variations of this design, all with the same result. At some point, generally at the housing where the endpin retracts from the cello’s body, the endpin pivots, angling downward rather than coming straight out of the instrument. This variation is not widely used.³⁸

Mstislav Rostropovich (1927–2007) was widely known as a major proponent of the bent endpin. Elizabeth Cowling erroneously credited Rostropovich with its invention in her 1975 book, *The Cello*:

Mstislav Rostropovich has invented a new style of end pin (which may be purchased as the ‘Rostropovich End Pin’, retailing in the US at present for

³³ Arthur Broadley, *The Violoncello: Its History, Selection, and Adjustment* (New York: C. Scribner's Sons, 1921), 39.

³⁴ *Ibid.*, 40.

³⁵ Russell, “The Development of the Cello Endpin,” 353.

³⁶ I once used a modern endpin by Tone Acoustics (to be discussed in further detail below in this chapter and in Appendix A) for several months that did not retract into the instrument because it was quite thick. I found it to be inconvenient to have another thing to carry with me everywhere and I always had to be careful to not forget or misplace it.

³⁷ Margaret Campbell, “Violoncello,” in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/44041?goto=violoncello&type=article&pos=4> (accessed March 2, 2015).

³⁸ *Ibid.*

\$35.00) which instead of being straight, bends downward at an angle of about 35° .³⁹



Figure 2.16 *Violoncello with bent endpin: Mstislav Rostropovich with Benjamin Britten (1964)*⁴⁰

Other than the variation of the bent endpin, the essential parameters of endpin design have not changed. However, there have been many recent experiments with the use of new metals and materials used to make endpins. Each is developed in the search to find something that will better conduct sound vibrations through the instrument. Carbon fiber is a popular option, now inexpensive enough to produce at a reasonable cost. The carbon fiber endpin is made as a hollow tube, in contrast to the solid metal endpin, to reduce weight in hopes that the ultra lightweight material will better conduct sound. Other pins are made from a range of alloys, tungsten, titanium, brass, aluminum, and other composites.

³⁹ Elizabeth Cowling, *The Cello*, 2nd rev., U.S. ed. (New York: C. Scribner's Sons, 1983), 48.

⁴⁰ Wijsman, "Violoncello," in *Grove Music Online*, *Oxford Music Online*.

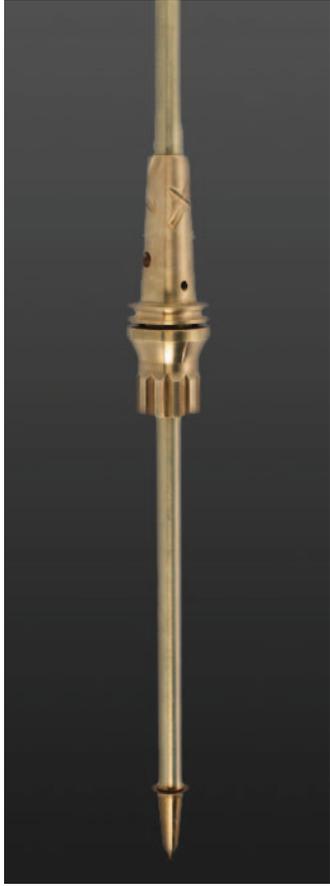


Figure 2.17 “Grand Concerto” Tone Acoustics

endpin⁴¹

The Tone Acoustics line of endpins are the recent invention of acoustician Tom Devuono. There are several models available, each tuned to highlight a different aspect of the cello; while one adds more warmth to the upper register, another clarifies the sound in the bass.⁴² Devuono is very secretive about the construction process and materials used for his endpins. They appear to be made of brass, or at least have an outer layer of brass, and are noticeably quite heavy. The Tone Acoustic pins are quite expensive. A quick internet search for the carbon fiber endpin (including the ebony housing which inserts

⁴¹ “Photo Gallery of Tone Acoustics Products,” Tone Acoustics, accessed March 10, 2015, <http://toneacoustics.com/Gallery.php>.

⁴² Appendix A presents the author’s reaction to performing a comparison test between steel, carbon fiber, aluminum, tungsten, and the Tone Acoustics endpins.

into the cello) made by New Harmony Music reveals prices ranging from \$93⁴³ to \$120.⁴⁴ The prices offered for the Tone Acoustics endpins at a recent sales event began at \$450. The most expensive model was a massive 13 millimeter, two pound endpin, offered at \$1000. Compared to the current standard sizes for an endpin's girth, 8 and 10 millimeters, this model is noticeably thick. It comes with a custom brass housing, also designed by Devuono, to accommodate the larger girth.

Acoustic Lifting Devices

Since at least the nineteenth century, cellists have used other devices to raise the instrument off the floor and enhance the instrument's acoustics. Today, these devices, generally known as cello podiums, are almost exclusively used for the performance of concertos with orchestra. The podium acts as a second resonating chamber, in addition to the body of the cello itself, allowing the soloist to more easily cut through an orchestra's thick volume.

Alfredo Piatti (1822–1901⁴⁵) was known for playing *da gamba* style, despite the fact that he lived through the era when endpins were standardized. He was depicted in an 1872 illustration (Figure 2.18) in the *Illustrated London News* performing in a string quartet with his feet resting on a raised platform, an early cello podium.

⁴³ “New Harmony Carbon Fiber Cello Endpin,” Gostrings.com, accessed March 2, 2015, <http://www.gostrings.com/newhacaficee.html>. Of the many carbon fiber endpins currently on the market, New Harmony's was used at the Tone Acoustics sales event.

⁴⁴ Linda West, “New Harmony Carbon Fiber Cello End Pin,” Lindawest.com, accessed March 2, 2015, http://www.lindawest.com/Carbon_fiber_end_pin_p/nhcfepft.htm.

⁴⁵ Lynda MacGregor, “Piatti, Alfredo,” in *Grove Music Online, Oxford Music Online*, http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/21652?goto=pia&_start=1&type=biography&pos=15 (accessed March 2, 2015).



Figure 2.18 *The Violinist Wilma Norman-Neruda in a String-quartet Recital (1872)*⁴⁶

Without more documentation of Piatti's use of a podium, it is difficult to know exactly why he chose to perform this way. It is possible that the podium would enhance his cello's acoustics but this normally occurs by sound vibrations travelling through the endpin to the podium. Without an endpin, this effect would essentially be negated; perhaps there was still a small effect. It is also possible that Piatti played this way for technical reasons. As the podium raised only Piatti's legs, but not his chair, he may have used it to raise the body of the cello higher on the torso than was generally possible with the instrument held *da gamba* style, or to raise the bridge and f-holes to improve projection of sound. This would simulate the effect of a longer endpin. (Endpins from this transitional era were commonly short, about seven or eight inches.) Perhaps the height of the cello Piatti achieved with the podium inspired later cellists to experiment with longer endpins, which have been favored for about the last century.

⁴⁶ Illustrated London News, March 2, 1872 in "Exhibitions > Past Images of the Month," Museum of Music History, accessed March 10, 2015, http://www.momh.org.uk/exhibitions-detail.php?cat_id=5&prod_id=266.

Other nineteenth century cello virtuosos were known for playing on similar podiums. Hugo Becker (1862–1941) was known to have performed on a wooden platform, although this experiment was not considered a success.⁴⁷ Arthur Broadley preferred the sound of another cellist, Robert Hausmann, to Becker on a platform:

Some players - I believe Herr Becker is one - affirm that a wooden end-pin is preferable, that it carries vibrations to the floor. That artist also uses a sounding-box to further assist in augmenting the tone. Personally I do not think there is anything in it. So long as the ribs of the violoncello are left free, it is of little consequence whether the endpin is of wood or metal, or, as in the case of Hausmann - who certainly had the biggest tone of any artist I have ever heard - it is dispensed with entirely.⁴⁸

Adrien François Servais (1807–1866), who will be discussed in greater detail in Chapter 3 for his important role in the popularization of the endpin, and his son Joseph (1850–1885), were known to have performed on a “table.”⁴⁹ David Laurie described the spectacle of the well-known cellist, awkwardly perched on a table:

He [Adrien Servais] was also rather eccentric and sometimes caused much mirth among the audience by mounting on a table, 'cello and all, so that his part might be well heard above the orchestra and further making most comical faces which set the audience in a roar.⁵⁰

There are a variety of cello podiums available for purchase today. One product, the SoundPodium, uses the acoustic properties of a stringed instrument in its design:

⁴⁷ Lynda MacGregor, “Becker, Hugo,” in *Grove Music Online, Oxford Music Online*, http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/02481?goto=becker&_start=1&type=biography&pos=11 (accessed March 9, 2015).

⁴⁸ Broadley, *The Violoncello: Its History, Selection, and Adjustment*, 39–40.

⁴⁹ Russell, “The Development of the Cello Endpin,” 353.

⁵⁰ David Laurie, *The Reminiscences of a Fiddle Dealer* (Boston: Houghton Mifflin, 1925), 26. David Laurie lived from 1833–1897. This book was republished twice, in 1925 and 1977, after its initial printing. At present, I have been unable to ascertain the year of its first publication; the introduction in the 1925 edition by Elise M. Lang states that Laurie had become ill and died before the work could be published. It was released posthumously by his son, Robert.

Presenting for the first time a podium, which has been constructed after the principles of a stringed instrument: Running under the front part of the SoundPodium's top is a bass - bar which carries the vibrations originating from the spike.

The top of the SoundPodiums constructed of high-quality beech wood and is, like a stringed instrument, provided with F-holes.⁵¹



Figure 2.19 “SoundPodium,” portable version⁵²

⁵¹ “References,” Celloshop.com, accessed March 2, 2015, <http://www.celloshop.com/contents/en-uk/d90.html>.

⁵² “SoundPodium, Portable Version,” Celloshop.com, accessed March 10, 2015, <http://www.celloshop.com/contents/en-uk/p141.html>.

CHAPTER 3: USAGE

The history of the endpin is littered with misinformation and legend about when the endpin was invented and used. This chapter chronicles the endpin's appearance over the last four centuries and will clarify the misinformation.

Overall, there has been very little published research on the subject. Many references are based on outdated sources and present incomplete or false narratives. Without a single authoritative narrative, it is easy to assume that the endpin has a simple history: endpins were not used by cellists before the Classical era (approximately 1750–1830)¹, were generally introduced during the Romantic era (approximately 1830–1900)² in the mid-nineteenth century, and were universally adopted by the turn of the twentieth century.³ While this approximates the endpin's past, there is far more to the story than just this.⁴ It is difficult to piece together a complete narrative for some eras because there are few primary sources to cite. Iconographic evidence and various printed sources prove that endpins (or other lifting devices) have been in use since the 1600s.⁵

Tilden A. Russell is seemingly the current authority on the historical use of endpins.⁶ The longest and most detailed source by Russell, "The Development of the Cello Endpin" was published in 1987 by *Imago Musicae*, a journal that describes itself as

¹ Stanley Sadie, "Classical Era, the," in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/opr/t114/e1442?goto=classicaleratethe&type=article&pos=1> (accessed March 2, 2015).

² Jim Samson, "Romanticism," in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/23751?goto=romanticism&type=article&pos=2> (accessed March 2, 2015).

³ Russell, "The Development of the Cello Endpin," 336.

⁴ *Ibid.*

⁵ *Ibid.*

⁶ Although I describe Russell as the "current" authority on endpins, his articles can no longer be described as recent scholarship; "The Development of the Cello Endpin" is 27 years old and "New Light on the Historical Manner of Holding the Cello" is 21.

an “international yearbook of musical iconography.”⁷ This article challenges the assumption that endpins were not used until the mid-nineteenth century by primarily examining music iconography and pictorial evidence, comparing these images to written texts in method books of the relative eras in history. While Russell presents an interesting history, it is frustratingly vague and could be enhanced with more details and examples. His work is also criticized for presenting evidence that is “inconsistent, however, depicting scenes from a very wide range of social situations and historical periods,”⁸ by George Kennaway in *Playing the Cello*.

Kennaway inadvertently chronicles the history of the “tail-pin” (as he calls the endpin) while tracing the technical evolution of cellists’ basic posture and setup through the eighteenth and nineteenth centuries. His analysis relies primarily on the evidence of method books and technical manuals, rather than iconography. Kennaway begins his study of cello technique by looking at basic posture and setup as described in treatises published between 1741 and 1982.⁹ This era coincides with the standardization of the endpin in the late nineteenth century. By focusing his study on these sources alone, Kennaway chronicles this history as told by the technique of professional cellists. This provides little insight into two other important genres of cellists: women and amateurs.¹⁰ In the nineteenth century, the use of the endpin had “decidedly amateur or womanish overtones and professional musicians probably regarded it as an affront to their male

⁷ “Imago Musicae | International Yearbook of Musical Iconography,” Imago Musicae, accessed March 2, 2015, <https://imagomusicae.wordpress.com>.

⁸ Kennaway, *Playing the Cello*, 16.

⁹ Ibid., 1–35.

¹⁰ Nineteenth century cello treatises were most likely targeted at professional musicians (or those studying to become professional) who were almost exclusively male through this era. Kennaway does have a separate chapter about the history of women and the cello but does not go into as much technical detail.

pride.”¹¹ As there is little surviving documentation about amateur cellists, iconographic evidence provides the only source of information. There is only limited documentation about women and the cello; however, it is clear that women played a very important role in the popularization of the endpin.

Documentation from Treatises and Iconography

Together, Russell and Kennaway provide a more complete history of the endpin’s use. Where Russell is too reliant on iconographic evidence, Kennaway similarly gives too much weight to technical method books. This chapter will combine discussions and evidence from Russell and Kennaway to present a more detailed history of the endpin.

Both sets of evidence are equally valid, as Russell points out:

Method books were written by musicians who best knew their craft, hence probably the privileged position accorded these sources by music scholars. But the painters we are dealing with painted what they saw, without regard to conflicting doctrines, and so the pictures may reflect reality more accurately than do the methods. Certainly both groups of sources have strong claims to authoritativeness.¹²

Much of the earliest documentation of endpins is found in iconographic form. The iconography of the cello contains works of art from many genres, primarily paintings and engravings.¹³ I have even come across images of cellists in the form of miniature china figurines. The earliest of these works of art dates to the 1530s. A fresco in the Church of

¹¹ Valerie Walden, *One Hundred Years of Violoncello: A History of Technique and Performance Practice, 1740–1840* (Cambridge: Cambridge University Press, 1998), 98.

¹² Russell, "The Development of the Cello Endpin," 338.

¹³ Unfortunately, there is no central database containing a complete portfolio of images in the cello’s iconography. There are hundreds, perhaps thousands, of works of art from all eras of the past four centuries that depict a cello in some form or another.

Santa Maria della Grazie in Saronno, Italy painted by Gaudenzio Ferrari contains the earliest known image of a cello.¹⁴



Figure 3.1 Gaudenzio Ferrari (ca. 1470–1546¹⁵), detail of fresco in Santa Maria delle Grazie, Saronno, Italy (1530s)¹⁶

Russell’s history of the endpin told through iconography used one primary portfolio of images: a collection of artwork assembled by the Research Center for Musical Iconography of the City University of New York. In 1978, the Center put on an exhibition titled “The Musical Ensemble ca. 1730–1830.” The initial showcase featured 243 reproductions of works from all genres of art and was later expanded to 573 works. Russell found that there were nearly equal representations of cellos held with and without an endpin.

Out of this collection, about 180 works depict cellos. This group of pictures may be subdivided into three parts: 1. works in which the bottom

¹⁴ Jackson, “Cello,” in *Performance Practice: a Dictionary-guide for Musicians*, 70.

¹⁵ John Maylon, “Gaudenzio Ferrari Online,” *Artcyclopedia*, accessed March 15, 2015, http://www.artcyclopedia.com/artists/ferrari_gaudenzio.html.

¹⁶ Jackson, “Cello,” in *Performance Practice: a Dictionary-guide for Musicians*, 70.

of the cello is not visible (for example, where an orchestra is shown crowded together in a pit or gallery); 2. works in which the bottom is visible and there is no lifting-and-holding device; and 3. works in which the bottom is visible with an endpin or other device.... Surprisingly, these three groups are all nearly equal in number, with the second group containing only slightly more, and the other two groups slightly fewer, than sixty examples. We should remember that the period represented in this sample coincides with that in which the method books taught only one way of holding the cello: without the endpin.¹⁷

However, Russell only provides 21 examples of these artworks in the cello iconography in this article.¹⁸ The end result is frustratingly vague. We must take him at his word that these numerous artworks exist as he shares few specific examples. It has now been nearly 40 years since the 1978 exhibition on which Russell based his findings. There are now hundreds of iconographic images of the cello scattered across the internet, fairly easy to find with a quick search although they are not hosted by a single website. This is both a blessing and curse for such research. One could easily make a portfolio of hundreds of images of cello iconography from four centuries of history. However, the websites that host these images can be problematic; citations for many images are missing or incomplete.¹⁹ Having now viewed so many images from the historical iconography of the cello, Russell's sampling of only 180 works does not seem to represent a broad enough spectrum from which to draw an accurate conclusion.

Russell categorized his evidence in order to prove that endpin use was fairly widespread before the mid-nineteenth century.²⁰ However, as there is now much more

¹⁷ Russell, "The Development of the Cello Endpin," 342.

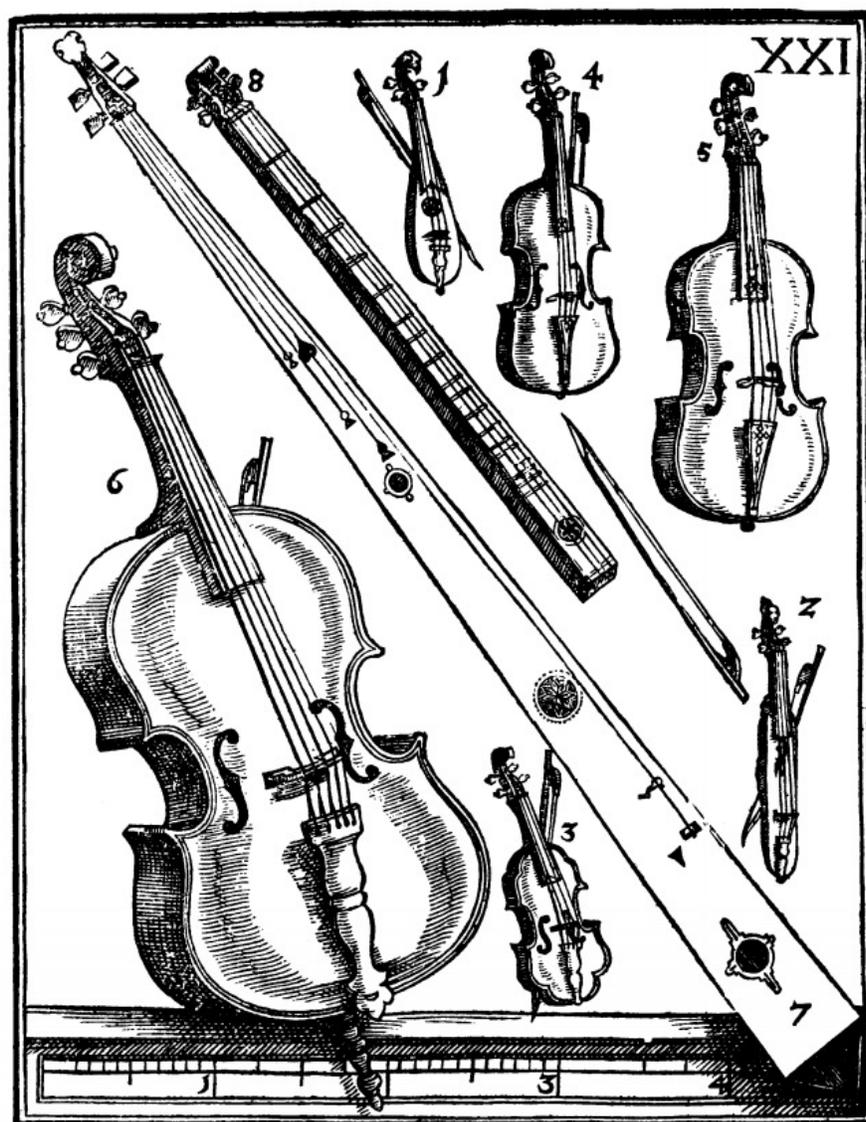
¹⁸ Presumably, Russell was only allotted a certain amount of physical page space for this publication, thus limiting the number of images he could reproduce or discuss.

¹⁹ Wikipedia hosts many images but often lacks important information about the image, such as the artist, date and place of production, and where the image is currently located.

²⁰ While Russell does not explicitly state this, it is implied by the tone of his language.

evidence readily available, one cannot prove widespread use. With so many images on the internet, Russell's conclusion no longer holds true. His evidence still stands but a different conclusion should be made: simply that endpins *were* used throughout all eras of the cello's history. The images seen here should be taken as individual examples, without making any conclusions about the widespread use of endpins. With the current evidence available at the time of this writing, any final judgments on this matter, such as Russell's, must be considered outdated or speculative.

Early images of the cello depict the instrument held in a variety of manners: on the floor, balanced on a foot, supported by a stool or other similar lifting device. Other early images show the cello with an endpin. The second volume of Michael Praetorius' famed *Syntagma musicum* (1620) pictures a five-string *Bas geig de bracio* with an endpin, the instrument labeled 6 in the lower left corner of Figure 3.2. Note the ornate similarity to the modern wood endpins produced by Bois d'Harmonie, seen in Chapter 2, Figures 2.10 and 2.11.



1. 2. Kleine Poschen / Geigen ein Octav höher. 3. Discant-Geig ein Quart höher.
 4. Rechte Discant-Geig. 5. Tenor-Geig. 6. Bas-Geig de bracio. 7. Trumscheidt.
 8. Scheidholst.

ε ffj

Figure 3.2 Michael Praetorius, *Syntagma musicum*, “Bas geig de bracio” with endpin (1620)²¹

An undated engraving by Caylus after Jean-Baptiste Oudry shows a harlequin dancing around, rather than playing a cello. Nonetheless, an endpin can clearly be seen.

²¹ Russell, “The Development of the Cello Endpin,” 337.



Figure 3.3 Caylus after Jean-Baptiste Oudry (1686–1755), *Dancers*²²

There are a number of eighteenth century documents that mention the endpin or discuss its use. From the Gotha Court Chapel, a document written in November 1723 notes that the following repairs were made: “On the Cohr violoncello, a new bridge and a

²² N.S. Lander, “Artists-O,” Recorder Home Page, accessed March 10, 2015, <http://www.recorderhomepage.net/recorder-iconography/artists-o/>.

new endpin colored black were made.”²³ Further records indicate that repairs and replacements of the endpin were continued throughout the eighteenth century at Gotha.²⁴

The first complete cello treatise conveniently discusses the endpin. Michel Corrette introduced the endpin in his *Methode, Théorique et Pratique pour Apprendre en Peu de Temps Le Violoncelle dans sa Perfection* of 1741. Ultimately, he disapproves of its use for aesthetic and technical reasons:

Note that the instrument does not touch the ground at all, since that makes it muted: sometimes one puts a stick at the end to support the cello, when one plays standing up: not only is this posture not the most attractive, but it is moreover the most contrary for difficult passages.²⁵

Robert Crome states that the use of an endpin is an option for beginning cellists, but does not provide further details of its use in his *Compleat Tutor*, published ca. 1765:

The lower part is to rest on the Calves of the Leggs supported with the Knees, but for the greater ease of a Learner we wou'd advise him to have an hole made in the Tail-pin and a Wooden Peg to screw into it to rest on the Floor which may be taken out as he pleases.²⁶

Kennaway concludes that there are only “very few” references to the endpin before the later nineteenth century.²⁷ Every treatise during that time describes *da gamba* posture, with the cello held and supported solely by the legs.

Two publications from the 1780s shed more light on the endpin. Both are general music treatises rather than method books such as the above examples by Corrette and

²³ Christian Ahrens, "On the Use of Endpins with Cellos in the Eighteenth Century," *The Galpin Society Journal* 62 (April 2009): 288.

²⁴ Ibid.

²⁵ Michel Corrette, *Methode, Théorique et Pratique pour Apprendre en Peu de Temps Le Violoncelle dans sa Perfection* (Paris: Mlle. Castagnery, 1741), 7, quoted in and translated by Kennaway, *Playing the Cello*, 2.

²⁶ Robert Crome, *The Compleat Tutor for the Violoncello* (London: C. & S. Thompson, [1765?]), 1, quoted in Kennaway, *Playing the Cello*, 2.

²⁷ George Kennaway, *Playing the Cello*, 2.

Crome. Although he discusses the endpin, Johann Samuel Petri, like Correte, disapproves of its use in *Anleitung zur praktischen*, published in 1782. Petri prefers a seated playing position, with the cello held *da gamba* style. He states that the *Stachel* is used only when the cello is played standing, a posture associated with older and simpler music.

6. The endpin, which, in the past was found underneath the cello, is no longer in fashion, because while standing one cannot shift on a cello supported only by an endpin, and is very often necessary nowadays. Therefore one finds the spike now only among *Kunstpfeiferjungen*, who are only used as ripienists, and who still do not know how to shift [on the cello]. (And then would it suit such young lads to sit if their companions must stand?) That would be against the customary routine.

7. Since the instrument with the endpin wobbles, one cannot shift well with it, but one must be content with fingering that allows one to keep a firm grasp, and this is only [possible] in the first position where the hand grips the neck of the cello.

8. A cellist must absolutely sit at all times, if he wants to play something useful on his instrument. Since the gamba was abolished, and the cello has now replaced it, high passages, double stops and polyphonic parts are often expected and required of him. These could not possibly be played while standing, since the instrument has no further support than the hand, which must finger the notes and chords itself.²⁸

Lynn Jaye Hizer, who translated and annotated *Anleitung zur praktischen* in a 1991 PhD thesis, comments on this passage, suggesting that:

Cellos in some regions had a retractable endpin which could be pulled out when one wanted to stand to play the instrument. Playing the cello while standing was not at all uncommon, particularly on the models from the late seventeenth century which were heavier, had a shorter neck and thicker strings.²⁹

²⁸ Johann Samuel Petri, *Anleitung zur Praktischen Musik* (Leipzig: Breitkopf, 1782), 415–416 quoted in and translated by Lynn Jaye Hizer, “Performance Practice According to Johann Samuel Petri’s *Aneitung zur Praktischen Musik*: an Annotated Translation” (PhD thesis, Washington University, 1991), 178–179.

²⁹ Lynn Jaye Hizer, “Performance Practice According to Johann Samuel Petri’s *Anleitung zur Praktischen Musik*: an Annotated Translation” (PhD thesis, Washington University, 1991), 178.

Russell's discussion of this source argues that ripienists were "not the elite among cellists, however, and it is the soloists to whom the eighteenth-century method books ignoring the endpin were addressed."³⁰ According to Russell, most cellists of that era were ripienists, not the elite soloists.³¹ Hizer confirms this with her translation of the *Kunstpfeiferjungen* mentioned by Petri: "Most likely these were apprentice wind band musicians."³² In contrast to these musicians, advanced cellists were playing new music that was more virtuosic, music that Petri describes as impossible to play standing.

Another source, *Musikalisches Handwörterbuch* (also discussed in Chapter 2), advocates that the cello be played standing with a metal-tipped endpin. The author says that with practice, a cellist should be able to play anything this way, even high passages; the sharpened metal spike or nail prevents the instrument from shaking. This source is perhaps the first to note an acoustic effect related to the endpin. The text states that when the pin is not being used, the cellist should plug the hole so sound does not escape. Later developments in the endpin's history were initiated by acoustic ambitions.

To date, these printed documents present the story of the endpin's use, or lack thereof, in more formal settings. However, the cello also has a history of use in folk music. Throughout the history of Western art music and still seen today, folk or pop music often uses classical instruments played by amateur, sometimes self-taught, musicians. As such, technical approaches to the instrument are often different from the classical training dictated by a pedagogue. This could account for many images in the

³⁰ Russell, "New Light on the Historical Manner of Holding the Cello," 74.

³¹ *Ibid.*, 73.

³² Hizer, "Performance Practice According to Johann Samuel Petri's *Aneitung zur Praktischen Musik*," 178.

iconography where an endpin or other lifting device is used, especially from the era when pedagogues only taught *da gamba* posture.

The next known reference to the endpin in method books was published in 1878. Every treatise from the interim century describes only *da gamba* posture. Publications by Jean-Baptiste Breval, John Gunn, Bernhard Romberg, Jean-Louis Duport, Dominique Bideau, Charles Eley, Georg Kastner, Robert Lindley, Friedrich Kummer, Laurent Junod, Edward Howell, August Schultz, and Olive Vaslin all state that the cello should be held by the legs alone.³³ Russell asserts that published method books “ignore the endpin so totally that they did not even mention it in order to censure it.”³⁴ An example of this posture from Kummer’s treatise can be found later in this chapter, Figure 3.6.

A popular anecdote gives credit to cellist Adrien François Servais (1807–1866) for the introduction of the endpin around 1845.³⁵ Iconographic evidence and published documents that predate Servais’ life confirm that this is not true. Yet the Servais story lives on in at least three different versions: that Servais invented the endpin because he was overweight and the endpin helped him play more easily,³⁶ that it was Servais’ Stradivarius cello that was oversized and needed support,³⁷ or that Servais started using the endpin in his “old age.”³⁸ While he certainly wasn’t the endpin’s inventor, he was the

³³ Kennaway, *Playing the Cello*, 2–8.

³⁴ Russell, “The Development of the Cello Endpin,” 338.

³⁵ John Dilworth, “The Cello: Origins and Evolution,” in *The Cambridge Companion to the Cello*, ed. Robin Stowell (Cambridge: Cambridge University Press, 1999), 14.

³⁶ Wijsman, “Violoncello,” in *Grove Music Online, Oxford Music Online*.

³⁷ Markevitch, *Cello Story*, 70. Built in 1701 and now known as the “Servais” Stradivarius cello, it was “Stradivari’s last instrument of the large type used in the seventeenth century.” “The ‘Servais’ Cello,” Smithsonian Chamber Music Society, accessed March 2, 2015, <http://smithsonianchambermusic.org/collection/stradivarius-cello-1701-servais>.

³⁸ Cowling, *The Cello*, 47.

first cellist to use it regularly.³⁹ As a famous performer and pedagogue (Servais was appointed as the cello professor at the Brussels Conservatoire in 1848)⁴⁰, his use of the endpin was very influential. Servais seems to have taught all of his students to play with an endpin.⁴¹



Figure 3.4 Photograph of Adrien Servais (ca. 1862)⁴²

Although Servais is remembered as one of the great cellists and pedagogues of the nineteenth century, he did not write a cello treatise. More than twenty years after Servais' death, the first method book to mention the endpin since Crome in the 1760s was published by Henri Rabaud in 1878, *Méthode complète de violoncelle, Op.12*. Rabaud

³⁹ Kennaway, *Playing the Cello*, 6.

⁴⁰ "Servais: (1) Adrien François Servais" in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/25492pg1?gto=servaisadrienfrancoisservais&type=biography&pos=1> (accessed March 2, 2015).

⁴¹ Kennaway, *Playing the Cello*, 7.

⁴² Ibid.

advocates for the use of the endpin, but only as an option for those who have already mastered the standard of *da gamba* posture:

Several artists make use of a spike, rod or extension to hold up the cello, which fits the button: I advise pupils not to use it before being well familiarized with the classical posture.⁴³

Four years later, Jules de Swert suggests using an endpin for acoustic reasons in his 1882 publication *The Violoncello*:

Nearly all the modern players use a stem made of wood or metal (wood is preferable) about seven or eight inches long, which is fixed to the lower part of the Violoncello, and on which the instrument rests. In my opinion this is perfectly right, because, by this system, not only is the position of the body freer, but also the tone is favourably influenced by the instrument resting on this stem instead of being held by the pressure of the legs, the latter plan necessarily interfering with the development of the tone.⁴⁴



Figure 3.5 Jules de Swert, *The Violoncello*, “On Holding the Violoncello and the Attitude of the Performer”⁴⁵

⁴³ Henri Rabaud, *Méthode Complète de Violoncelle, Op. 12* (Paris: Alphonse Leduc, 1878), 1, quoted in and translated by Kennaway, *Playing the Cello*, 8.

⁴⁴ De Swert, *The Violoncello*, 4, quoted in Kennaway, *Playing the Cello*, 9.

⁴⁵ Russell, “The Development of the Cello Endpin,” 337.

There were a number of factors that eventually led to the universal adoption of the endpin. Perhaps the most important was the reason that de Swert gives at the end of this passage: enhanced acoustics. The endpin transfers sound vibrations through the instrument and out across the floor, enhancing tone quality and increasing volume. The search to improve the cello's acoustics was not new. Kummer, in his 1850 treatise, describes *da gamba* posture, as was standard for all publications at the time. However, Kummer was one of the first to write that the cello must be held by the front edge of the cello's top with the right leg and the edge of the back with the left. Holding the cello with the legs touching the ribs negatively affects the sound:

The Violoncello should be held between the legs, so that the lower part of the front edge of the Instrument comes exactly on the right calf, and the back edge exactly on the left calf of the player. But it must be especially remembered that the sides of the edges be not too much covered by the calf of the leg; as thus the vibration of the Instrument will be impeded.⁴⁶



Figure 3.6 F.A. Kummer, *Violoncello School*, *Op. 60*, posture illustration⁴⁷

⁴⁶ F.A. Kummer, *Violoncello School*, *Op. 60*, trans. anon. (London: Ewer and Co., 1850), 4, quoted in Kennaway, *Playing the Cello*, 6.

⁴⁷ Kennaway, *Playing the Cello*, 6.

Several decades later, other cellists similarly cautioned that the legs not dampen the sound by holding the ribs. Junod wrote in his 1878 treatise, *New and Concise Method for the Violoncello, Op. 20* that one “must avoid covering the sides (or ribs) of the instrument so as not to check the vibration of the sound.”⁴⁸ Publications by Edward Howell, August Schulz, and Olive Vaslin from 1879, 1882, and 1884 respectively all contain similar passages.⁴⁹

By the end of the nineteenth century, the use of an endpin was gradually endorsed in most published method books. It was preferred over *da gamba* posture because of its enhanced acoustic properties, not because of any technical developments that were eventually brought about due to the endpin.

Cellists did not begin experimenting with the endpin to advance technique until the early twentieth century. At first, the basic posture and setup of the cello remained relatively unchanged when the endpin was used.⁵⁰ Endpins were kept short so that the cello, relative to the cellist’s body, was essentially in the same position as when using *da gamba* posture, rather low to the ground and vertical. As noted in the quotation and illustration from de Swert’s work, the endpin is short, only “seven or eight inches long.” Carl Davidoff recommended a vertical cello in 1888:

The player sits forward on the seat, grasps the cello with the left hand on the neck, and secures it with the spike, so that it stands perpendicular to the feet.⁵¹

⁴⁸ Laurent Junod, *New and Concise Method for the Violoncello, Op. 20*, trans. F. Clayton (London: Lafleur, 1878), 3, quoted in Kennaway, *Playing the Cello*, 7.

⁴⁹ Kennaway, *Playing the Cello*, 7–8.

⁵⁰ *Ibid.*, 8–10.

⁵¹ Carl Davidoff, *Violoncell-Schule* (Leipzig: Peters, 1888), 2, quoted in and translated by Kennaway, *Playing the Cello*, 9.

Perhaps the last to describe this traditional basic posture, so similar to that without an endpin, was published in *Practical Tutor for the Violoncello. New Edition, Revised & Enlarged* by Otto Langey in 1909:

The performer should sit well forward on his seat, with the left foot in advance of the right, the feet turned outwards. The instrument should be placed between the legs with the lower edge of the back on the calf of the left leg and the edge of the belly on the calf of the right leg. [...] The instrument must rest entirely in this position without the assistance of the left hand, and high enough, so as to prevent the bow touching the knees. An End-pin should be used for this purpose.⁵²

By the end of the nineteenth century, the endpin's use was widespread but not yet universal.⁵³ Many authors listed the endpin as an alternative, without dictating that it must be used. Josef Werner's language in *Praktische Violoncell-Schule, Op. 12* (1882) implies that the endpin is but an option ("When using a peg...").⁵⁴ In 1898, van der Straeten was more concrete in his recommendation of the endpin:

The use of the peg is now generally adopted, and offers the double advantage of steadying the instrument and strengthening its tone by an additional amount of resonance, resulting from the communication established by it between the body of the violoncello and the floor....

Formerly the violoncello was held in the following manner. The legs were extended with the feet turned outwards, and the instrument held so that the lower edge of the table pressed against the right calf, and the lower edge of the back against the left calf. This manner which is still practised in isolated cases, has the disadvantage of giving the instrument a rather upright position, rendering it somewhat stiff, and necessitating the covering, by the legs, of a greater part of the ribs, which prevents the free emission of sound.⁵⁵

⁵² Otto Langey, *Practical Tutor for the Violoncello. New Edition, Revised & Enlarged* (London: Hawkes & Son, 1909), 7, quoted in Kennaway, *Playing the Cello*, 9.

⁵³ Kennaway, *Playing the Cello*, 11.

⁵⁴ Josef Werner, *Praktische Violoncell-Schule, Op. 12*, trans. anon. (Cologne: P.J. Tonger, 1882), 3, quoted in Kennaway, *Playing the Cello*, 10.

⁵⁵ Van der Straeten, *The Technics of Violoncello Playing*, 18–19.



Figure 3.7 Edmund van der Straeten, *The Technics of Violoncello Playing*, posture illustration⁵⁶

The latest publication to list two ways of holding the instrument dates to 1910, Piatti's method edited and revised by William Whitehouse and R.V. Tabb. Although Piatti is known to have not used an endpin, this revision gives weight to both options:

There are two ways of holding the cello – without the peg (Piatti's method), and with the peg, the latter being that generally adopted at the present time.⁵⁷

Updated versions were published of treatises by Romberg, Kummer, and Sebastian Lee. These new editions advocated for the endpin's use. While at first, proponents cited only its enhanced acoustics, authors such as van der Straeten as quoted above⁵⁸ and de Swert and Hugo Becker below, gradually started describing technical

⁵⁶ Van der Straeten, *The Technics of Violoncello Playing*, 18.

⁵⁷ Alfredo Piatti, *Violoncello Method, Volume I*, rev. W.E. Whitehouse and R.V. Tabb (London: Augener, 1911), [ii].

⁵⁸ Van der Straeten states that *da gamba* posture puts the cello in a “rather upright position, rendering it somewhat stiff.”

benefits: increased comfort and stability, and less fatigue for the cellist. De Swert comments in his 1888 revision of Romberg's treatise:

This stance [*da gamba* posture] has almost completely disappeared. The majority of modern cello virtuosi use a spike 7-8 inches long attached below the instrument. The earlier stance is in my opinion uncomfortable and ungraceful; besides it is clear to all, that through the pressure of the leg and the contact with the clothing that the tone must suffer considerably.⁵⁹

Becker adds a similar statement to his revision of Lee's *Violoncello Tecnics* from 1900-1903:

Latterly, the use of the tail-pin has been pretty generally adopted, as it permits of greater freedom in the handling of the instrument. The above mentioned fundamental principles on position, however, are thereby not altered in their salient features.⁶⁰

In 1909, Becker again advocated for the endpin in his edition of Kummer's *Violoncelloschule für den ersten Unterricht, Op.60*:

In more recent times a spike is generally used. This innovation brings many advantages: greater stability and better resonance of the instrument, by being less tiring to the player.⁶¹

However, Becker also adds a warning to his endorsement of the endpin:

Unfortunately, simultaneously with the use of the spike a negligent, unattractive posture has crept in, which is detrimental to the handling of the instrument.⁶²

⁵⁹ Bernhard Romberg, *Violoncelloschule*, ed. and rev. Jules de Swert and Heinrich Grünfeld (Berlin: E. Bote & G. Bock, 1888), 4, quoted in and translated by Kennaway, *Playing the Cello*, 12.

⁶⁰ Sebastian Lee, *Violoncello Tecnics, Op. 30*, rev. Hugo Becker, (Mainz: B Schott's Söhne, 1900–1903), 2, quoted in Kennaway, *Playing the Cello*, 12.

⁶¹ F.A. Kummer, *Violoncelloschule für den ersten Unterricht, Op.60*, rev. Hugo Becker (Leipzig: Peters, 1909), viii, quoted in Kennaway, *Playing the Cello*, 12.

⁶² *Ibid.*

Despite its growing popularity, not everyone was accepting of the endpin. As late as 1902, Hans Dressel only describes *da gamba* posture:

The student should sit erectly on the chair, placing the right foot firmly down, and stretching out the left. The 'Cello should be placed in a slanting position, and tilted slightly to the right, leaning on the middle of the player's chest, and held by the legs.⁶³

David Laurie, a prominent instrument dealer and amateur violinist, disliked the endpin (and the cello podium, as discussed in Chapter 2). In his memoir *The Reminiscences of a Fiddle Dealer*, Laurie describes a scene, speaking with Joseph Servais just after a string quartet performance:

It seemed that the platform on which the artistes sat, was practically the lid of a hollow wooden box. M. Servais was in the habit of using a wooden rest pin, which has an injurious effect on the tone of any instrument when placed on a wooden floor, and when, as in this case, there was a hollow space under the flooring, the effect which would have been tubby on any instrument was of course exaggerated in the Strad. 'cello.

Thinking that it might not have occurred to M. Servais to do without his rest pin I went into the artistes' room, where the quartette were, and after some general conversation I introduced the subject. M. Servais, however, had been trained to use the rest pin, as indeed nearly all artistes outside England are, and would not hear of giving it up. I mentioned that Piatti, for whom I knew he, like his father, had a great admiration, had been taught to play without the rest pin and never used it. M. Servais was much interested in hearing this, but said frankly he was so accustomed to it that he simply could not do without it. Of course, the belief is that with the rest pin the volume of tone is greatly increased and without doubt this is so; but it would never make up to me in volume what it takes away from the quality of the tone. My persuasions having no effect, I let the matter rest.⁶⁴

⁶³ Hans Dressel, *Moderne Violoncell Schule*, 2 vols. (Leipzig: Bosworth & Co. 1902), vol. 1, 2 quoted in and translated by Kennaway, *Playing the Cello*, 8.

⁶⁴ Laurie, *The Reminiscences of a Fiddle Dealer*, 27–28.

Gerald Hodgkin lists reasons for and against the endpin in an article printed in the May 1896 edition of *The Strad*. Overall, the article seems biased against the endpin.

Nevertheless, he begins with its benefits:

- (1). It is alleged in its favour that the holding is rendered more free and comfortable.
- (2). That the free emission of tone is not hindered as it would be by the pressure of the legs of the player against the sides of the instrument if he used a peg.
- (3). That the 'cellist can stand up when playing "God Save the Queen" (!)
- (4). That if the peg is not used the player is constantly lifting up, and shifting the position of his instrument; that to do this pressure must be taken from the fingers, and that consequently the stopping is less firm and the tone less good.
- (5.) That it is less tiring to hold the 'cello if a peg is used.⁶⁵

In addition to the reasons below against using the endpin, he also cites two famed cellists who did not use the pin, Piatti and Whitehouse, and expresses worry the instruments may be damaged by using the pin.

- (1). To certain players the holding of the bass is not rendered more comfortable by the use of the peg. Signor Piatti does not strike one as an awkward performer.
- (2). If the bass is held properly the tone is not damped by the player's legs inasmuch as practically only the right edge of the upper, and the left edge of the lower, table are in contact therewith.
- (3). This reason seems valid for what it is worth.
- (4). If, as is not quite certain, the player constantly to be shifting his instrument, then this reason is also valid. And if, as may be the case, the floor is very slippery, or the peg has a blunt point, the player who trusts to the peg may himself often have to alter the position of the instrument.
- (5). It is certainly less tiring to play for any length of time if the peg be employed, and this was given to me as his reason for adopting it by a violoncellist who had to do a great deal of orchestral work.

⁶⁵ Gerald Hodgkin, "Use of the 'Cello Peg," *Strad*, May 1897, 14, accessed March 24, 2015, <https://play.google.com/books/reader?printsec=frontcover&output=reader&id=UOo2AQ AAMAAJ&pg=GBS.PA14>, Google Books.

This latter player, as well as another whom I consulted on the subject, considered that the tone was in no wise damped by the position of the body consequent on the absence of the peg.

(6). There is another disadvantage, slight though it may seem, attendant on its use. If not held firmly by the screw the peg may gradually retreat within the 'cello to the great discomfort of the unfortunate player. It is true that, as shewn in the drawing to Herr Schroeder's book, a wooden peg of constant length may be used; but then it may be, to use the phraseology of the advertisements, "of no use to anyone but the owner."⁶⁶

Arthur Broadley in his column *Chats to Cello Students* in *The Strad* noted that the endpin causes some performers to be over indulgent in their gestures, unlike the traditional Piatti:

Piatti, who does not use a 'cello peg, holds his instrument in a correct manner, not shuffling about or varying his position. Now if the reader ever has a chance of hearing Van Biene, let him observe the manner in which that artist holds his cello. We have here the two extremes; as Piatti is of the strictly correct order, Van Biene is of the exaggerated artistic order, all the time he is playing constantly striking some fresh attitude. If Van Biene had again to take to concert work, I have no doubt that he would calm down a little in this respect, his exaggerated style while being very effective on the stage, would not be tolerated on the concert platform.⁶⁷

Despite this criticism, the publication also has an image of Broadley playing with an endpin. He agrees with its use, as long as one is not too showy.

By all means let the student use a sliding-pin, but let him take advantage of the greater facilities which are offered, to make his attitude more artistic, always adopting the happy medium in this matter at least, correctness - without awkwardness, artistic grace - without unnecessary vain posing.⁶⁸

⁶⁶ Hodgkin, "Use of the 'Cello Peg," 14.

⁶⁷ Arthur Broadley, *Chats to Cello Students* (London: 'The Strad' Office, 1899), 7, accessed March 9, 2015, <http://www.gutenberg.org/files/42378/42378-h/42378-h.htm>, Project Gutenberg Ebook. Van Biene was known primarily for his role in a play, *The Broken Melody*, in which he played cello. It received nearly 6000 performances between 1892–1913. Kennaway, *Playing the Cello*, 15.

⁶⁸ Arthur Broadley, *Chats to Cello Students*, 7.

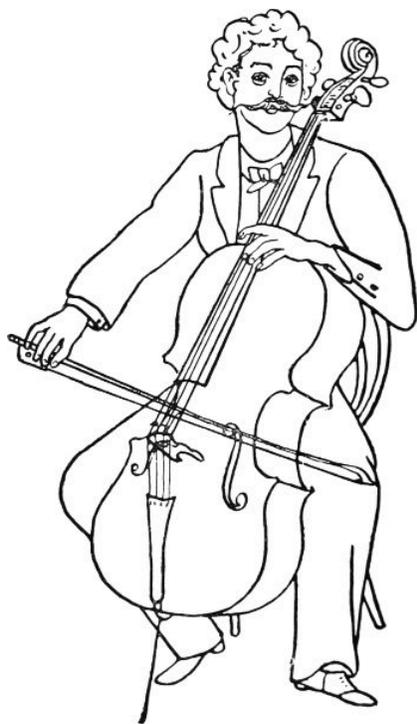


Figure 3.8 Arthur Broadley, *Chats to Cello Students*, posture illustration⁶⁹

Women and the Cello

As endpins were gradually adopted by all cellists around the turn of the twentieth century, another major change for the cello was taking place: the advent of professional female cellists. Because of societal restrictions on women and music, the endpin played an important role in the history of women and the cello. Russell states there is enough evidence to “suggest that women may have led men in adoption of the endpin.”⁷⁰

For much of the four centuries of the cello’s history, the cello (and many other instruments) was a taboo for women to play. Society dictated that women must always “look appealing and never compromise her feminine charm” when playing an instrument.⁷¹ For many generations, the only female musicians who were allowed to

⁶⁹ Arthur Broadley, *Chats to Cello Students*, 7.

⁷⁰ Russell, “The Development of the Cello Endpin,” 350.

⁷¹ Anita Mercier, *Guilhermina Suggia, Cellist* (Aldershot, England: Ashgate, 2008), 1.

perform professionally were singers, however “socially they were considered little better than musically talented courtesans.”⁷²

Keyboard instruments and singing were often preferred for women with musical ambitions; wind instruments “distorted facial features” and brass were deemed “too assertive.”⁷³ Abbé Carbasus acutely summed up the attitude towards women playing the cello and other similarly-shaped instruments such as the *viola da gamba* in 1739: “Decency, modesty, and the hoopskirt fashion effectively prohibit the fair sex from playing the viol.”⁷⁴ The posture required to hold a cello between the legs was considered unbecoming for a proper woman. Nevertheless, there are many sources depicting or describing female cellists throughout history.

Iconographic evidence of female cellists dates back through most of the cello’s history. According to Russell, the earliest known image of a female cellist dates from 1645.⁷⁵ However, *Concert champêtre*, seen in Figure 2.1, features a woman playing cello and dates to the sixteenth century.⁷⁶ Further paintings show women playing the bass violin, violone, and other cello variants. Saint Cecilia, the patron saint of music, is often shown in Catholic iconography playing the *viola da gamba*.⁷⁷ While Madame Henriette, daughter of Louis XV, was painted by Jean-Marc Nattier in 1754 with her *viola da gamba* (Figure 3.9), her sister Adelaide was known as a cellist.⁷⁸

⁷² Stephen Sensbach, “Cherchez Les Femmes,” *Strad* 120, no. 1428 (April 1, 2009): 46.

⁷³ Mercier, *Guilhermina Suggia, Cellist*, 1.

⁷⁴ *Ibid.*, 1–2.

⁷⁵ Russell, “The Development of the Cello Endpin,” 350.

⁷⁶ Although the exact age of this painting is unknown, it is safe to assume it was made in the sixteenth century. The exact artist is unknown; the source where it was found lists this image as “from the studio of Bonifazio de’Pitati.” Bonifazio de’Pitati died in 1553.

⁷⁷ Mercier, *Guilhermina Suggia, Cellist*, 2.

⁷⁸ *Ibid.*



Figure 3.9 Jean-Marc Nattier (1685–1766), *Anne-Henriette de France, Dite Madame Henriette (1727–1752) (1754)*⁷⁹

The orchestras of the *ospedali* conservatories in eighteenth century Venice featured young women playing all instruments, including the cello.⁸⁰ Unfortunately, iconographic evidence of these female cellists does not show their playing posture. In paintings by Francesco Guardi and Stefano della Bella, the lower portions of the cellos depicted are obscured by a railing.⁸¹ Written documents do not provide any more details. Visitors to the conservatories write that all female musicians were often completely hidden from view.⁸² Richard Edgume reviewed a performance he attended in 1784 at the Conservatorio dei Mendicanti in his *Musical Reminiscences, Containing an Account of*

⁷⁹ “Joconde – catalogue – dictionnaires,” Joconde Portail des collections des musées de France, accessed March 10, 2015, http://www.culture.gouv.fr/public/mistral/joconde_fr?ACTION=CHERCHER&FIELD_1=REF&VALUE_1=000PE007342.

⁸⁰ Ibid.

⁸¹ Russell, “The Development of the Cello Endpin,” 350.

⁸² Vanessa M. Tonelli, “Women and Music in the Venetian Ospedali” (master’s thesis, Michigan State University, 2013), 39, accessed March 22, 2015, <http://etd.lib.msu.edu/islandora/object/etd%3A1929/datastream/OBJ/view>.

the Italian Opera in England from 1773 (1834): “Not only all the vocal, but the instrumental parts were executed by women, concealed from view by a great gallery.”⁸³

It was some time before published treatises addressed both genders. Every image and text quoted in this chapter so far refer to the cellist as male. Van der Straeten was among the first to specifically address women. However, by the time his method was published, women were already holding the cello in the standard posture.

Ladies hold the violoncello in different ways. Some place the instrument in the ordinary way between the knees. This has now been almost universally adopted, because it brings the instrument under more complete control. The other methods, which were considered more graceful, have become almost obsolete on account of the obvious disadvantages.⁸⁴

Van der Straeten continues, offering several methods for ladies to hold the cello side-saddle, to be discussed in more detail in the following chapter. Playing side-saddle necessitates the use of an endpin to provide support and prevent the instrument from wobbling. Without the endpin, the cello essentially floats in midair with no support other than the left hand, which holds the entire weight of the instrument at an awkward angle.

Over the course of the nineteenth century, a handful of female cellists emerged onto the concert scene. Lisa Cristiani (1827–1853) made headlines as the first female solo cellist.⁸⁵ Cristiani received rave reviews following her Paris debut in 1844, the use of three exclamation points demonstrating the reviewer’s ecstaticism:

⁸³ Richard Edgcume, *Musical Reminiscences, Containing an Account of Italian Opera in England, from 1773*, 4th ed. (London: J. Andrews, 1834), 33.

⁸⁴ Van der Straeten, *The Technics of Violoncello Playing*, 19.

⁸⁵ Sensbach, “Cherchez Les Femmes,” 46.

“It is said that a female cellist (!!!) is appearing in a Paris salon, with the name Christiani-Berbier, admittedly to great applause. - These are the fruits of female emancipation!”⁸⁶

Well known for her musicality and elegance, Felix Mendelssohn dedicated his *Songs without Words, Op. 109, No. 38* to Cristiani after the two played an 1845 recital together.⁸⁷ Despite her prowess as a cellist, the sight of a beautiful young female cellist was a novelty for public audiences.⁸⁸ Cristiani had a successful but brief career, touring across Europe and Russia, making it as far east as the Chinese border and the Pacific Ocean.⁸⁹ Had Cristiani not passed away at the young age of 26 after contracting cholera in Siberia while on tour,⁹⁰ perhaps documentation would exist that indicates her playing posture. At present, no such proof has been found other than Broadley’s undocumented claim in another publication in *The Strad*:

It has been stated that the tail-pin first came into use on the advent of the first lady ’cellist (the same lady having inspired Mendelssohn to write his only violoncello solo.)⁹¹

It is likely Cristiani used an endpin, given the above discussion of society’s perception of women and the cello, but at present, it is impossible to make a conclusive statement on the matter.

Over time, the public’s attitude toward female cellists changed. A review of the 1860 Paris Conservatoire graduation completion decried female cellists, stating that “the attitude of a lady grasping with all her limbs a violoncello is one to the grotesqueness of

⁸⁶ *Allgemeine wiener Musik-Zeitung*, 4 (1844), 276 quoted in and translated by Kennaway, *Playing the Cello*, 186.

⁸⁷ Sensbach, “Cherchez Les Femmes,” 46.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Ibid., 47.

⁹¹ Russell, “The Development of the Cello Endpin,” 350.

which usage has not yet reconciled.”⁹² Others were more accepting; in 1862, Charles Dickens praised the playing of Elisa de Try, “It is not often that a young lady, scarcely seventeen years of age, reminds us of the tone and expression of Lindley.”⁹³ A pupil of Servais, de Try was known to have used an endpin.⁹⁴ Servais had at least three other female students: Anna Krull, Rosa Szük, and H elene de Katow, the latter of these pictured below in Figure 3.10 holding her cello with an endpin.⁹⁵



Figure 3.10 Photograph of H elene de Katow (ca. 1864)⁹⁶

While playing side-saddle solved one problem, it created a great number of technical challenges. Another solution was needed for women to play the cello. For any

⁹² Kennaway, *Playing the Cello*, 187.

⁹³ *Ibid.*

⁹⁴ *Ibid.*

⁹⁵ *Ibid.*, 190.

⁹⁶ *Ibid.*, 191.

but the simplest music, the side-saddle posture severely limited technical abilities and was quite impractical.⁹⁷ Despite its negative associations, some women played the cello in the standard posture, with the instrument held between the legs. To preserve their decency, as this was considered quite indecent by society, many women wore large dresses to hide their legs, as seen in the above photograph of Katow, Figure 3.10.



Figure 3.11 Thomas Sword Good (1789–1872), *The Power of Music* (1823)⁹⁸

An earlier painting from 1823 shows a female cellist in a similarly voluminous dress. There is clearly no endpin in Figure 3.11 so the cellist must be holding the instrument with her legs.

⁹⁷ Kennaway, *Playing the Cello*, 191.

⁹⁸ N.S. Lander, “Artists-G,” Recorder Home Page, accessed March 10, 2015, <http://www.recorderhomepage.net/recorder-iconography/artists-g/>.

By the turn of the twentieth century, it was generally acceptable for women to play with the same posture and setup as men, as demonstrated in Whitehouse and Tabb's 1911 revision of Piatti's treatise:

Experience has proved that the best way for ladies to hold the instrument is after the manner of the pan (using a peg), gripping the instrument if possible.⁹⁹

Women may have led men in the use of longer endpins. While Broadley recommended an endpin of twelve inches length for men,¹⁰⁰ he suggest twelve to sixteen inches for women.¹⁰¹ Russell states that "the long endpin increased the propriety of the cello for women since it enabled them to hold the instrument farther away from the body."¹⁰² The influx of female cellists in the early twentieth century very well may have influenced men by advocating for the technical developments they achieved by using a longer endpin.

Historically Informed Performance Practice of the Baroque Cello

During the last quarter of the nineteenth century and into the twentieth, the endpin was gradually adopted by the majority of professional cellists.¹⁰³ Eventually, this change was completely universal. Now, over a century since most cellists used an endpin for the first time, it is a standard part of every cello. Instruments with a Baroque setup are the only cellos where the endpin has not replaced the button, like a violin or viola. The Baroque cello, as it is now known, refers to instruments built or modified, and played

⁹⁹ Piatti, *Violoncello Method, Volume I*, [ii].

¹⁰⁰ Broadley, *The Violoncello: Its History, Selection, and Adjustment*, 39.

¹⁰¹ Russell, "The Development of the Cello Endpin," 352.

¹⁰² *Ibid.*, 353.

¹⁰³ Kennaway, *Playing the Cello*, 16.

accordingly, to recreate cellos as they were made in the Baroque era.¹⁰⁴ Beginning in the mid-twentieth century, the historically informed performance (HIP) movement seeks to recreate the sound world of past eras through scholarly research.¹⁰⁵ Cellos, as well as the other members of the violin family, have evolved a great deal over the centuries. Paul Laird sums up these changes:

Besides the size of the cello, its setup changed a great deal during the Baroque as players dealt with new technical demands. The neck became longer and thinner and by the end of the period basically resembled the modern neck. The bridge changed less radically but was carved in different shapes. The fingerboard became longer, and as the eighteenth century passed it was set higher as more volume was required from the instrument. The bass-bar became longer during the eighteenth and nineteenth centuries, a change that, along with others, made the cello louder.¹⁰⁶

Oddly, Laird does not discuss the endpin in this description of the cello's evolution. In fact, his book makes very few mentions of the endpin at all, doing no more than to occasionally state that an important Baroque cellist does not use one. This seems to imply that *da gamba* posture is a basic tenet of HIP cello.

However, with the lack of written documentation about how the cello was held prior to Corrette's 1741 treatise, it is difficult to know exactly how to hold the instrument in a Baroque style. We know far more about the construction of instruments from that era, as seen in the cello's historical iconography, than we do about playing them stylistically. Iconographic evidence shows that endpins have been used throughout history, before Servais started using one in the mid-nineteenth century. Russell asserts that one can give an authentic performance with an endpin:

¹⁰⁴ Laird, *The Baroque Cello Revival*, xi.

¹⁰⁵ *Ibid.*

¹⁰⁶ *Ibid.*, xiv.

There is no good reason why the Baroque and Classical literature for cello may not be performed with an endpin, provided the endpin is kept fairly short by today's standards.¹⁰⁷

Russell also states that the use of an endpin can be dictated by the context of the part being played:

These ... allow us to envision an "authentic" modern performance of an eighteenth-century cello concerto in which the soloist is seated without endpin, while the ripienists stand with endpins. Should the ripienists prefer to sit, their use of short endpins is justified by iconographic evidence.¹⁰⁸

However, this claim largely ignores the importance of *da gamba* posture. The evidence from method books that advocates for *da gamba* posture was clearly favored by pedagogues as the best and proper method of holding the instrument. Corrette wasn't reinventing cello technique in 1741 with his disapproval of endpins. *Da gamba* style presumably grew out of a tradition that had not previously been codified.

Most modern cellists continue to use an endpin when playing literature from the Baroque, Classical, and Romantic eras. We are taught a technique based on the use of a long, adjustable endpin. However, it is worth the extra time to experiment with either *da gamba* style or a short endpin while practicing earlier repertoire, whether it is used in performance or not. While we may not know exactly how the cello was held during the 1720s when J.S. Bach wrote the six suites for unaccompanied cello, for example, it is valuable to take into consideration how an altered playing position might affect a performance. One will notice that certain bowings, articulations, phrasings, and fingerings are more or less intuitive when using *da gamba* posture.

¹⁰⁷ Russell, "The Development of the Cello Endpin," 355.

¹⁰⁸ Russell, "New Light on the Historical Manner of Holding the Cello," 75.

CHAPTER 4: TECHNIQUE

This chapter will examine the evolution of cello technique over the past several centuries from the perspective of the parallel evolution of the endpin. Many extensive works have been written on the development of all aspects of cello technique. None explicitly present the narrative told here. As there is little written evidence about cello technique prior to Corrette's 1741 treatise, iconographic evidence will be analyzed as an alternative.

Only certain aspects of cello technique will be addressed in this analysis. Some developments, such as the evolution of fingering systems, the bow hold, and hand shape, are less relevant here. I will focus on the basic posture and setup of the instrument in relation to the torso and legs, discussing primarily the left and right arms as they relate to the instrument.¹

From the earliest playing positions to the technique used today, the evolution of cello playing has sought to reduce tension in the body, everywhere from the largest muscles of the back and shoulders to the smallest in the fingers. Excess tension has an adverse effect on technique; the release of tension from the body allows the sound to open and blossom.²

Early Technique

There are few written documents about cello technique prior to the mid-eighteenth century. Corrette's method book of 1741, was the first complete treatise on

¹ Appendix B presents the author's discussion of his experiments with and reactions to the postures discussed in this chapter.

² Bonnie Hampton, "How to Avoid Tension in the Bow Arm," *The Strad*, October 14, 2014, accessed March 12, 2015, <http://www.thestrاد.com/cpt-latests/how-to-avoid-tension-in-the-bow-arm-by-cellist-bonnie-hampton/>.

playing the cello.³ Older iconographic evidence shows the cello was held in a variety of manners. When played from a seated position, the instrument was often rested on the floor (Figure 2.1) or propped up by a device (the cellist's foot in Figures 2.2 and 2.3, a short stool in Figure 2.4). The cello was also played standing, (elevated by a larger lifting devices such as a barrel in Figure 2.5 or held with a strap, Figure 2.6). Long endpins were also used when standing, as described in *Musikalisches Handwörterbuch*.⁴

Concert champêtre (Figure 2.1) depicts a woman playing cello with the instrument resting on the ground. The cello appears to be held in place by the legs, with the left knee in the left bout. With the instrument so low to the ground, the cellist must lean quite far forward and to the right to access an appropriate contact point for the bow on the string, relatively near the bridge. If she was sitting upright without leaning, the contact point would be much higher up. As such, her torso is quite distorted, creating tension in the twist and uneven shoulders. Bonnie Hampton reminds us: "Twisting the spine or having shoulders at different angles or heights creates tension: again, this is not how you would sit in a chair without the instrument."⁵ This posture also causes the neck of the cello to be quite far away from the body. The left arm approaches from behind, bending significantly at the wrist. There is a surprising similarity in the cellist's left arm and the left arm of the man playing lute, second from the left. At such an angle, it is quite uncomfortable to finger notes with the left hand on the cello.

³ Kennaway, *Playing the Cello*, 2.

⁴ Russell, "New Light on the Historical Manner of Holding the Cello," 73.

⁵ Hampton, "How to Avoid Tension in the Bow Arm."

Other paintings show musicians playing the cello in a similar manner. Although there are many similarities to the cellist in *Concert champêtre*, neither of the cellists in the two examples below, Figures 4.1 and 4.2, are quite as extremely distorted.



Figure 4.1 Jan Molenaer (ca. 1610–1668), *Family Portrait* (ca. 1650)⁶

The cellist in Figure 4.1 still leans the right, although not as far as the woman in *Concert champêtre* (Figure 2.1). As his torso is closer to the instrument, the left hand does not approach the fingerboard at such an extreme angle.

⁶ Andrew M. Hartig, “Renovata Cythara – Artwork Picture Gallery,” The Renaissance Cittern Site, last updated June 21, 2012, accessed March 12, 2015, http://www.theaterofmusic.com/cittern/art/molenaer_family.html.



Figure 4.2 Jan Jozef Horemans (1682–1759), *A Musician Playing the Violoncello in a Landscape with Classical Statuary and Ruins*⁷

Somehow, the cellist in Figure 4.2 manages to find the most balanced and symmetrical posture with the instrument on the ground. Of these three cellists, the latter seems to have the best grasp on the instrument with his legs.

To make things a bit easier to support and rotate the cello, the framework of the left hand can be distorted to look somewhat like a violinist’s left hand, as seen in image 4.3. This hand shape was adopted from the violin, in an era when “no distinction was made among violin instruments regarding the playing position of the hand, and the

⁷ “A Musician Playing the Violoncello in a Landscape with Classical Statuary and Ruins by Jan Josef Horemans the Elder,” Artnet, accessed March 12, 2015, http://www.artnet.com/artists/jan-josef-horemans-the-elder/a-musician-playing-the-violoncello-in-a-landscape-3kpvhvJ6tbczRlSX6P5_4w2.

descant and bass instruments were played in exactly the same way.”⁸ John Gunn confirmed this in his 1789 treatise, *The Theory and Practice of Fingering the Violoncello*.

He describes this hand shape as:

The position [...] formerly much in use, and originating probably from the position of the hand on the Violin, in which it is the best practicable, is given as a beacon to avoid; the fingers tending to an oblique direction, as expressed by the dotted lines, cannot be corrected without very long practice.⁹



Figure 4.3 John Gunn, *The Theory and Practice of Fingering the Violoncello*, left hand illustration¹⁰

As the thumb is held parallel to the neck, this left hand shape helps stabilize the instrument. The thumb has much more contact with the neck which allows the left hand to more easily manipulate and tilt the instrument to whatever angle is needed. As Gunn

⁸ Bettina Schwemer and Douglas Woodfull-Harris, eds. “Text Volume,” in J.S. Bach *6 Suites a Violoncello Solo senza Basso, BWV 1007–1012*, (Kassel: Bärenreiter, 2000), 17. Incidentally, I have noticed that many modern violinists tend to shape their left hand much like what is seen in Figure 4.3 when asked to play cello.

⁹ John Gunn, *The Theory and Practice of Fingering the Violoncello* (London: the author, 1789), 6 quoted in Kennaway, *Playing the Cello*, 41.

¹⁰ Kennaway, *Playing the Cello*, 42.

cautions, this hand position is to be avoided as it is less efficient and practical than the chromatic fingering system. The chromatic fingering system, the essentials of which form the foundation of the left hand technique still used today, was devised by early French cellists who adapted viol technique to the cello, creating a hand shape where the thumb is essentially perpendicular to the neck.¹¹

Although he uses a stool, the cellist in *Lesson of Singing* (Figure 2.4) also appears curiously lopsided, hunched over and leaning to his right. With the use of a stool, the cello is not quite as low to the ground and thus, the posture is not quite as extreme as that seen in *Concert champêtre*. The bend in his left wrist is not as pronounced.

The use of a stool, or other similar lifting device, can be problematic if it is of the wrong height. Ideally, the height of the stool would be dictated by the height of the seat being used and the length of the cellist's legs. However, while each individual lifting device is of fixed height, chairs frequently vary.

Many of these early positions place the body in an awkward and unbalanced posture. The discomfort they create proves quite physically demanding. It is difficult to imagine playing for longer periods of time in these postures without some part of the body becoming tired or growing cramped and sore. Imagine propping the cello up on one's foot for an extended period of time, as seen in the engravings by Simon de Passe, Figures 2.2 and 2.3. The position of the cellist's foot in the latter image, which pivots up from the heel, looks especially tiring and painful if maintained for any significant amount of time.

¹¹ Wijsman, "Violoncello," in *Grove Music Online, Oxford Music Online*. The pictured hand shape, taken from violin, produces a diatonic fingering system, whereas the latter hand shape, adapted from viol, is based on chromatic half steps.

Standing to play the cello presented a different array of problems. Recall the cellist seen standing in Figure 2.5 with his cello elevated on a large barrel. Without the support of the legs on the sides of the instrument, it would be difficult for this cellist to steady the instrument as it is played. Standing to play the cello this way puts the entire weight of the instrument in the left hand. The cellist would need to maintain a constant firm grip to prevent the instrument from falling. This reduces mobility of the fingers to move around the fingerboard. The posture is severely restricting, one could only play the simplest of lines, limited in range and speed. Petri described this problem in *Anleitung zur praktischen*:

Since the instrument with the endpin wobbles, one cannot shift well with it, but one must be content with fingering that allows one to keep a firm grasp, and this is only [possible] in the first position where the hand grips the neck of the cello.¹²

Petri also mentions another issue here that is associated with a very long endpin. To play standing, the endpin would need to be quite long, probably several feet. At such lengths, the material is flexible. The cello does not feel steady under the hand as it the endpin flexes.

The cellist seen in the unknown drawing by Leonard Bramer in Figure 2.6 can be analyzed as an example of technique when the cello is played walking, supported by a strap. The left hand is not restricted to holding the neck, as when the cello is played standing with an endpin or other lifting device, allowing the fingers to move more freely. However, in this example, the cello is severely tilted to the left. This moves the fingerboard quite far away from the left hand, similar to the cellists in Figures 2.1 and 4.1

¹² Petri, *Anleitung zur Praktischen Musik*, 417 quoted in and translated by Hizer, “Performance Practice According to Johann Samuel Petri’s *Aneitung zur Praktischen Musik*,” 180.

who play with their cellos on the ground. The left wrist bends significantly so the fingers can approach the fingerboard, creating tension in the arm, wrist, and hand, and restricting mobility of the fingers. Additionally, the added weight of the instrument would presumably be tiring on the back and shoulders, especially since the cellist would likely be on their feet for an extended period of time, marching in a processional or playing at a dance. Increased stress on the back and shoulders creates tension in the body, negatively affecting technique.

A new product, the Block Cello Strap, by cellist Mike Block will be released in 2015, after the publication of this document. Block appears in several YouTube videos¹³ using the device, which allows him to “stand/move/dance while playing the cello!”¹⁴

Da Gamba Posture

Every cello treatise from 1741–1878 advocated that the cello be played *da gamba* style.¹⁵ Each method essentially described the same posture, that most of the weight of the cello rest on the left calf with some support from the right leg, as exemplified here by Jean-Louis Duport in his 1806 *Essai sur le Doigté du Violoncelle*:

The hold of the cello between the legs varies a lot, according to people’s different habits and sizes. One can very well play, holding the instrument a little higher or lower. This is the manner most used, which must be the best. One must first sit towards the front of the chair, bringing the left foot

¹³ Mike Block, “The Block Strap Preview Video – ‘Bach in the Streets’,” YouTube, accessed March 25, 2015, https://www.youtube.com/watch?v=-P_LSwDUIwQ.

¹⁴ The Block Strap, “The Block Strap | The first product designed so you can stand/move/dance while playing the cello!,” Cellostrap.com, accessed March 25, 2015, <http://cellostrap.com/>.

¹⁵ With the exception of Crome’s *Compleat Tutor*, ca. 1765, which lists the endpin as an option but only after *da gamba* posture is described. Following Rabaud’s method in 1878, which was the next to discuss the endpin, it was still decades until all published treatises did so as well. In those interim years as the endpin gained popularity, there were many that said either was an acceptable option, or specifically advocated one option over the other.

well forward, and the right closer: then place the instrument between the legs, so that the lower left hand corner bout is by the left knee joint, and the weight of the instrument is borne by the left calf: and above the left foot. If the knee is opposite this bout, it will prevent the bow passing easily, when one wishes to use the A string. The right leg is placed against the curve below the instrument, to hold it securely.¹⁶



Figure 4.4 Eugène Fichel (1826–1895), *The Violoncello Player* (ca. 1867)¹⁷

The cellist seen above (Figure 4.4) in a painting by Eugène Fichel, ca. 1867, presents a fairly accurate depiction of the posture Duport describes, although in this example the front of the cello is at a bit of an angle as the cello leans on the left thigh. This limits access to the low strings. To compensate, the cellist angles the bow, rather

¹⁶ Jean-Louis Duport, *Essai sur le Doigté du Violoncelle* (Paris: Imbault, 1806), 5, quoted in and translated by Kennaway, *Playing the Cello*, 4.

¹⁷ “The Violoncello Player,” BBC, accessed March 10, 2015, <http://www.bbc.co.uk/arts/yourpaintings/paintings/the-violoncello-player-45421>.

than playing completely perpendicular to the strings, to avoid hitting the right leg or torso. However, it still looks likely that the bow will hit his leg unless he awkwardly uses small bows on the low strings. This will negatively affect the sound, as will the angled bow that he plays with.



Figure 4.5 Bernhard Romberg, *Violoncellschule*, posture illustration¹⁸

A few pedagogues called for small changes to the basic setup of *da gamba* posture. Kummer was the first of many to dictate that the legs should minimize contact with the instrument to avoid dampening resonance. While most treatises called for the left foot to be in front of the right, Bernhard Romberg and Georg Kastner preferred to hold the feet on the same plane, as can be seen comparing the cellists' feet in Figures 4.4 and 4.5.¹⁹

¹⁸ Kennaway, *Playing the Cello*, 5.

¹⁹ Kennaway, *Playing the Cello*, 5.

By keeping his feet on the same level, Romberg's right leg is completely in front of the cello, rather than holding it by the edge. Compared to the image by Fichel above, this makes Romberg more balanced, especially in the lower body and legs, which more evenly distributes the cello's weight.²⁰ Experimentation with this posture shows that it also causes the cello to be more vertical.²¹

The codification and standardization of *da gamba* posture allowed cellists to play with much less tension throughout the body. Iconography of this posture (often pictured in method books, such as in Figures 3.6 and 4.5, as well as in painting, Figure 4.4) shows that the cellist sits upright²² and fairly balanced, unlike the cellist who holds her cello on the ground in Figure 2.1. An upright posture, as first codified by the standardization of *da gamba* posture, is a central tenet of modern cello playing, as described by Milly Stanfield's 1973 method book:

The position of the player at the instrument is of great importance here. Sitting upright like a good rider, the back straight but never rigid, shoulders squared and feet planted firmly on the ground, is not only to be advocated from an aesthetic point of view. It gives suppleness and freedom to the whole system and allows liberty of action to the muscles behind the shoulder-blades which control the arms and hands.²³

Sitting upright significantly reduces tension throughout the body, especially in the back, when compared to holding the cello on the ground. Tension in one part of the body can create tension elsewhere:

²⁰ Ibid., 5–6.

²¹ Ibid., 6.

²² Most methods begin their description of posture by stating that one should sit at the front of their seat, such as Duport above. In most cases, this automatically makes one sit up straight.

²³ Milly B. Stanfield, *The Intermediate Cellist*, (London: Oxford University Press, 1973), 4.

Avoid rigidity in any joint. Stiff fingers on the bow will tighten the arm and back muscles. This results in tension that affects the left hand as well as the bow-arm.²⁴

However, *da gamba* posture does have a negative effect on the legs. The legs must maintain a certain level of strength and energy to support the instrument. This strength and energy can easily turn into tension. The cello frequently shifts while playing, making small movements where it touches the legs. To compensate, the legs can gently squeeze the sides of the instrument to hold it in place. This tension in the legs can spread up through the body. If the instrument continues to move, the left hand can return the cello to its original position. However, this can be very difficult to do while playing without stopping, even for a brief moment. As noted in Chapter 2, Hodgkin described this problem in 1897:

That if the peg is not used the player is constantly lifting up, and shifting the position of his instrument; that to do this pressure must be taken from the fingers, and that consequently the stopping is less firm and the tone less good.²⁵

²⁴ Lillian Rehberg Goodman, *The Development of Cello Hands: a Supplementary Method for Developing Basic Technique for Beginning and Intermediate Students* (Bryn Mawr: T. Presser, 1978), 5. In my experience, freeing tension in the back has a ripple effect, easing tension through the shoulders, down the arms, to the hands and fingers. The left hand can more easily access the length of the fingerboard and the right hand has more flexibility to manipulate the bow for a variety of bow strokes and articulations.

²⁵ Hodgkin, "Use of the 'Cello Peg," 14.

Early Endpins from the Nineteenth Century

When endpins were first popularized by Servais, they were relatively short and essentially kept the cello in the same position relative to the body as *da gamba* posture. Werner recommended a general endpin length, relative to the size of the cellist in 1882 in his *Praktische Violoncell-Schule, Op. 12*:

When using a peg at the bottom of the instrument, it is necessary to have it so long, that the lowest screw [the C string peg] reaches the left ear at about two or three inches distance, so as not to run the risk of knocking the left knee with the bow in striking the A string.²⁶



Figure 4.6 Percy Francis Gethin (1874–1916), *A Sonata of Daicellos* (1907)²⁷

²⁶ Werner, *Praktische Violoncell-Schule, Op. 12*, 3, quoted in Kennaway, *Playing the Cello*, 10.

²⁷ “A Sonata of Daicellos,” BBC, accessed March 10, 2015, <http://www.bbc.co.uk/arts/yourpaintings/paintings/a-sonata-of-daicellos-122043>.

The cello was essentially in the same position as when supported by the legs without an endpin, rather low to the ground and vertical. *A Sonata of Daicellos* by Percy Francis Gethin, Figure 4.6, shows a cellist in this posture.²⁸ The endpin appears to be rather short, probably only about eight inches long.

Compare the cellist in Figure 4.6 to the one seen earlier in Figure 4.4. The posture is very similar here with the endpin. Even the left foot is slightly forward. This cellist retains all the technical benefits made possible by *da gamba* posture but with the added bonuses of the endpin's enhanced acoustics and reduced fatigue on the legs.

With the endpin, the legs are also free to truly influence technique. Freeing the legs allows for greater control over shifts, as discussed by Gerhard Mantel in his 1972 treatise, *Cello Technique*. The most efficient and precise shifts begin with energy in the legs.²⁹ Shifting causes the torso to rotate slightly to either the right or left (for ascending or descending shifts respectively), which causes a corresponding movement in the pelvis in the opposite direction.

To stabilize the base in relation to which the movement on the fingerboard takes place, the strong leg musculature is employed. Instead of accepting a jolt,... the base can be strengthened *before* by activating the leg musculature: for the ascending shift by using the muscles of the left leg, for the descending shift by using those of the right leg.³⁰

Many pedagogues have noted that the endpin reduces tension when playing, frequently comparing the endpin to *da gamba* posture. De Swert wrote in 1882 in favor of the endpin: "In my opinion this [the endpin] is perfectly right, because, by this

²⁸ Also see Figures 3.4 and 3.5.

²⁹ Gerhard Mantel, *Cello Technique: Principles and Forms of Movement*, trans. Barbara Haimberger Thiem (Bloomington: Indiana University Press, 1975), 43.

³⁰ *Ibid.*

system,... the position of the body [is] freer.”³¹ In contrast, he describes *da gamba* posture as “uncomfortable” and “ungraceful.”³² In 1898, van der Straeten wrote that *da gamba* posture has “the disadvantage of giving the instrument a rather upright position, rendering it somewhat stiff”; meanwhile, he says the endpin has the “advantage of steadying the instrument.”³³

Recall from the quote above by Hodgkin, he does acknowledge it has technical benefits, despite his overall criticism of the endpin. These methods all recognize that using an endpin reduces tension, making the technique more efficient.

A Longer Endpin

Emanuel Feuermann (1902–1942) was known for his “astonishing technical facility [that] made him the first cellist to play with the ease of a violinist.”³⁴ Research does not show such any earlier cellist receiving this kind of praise. It is more than just coincidence that the first cellist to have the same dexterity on the fingerboard as a violinist comes from the era when longer endpins were adopted and cello technique taken to a new place for the first time.

The use of a longer endpin allowed for significant changes in cello technique, allowing the cellist to increase efficiency and reduce tension. This development led to the approximate technique that is used by most cellists today. The longer endpin raises the cello so the top of the instrument is angled more horizontally, contrasting with previous

³¹ De Swert, *The Violoncello*, 4, quoted in Kennaway, *Playing the Cello*, 9.

³² Romberg, *Violoncelloschule*, 4, quoted in and translated by Kennaway, *Playing the Cello*, 12.

³³ Van der Straeten, *The Technics of Violoncello Playing*, 18–19.

³⁴ Annette Morreau, “Feuermann, Emanuel,” in *Grove Music Online*, *Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/09566?goto=feuermannemanuel&type=biography&pos=2> (accessed March 11, 2015).

postures that made the instrument almost completely vertical. This change has huge ramifications for how both arms approach the instrument.

The longer endpin allows for increased efficiency and a broader range of tools available to the right arm and hand to adjust the sound with the bow. There are three main variables a cellist has to change their sound with the bow: the bow's speed as it moves across the strings, the contact point where the bow hair touches the strings between the fingerboard and bridge, and the amount of arm weight that allows the bow to sink into the strings.³⁵ A more horizontal cello has significant ramifications for this last factor. When the cello is vertical the effective weight of the arm is less than when the instrument is slanted.³⁶ The use of a Tortelier endpin amplifies this effect by raising the bottom of the cello even higher, making it more horizontal. A vertical cello requires one to more actively press the arm's weight into the string, which can create tension in the body and in the sound. The sound easily becomes forced. With a more horizontal cello, one can play more relaxed and freely, producing more sound (and more varieties of sound) with less effort.

At the horizontal angle, rather than vertical, the left hand has easier access to the upper fingerboard and higher positions. *Da gamba* posture (and that with early short endpins, which closely resembled *da gamba* posture) angles the cello fairly significantly to the left. This limits ease of access to the high positions because the fingerboard, especially at its end, is literally farther away. The arm must reach around the shoulder or upper bout of the cello and the hand must physically move farther to access the positions of the upper fingerboard. A more horizontal cello brings easier access to the upper

³⁵ Mantel, *Cello Technique*, 125.

³⁶ *Ibid.*, 161.

positions because it brings the fingerboard closer to the torso. Large shifts from a lower position to higher (or higher to lower) can be executed faster and with less effort because the arm does not have to move as far. The longer endpin allows the cellist to relax and move more naturally, rather than having to adjust to make it around an awkward part of the instrument.

Technical Restrictions Imposed on Women

Female cellists were expected to compromise the standards of cello technique to maintain decency, although this convention was gradually abandoned as the use of the endpin was standardized. The alternative postures suggested for women severely limited access to the fingerboard, awkwardly and unevenly distorting the body. Without the support of the legs on either side of the instrument, the cello was also less stable.

Van der Straeten offered three postures for women in his 1915 cello method book, despite his note that these postures had “obvious disadvantages” and were now considered obsolete.³⁷

The first and better of these ways of holding the instrument is to turn both legs to the left, bending the right knee and placing it under the left one. The left edge of the back should rest against the left knee, and the instrument against the chest, in a slanting position.

The second is to rest the right knee on a cushion or stool concealed by the back of the instrument, the latter leaning against the left knee.

Some ladies cross the right leg over the left, and rest the instrument against the right leg. This is, however, not to be recommended, as it necessitates a forced and unnatural position of the whole body in handling the instrument.³⁸

Without the support of the legs, an endpin had to be used. The cello is suspended in midair if a lifting device is not used with these side-saddle postures, seen below in

³⁷ Van der Straeten, *The Technics of Violoncello Playing*, 19.

³⁸ Ibid.

Figure 4.8. The entire weight of the cello would need to be supported by the left hand. As discussed earlier, this would severely limit speed and range. However, in the examples discussed above where the left hand supports the instrument, the weight of the cello was also supported by something in addition to the hand, such as the floor or a barrel. Side-saddle without an endpin would be the only posture that required the entire weight of the instrument to be held in the hand.

One of the biggest problems with side-saddle posture is stability of the instrument. Without the support of the legs, it will easily rock back and forth when played, as the back of the cello is convex while the thigh it rests upon is relatively flat. Even a small extraneous movement can cause “imprecision at the extremities, i.e. in the fingers on the fingerboard.”³⁹ Many passages become exceedingly difficult or are completely impossible to play well when the instrument is moving and unstable.

Beatrice Harrison (1892–1965⁴⁰) was photographed throughout her career using an endpin. She can be seen in a variety of side-saddle postures, such as in these promotional images from the BBC for her nightingale concert radio broadcast.⁴¹

Although Harrison appears gracefully perched on a table in Figure 4.8, she must surely have been posed this way by a photographer. The posture is completely impractical for

³⁹ Mantel, *Cello Technique*, 43.

⁴⁰ Margaret Campbell, “Harrison, Beatrice,” in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/12441?goto=harrisonbeatrice&type=biography&pos=1> (accessed March 8, 2015).

⁴¹ Robert Seatter, “Beatrice Harrison, Cello and Nightingale Duet 19 May 1924,” *About the BBC Blog*, May 19, 2010, accessed March 10, 2015, <http://www.bbc.co.uk/blogs/legacy/aboutthebbc/2010/05/beatrice-harrison-cello-and-ni.shtml>. Harrison convinced the BBC to broadcast a live radio performance from her garden, a duet with cello and nightingales. The popular event was repeated annually for twelve years.

actually playing the cello with the entire weight of the instrument in the left hand. As this image is so obviously posed for the camera, I question whether the former photo is similarly false or an accurate portrayal of Harrison's side-saddle posture.



Figure 4.7 Photograph of Beatrice Harrison sitting side-saddle⁴²; **Figure 4.8** Photograph of Beatrice Harrison sitting on a table⁴³

Regardless of possible doubts about the former image being an accurate representation of Harrison's posture, we can use it to comment on playing side-saddle. In Figure 4.7, Harrison appears to be playing in van der Straeten's favorite of the three postures he describes, side-saddle with the right knee folded under the left. It is difficult to tell from the angle of this photo but it appears possible that Harrison could secure the

⁴² Seatter, "Beatrice Harrison, Cello and Nightingale Duet 19 May 1924."

⁴³ Ibid.; "The Remarkable Moment the BBC were Forced to Pull Plug on World War II Birdsong Broadcast as Bombers Flew Overhead," *Daily Mail*, January 28, 2012, accessed March 10, 2015, <http://www.dailymail.co.uk/news/article-2093108/The-remarkable-moment-BBC-forced-pull-plug-World-War-II-birdsong-broadcast-bombers-flew-overhead.html>.

cello in place by tucking the lower left bout on the back of the instrument under her knee.⁴⁴

Figure 4.7 also demonstrates the imbalance in the body's symmetry created when playing side-saddle. While cello technique is inherently unbalanced to some degree as the function of each arm is completely different and independent to the other, overall the body, especially the torso, is symmetrically balanced. The added imbalance of playing side-saddle creates tension.⁴⁵ Furthermore, the legs are no longer free to aid in shifting, as discussed above. Similar to *da gamba* posture, it appears as though side-saddle would be quite tiring and could cause the legs to cramp or ache if they are held in this awkward bend for an extended period of time.

In an era when shorter endpins were still preferred, some pedagogues suggested women use longer endpins. Broadley recommended a length of twelve to sixteen inches for women, in contrast to the length suggested for men by de Swert, Forino, and Broadley: seven to twelve inches.⁴⁶

Guilhermina Suggia appeared in a striking portrait in 1923 playing with quite a long endpin, which contrasts greatly with the short endpin seen above in Figure 4.6 from 1907.

⁴⁴ This may provide some stabilization. However, I have been unable to achieve much stability this way in my own experiments with this posture.

⁴⁵ In this image, I see tension spreading up from Harrison's legs into the lower back and from there up through the rest of her body.

⁴⁶ Russell, "The Development of the Cello Endpin," 352.



Figure 4.9 Augustus John (1878–1961), *Madame Suggia* (1920–1923)⁴⁷

At present, there is not enough concrete information to definitively conclude that women were solely responsible for the technical developments made possible by using a longer endpin. However, it does seem quite likely that they had significant influence. The early twentieth century saw many young women take the stage as cellists, establishing themselves as some of the top soloists, orchestral players, chamber musicians, and pedagogues. It seems likely that there is a correlation between these two events happening in the same era: a new proliferation of female cellists using longer endpins and the development of a new cello technique based on the use of a longer endpin.

⁴⁷ “‘Madame Suggia’, Augustus John OM,” Tate Modern, accessed March 10, 2015, <http://www.tate.org.uk/art/artworks/john-madame-suggia-n04093>.

CHAPTER 5: REPERTOIRE

The concluding chapter of this document presents the culmination of the discussion so far, bringing together each narrative of the endpin's history. From this perspective, the chapter will chronicle changes in the repertoire for cello in many genres of music. The study here is not intended to be a conclusive account of the entire cello literature, but will instead look at specific moments when the two histories coincide. At some times the two histories, that of the endpin and that of the repertoire, do not line up.¹

While the evolution of the endpin and the posture used to play cello have had significant impact for cellists, it is often not as easy to find direct influence on composition. Russell argues that "It is fruitless to search for some significant increase or change in the technical difficulty of cello music around the turn of the twentieth century."² However, there are several distinct moments in the history told in this document when the endpin changed cellists' approaches to the instrument. In many instances, with this new technique came new repertoire.

The Cello as a Supporting Instrument

For much of its early history, the cello was a simple instrument largely restricted to bass lines and supporting roles, such as basso continuo. A 2005 publication, *Performance Practice: a Dictionary-guide for Musicians*, sums up what we know of the cello's earliest years:

No piece of cello music remains from the 16th century. The reason most likely is that it was employed mainly in popular contexts, as Zacconi

¹ During the century between Corrette's treatise advocating *da gamba* posture and the popularization of the endpin, the history of cello music changed significantly although the history of the endpin was more or less at a standstill as only *da gamba* posture was used by concert cellists.

² Russell, "The Development of the Cello Endpin," 353.

(1592) reported. Iconography shows its presence at dances and weddings or in processions, where the walking performer held up the instrument by means of a strap over the shoulder.³

The cello was originally used as a folk instrument. Although the cello was adopted into art-music, largely replacing the *viola da gamba* as a preferred continuo instrument,⁴ it has continually been used in folk music settings.⁵ Petri alluded to this in *Anleitung zur praktischen* (1782), implying that the cello is used in folk music in taverns, as he discussed the cellist's responsibility to maintain a clean instrument:

The cello must always be kept clean inside and out. Dust and dirt dampen the sound, and leaving them on the outside of the instrument would bring no honor to the player. At least it would cast a bad impression on his cleanliness in general. A dirty instrument belongs in village taverns.⁶

The nineteenth century engraving seen in Figure 2.5 presents an example of the cello played in such a context from yet another era. Johan Gustaf Ruckman depicts a tavern scene, the cellist standing with his instrument supported by a barrel.

The earliest surviving repertoire to feature the cello contained only a relatively simple line, seen here (Figure 5.1) in an excerpt from a 1609 motet, *O salutaris hostia in Motetti à due, & tre voci, Op. 2* by Caterina Assandra. Scored for the violone, it would likely have been played entirely in first position without shifting the left hand.⁷

³ Jackson, "Cello," in *Performance Practice: a Dictionary-guide for Musicians*, 71.

⁴ *Ibid.*, 70–71.

⁵ Even today, the cello is frequently used in pop music, by bands from all genres: rock, hip-hop, jazz, and folk music, to name a few.

⁶ Petri, *Anleitung zur Praktischen Musik*, 417 quoted in and translated by Hizer, "Performance Practice According to Johann Samuel Petri's *Anleitung zur Praktischen Musik*," 180.

⁷ Bonta, "Violoncello," in *Grove Music Online, Oxford Music Online*.



Figure 5.1 Caterina Assandra, “O salutaris hostia” from *Motetti à due e tre voci*, *Op. 2*, excerpt from score⁸

The cello gradually replaced the *viola da gamba* as the preferred bowed continuo instrument.⁹ Basso continuo or continuo refers to the instrumental bass line or the instrument (or group of instruments) playing said line in music from the seventeenth and eighteenth centuries.¹⁰ By the 1690s, a continuo line of harpsichord and cello had become a standard grouping in Italian cantatas.¹¹ In such instances where a group of instruments plays the continuo line, a keyboard instrument or plucked string instrument was often paired with a bass instrument, frequently the viol, cello, or bassoon.¹² These instruments were paired with the plucked instrument because they (viols, cellos, bassoons) could sustain notes while the other could not.¹³ This practice began as an accompaniment to recitatives in early operas and oratorios, some early genres of vocal monody, and early instrumental works such as violin sonatas.¹⁴ While the chordal instrument improvised over a simple bass line with arpeggiations, chords, and other ornamentation, the bass instrument doubled the bass line of the chordal instrument, adding another sonority to the

⁸ Bonta, “Violoncello,” in *Grove Music Online*, *Oxford Music Online*.

⁹ Jackson, “Cello,” in *Performance Practice: a Dictionary-guide for Musicians*, 70.

¹⁰ Peter Williams and David Ledbetter, “Continuo,” in *Grove Music Online*, *Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/06353?goto=continuo&type=article&pos=1> (accessed March 12, 2015).

¹¹ *Ibid.*

¹² *Ibid.*

¹³ Markevitch, *Cello Story*, 124.

¹⁴ Williams and Ledbetter, “Continuo,” in *Grove Music Online*, *Oxford Music Online*.

texture. Primarily used in this role, the cello was most often an accompaniment instrument.

Petri alluded to the cello's role as an accompanimental instrument. Recall from Chapter 2 that Petri describes the endpin as somewhat limiting and only used by ripienists, whose parts were restricted to simple lines:

The endpin, which, in the past was found underneath the cello, is no longer in fashion, because while standing one cannot shift on a cello supported only by an endpin, and is very often necessary nowadays. Therefore one finds the spike now only among *Kunstpfeiferjungen*, who are only used as ripienists, and who still do not know how to shift [on the cello].¹⁵

The Cello as a Solo Instrument

The eventual standardization of *da gamba* posture helped liberate the cello from its role as an accompanimental instrument. As discussed in Chapter 4, early cello postures tended to be rather limiting.¹⁶ However, as Petri noted, newer music required cellists to play “high passages, double stops and polyphonic parts.”¹⁷ *Da gamba* posture gave cellists the technical freedom to play this more complex music by freeing the left hand from supporting the instrument.

Three seventeenth century cellists, all employed in succession at San Petronio in Bologna, Italy, were among the first to make names for themselves as solo cellists:

¹⁵ Petri, *Anleitung zur Praktischen Musik*, 417 quoted in and translated by Hizer, “Performance Practice According to Johann Samuel Petri’s *Aneitung zur Praktischen Musik*,” 178–79.

¹⁶ When holding the cello on the floor, the left arm is at an angle to the fingerboard that which limits the fingers’ movements; other early postures such as standing with cello supported by a long endpin or other lifting device required the left hand to support the cello with a firm grip. All of these options severely reduced the cellist’s ability to shift because the fingers must maintain a grip on the neck in addition to playing notes. This limited the cello to simple lines played in first position.

¹⁷ Petri, *Anleitung zur Praktischen Musik*, 417 quoted in and translated by Hizer, “Performance Practice According to Johann Samuel Petri’s *Aneitung zur Praktischen Musik*,” 179.

Petronio Franceschini (ca. 1650–1680), Domenico Gabrielli (1651–1690), and Giuseppe Maria Jacchini (ca. 1663–1727).¹⁸ Each of these cellists were also known as composers.¹⁹ While Franceschini was mostly known for his sacred works, Gabrielli and Jacchini wrote secular music with increased emphasis on the cello line. Gabrielli published the first works for unaccompanied cello, seven *Ricercari* which are full of “florid passage-work and double, triple and quadruple stops,”²⁰ as seen in the below example from the sixth *Ricercari*, Figure 5.2.

¹⁸ Bonta, “Violoncello,” in *Grove Music Online, Oxford Music Online*.

¹⁹ Throughout the seventeenth, eighteenth, and nineteenth centuries, most famous cellists fulfilled this archetype of cellist-composer, writing primarily virtuoso music for themselves to play. Franceschini, Gabrielli, and Jacchini were among the very first to begin this tradition.

²⁰ John G. Suess and Marc Vanscheeuwijck, “Gabrielli, Domenico,” in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/10453?goto=gabriellidomenico&type=biography&pos=1> (accessed March 8, 2015).

The image displays a musical score for a cello piece. It consists of ten staves of music, each beginning with a measure number: 34, 37, 42, 48, 55, 60, 68, 75, 79, 85, and 90. The music is written in bass clef and features a variety of rhythmic patterns, including sixteenth and thirty-second notes, as well as rests. Trills are indicated by the notation [tr]. The key signature has one sharp (F#), and the time signature is 3/4. The score is set against a light yellow background.

Figure 5.2 Domenico Gabrielli, *7 Ricercars for Unaccompanied Cello*, excerpt from No. 6²¹

²¹ Domenico Gabrielli, *Sämtliche Werke für Violoncello (The Complete Works for Violoncello)* ed. Bettina Hoffmann (Kassel: Bärenreiter, 2001), 15.

Gabrielli also featured the cello quite extensively in several of his trumpet sonatas and vocal works; one movement of a trumpet sonata stands out in particular as the cello breaks away from the continuo to play an obbligato line, creating a concertante duet between the cello and trumpet, accompanied by continuo.²² Jacchini, who studied cello under Gabrielli, gave similar prominence to the cello, treating it as an obbligato instrument or engaging with the solo instrument in imitative dialogues.²³

Cello technique was dominated by *da gamba* posture for the next several centuries. The repertoire for cello in all genres grew and changed significantly during this era when *da gamba* posture dominated cello technique. The essential parameters of *da gamba* posture more or less stayed the same for many generations. It is difficult to imagine that any documentation will be found that will provide specific proof of a correlation between the evolution of compositions for cello and developments in cello posture. With only such small changes in the setup of the instrument, at present there is not enough information to make any reasonable conclusions.

Virtuosity in the Twentieth Century

With the universal adoption of the endpin in the late nineteenth and early twentieth centuries, it is possible to observe some relationship between this major change in cello posture and music composed for the instrument. At present, there is no specific evidence that proves a composer directly wrote with the endpin in mind. However, the

²² Suess and Vanscheeuwijck, "Gabrielli, Domenico," in *Grove Music Online, Oxford Music Online*.

²³ Anne Schnoebelen, "Jacchini, Giuseppe Maria," in *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/14014?goto=jacchinigiuseppemaria&type=biography&pos=3> (accessed March 8, 2015).

repertoire discussed below will show a correlation between the use of a longer endpin, advancements in technique, and a new virtuosity in composition in the twentieth century.

The use of an endpin allowed cellists to more comfortably play for longer periods of time. Many Classical era works tend to be relatively short and compact, such as the string quartets of Franz Joseph Haydn which average about twenty-four minutes long.²⁴ However, by the end of the nineteenth century and into the twentieth, many late-Romantic works were quite long, such as the symphonies of Gustav Mahler which can last over an hour.²⁵ Playing a piece of such length *da gamba* style could be completely exhausting for the legs. As discussed by Hodgkin, the endpin was preferred by some cellists because it was less tiring to play when using one:

It is certainly less tiring to play for any length of time if the peg be employed, and this was given to me as his reason for adopting it by a violoncellist who had to do a great deal of orchestral work.²⁶

²⁴ Franz Joseph Haydn, *The Complete String Quartets Played on Period Instruments*, recorded by the Festetics Quartet, recorded 1993–2002, 2005–2006, Budapest, Arcana A 378, streaming audio, accessed March 16, 2015.

<http://www.naxosmusiclibrary.com/catalogue/item.asp?cid=A378>. This 19 disc set features all 58 string quartets published by Ataria under Haydn's supervision. The shortest quartet is 16 minutes (except for one unfinished work, Op. 103 which only has two movements) while the longest is 32. The average length of the 57 four movement works is 24.3 minutes in this set.

²⁵ Utah Symphony, conducted by Maurice Abravanel, *Mahler: Symphonies 1–9; Adagio of No. 10*, recorded 1963–1974, Musical Concepts MC182, streaming audio, accessed March 16, 2015, <http://www.naxosmusiclibrary.com/catalogue/item.asp?cid=MC182>. This 10 disc set features Mahler's complete Symphonies. The shortest is 49 minutes, while the longest is 98. The average length of the nine complete symphonies is 71.8 minutes in this set.

²⁶ Hodgkin, "Use of the 'Cello Peg," 14. This article was published in 1897, between the years of when Mahler's Third Symphony was written (1892–1896) and premiered (1902). The recording discussed in the above footnote is 98 minutes long. The last three movements are played *attacca*, without break. One can only imagine that playing a piece of such length *da gamba* style would be extremely tiring on the legs.

There is no direct evidence that composers took the use of the endpin into account when writing these lengthy works. However, the endpin certainly enabled cellists to perform them with more ease.

As discussed in Chapter 4, the longer endpin advanced cello technique by allowing the body to be freer and less tense, granting easier access to the higher positions on the fingerboard, and increasing the color palette of the bow. Although Antonin Dvorak partially completed an early cello concerto in 1865, he was initially not particularly keen on the instrument:

“The cello,” Dvorak said, “is a beautiful instrument, but its place is in the orchestra and in chamber music. As a solo instrument it isn’t much good. Its middle register is fine - that’s true - but the upper voice squeaks and the lower growls. The finest solo-instrument, after all, is - and will remain - the violin. I have also written a ’cello concerto, but am sorry to this day I did so, and I never intend to write another.”²⁷

Upon hearing the premiere of Victor Herbert’s second cello concerto, played by the composer in March 1894, Dvorak changed his opinion of the cello and soon set about writing what is arguably the most famous cello concerto, the *Concerto in B minor, Op. 104*, (1894–1895).²⁸ Johannes Brahms apparently shared Dvorak’s early negative opinion of the cello but, upon hearing Dvorak’s B minor concerto, for the first time saw the cello’s potential: “Why in the world didn’t I know one could write a cello concerto like this? If I’d only known I’d have done it long ago!”²⁹

²⁷ Ludmila Vojáčková-Wechte, “Antonín Dvořák in the Class Room,” *The Etude* 37 (March 1919), 135, quoted in Jan Smazcny, *Dvořák Cello Concerto* (Cambridge: Cambridge University Press, 1999), 1.

²⁸ Jan Smazcny, *Dvořák Cello Concerto* (Cambridge: Cambridge University Press, 1999), 16.

²⁹ Michael Steinberg, “San Francisco Symphony - Dvořák: Concerto in B minor for Cello and Orchestra, Opus 104,” San Francisco Symphony, accessed March 13, 2015,

Dvorak and Brahms were not the only composers to ignore the genre of cello concerto. While there is a significant amount of chamber music repertoire featuring the cello (from sonatas with piano to piano trios to string quartets to mixed ensembles of all types), there are not as many cello concertos written by major composers, especially compared to the violin. Wolfgang Amadeus Mozart wrote five violin concertos but none for cello; Ludwig van Beethoven, Felix Mendelssohn, and Johannes Brahms all wrote a concerto for violin but none for cello, although Brahms did write the *Double Concerto for Violin and Cello in A minor, Op. 102* and Beethoven wrote a *Triple Concerto for Violin, Cello and Piano in C Major, Op. 56*.

There are however a significant number of extant cello concertos written by the archetypal cellist-composer. Although today they are often regarded as student works and rarely performed with orchestra, there are many concertos by many of the most important cellists throughout history: Hugo Becker, Gaspar Cassadó, Karl Davidoff, Jean-Louis Duport, Georg Goltermann, Victor Herbert, Julius Klengel, Anton Kraft, Friedrich Kummer, Alfredo Piatti, David Popper, and Bernhard Romberg. It is notable that almost all cello concertos from the eighteenth and nineteenth centuries were written not by well-known composers but by cellists writing music for themselves.

Of these early concertos by eighteenth and nineteenth cellist-composers, only those of Luigi Boccherini (1743–1805) are part of the standard cello repertoire and are regularly performed with orchestra. Boccherini is cited in modern texts as “possibly the

greatest of the late 18th century.”³⁰ He is known to have played *da gamba* style, as seen here in Figure 5.3, a portrait by an anonymous painter.



Figure 5.3 Anonymous, *Portrait of Luigi Boccherini* (ca.1764–1767)³¹

Boccherini wrote at least eleven cello concertos (the authorship of several other works attributed to Boccherini is uncertain), the most well known in B .³² Boccherini’s concertos are full technical challenges, florid passages and virtuosic lines in the high registers of the fingerboard.³³ This demanding writing is also seen in the cello parts of his chamber music. Boccherini wrote a huge amount of chamber music; there are more than thirty sonatas for cello and basso continuo, over one hundred string quartets, and a further

³⁰ Wijsman, “Violoncello,” in *Grove Music Online, Oxford Music Online*.

³¹ Admin, “Lecture: Sophie Matthieson ‘Drawing a Long Bow? Boccherini and the Madrid Visit’ | Melbourne Art Network,” Melbourne Art Network, published May 21, 2015, accessed April 21, 2015, <http://melbourneartnetwork.com.au/2010/05/21/lecture-sophie-matthieson/>.

³² Wijsman, “Violoncello,” in *Grove Music Online, Oxford Music Online*.

³³ Ibid.

hundred string quintets (string quartets featuring an additional cello or guitar).³⁴

Boccherini's virtuosic compositions would not be possible to play well with early cello postures, such as with the instrument held on the floor. Because *da gamba* style allowed for greater and easier access to the entire fingerboard, Boccherini (who mostly wrote these cello parts for himself to play) was able to write these demanding works.

The twentieth century gave rise to cello concertos by nearly every major composer, often in equal numbers to violin concertos. Samuel Barber, Ernest Bloch, Max Bruch, Frederick Delius, Edward Elgar, Paul Hindemith, Jacques Ibert, Dmitri Kabalevsky, Aram Khachaturian, Bohuslav Martinu, Darius Milhaud, and Arnold Schoenberg all wrote important works for cello and orchestra in the first half of the twentieth century, as did many others following in the second half.

To claim that the longer endpin itself directly influenced composers may go too far but there is an observable change in the repertoire around this time and following. However, there were other factors than just the endpin involved in this change. Feuermann was the first of many twentieth century cellists to become well known as virtuoso soloists. Others include Pablo Casals, Pierre Fournier, Beatrice Harrison, Zara Nelsova, Gregor Piatigorsky, Guilhermina Suggia, and Paul Tortelier. There is a corresponding increase in the amount of repertoire for cello in the twentieth century. It is notable that this new interest in the cello concerto by mainstream composers coincides with the era when the longer endpin was first used by a large new generation of cello virtuosos to enhance cello technique.

³⁴ Christian Speck, "Boccherini, Luigi," in *Grove Music Online. Oxford Music Online*, http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/03337?goto=boc&_start=1&type=biography&pos=9 (accessed April 22, 2015).

Zoltan Kodaly's *Sonata for Solo Cello, Op. 8* (1915) is one such piece. The genre of unaccompanied cello was not new in the twentieth century but it was revitalized after centuries of neglect.³⁵ A newly discovered work by Jean Sibelius, *Theme and Variations in D minor* (1887) was only recently premiered in 1995.³⁶ Other than this work by Sibelius, the three *Suites for Solo Cello, Op. 131c* (1915) by Max Reger and Kodaly's solo *Sonata* were first written in this genre since Bach's six *Suites for Solo Cello, BWV 1007–1012*, (ca. 1720s).³⁷ The Kodaly *Sonata* is in three movements, generally taking about half an hour to perform.³⁸ It is a virtuoso masterpiece, a very physically demanding work with a large range and frequent leaps all over the fingerboard. One can only imagine that performing such a technically challenging piece without an endpin would be extremely difficult, adding to an already arduous and exhausting piece.

The Kodaly *Sonata* was dedicated to and premiered by Hungarian cellist Jenő Kerpely (1885–1954).³⁹ Kerpely began learning cello during the era when endpin use was standardized and the longer endpin had been introduced. However, he was a pupil of

³⁵ Markevitch, *Cello Story*, 161–162.

³⁶ Andrew Barnett, "The Early Cello Works" in accompanying booklet, Jean Sibelius, *Theme and Variations for Solo Cello, Complete Music for Cello and Piano*, with Torleif Thedén, cello and Folke Gräsbeck, piano, recorded September 6–8, 1996, BIS 817, CD.

³⁷ Markevitch discusses only two works for unaccompanied cello other than the Gabrielli *Ricercars* and Bach *Suites*. He notes that since Kodaly's *Sonata*, "numerous composers have followed his example, and the repertoire for solo cello is constantly growing." Now over 30 years since Markevitch's book was published, there are now hundreds of works in the genre of unaccompanied cello, including Sibelius' recently discovered work. Markevitch, *Cello Story*, 162.

³⁸ "Work Information: Cello Sonata, Op. 8," Naxos Music Library, accessed March 18, 2015, <http://www.naxosmusiclibrary.com/work.asp?wid=147971&cid=8.553160>. Naxos Music Library has over 25 recordings of the Kodaly *Sonata* available on streaming audio. 31:58 is listed as the average duration.

³⁹ "Jenő Kerpely," Liszt Academy, accessed March 13, 2015, http://lfze.hu/en/nagy-elodok/-/asset_publisher/HVHn5fqOrfp7/content/kerpely-jeno/10192%3Bjsessionid=BEE38A529AF22FD7FF9705F53471C56D.

David Popper, one of the last great cellists known to have played *da gamba* style.⁴⁰ At present, there is not enough information available to do any more than speculate about the possibility of Kerpely's endpin use: Kerpely learned cello during the era when the endpin was standardized and most likely used one in the premiere of the Kodaly *Sonata*.

Following Reger and Kodaly's works, the genre of concert pieces for solo cello became very popular. It is now a huge part of the cello literature, with works by many of the major twentieth century composers: Luciano Berio, Ernest Bloch, Benjamin Britten, John Cage, George Crumb, Paul Hindemith, and György Ligeti, to name a few of the hundreds of composers who have written works for unaccompanied cello. Many of these pieces are often quite virtuosic and physically demanding in a variety of ways. It is again impossible to directly cite the influence of the endpin as the reason this genre now exists. However, there is again a noticeable correlation between this emerging genre inspired by Reger and Kodaly and the new technique of the longer endpin. Take for example this passage (Figure 5.4) by Henri Dutilleux in the third of his *3 Strophes sur le Nom de SACHER* (1976–1982). Dutilleux writes some of the highest notes possible on the cello, played well beyond the end of the fingerboard. Without an endpin, this passage would be practically impossible to play well. As the cello is lower to the ground and thus the end of the fingerboard is farther away from the left hand, the left arm would need to extend beyond a comfortable level to reach the pitches.⁴¹ A cellist with short arms may not even be able to reach these notes without an endpin.

⁴⁰ Ibid. If Popper is noted as one of the last generations of cellists to not use an endpin, presumably his students did use the endpin.

⁴¹ I felt a significant strain on my left tricep when I tried to play above the fingerboard while using *da gamba* posture.

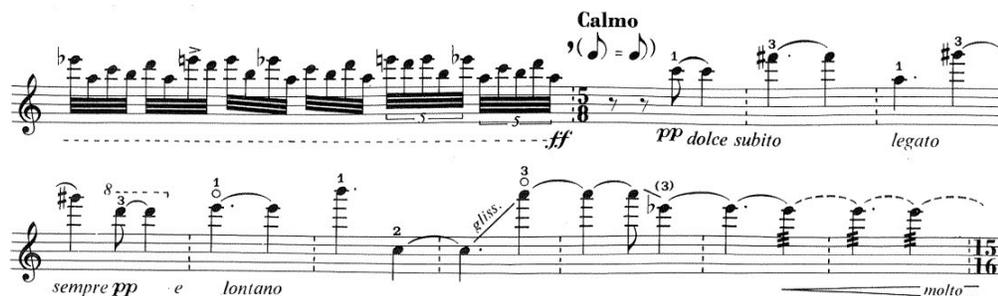


Figure 5.4 Henri Dutilleux, *3 Strophes sur le Nom de Sacher*, excerpt from third movement⁴²

In addition to a new generation of cello virtuosos, the twentieth century saw technical abilities increase by musicians of all kinds. Composers began to write a new virtuosic style in all genres that can be intensely difficult for the musician on a variety of levels, from extended techniques to complex harmonies and rhythms. The first string quartet of Iannis Xenakis, *ST/4*, 1-080262, is the composer's transcription of an earlier work for chamber ensemble, *ST/10*, 1-080262. These and several other works in Xenakis' *ST* series are what he called stochastic music. Stochastic compositions are a form of chance music; a mathematical formula is used to create a huge output of numbers from which a composer selects elements to translate into music.⁴³ Each piece is extremely complex, creating dense sound masses. Individual musical events are less important than the large-scale cumulative effect.

⁴² Henri Dutilleux, *3 Strophes sur le Nom de Sacher* (Paris: Heugel, 1982), 10.

⁴³ Paul Griffiths, "Stochastic Music," in *Grove Music Online*. *Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/opr/t114/e6472?goto=stochasticmusic&type=article&pos=1> (accessed March 13, 2015).

The image shows a handwritten musical score for string quartet, page 16. It consists of three systems of music, each with four staves (Violin I, Violin II, Viola, and Cello/Double Bass). The score includes various performance instructions and dynamics:

- System 1:**
 - Violin I: *legno*, *pp*
 - Violin II: *legno*, *pp*
 - Viola: *arco*, *pp*
 - Cello/Double Bass: *Pizz.*, *f*, *ppp*, *mp*, *sempre mp*
 - Text: *baissez la corde d'Ut sur Sol*
- System 2:**
 - Violin I: *legno*, *pp*, *f*, *ppp*, *f*, *pp*, *ppp*
 - Violin II: *legno*, *pp*, *f*, *ppp*, *f*, *pp*, *ppp*
 - Viola: *arco*, *ppp*, *f*, *pp*, *sempre pp*, *Pizz.*, *f*
 - Cello/Double Bass: *Pizz.*, *f*, *pp*, *sempre pp*, *Pizz.*, *f*
 - Text: *refaire l'accord*, *en tournant la cheville à chaque note*
- System 3:**
 - Violin I: *pp*, *ff*, *pp*, *ff*
 - Violin II: *pp*, *ff*, *pp*, *ff*
 - Viola: *legno*, *f*, *pp*, *ff*
 - Cello/Double Bass: *refaire l'accord*, *f*, *pp*, *ff*
 - Text: *sans vibrato*, *arco sans vibr.*

Figure 5.5 Iannis Xenakis, *ST/4-1, 080262*, excerpt from score⁴⁴

In one passage of the original *ST/10, 1-080262*, the harp plays a descending chromatic scale. In the transcription for string quartet, (the excerpt seen here in Figure

⁴⁴ Iannis Xenakis, *ST/4-1, 080262* (London: Boosey and Hawkes, 1967), 16.

5.5) Xenakis begins this scale in the viola until it reaches its lowest note, the open C string. The cello continues the scale to its lowest note, again the open C string. However, in *ST/10* the harp continues the descending chromatic scale another octave. Xenakis instructs the cellist to “turn the peg for each note.”⁴⁵ The cellist must use the peg to detune his or her C string for each successive pitch, eventually ending the scale an octave below what is normally the lowest note on the cello. This is a very difficult and risky maneuver, the effect of which is “rivetingly theatrical.”⁴⁶ As difficult as this passage is one can only imagine that *da gamba* posture would only add to the difficulty of this passage. The endpin provides stability and keeps the instrument from moving while using the peg during performance.

The *String Quartet No. 2* by Morton Feldman (1999) presents a very different virtuosic challenge for the ensemble. A performance of the work lasts for about six hours. There are no breaks or pauses, just six hours of continuous music. The piece is rarely played. As one might imagine, playing for six hours can be quite tiring and uncomfortable. The Flux Quartet describe their premiere of the quartet on their website:

The fourth, fifth, and sixth hours were brand – new terrain – not musically, but physically. We were feeling new aches and pains, hearing increased lushness in Feldman's harmonies, experiencing new emotions in this meditative state.⁴⁷

⁴⁵ “En tournant la cheville à chaque note.” Iannis Xenakis, *ST/4-1, 080262* (London: Boosey and Hawkes, 1967), 16. Note in the previous system, he provides a similar instruction to the viola, lower the C string by a fourth (“baissez la corde d’Ut sur Sol”) only to return the tuning to normal several measures later after one pitch is played (“refaire l'accord”).

⁴⁶ James Harley, *Xenakis: His Life in Music* (New York: Routledge, 2004), 30.

⁴⁷ Flux Quartet, “Feldman2,” Flux Quartet, accessed March 13, 2015, <http://www.fluxquartet.com/feldman2.html>.

One can only imagine the extreme physical discomfort the cellist would be in if this work was played *da gamba* style. The weight of the cello resting on the legs and knees for such a long time would likely cause intense pain and make it difficult to stand at the end of the performance.

Extended techniques on the cello have created a wide repertoire of sound effects. Some composers have experimented with directly using the endpin to produce noise. Cellist Jean-Paul Dessy wrote a work for solo cello that concludes with the cellist bowing directly on the endpin.⁴⁸ The effect is very subtle. A review of Dessy's performance at the 25th Gulbenkian Encounters of Contemporary Music in 2001 states that the effect was "rendered inaudible by the air conditioning."⁴⁹ Only the future will tell if bowing the endpin or somehow making a sound effect with it will become part of the standard repertoire of extended techniques for cello.⁵⁰

⁴⁸ Alice McVeigh, "Finding the Perfect Cello Endpin - and How to Stop It Slipping," *The Strad*, March 15, 2015, accessed March 18, 2015, <http://www.thestrad.com/cpt-latests/finding-the-perfect-cello-spike-%E2%80%95-and-how-to-stop-it-slipping/>.

⁴⁹ Peter Woolf and Alexa Woolf, "25th Gulbenkian Encounters of Contemporary Music Lisbon, 21 May–3 June 2001," *Seen & Heard*, accessed March 18, 2015, <http://www.musicweb-international.com/SandH/2001/June01/Portugal.htm>.

⁵⁰ In my own recent experiments, bowing on the endpin creates a muffled, raspy sound. The pitch can be altered by changing the bow speed and contact point. On my endpin, I was able to make the pitch higher by moving the contact point away from the middle of the pin to either up near the top where it enters the cello or down near the tip of the pin.

CHAPTER 6: CONCLUSION

The evolution of the endpin has been of vital importance to the larger story of the development of the cello and the technique used to play it. There are many instances when the use of an endpin has helped create a significant change in cello technique, thereby affecting the music it is possible to play.

The cello and cello technique have developed significantly over the past four hundred years. We now use a very different instrument played in a much different style than the first cellos. Modern cellists are often expected to have knowledge of each link in this evolutionary chain, as each development changed the way the cello was played and how it sounded. It is often not possible, for practical and financial reasons, for modern cellists to have a different historical instrument with which to perform music from every era. Rather, modern technique must be adjusted to recreate the effect of using equipment from the era when a piece was written. Most cellists today must settle for owning only one instrument on which they have the knowledge to give an historically informed performance.

Playing the music of Bach, for example, sounds quite different on a modern cello than with one built or modified to recreate the sound of a cello from Bach's era. While modifying one's cello or having a second historical instrument is not practical for most, at the very least any modern cellist can play with *da gamba* posture. With some experimentation, one can find a way to hold the cello by the legs. It takes time to find a posture that is both comfortable and does not dampen the cello's resonance by holding the ribs. However, this change in posture will necessitate several adjustments to modern technique, which does take require a willingness and flexibility to adapt one's technique.

The fingerboard is farther away and the instrument is lower, thus changing the contact point. Without the endpin, the cello sounds quite different and one will have to experiment to find the bow speeds, contact points, and amounts of bow weight in the string that create the desired sound. Not every cellist is ready to make these changes for performance. However, it is worth the time it takes to experiment with these techniques in practice to see how the sound changes. With that new knowledge in mind, one may alter their approach to such music when using a modern setup with an endpin. As we have seen, *da gamba* posture was not the only posture before the endpin was standardized. Playing *da gamba* style should not be considered the only option for one looking to perform in an historically informed manner.

Without more definitive evidence, it is impossible to determine if *da gamba* posture was the most important posture before the mid-eighteenth century, when the first cello treatises were published. Having examined around 180 works of art in 1987, Russell concluded that endpins or other early lifting devices were used just about as much as *da gamba* posture. One questions if Russell can truly make this claim based on only 180 images, a third of which do not show the lower portion of the cello. With relatively easy access to hundreds of iconographic images of the cello on the internet, a new study could be done using more images, perhaps coming to a more definitive conclusion. However, there is no central electronic database of cello iconography. It is easy to find these images online but they are often hosted on websites that cannot be authenticated, such as Wikipedia. Many of the images used in this document were found on www.recorderhomepage.net, a site that features hundreds of images from the iconography of the recorder. Each image is labeled with as much information as possible,

the name of the artist and the artwork, when and where it was painted, where it is located today, and any other useful information. Each page gives details for those looking to cite the website in academic works such as this document. No such database exists for the cello. Should someone create one, future research on the endpin in cello iconography could be done with more ease and academic integrity.

This document has been written from a perspective to show the endpin's history from a pedagogical standpoint and from historical perceptions about the endpin. Although there are instances when more scientific data could have been discussed, the focus here was centered on historical information instead. Future studies of the endpin could be done from a scientific approach, specifically the physiology of different postures associated with different endpins and acoustic properties of different materials used to make endpins. Physiology could provide more detailed insight into exactly when and where the body is tense in each posture. Only method books and treatises are cited here, discussing that tension should be avoided, as discussed by pedagogues throughout history. A physiological study could provide more insight, detailing exactly where tension exists and how it changes with each endpin and setup.

Similarly, only perceptions of and opinions about different types of endpins from an acoustic standpoint are discussed in this document. Individual cellists will always have an opinion on their preferred endpin material, as seen in several examples discussed in Chapter 2. An acoustic study could provide more concrete data, rather than just perceptions and opinions, about specific acoustic differences between endpin materials.

It is impossible to say where the future of the endpin may lead. New technological developments will surely influence future designs and materials used to make endpins as

scientists discover more about acoustics and the physics of sound. Luthiers and cellists will continue to experiment, always searching for the next new technological innovation that can be adapted to any part of the cello. In terms of endpins alone, this has already happened at least twice since the new millennium, first with the introduction of carbon fiber endpins and recently with the technology inside the Tone Acoustics endpins.

Made out of materials yet to be discovered, who knows where these future endpins will take technique and music. It will surely be fascinating to watch these developments continue to take place as new technologies are invented and adapted to the cello.

APPENDIX A: THE AUTHOR'S REACTION TO ACOUSTIC EFFECTS OF
DIFFERENT ENDPINS

Recently, I was invited to perform at a sales event for the Tone Acoustics endpins by Tom Devuono hosted by Sarah E. Gray Restoration in Gretna, Nebraska.¹ I demonstrated the change in sound on a variety of modern endpins by playing two passages, a simple two-octave scale-like pattern and the opening phrase of Edward Elgar's *Cello Concerto in E minor, Op. 85*. This brief experience was my first chance to experiment with different endpins. While this practical experience left me with little empirical data, I now have many opinions about some of the modern endpins currently on the market.

It was fascinating to listen to the change in my cello's sound as I progressed through the endpin models. The solid steel endpin was nothing special; as the standard endpin for most cellists over the past century, this endpin set the precedent for the evening as the general sound to which we are all accustomed. Next, I played on carbon fiber and aluminum endpins, which were interesting and slightly changed the sound of my cello compared to the solid steel model. However, I felt that neither added anything truly special to the cello's sound that it didn't already have. (I should note that I regularly play with a steel Tortelier endpin, which was not part of this public experiment.)

The tungsten endpin offered the first significant change to my cello's acoustics. The instrument was louder and brighter, as if I had just put new strings on after using an old set that was past its prime and rather stale. It was nice at first but in many ways, it was just too bright for my tastes. Ms. Gray informed us that cellists using the tungsten

¹ See discussion in Chapter 2, page 25–26 for more information about the Tone Acoustics endpins.

endpin have reported joint pain after extended weeks or months of use, supposedly from the extreme vibrations it produces. She continued to tell us that it also causes the cello to resonate at frequencies that are only audible to bats, well beyond the hearing range of humans.

As this event was ultimately a sales pitch for the Tone Acoustics endpins, they were saved for the finale of the demonstration. It was instantly clear to both me and the audience of cellists and bassists that these models made an incredible change in my sound. I had not used one before this event but I was amazed at how much it improved my cello's sound. With a Tone Acoustics endpin, the cello is louder, clearer, and has a more focused sound. I can hear many more frequencies and overtones from each note. The cello is instantly easier to play; I barely have to work to produce a beautiful tone, especially in the lower dynamics when it is easy to lose the core of the sound. In fact, I felt I was overplaying my instrument at first and had to get used to working less.² In a matter of seconds, this endpin made my cello sound like a better, more expensive instrument.

I am interested to see where the technology behind the Tone Acoustics leads in the future. As with most technology, I believe the price will fall as new and improved methods of production for this pin are created.³ From what I have seen so far of these products and how well they work, I think they will become the new standard in endpins for professional cellists (and bassists) over the next several years.

² After my demonstration, cellists in the audience were invited to try a Tone Acoustics on their instruments, all of whom at first similarly overplayed their instruments.

³ As discussed in Chapter 2, page 25–26, the Tone Acoustics endpins are more expensive compared to competitors like the carbon fiber pin. The Tone Acoustics endpins range from \$450–1000 while carbon fiber endpins are around \$100.

APPENDIX B: THE AUTHOR'S REACTION TO TECHNICAL
DEVELOPMENTS AND HINDERANCES BY EXPERIMENTING WITH
DIFFERENT ENDPINS AND SETUPS

As I researched and wrote the material discussed in Chapter 4: Technique, I began to experiment with using the various postures I discovered. While some experiments were limited to the practice room, others I eventually used in performance of a lecture recital, "Der Stachel: A Study of the Acoustic Effects of the Cello Endpin," given on April 12, 2015 as part of my doctoral coursework. The following discussion details my reactions to each posture and setup that I tried during this research.

Having now experimented with nearly every posture discussed in Chapter 4, I find that playing with the cello on the floor is the most limiting. There is no single way to comfortably hold the instrument and access all four strings without the bow hitting either leg. The front of the instrument must be tilted to the right to avoid hitting the left knee with the bow while accessing the A string. However, this makes it practically impossible to play the C string without hitting the other leg. Conversely, the cello can be tilted to the left to play on the C string, but this limits access to the A. To play on all four strings, the left hand must be used to tilt the cello according to which string is being played. This severely limits the fingers' ability to play fast notes. The cello proves to be rather heavy and awkward to move with just the left hand while the left fingers are also moving about the fingerboard. String crossings between non-consecutive strings are practically impossible. Only slower passages with little to no shifting and small string crossings are possible.

Everything came full circle when I discovered that the oldest surviving written cello music, the very simple line in the excerpt from “O salutaris hostia” from *Motetti à due e tre voci*, *Op. 2* by Caterina Assandra seen in Figure 5.1. The cello line is simple and played all in first position, without shifting. This mirrors Petri’s description of the older music that was played by standing cellists with a long endpin.¹, as discussed in Chapter 3: Usage, page 39.

Inspired by the cellist elevating his instrument on a small stool in Figure 2.4, I next experimented with finding a device of some kind to lift the cello off the floor. I specifically looked for shorter devices that would simulate early postures of holding the cello relatively low to the ground and vertical. I quickly discovered that it is necessary to find a lifting device of the correct height for one’s legs. The first stool I found to experiment with was too short, raising my cello off the ground only about six inches. I struggled to find a seat that allowed me to play comfortably. No matter what I tried, the instrument was still too low to the ground to adapt my technique to play more than a simple line. The fingerboard was too far away from my left hand. My right arm needed to extend quite far to obtain a decent contact point for the bow and my legs bent awkwardly to avoid the bow. A taller than average seat was of some help with this last problem but exacerbated the other issues created by a low instrument. A shorter seat caused my legs to interfere with my playing even more, forcing me to bend my knees and ankles into increasingly uncomfortable positions.

Eventually, I found a small wooden liquor barrel, about eight inches tall. While it is likely taller than early lifting devices, this barrel is a much better height for my body.

¹ See Chapter 3, page 39–40 for more discussion of this source, *Anleitung zur praktischen* by Petri.

The cello is still low to the ground but it is at approximately the same height as when I play *da gamba* style, with the cello supported completely by the legs without an endpin. The barrel does bring its own unique set of problems, such as finding the one spot where it balances the weight of the instrument without moving unexpectedly and that it lacks any grip, easily slipping forward on slick floors like tile. However, it is the most comfortable and best sounding lifting device overall that I have found.

As discussed in Chapter 4, Johann Samuel Petri in *Anleitung zur Praktischen Musik* details that a long endpin used to play standing will flex and bend. This wobbling can be quite unsettling as the fingerboard shifts, even if only slightly, under the left hand. I personally can attest to the discomfort and unease this creates, having struggled with this issue in the past. This was caused by the long solid steel endpin I used to play seated; as I am quite tall, I had extended it to its maximum length, which created the a similar wobbling effect to that which Petri describes when standing with the long endpin. Despite its strength, the steel flexed as I played, making the instrument feel just a bit out of control under my hands. After using that endpin for four years, the solid metal is slightly warped, no longer completely straight. I eventually switched to using a bent endpin because it allowed me to raise my cello to the same height without extending it to such a great length, thus eliminating the unsteadiness created by a long pin.

Learning to play without an endpin (*da gamba* style) after playing the cello for nearly two decades with one took some getting used to. It took me several weeks to comfortably and reliably recreate the postures described by nineteenth century pedagogues. I only used sources published after Kummer's in 1850, which was the first to note that the legs should grip the edges of the instrument, rather than the ribs, so the

sound is not dampened. As this causes the cello to be much lower to the ground than I am accustomed to, every position on the fingerboard is in a slightly different place. I had to make frequent intonation adjustments: notes were consistently not where I was expecting them to be as my hand approached the fingerboard at just enough of a new angle. To access the high positions, I had to reach and extend my left arm further, which I could feel directly straining my triceps.

However, I did enjoy that *da gamba* posture allows the cello to be held closer to the torso. I felt more direct and intimate connection to the body of my instrument. This is the closest I have ever come to feeling like my cello is an extension of my own body.

The verticality of the cello in *da gamba* posture significantly affected how I draw sound out of the instrument with the bow. At a horizontal angle, I can easily use gravity and the weight of my arm to sink into the string. When the cello is vertical, I must draw sound out of the string without the use of arm weight. There is less core and more air to the sound unless I overtly press into the string. This however, quickly causes tension and makes the sound forced. *Da gamba* posture completely changed the timbre of my cello, making it feel like I was playing a different instrument altogether.

The barrel I used as a short lifting device simulated the effect of playing with a short endpin, such as those used by early advocates of the endpin in the nineteenth century. The lifting device, be it a short endpin, barrel, stool, or other object, does little to counteract the technical difficulties I encountered when playing *da gamba* style.

However, as each helps transmit vibrations from the cello to the floor, the instrument's acoustics are enhanced when using any such device.

I am most comfortable playing with a long endpin, as has been the standard for the last century. The long endpin brings the fingerboard closer to my neck, giving the most efficient access to all four strings in any position. I can easily use arm weight and gravity to sink into the string with the bow to pull out sound without pressing or forcing. For the past seven years, I have used a bent endpin, which amplifies this effect. Because this endpin comes out of the cello at an angle, it raises the instrument to a height similar to what I had previously achieved by extending my solid steel endpin to its maximum length. However, as it does not need to extend as far to elevate the cello, I no longer have to deal with a wobbling instrument.

Although the feet may not seem to be directly involved in playing the cello when an endpin is used, they are still part of the technique. When using a long endpin, the feet are relatively squared forward and resting flat on the ground. This provides a powerful and energetic foundation that supports the posture and technique to play. Activating the strength of this solid foundation in the feet emanates energy throughout the body. The use of the longer endpin made this more intuitive for the first time. With *da gamba* posture, the feet are angled out and often not flat on the floor. With a shorter endpin, the feet were still similarly distorted.

Side-saddle postures add tension to my body and make it more difficult to play. As the posture is not symmetrical, the spine must rotate, causing muscles in the back to contract. I find this tension in one part of my body makes everything feel tense, from the large muscles in my back and shoulders down to the small muscles in each hand and finger. The cello wobbles unsteadily as its back is convex while the outer side of my thigh where the cello rests is flat; the instrument readily rocks from side to side. If the

right knee is tucked under the left, as van der Straeten described in his 1915 *The Technics of Violoncello Playing*,² the left knee can almost provide some support for the instrument but it does not completely counteract the wobbling. As with early postures, the left hand must take some control to steady the instrument, which severely limits its ability to shift or play fast passages.

² See Chapter 3, page 55 for more discussion of this source, *The Technics of Violoncello Playing* by van der Straeten.

Bibliography

- Admin. "Lecture: Sophie Matthieson 'Drawing a Long Bow? Boccherini and the Madrid Visit' | Melbourne Art Network." Melbourne Art Network. Published May 21, 2015. Accessed April 21, 2015. <http://melbournartnetwork.com.au/2010/05/21/lecture-sophie-matthieson/>.
- Ahrens, Christian. "On the Use of Endpins with Cellos in the Eighteenth Century." *The Galpin Society Journal* 62 (April 2009): 288.
- Allgemeine wiener Musik-Zeitung*, 4. 1844. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Artnet. "A Musician Playing the Violoncello in a Landscape with Classical Statuary and Ruins by Jan Josef Horemans the Elder." Artnet. Accessed March 12, 2015. http://www.artnet.com/artists/jan-josef-horemans-the-elder/a-musician-playing-the-violoncello-in-a-landscape-3kpvhvJ6tbczRISX6P5_4w2.
- Baines, Anthony C., and Darryl Martin. "Talbot, James." In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/27413?goto=talbotjames&type=biography&pos=1> (accessed March 11, 2015).
- Banks, Margaret Downie. "Unveiling the Mysteries of the King Cello." Google Cultural Institute. Accessed March 11, 2015. <https://www.google.com/culturalinstitute/u/0/exhibit/unveiling-the-mysteries-of-the-king-cello/QQtYGFBM?hl=en&position=1%2C0>.
- Barnett, Andrew. "The Early Cello Works." In accompanying booklet, Jean Sibelius. *Theme and Variations for Solo Cello, Complete Music for Cello and Piano*. Recorded by Torleif Thedéen, cello and Folke Gräsbeck, piano. Recorded September 6–8, 1996. BIS 817. CD.
- Barnett, Gregory. "Viola da spalla." In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/29449?goto=violadaspalla&type=article&pos=1> (accessed March 2, 2015).
- BBC. "A Sonata of Daicellos." BBC. Accessed March 10, 2015. <http://www.bbc.co.uk/arts/yourpaintings/paintings/a-sonata-of-daicellos-122043>.
- . "The Violoncello Player." BBC. Accessed March 10, 2015. <http://www.bbc.co.uk/arts/yourpaintings/paintings/the-violoncello-player-45421>.

- Block, Mike. "The Block Strap Preview Video – 'Bach in the Streets'." YouTube. Accessed March 25, 2015. https://www.youtube.com/watch?v=-P_LSwDUiwQ.
- The Block Strap. "The Block Strap | The first product designed so you can stand/move/dance while playing the cello!" Cellostrap.com. Accessed March 25, 2015. <http://cellostrap.com/>.
- Bois d'Harmonie. "Catalogue." Bois d'Harmonie, 2013. Accessed March 10, 2015. <http://www.harmonie.net/images/pdf/catalogue2013eng-lis2.pdf>.
- Bonta, Stephen. "Violoncello." In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/44041?goto=violoncello&type=article&pos=4> (accessed March 11, 2015).
- Broadley, Arthur. *Chats to Cello Students*. London: 'The Strad' Office, 1899. Accessed March 9, 2015. <http://www.gutenberg.org/files/42378/42378-h/42378-h.htm>. Project Gutenberg Ebook.
- . *The Violoncello: Its History, Selection, and Adjustment*. New York: C. Scribner's Sons, 1921.
- Campbell, Margaret. "Harrison, Beatrice." In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/12441?goto=harrisonbeatrice&type=biography&pos=1> (accessed March 8, 2015).
- . "Violoncello." In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/44041?goto=violoncello&type=article&pos=4> (accessed March 2, 2015).
- Celloshop.com. "References" Celloshop.com. Accessed March 2, 2015. <http://www.celloshop.com/contents/en-uk/d90.html>.
- . "SoundPodium, Portable Version." Celloshop.com. Accessed March 10, 2015. <http://www.celloshop.com/contents/en-uk/p141.html>.
- Corrette, Michel. *Methode, Théorique et Pratique pour Apprendre en Peu de Temps Le Violoncelle dans sa Perfection*. Paris: Mlle. Castagnery, 1741. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Cowling, Elizabeth. *The Cello*. 2nd rev., U.S. ed. New York: C. Scribner's Sons, 1983.

- Crome, Robert. *The Compleat Tutor for the Violoncello*. London: C. & S. Thompson, [1765?]. Quoted in George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Daily Mail. “The Remarkable Moment the BBC were Forced to Pull Plug on World War II Birdsong Broadcast as Bombers Flew Overhead.” *Daily Mail*, January 28, 2012. Accessed March 10, 2015. <http://www.dailymail.co.uk/news/article-2093108/The-remarkable-moment-BBC-forced-pull-plug-World-War-II-birdsong-broadcast-bombers-flew-overhead.html>.
- Davidoff, Carl. *Violoncell-Schule*. Leipzig: Peters, 1888. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Dilworth, John. “The Cello: Origins and Evolution.” In *The Cambridge Companion to the Cello*, edited by Robin Stowell, 1–27. Cambridge: Cambridge University Press, 1999.
- Dressel, Hans. *Moderne Violoncell Schule*. 2 volumes. Leipzig: Bosworth & Co. 1902. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Duport, Jean-Louis. *Essai sur le Doigté du Violoncelle*. Paris: Imbault, 1806. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Dutilleux, Henri. *3 strophes sur le nom de Sacher*. Paris: Heugel, 1982.
- Edgcume, Richard. *Musical Reminiscences, Containing an Account of Italian Opera in England, from 1773*. 4th ed. London: J. Andrews, 1834.
- Flux Quartet. “Feldman2.” Flux Quartet. Accessed March 13, 2015. <http://www.fluxquartet.com/feldman2.html>.
- Gabrielli, Domenic. *Sämtliche Werke für Violoncello (The Complete Works for Violoncello)*. Edited by Bettina Hoffmann. Kassel: Bärenreiter, 2001.
- Galbraith, Paul. “Introducing the Brahms Guitar.” Paul Galbraith. Accessed February 28, 2015. <http://www.paul-galbraith.com/engl/8string.htm>.
- Go Strings. “New Harmony Carbon Fiber Cello Endpin.” Gostrings.com. Accessed March 2, 2015. <http://www.gostrings.com/newhacaficee.html>.

- Goodman, Lillian Rehberg. *The Development of Cello Hands : a Supplementary Method for Developing Basic Technique for Beginning and Intermediate Students*. Bryn Mawr: T. Presser, 1978), 5.
- Griffiths, Paul. "Stochastic Music." In *Grove Music Online. Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/opr/t114/e6472?goto=stochasticmusic&type=article&pos=1> (accessed March 13, 2015).
- Gunn, John. *The Theory and Practice of Fingering the Violoncello*. London: the author, 1789. Quoted in George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Hampton, Bonnie. "How to Avoid Tension in the Bow Arm." *The Strad*. October 14, 2014. Accessed March 12, 2015. <http://www.thestrad.com/cptlatests/how-to-avoid-tension-in-the-bow-arm-by-cellist-bonnie-hampton/>.
- Harley, James. *Xenakis: His Life in Music*. New York: Routledge, 2004.
- Hartig, Andrew M. "Renovata Cythara – Artwork Picture Gallery." Renaissance Cittern Site. Last updated June 21, 2012. Accessed March 12, 2015, http://www.theaterofmusic.com/cittern/art/molenaer_family.html.
- . "Renovata Cythara – Artwork Picture Gallery." Renaissance Cittern Site. Last updated June 21, 2012. Accessed March 9, 2015. http://www.theaterofmusic.com/cittern/art/passe_music_making.html.
- Haydn, Franz Joseph. *The Complete String Quartets Played on Period Instruments*. Recorded by the Festetics Quartet. Recorded 1993–2002, 2005–20006. Budapest. Arcana A 378. Streaming audio. Accessed March 16, 2015. <http://www.naxosmusiclibrary.com/catalogue/item.asp?cid=A378>.
- Hizer, Lynn Jaye. "Performance Practice According to Johann Samuel Petri's *Anleitung zur Praktischen Musik*: an Annotated Translation." PhD diss., Washington University, 1991.
- Hodgkin, Gerald. "Use of the 'Cello Peg.'" *Strad*, May 1896. Accessed March 24, 2015. <https://play.google.com/books/reader?printsec=frontcover&output=reader&id=UOo2AQAAMAAJ&pg=GBS.PA14>. Google Books.
- Illustrated London News*. March 2, 1872. In Museum of Music History. "Exhibitions > Past Images of the Month." Museum of Music History. Accessed March 10, 2015. http://www.momh.org.uk/exhibitions-detail.php?cat_id=5&prod_id=266.

- Imago Musicae. "Imago Musicae | International Yearbook of Musical Iconography." Imago Musicae. Accessed March 2, 2015. <https://imagomusicae.wordpress.com>.
- Jackson, Roland. "Cello." In *Performance Practice: a Dictionary-guide for Musicians*. New York: Routledge, 2005.
- Joconde. "Joconde – catalogue – dictionnaires." Joconde Portail des collections des musées de France. Accessed March 10, 2015. http://www.culture.gouv.fr/public/mistral/joconde_fr?ACTION=CHERCHER&FIELD_1=REF&VALUE_1=000PE007342.
- Junod, Laurent. *New and Concise Method for the Violoncello, Op. 20*. Translated by F. Clayton. London: Lafleur, 1878. Quoted in George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Kennaway, George. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Krén, Emil, and Daniel Marx. "Horemans, Jan Jozef II." Web Gallery of Art. Accessed March 10, 2015. http://www.wga.hu/html_m/h/horemans/jan_ii/.
- Kummer, F.A. *Violoncello School, Op. 60*. Translated by anonymous. London: Ewer, 1850. Quoted in George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- . *Violoncelloschule für den ersten Unterricht, Op.60*. Revised by Hugo Becker. Leipzig: Peters, 1909. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- La Petite Bande. "Sigiswald Kuijken." La Petite Bande. Accessed March 10, 2015. <http://www.lapetitebande.be/sigiswald.php>.
- Laird, Paul. *The Baroque Cello Revival: an Oral History*. Lanham, MD: Scarecrow Press, 2004.
- Lander, N.S. "Artists-B." Recorder Home Page. Accessed March 9, 2015. <http://www.recorderhomepage.net/recorder-iconography/artists-b/>.
- . "Artists-G." Recorder Home Page. Accessed March 9, 2015. <http://www.recorderhomepage.net/recorder-iconography/artists-g/>.
- . "Artists-O." Recorder Home Page. Accessed March 9, 2015. <http://www.recorderhomepage.net/recorder-iconography/artists-o/>.

- Langey, Otto. *Practical Tutor for the Violoncello. New Edition, Revised & Enlarged*. London: Hawkes & Son, 1909), 7, quoted in George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Laurie, David. *The Reminiscences of a Fiddle Dealer*. Boston: Houghton Mifflin, 1925.
- Lee, Sebastian. *Violoncello Tecnics, Op. 30*. Revised by Hugo Becker. Mainz: B Schott's Söhne, 1900–1903. Quoted in George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Liszt Academy. “Jenő Kerpely.” Liszt Academy. Accessed March 13, 2015. http://lfze.hu/en/nagy-elodok/-/asset_publisher/HVHn5fqOrfp7/content/kerpely-jeno/10192%3Bjsessionid=BEE38A529AF22FD7FF9705F53471C56D.
- MacGregor, Lynda. “Becker, Hugo.” In *Grove Music Online, Oxford Music Online*, http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/02481?goto=becker&_start=1&type=biography&pos=11 (accessed March 9, 2015).
- . “Piatti, Alfredo.” In *Grove Music Online, Oxford Music Online*, http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/21652?goto=pia&_start=1&type=biography&pos=15 (accessed March 2, 2015).
- Mahler, Gustav. *Symphonies 1–9; Adagio of No. 10*. Conducted by Maurice Abravanel. Recorded with the Utah Symphony. Recorded 1963–1974. Musical Concepts MC182. Streaming audio. Accessed March 16, 2015, <http://www.naxosmusiclibrary.com/catalogue/item.asp?cid=MC182>.
- Mantel, Gerhard. *Cello Technique: Principles and Forms of Movement*. Translated by Barbara Haimberger Thiem. Bloomington: Indiana University Press, 1975.
- Markevitch, Dimitry. *Cello Story*. Translated by Florence W. Seder. Princeton: Summy-Birchard Music, 1984.
- Maylon, John. “Gaudenzio Ferrari Online.” Artcyclopedia. Accessed March 15, 2015. http://www.artcyclopedia.com/artists/ferrari_gaudenzio.html.
- McVeigh, Alice. “Finding the Perfect Cello Endpin - and How to Stop It Slipping.” *The Strad*. March 15, 2015. Accessed March 18, 2015. <http://www.thestrاد.com/cpt-latests/finding-the-perfect-cello-spike-%E2%80%95-and-how-to-stop-it-slipping/>.
- Mercier, Anita. *Guilhermina Suggia, Cellist*. Aldershot, England: Ashgate, 2008.
- Morreau, Annette. “Feuermann, Emanuel.” In *Grove Music Online, Oxford Music Online*, <http://0->

www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/09566?goto=feuernannemanuel&type=biography&pos=2 (accessed March 11, 2015).

- National Instrument Museum. "Violoncello by Andrea Amati, Cremona, Mid-16th Century." National Instrument Museum, University of South Dakota. Accessed March 11, 2015. <http://orgs.usd.edu/nmm/Cellos/Amati/Amaticello.html>.
- Naxos Music Library. "Work Information: Cello Sonata, Op. 8." Naxos Music Library. Accessed March 18, 2015. <http://www.naxosmusiclibrary.com/work.asp?wid=147971&cid=8.553160>.
- Petri, Johann Samuel. *Anleitung zur Praktischen Music*. Leipzig: Breitkopt, 1782. Quoted in Lynn Jae Hizer. "Performance Practice According to Johann Samuel Petri's *Anleitung zur Praktischen Musik*: an Annotated Translation." PhD diss., Washington University, 1991.
- Piatti, Alfredo. *Violoncello Method*. Revised by W.E. Whitehouse and R.V. Tabb. London: Augener, 1911. Quoted in George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Rabaud, Henri. *Méthode Complète de Violoncelle, Op. 12*. Paris: Alphonse Leduc, 1878. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Rebic, Nemanja. "Guitarist Paul Galbraith at Walter Reade Theater." *The Epoch Times*, April 18, 2011. Accessed April 18, 2015. www.theepochtimes.com/n2/arts-entertainment/guitarist-paul-galbraith-at-walter-rea-de-theater-54897.html.
- Romberg, Bernhard. *Violoncelloschule*. Edited and revised by Jules de Swert and Heinrich Grünfeld. Berlin: E. Bote & G. Bock, 1888. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Russell, Tilden A. "The Development of the Cello Endpin." *Imago Musicae* 4 (January 1987): 335–356.
- . "Endpin." In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/08788?goto=endpin&type=article&pos=1> (accessed March 2, 2015).
- . "New Light on the Historical Manner of Holding the Cello." *Historical Performance: The Journal of Early Music America* 6, no. 2 (Fall 1993): 73–77.
- Sadie, Stanley. "Classical Era, the." In *Grove Music Online, Oxford Music Online*,

www.oxfordmusiconline.com.library.unl.edu/subscriber/article/opr/t114/e1442?goto=classicalerathe&type=article&pos=1 (accessed March 2, 2015).

Samson, Jim. "Romanticism." In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/23751?goto=romanticism&type=article&pos=2> (accessed March 2, 2015).

Schnoebelen, Anne, "Jacchini, Giuseppe Maria." In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/14014?goto=jacchinigiuseppemaria&type=biography&pos=3> (accessed March 8, 2015).

Schroeder, Carl. *Catechism of Violoncello Playing*. 2nd ed. Translated by John Matthews. London: Augener, 1893.

Schwemer, Bettina, and Douglas Woodfull-Harris, eds. "Text Volume." In J.S. Bach. *6 Suites a Violoncello Solo senza Basso, BWV 1007–1012*. Kassel: Bärenreiter, 2000.

Seatter, Robert. "Beatrice Harrison, Cello and Nightingale Duet 19 May 1924." *About the BBC Blog*, May 19, 2010. Accessed March 10, 2015. <http://www.bbc.co.uk/blogs/legacy/aboutthebbc/2010/05/beatrice-harrison-cello-and-ni.shtml>.

Sensbach, Stephen. "Cherchez Les Femmes." *Strad* 120, no. 1428. (April 2009): 46–52.

Smazcny, Jan. *Dvořák Cello Concerto*. Cambridge: Cambridge University Press, 1999.

Smithsonian Institution. "The 'Servais' Cello." Smithsonian Chamber Music Society. Accessed March 2, 2015. <http://smithsonianchambermusic.org/collection/stradivarius-cello-1701-servais>.

Speck, Christian. "Boccherini, Luigi." In *Grove Music Online, Oxford Music Online*, http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/03337?goto=boc&_start=1&type=biography&pos=9 (accessed April 22, 2015).

Stanfield, Milly B. *The Intermediate Cellist*. London: Oxford University, 1973.

Steinberg, Michael. "San Francisco Symphony - Dvořák: Concerto in B minor for Cello and Orchestra, Opus 104." San Francisco Symphony. Accessed March 13, 2015. <http://www.sfsymphony.org/Watch-Listen-Learn/Read-Program-Notes/Program-Notes/DVORAK-Concerto-in-B-minor-for-Cello-and-Orchestra.aspx>.

- Strad. "Medical Scans Reveal Secrets of World's Oldest Cello," *The Strad*. October 11, 2013. Accessed March 11, 2015. <http://www.thestrad.com/cpt-latests/medical-scans-reveal-secrets-of-worlds-oldest-cello/>.
- van der Straeten, Edmund. *The Technics of Violoncello Playing*. 3rd ed. London: "The Strad" Office, 1915.
- Suess, John G., and Marc Vanscheeuwijck. "Gabrielli, Domenico." In *Grove Music Online, Oxford Music Online* <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/10453?goto=gabriellidomenico&type=biography&pos=1> (accessed March 8, 2015).
- de Swert, Jules. *The Violoncello*. London: Novello, Ewer, 1882. Quoted in and translated by George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- Tate Modern. "'Madame Suggia', Augustus John OM." Tate Modern. Accessed March 10, 2015. <http://www.tate.org.uk/art/artworks/john-madame-suggia-n04093>.
- Tone Acoustics. "Photo Gallery of Tone Acoustics Products." Tone Acoustics. Accessed March 10, 2015. <http://toneacoustics.com/Gallery.php>.
- Tonelli, Vanessa M. "Women and Music in the Venetian Ospedali." Master's diss., Michigan State University, 2013. Accessed March 22, 2015. <http://etd.lib.msu.edu/islandora/object/etd%3A1929/datastream/OBJ/view>.
- Vanscheeuwijck, Marc. "Violoncello and Violone." In *A Performer's Guide to Seventeenth-century Music*, edited by Stewart Carter, revised by Jeffery Kite-Powell, 231–247. Bloomington: Indiana University Press, 2012. Accessed March 22, 2015. MyiLibrary.
- Vojáčková-Wechte, Ludmila. "Antonín Dvořák in the Class Room." *The Etude* 37. March 1919. Quoted in Jan Smazcny. *Dvořák Cello Concerto*. Cambridge: Cambridge University Press, 1999.
- Walden, Valerie. *One Hundred Years of Violoncello: A History of Technique and Performance Practice, 1740–1840*. Cambridge: Cambridge University Press, 1998.
- . "Technique, style and performing practice to c. 1900." In *The Cambridge Companion to the Cello*, edited by Robin Stowell, 178–194. Cambridge: Cambridge University Press, 1999.

- Werner, Josef. *Praktische Violoncell-Schule, Op. 12*. Translated by anonymous. Cologne: P.J. Tonger, 1882. Quoted in George Kennaway. *Playing the Cello, 1780–1930*. Surrey, England: Ashgate, 2014.
- West, Linda. “New Harmony Carbon Fiber Cello End Pin.” Lindawest.com. Accessed March 2, 2015. http://www.lindawest.com/Carbon_fiber_end_pin_p/nhcfepft.htm.
- Wijsman, Suzanne. “Violoncello” In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/44041?goto=violoncello&type=article&pos=4> (accessed March 2, 2015).
- Williams, Peter, and David Ledbetter. “Continuo.” In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/06353?goto=continuo&type=article&pos=1> (accessed March 12, 2015).
- Wilson, Elizabeth. *Jacqueline Du Pré: Her Life, Her Music, Her Legend*. New York: Arcade, 1999.
- Woolf, Peter, and Alexa Woolf. “25th Gulbenkian Encounters of Contemporary Music Lisbon, 21 May–3 June 2001.” Seen & Heard. Accessed March 18, 2015. <http://www.musicweb-international.com/SandH/2001/June01/Portugal.htm>.
- Xenakis, Iannis. *ST/4-I, 080262*. London: Boosey and Hawkes, 1967.
- “Servais: (1) Adrien François Servais.” In *Grove Music Online, Oxford Music Online*, <http://0-www.oxfordmusiconline.com.library.unl.edu/subscriber/article/grove/music/25492pg1?goto=servaisadrienfrancoisservais&type=biography&pos=1> (accessed March 2, 2015).