

**The development of a performance companion to the Third Clarinet Concerto
of Carl Stamitz played on five- and six-key period clarinets: an analysis of
technical capability and performance style through practice-led research.**

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Master of Music (Research) - Music Performance

August 2022

Faculty of Fine Arts and Music, The University of Melbourne.

Submitted in total fulfilment for the degree of Master of Music (Research) –
Music Performance

Abstract

This study explores the process of learning to play five- and six-key Classical clarinets from the perspective of a modern clarinettist. Utilising practice-led research methodology, this project consists of an exegesis and a full-length recital informed by this research. The recital featured a range of clarinet compositions of the Classical period including; Johann Stamitz (1717–1757) Clarinet Concerto (circa 1754–1755), Carl Stamitz (1745–1801) Third Clarinet Concerto (1785), Jean-Xavier Lefèvre (1763–1829) Grand Sonata no.2 (c.1804–1805) and Wolfgang Amadeus Mozart (1756–1791) ‘Kegelstatt’ Trio for viola, clarinet and piano, KV 498 (1786). The recital was performed on the Classical period clarinet with fortepiano and period viola. The video is submitted with the thesis.

This research project was underpinned by an exploration of the evolution of the clarinet during the eighteenth century and the impact of clarinettists, composers and instrument makers on clarinet development and capability. The performance-led research comprises:

1. an exploration of the technical aspects of playing the five- and six-key Classical clarinets including the development of a new fingering chart;
2. an exploration of eighteenth-century performance style; and
3. the development of a performance guide to the Third Clarinet Concerto of Carl Stamitz.

Through this research, I have discovered that learning to play the Classical period clarinet has many unique challenges which take at least twelve months to appreciate and address. These include: the technical aspects of setting up the instrument to its optimal playing condition; mastering the fingering system, mouthpiece and reed setup which are quite different from a modern clarinet; producing a beautiful tone across the full range of the instrument; appreciating subtle variations in intonation, dynamics, articulation and timbre of this instrument; and finally, appreciating the many nuances of playing in the Classical period style with other classical period instruments.

Declaration

This is to certify that:

- (i) The thesis comprises only my original work towards the Master of Music (Research)-Music Performance.
- (ii) Due acknowledgement has been made in the text to all other material used.
- (iii) The thesis is 14,106 words in length, including figure legends and excluding appendices.

Signature:

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Date: 25 August 2022

Preface

Playing a five- or six-key period clarinet presents many unique challenges for the modern clarinettist. These relate to the technical aspects of learning to play an instrument which is different in many respects from the modern clarinet. The period clarinettist should also be cognisant of the eighteenth-century musical style of composition, notation and performance. My performance-led research addresses these challenges and will be of interest to the modern and period clarinettist.

The five chapters cover the historical development of the clarinet, my observations on learning to play the period clarinet, and a performance guide to a selected clarinet concerto of the eighteenth century. This performance guide includes a detailed discussion of historically informed performance practice.

- (i) This entire thesis is my original work apart from the referenced material which has been cited in footnotes and listed in the bibliography;
- (ii) None of the material in this thesis has been submitted for other qualifications;
- (iii) The only research carried out prior to the commencement of this Masters of Music- (Research) was to undertake the required subject, The Research Process for Musicians (MUS140064) during the Graduate Diploma of Music (Performance) at The University of Melbourne in 2020;
- (iv) The thesis was edited by Dr Sharon Lierse according to the Guidelines of the University of Melbourne. Dr Lierse is a professional editor with knowledge in the academic discipline of this thesis;

- (v) There are no other persons involved in co-authoring the material in this thesis;
- (vi) This thesis consists of my original work which has not been submitted elsewhere for publication. Copyright issues were clarified in consultation with the Copyright office of the University of Melbourne. The Jean-Xavier Lefèvre '*Méthode de Clarinette*' (1802) and the copy of the original autograph manuscript of the Carl Stamitz Third Clarinet Concerto (circa 1785) are out of copyright. The Peter's 1957 edition of the Carl Stamitz Third Clarinet Concerto which I have annotated, (see Appendix 6), remains in copyright. I will therefore submit a complete copy of the thesis for examination and for internal access within The University of Melbourne, but also a second version for external access with the redaction of Appendix 6 ;
- (vii) I am grateful to The University of Melbourne for the award of an Australian Government Research Training Program Scholarship which covered tuition fees during my Master's program of research.

Acknowledgements

I thank Mr Craig Hill for teaching me the fundamentals and the subtleties of playing the Classical period clarinet. Hopefully, I have acquired some of his superb knowledge and musicianship as I learn to play this beautiful instrument. I thank Associate Professor David Griffiths and Ms Carla Blackwood for their supervision and sage advice as I prepare this thesis. I thank David Griffiths also for helping me to reach new heights in my clarinet playing. I thank Baroque flautist, Mr Greg Dikmans, for his superb teaching of historically informed performance practice or what he better describes as 'historically enlightened performance practice'. I thank my accompanist on fortepiano and harpsichord Dr Donald Nicolson for helping me to appreciate the nuances of historically informed performance practice in his History of Music classes and for his 'realisation' of beautiful and exciting keyboard accompaniments to the eighteenth-century compositions including the Third Clarinet Concerto of Carl Stamitz. I thank Professor Ian Holtham, Head of Keyboard Studies at the University of Melbourne Conservatorium and Associate Professor Coady Green for their enlightened performance classes. I also thank Mr Michael Mc Clelland and Dr Julia Walker with their computer graphics assistance which helped me to prepare the clarinet fingering diagrams.

I thank the Commonwealth Government of Australia for providing the 'Australian Government Research Training Scholarship' and The University of Melbourne for awarding it to me for the duration of my Masters of Music Research program.

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Wolfgang Amadeus Mozart to his friend and clarinettist Anton Stadler regarding a difficult passage: “Provided they [the notes on your instrument] exist it is your concern to produce them”.¹

Wolfgang Amadeus Mozart heard the Mannheim orchestra and wrote to his father in 1777: “Oh, if only we also had clarinets!—You cannot imagine the beautiful effect of a symphony with flutes, oboes and clarinets”.²

¹ Pamela Weston, *Clarinet Virtuosi of the Past* (York, England.: Emerson Edition Ltd, 2002), 51.

² Eric Hoeprich, *The Clarinet*, The Yale Musical Instrument Series (New Haven [Conn.]; London: Yale University Press, 2008), 100.

Chapter 1. Introduction and literature review

1.1. Introduction

This study is written from the perspective of a modern clarinettist learning to play the Classical period clarinet including historically informed performance practice. This culminates in a Performance Guide to the third clarinet concerto of Carl Stamitz (1745–1801) which will assist period and modern clarinettists playing this work, moreover, it will serve as a guide for the preparation of other eighteenth-century clarinet compositions.

Playing the Classical clarinet requires the player to embark on a ‘voyage of discovery’. This is to investigate the history of the clarinet; to learn about the clarinettists of the Classical period who inspired the composers of the day, some of whom were clarinettists; to discover the repertoire for the classical clarinet, much of which is not heard today; to study the musical style of the Classical period and how it transitioned from the Baroque and Galant styles; to play the instrument and appreciate its technical capabilities, including the fingering system; and finally, to contemplate the challenges the players would have experienced playing the clarinet in the eighteenth century. One of Australia’s leading classical clarinettists, Mr Craig Hill, has written: “One of the great things about period instrument playing is that it allows and encourages a re-assessment of every aspect of our playing – what kind of sound we make, how we phrase, the way we use our body and so on – to re-evaluate the whole experience of making and listening to music”.³ Mastering the

³ Craig Hill, “On Playing the Classical Clarinet”, *Australian Clarinet and Saxophone*, September (1998): 12–14.

Classical clarinet may inform and improve aspects of playing the modern clarinet, particularly when playing music of the Classical and Romantic periods.

The general aspects of performance on historical clarinets including pitch and intonation, posture, embouchure, articulation, fingering, reed position, instrument maintenance, selection of clarinet and transposition have been described by several authors.⁴ There are also more detailed descriptions of the technical aspects of playing period clarinets including the five-key clarinet.⁵ However, there is an opportunity to build on this previously published work with the practice-led research presented in this thesis.

I am personally interested in 'period' clarinet performance. I have two original five- and seven-key clarinets from the eighteenth century, replica A and B flat five-key boxwood clarinets made by Olivier Cottet in Paris in 1988 (A = 440Hz) and C, A and B flat boxwood Classical clarinets (A=430Hz) and a Baroque 2-key boxwood C Clarinet (A=415Hz) made by Peter van der Poel, Bunnik, in the Netherlands in 2021. I also play Baroque recorder and baroque oboe. My teacher is Mr Craig Hill, a recognised Australian and international expert on period clarinet performance. He is Principal Clarinet in the Australian Brandenburg Orchestra.

⁴ Eric Hoeprich, *The Clarinet*, 87-99; Rice, *The Clarinet in the Classical Period*, 78-108; Lawson, *The Early Clarinet*, 41-62; Janet Page et al. "Clarinet" in: *The Grove Dictionary of Musical Instruments*, 554-557.

⁵ Luc Jackman, "Early Clarinet Performance as Described by Modern Specialists, with a Performance Edition of Mathieu Frédéric Blasius's *Ile Concerto de Clarinette*". (DMA Diss., University of North Carolina, 2005); Evgeni Orkin; Nicola Schröter, *A Methodical Approach to Learning and Playing the Historical Clarinet And Its Usage In Historical Performance Practice*, Orkin Manuscript Laboratory, 2019.

1.2 Aim

The aim of this research is to investigate how a clarinettist learns to play five- and six-key 'classical' clarinets and to develop a performance guide to the Third Clarinet Concerto of Carl Stamitz (1745-1801) utilising practice-led research methodology. This will be underpinned by an exploration of the evolution of the clarinet during the eighteenth century, developing an understanding of the technical aspects of playing the five and six-key Classical clarinet and developing an appreciation of the stylistic conventions of musical composition and performance in the eighteenth century.

1.3 Relevance

This research comprises a technical analysis of playing five- and six-key clarinets and observations on playing clarinet compositions of the Classical period. Developing a performance guide to a particular composition enables the research to be brought into focus but also provides many insights which can be applied to the performance of other compositions in the Classical period. This will be of interest to both period and modern clarinettists.

As there are many solo compositions for clarinets from the Classical period,⁶ I chose to focus on the Third Clarinet Concerto of Carl Stamitz. This work was selected because it is an excellent example of a clarinet concerto of the Classical period and is typical of the Classical style from the Mannheim School. It displays the full gamut of emotion from the happy and

⁶ Robert Austin Titus, "The Solo Music for the Clarinet in the Eighteenth Century". (USA, State University of Iowa, 1962); Robert Austin Titus, "The Early Clarinet Concertos", *Journal of Research in Music Education* 13, no. 3 (October 1965): 169–76, <https://doi.org/10.2307/3343671>.

ebullient first movement, to the gentle slow movement, which is at times sad and poignant, and finally to the buoyant dance of the rondo in the third movement. It was composed in 1785 for the five-key clarinet and the music is well suited to the technical capability and sound of the five-key clarinet. The chamber orchestra accompaniment is also typical for the period. Moreover, a performance guide for this work has not yet been published, nor is there a recording available on period clarinet.

This practice-led research will provide unique personal insight and supplement the literature on playing period clarinets. It is underpinned by a substantial literature on the development of the clarinet in the eighteenth century. There is a growing international interest in playing the repertoire from the Classical period on historical instruments including the clarinet. There are clarinetists who specialise in performance on period clarinets.⁷

The observations I have made on the stylistic aspects of playing the period clarinet will be of interest to the period clarinetist, particularly those who are beginning their experience, more generally to the players of period wind instruments and to modern clarinetists. The performance guide to the Third Clarinet Concerto of Carl Stamitz will be of interest to both period and modern clarinetists approaching this concerto.

⁷ For example: Craig Hill (Australia), Eric Hoeprich (USA), Luca Lucchetta (Italy), Antony Pay (UK), Albert Rice (USA), Nicole van Bruggen (Australia) and Emily Worthington (UK).

A personal haptic analysis of playing the instrument will produce insight into playing the period clarinet compared with the modern clarinet. Intonation on period clarinets is more variable than modern clarinets. This is because of slight variation in design and manufacture such as the tone hole placement, size and angle. Varying fingering patterns are therefore required to achieve good intonation on different clarinets. Individual passages may also require alternate fingerings to achieve fluency. Therefore, producing a new fingering chart with alternative cross-fingerings serves as a guide for other players.

1.4 Literature Review

This literature review includes a brief history of the clarinet in the eighteenth century including the principal clarinetists and composers of the Classical period and the symbiotic relationship between the composers, clarinetists and instrument makers. The five- and six-key clarinet is placed in historical context. The eighteenth-century clarinet treatises including their fingering charts are relevant to the development of technical capability on the instrument. Finally, the Mannheim School, Carl Stamitz and performance practice in the Classical period are included to provide background to the performance guide.

1.4.1 The invention of the clarinet and the addition of various keys

The clarinet was most likely invented by the German instrument maker Johann Denner (1685–1707) and his son Jacob between 1700 and 1710 in which it initially had two keys.⁸ The early clarinet had occasional shrill trumpet-like accompanying parts in Baroque music.

⁸ F. Geoffrey Rendall and Philip Bate, *The Clarinet: Some Notes upon Its History and Construction*, 3rd ed. rev., Instruments of the Orchestra (London: New York: E. Benn ; W. W. Norton, 1971), 67–68; Eric Hoeprich, *The Clarinet*, The Yale Musical Instrument Series (New Haven [Conn.]; London: Yale University Press, 2008), 15, 20–21; Janet K. Page. 'Clarinet' in: *The Grove Dictionary of Musical Instruments*, Second edition, ed. Laurence Libin, (New York: Oxford University Press, 2014), 554.

The rapid evolution in technical capability of the clarinet over the next thirty years was dependent on the collaboration and interaction of European instrument makers, clarinettists and composers.⁹ The five-key clarinet became the common clarinet in use from the 1760s well into the nineteenth century because it afforded the player more fluency across the entire compass of the instrument compared with earlier clarinets with fewer keys.¹⁰ Hundreds of original five-key clarinets still survive today.¹¹ During this formative period the clarinet became an integral member of the woodwind section of the orchestra and was frequently included in chamber music. Many concertos and sonatas were also composed for it. By the end of the eighteenth century, some clarinets had six keys allowing improved ease of playing some chromatic notes instead of the player having to use awkward fingering.¹² More keys were added in the nineteenth century and now the modern clarinet has seventeen keys.¹³ (see Figure 1.1)

⁹ F. Geoffrey Rendall and Philip Bate, *The Clarinet: Some Notes upon Its History and Construction*, 3rd ed. rev., Instruments of the Orchestra (London: New York: E. Ben ; W.W.Norton, 1971), 79; Albert R. Rice, *The Clarinet in the Classical Period* (Oxford; New York: Oxford University Press, 2003), 24—77; Eric Hoeprich, *The Clarinet*, The Yale Musical Instrument Series (New Haven [Conn.]; London: Yale University Press, 2008), 63—99; Janet Page et al., "Clarinet" in: *The Grove Dictionary of Musical Instruments*, ed. Laurence Libin, Second edition (New York: Oxford University Press, 2014), 554-557.

¹⁰ Hoeprich, *The Clarinet*, 64,91; Rendall and Bate, *The Clarinet*,72; Page, *Clarinet*, *The Grove Dictionary of Musical Instruments*, 555.

¹¹ Hoeprich, 70.

¹² Hoeprich, 89; Rendall and Bate, *The Clarinet*, 89.

¹³ Hoeprich, *The Clarinet*, 206—214.



Figure 1.1. Photographs of various clarinets. a. five-key clarinet, b. seven-key clarinet, c. twelve-key clarinet, d. modern clarinet with seventeen keys of the Boehm key system.

Sources: a., b. and d. from Jeffrey Rosenfeld's collection, c. Classical clarinet of The University of Melbourne Conservatorium of Music made by Joel C. Robinson, USA.

The five-key clarinet was a transformative development because it enabled the clarinetist to play relatively smoothly over a range exceeding three octaves including all tones and semitones.¹⁴ The first documentation of a sixth key (for C sharp/ G' sharp) was in 1768.¹⁵ By 1800 the six-key clarinet was common although many players continued to play five-key clarinets.¹⁶

1.4.2 The clarinetists of the eighteenth century

Clarinet virtuosi of the eighteenth century included Michèl Yost (1754–1786), Franz Tausch (1762–1817), Jean-Xavier Lefèvre (1763–1829), Josef Beer (1744–1819) and John Mahon (c1746–1834).¹⁷ They all composed concertos for the clarinet.¹⁸ Anton Stadler (1753–1812) became the leading clarinetist in Vienna and was Mozart's friend and favoured clarinetist.¹⁹

¹⁴ Eric Hoeprich, *The Clarinet*, 64.

¹⁵ F. Geoffrey Rendall and Phillip Bate, *The Clarinet*, 72

It was not until 1790 that the instrument maker Bauman added a sixth key, for middle C sharp, to the clarinet of the French virtuoso, Jean-Xavier Lefèvre.

¹⁶ Rendall and Bate, 72; Janet K Page et al. 'Clarinet' in: *The Grove Dictionary of Musical Instruments*, 555; Weston, *Clarinet Virtuosi of the Past*, 59; Hoeprich, *The Clarinet*, 71—2.

¹⁷ Pamela Weston, *Clarinet Virtuosi of the Past*; Albert R Rice (Revised by Frédéric Robert), "Lefèvre [Lefèbvre, Lefèvre, Le Févre, Lefèvre], (Jean) Xavier" In: *The New Grove Dictionary of Music and Musicians*. Vol 14, p 476

¹⁸ Weston, *Clarinet Virtuosi of the Past*; Albert R Rice (Revised by Frédéric Robert), "Lefèvre [Lefèbvre, Lefèvre, Le Févre, Lefèvre], (Jean) Xavier" In: *The New Grove Dictionary of Music and Musicians*. Vol 14, p 476

¹⁹ Pamela A Poulin. "Stadler, Anton (Paul)" In: *The New Grove Dictionary of Music and Musicians*, eds. Sadie, Stanley, and John Tyrrell. London: Macmillan Reference, 2001, 248—249; Weston, *Clarinet Virtuosi of the Past*, 29—45.

1.4.3 The composers of solo clarinet music of the eighteenth century

As the clarinet became more popular in the latter half of the eighteenth century, the number of solo compositions was rapidly growing. Titus has compiled extensive lists of eighteenth-century solo clarinet music.²⁰ Some examples of compositions by non-clarinettists are the six concertos for D clarinet composed by the violinist Johann Melchior Molter (1696-1795). These feature the high register of the clarinet.²¹ Johann Stamitz (1717-1757), a virtuoso violinist, composed a single clarinet concerto and his son, the violinist and conductor Carl Stamitz (1745-1801) composed ten clarinet concertos, as well as symphonies and chamber music including the clarinet.²²

1.4.4 The inter-relationships between the composers, clarinettists and instrument makers of the eighteenth century

Clarinet advances were dependent on instrument makers, their geographic location and the influence of local clarinettists. A visit from a virtuoso playing a more advanced instrument could also stimulate the advances in clarinet making in that locality.²³ Josef Beer performed widely throughout Europe and also influenced Mozart and Carl Stamitz.²⁴ The Lotz/Stadler/Mozart relationship exemplifies the symbiotic and productive relationship between composer, performer and instrument maker.²⁵

²⁰ Robert Austin Titus, "The Solo Music for the Clarinet in the Eighteenth Century"; Titus, "The Early Clarinet Concertos".

²¹ Hoeprich, *The Clarinet*, 36—38.

²² Hoeprich, 78—80.

²³ Hoeprich, 29,81. "Beer was one of the first international clarinet virtuosos, with connections to the most important composers, instrumentalists and centres of musical activity". Hoeprich, 81.

²⁴ Pamela Weston, *Clarinet Virtuosi of the Past*, 29—45; Hoeprich, *The Clarinet*, 81. Carl Stamitz composed six concertos for Beer, the first c. 1792. Beer played in London, St Petersburg, Moscow, Copenhagen, Berlin, Paris and Vienna. Mozart probably first met Beer in Paris. In March 1791 he played with Mozart in Vienna and the *Wiener Zeitung* praised his 'extraordinary skill on clarinet'.

²⁵ Pamela Weston, *Clarinet Virtuosi of the Past*, 47.

1.4.5 Clarinet treatises and fingering charts of the Classical period.

Numerous clarinet treatises were published in the eighteenth century and the first few years of the nineteenth century to assist players to learn the clarinet. (See a compilation of these in Appendix 1) Some of these authors were well known clarinet virtuosos such as Georg H. Backofen (1768-1830), Michel Yost (1754-1786), Jean-Xavier Lefèvre (1763-1829) and John Mahon (1749-1834). These treatises included general instructions and sometimes exercises and short pieces to play to improve the player's technique. Fingering charts were often included in these treatises. (See details in Appendix 1) Rice has reviewed clarinet fingering charts from 1732 to 1816.²⁶ French clarinet treatises from 1760 to 1800 have been also been re-published as facsimiles.²⁷ All these fingering charts are similar in design with a matrix of vertical and horizontal lines and open and closed circles at the intersections. These represent a finger lifted off or closing the hole. The horizontal lines pass over to a tone hole or key on the clarinet diagram and the vertical lines to notes on a stave above, for example, Roeser, Hottetere, Lefèvre, Corette, Blasius. (see Figure 1.2) These matrices are quite difficult to interpret.

²⁶ Albert R. Rice, "Clarinet Fingering Charts, 1732-1816", *The Galpin Society Journal* 37 (1984): 16—41, <https://doi.org/10.2307/841137>; Albert R. Rice, "Clarinet Fingering Charts", *The Galpin Society Journal* 38 (1985): 144—45, <https://doi.org/10.2307/841291>.

²⁷ Philippe Lescat et al., eds., *Clarinette: Méthodes et Traités 6, Dictionnaires*, Série 1, Fac-Similé Editions, France 1600—1800. (Courlay, France: Editions Jean-Marc Fuzeau, 2000).

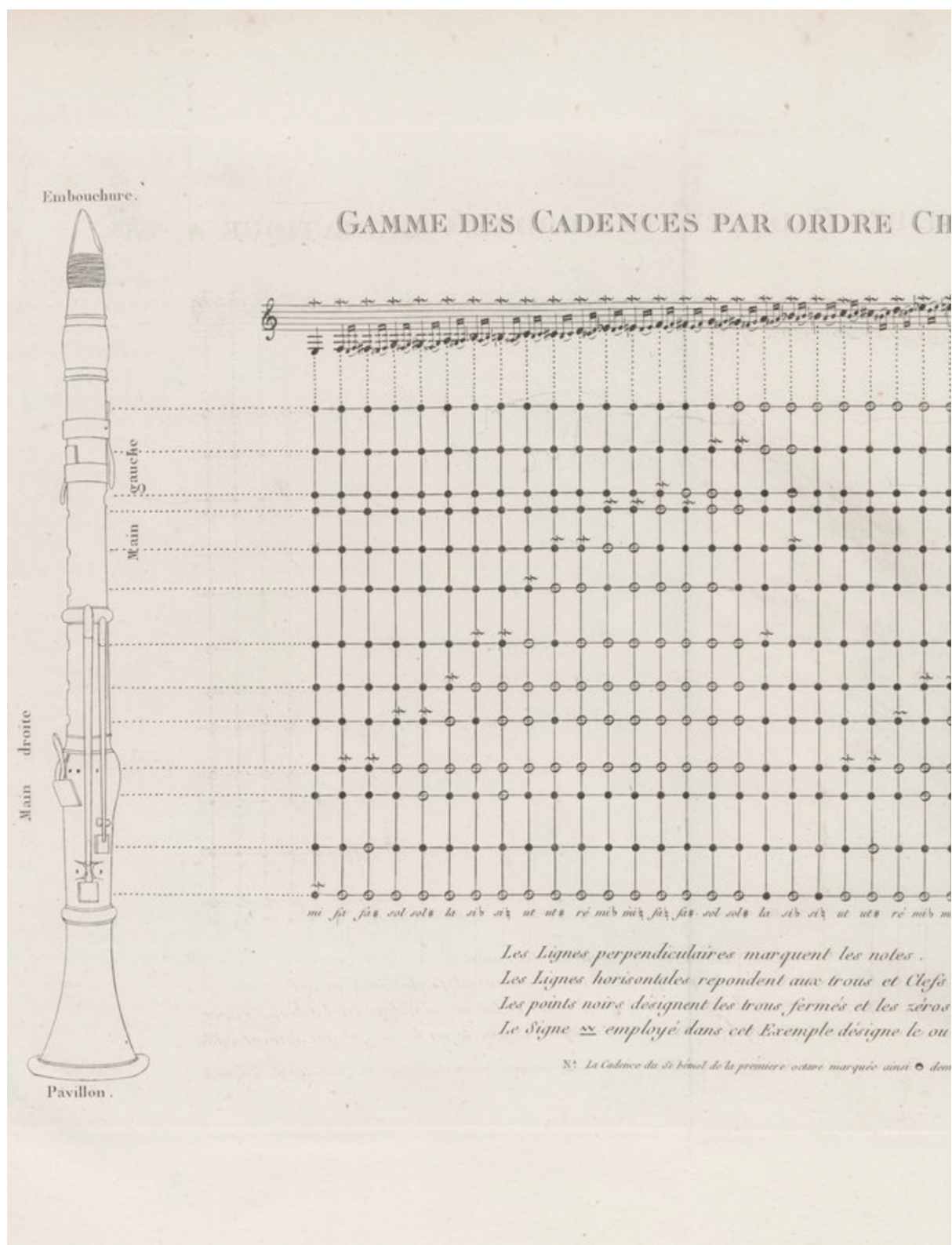


Figure 1.2b An example of a fingering chart from J-X Lefèvre, *Méthode de Clarinette*, 1802, Plate 4, un-numbered page.

1.4.6 Recent playing guides and fingering charts for the period clarinet

The books of Rice, Lawson, Hoeprich and the clarinet entry in 'Grove Instruments' explore general aspects of playing period clarinets.²⁸ There are several theses on the period clarinet which are of relevance to my research project.²⁹ The Doctoral Treatise of Titus considers the concertos of Carl Stamitz in relation to historical issues and thematic material.³⁰ The Doctoral Thesis of Jackman concerns early clarinet performance. Jackman examined technical aspects of playing the period clarinet by surveying several period clarinet players and he also examined the notation of Lefèvre's fingering charts.³¹ In the second section of this thesis, a performance edition of the Mathieu Frédéric Blasius' (1758-1829) second clarinet concerto of the early nineteenth century was produced. This thesis is not restricted to the five-key clarinet. Northover has included fingering charts of the five-key clarinet which differ significantly from mine.³² Orkin and Schröter published a book on playing the historical clarinet and its usage in historical performance practice.³³ This does include

²⁸ Rice, *The Clarinet in the Classical Period*; Lawson, *The Early Clarinet*; Hoeprich, *The Clarinet*; Janet K. Page, Janet K. Page et al., "Clarinet", in *The Grove Dictionary of Musical Instruments* (Oxford University Press, 2014), <http://www.oxfordreference.com/view/10.1093/acref/9780199743391.001.0001/acref-9780199743391-e-1432>.

²⁹ Luc Jackman, "*Early Clarinet Performance as Described by Modern Specialists, with a Performance Edition of Mathieu Frédéric Blasius's Ile Concerto de Clarinette*"; Robert Austin Titus. "*The Solo Music for the Clarinet in the Eighteenth Century*". (PhD Diss., State University of Iowa, USA, 1962); Phillip Miechel. 1972. "*The Classical Clarinet*". Masters of Music Diss., The University of Melbourne.

³⁰ Robert Austin Titus, "*The Solo Music for the Clarinet in the Eighteenth Century*."

³¹ Luc Jackman, "*Early Clarinet Performance as Described by Modern Specialists, with a Performance Edition of Mathieu Frédéric Blasius's Ile Concerto de Clarinette*". Ile is the abbreviation for 'second' in French or deuxième.

³² Keith S. Northover, "*The 21st Century Early Clarinet Method: A Historical Clarinet Treatise for Modern Clarinetists*". (Indiana University, Jacobs School of Music, 2018), 33.

³³ Evgeni Orkin; Nicola Schröter, "*A Methodical Approach to Learning and Playing the Historical Clarinet and Its Usage in Historical Performance Practice*".

information on five- and six-key clarinets and a fingering chart is included but it is difficult to decipher.³⁴

1.4.7 Interpreting eighteenth century music

The musical treatises of the eighteenth century have become key guides for the performance of music in the classical period. These treatises include Leopold Mozart's *Violinschule* (1756), Carl Phillip Emanuel Bach's *Essay on the True Art of Playing Keyboard Instruments* (1753–Part One , 1762–Part two),³⁵ Daniel Gottlob Türk's *Klavierschule* (1789),³⁶ and Joachim Quantz's *Versuch einer Anweisung die Flöte traversiere zu spielen* (1752).³⁷ The eighteenth century literature and performance practice has been reviewed by several musicologists including Stephanie Vial,³⁸ Clive Brown,³⁹ Frederick Neumann,⁴⁰ Charles Rosen,⁴¹ Dennis Shrock,⁴² and Barthold Kuijken,⁴³ who offer extensive guidance to the modern performer of music of the Classical period. The performer should aim to move the heart of the listener but always play with good taste. This means playing with good

³⁴ Evgeni Orkin; Nicola Schröter, 24–27.

³⁵ Carl Philipp Emanuel Bach and William J. Mitchell, *Essay on the True Art of Playing Keyboard Instruments* (London: Eulenburg, 1974).

³⁶ Daniel Gottlob Türk and Raymond H. Haggh, *School of Clavier Playing, or, Instructions in Playing The clavier for Teachers & Students* (Lincoln: University of Nebraska Press, 1982).

³⁷ Johann Joachim Quantz and Edward R. Reilly, *On Playing the Flute*, 2nd ed (London: Faber, 1985).

³⁸ Stephanie Vial, *The Art of Musical Phrasing in the Eighteenth Century: Punctuating the Classical Period*, Eastman Studies in Music, v. 55 (Rochester: University of Rochester Press, 2008).

³⁹ Clive Brown, *Classical and Romantic Performing Practice, 1750—1900* (Oxford: Oxford University Press, 1999).

⁴⁰ Frederick Neumann, *Ornamentation and Improvisation in Mozart* (Princeton, N.J: Princeton University Press, 1986); Frederick Neumann and Jane Stevens, *Performance Practices of the Seventeenth and Eighteenth Centuries* (New York: Schirmer Books, 1993).

⁴¹ Charles Rosen, *The Classical Style: Haydn, Mozart, Beethoven*, Expanded edition (New York: W.W.Norton, 1997).

⁴² Dennis Shrock, *Performance Practices in the Classical Era: As Related by Primary Sources and Illustrated in the Music of Mozart and Haydn/G7815* (Chicago: GIA Publications, 2011).

⁴³ Barthold Kuijken, *The Notation Is Not the Music. Reflections on Early Musicpractice and Performance*, First edition (Bloomington, USA: Indiana University Press, 2013).

judgement and propriety.⁴⁴ The clarinet treatises from the Classical period, particularly Jean-Xavier Lefèvre's *'Méthode de clarinette'*, of 1802,⁴⁵ provide useful instruction concerning dynamics, breathing, articulation, phrasing and ornaments. The way to play notes of varying length and within phrases is explained.⁴⁶

Kuijken wrote: "The notation gives us the raw but lifeless material from which we have to re-invent the actual music, applying the reading and performing conventions of different times and places."⁴⁷ Butt has thoroughly outlined the relation between notation and performance and Neumann has outlined the errors that can be made in interpreting early music treatises and advocates that performers develop working hypotheses.⁴⁸ Kuijken advocates a two-fold concept of historically informed performance.⁴⁹ First, the performer should apply the existing evidence on performance practice—"historical authenticity". The solutions each performer reaches are not definitive. Second, there is also the personal contribution of the performer—"personal authenticity". Kuijken characterises this as "a unique and honest reading by the performer".⁵⁰

1.4.8 Historical background to the Third Clarinet Concerto of Carl Stamitz

The Mannheim Orchestra and Style

⁴⁴ Barthold Kuijken, 83.

⁴⁵ Jean Xavier Lefèvre, *Methode de Clarinette.*, Reprint, Geneva, 1974 (Paris: Minkoff, 1802).

⁴⁶ Jean Xavier Lefèvre, p14—15, 19—20.

⁴⁷ Barthold Kuijken, *The Music Is Not the Notation*, 113.

⁴⁸ John Butt, *Playing with History: The Historical Approach to Musicalperformance* (Cambridge: Cambridge University Press, 2002); Frederick Neumann, "The Use of Baroque Treatises on Musical Performance," *Music & Letters* 48, no. 4 (1967): 315—24, <https://www.jstor.org/stable/733226>.

⁴⁹ Barthold Kuijken, *The Music Is Not the Notation*, 111—2.

⁵⁰ Barthold Kuijken, 112.

1748 to 1780 was a productive period for the arts in Mannheim with the support of Carl Theodore's Court. The composers in the Mannheim Court from 1740 to 1778 developed the distinctive Mannheim Style which had a wide influence in Europe. The Mannheim Style was characterised by a relative uniform style of composition which was primarily a feature of the symphonies. The Mannheim Style displayed novel dramatic effects such as abrupt or gradual crescendos and diminuendos which added to the expressive character in the works. Some other typical features were descending slurred appoggiaturas or 'sighs', the Mannheim 'rocket' of ascending scales or arpeggiated figures from bass notes to high notes with *accelerando* and *crescendo* to the climax, and *Bebung* or tremolos.⁵¹

The four-movement symphony with the Minuet in the third movement was a Mannheim innovation. The wind parts also became more independent and adventurous. Other features, in contrast to the Baroque period, were homophonic textures, slow harmonic rhythm and a contrasting secondary theme in the exposition. These features were also seen in Italian music and in some French music such as Jean-Philippe Rameau (1683–1764), however, the scoring goes beyond the Italian style with more solo passages for woodwind and horns.⁵²

Johann Stamitz (1717–1757) led the orchestra from 1744 to 1753 followed by his students including his son Carl. Excellent musicians were attracted to Mannheim and clarinettists first appeared in the Mannheim orchestra in 1758. The musical historian and raconteur, Charles

⁵¹ Eugene K. Wolf, "Mannheim Style," Grove Music Online, accessed January 25, 2021, <https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000017661>.

⁵² Eugene K. Wolf.

Burney described the orchestra as “an army of generals”.⁵³ Leopold Mozart (1719–1787) described the orchestra as “undeniably, the best in Germany”.⁵⁴ Wolfgang Amadeus Mozart was influenced by the Mannheim orchestra and style.⁵⁵ In 1777 Mozart heard the orchestra and wrote to his father: “Oh, if only we also had clarinets!— You cannot imagine the beautiful effect of a symphony with flutes, oboes and clarinets”.⁵⁶

Carl Stamitz and his clarinet compositions

Carl Stamitz (1745-1801) was a German composer, violinist and violist. He was the leading second-generation Mannheim composer succeeding his father Johann. He was a major contributor to the symphonia concertantes and concerto repertoire. He heard Jacob Tausch (d.1803), the father of Franz Tausch, playing the clarinet,⁵⁷ and travelled to Paris in 1770 where he became a court composer and conductor. He was in contact with the virtuoso clarinettist Joseph Beer (1744-1812). In December 1771, Beer played a clarinet concerto of Carl Stamitz and collaborated with Stamitz on a number of the clarinet concertos with Beer’s name appearing on the title page.⁵⁸ By 1777, Stamitz was the travelling virtuoso in Europe and included London where he performed with Johann Christian Bach (1736–1782). Stamitz published many compositions there. By 1780, he had moved to the Hague and from

⁵³ Pamela Weston, *Clarinet Virtuosi of the Past*, 42.

⁵⁴ Roland Würtz and Eugene K. Wolf, “Mannheim,” in *Oxford Music Online* (Oxford University Press, 2001), 4, <https://doi.org/10.1093/gmo/9781561592630.article.17660>.

⁵⁵ Würtz and Wolf, 3.

⁵⁶ Pamela Weston, *Clarinet Virtuosi of the Past*, 41.

⁵⁷ Pamela Weston, *Clarinet Virtuosi of the Past*, 30.

⁵⁸ Pamela Weston, 30—1.

1785 to various German cities. In 1795, he became Kapellmeister in Jena. Despite a large output of compositions, he was severely in debt when he died in 1801.⁵⁹

Carl Stamitz composed over 50 symphonies, 38 symphonies concertantes and more than 60 concertos. He was the most prolific Mannheim composer, and his music reflects the Mannheim style but also exhibits a more cosmopolitan style with lyricism and ease of melodic flow. He used rondos in his orchestral works more often than other composers from Mannheim, presumably a result of his extensive contact with French music during the 1770s.⁶⁰

Stamitz composed solo concertos for a wide range of instruments, including violin (15), clarinet (at least 10), flute (8) and bassoon (7).⁶¹ Unfortunately, many of these works are now lost. Stamitz composed more than twelve clarinet/string quartets and several for the unusual combination of clarinet, violin, horn and bass.⁶² Carl Stamitz was one of the first composers to appreciate the possibilities for the clarinet as a solo instrument in concertos and to establish the clarinets in the orchestra.

1.5 Summary

In this chapter, I present the aims and relevance of this research and a literature review which explores the historical underpinnings of my research. The utility of this research to

⁵⁹ Eugene K. Wolf, Fritz Kaiser and Jean K. Wolf, "Stamitz Family," Grove Music Online, accessed 25 January, 2021, <https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000040302>.

⁶⁰ Eugene K. Wolf, Fritz Kaiser and Jean K. Wolf, "Stamitz Family", accessed 6 June 2021.

⁶¹ Hoeprich, *The Clarinet*, 79.

⁶² Eugene K. Wolf, Fritz Kaiser and Jean K. Wolf, "Stamitz Family", accessed 6 June 2021.

both period and modern clarinettists has been highlighted. In the next chapter I will explore theoretical terms and concepts, the sources and the research methodology.

Chapter 2. Theory and Methods

2.1 Introduction

The aim of this chapter is to present the theoretical terms and concepts and the methodology used for my research. The technical capability of the five- and six-key clarinet will be investigated using historical research and practice-led research.⁶³ The conceptual framework of practice-led research incorporates creative methods and creative practice to generate new knowledge. It also incorporates non-verbal forms of transmission such as musical sound which can then be described verbally. It should involve self-interrogation and be driven by the research imperative.⁶⁴

2.2 Theoretical terms and concepts

The foundation of this research is the organology⁶⁵ of the five-key clarinet which is explored through my literature review and by playing the instrument. This structured interrogation of the five- and six-key clarinet capability culminates in a Performance Guide to the third clarinet concerto of Carl Stamitz. This will inform the performing practice of other period clarinetists and modern clarinetists playing the Classical period repertoire.

⁶³ Hazel Smith and R. T. Dean, eds., *Practice-led Research, Research-Led Practice in the Creative Arts*, Research Methods for the Arts and Humanities (Edinburgh: Edinburgh University Press, 2009).

⁶⁴ Smith and Dean, 3, 111.

⁶⁵ Vincent Duckles and Laurence Libin. "Organology" in Grove Music Online, p22—3.

2.3 Sources

Primary sources are included in the literature review. I examine the relevant fingering charts from the primary and secondary sources,⁶⁶ (Appendix 1) and consider eighteenth century performance practice. The primary sources also include the clarinet tutor of Jean-Xavier Lefèvre, 1802.⁶⁷ I used the modern Peters edition of the Third Clarinet Concerto of Carl Stamitz,⁶⁸ and the original autographed manuscript.⁶⁹ Secondary sources for early clarinet history are contained in my literature review. Lawson has briefly described; how to hold the period clarinet, the embouchure, the articulation, ornamentation, and other practical and aesthetic considerations.⁷⁰ The publications of Jackman and Orkin provide more specific technical information and performance detail which refine and guide my chosen methodology.⁷¹

⁶⁶ Rice, *The Clarinet in the Classical Period* Ch 3, p78—82; Hoeprich, *The Clarinet* p63-99; Mark Ecochard and Bruce Haynes. "Fingering," Grove Music Online, p52—53; Colin Lawson, *The Early Clarinet*; Jean Xavier Lefèvre, *Methode de Clarinette*. Paris, 1802. (Reprint, Geneva: Minkoff, 1974).

⁶⁷ Jean Xavier Lefèvre, *Methode de Clarinette*. Paris, 1802. (Reprint, Geneva: Minkoff, 1974).

There is a more recent edition of the Lefèvre: Method for Clarinet in three volumes edited by Alamiro Giampieri and published by Ricordi in 1939 but this does not include any technical notes on performance or fingering charts.

⁶⁸ Carl Stamitz and Johannes Wojciechowsky (Editors), *Konzert Nr.3 Fur Klarinette Und Orchester B-Dur*. (Frankfurt: CF Peters, 1957). This is a piano reduction. There are two other modern editions available with piano accompaniment: International Music Company. 1969. Ed. Stanley Drucker. Item number: IM 2287. ISBN 978-1617272806 and Dowani International. 2006. Editor G Stover. Item number F DOW 7501. ISBN 9783905477276.

⁶⁹ Carl Stamitz, "Clarinet Concerto No.3 in B-Flat Major (Carl Stamitz)—IMSLP: Free Sheet Music PDF Download," accessed June 6, 2021, [https://imslp.org/wiki/Clarinet_Concerto_No.3_in_B-flat_major_\(Stamitz%2C_Carl_Philipp\)](https://imslp.org/wiki/Clarinet_Concerto_No.3_in_B-flat_major_(Stamitz%2C_Carl_Philipp)).

⁷⁰ Colin Lawson, *The Early Clarinet*. 41—62.

⁷¹ Luc Jackman, "Early Clarinet Performance as Described by Modern Specialists, with a Performance Edition of Mathieu Frédéric Blasius's *Ile Concerto de Clarinette*"; Evgeni Orkin; Nicola Schröter, *A Methodical Approach to Learning and Playing the Historical Clarinet and Its Usage in Historical Performance Practice*.

2.4 Methodology

Step1. I explore the technical capabilities of the five- and six-key clarinet. This includes the: optimal set-up and orientation of the six joints of the clarinet; exploration of the range; production of sound; posture and finger orientation; development of my embouchure; gain of agility and fluency; improvement of my intonation and the sound quality of individual diatonic and chromatic notes; and the exploration of the full dynamic range of the instrument. I consulted the primary and secondary sources, mentioned in 2.3 above, which included Jean-Xavier Lefèvre's instructions in his *Méthode de Clarinette*.⁷²

Step 2. I explored various fingering patterns and learned alternate cross-fingering (including trills). To achieve this, I consulted fingering charts in the primary and secondary sources and incorporated Mr Craig Hill's examples. This included optimal finger positions, alternate fingerings, trill fingerings and techniques to improve intonation. Finally, it was a matter of personal practice and experimentation on my instruments to develop the new fingering chart. The goal was to produce a schematic fingering chart with cross-fingering alternatives covering the entire range of the clarinet using computer-aided design. Repeated haptic feedback cemented these patterns in my memory. The intonation was cross-checked against an electronic tuner.

Step 3. To gain proficiency on the instrument, I performed daily warmup exercises, and selected technical exercises including articulation patterns from clarinet tutor of J-X

⁷² Jean Xavier Lefèvre, *Methode de Clarinette*, Reprint, Geneva, 1974 (Paris: Minkoff, 1802).

Lefèvre, 1802.⁷³ I also played the duet sonatas in the Lefèvre's tutor book, and the clarinet duets of Valentin Roeser (1735-1782), Anton Stadler (1753-1812), Carl Philipp Emanuel Bach (1714-1788) and Joseph Haydn (1732-1809). As my technique improved, I played many major clarinet compositions of the Classical period including my four recital pieces.

Step 4. Finally, taking all these learnings into account, I developed a performance guide to the third clarinet Concerto of Carl Stamitz applying the stylistic conventions of musical composition and performance in the eighteenth century.

2.5 Summary

In this chapter I presented the theoretical terms and concepts and described the methodology used in this practice-led research. In the next chapter I will present general and technical observations on playing the five- and six-key clarinets, methods for preventing air leakage and the development of a new fingering chart.

⁷³ Jean Xavier Lefèvre, *Methode de Clarinette*, Reprint, Paris, 1802. (Geneva: Minkoff, 1974).

Chapter 3. Observations on playing the Classical clarinet

3.1 Aim and Introduction

The aim of this chapter is to present detailed personal reflections on learning to play the Classical clarinet. This includes my general and technical observations, strategies to prevent air leakage from the clarinet, excluding the embouchure, and the development of a new fingering chart for the five-key clarinet. I identified the need for a new fingering chart with simple computer-aided schematic design which included nuances of partial tone hole closure to improve intonation. This would, in my opinion, be an improvement on the difficult to decipher charts in previously published primary and secondary sources. I also needed to work out the various fingering patterns which worked best on my instrument. This chapter also includes practise exercises for improving fluency.

These descriptions are based on observations of my A and B flat (A = 440 Hz) five-key period clarinets. (see Figure 1.1) They were made for me by French woodwind specialist instrument maker Mr Olivier Cottet of Paris, from boxwood, in 1988. They are replicas of Grenser clarinets. Augustin Grenser (1720-1807) and his nephew Heinrich Grenser (1764-1813) were expert instrument makers from Dresden who both made five-key clarinets and Heinrich Grenser made clarinets with up to eleven-keys in the nineteenth century.⁷⁴ I also played the twelve-key clarinet (A = 430 Hz) by Robinson on loan from the The University of Melbourne Conservatorium of Music, which I played as a five- and six-key clarinet by not using the additional keys. I received new B flat, A and C Grenser Classical clarinets made by Peter van der Poel, from the Netherlands, in December 2021 and used the B flat Peter van der Poel

⁷⁴ Hoeprich, *The Clarinet*, 70, 125—6.

clarinet for my recital. The mouthpiece provided by the maker for this clarinet was too narrow in tip opening, so I am now using a wooden mouthpiece made for me by the American period clarinettist and maker, Thomas Carroll. I have also received a two-key Baroque C clarinet after Borkens at A = 415Hz with made by Peter van der Poel, which gave me further insight into the sound world and technical evolution of the period clarinets.

The design and manufacture of the modern clarinet provides the player with a reliable instrument in terms of technical performance, whereas the period clarinet is not a uniform product and different instruments vary considerably in their technical reliability, accuracy and response. These challenges are explored in this chapter.

3.2 General and technical observations

The clarinet should be held at an angle of thirty to forty degrees from the vertical position. Ideally, one should aim for thirty-five degrees. Too shallow an angle results in a closed muffled sound. Too high and the player is not relaxed and looks awkward when playing. The sound is not as controlled. Lefèvre includes an illustration of this in his treatise.⁷⁵ (see Figure 3.1)

⁷⁵ Jean Xavier Lefèvre, *Methode de Clarinette*, 1802, 5.



Figure 3.1 How to hold the clarinet and place the fingers from J-X Lefèvre, *Méthode de Clarinette*, 1802, Plate 2, un-numbered page.

My ability to play the five- and six-key Classical clarinets improved over six months to a level of proficiency where I was able to play challenging repertoire such as the Grand Sonata No. 2 of Lefèvre. This included learning the various fingering alternatives and was greatly assisted by working with Mr Craig Hill. Familiarity with the modern clarinet also accelerated my learning curve. Daily technical warm-up exercises devised by Mr Craig Hill were valuable for developing controlled dynamics and articulation (see Appendix 2), as well as regularly playing the technical exercises in J-X Lefèvre's tutor, *Méthode de Clarinette*. I also played the duet sonatas in the Lefèvre's tutor book, and the clarinet duets of Valentin Roeser (1735-1782), Anton Stadler (1753-1812), Carl Philipp Emanuel Bach (1714-1788) and Joseph Haydn (1732-1809). Playing these duets with Mr Craig Hill gave me practical insight into historically informed performance practice in the Classical Style. Playing many major clarinet compositions of the Classical period including my four recital pieces further improved my technique and proficiency on the instrument.

It took more than twelve months to better appreciate the many subtleties of playing the instrument in terms of the sound quality, dynamic range, intonation of various notes, choice of fingerings, rhythmic emphasis and variations in articulation.

3.2.1 Character and tone

The charm and individuality of the boxwood Classical clarinet lies in the subtle nature of the different sonorities which the player can elicit. The inside of the bore is not polished like a modern clarinet which affects the tone of the instrument.⁷⁶ The overall sound is lighter, sweeter and more delicate than the modern clarinet. A distinctive feature of the period wind instruments in general is a variation in the sonic qualities of various notes, particularly when half holes and forked fingerings are being used. When forked fingers are used, the fingers can be placed at different heights above open holes to finely adjust intonation and timbre. The different sound quality and timbre of various notes produces an attractive variety of delicate colours coming from the period clarinet compared with the more uniform sound across the compass of the modern clarinet. These qualities are particularly obvious in chromatic notes which tend to have a more muted sound than natural notes. The Classical clarinet reacts quickly to changes in air flow.⁷⁷

3.2.2 Sound projection, intonation, fluency

The shortcomings of the Classical clarinet compared with the modern clarinet are: the lack of projection of a full rounded sound across the full range; a loss of fluency between notes especially in fast passages; the inaccuracy of intonation on some notes, particularly the cross fingered notes; the muffled weaker sound and instability of some of the chromatic notes; the technical challenge of playing a clarinet with few keys; and the impracticality of being able to play in certain keys unless different pitched clarinets are used. The sharp keys beyond G and D major are not practical on a five-key clarinet because of the challenge of

⁷⁶ Craig Hill. Personal Communication.

⁷⁷ Craig Hill, "On Playing the Classical Clarinet."

achieving accurate intonation and fluency in the diatonic sharps. These notes require awkward cross-fingerings and half-hole covering.

3.2.3 Fingering

There is variability in intonation and sonority of period clarinets because of the subtle variations in tone hole size, angulation and placement. This is more pronounced than the more uniform design and construction of the modern clarinet. The fingerings on the period clarinet therefore need to adapt to the particular instrument to get the best tone and intonation from the instrument. The player should become familiar or work out several alternate fingerings for most notes where the response on the different instruments is most variable and choose the optimal fingering patterns for that instrument and the music. A fingering that works well for fluency may conflict with a fingering which produces the best sound and intonation, particularly in slow passages. The player should always try to use fingering combinations which produce accurate intonation.

The early pioneers of the clarinet had often learnt to play other instruments such as flutes and oboes and some played violins as well.⁷⁸ The use of cross-fingerings on the Baroque flute and oboe would have been helpful in learning the clarinet. I have found this from playing the Baroque oboe and recorder where there are some similarities in fingering patterns.

⁷⁸ Mr Charles 'the Hungarian' gave concerts playing the horn, oboe d'amore, chalumeau and clarinet in the one concert in Dublin 1742 (Pamela Weston. p17, 23). Oboe players often doubled on clarinet as the clarinet was emerging. Pamela Weston. p26.

3.2.4 Range and fluency

The five-key clarinet is capable of a three and a half octave range with all chromatic intervals (see Figure 3.2). However, fluency does not reach the liquid smoothness of a modern clarinet. The low or chalumeau register of the clarinet extends from E to B'⁷⁹ and corresponds to that of the chalumeau itself, the lowest note of which was F. The middle register is the clarion or clarino register (B' to C'') and the highest register the altissimo (D'' to A'''). The throat tone fingerings at the break between chalumeau and clarion registers are awkward, especially if rapid changes are required. The modern clarinet Boehm and Oehler systems have alternate left and right B', C', C sharp' keys, but only the left-sided keys are available in the period clarinets. (see figure 1.1) The alternate left and right fingerings greatly enhance the fluidity of playing.

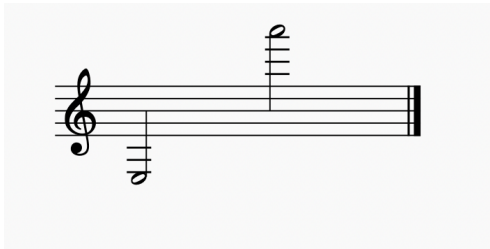


Figure 3.2. The range of the five-key clarinet.

I have observed that the degree of opening of the speaker key is critical to producing pure notes, free of unwanted partials, especially loud undertones. These undertones can also

⁷⁹ The apostrophe after a capital letter indicates that this musical note is an octave above its lowest equivalent note on the clarinet. In this case B is a half tone below middle C on the clarinet. It is the lowest B on the instrument. B' is one octave above this B. Two apostrophes indicate two octaves above the note, and three apostrophes indicate three octaves above the note.

manifest on a modern clarinet, but do not usually present a formidable problem. Minute variations in this speaker key opening on the classical clarinet make a large difference to the sound. The metal tube in the speaker key tone hole should be flush with the hole opening. It can move outwards which would narrow the opening distance of the Keypad. The embouchure and the quality and shaping of the reed are also important variables to avoid these unwanted partials. I have observed that reducing the speaker key opening slightly by placing a few layers of small squares of masking tape on the body of the clarinet where the thumb end of the speaker key contacts the clarinet, or alternatively, positioning the thumb so as to adjust the degree of key opening may help the purity of tone of the F sharp'', G sharp'', B flat'', C'' and to some extent the altissimo register.

Lefèvre cautioned that some note combinations were impossible to play such as B' to C sharp' with the left fourth finger (L4) but Johann Backofen (1768-1830?) describes a sideways sliding of L4 to make it possible. I have tried this, and its success depends on exactly where the L4 is placed on the key shaft and on a rotating movement of the wrist which helps. It is more reliable to make this manoeuvre further down from the tips of the shafts with a fully extended L4 and with the L4 should be placed in this region almost straddling both shafts to successfully execute the transition. A slight gap and a light tongue may be required to execute the transition smoothly. Backofen even suggests bending the key to accommodate this manoeuvre!⁸⁰ A good example of this note combination is encountered in Beethoven's Piano Concerto Number 4 op. 58: Allegro, bars 124-126.⁸¹ (see Figure 3.3)

⁸⁰ Hoeprich, *The Clarinet*, 91.

⁸¹ Hoeprich, 91.



Figure 3.3 'C' clarinet excerpt from the first movement ('*Allegro Moderato*') of the Piano Concerto Number 4 in G Major, Op. 58 by Ludwig van Beethoven. This was composed in 1805 to 1806. Note the clarinet solo at bar 126 which is difficult to execute smoothly with the left fourth finger playing C sharp' and B' natural sequentially on a Classical clarinet. It is smoother when transposed up a tone for the B flat clarinet. This transition is not difficult on a modern clarinet because of alternate left and right fingerings for these notes.

3.2.5 Intonation and tuning

Intonation can be optimised by altering the length and position of the barrel, that is the degree to which it is withdrawn, and the embouchure. These factors also affect the modern clarinet. The pitch of the clarinet rises slightly as the instrument warms. This is a more marked phenomenon with clarinets made from boxwood than the Grenadilla or Cocobola hardwoods used in modern clarinets. Other factors that can affect intonation are the height of the fingers above the tone holes and the choice of cross-fingerings. Backofen, like Lefèvre, placed a strong emphasis on playing in tune with pure intonation ("*Mit reine Intonation*").⁸² Playing long notes on the clarinet along with the same notes generated on the electronic tuner set on at A = 430Hz helps refine fingering and intonation for each note.

⁸²

Eric Hoeprich, 90.

Further, playing long notes at different intervals along with a steady low tonic drone from the electronic tuner further helps develop tone and intonation on various harmonic intervals of the scale. This process helped me become accustomed to the individual tonal characteristics of my clarinets.

3.2.6 Mouthpiece, reed and embouchure

The period clarinet mouthpiece is significantly smaller and narrower than a modern clarinet mouthpiece with a smaller tip opening, and thus requires softer reeds than the modern clarinet. The period clarinet is more resistant to airflow than the modern clarinet because of smaller tone holes and the extra resistance produced by forked fingerings. This requires a free-flowing mouthpiece with a narrow tip opening and a soft reed. A harder reed and wider tip opening would provide more resistance, with more energy required to make the reed vibrate.⁸³ E flat clarinet reeds, which are size two, tend to need a lengthening of the scrape, whereas Vandoren White Master B flat reeds, size one-and-a-half, have a good length of scrape but tend to be too wide and need to be shaved down in width.⁸⁴ Essentially, the reeds need to be shaped for the particular mouthpiece. The reed is fixed in position using a cord or string ligature. The embouchure is similar in shape to that of required for modern clarinet but is not as tight. The mandibular muscles may fatigue because: the mandible is in the open position around the mouthpiece; the temporomandibular joints are disengaged; and the masseter muscles are stretched. This is more extreme than the modern clarinet embouchure. The player must be careful not to tighten the embouchure excessively

⁸³ Craig Hill. Personal communication.

⁸⁴ Craig Hill. Personal communication.

because of the narrow tip opening. Notes close off easily and is a particular problem with the high notes above B''.

I have tried to play the instrument with the reed on the upper side of the mouthpiece which was common practice in the mid-eighteenth century,⁸⁵ but I was not producing an acceptable sound. The upper lip has to turn over the front teeth to create the cushioned contact with the reed. I had much less control compared with the reed on the underside. The French and English tended to play with the reed on the upper side. The treatise of Lefèvre describes the reed on the upper-side (see Figure 3.1).⁸⁶ However, German players such as Josef Beer played with the reed on the under-side of the mouthpiece stating that they could achieve a better sound and articulation compared with the reed on the upper-side.⁸⁷

3.2.7 Bore

The bore of my five-key B flat clarinet (A = 440Hz.) is 14.61mm at top of upper joint with wood thickness of 3.35mm, and 19.56mm at bottom joint as it flares to the bell with wood thickness of 2.28mm. The length of the instrument is 59.50cm. By comparison, the bore of my modern B flat Backun Boehm system Clarinet is 14.60mm at top of upper joint with wood thickness of 4.3mm, and 21.3mm at the bottom joint as it flares to the bell with wood thickness of 2.28mm. The length of the instrument is 59.0cm.

⁸⁵ Hoeprich, *The Clarinet*, 43.

⁸⁶ Jean Xavier Lefèvre, *Methode de Clarinette*, 1802, p2, 3.

⁸⁷ Hoeprich, *The Clarinet*, 92.

The bore at the upper end is the same on both clarinets, but the wood is thicker on the modern clarinet. At the bottom end there is a wider bore on the modern clarinet with more flare. The wood thickness is the same. These differences may explain the stronger rounder sound of the modern clarinet with greater projection. In addition, the bigger, more open mouthpiece on the modern clarinet produces a larger rounder sound compared with the smaller period clarinet mouthpiece. The bore of the period clarinet mouthpiece neck needs to be matched to the bore of the barrel. If there is a mismatch in bores, turbulent air flow may develop at the junction which interferes with the ease of blowing through the instrument. I encountered this problem when trying various mouthpieces.

3.2.8 Finger position and posture

Developing precise finger positions and placement over the tone holes is important for smooth execution and prevention of air leak. The axis of the fingers should be perpendicular to the longitudinal axis of the clarinet and mildly flexed in a curved posture forming arches. This finger position also applies to the modern clarinet. Special care should be taken to curve the left and right third fingers to maintain the perpendicular placement of the hand. This enables faster passages to be executed with more accuracy and control compared with straight flattened fingers. The right thumb is perpendicular, but the left thumb is angled so that the tip can smoothly move across to engage the speaker key. It follows that the wrist, elbow, shoulder, and indeed the truncal posture must all be aligned to optimise the finger position just as they are for optimal performance on the modern clarinet. (see Figure 3.1)

There is more spread between the right third and fourth fingers on the period clarinet than a modern clarinet with its extended keys for the F or C'. This tends to induce fatigue in the

right hand more than the modern clarinet. As there is no thumb rest on classical clarinets, the right thumb tends to slip upwards to rest on the jutting joint above, but the player must be careful to slide it down to the correct position. This also reduces fatigue of the fingers and hand.

3.3 Prevention of air leakage

Air leakage is due the escape of air through the incomplete seal of tone holes by a key with a pad or by malposition of the fingers or at the tenon joints, or through a loose embouchure. Larger leaks will waste air resulting in the player running out of breath sooner. Air leakage from the tone holes prevent notes sounding and can become a major technical issue. Adding more keys to a Classical clarinet, increases the chance of air leak because of the leather pads. Leather is not as soft as modern pads which have added cushioning with felt and polythene. This gives the modern pads a better seal. The leather has incised edges which can also leak. Also, the tone holes have no raised edge or lip, which reduces air leakage. These did not appear until the 1830s. The springs were made of copper whereas modern springs are stainless steel. As the spring ages it weakens more quickly with copper, which puts less tension on the pad and increases the risk of air leakage. The player may need to increase the tension in the spring if a pad is leaking. The low G sharp key has a very big tone hole and is the most likely key-pad to leak. As the wood warps with age, the tone hole and pad may also go out of alignment.

The tenons of the joints must be firmly in place. More cotton and wax may be required to achieve this. Cotton thread is wrapped around the tenons of period clarinets and lubricated with wax to hold the joints together, to prevent air leakage and to aid smooth assembly of

the clarinet. The cotton has been replaced with cork in modern clarinets, which is also lubricated with wax or cork grease. This is especially important at the mouthpiece and barrel joints. Covered tone holes must also be air-tight. Air leak is most likely with the left third—L3, right third—R3 and right fourth—R4 finger tone holes. To minimise leak of R3 and 4, the thumb should be placed opposite the line dividing the second and third tone holes. There is also a risk of air leakage when transitioning from lower to middle register B' and C', therefore, the right hand needs to be positioned precisely to avoid this.

The upper main joint should be slightly rotated to the left, counter-clockwise from above, which allows the left third finger to better cover the hole when the B' and C sharp' keys are depressed. The straight edge of the low G sharp key should align with centre of the right third—R3 hole, so that right first—R1 and third finger—R3 will be well positioned to avoid an air leak.

3.4 Developing a new fingering chart for the five-key clarinet

I developed a complete fingering chart for the 5-key clarinet from E to A''', including alternate fingerings (see Appendix 3). I first studied the fingering charts in the eighteenth century clarinet treatises and the more recently published fingering charts described in the literature review. I also had advice from Mr Craig Hill. I experimented with various fingerings to achieve the best sound and intonation. I also found some novel fingerings which worked on my clarinet such as C sharp and described the amount of finger lowering required to achieve optimal intonation such as F', G', G sharp', A', E flat and B flat. I have reported my detailed observations on developing this fingering chart for the 5-key clarinet (see Appendix 3). There are many nuances which can only be appreciated by playing the instrument and

choosing the optimal fingering for a particular passage of music. Choice of fingering will be dependent on the adjacent notes and the speed of the passage. Examples are the more rounded sound of C''' with R 2,3,4 rather than the usual fingering with the G sharp key. In fast scalar or arpeggiated passages where standard forked fingerings are not practical, such as B natural–R1 with half hole and the G sharp key, the use of R1 or R3,4 for B natural are alternatives. This former B natural fingering is too flat and the latter B natural is too sharp and are therefore unsatisfactory when played for a longer duration.

3.5 Summary

In this chapter, I have described the technical aspects of learning to play a period clarinet including the development of a new fingering chart and individual practice advice. This will be of assistance to other players commencing their journey on the period clarinet.

From my experience, it would be more challenging to start playing a period clarinet proficiently in a relatively short timeframe without having a strong foundation in the modern clarinet. One can more quickly adapt to the subtleties of the period clarinet with an understanding of the correct techniques for sound production, airflow, dynamic control, embouchure control and intonation. The player also requires an accurate sense of pitch to judge fine gradations in pitch on different notes because of the inherent subtle variability in the pitch of different notes on the period clarinet.

Chapter 4. A Performance Guide to the Third Clarinet Concerto of Carl Stamitz

4.1 Introduction

The aim of this chapter is to present a performance guide to the Third Clarinet Concerto of Carl Stamitz. The original autograph handwritten score is compared to the modern edition. The orchestration, musical form, character and harmonic analysis of the work will be discussed, and the performance guide follows including an analysis of the various elements of Classical musical style to achieve a historically informed performance. Musical excerpts from the solo clarinet part are presented to illustrate various aspects of historically informed performance practice.

4.2 The source

The Third Clarinet Concerto of Carl Stamitz was composed around 1785 for B flat clarinet and orchestra in B flat major. The manuscript contains the words "*Del Sig. Stamitz Berlin*". In 1786, Stamitz was under contract in Berlin. The concerto was probably composed for Josef Beer.⁸⁸ It was scored for strings, pairs of horns in B and oboes. The current Peters' edition,⁸⁹ edited by Johannes Wojciechowski, was based on the autograph manuscript in the National Library of Vienna.⁹⁰ (See Appendix 5)

⁸⁸ Carl Stamitz and Johannes Wojciechowsky, *Konzert Nr.3 Für Klarinette Und Orchester B-Dur*.

⁸⁹ Carl Stamitz and Johannes Wojciechowsky.

⁹⁰ Carl Stamitz, "Clarinet Concerto No.3 in B-Flat Major (Stamitz, Carl Philipp) IMSLP: Free Sheet Music PDF Download," accessed 6 June, 2021, [https://imslp.org/wiki/Clarinet_Concerto_No.3_in_B-flat_major_\(Stamitz%2C_Carl_Philipp\)](https://imslp.org/wiki/Clarinet_Concerto_No.3_in_B-flat_major_(Stamitz%2C_Carl_Philipp)). Autograph solo and orchestral parts. Mus. Hs. 5865.

Around the time of this composition, Carl Stamitz was travelling extensively to give concerts,⁹¹ which may explain a lack of attention to the details in the writing. Notational details such as articulation and dynamics are sparse. It may have also been assumed by the composer that the players would be familiar with the stylistic conventions. Articulation marks, slurs, dynamics, grace notes and appoggiaturas which have been added by the editor for the modern edition do not appear in the autograph manuscript. A reason for this is that these additions may not have been intended by the composer. These are circled in my annotated version of the clarinet part. (See appendix 6). The annotations which I have chosen to play are marked in dark blue in this appendix.

4.3 Orchestration

The individual hand-written orchestral parts are provided in the autograph manuscript. There was no score provided. There is no figured bass and probably no keyboard was involved in the performance which is a point of differentiation from the Baroque period. The French horn and oboe parts provide colouring and accompaniment to the strings but do not play independent countermelodies.

4.4 Musical form, character, and harmonic analysis

It is important to analyse the form and harmonic architecture of this concerto in order to develop a performance guide. The style is typical of early Classical concertos with the clarinet as the soloist, a subordinate orchestral accompaniment with additional orchestral tutti.

⁹¹ Eugene K. Wolf, Fritz Kaiser and Jean K. Wolf, "Stamitz Family."

This concerto lies well within the technical capability of the five-or six-key clarinet. It displays the wide compass of the clarinet from G to E''' and the virtuosity of the player is showcased in the many semi-quaver and demisemiquaver arpeggiated phrases in the first and third movements. The lyrical qualities of the clarinet feature in the cantabile second movement. The writing suggests Stamitz had a good appreciation of the technical capabilities of the clarinet.

4.4.1 First Movement

This movement is in Sonata Form albeit with a partial recapitulation where the second subject is not restated. It is a step beyond continuous binary form because a second subject has appeared in the exposition, whereas in continuous binary form, the entire first section ends on the dominant and there is no second subject.

The movement is marked 'Allegro moderato' and is in Common time. My chosen tempo is a crotchet equals 116 beats per minute. In the Baroque and Classical periods Allegro indicates 'cheerful', 'lively' or 'merry' but not necessarily 'fast'. It is important in Baroque and Classical performance for the player to be expressive on all notes and not rush or try to impress by the rapid execution of notes. Allegro has tended to become quicker in modern musical practice. There is a long orchestral introduction of 48 measures which is common for concertos of the Classical period.

4.4.2 Second Movement

This is marked 'Romance'. The key is E flat Major, which is the subdominant of the primary key, B flat major. The time signature is common time. My chosen tempo is a crotchet equals 80 beats per minute because of the gentle character of the music. The editor added the dynamic markings 'dolce' and 'piano' which are not marked in the original manuscript. The movement is in ternary form (ABA) typical of Baroque and Classical period slow movements. This tender melody should be played in a gentle cantabile style. The second theme in the relative minor is more plaintive and melancholic. The soloist should bring out the change in emotion here. One could imagine two lovers in conversation. The editor has marked this passage 'p'. I will follow this dynamic.

4.4.3 Third Movement

This is a Rondo in B flat Major in compound duple time (6/8). It follows a typical pattern ABACABA with a short Coda. The character is a bright dance at a moderate pace with the first beat of the bar being the strongest. My chosen tempo is a crotchet equals 76 beats per minute. It should not be played too fast because speed was not a feature of Classical performance of the Rondo and the semi-quaver passages would sound too rushed and would be technically difficult to execute.

A harmonic analysis of the Concerto is presented in Appendix 7.

4.5 Performance guide

4.5.1 General comments

In general, the goal of the performer of the modern clarinet is to produce evenness and beauty of tone, a long legato line and dynamic contrast with all notes held for their full value. The design of the modern clarinet supports these goals. The player should play through to the end of the phrase and in many instances, direct the notes to lead to the next phrase. This is also known as ‘phrase-driving’. Long notes should be held so there is not a drop in volume unless marked. Breaths should not disturb the flow of phrases and the sound should not be delayed after taking a breath. This description is based on the clarinet teaching I have had over the years; by listening to the best clarinet players in recordings; and from publications on clarinet technique;⁹² and from the musicological literature.⁹³

In contrast, performance in the Classical style is typified by a softer, more delicate nuanced tonal production compared with the modern clarinet. The Classical clarinettist should have an understanding of the gesture and eloquent phrasing of the eighteenth century and should play in a relaxed way with a beautiful tone. Longer phrases are broken into smaller components with more time and opportunities to breathe. The ideal of elegance is achieved by a refined beauty of tone.⁹⁴ Contemporary writers likened the sound of fine clarinettists to the human voice or the pure sound of the glass harmonica.⁹⁵

⁹² Keith Stein, *The Art of Clarinet Playing* (Princeton, N.J.: Summy-Birchard, 1958), 32, 51—52, 54.

⁹³ Bruce Haynes, *The End of Early Music: A Period Performer’s History of Music for the Twenty-First Century* (Oxford; New York: Oxford University Press, 2007), 57—63.

⁹⁴ Dennis Shrock, *Performance Practices in the Classical Era*, 153.

⁹⁵ Catherine Crisp, “‘Transports of Delight’? Reviews of Clarinet Performance in Paris and London, c. 1770 — c. 1810,” *Performance Practice Review* 22, no. 1 (2017): 5, 24, 27, <https://doi.org/10.5642/perfpr.201722.01.07>.

The performer should strive for a subtle variation in the length of notes, articulation, dynamics and, in some instances, rhythm within a phrase. There is a subtlety of emphasis on the various notes within a phrase. Each note, the length of a crotchet or greater, should have an internal dynamic and shape including onset and offset. There may be brief pauses or commas between phrases. How notes are connected or separated from each other is also important.⁹⁶ Kuijken calls these differentiated dynamics within the bar 'microdynamics'.⁹⁷ Each phrase has an individual character. The player should aim for a gentle waves of sound with a continual ebb and flow. This is analogous to the prosody of spoken speech. There is also a conversational element or question and answer components to the musical phrasing which can be applied. Various phrases may have different emotional qualities which contribute to this conversational style. A forte should not appear too harsh. Elegance should predominate over the projection of force.⁹⁸

4.5.2 Pitch

One of the distinguishing features of historically informed performance practice is the lower concert pitch. The pitch of original instruments from different periods can be discovered by playing them. The pitch is also affected by the player and the ambient temperature. Pitch options are increased for the player by varying the length of sections of an instrument. A' = 392 Hz was the common pitch of the flutes of Johann Joachim Quantz (1697-1773) made for Frederick the Great. From 1700 to 1750 the common performance pitch ranged from A' =

⁹⁶ Shrock, *Performance Practices in the Classical Era*, 153.

⁹⁷ Kuijken, *The Music Is Not the Notation*, 51.

⁹⁸ Shrock, *Performance Practices in the Classical Era*, 153.

392 Hz in Paris and Rome, A' = 466 Hz in Venice and Lombardy to A' = 415 Hz in Germany.

The pitch also varied in different venues within cities.⁹⁹ Haynes published a detailed study of historical pitch with particular reference to oboes.¹⁰⁰

The performing pitch rose steadily during the eighteenth and nineteenth centuries. The Classical period repertoire is usually played at A' = 430 Hz. Kuijken arbitrarily chose A' = 430 Hz to standardise the pitch of the instruments for the ensembles 'La Petite Bande' and 'Collegium Aureum' when playing music of the Classical period. This was subsequently adopted by other period instrument orchestras. A' = 430 Hz should not be considered the historical 'truth' but is a compromise to bring musicians to a standard pitch.¹⁰¹

4.5.3 Temperament

Attaining accurate intonation is challenging in ensembles where instruments have different tuning systems and keyboards are tuned in various temperaments. In the eighteenth century, well-tempered systems allowed the musicians to play in a wider range of keys. The subtleties of these temperaments are lost in Equal Temperament. All fifths are slightly narrowed and all thirds are widened in Equal Temperament. Woodwind instruments can be tuned in a specific temperament through fingering choices, embouchure adjustment and aural skills. This is certainly relevant when the clarinettist plays with a keyboard accompaniment. The challenge increases when different instruments favouring different temperaments play together. Instruments should be able to play pure thirds and fifths

⁹⁹ Bafthold, Kuijken, *The Music Is Not the Notation*, 19—24.

¹⁰⁰ Bruce Haynes, *A History of Performing Pitch* (Lanham, MD: Scarecrow Press, 2002).

¹⁰¹ Kuijken, *The Music Is Not the Notation*, 19—24.

together without a keyboard. Kuijken provides some practical guidance. “The resonating quality of the pure tones is most important on long notes and at important places, whereas passing notes or dissonances can be treated more flexibly”. Instruments should play pure intervals in reference to the bass note as far as possible. This is particularly the case when the woodwinds and French horns are playing long chords in an orchestra. A slight difference in tuning between harmony and melody can be less disturbing than a long out-of-tune chord.¹⁰²

One of the temperaments I am using is ‘Valotti’. This was devised by the eighteenth-century organist, composer and theorist Francesco Valotti (1697–1780) and was championed by Guiseppe Tartini (1692–1770) and published in Valotti’s treatise in 1781. It was an irregular temperament, in contrast to the equal temperament used today and has six different sizes of semitones and three different sizes of whole tones. There was therefore a variety of major and minor thirds which created a diversity in the sound of different keys.¹⁰³

This temperament sounds foreign to the ear if one is used to hearing equal temperament, but it expands the variety of sounds in early music. Valotti temperament is commonly used by period instrumentalists. The keyboard is tuned to ‘Clear Tune Valotti’. The electronic tuner is set to square pitch waveform. The choice of temperament would alter the degree to which the player needs to subtly adjust intonation by the embouchure, by lowering fingers towards tone holes or by adding or subtracting the number of closed holes.

¹⁰² Kuijken, Barthold, 27–31.

¹⁰³ Ross W. Duffin, *How Equal Temperament Ruined Harmony (and Why You Should Care)*, 1st ed (New York: W.W.Norton & Co, 2007), 40.

4.5.4 Phrasing, dynamics and articulation

The placement of articulation and slurs is critical in showing the structure of phrases clearly so that the commas and full stops of the musical conversation are placed correctly.¹⁰⁴ Early music phrasing emphasises the strong beats of the bar.¹⁰⁵ A central concept is ‘good’ and ‘bad’ notes giving rise to micro-dynamics within the bar. Good notes are strong notes placed on the first and third beats of the bar in 4/4 time signature, and placed on note 1 in 2/4 and 3/4 time signature. This also applies to smaller subdivisions of notes. ‘Bad’ notes are played softer and/or shorter than ‘good’ notes. This can mean either notes are unequal in length, *inégaie*, in a dotted rhythm or held for a shorter duration. However, I have observed that the player should strive for beauty of phrasing by not over-emphasising accented beats, lest the music sound too metrical.

Stressed notes are preceded by silence. The melody is not always pushed toward the next climax or toward the last note of the phrase as it would be in playing music of the nineteenth century. In the Baroque and Classical periods, creating a swell in longer notes with gradual crescendo followed by diminuendo, *mesa di voce*, was common practice. The long crescendo developed in the Classical period. In music from the Romantic period, a crescendo often accompanies a musical ascent, but in the Baroque and Classical period there may be diminuendo after accents. For instance, in bars 60, 62 and 64 of Movement 1

¹⁰⁴ Barthold Kuijken, *The Music Is Not the Notation*, 51.

¹⁰⁵ Kuijken, 56.

(see Figure 4.1b and Appendix 6).¹⁰⁶ Indeed, the voice was expected to be more refined as it reached the high notes.

Eighteenth-century woodwind treatises described a varied application of articulation. In faster tempi, notes were not held for their full value unless slurred or marked with tenuto. The duration the note is held varies depending on its weight in the bar.

Slurs lie within one harmony, do not extend across the bar, and do not connect a weak and a strong beat or their subdivisions. Most slurs indicate a diminuendo, and the last note under the slur is generally shortened. Thus, the note after the slur is detached. This contrasts with the nineteenth century where the slur carries to the start of the first note of the next phrase. Notes before appoggiaturas are shortened to emphasise the appoggiatura. The less important the note, the shorter it is held. The articulation is proportionate to the size of intervals. The greater interval, the shorter the articulation.¹⁰⁷

Typical examples of the relatively short phrases, the subtle and are varied dynamics within phrases, the *messa di voce*, the diminuendos under slurs and undulating crescendo/decrescendo accompanying rising and falling melody are given in the annotated excerpts (see figures 4.1 and 4.2) and in the annotated complete clarinet part (see Appendix 6). The hierarchy of beats is indicated by the vertical arrow above the first note of the bar and the hollowed arrow for the second degree of emphasis. An example of varied articulation of a semiquaver passage is presented in Figure 4.3. The inequality of note value

¹⁰⁶ Kuijken, 58.

¹⁰⁷ Kuijken, Barthold, 54.

(*inégle* and ‘overdotting’) was typical of French Baroque music, is not a feature of the classical style. German and Italian composers tended to notate this inequality.¹⁰⁸

¹⁰⁸ Kuijken, Barthold, 42.

Figure 4.1a

Carl Stamitz Third Clarinet Concerto

First Movement from the autograph manuscript

Allegro moderato

The image displays a musical score for the First Movement of Carl Stamitz's Third Clarinet Concerto, starting at measure 48. The tempo is marked 'Allegro moderato'. The score is written for a single melodic line in treble clef, with a common time signature (C). The key signature is one sharp (F#), indicating D major or B minor. The notation includes various musical symbols such as eighth notes, sixteenth notes, and triplets, often grouped with slurs. Trills are indicated by a 'tr' symbol above certain notes. The score is divided into systems, with measure numbers 48, 53, 57, 62, 21, 25, 29, 33, and 36 marking the beginning of new systems. The final system ends with a double bar line.

Figure 4.1b

Carl Stamitz Third Clarinet Concerto

First Movement with interpretation markings

Allegro moderato ♩ = 116

48 *mf*

53

57 *f* *mf*

62 *p Dolce*

21 *f*

26

29

33 *p*

36 *mp*

Figures 4.1a and b

The clarinet part from the first movement of the Third Clarinet Concerto of Carl Stamitz:

- The autographed part copied out. Note the lack of expression marks.
- My annotated version including tempo, beat hierarchy marks, dynamics and expression markings. The vertical black arrows indicate the strongest beat, and the hollow black arrows indicate the weaker secondary beat.

Figure 4.2a



Figure 4.2b

Figure 4.2b displays the annotated musical score for the clarinet part. It consists of two staves of music in 8/8 time, labeled 'Rondo'. The notation includes various annotations: a tempo marking of $\text{♩} = 76$ at the beginning, a dynamic marking of *mf* (mezzo-forte) at the start of the first staff, and a dynamic marking of *p* (piano) at the start of the second staff. Vertical black arrows indicate the strongest beat, and hollow black arrows indicate the weaker secondary beat. The first staff contains measures 1 through 4, and the second staff contains measures 5 through 8, starting with a measure rest.

Figures 4.2 a and b

The commencement of the third movement of the Third Clarinet Concerto of Carl Stamitz:

- a. The autographed part copied out. Note the lack of expression marks.
- b. My annotated part including tempo, beat hierarchy, dynamics and expression markings. The vertical black arrows indicate the strongest beat, and the hollow black arrows indicate the weaker secondary beat.

Figure 4.3

Stamitz third clarinet concerto.

Articulation and dynamics of semiquavers in 3rd movement.

Carl Stamitz

$\text{♩} = 76$

Bar 90 *f*

5

9 [Slight echo]

14 *f* *p*

18 *f*

23 *p*

28 *f* *a tempo* *f*

35

41 *Tutti* *f*

Figure 4.3.

Annotated excerpt from the clarinet part of the third movement of the Third Clarinet Concerto of Carl Stamitz with a suggested articulation pattern and dynamics for the semiquaver passage from bar 90.

There is a paucity of dynamic markings in the autographed manuscript. The marking of a repeated passage to be of a different dynamic the second time is marked in the score by the editor, but it was not always the practice in the Classical period and it is not in the original manuscript. For example at bar 211 of the first movement (marked 'p') and bar 5 of the third movement (marked 'p'). I chose dynamic contrasts to emphasise changes in mood, for example, at bar 66 of the first movement which is the second subject of the exposition. The mood changes to a gentle cantabile from the staccato runs in the preceding bars. The dynamic changes to piano from the opening forte section.

The harmony is a further consideration.¹⁰⁹ Dissonances are played more strongly than consonant resolutions. For example, the D sharp' to E' at bar 125 in the first movement, and the C' to B' in bars 58 and 72 in the third movement.

Dynamics in the First Movement

The emphasis should be placed on the first beat of the bar; less so the third. Minims should be played with *messa di voce*. The dynamic at the start of the clarinet solo is not marked. It should be forte to bar 59 where the section should end strongly. There is a change of mood

¹⁰⁹ Barthold Kuijken, 57.

to cantabile/dolce at bar 66. The triplets at bar 82 should start piano and crescendo to the top D'', then decrescendo to the D' minim at bar 85, and rise again to the climax at bar 87. The repeated phrase at m145 should have more volume as it is the end of the section. The three quavers which follow are marked staccato should be played with insistence. The repetition of the first subject at bar 181 should be forte after the orchestral interlude. The mood could change to dolce/piano at bar 200. The semiquavers at bar 211 could be mezzo-piano and increase to mezzo-forte at bar 215. Similarly, the demisemiquavers of the cadenza could start piano and the repetition at mezzo-forte increasing to forte at bar 224 ending the solo at bar 225. The clarinet could join the tutti to end the movement with a final statement.

Dynamics in the Second Movement

The sole dynamic marking is piano but there should be gradations in dynamic between the three sections. The middle minor section at bar 17 should show a softer more tender melancholic sentiment than the outer sections. There are two main beats to the bar of 4/4 but the most emphasis should be placed on the first beat of each bar. The crotchets should all have their own shape. Descending groups of four quavers in bar 1, bar 3 and bar 5 etc. should have a diminuendo. Descending pairs of quavers such as bar 3, bar 4 and bar 8 etc have decrescendos with a sighing effect. There are also some natural crescendo /decrescendo patterns such as bar 6, bar 17, bar 21 and bar 37.

Dynamics in the Third movement

The dynamic for the opening theme should be forte until end of bar 8. The first beat of each bar should be emphasised but the second beat of each bar should have less prominence. At

bar 17, there should be no gaps between the notes. The crotchets should have shape.

There is crescendo in bar 17 and decrescendo in bar 18. There are three separate short imitative rising two bar phrases. There is a contrast in dynamics in bar 23 to a more gentle, lighter character so there needs to more of a decrescendo in bar 22 to lead in to bar 23. The character changes in the next four bar phrase to a more rustic mood. The last quaver in bar 30 is not a lead in to bar 31. Bar 31 and bar 32 are two separate mini-phrases. The last quaver of bars 34 and 36 are pick-ups to the phrases in the next bar. There is a *ritardando* in the *eingang* before the return of the theme at bar 39. The semi-quavers from bar 91 can be articulated in various ways. Figure 4.3 shows the articulation I have chosen.

4.5.5 Tempo and Rubato

In many instances, it is impossible to know exactly what tempos were being used by performers in the eighteenth century and what composers' expectations were. The choice of tempo markings for this concerto are discussed in Section 4.3. There were also many possible applications for tempo rubato in the Classical period.¹¹⁰ Tempo rubato was considered to be part of a cultivated performance, but it was recommended to be used sparingly and judiciously by Daniel Gottlob Türk (1750-1813) amongst others.¹¹¹ Tempo rubato could be applied in the first movement of this Carl Stamitz Third Clarinet Concerto in the triplets and semi-quavers at bar 33 to bar 36 (see Fig. 4.4). Also, just before the cadenza at bar 222, and at the final tutti cadence. In the second movement at the transition of the second theme back to the first theme at bar 32, at the final cadence of the clarinet, and in the third movement at the *eingang* at bar 38 and at ending of the movement.

¹¹⁰ Brown, *Classical and Romantic Performing Practice, 1750-1900*, 378—82.

¹¹¹ Brown, 380—1.



Figure 4.4 The application of rubato applied to triplets and semiquavers in the first movement of the Third Clarinet Concerto of Carl Stamitz. The horizontal blue lines indicate a slight prolongation of the note maintaining the tempo.

4.5.6 Ornamentation

Quantz described two types of ornaments in his 'Essay of a method for playing the transverse flute' published in 1752. The *wesentliche Manieren* (essential ornaments) and the *willkürliche Veränerungen* (arbitrary alternatives).¹¹² The former was indicated by specific signs or small notes, whereas the latter was the substitution of one note or passage by another which is freely invented or improvised by the performer. The arbitrary alternative ornaments should sound spontaneous but used in moderation.¹¹³ Quantz reserved them for the musician who appreciated the rules of composition.¹¹⁴ They should not consist of scale or arpeggio exercises,¹¹⁵ and they should obey the rules of harmony.¹¹⁶

¹¹² Quantz and Reilly, *On Playing the Flute*, 91.

¹¹³ Barthold, Kuijken, *The Music Is Not the Notation*, 76.

¹¹⁴ Kuijken, *The Music Is Not the Notation*, 79.

¹¹⁵ Kuijken, 79.

¹¹⁶ Kuijken, 90.

Quantz recommended that they be used in the slow movement but could also be used sparingly in repeated sections of the allegro movement.¹¹⁷

There were many musical treatises of the time showing the correct interpretation of the ornaments. The musician was expected to know when to apply them and how to execute them. Playing with good taste should be was the guiding principle. Slow movements were suited to more extensive ornamentation.¹¹⁸ Trills were approached from the upper note appoggiatura except in sad and slow music the appoggiatura could be from below.¹¹⁹ An example here was the G sharp'' appoggiatura before the first note A'' in m21 of the second movement. (see Figure 4.5) I am approaching all cadential trills from above in this concerto.

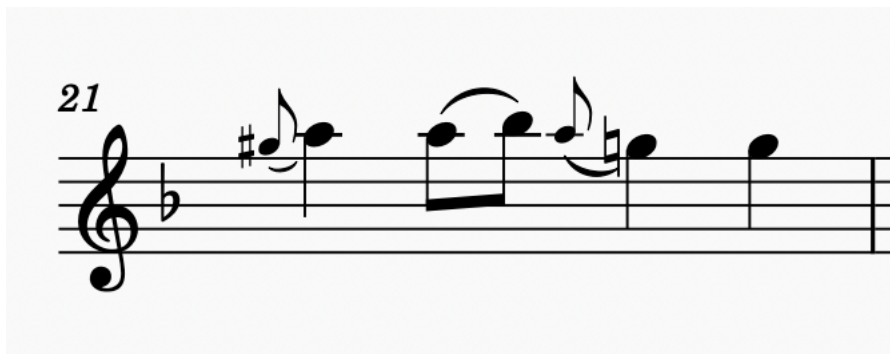


Figure 4.5 Appoggiatura from the lower note. Clarinet part. Bar 21 Second Movement, Third Clarinet Concerto of Carl Stamitz.

An example of judgement in the choice of ornamentation is bars 196-197 in the first movement. (see figure 4.6). This starts with a quaver appoggiatura, which the editor

¹¹⁷ Shrock, *Performance Practices in the Classical Era*, 297.

¹¹⁸ Kuijken, Barthold, *The Music Is Not the Notation*, 83—4.

¹¹⁹ Shrock, *Performance Practices in the Classical Era*, 351.

changed to a grace note; but in the next bar with a repeated sequence transposed down one tone, there was no appoggiatura in the autographed copy. Perhaps Stamitz was in a hurry and did not notate it. The symmetry of the music suggests that an appoggiatura be placed here too.



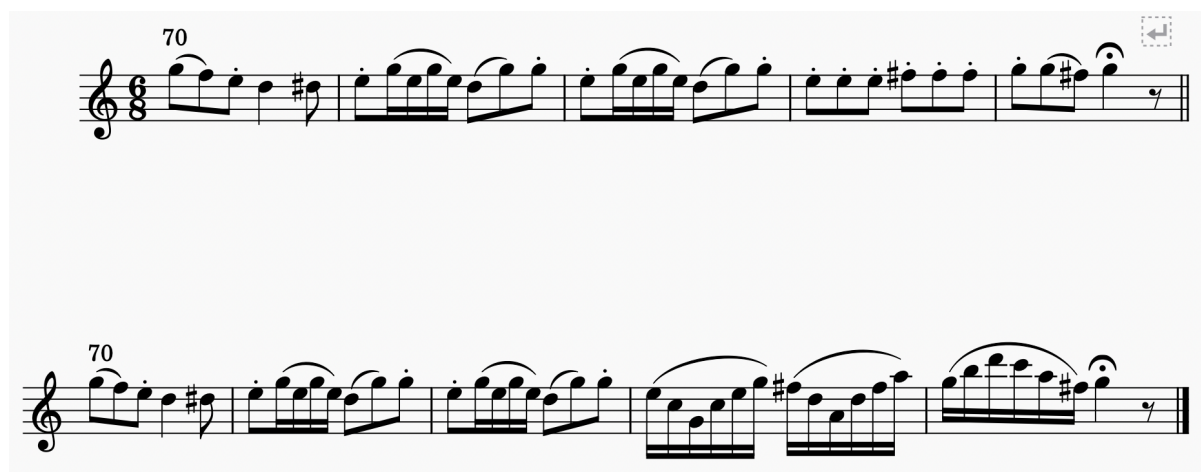
Figure 4.6 Autographed manuscript of the Third Clarinet Concerto of Carl Stamitz. First movement, bars 196-197. An appoggiatura could be added before the G in the second measure.

In eighteenth-century France, the ornaments were annotated whereas in Germany, England and Italy ornaments were largely left to the discretion of the performer. There are few ornaments marked in the autographed parts of the Third Clarinet Concerto of Carl Stamitz. However, there are some opportunities for the placement of arbitrary alternative ornaments. (see Figures 4.7 and 4.8)

Figure 4.7a



Figure 4.7b



Figures 4.7 a and b

Examples of arbitrary alternative ornaments I added to the solo clarinet part of the Third Clarinet Concerto of Carl Stamitz. The upper line is the original part, and the second line shows the alternative embellishment. It could be argued this ornamentation is excessive and moves too far away from the composer's intent. Nevertheless, they are tasteful and add to the excitement of the music:

- a. First movement bars 184-186.
- b. Third movement bars 70-74.

Figure 4.8a

Stamitz 3, second Movement. From the Original Romance

Stamitz

Romanze

5

9 7

17

21

25

29

33

37

Figure 4.8b

Stamitz 3, second Movement. Plus ornaments

Romance

Stamitz

Romanze ♩ = 80

p dolce

5

9

17

21

25

29

33

37

p

rit.

Figure 4.8c

Stamitz 3, second Movement. Plus ornaments

Romance

Stamitz

Romanze ♩ = 80

p dolce

5

9

17

21

25

29

33

37

p

rit.

Figures 4.8 a, b and c

Further examples of arbitrary alternative ornaments added to the solo clarinet part of the second movement of the Third Clarinet Concerto of Carl Stamitz:

- a. The autographed part is copied out. Note the lack of expression marks.
- b. Second version with my added ornaments.
- c. Third version with further ornamentation. It could be argued that bars 21 and 22 have excessive ornamentation which has departed too far from the original melody. However, I believe these ornaments add to the expression of the music in a tasteful way particularly after the original melody is stated in bars 17 and 18. For the performer, it is a matter of personal taste and staying within boundaries of eighteenth-century performance practice.

Vibrato was used as an ornament in the Baroque and Classical periods to heighten emotional expression.¹²⁰ The musical instruction of the seventeenth and eighteenth centuries stated that vibrato should be used sparingly and at the apex of the *messa di voce*, applied on long notes or at expressive moments.¹²¹ Leopold Mozart stated that vibrato should be subtle.¹²² There was also a variance of advice by the musical authorities. Francesco Geminiani (1687–1762) instructed the flautist to play with vibrato on long notes, whereas Tartini recommended a *messa di voce* without vibrato for long notes.¹²³ The constant use of vibrato by singers and instrumentalists is a relatively modern practice.¹²⁴

¹²⁰ Barthold Kuijken, *The Music Is Not the Notation*, 77.

¹²¹ Shrock, *Performance Practices in the Classical Era*, 37; Haynes, *The End of Early Music*, 55.

¹²² Shrock, *Performance Practices in the Classical Era*, 38.

¹²³ Kuijken, *The Music Is Not the Notation*, 78–79.

¹²⁴ Haynes, *The End of Early Music*, 55; Kuijken, *The Music Is Not the Notation*, 77–8.

Some clarinettists playing modern instruments use a gentle vibrato. Regional preference is a factor in whether the player uses vibrato.¹²⁵ I have not discovered descriptions of vibrato being recommended or used by clarinettists in the Classical Period. Lefèvre did not describe the use of vibrato in his treatise. I personally do not use vibrato on the clarinet and have used the *messa di voce* to heighten the expression long notes.

4.5.7 Cadenzas

Quantz recommended cadenzas be short, fresh, performed without regular tempo, including surprise and preferably be performed in one breath.¹²⁶ It was not essential that cadenzas be thematically linked to the piece. Cadenzas became longer in the nineteenth and twentieth centuries.¹²⁷ The cadenza that Stamitz included at bar 223 in the first movement is relatively short but requires several breaths to play. The demi semi-quaver patterns mimic the semi-quaver scales and arpeggiated patterns of the preceding material. This cadenza does showcase the finger technique of the player. The second movement does not have a written cadenza. There is an opportunity for an *eingang* at bar 32 just before the repeat of the main theme in the second movement and for an expansion of the *eingang* at bar 23 in the third movement.

4.6 Summary

The culmination of this practice-led research has been to develop a performance guide to the Third Clarinet Concerto of Carl Stamitz. The original manuscript of the concerto was studied and compared to the modern edition. An analysis of the musical form, character,

¹²⁵ Eric Hoeprich, *The Clarinet*, 233.

¹²⁶ Barthold Kuijken, *The Music Is Not the Notation*, 85.

¹²⁷ Kuijken, 85.

and harmonic analysis of the piece was undertaken. Various performance elements were then described, with reference to the performance practices of the eighteenth century. These included pitch, temperament, phrasing, dynamics, articulation, tempo, rubato, ornamentation and cadenzas. Musical excerpts of the clarinet solo line were selected to illustrate these performance decisions.

Chapter 5. Overall summary

How does a modern clarinettist learn to play the five- or six-key classical clarinet incorporating stylistic conventions of the Classical period? This study aimed to provide some answers to this question by developing a performance guide to the Third Clarinet Concerto of Carl Stamitz in B flat Major composed circa 1785. The evolution of the clarinet in the eighteenth century and the historical background to the concerto and Carl Stamitz were explored in the literature review.

Using performance-led research methodology, I explored the technical aspects of playing the five- and six-key classical clarinets and developed a new fingering chart. I highlighted differences in playing the classical clarinet compared with the modern clarinet. I examined eighteenth-century performance style. Finally, I developed a performance guide to the Third Clarinet Concerto of Carl Stamitz based on the original autographed manuscript.

Appendices

Appendix 1. Clarinet treatises of the eighteenth century

*Circa 1760 Roeser, Valentin. Principes de clarinette.

*Valentin Roeser. Essai D'Instruction. A l'usage de ceux qui composent pour la clarinette et le cor. Paris. Mercier. 1764. This treatise applies to the 4-key clarinet. (see Eric Hoeprich page 88).

1772 Francoeur Le Neveu, Louis-Joseph. Diapason général de tous les instruments à vent.

*1773 Corrette, Michel. Flute method but augmented by the range of the oboe and clarinet. This treatise applies to the 4-key clarinet.

*Ca. 1775 Hotteterre le Romain (JM). Method for flute but augmented with tables of the clarinet and bassoon. This treatise applies to the 4-key clarinet.

*Ca. 1780 Abraham. Principes de Clarinette This treatise contains a fingering chart only in the facsimile.

Ca. 1780 Anonymous. The clarinet Instructor. Publisher London, Longman and Broderip. Has the earliest illustration of a five key clarinet. (see Eric Hoeprich page 88).

*1785 Van der Hagen, Armand. Méthode nouvelle et raisonnée pour la clarinette. This was a major treatise for the Classical 5-key clarinet.

*1788 Framery, Nicolas Etienne and Ginguené PL. Encyclopédie méthodique.

*Ca. 1790 Anonymous. Gamme de la Clarinette. The treatise contains a fingering chart and exercises. There is no text.

Ca. 1793 Vandenbroeck, Othon Joseph. Traité général de tous les instruments à vent.

*1796 Blasius, Frederic. Nouvelle méthode de clarinette. Applies to a 5-key clarinet.

*1798 Van der Hagen, Amand. Nouvelle méthode de clarinette. Première partie. Applies to a 5-key clarinet.

*Ca. 1800 Yost, Michel. Méthode de clarinette. Applies to a 5-Key clarinet.

*1802-3. The clarinet treatise of Jean Xavier Lefèvre, Méthode de clarinette was published in Paris with fingering charts for a 6-key clarinet with the added C sharp key. It includes 12 brief clarinet sonatas with a bass line accompaniment. These were written for his students at the Paris Conservatoire and are of progressive difficulty. It is published in Facsimile by

Minkoff Reprints, Genève, 1974.¹²⁸ There is also an 1836 edition of the Lefèvre Treatise available on IMSLP which has details of Mühlers clarinet.¹²⁹ A modern edition of this treatise is still in print and was edited by the Italian clarinettist Alamiro Giampieri and published in 1939 in three volumes by Ricordi.¹³⁰ The twelve Sonatas and a Theme and variations of the original are all present but are written in the form of a clarinet duet.

*1803 The first German clarinet treatise was by Johann Georg Hans Backofen and was published in Leipzig, 1803. *Answeisung zur Klarinette nebst einer kürzen Abhandlung uber das Bassett-Horn* (Instruction for the clarinet and a short treatise concerning the Bassett-Horn). It also contains a fingering chart of a 5-key clarinet similar to the French treatises.

Ca. 1803 Mahon, John. *New and complete preceptor for the clarinet*. Published in London. Goulding, Phipps and D'Almaine. This treatise applies to the 5-key clarinet. (see Eric Hoeprich page 88).

(* indicates that fingering charts are included)

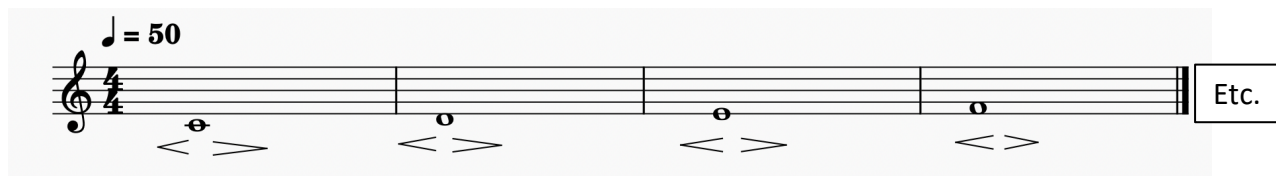
¹²⁸ Clive Brown, 380—1.

¹²⁹ “IMSLP623013-PMLP914807-Jean-Xavier Lefèvre. *Méthode_de_clarinette*. Pdf”, accessed 5 May 5, 2021, https://imslp.simssa.ca/files/imglnks/usimg/3/3d/IMSLP623013-PMLP914807-M%C3%A9thode_de_clarinette.pdf.

¹³⁰ Jean Xavier Lefèvre, “Lefèvre: Metodo per Clarinetto Vol.1,2 and 3. Publisher Ricordi,” Revisione di Alamiro Giampieri. Presto Sheet Music, accessed May 5, 2021, <https://www.prestomusic.com/sheet-music/products/7360597--lefevre-metodo-vol-1>.

Appendix 2. 'Warm-up' exercises

1. Long notes with *Messa di Voce* (swells).



2. Scales C, G, D, A, F, B flat, and E flat Major, Chromatic (E to A'''). The player should pay particular attention to their intonation against a tuner.
3. Arpeggios.
4. Practising diminuendo of paired notes in progressive scales.



5. 'Micro-dynamic' practice of paired notes.

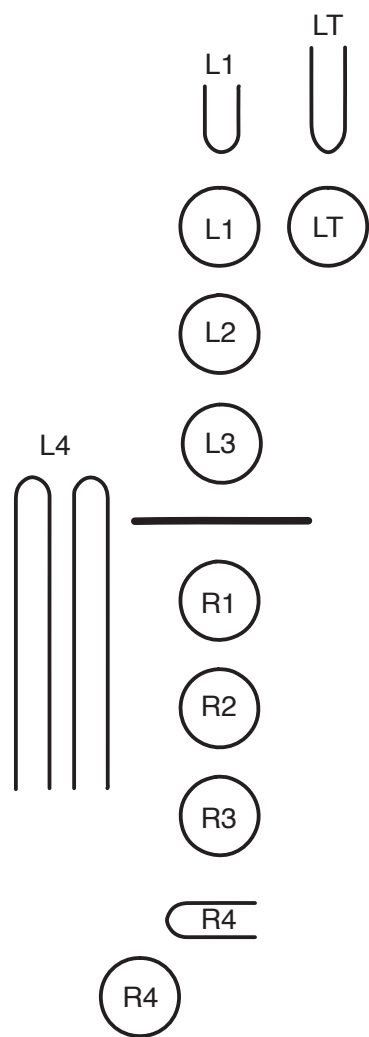


6. Alberti bass practice to get the notes to project evenly, especially the first and third semi-quavers of the group.

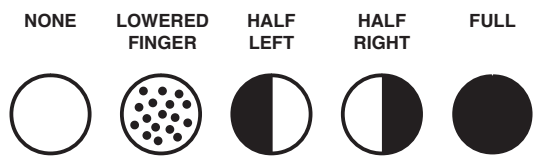


Appendix 3. Fingering chart

LEGEND



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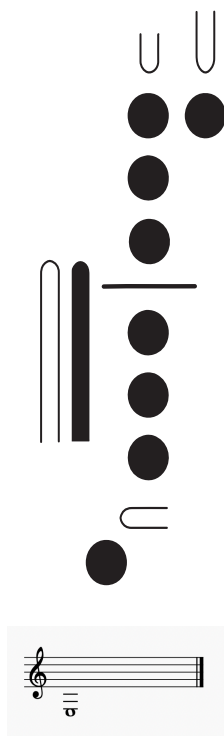
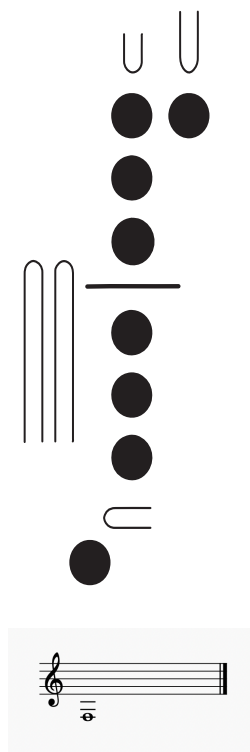
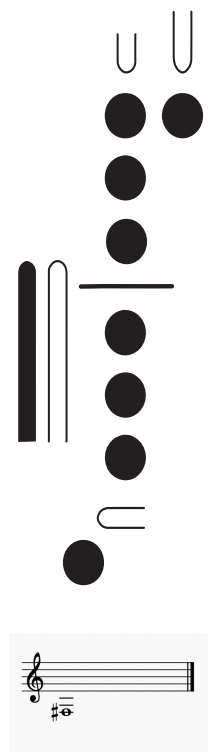
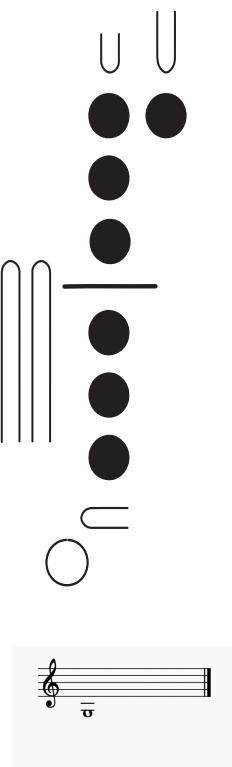
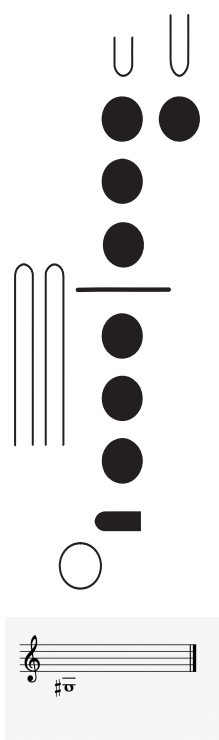
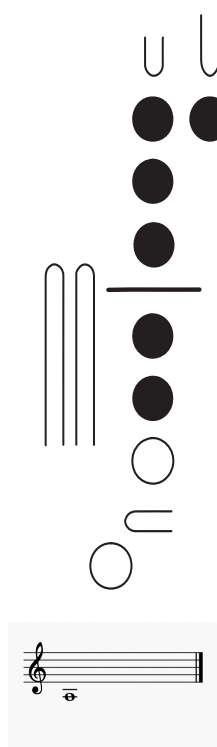
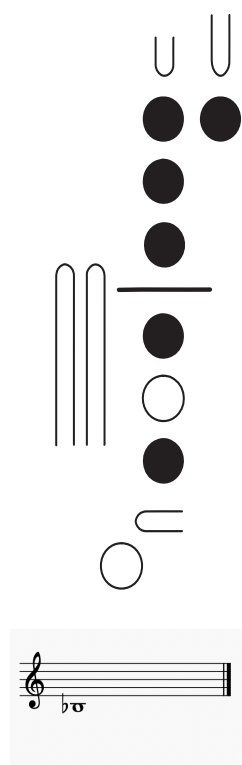
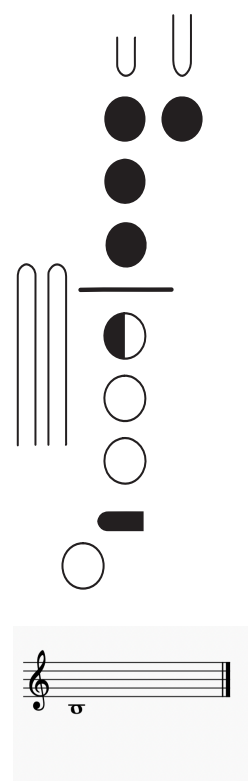
Notes accompanying the Fingering chart

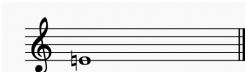
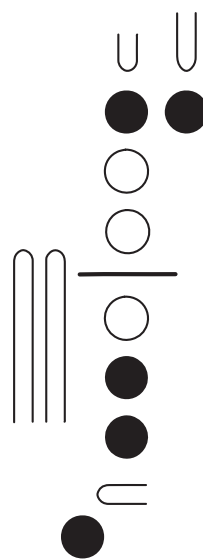
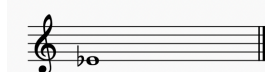
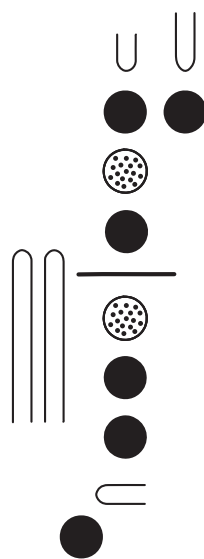
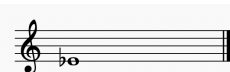
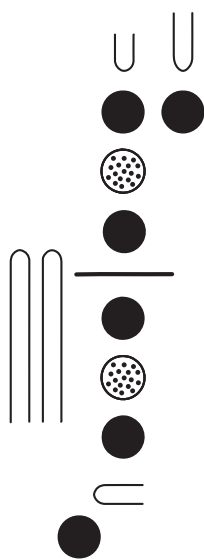
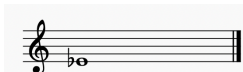
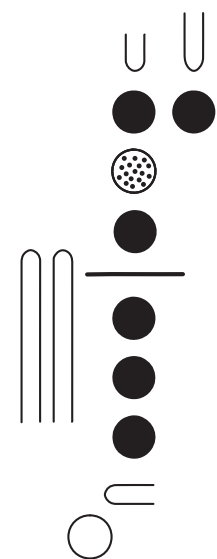
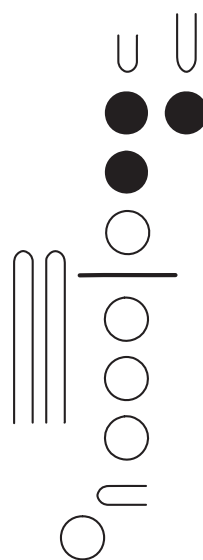
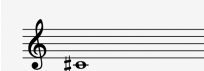
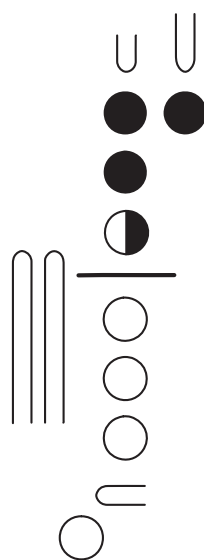
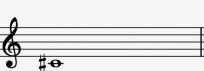
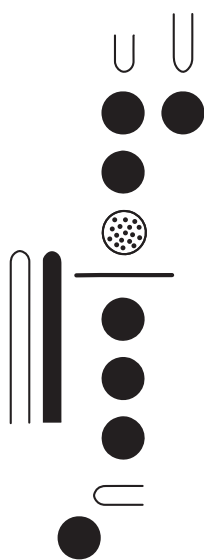
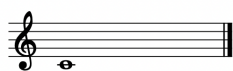
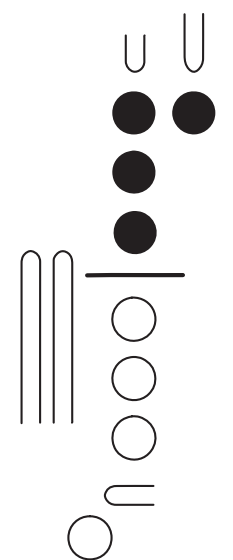
Enharmonic notes are not shown in the musical notation.

Half hole fingering requires fine adjustment of the player to get the amount of cover and the angle of the finger to attain the optimal intonation.

+/- = Optional

The dotted tone hole: there is a need for fine adjustment of the height of a finger above a tone hole for optimal intonation.



Appendix 4. Observations on fingering for the five-key clarinet

1. These findings are derived from my own observations with some advice from my teacher, Mr Craig Hill, relating to some of the alternate and trill fingerings.
2. The intonation of the low G is improved by lowering the R4 finger down towards the R4 finger hole.
3. B natural in the chalumeau register is an intrinsically weak unstable note and requires an R1 half-hole covering. Slight finger adjustment results in noticeable variation in intonation. Achieving consistent accuracy of intonation for B natural takes a lot of practice. Adding the G sharp key can improve the intonation depending on how much the R1 covers the hole.
4. Most period clarinets have a single hole for R1. Some clarinets, including my A = 440 Hz clarinets, have a double R1 hole which is similar to the Baroque oboe. I have found the double hole improves the accuracy of intonation for B natural. The R1 completely covering this double hole produces a B natural which is too flat. This is a very similar situation to the corresponding notes on the Baroque oboe (F sharp, G sharp).
5. An alternative B natural fingering is L1,2,3 and R2,3,(4) but this is too sharp and should only be used in a fast passage to avoid awkward fingerings. It is a transient passing note, and its sharpness is concealed.

6. B to C sharp and C sharp to B in Chalumeau register is a difficult cross-fingering and not a smooth transition.
7. G sharp' with the thumb hole and speaker key alone is very thin and unstable. My fingering: sounds much better with Speaker Key. L2,3, R 1,2 or L2,3, R 1,2,3 +/- C hole.
8. Middle C sharp and D sharp are soft and weak compared with adjacent notes.
9. C sharp is a very unstable note on the Classical clarinet. A slight variation in the way L3 is placed on the open hole makes an enormous difference to the intonation. The finger needs to be placed precisely obliquely on the about half the hole to sound a C sharp with reasonable sound and reasonably in tune. This is a challenge in fast passages. In a slow passage the finger can be rolled slightly to cover more or less of the hole to improve the intonation of the note. The temperament being used would also alter this intonation. The player must have a 'good ear' to adjust the pitch slightly. The sound is very muted compared with the adjacent notes, but this adds to the charm of the period clarinet sound. An alternate fingering I worked out is L1,2, R123 and the F tone hole covered with R 4 and the B'/E key is depressed with L4. This fingering produces a less muted sound than the partial hole C sharp fingering. The addition of a C sharp key to the clarinet produces a clear, stable and accurate C sharp.

10. Playing middle B' to C sharp' is awkward because the L4 is unable to easily slide between the long B' and C sharp' keys. Hence the development of alternate left and right B' and C sharp' keys in the modern clarinet. The player should engage the long left-sided keys about 2cm down the shaft rather than the tips as on a modern clarinet. This prevents air leak on the R3 hole because of the ring finger moving slightly off the hole. Also, the L4 is in a better posture to rotate across the two key shafts. The pads open with smaller movement in this more distant position compared with the finger at the tip of the keys which is where a modern clarinet places the L4. With further experience and advice from Mr Craig Hill, a transition B' to C sharp is best done with a slight gap or light tonguing, so that the L4 can shift across the key shafts with a smooth transition, then rotate across for the C sharp' to B descent if required.
11. F sharp' to G sharp' is also an awkward cross-fingering without a separate side G sharp key that appeared in later clarinets.
12. C sharp, F sharp' and G sharp' are unstable notes requiring awkward fingerings with several alternatives to improve intonation. The choice of fingering also depends on which notes precede and follow it so as to avoid impractical and clumsy cross-fingerings.
13. F sharp' is more in tune with R3 and the F hole (R4) covered as well as L1,2 and R1,2. Also, lowering L3 helps the intonation.

14. The low F tone hole (R4) must be covered to get Low E, and C sharp' and B' natural.

This is not necessary on the Boehm system. This highlights why there would have been pressure on instrument makers to introduce the C sharp G sharp' and B natural keys.

15. F' is naturally sharp and requires the lowering of L1 toward the tone hole to flatten the pitch as well as the addition of L2, R1,2,3 and 4.

16. E flat is satisfactory with L1,3 R 1,2,3 but is muted. This note is too flat if you add R4 of the F hole and there is a better tone if you use R1 and 3 or R 1,3 and the F Hole (R4). This is probably the best option. E flat can also be played with L2,4 and R 2,4 but a more resonant sound is achieved if the R4 covers the F hole but the R3 must be lowered for better intonation. The former is an easier fingering for fast passages and the latter could be used for a more sustained E flat.

17. F natural' to B' flat is awkward. The thumb easily gets caught on edge of the Speaker Key in transition and it is not pressed. The thumb must jump onto the speaker key.

18. B flat' (A sharp') sounds more in tune with R123 holes covered. It is not as sharp. This is also the case on the modern clarinet.

19. I have worked out an alternate F sharp' which is especially useful when going to the G sharp'. This is T and speaker key, L1,2,3, R 2,3, +/- Low G sharp key, or

alternatively, T and speaker key, L 1,2,3 R 1 with half hole covering and the G sharp key added.

20. D sharp'' fingering: T,L1,3 R 1,3. In addition, covering the F hole improves the intonation and reduces the muted sound of the note, giving it a more open sound. The player can alter the height of the L2 above the open hole to finely adjust intonation and tone of the note compared to adjacent notes being played.

21. D sharp alternate fingering: T, L1,3, R 123+/- F hole. This gives a very muted sound and is not as good as the previous fingering with the R2 hole open.

22. F sharp'' is played with L1,2,3 and R2,3 and has a muted sound compared with adjacent notes. Adding the right G sharp key sharpens the note.

23. A sharp'''/B flat'''. This note may be sharp when using the standard fingering of thumb hole and speaker key and L1 and 3. The R3 can be added to improve the intonation.

24. A sharp'''/B flat'''. An alternate fingering is thumb hole and speaker key plus L1,2 and R1,2,3, but it results in a thinner more muffled sound than the standard fingering. This might be suitable in some fast passages.

25. D sharp'/E flat' alternate fingering is the B' fingering with the lifting of R3.

26. G sharp'''/A flat''' is better in tune without the G sharp/D sharp' key.
27. A''' alternative is to play C and add the speaker key, partially open the thumb hole and blow the overtone A'''.
28. G''' alternative is to play C, lift the L3 and blow the overtone G'''.
29. C'' sounds better and is more reliably and easily sounded with the G sharp /D sharp' key added.
30. C'' alternative is with the speaker key and thumb hole engaged plus L123, R234 (ie F hole covered). This works very well when there is an octave or so leap and the F hole is already covered for the lower note for instance, bar 30 in the Grand Sonata E Flat Op. 12 Number 2, First movement by Jean Xavier Lefèvre where the clarinet leaps an octave from C'.
31. C sharp'' is played with left thumb hole closed and the speaker key engaged, L234 open and R234 closed plus or minus the low G sharp key. Alternate fingering: close L34 as well. This has a better sound and is preferred by Mr Craig Hill. Closing L34 enables a smooth transition from C natural ''.

32. C sharp'' and D natural''. For a fast passage, it is also possible to play C sharp'' with the left thumb and speaker key engaged with the L234 and R234 off, but the sound is coarser than the standard fingerings.
33. Alternate B' fingering is L123 with the thumb hole covered, and speaker key engaged, the right E/B key and R23 holes covered. The right index finger rests on the side of the clarinet and alters the amount of closure of R1 to adjust the tuning.
34. D sharp''' is played with L2,3, R1, and is best without R4. That is, the involvement of the right fifth finger. An alternative fingering is L2,3 and R1 and 3 with the F hole covered.
35. E''' alternative to L 2,3, D sharp key and thumb hole and speaker key engaged, is to take the left thumb lifted partially off the hole and depressing the speaker key with L123 engaged and no D sharp key. An example of where this effective is bar 46 in the first movement of the Clarinet Concerto of Johann Stamitz where there is an octave leap to the top E. The sound of the E is more reliable and robust than the standard fingering, but its use is limited by the awkwardness of the left thumb position.
36. E flat''' sounds best with L23, R1 and the LT and speaker keys engaged. An alternative is L123, R1,3 and L4 F hole with the thumb hole open and speaker key engaged. This E flat''' can be more stable and pure in tone if the left thumb moves slightly off the hole but it is sharper in pitch.

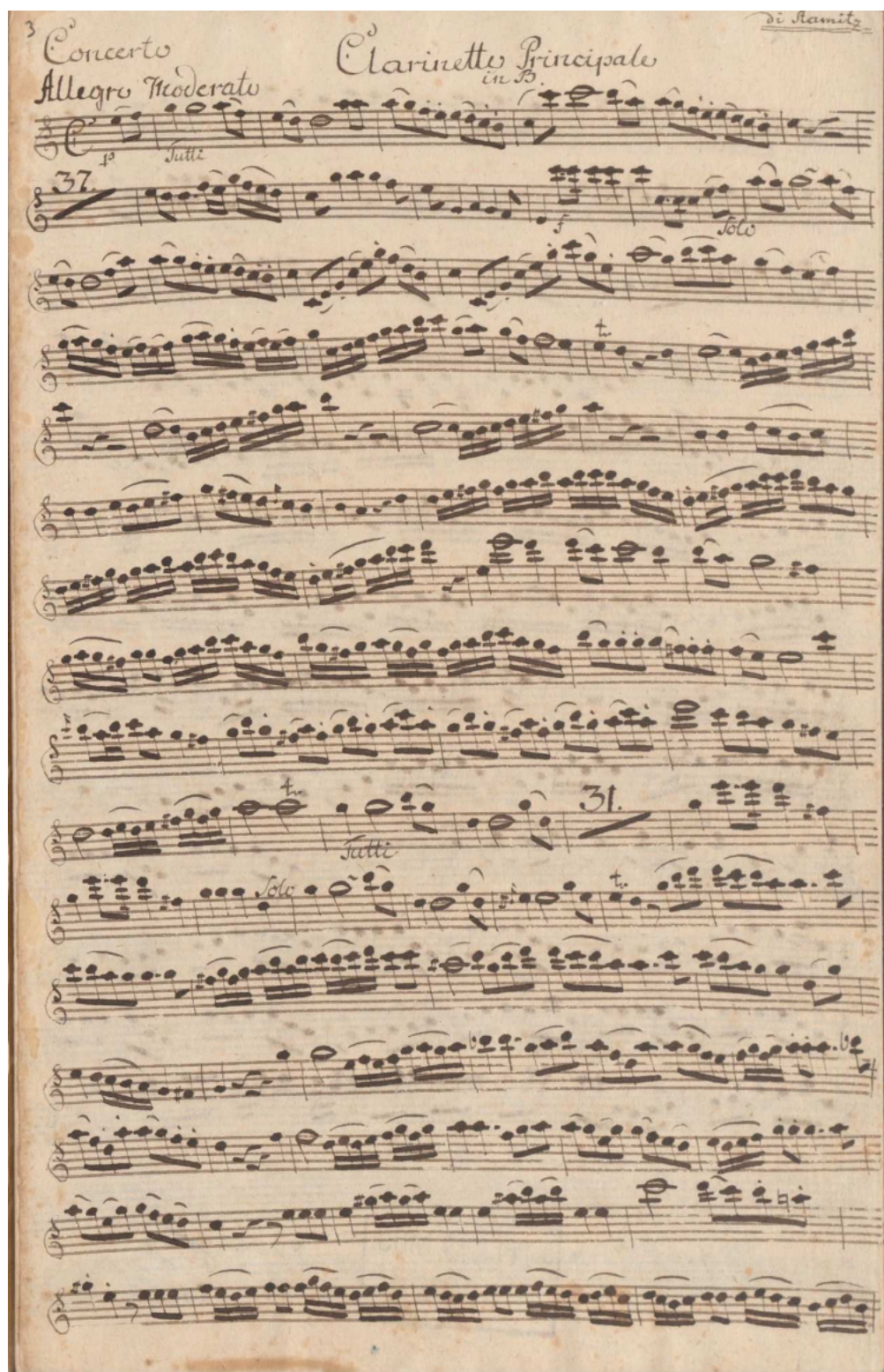
37. F''' can sound beautiful with L1,2 and the thumb hole and speaker key engaged. If this F''' is sharp, you can add R23 with L3, and an extended right index finger both variably lowered over the adjacent tone hole to correct the pitch. An alternate F''' is L1,2 with the thumb hole open. The speaker key is engaged and the R3 and G sharp keys are also engaged.
38. It is possible to get a nicely sounding G sharp'''' and A'''' using modern clarinet fingerings. G sharp'''' is best played with L1, R1 and thumb hole and register key engaged. G sharp'''' can also be played with just R1 which can also be done on a modern clarinet. A'''' is best played with L2,3, the thumb hole and octave key engaged and the low G sharp key with R4.
39. F sharp'''' alternative is L1,2, R123 and R G sharp/Dsharp' key and the left thumb and speaker keys engaged.
40. A''' is played with L2,3, thumb hole covered and the register key pressed.

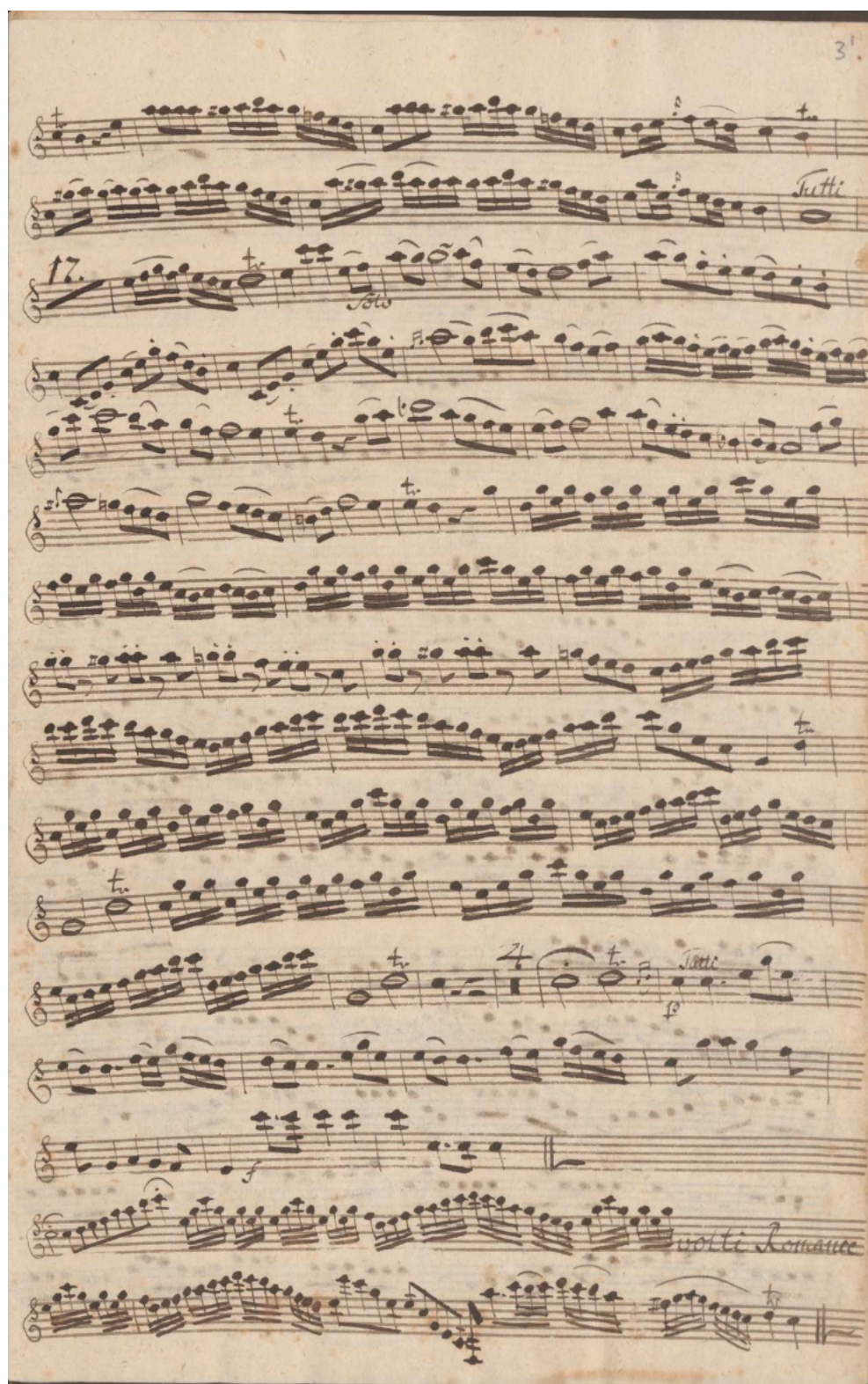
Trill fingerings

1. A' to B' trill can be played with a B with the A key engaged. The L2 is lifted for a trill. This is awkward. Hence the development of the side keys of the upper joint operated by the inner side of the right index finger on the later models of the clarinet. This side key was added in the early nineteenth century.

2. B'' to C'' trill cannot be done with L1 to 2 for a fast trill. It can be achieved with L1 closing the hole alternating with a partial lift of L1. This is very similar on recorder and also is awkward on Baroque oboe. A slower trill could involve L2.
3. The alternative for a more accurate fast B'' to C'' trill is to play the B'' with L1, R3 and D sharp'/G sharp key and the thumb hole and speaker key engaged. Then to C with L1 and R1,2 and R3 and the D sharp key.
4. C'' to D''. The standard D'' fingering can be used with the L3 and R1 moving together. They have to be exactly co-ordinated to execute the trill accurately. This takes some practice. It is difficult to do a rapid trill this way. A second method is to play the C'' and lift the left thumb off the thumb hole and the speaker key to execute the trill. This can be done quickly but the D is somewhat flat. A third alternative is to use the A key for the trill, but the risk is that unwanted overtones may occur.
5. G sharp' to A'. Start with the G sharp fingering, then use the A key for the trill.
6. B' to C sharp' or E to F sharp in the lower register. Place L4 down the shaft of the B' key and it is easy to roll it over or slide it over to the C sharp key. This also applies to non-trill situations.

Appendix 5. The Original autograph clarinet part of the Third clarinet concerto of Carl Stamitz. Source IMSLP

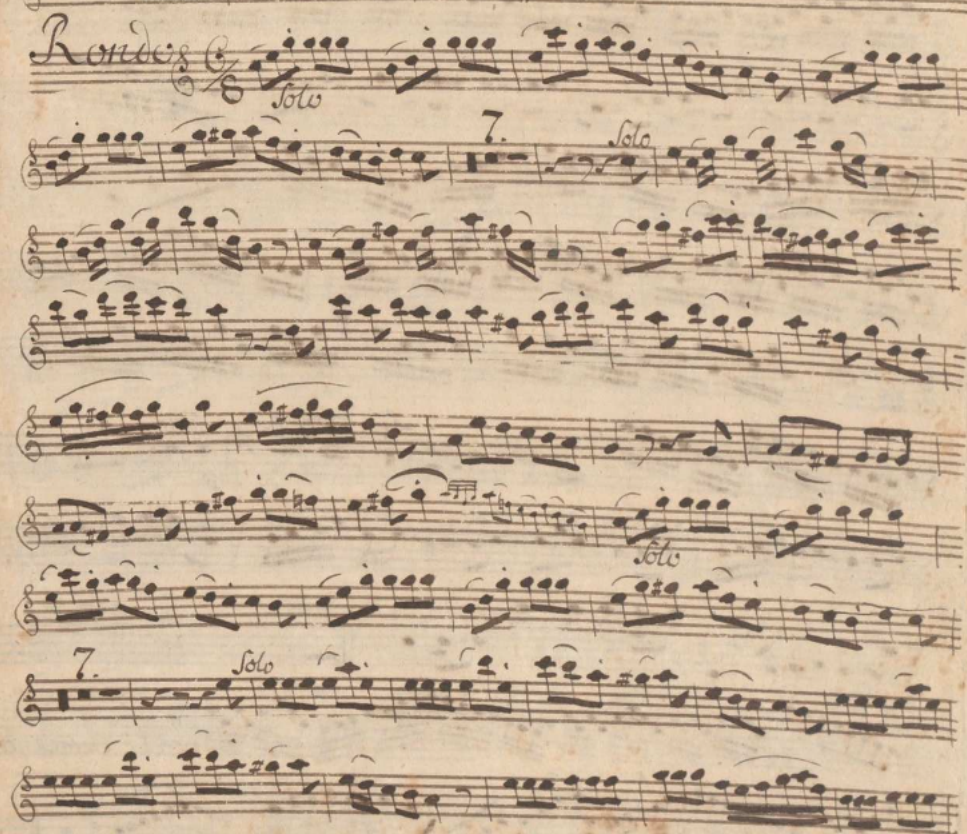




Romance



Ronde



4

Solo

7. *Solo*

2.

Solo

SUPPL. MUS.
N^o 5865

Fin.

Appendix 6. Annotated clarinet part of the Third Clarinet Concerto of Carl Stamitz with suggested dynamics and articulation. Original is copied from the Peters Edition. 1957. UNDER COPYRIGHT. REDACTED FOR EXTERNAL USE.

Appendix 7. Harmonic Analysis of the Third Clarinet Concerto of Carl Stamitz

First Movement: Allegro Moderato.

Exposition

The first subject is in the tonic key of B flat major, alternating with the dominant key of F major. There is a bridging passage from bars 60 to 65 of B flat major to F major to C major.

The second theme or subject starts at bar 66 and is in the dominant F major, then modulates to C major and back to B flat major at bar 74. The section ends in the dominant F major at bar 86. The orchestra takes over at bar 87 and ends the section in the dominant F major. The clarinet returns for the development at bar 123.

Development

This starts in the dominant and moves to the tonic at bar 125 then back to dominant at bar 126, modulates to C major at bar 127 alternating with F major to bar 134. Next, there are more extensive and rapid modulations with D minor to a G major 6/5 chord at bar 136, to C minor at bar 137 and to F major at bar 140. Then, B flat major at bar 146 modulates to G minor at bar 147, D major at bar 148, G minor/C minor at bar 149, to A diminished vii° chord at bar 151, G minor at bar 152, D major at bar 153, G minor to D7 at bar 154, Gm to D7 alternating to bar 158, and to G minor at bar 161. There is an unusually frequent use of second inversion chords at bar 135, and bar 153. The orchestra returns before the final section.

Recapitulation

The clarinet returns at bar 181 with the first subject with embellishments. The tonic returns at bar 197 and moves to the dominant at bar 199 with perfect cadences at bars 200, 208 and 218. The second subject does not reappear in the tonic which would complete the

classical Sonata Form. Instead, the clarinet continues with various scales and arpeggiated semiquaver embellishments from bars 200 to 225. Stamitz has included a fully notated Cadenza which is followed by the orchestral Coda at bar 225 bringing the movement to a close.

Second Movement: Romanze

Theme A is in the tonic key of E flat major, and the orchestra restates the theme. Theme B includes several modulations which commence at bar 17 with the relative minor, C minor, then to C major at bar 25 with a perfect cadence to F major in m26 (V/I), then to B flat/E flat (V/I) major in bar 27 and B flat 6/5 /E flat major (V7 first inversion/I) in bar 28. Next, a return to C minor at bar 29. Finally, Theme A returns in the home key of E flat major at bar 31.

Third Movement: Rondo

Theme A is bars 1 to 33. Theme B starts at bar 34 and is unusually in G minor, the relative minor of B flat major and in bar 38 the section ends in a perfect cadence C to F major, the dominant of B flat major. Theme A returns at bar 40. There is then an orchestral repetition of the theme bars 47 to 54. Theme C begins at bar 55. This is in G minor and from bar 63 transitions through G major, F major to B flat major. It ends at bar 74 with a perfect cadence C major to F major.

Theme A repeats at bar 75. There is an orchestral interlude bars 83 to 90. Theme B, bars 91 to 120, is an embellishment of Theme A and is in B flat initially, then transitions through C major at bar 110 to F major at bar 117. Bar 118 is in F major and stays in F major, the Dominant of B flat major to bar 120 when Theme A is restated the final time at bar 121. It is

repeated by the orchestra and concludes with a short Coda in C minor to B flat major repeating for two bars.

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