Paper prepared for

The 6th Euroacademia International Conference

Identities and Identifications: Politicized Uses of Collective Identities

Florence, Italy

22 – 23 June 2017

This paper is a draft

Please do not cite or circulate

The Curious Case of the Clarinet: Gendering the Androgynous Woodwind

Rachel Becker St John's College, University of Cambridge

Abstract:

Opera fantasias, virtuosic solo pieces based on operatic themes, offer woodwind players, and their instruments, a means of appropriating (or attaining) vocality and thus participating more fully in the dominant Italian musical paradigm. However, instrumental performers enact and portray characters at a symbolic remove rather than literally as singers do. This virtual, rather than literal, embodiment rubs against issues of the gender alignment of characters, players, and instruments, which are frequently described in gendered vocal terms. The instrument's vocality becomes a way of understanding not only its sound but also its character.

In Europe in the nineteenth century, in contrast to earlier conceptions, flutes and oboes became not just feminine but female, and their players' masculinity was reinforced. Woodwind instruments were not alone in this; the violin transformed into a woman's body, seduced and sometimes injured by her male player.

These gender assignments have proved long-lasting. Twentieth-century musicians unabashedly gendered certain instruments as feminine, and in many ways the default musician is still a man. While the discussion of associations between gender and instruments is common in ethnomusicology, these associations and their lasting ramifications often remain unexamined by those perpetuating them; Samuel Adler's orchestration manual, for example, stresses the importance of matching instruments and roles "psychologically as well as musically" before portraying the flute, oboe, and clarinet in feminine terms.

However, the clarinet caused problems for a society determined to assign characteristics and performance possibilities to instruments based on their range and tone. Masculine and low or feminine and high – or a combination of the two genders through its ability to decrescendo from a trumpeting forte to a *dolce* whisper – the clarinet maintained a descriptive androgyny at odds with the boxes set around the flute, oboe, and bassoon, revealing the artificial nature of this gendering at its conception and now.

Keywords:

opera, woodwind, gender, femininity, characters

The Curious Case of the Clarinet: Gendering the Androgynous Woodwind

"The great traditions of Italian opera rested on the art of expressive singing and its ability to move and entertain an audience."

- Nicholas Baragwanath, The Italian Traditions and Puccini, 309.

"Italians pursue their singing as an art, a difficult, serious art which must be studied. The Germans are usually satisfied with voice, talent, routine, and a noble disdain for vocal discipline."

- Hanslick, Music Criticisms 1846-99, ed. Henry Pleasants, 182.

In nineteenth-century Italy, vocality was a means to stability as an artist. Opera was the most famous and respected musical art form, and comparisons of instrumentalists to opera singers – or rather of their playing to opera singing – were a means of emphasizing true artistry and worthiness in a musician. Ferruccio Busoni characterized the clarinet playing of his father Ferdinando, a virtuoso who wrote a clarinet-playing treatise in 1883, as 'combining the virtuosity of a violinist with the beauty and sensitivity of the old Italian *bel canto*'.¹ Similarly, in 1820, Carl Bärmann wrote that the bassoon should "aim at imitating a fine tenor voice and at contesting for rank with a talented tenor singer".² Instrumental lines in operas are often praised as reflecting and amplifying the emotions of vocal characters, while at this time purely instrumental music for woodwinds experienced a relative decline. Eduard Hanslick memorably instructed woodwind performers to "Go join an orchestra! That is the proper place to appreciate the players of clarinet,

oboe and bassoon".³ In the nineteenth century, the prevailing opinion of woodwind instruments was that they were perfectly suited to an orchestra, piping up to play beautiful and brief solos, but fundamentally unsuited to solo performance. Indeed, within and outside of Italy positive descriptions of instruments as vocal war with negative descriptions of their sound and the pieces available for them to play.

Opera fantasias are often disparaged as unable or unwilling to adequately or accurately portray the action and musical world of an opera. However, opera fantasias allow composers a way to reinterpret or gain ownership over other composers' works and other genres by retelling a story or recasting a character. Pasculli uses not only Verdi's or Donizetti's music, but his characters and structure, and altering one of these results in altering the others. This resonates also with nineteenth-century Italian opera more generally, which was "reliant upon expressive departures from underlying formulas"⁴, and with Cone's idea that "music does not express emotions but appropriates them".⁵ Carolyn Abbate approaches a similar aspect in her discussion of women in opera, speaking of the narrator's "audible flight from the continuum that embeds it",⁶ and of the ways that the voice of a female character "speaks across the crushing plot" of an opera.⁷ For Abbate, the transformation of a woman into "a kind of musical instrument" through a focus on her vocal power means that "vocal performance will indeed overpower plot".⁸ Inversely, the instrumental embodiment of (often female) vocal parts in opera fantasias allows a fantasia to overpower the plot of an opera in favour of its own altered plot. In one of nineteenth-century oboist Antonio Pasculli's fantasias, Simpatici Ricordi della Traviata, the oboe becomes the voice through its impersonation of Alfredo. We can view its narrative as created by Alfredo, portraying a dream world in which Violetta did not die after their reconciliation, but returned to their initial state of health and happiness. In the process of striving for vocality in their fantasias, we see that woodwind players altered the operas on which the fantasias were based.

However, while woodwind players can emulate the voice, they can never truly be vocal in their performance: as per Edward Cone (*The Composer's Voice*), the voice exhibits a "natural supremacy" unmatched by the instruments it easily supersedes in opera. "A violin or a clarinet, despite its singing powers, can be dominated, hidden, or superseded by other instruments. It is possible to treat the voice in this fashion, but the result is that it almost inevitably sounds abused."⁹ Instrumental performers enact and portray characters at a symbolic remove rather than literally as singers do, and that remove – and the "potentials and limitations" of a given instrument, as Cone puts it – impacts the characterization present in the music.¹⁰

"In considering the relationships between instrumental agents and the players who bring them to life, one must never forget that the agents are, after all, only virtual. They are not embodied by their performers as vocal personas are. The singer *enacts* a role, *portrays* a character. The instrumental performer, too, is in part an actor, but one that *symbolically personifies* the agent of which his instrument in turn is but the concrete vehicle."¹¹

This virtual, rather than literal, embodiment rubs against issues of the gender alignment of characters, players, and instruments, which are frequently described in gendered vocal terms. Woodwind instruments participated in the shift in nineteenth-century morality which led to an increasing preoccupation with gender and gender roles. The instrument's vocality becomes a way of understanding not only its sound but also its character. I will now discuss in more detail the shifts in gender identity assigned to woodwind instruments in the nineteenth century and the impact that these shifts had on contemporary music and still have today.

Which of the woodwind instruments (that is, the flute, oboe, clarinet, and bassoon) do you think was described by Berlioz as a "lonely virgin, the huntsman's fair bride, her eyes upturned to heaven, mingling her passionate plaint with the roar of the storm-wracked forest?"¹²? The clarinet.

And which of these instruments do you think was described by Berlioz as providing music with "those icily menacing effects, those dark expressions of repressed fury"¹³? Also the clarinet.

Strongly gendered characteristics repeatedly come to the foreground in nineteenth-century descriptions of woodwind instruments, their sounds, their performers, and their music. In an 1851 treatise by F. S. Gassner, the sound of the clarinet becomes explicitly gendered as "a full, round female voice."¹⁴ For Rockstro in 1890, the "consummate ease and elegance" of the flute meant that, "owing to this gracefulness of attitude … the flute is so peculiarly well adapted for ladies".¹⁵ These characteristics continued to be extremely popular throughout the twentieth century as well, and the associations and their lasting ramifications offen remain unexamined by those perpetuating them. Surely Bach and Handel would have objected to the statement in Walter Piston's 1955 orchestration manual that "agility does not seem suitable to the double-reed tone" – this is a remnant of particularly nineteenth-century beliefs heavily influenced by Berlioz's claim that the feminine oboe was "ineffective and absurd" if given a more active melody.¹⁶ And Samuel Adler's orchestration manual, originally published in 1982 and updated in 2002, stresses the importance of matching instruments and roles "psychologically as well as musically" before portraying the flute, oboe, and clarinet in feminine terms.¹⁷

A closer look at the portrayals of musical and extramusical characteristics of these instruments can reveal ways in which this narrative has been perpetuated on very little evidence. The flute, oboe, and clarinet in the eighteenth century were masculine instruments. Eighteenth-century flautist Johann George Tromlitz advises that a flautist should both "try to achieve a steady, metallic singing, even sound" and "try to achieve only such strength as is healthy and

masculine".¹⁸ The early oboe, as described in *The Sprightly Companion* of 1695, was "Majestical and Stately and not much Inferiour to the Trumpet", as well as "brave and sprightly", and this characterization held during the eighteenth century.¹⁹ But during the nineteenth century, European society experienced an increasing polarization of gender roles and "upper" woodwinds became not just feminine but female. In contrast with earlier periods, in which "difference in sex was more a quantitative than qualitative matter, and a well-populated middle ground between the usual sexes was broadly acknowledged",²⁰ the nineteenth-century middle class worried that "men were no longer men" and that strong women caused "emasculation".²¹ This had a profound impact on conceptions of woodwind instruments, as feminine woodwind instruments became a way to reinforce their players' masculinity, resulting in the characterizations I mentioned above.

However, though described as both a female voice and a bird, the clarinet caused problems for a society determined to assign characteristics and performance possibilities to instruments based on their range and tone. Masculine and low or feminine and high – or a combination of the two genders through its ability to decrescendo from a trumpeting forte to a *dolce* whisper – the clarinet maintained a descriptive androgyny at odds with the boxes set around the flute, oboe, and bassoon, revealing the artificial nature of this gendering at its conception and now, an example of the way in which casual unexamined opinions can strongly reflect historical societal norms and alterations.

The discussion of associations between gender and instruments is common in ethnomusicology, where writers like Veronica Doubleday categorize gendered relationships between performers and instruments, including instrument-player relationships where the masculinity of the instrument reinforces the masculinity of the player and those where the masculinity of the player relates in a romantic, sexual, and/or controlling way with his female instrument.²³ However, these relationships are also common within the texts of "traditional" musicology. Doubleday describes how "one effect [of "male dominance over musical instruments"] is that...the very image of a woman playing an instrument may be seen as 'weird', awkward or laughable."²⁴ Though Doubleday here is writing of female performers, not female instruments, this resonates deeply with descriptions like those of Berlioz, for whom the oboe is an instrument of "naive grace, sentimental delight, or the suffering of weaker creatures"; when attempting strength or showmanship, "its little bittersweet voice becomes quite ineffective and absurd"²⁵, and "a march melody, however direct, however beautiful, however noble, loses its nobility, its directness and its beauty when given to the oboes."²⁶

Before addressing ways in which the clarinet is characterized as masculine or crosses lines of nineteenth-century gender, I first want to emphasize that in many ways nineteenth- and twentieth-century descriptions of the clarinet are very similar to those less complicated descriptions of the flute and oboe as feminine. Initially named after its musical and perhaps visual relation to the trumpet, or "clarino", the "little trumpet", or "clarinetto" became in the nineteenth century the "nightingale of the orchestra".²⁷ (Adler presents the name as "clarinetta" – a kind of Freudian slip, perhaps? – but it generally appears as "clarinetto": male, like the clarino it is based on.) I want to stress that although the transformation occurred early in the 1800s, descriptions of woodwind instruments after the nineteenth-century gender switch remained very static across nearly 200 years. There is no perceptible difference in the concentration of gendered remarks between the mid-1800s and the mid-1900s or in the genders assigned to instruments.

Berlioz was passionately supportive of the clarinet (he strongly disliked flutes, commenting that "they can never match the oboe's naive gaiety or the clarinet's noble tenderness"²⁸), and he emphatically associates it with femininity and the female voice. Before describing "the dreamy phrase on the clarinet over a string tremolo in the middle of the allegro section of the Freischütz overture!!!", which I quoted at the beginning of this paper,²⁹ Berlioz launches into a nearly 200 word rhapsody about being "profoundly moved" by the "feminine quality" of clarinets; they "evoke the loved ones, wives and sweethearts," of a regiment "marching to glory or to death", as in "the epic poetry of the ancients". A "beautiful instrumental soprano," the clarinet displays "delicacy, elusive nuances and mysterious sensibility"; "there is nothing so virginal or so pure."³⁰

Berlioz carefully emphasizes extremely acceptable female roles in his descriptions; clarinets are "wives and sweethearts" and "virgins". But these acceptable clarinet-women are also women who are strongly tied to men, defined by their relationships or lack thereof. Perhaps, like the wives of soldiers and huntsmen, the clarinet is protected and taken care of by its male performer: a perfect example of the way feminine instruments could reinforce masculinity.

As I mentioned earlier, Gassner describes the clarinet as having "a full, round female voice" in his 1851 treatise.³¹ Gevaert similarly describes it as "the mezzo-soprano, sturdy and rich,…necessary to connect the clear soprano of the oboe with the husky-hued tenor of the bassoon."³² And Eric Hoeprich reports in his book *The Clarinet* that Brahms "appears to have been particularly affected by the sensitive, feminine side of [clarinetist Richard] Mühlfeld's playing, referring to him as 'meine Primadonna', 'Fraülein Klarinette' and the 'nightingale of the orchestra'."³³ (I must take a moment here to note that while this is probably the most famous example of a feminine clarinet and is frequently referenced, it is also largely unsubstantiated. I have yet to find a primary source, such as a letter, in which Brahms used any of this language. This "Fraülein Klarinette" is also atypical in its alignment of performer and instrument, which are usually paired in contrast, with a performer whose masculinity is emphasized in contrast with his instrument's femininity.)

While Berlioz focuses on the femininity of the clarinet and Joseph Wagner describes its "smooth, mellow tone of beauty and expressiveness", Walter Piston emphasizes its "dark, menacing, and dramatic" lower register.³⁴ In 1838 William Gardiner described "a new instrument called a "clarionet" which with its fiery tone, was better adapted to lead armies into the field of battle than the meek and feeble oboe".³⁵ And Jack Brymer argues that the clarinet must stand up to its player, almost resist it. "The instrument must be able to take everything a strong man can give it without overloading".³⁶ The gender implications here are mixed. Is the clarinet another man, able to return in kind what it is given, or is the clarinet female and the sentence more suggestive? The dual gender possibilities for the clarinet are reminiscent of the Maori *putorino*, as described by Doubleday, which has both a "male trumpeting voice" and a "flute" or "female lamenting voice" while resolutely being identified as female.³⁷

Is the gendering of the clarinet at all reflected in actual compositions? In opera, both the flute and the oboe are strongly associated with female characters, the flute identified with "sweet" or "young" characters and also the mad Lucia di Lammermoor, the oboe with "tragic" characters such as Amelia from *Un ballo in maschera*. And the clarinet certainly does appear with operatic women. For example, it doubles Violetta in *La Traviata* throughout "Un di felice" (Act 1), and it plays a solo with Violetta in her solo scene in the finale of Act 1 as she sings "A quell'amor ch'e' palpito/ Dell'universo intero," (ending when she begins her reprise of "Sempre libera"). The clarinet also plays a large role in *La Forza del Destino*, where it usually is aligned with Leonora. However, while the flute and oboe are overwhelmingly associated with women in opera, perhaps the two largest clarinet solos in opera history align the clarinet with the opera's leading tenor. The extended virtuosic clarinet solo at the start of Act 3 of *La Forza* (for which Verdi was inspired by the male virtuoso clarinetist Cavallini, who originated many of these solos.) leads into an aria by lead tenor Don Alvaro. Another of the most notable clarinet solos in opera, from Act 3 of *Tosca*, also leads into a principal tenor aria, this time "O dolci baci" by Cavaradossi.

Many of the extended clarinet solos of instrumental music are of course less simple to discuss in terms of gender roles, but I would be remiss if I didn't at least mention Tchaikovsky's use of the clarinets to represent Friar Lawrence in his *Romeo and Juliet Overture*.

In general, the clarinet is praised for its adaptability, its wide range of affects and possible expressions; F. Geoffrey Rendall claims that "the clarinet is the most expressive instrument in the orchestra".³⁸ Brymer also describes the clarinet as having "a subtler variety of tone-quality, from velvet-soft to steely-hard", recalling an 1808 description of the instrument in which it has "the characteristics which composers desire, and can play equally well the hymn of the warrior or the song of the shepherd."³⁹

Is it this adaptability that causes the androgyny of description? Possibly yes. But how different, really, is the clarinet from, say, the oboe in suitability for a variety of affects? The clarinet's dynamic range from "an inaudible ppp to a trumpet-like fff" is greatly praised, and certainly the clarinet can play much more quietly than the oboe.⁴⁰ But why then is the oboe associated with gentle and soft feminine music given the clarinet's ability to play the same notes? Because of the lack of gentle or soft feminine music in opera which is not tinged with poignant sadness? And then why is the clarinet not seen as poignant or sentimental (except perhaps by Berlioz)? Because the oboe is overwhelmingly used as an instrumental indicator of these emotions for operatic women. The characteristics of the instruments are derived from the music in which they are used, which is in turn in some senses derived from the descriptions of instrumental characters in orchestration treatises. If this seems like impossibly circular logic that's because it is. These characteristics do not have clear antecedents, and later descriptions in particular draw upon previous musical examples, which are then described as arising from previous associations.

At the same time, these descriptions occur in the same kinds of treatises that contain this 1945 portrayal of an oboe's inner monologue (from a German orchestration book): "I [the oboe] stand on my rickety balcony, and cut the darkness with my absurd longings, the envy for young flutes seething within me (if only it were a lie!) after the comfortable self-righteousness of the chubby-cheeked clarinets (if it were stupidity!), I long to go beyond myself – oh, I am sickly!"⁴¹ Hardly a clear and straightforward depiction of instrumental qualities!

By looking at the broader range of descriptions of the clarinet instead of the more limited descriptions of the flute and oboe, we can see how artificial some of these associations and limitations are, and how basic others are. Characterizations are generally range-based, and often just an elaborate fleshing out of the literal connection between

instruments and voice parts. The bassoon's low range means that it was not feminized despite its "sweet, more subdued, but expressive" higher registers.⁴² Yet the oboe's ability to accompany sopranos becomes a description of the oboe as a young girl "whose voice has such grace, such feminine softness, such secret charms...her heart still palpitating".⁴³ And the clarinet's ability to mimic a female voice in range and volume becomes Berlioz's "lonely virgin". Attempts to vividly evoke musical characteristics in writing pair with strengthening gender roles and concerns over women's abilities, bodies, and freedoms. The oboe not only "resembled the highly stigmatized nineteenth century image of womankind as being always on the verge of hysteria," but was "brought under subjugation" by the performer "who until the twentieth century was, without exception, male".⁴⁴ Similarly, the clarinet had to be able to "take everything a strong man can give it", requiring a male performer.⁴⁵

So does this matter outside of historical musicology? Ethnomusicologist Veronica Doubleday claims that "the relatively relaxed situation of Europe, where 'older gender codes' about musical activity have partially broken down (Koskoff 200b, 200-01), masks a strong history of institutionalized male professionalism", before going ahead to cite the delayed entry of women into the Vienna Philharmonic.⁴⁶ The history of "institutionalized" masculinity is beyond contest. However, the writing on and treatment of woodwind instruments well into the twentieth century seem to belie this "masking". It is undeniably true that instrumental performance is broadly acceptable for female players at this time. In his treatise, published in 1954, Geoffrey Rendall wrote that "Another remarkable feature of the present day is the number of women players, both professional and amateur. Two generations ago Lazarus considered it 'unbecoming' in a woman to play the clarinet."

However, while female woodwind players are no longer rare or socially unacceptable, these gendered associations have continued, in more or less obvious ways, to the present day. Twentieth-century musicians unabashedly treated certain instruments as feminine. In 1977, oboist Leon Goossens wrote, "The oboe is a lady. If we lose her feminine qualities we neutralize the sound which thousands of years of history have sought to sustain and beautify." ⁴ (Despite his conviction, this is a demonstrably false statement, as I have shown.) And the very instance that Doubleday cites, the Vienna Philharmonic accepting its first female instrumentalist in 1997, emphasizes the way in which the situation is still shifting. The Czech Philharmonic also only accepted its first female instrumentalist in 1996, and in 2007 Vienna still only had one female orchestra member. Despite obvious diversification, in many ways the default musician is still a man.

More subtly, a review from 2000 of oboist Yeon-Hee Kwak's recording of five Pasculli pieces remarks, "that this extraordinary young woman doesn't pass out is truly a miracle"; this is certainly gentler in its problematic association than an assertion that the bassoon can only be played by a strong man, but it does recall entrenched concerns over the oboe's suitability for women.⁴⁸ I challenge you to consider whether you can realistically imagine a review which concludes "that this extraordinary man doesn't pass out is truly a miracle".

Bio:

Rachel Becker is a PhD student at the University of Cambridge. Her doctoral research is on nineteenth-century Italian opera fantasias written for and by woodwind virtuosi. Her project explores social and cultural influences on these opera fantasias, including their reception history and the (positive and negative) emotional responses they have evoked contemporaneously and today, as well as the ways in which the composer-performers manipulated the operas they used. She is interested in issues of genre, virtuosity, gender, popularity, and the development of woodwind instruments.

Rachel received her MPhil from the University of Oxford, and her BA in Music (Highest Distinction) from the University of Virginia. She has also received an MM in Oboe Performance from the University of Cincinnati College-Conservatory of Music, studying under Mark Ostoich.

Her other research interests include trouser roles in bel canto opera, the intersections of music and literature, classical music in dialogue with pop or folk music, and gender issues in music more widely.

Rachel is active as an oboist and was invited to play cor anglais with the renowned Philharmonia Orchestra as part of the 2015 King's College, Cambridge 500 celebrations.

¹ Eric Hoeprich, 2008, *The Clarinet* (New Haven: Yale University Press), 204.

² Quoted in Lyndesay G. Langwill, 1965, The Bassoon and Contrabassoon (London: E. Benn, W.W. Norton), 39.

³Hoeprich, 187.

⁴ Nicholas Baragwanath, 2011, The Italian Traditions and Puccini: Compositional Theory and Practice in Nineteenth-Century *Opera* (Indiana University Press), 310. ⁵ Edward Cone, 1974, *The Composer's Voice* (Berkeley: University of California Press), 166.

⁶ Carolyn Abbate, 1991, Unsung Voices (Princeton, NJ: Princeton University Press), 29.

⁷ Abbate, ix.

⁸ Abbate, 4-5.

¹⁰ Cone, 107.

¹¹ Cone, 105

¹² Hugh Macdonald, ed, 2002, *Berlioz's Orchestration Treatise* (University of Cambridge Press), 126.

¹³ Berlioz's Orchestration Treatise, 124.

¹⁴ Hoeprich, 170.

¹⁵ Richard Shepherd Rockstro, 1967, A treatise on the construction, the history and the practice of the flute: including a sketch of the elements of acoustics and critical notices of sixty celebrated flute-players (London: Musica Rara), 410-411.

¹⁶ Walter Piston, 1955, Orchestration (London: Victor Gollancz), 154.

¹⁷ Samuel Adler, 1982, 2002, *The Study of Orchestration* (London: Norton), 156.

¹⁸ Johann George Tromlitz, 1991, *The Virtuoso Flute Player*, ed. Ardal Powell (Cambridge: Cambridge University Press), 311-312.

¹⁹ Philip Bate, 1975, The Oboe (London: Ernest Benn Ltd), 44-45. Quoting The Sprightly Companion, author likely John Bannister, published by Henry Playford in London 1695.

 0 Roger Freitas, 2003, "The Eroticism of Emasculation: Confronting the Baroque Body of the Castrato", *The Journal of* Musicology 20, no. 2, 204.

²¹ Margaret Reynolds, 1995, "Ruggiero's Deceptions, Cherubino's Distractions," in En travesti: Women, Gender Subversion,

Opera, edited by Corinne E. Blackmer and Patricia Juliana Smith (Chichester, NY: Columbia University Press), 139.

Mai Kawabata, "Virtuosity, the Violin, and the Devil ... What Really Made Paganini "Demonic"?", Academia.edu, 15. Quoting Marx, 1829. ²³ As discussed in Veronica Doubleday, 2008, "Sounds of Power: An Overview of Musical Instruments and Gender",

Ethnomusicology Forum 17, no. 1.

²⁴ Doubleday, 17.

²⁵ Berlioz's Orchestration Treatise, 104.

²⁶ Berlioz's Orchestration Treatise, 104.

²⁷ Adler, 181-182.

²⁸ Berlioz's Orchestration Treatise, 140.

²⁹ Berlioz's Orchestration Treatise, 126.

³⁰ Berlioz's Orchestration Treatise, 125.

³¹ Hoeprich, 170.

³² François-Auguste Gevaert, 1890, Cours méthodique d'orchestration, excerpted in Paul Mathews, 2006, Orchestration Anthology (New York: Routledge Press), 54. ³³ Hoeprich, 193.

³⁴ Joseph Wagner, 1959, Orchestration: a practical handbook (London: McGraw-Hill), 140; Piston, 168.

³⁵ Geoffrey Burgess and Bruce Haynes, 2003, *The Oboe* (New Haven, CT: Yale University Press), 102.

³⁶ Jack Brymer, 1979, *Clarinet* (London: Macdonald and Jane's), 143.

³⁷ Doubleday, 13.

³⁸ F. Geoffrey Rendall, 1971, The Clarinet: Some Notes upon its History and Construction (3rd edition), (London: E. Benn and W.W. Norton), 32.

³⁹ Brymer, 9; Hoeprich, 123.

⁴⁰ Brymer, 9.

⁴¹ Burgess and Haynes, 242. Quote from Schmid, Assoziationen um das Orchester.

⁴² Adler, 197-198.

⁴³ Burgess and Haynes, 226. Quoting Alfred Guichon, writing in 1874.

⁴⁴ Burgess and Haynes, 234.

⁴⁵ Brymer, 143.

⁴⁶ Doubleday, 16.

⁴⁷ Leon Goossens and Edwin Roxburgh, 1977, *Oboe* (London: Macdonald and Jane's Publishers Ltd), 27.

⁴⁸ Paul Cook, review of "Antonio Pasculli", by Yeon-Hee Kwak, *Classics Today*, [database online], available from http://www.classicstoday.com/review/review-4756.

⁹ Cone, 79.