

Zeitschrift: Basler Jahrbuch für historische Musikpraxis : eine Veröffentlichung der Schola Cantorum Basiliensis, Lehr- und Forschungsinstitut für Alte Musik an der Musik-Akademie der Stadt Basel

Herausgeber: Schola Cantorum Basiliensis

Band: 29 (2005)

Artikel: The improvising Alta capella, ca. 1500 : paradigms and procedures

Autor: Gilbert, Adam Knight

DOI: <https://doi.org/10.5169/seals-869041>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 09.04.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

THE IMPROVISING ALTA CAPELLA, CA. 1500:
PARADIGMS AND PROCEDURES¹

by Adam Knight Gilbert

The shawm enjoyed special status in fifteenth-century musical culture. From the mid-fourteenth century until its gradual relegation in the sixteenth century, its players achieved an unprecedented level of virtuosity and respect throughout Europe. Payment records and accounts attest to the popularity of performers like Corrado de Alemania piffaro, one of the most highly regarded players of the century.² Members of the *alta capella*, an ensemble consisting of shawms and brass instruments, not only performed composed polyphony, they excelled at contrapuntal improvisation.

Keith Polk captures the beginning of this rise in the fourteenth century with a critical assessment made (ca. 1360) by Tielman Ehnem von Wolfhagen, who noted that „one who was considered a good player in this area just five or six years ago doesn't amount to a hill of beans now.“³ At the end of this period, Frank D'Accone cites a poignant reference to one of the *pifferi*, in a document from 1492, forbidding the 60-year-old Antonio di Gregorio to play in public, because „since he does not wish to play except in the old fashioned way nothing good can be done.“⁴ D'Accone links this comment with an assumed change from an apprentice system teaching music by rote a generation capable of reading polyphony, and in particular, the new style of composed polyphony prevalent in the final years of the fifteenth century.⁵ We will never know the specific nature of the charge: Antonio may have failed to keep up with new musical styles or sound ideals, or perhaps the wording refers to an aging lip. This document nonetheless epitomizes a crucial moment in compositional development and ensemble performance around 1500.

Polk has argued that the arrival of pervasive imitation as the prevalent compositional paradigm in the last decade of the fifteenth century marked a fundamental change in the performance practices of the *alta capella*.⁶ Where it had been possible for an ensemble to improvise two or even three voices over a cantus firmus, the ideal of pervasive imitation made polyphonic improvisa-

¹ This paper is dedicated to Keith Polk.

² Lewis Lockwood, *Music in Renaissance Ferrara 1400–1505: The creation of a musical center in the fifteenth century*, Cambridge 1984, 178.

³ Keith Polk, *German instrumental music of the late Middle Ages* Cambridge 1992, 60. „Auch hat ez sich also vurwandelt mit den pifen unde pifenspiel unde hat ufgestegen in der museken, unde ni also gut waren bit her, als nu in ist anegangen. Dan wer vur funf oder ses jaren ein gut pifer was geheissen in dem ganzen lander, der endauē itzunt net eine flige“; cf. Keith Polk, „Instrumental music in the urban centers of Renaissance Germany“, *EMH* 7 (1987) 164.

⁴ Frank d'Accone, *The civic muse: music and musicians in Siena during the Middle Ages and the Renaissance* 1997, 542 and 555.

⁵ *Ibid.*, 543 f.

⁶ Keith Polk, *German Instrumental music*, 213.

tion in contemporary style virtually impossible for an ensemble of four, five or six players. Because „according to Tinctoris, free imitation without the grounding of a cantus firmus was only rarely possible“,⁷ the wind band was relegated from the role of extempore composers to embellisher of existing compositions or repetitive dance patterns.⁸

This paper will examine the forms and contrapuntal functions of the wind band in these crucial years around 1500, at once the zenith of their creativity and arrival as educated and literate musicians, and the beginning of a certain kind of artistic decline. The work of various people makes my task an easy one. Scholars have documented extensive details of instrumental ensembles, their personal lives, performance practices, and the high regard in which they were held.⁹ Iconological and iconographic studies offer insights into the dimensions of historical instruments.¹⁰ These in turn inform copies by modern instrument makers and recreations of performance practices by various teachers and performers, working and studying in programs like the Schola Cantorum Basiliensis.¹¹

The task is made harder by the wealth of material to cover. I will therefore limit myself to considering several points. First, close parallels between the structure of the *alta* ensemble and those of composed polyphony - along with the fact that contrapuntal rules in any given style create certain motivic shapes - argue for the premise that members of the *alta capella* followed closely the standard functions of polyphony in performing and improvising polyphony. Second, an understanding of this relationship offers invaluable practical information about the performance of composed polyphony and, more specifically, about various ways in which a four-voice ensemble of shawms and brass could improvise over a cantus firmus or polyphonic structure. Finally, the techniques that represent the high point of ensemble improvisation are the very features that become subsumed into the function of quotidian dance music. I hope the following discussion and musical examples will offer some idea of the vast possibilities ahead for those of us interested in the performance practices of the shawm and *alta capella*, both in the crucial years around 1500, as well as five hundred years later.

⁷ Ibid., 212.

⁸ Ibid., 98 ff.

⁹ See, for example, Keith Polk, *Flemish wind bands in the late Middle Ages: A study of Improvisatory Instrumental Practices* (Ph.D. Berkeley 1968); Lorenz Welker, „Alta capella“. Zur Ensemblpraxis der Blasinstrumente in 15. Jahrhundert“, in: *Basler Jahrbuch für Historische Musikpraxis* 7 (1983) 119.

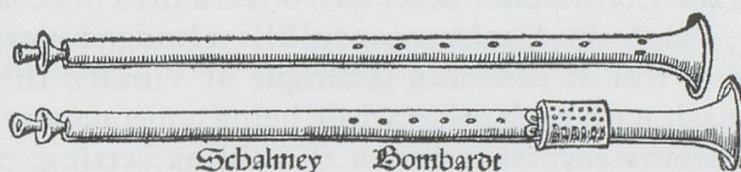
¹⁰ See, for example, Edmund Bowles, „Iconography as a tool for examining the loud consort of the late 15th century“, *JAMIS* 3 (1977) 100; Patrick Tröster, *Das Alta-Ensemble und seine Instrumente von der Spätgotik bis zur Hochrenaissance (1300–1550. Eine musikikonografische Studie*, Tübingen 2001.

¹¹ The late Bernhard Schermer was responsible for some of the finest copies of the Schalmei being used today. Performers like Randall Cook and Ian Harrison deserve mention, as does lutenist Crawford Young improvisation skill and approach.

Parallels between composed polyphony and instrumental functions

In recreating something like authentic performance of composed polyphony, modern shawm ensembles rely on close parallels between the changing forces of the *alta capella* and the textural developments of fifteenth-century polyphony.¹²

Just as the Cantus/Tenor framework lies at the heart of composed counterpoint throughout the fifteenth century, the duo of Schalmei and bombard remained a constant of the *alta capella* ensemble.¹³ This duo included a Schalmei and bombard, most often tuned in D and G respectively, and probably pitched at or around $a=465$.¹⁴ Reasons for accepting $a=465$ as a loose standard today include surviving copies of shawms and bombards in museums, comparison to other surviving instruments like cornetti (with their remarkably stable pitch), and the excellent match with sackbuts pitched in A.¹⁵ The tendency for wind instrument pitch to remain relatively constant in instruments like cornetto during the course of the sixteenth century also argues for this pitch standard. Perhaps even modern bagpipes pitched in B \flat represent remnants of Renaissance pitch.¹⁶ Finally, modern players have been finding that copies of shawms tend to work best at $a=465$.



Example 1: Sebastian Virdung, *Musica getutscht*, Basel 1511.¹⁷

Because of their tuning a fifth apart, the duo of Schalmei and bombard perform the same function of Tenor and Cantus in composed polyphony.¹⁸ For example, in an authentic Tenor cadence, the Tenor descends a fifth while the Cantus proceeds in parallel sixths, and resolving at the octave. Modern players typi-

¹² For more on the changing 15th-century soundscape, see Victor Ravizza, *Das instrumentale Ensemble von 1400–1550 in Italien. Wandel eines Klangbildes*, Bern and Stuttgart 1970.

¹³ Keith Polk, *German instrumental music*, 50–53.

¹⁴ Ross Duffin, „Shawm and curtal,“ in: *A performer's guide to Renaissance music*, ed. Jeffery Kite Powell, New York 1994, 70; Herbert Myers, „Reeds and brass,“ in: *A performer's guide to medieval music*, ed. Ross Duffin, Bloomington 1994 386; On the terms *mezzo punto* and *tutto punto*, see Bruce Haynes, *A history of performing pitch: the story of „A“*, Lanham and Oxford 2002, 55–63.

¹⁵ Because the trombone changed less than most other instruments, the switch from A to B \flat in the eighteenth century was less physical than conceptual. See *ibid.*, 321.

¹⁶ Adam Gilbert, „The bagpipe: *superexcellens omnia instrumentum*“, in: *A performer's guide to medieval music*, ed. Ross Duffin, Bloomington 2000, 407.

¹⁷ Sebastian Virdung, *Musica getutscht und ausgezogen*, Basel 1511; R Kassel 1931, B III', and *Musica getutscht: a treatise on musical instruments (1511)*, translated and edited by Beth Bullard, Cambridge 1993, 106.

¹⁸ Keith Polk, *German instrumental music*, 52.

cally transpose chansons in one of two ways: In cases where the Tenor ranges F and above the Cantus ranges from C and above – as in Dufay's chanson *Ce moys de may* – shawms normally transposes up a step, reading the parts as if in C and F fingerings.¹⁹ In a chanson like Dufay's *Helas, ma dame, par amours*, the Tenor melody ranges down to C and the Cantus descends to G, making transposition up a fifth quite common.²⁰ In such cases, the Schalmei reads the music as if playing G Alto fingerings, while the Bombard plays as if reading in C Tenor fingerings.²¹

Throughout the century, added voices enhanced this contrapuntal duo of cantus and Tenor, changing the sonority without altering its fundamental nature. In compositions from the earlier part of the century, the duo framework is most often accompanied by a second bombard in the same range of the Tenor, performing a Contratenor function. Fittingly, this corresponds closely to records of a second bombard in *alta* ensembles.²²

This reed trio works particularly well in Tyling's *Tandernaken*, presumably the earliest known setting of this famous song. Underlying the florid counterpoint of the setting, several basic patterns warrant mention: First, at cadences the Contratenor proceeds in fauxbourdon style, a fourth below the Cantus, already apparent in the opening measures (Example 2).²³ Second, when the Tenor ascends, the Contratenor descends, often a fifth or octave below the Tenor (Example 3). Third, the Contratenor fulfills a bridge function when the main voices come to rest at cadences (Example 4). Finally, the Cantus and Contratenor may clash with each other while being consonant with the Tenor (Example 5). This occurs several times in the Tyling setting, often because the Cantus plays a third above the Tenor while the Contratenor plays a fifth below, likely a common reason for the „sudden and unexpected sounds“ of extemporized counterpoint.²⁴

Example 2: Tyling, *Tandernaken* (mm. 1–5; Trent C 87f. 198v–199).

¹⁹ Guillaume Dufay *Opera omnia*, ed. Heinrich Besseler, renovavit David Fallows, Rome 2006 (= CMM 1) 6:61.

²⁰ *Ibid.*, 6:66.

²¹ For an issue regarding shawm range limitations and transposition in composed polyphony, see Lewis Lockwood, *Music in Renaissance Ferrara*, 270.

²² For earliest references to the second bombard as a Contratenor, see Keith Polk, *German instrumental music*, 53.

²³ For examples of this technique, see *ibid.*, 176–177.

²⁴ Ernest Ferand „Sodaine and unexpected‘ music in the Renaissance“ *MQ* 37 (1951) 10.

Records also show the duo being joined by a slide trumpet, an instrument capable of the same range as the bombard, but also with an extended lower-range capable of some octave-leap cadences not possible on a bombard.²⁵ Having placed aside doubts about its existence, modern ensembles embrace the slide trumpet, and we now boast several brilliant players that dispel any possible misconception that this is a clumsy instrument.²⁶

The mid-fifteenth century saw the development of Contratenor texture in composed song, in which the third voice almost entirely sounds below the Tenor, and is typically notated in F clef. The development of this style in composed polyphony in the mid-century arrival corresponds closely to the appearance of the trombone in the *alta capella*.²⁷ The speculation that the trombone originated as a slide trumpet with an extension bore – an alteration was made in response to new contrapuntal standards – is certainly plausible.²⁸ This ensemble of two shawms and trombone remained the core of the ensemble throughout the rest of the century.²⁹ Johannes Ghiselin's florid setting of the Tenor from Binchois' *Je loe amours* exemplifies of the kind of polyphony one might have heard from this ensemble.³⁰

Example 3: Johannes Ghiselin *Je loe amours* (mm. 1–10).

²⁵ For the range and possible notes on a slide trumpet tuned in D, see Keith Polk, *German instrumental music*, 57.

²⁶ Both Félix Stricker and Greg Ingles warrant mention in this context.

²⁷ Keith Polk, *German instrumental music*, 59. For recent scholarship on slide trumpet, see Patrick Tröster, „More about Renaissance slide trumpets: fact or fiction?“ *Early Music* 32 (2004) 252.

²⁸ Keith McGowan, „The world of the sackbut player: flat or round?“ *Early Music* 22 (1994), 442.

²⁹ See Ross Duffin, „Shawm and curtall“, 69–70.

³⁰ Johannes Ghiselin-Verbonnet *Collected works*, ed. Clytus Gottwald. Rome 1961, (= CMM 23) 4:3–6.

With the arrival of four-voice polyphony as the norm, the *alta* ensemble typically consisted of three shawms and a trombone. The second bombard player now most likely played a Contratenor Altus, one either originating as part of composed polyphony or as an added voice. Compositions like Paulus de Rhoda's *Der Pfauenschwanz* or the anonymous *Bonum vinum cum sapore* from the *Glogauer Liederbuch* work well with this ensemble and lend themselves to melodic embellishment.³¹

Example 4: *Bonum vinum cum sapore* (mm. 1–7) with added embellishments.

The image displays a musical score for Example 4, consisting of three systems of four staves each. The first system shows the original notation for measures 1-7. The second system, labeled "Possible Embellishments", shows two alternative melodic lines for the first staff, with the original notation in the second staff of the system. The third system shows another set of possible embellishments for the first staff, with the original notation in the second staff. The notation includes various rhythmic values, accidentals (sharps and naturals), and phrasing slurs.

³¹ *Das Glogauer Liederbuch, 4. Teil*, ed. Christian Väterlein, Kassel etc. 1981 (=EDM 86 319). On embellishment, see Keith Polk, *German instrumental music*, 182–190.

Although less iconographic evidence exists of shawms performing with multiple brass instruments, there are reasons to speculate that an ensemble of shawm and bombard with two trombones as Bassus and Altus would not have been out of the question. First, from the 1480s more instruments entered the *alta capella*.³² Second, the Altus voice often extends beyond the range of the bombard. Finally, such a pairing would bring out the paired duos of pervasive imitation found in Loyset Compère's *Nous sommes de l'ordre de Saint Babouin* and other similar compositions from the end of the century. In such cases, Cantus and Tenor frequently proceed a fifth apart not from each other, but from Altus and Bassus respectively. Thus, the new compositional paradigm around 1500 strained the structural relation between Schalmei and bombard.³³

Example 5: Loyset Compère *Nous sommes de l'ordre de Saint Babouin* (mm. 1–7).

I should clarify that I am not advocating a strict approach to performing music for shawms based on a concept of functional scoring. Certainly forces varied, and performers adopted a variety of performance approaches. But practical application of the scorings suggested above offer proof of the viability of this approach. After performing in *alta* ensembles following closely corresponding vocal models, it is difficult to imagine that a fifteenth-century ensemble would have not been steeped in similar conventions and performance practices.

Considering that an original Cantus Tenor duo could be dressed in different styles by surrounding voices, several works stand out as illustrations of the changing sound ideal of the fifteenth century. In his *Ritus canendi*, Johannes Gallicus gives two versions of the hymn *Ave mitis*, one in which the Contratenor creates fauxbourdon-style cadences, and one with octave leap cadences.³⁴ Although variants exist in Tenor and cantus of both versions, the counterpoint remains essentially unaltered. The hymn *Urbs beata* survives in three versions: a fauxbourdon version attributed Guillaume Dufay and closely related three- and four-voice versions.³⁵ These offer an excellent

³² See Keith Polk.

³³ Loyset Compère, *Opera omnia*, ed. Ludwig Finscher Rome 1958 (= CMM 15), 5:41.

³⁴ According to Albert Seay, the second version may represent the work of its scribe, the theorist Nicolaus Burtius. See Johannes Gallicus, *Ritus Canendi*, ed. Albert Seay, Colorado Springs 1981, 2:42–45.

³⁵ Guillaume Dufay, *Opera omnia* 5:54f, 141, and 142.

study of stylistic parameters across the century. Trent Codex 87 contains a four-voice setting of Dufay's *Se la face ay pale*, with a new Contratenor and an added Altus.³⁶ Finally, Petrucci's print *Harmonice Musices Odhecaton A* contains the original Cantus and Tenor of Dufay's chanson *Le serviteur hault guerdonné*.³⁷ Although not the only examples, these offer rich material for study and imitation.

Improvisation of Counterpoint ca. 1500

By adopting the premise of a close structural correspondence between the rules and textures of counterpoint and motivic shapes, it is possible to establish some of the possibilities available to an improvising *alta capella* around 1500.

Improvisation of a single voice above, below and around a cantus firmus was an attainable skill.³⁸ Two voice settings above and below *basse danse* Tenors like *La spagna* (Example 6a) and cantus firmus melodies like *Le serviteur* (Example 6b) preserve what must have been a common motivic vocabulary.³⁹ Typically in such settings, opening motives tend to outline the available consonances above or below the Tenor, and the new counterpoint outlines the sonorities of 1, 3, 5, 6, above and 3, 5, 6, and 8 below the cantus firmus.

Example 6a: M. Guilielmus, *Falla con misuras* [*La bass castiglyya*] (mm. 1–17; BolC Q16f. 73v–74; PerBC 431 f. 95v–96).⁴⁰

³⁶ Ibid., 6:38, 107. Along with Caron's *Accueilly m'a la belle*, this is one of two cases in which the added Altus works best on a second Schalmey. See Leeman Perkins and Howard Garey, ed., *The Mellon Chansonnier*, New Haven and London 1979, 1:43 and 2:193–198.

³⁷ For the original version, see Guillaume Dufay, *Opera omnia*, 6:112. For the later version, see Helen Hewitt, *Harmonice Musices Odhecaton A*, Cambridge 1942, 294. Incidentally, because this song is transposed down a step from D mode, it perhaps works better transposed up a sixth.

³⁸ Lutenist Crawford Young excels at this technique, creating a personal style based on historical motives.

³⁹ Allan Atlas, *Music at the Aragonese court of Naples*. Cambridge 1985, 230.

⁴⁰ For a modern edition, see Allan Atlas, *Music at the Aragonese court of Naples*. Cambridge 1985, 230.

The image shows two systems of musical notation. Each system consists of three staves. The top staff in each system is a vocal line, featuring a series of notes with rhythmic markings above them, including triplets (3) and sixteenth-note runs. The middle and bottom staves in each system are lute parts, showing rhythmic patterns and some melodic lines. The notation includes various note values, rests, and articulation marks.

Example 6b: Hanart, Duo *Le serviteur* (mm. 1–11 ; BolC Q16f. 98v–99).

The image shows three systems of musical notation, each with two staves. The top system is in 2/2 time and features a vocal line with a held note and a lute part. The middle and bottom systems continue the vocal and lute parts. The notation includes various note values, rests, and articulation marks.

This style of counterpoint creates common motivic shapes used by composers above (Example 7a) and below (Example 7b) a held note. Combining such motives with Superius and low Contratenor in three-voice counterpoint creates what Gafurius refers to as a new „celebrated procedure“ from the 1480s onward, playing in parallel tenths in outer voices around a cantus firmus (Example 7c).⁴¹ While a certain amount of coordination would be required for employing this figure in improvisation, it tends to appear in recognizable rhythmic shapes at certain places in counterpoint. It can also be improvised offset as imitation between voices, as in the opening of Ghiselin's *Je loe amours* (See Example 3 above) and in Obrecht's *Tandernaken*.⁴²

Josquin's untexted chanson *Cela sans plus* (Example 7d) illustrates this close relationship between consonance and contrapuntal figure, stating a common motive above a Tenor in mm. 18–19, below in mm. 22–23, and independently in mm. 20–21. A wealth of more florid treatments survives in the three-

⁴¹ Franchinus Gafurius, *The 'Practica Musica' of Franchinus Gafurius*, trans. Irwin Young. Madison 1969, 154f.

⁴² Helen Hewitt, *Harmonice Musices Odhecaton A*, 366.

voice compositions and florid settings by contemporaries like Agricola, Isaac, Obrecht, and Weerbeke.⁴³

Example 7: Consonant patterns. (*Celas sans plus*, Odh f. 66v–67).⁴⁴

(a) 3, 5 and 6 Above Tenor

clashing by playing a third above. Herein lies a conceptual point at which the Bassus begins to take historical precedence in composition.⁴⁶

In four-voice counterpoint, there is little reason to think that players were incapable of improvising three voices around a cantus firmus or even adding voices to a polyphonic song, and in fact recent years have seen successful exercises at recreating the procedures, albeit in primitive ways. We can assume that players would have relied on standard cadential functions of each of the four voices. Based on the tendency of the Bassus progression below the Tenor, the Altus would perform a doubling function a fifth or octave above the Bassus, either holding its note at a cadence (Example 8) or dropping a third when the Bassus leaps an octave or ascends a step (Example 9–10).

Example 8: Four-Voice cadential patterns and idioms.

This profound dependence of the Altus on the other voices is illustrated best by the *si placet* repertory around 1500.⁴⁷ In these works, it is difficult to tell the difference between four voices composed together, and those in which the Altus is an added *si placet* voice. Indeed, if the rules for adding an Altus are followed correctly, it can be difficult to distinguish between a *si placet* voice from 1501 and one from 2001, since the rules remain the same,

⁴⁶ See Ross Duffin, „Improvisation and Josquin’s *Stabat Mater*,“ Unpublished Paper, Montreal 2003.

⁴⁷ For extensive examples of this practice, see: Stephen D. Self, *The si placet voice: An historical and analytical study*, Ph.D. diss., Ohio State University, 1990; and id., *The Si Placet Repertoire of 1480–1530*, Madison 1996 (= Recent Researches in the Music of the Renaissance).

and the voice tends to write itself. This tells us that the Altus in four-voice counterpoint plays a subservient role to the Bassus. Also, it is quite possible to improvise a *si placet* voice over an existing three-voice composition.⁴⁸

From surviving *si placet* voices, we also know that players regularly adopted a repertory of common procedures. These include celebrated procedure in four-voice music, especially in places where two voices hold a single tone. Just such a case occurs in the *si placet* setting of *De tous biens plaine* in *Odhecatón* (mm. 15–17 in Example 9). When the Bassus performs the lower 5–6–5 progression, the Altus is almost certain to proceed in tenths. We can also imagine that players steeped in their function often thought in voice pairs, with Tenor and Superius thinking together, and Bassus followed closely by the Altus. Such thinking might well inform cadences in like that in mm. 12–15 of *De tous biens plaine*, in which the added Altus creates a subsidiary Phrygian cadence against the Bassus (mm. 12–15 in Example 9).⁴⁹

Example 9: Hayne van Ghizeghem *De tous biens plaine* (mm. 12–17 ; Odh 22v–23).

The image shows a musical score for four voices: Superius, Altus, Tenor, and Bassus. A fifth staff, labeled 'si placet', is added above the Superius staff. The music is in a key with one flat (B-flat) and a common time signature. The score is divided into two systems. The first system covers measures 12-15, and the second system covers measures 16-17. In the final measure (m. 17), the Superius and Altus parts are held on a single note, while the Tenor and Bassus parts move. The Bassus part in m. 17 has a lower 5-6-5 progression. Fingerings are indicated below the notes in the final measure: 3 6 5 6 5 for the Superius/Altus pair and 3 5 6 5 6 for the Tenor/Bassus pair. There are also some sharp signs above the notes in the first system.

Modern performers have begun to recreate all these techniques in four voices, and improvising simple *falsobordone* style in four voices is so easy that, once cadences are established, some might argue it is hardly improvisation.⁵⁰ We can imagine quite florid treatments like those in Ghiselin's four-voice *La spagna* (Example 10), which shows a common fugal motive created by triads around a held note.⁵¹ In imagining this device as an improvisational technique, one

⁴⁸ For practical guidelines on adding an Altus, see Adam Gilbert, „Eight brief rules for composing a *si placet* Altus, ca. 1470–1501,“ in the revised edition of *A performer's guide to Renaissance music*, ed. Jeffery Kite-Powell, Bloomington (Forthcoming 2007).

⁴⁹ This pattern is also one of the conceptual building blocks of pervasive imitation. See Helen Hewitt, 263.

⁵⁰ The nature of improvisation deserves more lengthy discussion elsewhere. But there is a misconception that something must be entirely new to be improvised. By analogy, one speaking would have to make up new words and grammar in speech to truly improvise. Like spoken language, most musical improvisation relies on an internalized grammar and recognizable vocabulary of motives and conventions.

⁵¹ Johannes Ghiselin, *Collected Works*, ed. Clytus Gottwald, Rome 1961, 4: 32–36.

should not underestimate the ability of historic players, the degree of ensemble coordination, or the extent to which they were steeped in a vocabulary of conventional memorized motivic and rhythmic patterns.⁵²

Example 10: Ghiselin *La spagna* (mm. 1–10).

In his setting of *He logerons nous*, Heinrich Isaac dresses a cadence with a florid progression in „celebrated procedure“ (bracketed in Example 11)⁵³ This passage simultaneously points to another technique that should not be underestimated: motives given significance through allusion or symbolic potential. The descent and ascent of the hexachord is a device favored by Isaac with recognized associations to the Goddess Fortuna and the Virgin Mary.⁵⁴ In this light, the descending and ascending hexachord in the Cantus and Tenor (dotted brackets in Example 10) hardly seem accidental. Modern performers can strive to capture the same balance between concealing and revealing allusive motives.

⁵² For some examples of fugal patterns in theoretical treatises, see Nicolaus Burtius, *Musices Opusculum*, transl. Clement A. Miller, Neuhausen-Stuttgart 1983, 130–135; and Ramos de Pareja, *Musica Practica*, transl. Clement A. Miller Neuhausen-Stuttgart 1993, 112–123.

⁵³ Helen Hewitt, 307.

⁵⁴ Edward Lowinsky, „The goddess Fortuna in music with a special study of Josquin’s Fortuna D’un Gran Tempo“, in: *Music in the culture of the Renaissance and other essays*, ed. Edward Lowinsky and Bonnie Blackburn, Chicago 1989, 221–239.

Example 11: Heinrich Isaac *He logerons nous* (mm. 28–34).

The contrapuntal functions I have briefly touched upon represent the height of a tradition of improvisation that developed over much of a century. But they also show the musical moment at which the wind band began to play over simple chordal progressions. The most common cadential progressions in four voices (see Example 8 above) hold the origin of the *Romanesca* ground bass progression.⁵⁵ This musical crossroad appears in early ground bass progressions from sources around 1500. The anonymous song *Pazienzia ognun me dice* (Example 12a), with its possible textual allusion to the Medici family) rests almost entirely on a pattern of four chords. The dance-like *Chaminata* (Example 12b), with its refrain strikingly similar to Josquin's *In te domine speravi*, is built over an *Antico* pattern that still shows a lack of distinction found in later concepts of tonality.⁵⁶ No doubt, wind bands could create extemporized structures for quite florid treatment. In these progressions the Tenor begins to give way to the Bassus as contrapuntal ruler. Nonetheless, these two early examples preserve the four contrapuntal functions of the voices and the already archaic octave-leap cadence.

Example 12a: Anonymous, *Pazienzia ognun me dice* (mm. 1–10; FlorBN Panc. 27 f. 80v–81; CapePl 3.b.12 f. 80v–82).⁵⁷

⁵⁵ The carnival song *Ben venga maggio* offers another early example of the relation between standard Bassus treatment and ground bass progression. See Joseph Gallucci, *Florentine festival music 1480–1520* (Madison 1981) (= *Recent Researches in the Music of the Renaissance* 40).

⁵⁶ Indeed, this is the earliest known surviving setting of the *antico* pattern.

⁵⁷ See Giulio Cattin, *Italian laude and latin unica in Ms Capetown, Grey 3.B.12,m*, Rome 1977 (= *CMM* 76), 70.

Example 12b: Anonymous, Chaminata (mm. 1–12; FlorBN Panc. 27 f. 116v–117).

Conclusion

Just as shawm playing experienced profound changes in the past, today we find ourselves at a moment of great potential. We are now beginning to recapture the lost art of fifteenth-century ensemble improvisation. What we do will never sound quite like what once existed, but it is nonetheless a valuable pursuit, because recreating the practice offers rich insights into the compositional process of the fifteenth century. Even if our music does not sound exactly alike, we can best capture the spirit of players from half a millennium ago. Thus, the next generation will be not only players on Renaissance winds, but masters of counterpoint. I look forward to our students, and their students after, taking for granted the improvisation of fifteenth-century counterpoint, and once again boasting, „one who was considered a good player in this area just five or six years ago“ ...

1. The first part of the paper discusses the general theory of the model.

2. The second part of the paper discusses the specific details of the model.

3. The third part of the paper discusses the results of the model.

4. The fourth part of the paper discusses the implications of the model.

5. The fifth part of the paper discusses the conclusions of the model.

6. The sixth part of the paper discusses the future work on the model.

7. The seventh part of the paper discusses the acknowledgments of the model.