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May, 2014

FRIEDRICH WILHELM ZACHOW'S THIRTY-THREE EXTANT CHURCH CANTATAS:
AN EXAMINATION OF PITCH STANDARD ISSUES, CHOIR AND ORCHESTRA SIZE,
AND CONTINUO GROUP CONSTITUTION

A Doctoral Essay

Presented to

The Faculty of The Moores School

of Music

University of Houston

In Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Musical Arts

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APPROVED:

Matthew Dirst, Ph.D.
Committee Chair

Charles Hausmann, D.M.A.

Betsy Cook Weber, D.M.A.

John Snyder, Ph.D.

John W. Roberts, Ph.D.
Dean, College of Liberal Arts and Social Sciences
Department of English

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Friedrich Wilhelm Zachow (1663-1712), born a generation before Bach and Handel, wrote over 120 church cantatas and several Lutheran Masses for the *Marienkirche* in Halle. Among them, only thirty-four cantatas and one Lutheran Mass are extant. This essay focuses on four aspects of their performance practice: pitch standard issues, choir size, orchestra size, and continuo group constitution.

When exploring Zachow's surviving cantatas, a discrepancy is evident in regards to consistency in pitch standard. For most of the cantatas, all the vocal and instrumental parts share a single pitch standard. However, in a quarter of the cantatas, woodwind instruments are notated a minor third higher than the key of the organ, whereas the strings and the voices are notated either in the key of the woodwinds or that of the organ. Moreover, the continuo parts in two extant cantatas (TV 18 and 19) share the same key with French woodwind instruments in *tief-Cammerton*. In order to understand these issues, the prevailing pitch standards of Zachow's time are explored and discussed. The pitch relationship of the instruments mentioned in Zachow's surviving cantata manuscripts are also examined and compared with the practices of other contemporary composers.

Considering the size of Zachow's cantata choir, no extant documentary evidence has been found other than the surviving cantata parts. The majority of the cantata manuscripts contain only one set of vocal parts, though a quarter of the extant cantatas contain two sets of vocal parts, one for a group of main singers and the other for another group of secondary singers. A focused study of these parts, and comparison with the practices of other contemporary composers, will guide us to deduce the size of Zachow's cantata choir.

By contrast, additional documentary evidence exists concerning the size of Zachow's cantata orchestra: until the beginning of the eighteenth century, the city of Halle kept on its

payroll five *Stadtpfeifer* (town pipers) and three *Kunstgeiger* (string players), who likely have played at Zachow's cantata performances. Since all of the extant cantata manuscripts contain just a single part for each instrument, Zachow's cantata orchestra was a one-player-per-part ensemble.

The extant cantata *oeuvre* shows that Zachow's continuo group was flexible in its constitution. The majority of Zachow's extant cantata manuscripts contain a single figured organ part in *Chorton*, whereas one-third of the cantata manuscripts contain two identically figured continuo part in *Chorton*, one of which bears the title *organo* and the other, simply, “*Continuo*.” Zachow utilized chordal instruments like organ and harpsichord in these “*Continuo*” parts. Unlike other cantata composers at that time, Zachow did not have the lute or theorbo in his continuo team: instead, the harp would have functioned as the supplementary chordal instrument in some of his cantatas. Zachow's use of bass wind or string instruments in his continuo team is distinctive from that of a typical middle eighteenth-century continuo group. The majority of Zachow's extant cantata manuscripts include a fagotto or basson part as the instrumental bass, whereas only five surviving cantatas (TV 4, 9, 16, 21, and 29) employ a string bass part (*violoncello*, *violono*, *violone*, and *violoncino*). Zachow normally used a bassoon, instead of a violone or cello, to support his string ensemble.

ACKNOWLEDGEMENTS

I wish to thank those who have supported and guided me to complete this doctoral essay.

Dr. Matthew Dirst: Thank you for the many hours you have spent teaching me to become a better writer and thinker.

Dr. Charles Hausmann: Thank you for believing in my potential and supporting me throughout my years at UH.

Dr. Betsy Weber: Thank you for giving me several opportunities to work with various UH choral ensembles as teaching asisstant and conductor.

Dr. John Snyder: Thank you for teaching me to become a better writer and theorist.

To the members of Zachow Consort and Players: Thank you for bringing to life the music that I have found in old libraries.

To my mother, in Korea: Thank you for your nightly prayer for Jeong-Suk and me.

To my Jeong-Suk: Thank you for your emotional and financial support, without which this work would have been impossible to complete.

To my God: Thank you for giving me courage to start this journey and strength to finish it safely.

Until the early twentieth century, Friedrich Wilhelm Zachow (frequently spelled Zachau, 1663-1712) was primarily known as the teacher of George Frideric Handel (1685-1759). Thanks to the research of musicologists such as Günter Thomas,¹ Joseph Flummerfelt,² and Vladimir Stadničenko,³ Zachow is now acquiring a reputation as an important German composer of organ and concerted church music. In 1987, musicologist Bernd Baselt emphasized Zachow's importance as a composer who bridged the three-decade gap between Schütz's death in 1672 and the beginning of the careers of Bach and Handel in 1703, saying, “[Zachow] belonged to the generation of composers. . . who impressed their personalities on the musical history of central Germany.”⁴

Zachow was born in Leipzig into a family of musicians, which was a great advantage to the development and improvement of his own musical skills. His maternal grandfather was a *Stadtpfeifer* (a member of the city's wind band) in Halle and his father was also a *Stadtpfeifer* in Leipzig. Zachow most likely learned the rudiments of playing wind and brass instruments from his father, but probably learned organ from people outside his family. He may have studied the organ under Gerhard Preisensin, the *Thomaskirche* organist in Leipzig. After Zachow's family moved to Eilenburg in 1676, he may have been able to continue studying organ with the composer, poet, and town organist Johann Hildebrand, who was most likely Zachow's main teacher of both organ and composition.

1. Günter Thomas, *Friedrich Wilhelm Zachow*, (Regensburg: Bosse, 1966).

2. Joseph Flummerfelt, *Friedrich Wilhelm Zachow: A Study of His Published Church Cantatas and Their Influence Upon Handel*, (Ph.D. Thesis, University of Illinois, Urbana-Champaign, 1977).

3. Vladimir M. Stadničenko, *Studien zur Vokalmusik Friedrich Wilhelm Zachows: Quellen - Stil – Kontext*, (Ph.D. Thesis, Freiburg: Breisgau, 1999).

4. Bernd Baselt, “Handel and his Central German Background,” *Handel: Tercentenary Collection*, ed. Stanley Sadie and Anthony Hicks, (Ann Arbor: UMI Research Press, 1987), 51.

In 1684, at the age of twenty-one, Zachow was appointed city music director and organist of the *Marienkirche* in Halle. He served there for twenty-eight years until he died suddenly of a lung condition in 1712. In addition to his duties as organist, he also composed and directed the sacred concerts that took place at St. Mary's every third Sunday. Unlike Bach's cantatas, Zachow's cantatas were written primarily for concerts rather than for performance in the church service.

While there is no extant document regarding Zachow's duties at the *Marienkirche*, one can assume they were similar to those stated in a letter from the church council to Johann Sebastian Bach in 1713, just one year after Zachow's death. The council, after an audition in December of the same year, unanimously decided to offer Bach the organist/music director position vacated by Zachow. However, after a lengthy delay, Bach turned it down in March, 1714; interestingly, his son, Wilhelm Friedemann Bach served there from 1746 to 1764.

As the church council stated to Bach,

.... Further, as concerned the performance of his official duties, he is obliged:

(1) on all high holidays and feast days, and any others as they occur, and on the eves of such days, and every Sunday and Saturday afternoon, as well as at the regular Catechism sermons and public weddings, to play the large organ in furtherance of divine service to the best of his ability and zeal, and in such manner that at times the small organ and the regal also may be played, particularly on high feasts for the chorales and the figured music. He is also

(2) Ordinarily—on high and other feasts, as well as on every third Sunday—to present with the Cantor and the Choir Students, as well as with the Town Musicians and other instrumentalists, a moving and well-sounding sacred work; and on extraordinary occasions—on second and third holidays [of the three each celebrated at Christmas, Easter, and Pentecost]—to perform short concerted pieces with the Cantor and the Students, and also at times with some violins and other instruments; and to conduct everything in such a way that the members of the Congregation shall be the more inspired and refreshed in worship and in their love of harkening to the

Word of God....⁵

Unfortunately, a large percentage of Zachow's church music has been lost. Only thirty-three church cantatas and one Lutheran Mass have survived. However, inventories taken at Zachow's time include more than 70 lost church cantatas, several Masses, and Mass movements.⁶ According to Stadničenko, who wrote a doctoral dissertation on Zachow's church music, Zachow composed 113 cantatas both in German and in Latin, four Lutheran Masses, and three Kyrie movements.⁷

Among Zachow's extant works, eighteen cantatas and one Mass have been published: in 1905 Max Seiffert published twelve cantatas and the Mass (along with chamber music, organ and harpsichord music) in the *Denkmäler deutscher Tonkunst* series;⁸ in 1977 Joseph Flummerfelt transcribed TV 28 in his dissertation on Zachow's published church cantatas; in 1981 Wolfrain Steude issued TV 29 in *Carus-Verlag*; and in 2011 Detlef Schoener, an editor of *Kirchenmusik in der Evangelischen Kirche in Mitteldeutschland*, published four cantatas.⁹

Among the remaining fifteen unpublished cantata in manuscripts, eleven are housed at the Saxon State and University Library in Dresden,¹⁰ while the other four are found at the

5. Hans T. David and Arthur Mendel, *The Bach Reader: A Life of Johann Sebastian Bach in Letters and Documents*, (New York: W. W. Norton, 1966), 65.

6. Stadničenko, 25-29.

7. Stadničenko, 25-29.

8. Here is the list of Zachow's cantatas which were published in *Denkmäler deutscher Tonkunst* series in the following order; *Das ist das ewige Leben*, TV 4; *Herr, wenn ich nur dir habe*, TV 11; *Ich will mich mit dir verloben*, TV 15; *Ruhe, Friede, Freud und Wonne*, TV 23; *Vom Himmel kam der Engel Schaar*, TV 31; *Meine Seel' erhebt den Herrn*, TV 18; *Lobe den Herrn, meine Seele*, TV 17; *Siehe, ich bin bei euch alle Tage*, TV 25; *Es wird eine Rute aufgehen*, TV 8; *Dies ist der Tag*, TV 7; *Ich bin sicher und erfreut*, TV 14; *Nun aber giest du, Gott*, TV 19; *Missa brevis super chorale: Christ lag in Todes Banden*, TV 33. Thomas Günter created the *Thomasverzeichnis* (TV) in 1962, and Vladimir Stadničenko revised it in 1999.

9. Here is the list of Zachow's cantatas which were published in *Kirchenmusik in der Evangelischen Kirche in Mitteldeutschland* online; *Confitebor tibi, Domine*, TV 2; *Confitebor tibi, Domine*, TV 2a; *Danksaget dem Vater*, TV 3; *Venite ad me omnes*, TV 30.

10. Here is the list of Zachow's unpublished cantata manuscripts at the Saxon State and University Library in

St. Nicholas Church in Luckau.¹¹ Günter Thomas owns a photocopy of Seiffert's copy of TV 27, *Triumph, der Herr ist Auferstanden*, in his private archive, although the autograph or manuscript of this cantata is not extant.¹²

This essay will focus on the four distinctive aspects of performance practice—pitch standard issues, choir and orchestra size, and continuo group constitution—employed within Zachow's thirty-three extant cantatas. The essay will examine the following primary and secondary sources: fourteen of the sixteen cantata manuscript part-sets housed at the Saxon State and University Library in Dresden,¹³ and three of the five cantata manuscript part-sets housed at St. Nicholas Church in Luckau,¹⁴ five cantata manuscript full scores housed at the Berlin State Library,¹⁵ and the 1906 *Denkmäler deutscher Tonkunst* edition of twelve cantatas in full score. Even though the majority of these manuscripts are not Zachow autographs, they are the only extant cantata manuscripts that were copied in Zachow's time. It is hoped that a close examination of the various sets of parts, manuscript full scores, and the *Denkmäler deutscher Tonkunst* publications, as well as comparison with the performance practice of

Dresden; *Chorus ille coelitus*, TV 1; *Die Apostel wurden alle voll des heiligen Geistes*, TV 5; *Die Herrlichkeit des Herrn ist offenbart worden*, TV 6; *Herr, lehre mich tun deinem Wohlgefallen*, TV 10; *Herzlich tut mich verlagen*, TV 12; *Ich bin die Auferstehung*, TV 13; *Lehre mich tun nach deinem Wohlgefallen*, TV 16; *Nun aber gibst du, Gott, einem gnädigen Regen*, TV 20; *Preiset mit mir den Herren*, TV 21; *Stehe auf, meine Freundin*, TV 26; *Weg, nichtige Freuden*, TV 32.

11. Here is the list of Zachow's unpublished cantata manuscripts at St. Nicholas Church in Luckau; *Confitebor tibi, Domine*, TV 2; *Helft mir Gottes Güte preisen*, TV 9; *Redet untereinander mit Psalmen*, TV 22; *Siehe, das ist Gottes Lamm*, TV 24.

12. Stadničenko, 85.

13. In addition to the eleven unpublished cantata manuscripts at the Saxon State and University Library in Dresden, four more unpublished cantata manuscripts (TV 2a, 28, 29, and 30) are housed at the library. TV 1 and 21 are not available to the writer now.

14. In addition to the four unpublished cantata manuscripts at St. Nicholas Church in Luckau, TV 2 is housed at the library. TV 2 and 24 are not available to the writer now.

15. Here is the list of Zachow's five cantata manuscript full scores housed at the Berlin State Library; *Das ist das ewige Leben*, TV 4; *Herr, wenn ich nur dich habe*, TV 11; *Ich will mich mit dir verloben*, TV 15; *Ruhe, Friede, Freud' und Wonne*, TV 23; *Vom Himmel kam der Engel Schar*, TV 31.

other cantata composers of Zachow's time, will lead to a clearer picture of pitch standards, choir and orchestra size, and continuo group constitution in Zachow's concerted church works.

Pitch Standard Issues in the Extant Cantatas

Composers of German church cantatas in the middle of the seventeenth century generally did not encounter pitch standard issues in their cantatas. It was typical for woodwind instruments like bassoon (*fagotto*) and cornett (*cornetto*); brass instruments like trombone (*trombono*), trumpet (*clarino*), and timpani (*tamburi*); and string instruments like violin and viola to share a single key with the organ in a church piece. Instrument builders conventionally pitched their instruments in *Chorton* ($a^1=465$ Hz, a half step higher than modern $a^1=440$ Hz).¹⁶ Another pitch standard called *Hoch Chorton* ($a^1=485$ Hz, a whole step higher than modern $a^1=440$ Hz) was occasionally used in some parts of Germany such as in Lübeck, but not in Halle.¹⁷

However, toward the end of the seventeenth century, with the appearance of new French woodwind instruments in the German church music scene, cantata composers encountered the challenge of solving pitch discrepancies between the new wind instruments and German organs. Following the French pitch standards, instruments like the *hautbois*, *basson*, and *corno* were designed to play at lower pitches than that of most German organs.

16. There is no extant record about the pitch standard of the *Marienkirche* organs used for Zachow's cantata performances.

17. Bruce Haynes, *A History of Performing Pitch: The Story of "A"* (Lanham, Md: Scarecrow Press, 2002), 200-04.

Two pitch standards were most frequently used to build these instruments: the higher of the two was called *Cammerton* ($a^1=415$ Hz, a half step lower than modern $a^1=440$ Hz) and the lower one was called *tief-Cammerton* ($a^1=395$ Hz, a whole step lower than modern $a^1=440$ Hz).¹⁸

Composers usually solved these pitch discrepancies by transposing some of the parts, just as composers today would transpose parts for transposing instruments like the B-flat and A-clarinets. Since the French wind instruments sounded at lower pitches, many composers frequently transposed the wind parts higher so they could match the key of the organ. Some composers, on the other hand, occasionally transposed the organ part lower than the French wind parts. Johann Gottfried Walther (1684–1748), a renowned music theorist from Zachow's time, commented on this pitch issue in his *Lexicon*:

When a choral piece is in g-minor and an hautboy is involved..., the hautboy plays in a-minor... and when this instrument plays a minor third below *Chorton*, for instance in a church piece [i.e. cantata] in d-minor, the hautboy must be in f-minor... It must be thus admitted that two different *Genera modulandi* can be placed and heard together.¹⁹

In addition, it was common practice for cantata composers to tune the string instruments to any of these pitch standards: *Chorton* in one group of cantatas and one of the two *Cammertons* in another group of cantatas. The choice of key was dependent upon which types of woodwind instruments were used and which key was convenient for the string players. Akin to parts for string instruments, vocal parts could have been notated either at *Chorton* pitch level or at one of the *Cammertons*. Zachow was one of the first composers to combine the new French wind instruments with the old German instruments in his cantatas.

18. Haynes, 205-08.

19. Johann Gottfried Walther, *Musicalisches Lexicon*, (Leipzig, 1732), 162-63. Translation from Haynes, 189.

The thirty-three extant church cantatas that Zachow composed in Halle between 1684 and 1712 demonstrate a gradual shift in the employment of wind instruments and pitch standards from the traditional German instruments pitched in *Chorton* ($a^1=465\text{Hz}$) to the new French instruments pitched in *tief-Cammerton* ($a^1=395\text{Hz}$). According to the pitch standard on which each cantata is based, Zachow's extant cantatas can be divided into four categories: cantatas with all the instruments pitched into *Chorton*; cantatas that combine *tief-Cammerton* French wind instruments with *Chorton* organ; cantatas with all the instruments pitched most likely in *tief-Cammerton*; and cantatas that have no direct evidence of any particular pitch standard.

FACSIMILE I The two bassoon parts in the TV 12 set of parts, first line.



In seventeen out of the thirty-three cantatas, Zachow used the traditional Central European (or Italo-German) wind and/or brass instruments, which all are pitched to the *Chorton* organ.²⁰ For example, in TV 30, the *fagotto* and two violin parts share the same key

20. Here is the list of Zachow's cantatas in *Chorton*: *Chorus ille coelitus*, TV 1; *Confitebor tibi domine*, TV

with the organ and the vocal parts. In TV 28, two *clarini* and *tamburi*, two trombones, the *fagotto*, and two violins all share the same key with the organ and the voices. Thus, the cantatas in this category sounded at Zachow's time a half step higher than the modern pitch standard (a¹=440 Hz).

Contrastingly, in eleven out of the thirty-three cantatas, Zachow combines the *tief-Cammerton* French wind instruments with the *Chorton* organ.²¹ As Facsimile I shows, in TV 12, the four French wind instruments—the *hautbois*, two *taille*, and the *bassone*—share the key of *tief-Cammerton* C-Major, whereas the *fagotto*, and strings share the key of *Chorton* A-Major with the organ.²² In TV 20, two *hautbois*, the *bassone*, strings, and voices share the key of *tief-Cammerton* F-Major, whereas the organ part is notated in the key of *Chorton* D-Major, and the two *cors de chasse* parts are notated in the *tief-Cammerton* key of C-Major.²³

On the other hand, TV 23 shows what may appear to be conflicting evidence regarding its pitch standard. The fact that four French wind instruments—two *hautbois*, the *taille*, and the *basson*—and strings share the same key of A-Major with the vocal parts and

2(a); *Danksaget dem Vater*, TV 3; *Die Apostel wurden alle voll des heiligen Geistes*, TV 5; *Die Herrlichkeit des Herrn ist offenbaret*, TV 6; *Helft mir Gottes Güte preisen*, TV 9; *Herr, lehre mich tun nach deinem Wohlgefallen*, TV 10; *Herr, wenn ich nur dich habe*, TV 11; *Ich will mich mit dir verloben*, TV 15; *Lehre mich tun nach deinem Wohlgefallen*, TV 16; *Redet untereinander mit Psalmen*, TV 22; *Siehe, das ist Gottes Lamm*, TV 24; *Siehe, Ich bin bei euch alle Tage*, TV 25; *Stehe auf, meine Freundin*, TV 26; *Triumph, Victoria*, TV 28; *Venite ad me omnes*, TV 30; *Vom Himmel kam der Engle char*, TV 31.

21. Here is the list of Zachow's cantatas which employ the dual pitch standards: *Das ist das ewige Leben*, TV 4; *Dies ist der Tag*, TV 7; *Es wird eine Rute aufgehen*, TV 8; *Herzlich tut mich verlagen*, TV 12; *Ich bin die Auferstehung*, TV 13; *Lobe den Herrn, meine Seele*, TV 17; *Nun aber gibst du, Gott, eien gnädigen Regen*, TV 20; *Preisest mit mir den Herren*, TV 21; *Ruhe, Friede, Freud' und Wonne*, TV 23; *Uns ist ein Kind geboren*, TV 29; *Weg, nichtige Freuden*, TV 32.

22. While the rest of the vocal parts are notated in the key of *Chorton* A-major, strangely, the solo soprano I and II parts are notated in the key of B-flat Major with one flat in the key signature. Thus, this cantata employs three different transposition levels.

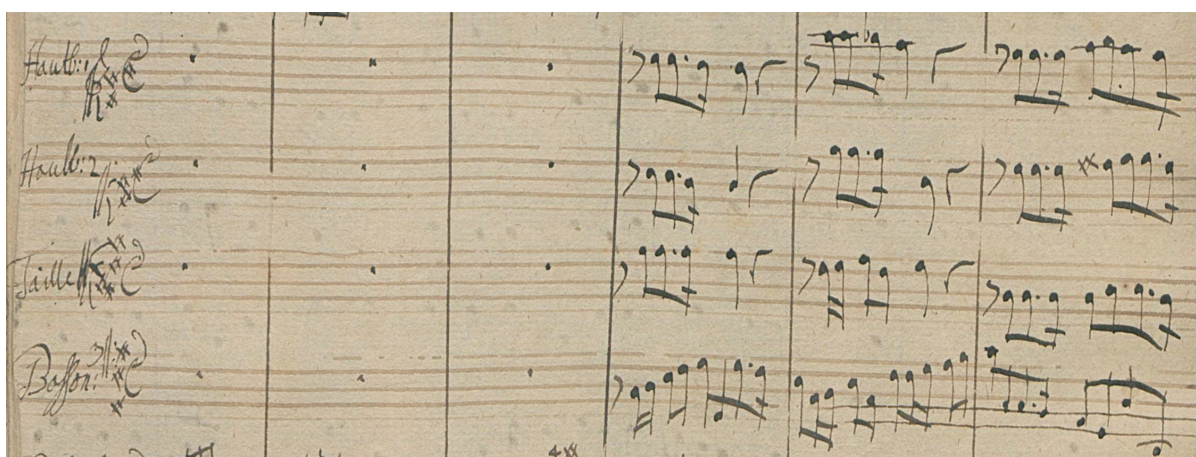
23. Zachow's always pitched his natural horn parts in *tief-Cammerton* and notated in the key of C-Major. When he wanted use horns in different keys, then his horn players had to change their instruments accordingly.

the harpsichord (*cembalo*) continuo suggests that this cantata is pitched in *tief-Cammerton*. However, in the final movement, “*Lob und Preis und Dank und Ehre*,” Zachow employs an organ continuo which also shares the same key of A-Major with the all the other parts, including the four French wind instruments. This movement clearly contradicts the fact that Zachow's organ was pitched in *Chorton* and the French wind instruments were pitched in *tief-Cammerton*. If so, then the wind instruments should be in the key of C-Major, not A-Major. On the other hand, the unusually low vocal bass part reaching down to C provides indirect evidence that this cantata was most likely pitched in *Chorton* rather than in *tief-Cammerton*. C in *Chorton* is a half step higher than the modern pitch standard, placing the bass in a more comfortable range, whereas C in *tief-Cammerton* is a whole step lower, and consequently, more difficult for the bass to sing. The relatively low soprano part, only reaching up to f^{#2}, also provides further indirect evidence that this cantata was most likely pitched in *Chorton* rather than in *tief-Cammerton*.

However, Zachow's clef substitution for these four French wind instruments, as Facsimile II shows, offers the most crucial evidence regarding the supposition that this cantata was most likely conceived in the key of *Chorton* A-Major and *tief-Cammerton* C-Major. In other extant cantatas with French wind instruments, Zachow uses G2 clef for two *hautbois*, C3 for the *taille*, and F4 for the *basson*. However, in this cantata, Zachow employs, with three sharps in the key signature, C1 clef for two *hautbois*, C4 for the *taille*, and F5 for the *basson*. It seems most likely that Zachow's wind players (to facilitate tuning with all the other parts in the *Chorton* A-Major) would have read their parts in their standard clefs (G2

clef for two *hautbois*, C3 for the *taille*, and F4 for the *basson*) without adding three sharps, namely, in the key of *tief-Cammerton* C-Major so they were able to be in tune with all the other parts in *Chorton* A-Major. Thus, the cantatas in this category were always notated with the difference of a minor third since *Chorton* sounded a half step higher and *tief-Cammerton* a whole step lower as compared to modern pitch.

FACSIMILE II The four French wind instruments in the TV 23 full score, mm. 1-6.



In only two of the thirty-three cantatas does Zachow use a single key for the French wind instruments, strings, voices, and the figured continuo, which is a sort of *Cammerton*, most likely, *tief-Cammerton*. For instance, in TV 18, two *hautbois*, two recorders (*flauto*), strings, voices, and the figured continuo part share the single key of F-Major, whereas the two *cors de chasse* (horn) parts are notated in the key of C-Major. In TV 19, two *hautbois*, the *basson*, strings, voices, and the figured continuo part share the key of A-Major, whereas the two *cors de chasse* parts are notated in the key of C-Major.

There is a slight possibility that TV 18 and 19 were pitched at *Cammerton* rather than

at *tief-Cammerton*. According to Haynes, an organ pitched at *Cammerton* was available during the last year of Zachow's life in 1712 in Halle.²⁴ Interestingly, Haynes draws a connection between TV 19 (which was performed in June 1712) and the new *Cammerton* Contius organ, which was being built at the *Marienkirche*.²⁵ If one accepts Haynes' speculation about the availability of a *Cammerton* organ, then one also would need to accept that another set of French instruments, which all were pitched at *Cammerton*, were available at that time. There is some evidence that many of Zachow's contemporary composers employed two different sets of woodwind instruments in their concerted church music: one set pitched at *tief-Cammerton* and the other pitched at *Cammerton*. For instance, Bach used both types of woodwind instruments in church cantatas composed at Weimar. Bach's predecessor, Johann Kuhnau (1660-1722), and Bach himself used both in their concerted church music at Leipzig.²⁶

However, there is no evidence in Zachow's extant cantatas that the composer employed *Cammerton* woodwind instruments. As discussed above, the twelve extant cantatas with pitch standard issues all show the difference of a minor third rather than a major second between the woodwind instruments and the organ, meaning Zachow's French wind instruments were pitched in *tief-Cammerton* only.²⁷ Thus, it seems most likely that Zachow pitched TV 18 and 19 in *tief-Cammerton*, which sounded a whole step lower than $a^1=440$ Hz.

24. Haynes, 219.

25. Haynes, 228.

26. Haynes, 239.

27. In addition, *Ertönt, ihr seligen Völker*, F 88, a church cantata that Wilhelm Friedemann Bach composed for the *Marienkirche* around 1750, still shows the pitch difference of a minor third between the organ (in the key of B-Minor) and all the other parts (in the key of D-Minor) in the tenor aria, "*Lass dein Wehen in mir spielen.*"

Three of the thirty-three cantatas (TV 2, 14, and 27) have no direct evidence of any pitch standard, since Zachow neither employs organ nor any wind instruments specifically. In TV 2, for alto, Zachow only uses two violins and the figured “*Continuo*” to support the voice. Since neither organ nor any kind of woodwind instruments are involved, there is no direct evidence to deduce the pitch standard of this cantata that is in the key of B-minor.²⁸ Comparably, TV 14 and 27 also show no direct evidence about the pitch standard since Zachow employs only two violins and the harpsichord to support the soprano solo, which is analogous to TV 2, as described above.²⁹ TV 27 also shows no direct evidence to deduce the pitch standard since Zachow employs only one violin and the figured continuo to support the bass voice.³⁰

As discussed, Zachow's extant cantata *oeuvre* shows a gradual shift in the pitch standard from *Chorton* to *tief-Cammerton* thanks to the employment of new French wind instruments. From the sixteen cantatas with all instruments pitched in *Chorton*, (versus the twelve cantatas that combine the *tief-Cammerton* French wind instruments with the *Chorton* organ) to two cantatas with all the instruments pitched most likely into *tief-Cammerton*,

28. Since it is certain that TV 2(a) for soprano (the same cantata in a different key as TV 2 for alto) is pitched in the key of *Chorton* G-Minor, TV 2 is most likely conceived in *Chorton* B-Minor, a minor sixth lower than TV 2(a). If TV 2 is pitched in *tief-Cammerton* B-Minor, then there would have been a major seventh between TV 2(a) and TV 2.

29. However, there are two pieces of indirect evidence that this cantata is also most likely conceived in *Chorton*. First, as the extant materials for TV 23 show, Zachow's harpsichord was pitched in *Chorton*. Second, the relatively low soprano part reaching down to c¹ provides an indirect evidence that this cantata was most likely conceived in *Chorton*: c¹ in *Chorton* is a half step higher as compared to modern pitch standard, therefore it is more comfortable for a soprano to sing. On the other hand, c¹ in *tief-Cammerton* is a whole step lower, and therefore it is rather low for a soprano to sing.

30. Unfortunately, since a photocopy of Seiffert's copy of TV 27 is not available to the author, it is impossible to deduce any indirect evidence of the pitch standard from the solo bass part. Since this cantata does not contain any French woodwind instruments, it would have been conceived in *Chorton* as are all of the extant solo cantatas as well.

Zachow's extant cantatas show his great interest in the new French instruments and his willingness to combine them with traditional German/Italian woodwind instruments.

Choir and Orchestra Size in the Extant Cantatas

According to the *concertato* tradition imported from Italy by Michael Praetorius (1571-1621) and Heinrich Schütz (1585-1672), among others, German composers inherited a general way of organizing their vocal forces into two distinctive groups: the *coro favorito* and the *capella*. While the *coro favorito* was responsible for both solo and choral (or *tutti*) passages, the *capella* was used to reinforce the *coro favorito* only at *tutti* passages.³¹

For *concerti* and *cantiones* such as these can be performed completely with just these voice parts [the *coro favorito*] alone, without adding other vocal *capellas* or instruments (especially as they are not available everywhere). Therefore one must select the best *cantores* and singers for these voice parts.³²

Moreover, the majority of the surviving manuscripts and the part-sets of German concerted church music from the time shows that the size of this optional *capella* was small in number, usually one voice per part or two voices at the most. For some works, the participation of a *capella* is mentioned on the title-page, but the actual parts-sets are not extant; in other cases, usually only one set of *capella* parts is extant.³³ This suggests “the *capella* was only one voice per part, or perhaps two if the part was shared between two people.”³⁴ Zachow most likely had at his disposal for performances of his church cantatas “the Cantor and the Choir

31. Andrew Parrott, *The Essential Bach Choir*, (Woodbridge, Suffolk, UK: Boydell Press, 2000), 30.

32. Michael Praetorius, *Syntagma musicum III*, (Wolfenbüttel, 1619), 196. This English translation is from Parrott, 30.

33. Geoffrey Webber, *North German Church Music in the Age of Buxtehude*, (Oxford, 1996), 176.

34. Webber, 176.

Students” and “Town Musicians and other instrumentalists,” as mentioned in the Halle church council's organist job offering letter to Bach.³⁵

Since there are no extant record about the size of Zachow's cantata choir, an examination of the vocal parts with the well-established *concertato* tradition in mind will help us deduce the size of Zachow's choir.³⁶ The thirty-three extant cantatas can be divided into four categories according to Zachow's use of vocal forces: cantatas written for one to three soloists or concertists; cantatas written for four to six concertists; cantatas written for a group of concertists and a group of optional *capella* singers or ripienists; cantatas written for a group of concertists and a group of mandatory ripienists; and TV 5 and TV 32, in which the nature of a group of ripienists is not directly indicated.

TABLE I Part-counts in the extant cantatas written for one to three concertists				
TV	part-counts	vocal parts	instrumental parts	figured continuo parts
1	9	2 sopranos, 1 bass	3 violins, 2 violas, bassoon	1
2	3	alto solo	2 violins	1
2(a)	6	soprano solo	2 violins, 2 violas, bassoon	2
6	4	2 sopranos	2 violins,	1
14	N/A	soprano solo	2 violins	harpsichord
27	3 ^a	bass solo	violin solo	1
^a This cantata includes the figured bass part in the total part-counts.				

As Table I shows, Zachow writes for one to three vocal soloists (or concertists) and a small instrumental ensemble: one or two violins and a figured continuo (which is usually excluded from the part-counts) in six out of the thirty-three cantatas. For example, the part-

35. David, 65.

36. Unfortunately, the *Marienkirche* in Halle was heavily damaged by the bombing raid on 31 March 1945 at the near the end of World War II. With several repair projects from 1968 to 83, the church was restored, as far as possible, its appearance in the sixteenth century rather than in the seventeenth century. Therefore, the size of the choir loft of the current church does not reflect that of Zachow's time.

count “â 3” in TV 2 indicates that three parts (an alto solo and two violins) are included in this cantata with a figured continuo part. TV 2(a), which bears “â 6,” has a slightly larger instrumental ensemble; two violas, a bassoon, and another figured continuo are added to two violins and a figured continuo. The designation “solo” is clearly indicated in the vocal part on the title pages of TV 2, 2(a), 14, and 27 manuscripts. Naturally, these cantatas contain only one copy of the vocal solo part in their part-sets respectively.

TV 1 and TV 6 employ more than a single voice part with a small instrumental ensemble. TV 1 features two sopranos and a bass accompanied by a string ensemble, a bassoon, and a figured continuo, whereas TV 6 includes two sopranos accompanied by two violins and a figured continuo. Since “solo” is not indicated in either the title pages or in the part-sets of these cantatas, one might also consider that these cantatas are intended for a group of ripienists. However, considering the *concertato* principle, we can safely assume that these parts are intended for the *coro favorito* who sing throughout the cantatas, including both the solo and the tutti movements. Surely, the fact that only single vocal copies are included in the sources and that these copies contain all the movements, rather than only the tutti movements, supports the notion that these cantatas are intended for a group of concertists rather than a group of ripienists.

In fifteen out of thirty-three cantatas, Zachow writes for four to six concertists with small to large instrumental ensembles, which occasionally include horns or trumpets and timpani with various wind instruments, as Table II shows. These cantatas can be divided into two types: those extant in the score format and those in the parts-set format. The cantatas that

have survived in score format (TV 4, 7, 8, 11, 15, 17, 18, 19, and 25) do not provide clear evidence as to whether they are intended for a group of concertists or for a combined group of concertists and ripienists.

TABLE II Part-counts in the extant cantatas written for four to six concertists				
TV	part-counts	vocal parts	instrumental parts	figured continuo parts
4	11[sic.]	SATB	2 <i>hautbois</i> , 2 violins, viola, violoncello	organ
7	N/A[12]	SATB	2 violins, viola, 2 <i>bassonetti</i> , <i>basson</i> , 2 horns	1
8	13[sic.]	SATB	2 violins, viola, 2 <i>hautb[ois]</i> , 2 horns, <i>basson</i>	1
11	N/A[9]	SATB	2 violins, 2 violas, harp	
	organ			
15	N/A[10]	SATB	2 trumpets, 2 violins, 2 violas	1
16	11 or 12 ^a	SATB	3 trumpets, 2 violins, viola, violone	organ
17	N/A[13]	SSATB	2 violins, viola, 2 <i>hautbois</i> , <i>basson</i> , 2 horns	1
18	N/A[11] ^b	SATB	2 horns, 2 violins, viola, 2 <i>hautbois</i>	1
19	N/A[12]	SATB	2 horns, 2 violins, viola, 2 <i>hautbois</i> , <i>basson</i>	1
21 ³⁷	N/A[12]	SATB	3 violins, 3 oboes ^c , <i>bassone</i> , <i>violonchino</i>	3
22 ³⁸	10[sic.]	SATB	2 trumpets, 2 violins, viola	1
23	N/A[14]	SAATTB	2 violins, 2 violas, 2 <i>hautbois</i> , <i>taille</i> , <i>basson</i>	2
24	13[sic.]	SATB	2 <i>cornettino</i> , 2 violins, 3 violas, bassoon	1
25	N/A[9]	SATB	2 trumpets, 2 violins, viola	1
30	7	SATB	2 violins, bassoon	1
^a In this cantata, a <i>tamburi</i> (timpani) part is listed in the title-page, but the actual part is not included in the part-set. The unusual part-counts “a 11 ò 12” most likely indicates that the nature of the timpani part is <i>ad libitum</i> . ^b The two <i>flauto</i> parts and two <i>viola da gamba</i> parts in inner movements are most likely played by the doubling woodwind players and string players. ^c Zachow's oboe and <i>hautbois</i> are most likely the same type of instrument. These two instruments are pitched at <i>tief-Cammerton</i> .				

There is no indication regarding a change of vocal forces—for example, the indication of soli or tutti—between the tutti and solo movements in these cantatas. One could interpret this as evidence of the participation of a combined group of concertists and ripienists, or as evidence

37. Thomas, 248-49.

38. Thomas, 223.

of the participation of only a group of concertists. On the other hand, the cantatas that are in the part-set formats (TV 16, 21, 22, 23, 24, and 30) provide clear evidence that the cantatas that contain no indication regarding the change of vocal forces are surely intended for a group of concertists. As with TV 1 and 6, these six cantatas include only a single copy for each concertist in their respective manuscripts. These vocal parts contain all movements without any indication of change in vocal forces. Therefore, it is most likely that all of these fifteen cantatas are intended just for a group of concertists, the *coro favorito*.

TABLE III Part-counts in the extant cantatas written for a group of concertists and a group of optional ripienists				
TV	part-counts	vocal parts	instrumental parts	figured continuo parts
3	10 or 15	SSATB/SSATB	2 violins, 2 violas, bassoon	1
10	10 or 11 ^a	SATB/SATB	3 trumpets, 1 timpani, 2 violins, viola	2
12	14 or 19	SSATB/SSATB	1 <i>hautbois</i> , 2 <i>tallies</i> , <i>bassone</i> , 2 violins, 2 violas, bassoon	2
13	9 [or 13] ^b	SATB/SATB ^c	1 oboe, 2 violins, viola, <i>bassone</i>	3 ^c
20	11 [or 15] ^b	SATB/SATB	2 horns, 1 <i>hautbois</i> , 2 violins, viola, <i>bassone</i>	2
26	13 or 19	SSAATB/SSAATB	2 <i>piffari</i> , 2 violins, 2 violas, bassoon	2
29	10 [or 14] ^b	SATB/SATB	1 oboe, 2 violins, 2 violas, bassoon or violone	2
^a The part-counts “a 10 o 11” seemingly indicate that the nature of an instrumental part is optional. But, since there is no indication, it is difficult to know which part is optional. ^b In these cantatas, Zachow did not list the parts for four vocal ripienists in the part-counts. ^c In addition to the original organ part and a duplicated continuo part, this cantata manuscript contains another continuo part and three extra vocal parts—soprano, alto in ripieno, and tenor—which were seemingly created by a different copyist in later time.				

As Table III shows, in seven out of the thirty-three cantatas, Zachow employs a group of concertists (the *coro favorito*) and a group of optional ripienists (the *capella*) with small to large instrumental ensembles, which include either horns or trumpets and timpani with various wind instruments. The double part-counts in the title pages of TV 3, 10, 12, and 26

indicate that these extra singers could be omitted in case not enough singers were available to reinforce the concertists: The first number indicates the part-counts without the ripienists and the second number with the ripienists.

FACSIMILE III The two soprano parts in the TV 3 set of parts, first line.



For example, TV 3 which bears the part-counts of “â 10 ô 15,” contains five instrumental parts (without counting a figured continuo part) and five concertists, who could be doubled by five ripienists. Moreover, TV 13, 20, and 29, which do not bear the indication of their ripienists' parts in the title pages, surely include them in their part-sets. As Facsimile III shows, the ripienists' parts of these seven cantatas only include some passages in the tutti movements, whereas the concertists' parts include the entire movements, both soli and tutti. Presumably, then, these cantatas are intended for a group of concertists with a group of optional ripienists.

But in three out of these thirty-three cantatas, Zachow treats the ripienists' participation as mandatory, as Table IV shows. Because of the employment of large

instrumental ensembles, which include heavy brass instruments like trumpets (and timpani) and trombones, it seems mandatory to double the concertists with the ripienists in the tutti movements. Therefore, TV 9 must include both the concertists and the ripienists to fulfill the part-counts “â 17” in the title page: nine instrumental parts (without counting a figured continuo part) and four concertists with four ripienists.

TABLE IV Part-count in the extant cantatas written for a group of concertists and a group of mandatory ripienists				
TV	part-counts	vocal parts	instrumental parts	figured continuo parts
9 ^a	17	SATB/SATB	trumpet, cornett, 2 violins, 2 violas ^b 3 trombones	1 ^b
28	14 [or 17]	SATBBB/SAT	2 trumpets, timpani, 2 trombones, bassoon, 2 violins	2
31	15 <i>et più</i>	SATB	4 trumpets, timpani, 2 violins, 3 violetta, bassoon	organ
^a Except for the viola 1, trombone 2, organ parts, and an extra <i>violono</i> part which is not included in the title-page, all the other instrumental parts are lost.				
^b This cantata includes a violone part which is not listed in the part-set.				

At first glance, the part-count “â 14” in TV 28 does not seem to indicate the participation of soprano, alto, and tenor ripienists. However, the lack of a bass ripieno part causes us to look closer at the three bass parts of the *coro favorito*. These bass parts have three different lines only in the bass trio movement; however, in the tutti movements, they have the same bass line. This suggests the participation of soprano, alto, and tenor ripienists for adequate balance. Moreover, the participation of two ripienists per part, not just one per part, are required in order to counter-balance the bass line with three singers in the tutti movements.

The part-count “15 et più” in TV 31 (which is in score format) also indicate the

mandatory participation of another group of singers, possibly two per part as in TV 28. If Zachow considered the participation of the ripienists optional, then he could have indicated with the part-count “15 ò 19.” If Zachow considered adding one ripienist per each part, then he could have indicated with the part-count “à 19.” Therefore, the unusual part-count in this cantata mostly likely indicates the participation of more than one ripienist per each vocal part.

TABLE V TV 5 and TV 32 in which the nature of a group of ripienists is not directly indicated				
TV	part-counts	vocal parts	instrumental parts	figured continuo parts
5	N/A[11]	SATB/SATB	3 trumpets, <i>tamburi</i> , 2 violins, viola	2
32	N/A[11]	[S] ^a ATB/SATB	2 <i>hautbois</i> , <i>basson</i> , 2 violins, 2 violas	2 ^b
^a This soprano concertist part is not extant.				
^b This cantata includes a figured continuo and an untitled/unfigured continuo part.				

As Table V shows, the title pages of TV 5 and 32 do not clearly indicate the nature of a group of ripienists—whether they are optional or mandatory—since the indication of the part-counts is not written out. The nature of the ripienists in TV 5 is most likely optional since the ripienist in TV 10, which has the exact instrumentation as TV 5, is also optional. The ripienists in TV 32 are also most likely optional, since a small instrumental ensemble is used in this cantata and, moreover, the two *hautbois* and *basson* parts could be omitted as it is indicated in the title-page, “2 *Hautbois./ Basson. Possent emitti.*”

Cantata composers in Zachow's time organized their instrumental forces like their vocal forces, following the same *concertato* tradition: a single instrumentalist usually covered each part, although extra players could be added at times, according to their

availability, to create fuller sound.³⁹ Thomas Selle (1599-1663), a renowned Lutheran composer, commented on this addition of extra players:

The small concertos with few voices, which in large churches sound too bare to some ears, the author has strengthened with strings and vocal choirs, so that these join in the more fully, and the instrumentalists, of whom there are a fair number here in Hamburg, might also have something to do, as well as the other singers.⁴⁰

Composers usually created duplicated parts (or doublets) to support certain instruments, especially the violins, and often indicated the participation of additional players in scores and/or in parts with various indications like *ripieno*, *complemento*, and *pro sopplemento se piace*.

Zachow's extant cantata instrumental parts and manuscript full scores contain neither duplicated parts of certain instrumental parts nor verbal indications for participation of *ripieno* players, except for the occasional created duplicate figured continuo part.⁴¹ Therefore, Zachow would most likely have employed one player on a part, even in the strings, without any aid of extra players, unlike his vocal ensemble, in which he would have, in some cantatas, occasionally employed more than one singer on a part. Although one might speculate on the possibility of duplicate parts discarded after performances, composers during Zachow's time usually indicated the duplicated parts in the part-counts of the title pages. Bach, for example, frequently created duplicate parts some of the Leipzig cantatas and indicated them in the part-counts. The sharing of one instrumental part, as strings commonly

39. Webber, 179.

40. Webber, 103.

41. On the other hand, TV 13 and 21 contain incomplete extra vocal and instrumental part sets. However, they were created by different copyists probably for later performances. The continuo/organ parts are in different keys than those of the original parts.

do in orchestras today, was, therefore, not yet standard.

Many Lutheran cities during Zachow's time had a limited number of instrumentalists on municipal or court payrolls. The city of Halle had only five *Stadtpfeifer* (town-pipers) and three *Kunstgeiger* (string-players) until the beginning of eighteenth century.⁴² Since it is most likely that Zachow would have used these instrumentalists principally in cantata performances, doubling some instrumental parts would not have been feasible, given the limited number of personnel. Likewise, Bach worked with one-player-per-part ensembles for the cantatas written in Arnstadt, Mühlhausen, Weimar, and Cöthen during the first quarter of eighteenth century.⁴³

The majority of Zachow's surviving cantatas, with no more than eight instrumental parts, can be performed without any aid of additional players. Since the typical training of a town-piper at that time included dexterity not only in multiple brass and wind instruments but also in bass string instruments like the violone and others, then all of the instrumental parts, even the timpani, could be covered by these eight players.⁴⁴ For example, TV 20, scored for seven instruments, could have been performed with four town-pipers on the horns and wind parts and three string-players on the three string parts. Likewise, TV 26, scored for seven instruments, could have been performed with three town-pipers on the woodwind parts and three string-players and another town-pipers on the four string parts.⁴⁵

42. Walter Serauky, *Musikgeschichte der Stadt Halle*, Vol. 2 (Halle-Berlin, 1940), 426-30.

43. John Spitzer and Neal Zaslaw, *The Birth of the Orchestra: History of an Institution, 1650-1815* (Oxford, 2004), 245-47.

44. Spitzer and Zaslaw, 239.

45. There seems to be a possibility that one remaining town-piper in these cantatas could have doubled the figured bass part with a violone or cello if Zachow required it for more weight and clarity in it. This possibility will be discussed in the following section on Zachow's continuo group constitution.

Only three of the extant cantatas required outside players: TV 9 and 12, scored for nine instrumental parts, and TV 31, scored for eleven instrumental parts. Zachow probably recruited a couple of his students or town-pipers' assistants for performances of these cantatas. Or, he might have invited some instrumentalists from the Halle Collegium Musicum. Although Zachow's cantata choir (a group of soloists with another group of optional singers) and orchestra (a one-player-per-part ensemble) seem small, Zachow and other church cantata composers at that time considered this kind of ensemble to be well suited for their purposes.

Continuo Group Constitution in the Extant Cantatas

Until the second half of twentieth century, musicians thought the standard way of building a continuo group for any sort of Baroque ensemble always required two groups: one or more keyboard instruments (organ and/or harpsichord) and one or more sustaining instruments (cello, double bass, and/or bassoon) doubling the bass line.⁴⁶ Although this continuo group would most likely have been the norm for late Baroque music, continuo groups in Zachow's time, from the second half of the seventeenth century to the first quarter of the eighteenth century, showed much more flexible and varied approaches to their personnel and use.

For example, composers often called for several other chordal instruments like the lute, theorbo, and harp along with the organ and harpsichord. Certain works also call for

46. Stewart Carter and Jeffery T. Kite-Powell, *A Performer's Guide to Seventeenth-Century Music*, (Bloomington, 2012), 319.

string bass instruments like the violone (sometimes called *violon* or *violono*), viola da gamba, bass viola, and bass violin, along with the bassoon (both the *fagotto* and *basson*). However, they less frequently used the violoncello (sometimes called the *violoncino*), since this instrument had not yet gained popularity.

Cantata composers mostly used a bass instrument like the violone or bassoon to support the string ensemble, rather than double the figured bass line exactly, which became the norm during the second decade of eighteenth century. In other words, while the figured bass player realized harmony throughout the composition, the string or bassoon part only played when the string ensemble was active: this bass part derived its pitches from the figured bass part and its rhythm from the other strings.⁴⁷ Moreover, the bass instruments that played along with the chordal continuo sounded at pitch, not the lower octave. The standard violine, in other words, was an 8-foot instrument. Although there is some evidence that a bass instrument playing at 16-foot pitch was used for later church music, there is no evidence for the use of these instruments during Zachow's era.⁴⁸ Cantata composers tended to add a string bass instrument to the harpsichord, since its sound decays quickly.⁴⁹ The string player usually shared a single continuo part with the chordal instrument, rather than owning his part separately. On the other hand, composers did not tend to add a string bass instrument to the organ continuo, since its sound does not decay and has also the pedal-board to support the bass line.⁵⁰

47. Kerala J. Snyder, *Dieterich Buxtehude: Organist in Lübeck*, (Rochester, 2007), 374.

48. Webber, 182.

49. Mary Benson Stahlke, *Johann Krieger and Sacred Vocal Music in Zittau, 1682-1735*, (A.Mus.D. Thesis, Urbana-Champaign, 1986), 465-66.

50. Laurence Dreyfus, *Bach's Continuo Group: Players and Practices in His Vocal Works*, (Cambridge, 1987),

There are two sets of questions that arise regarding the constitution of Zachow's continuo group. The first are related to Zachow's use of chordal instruments:

- what kind of chordal instruments did Zachow use in his cantata performances?
- what kind of chordal instruments did Zachow use for the unspecified chordal instrument parts with the title, “*Continuo*”?
- why did Zachow employ one chordal instrument in some cantatas and two in other cantatas?

Only three chordal instruments—organ (*organo*), harpsichord (*cembalo*), and harp (*harpa*)—are specified in Zachow's extant cantatas. Zachow employed the organ sixteen times, the harpsichord twice, and the harp only once in the extant cantatas. Strangely, none of his extant cantatas included a part for the lute or theorbo, a popular chordal instrument at this time.

Interestingly, Zachow included unspecified “*Continuo*” parts twenty-two times in the extant cantatas. Except for the *continuo* parts in TV 18 and 19, which were mostly likely for *tief-Cammerton* instruments, all other unspecified *continuo* parts are pitched at *Chorton*. They share the same key with the *fagotto* and the organ part, which are all in *Chorton*. The inclusive title “*Continuo*” suggests that Zachow employed various chordal instruments rather than just one specific instrument depending on what was at his disposal. As Table VI shows, the organ, pitched at *Chorton*, is the most likely figured bass instrument for the majority of these unspecified figured bass parts in the extant cantatas.

As previously mentioned in the letter from the *Marienkirche* in Halle to Bach, one of the organist's duties is to play and maintain “the large organ and small organs as well as the Church regal.”⁵¹ Therefore, the church most likely owned more than three or even four

133-34.

51. Hans T. David and Arthur Mendel, 65.

organs, some of which were surely used in Zachow's cantata performances.

TABLE VI Continuo group in the extant cantatas with a single figured bass part				
TV	title-page	chordal instrument	sustaining instrument	ripienist; brass
1	<i>Continuo</i>	<i>Continuo</i>	<i>Fagotto</i>	N/A [SS duet]
2	<i>Continuo</i>	<i>Continuo</i>	N/A	N/A [A solo]
3	<i>Continuo</i>	<i>Continuo</i>	<i>Fagotto</i>	SSATB
4	<i>Basso per l'Organo</i>	<i>Organo</i> ^a	<i>Violoncello</i> ^a	N/A
6	<i>Continuo</i>	<i>[Orga]no</i> ^b	N/A	N/A [SS duet]
7	<i>Contin[uo]</i>	<i>Contin[uo]</i>	<i>Basson</i>	N/A; horns
8	<i>Continuo</i>	<i>Continuo</i>	<i>Basson</i>	N/A; horns
9	<i>Organo</i>	<i>Organo</i>	<i>Violono</i> ^c	Lost; SATB
11	[Untitled]	<i>Organo, Harpa</i> ^d	N/A	N/A
14	<i>Cembalo</i>	<i>Cembalo</i>	N/A	N/A [S solo]
15	[Untitled]	[Untitled]	N/A	N/A; trumpets
16	<i>Organo</i>	<i>Organo</i>	<i>Violone</i>	N/A; trumpets
17	<i>Contin[uo]</i>	<i>Contin[uo]</i>	<i>Basson, Violon</i>	N/A; horns
18 ^e	[Untitled]	<i>Continuo</i>	N/A	N/A; horns
19 ^e	<i>Continuo</i>	<i>Continuo</i>	<i>Basson</i>	N/A; horns
21	<i>Continuo a doppio</i>	<i>Organo</i> ^f	<i>Basson, Violoncino</i>	N/A
22	<i>Continuo</i>	<i>Continuo</i>	N/A	N/A; trumpets
24	<i>Continuo</i>	<i>Continuo</i>	<i>Bassonno</i> ^g	N/A
25	[Untitled]	<i>Continuo</i>	N/A	N/A; trumpets
27	<i>Cont[inuo]</i>	<i>Cont[inuo]</i>	N/A	N/A [B solo]
30	<i>Continuo</i>	<i>[Continuo]</i> ^h	<i>Fagotto</i>	N/A
31	<i>il Basso Continuo</i>	<i>Organo</i>	<i>Fag[otto]</i>	<i>et più</i> ; trumpets
32	<i>Continuo a doppio</i>	<i>Continuo</i>	<i>Basson, [Untitled]</i> ^h	SATB

^aThe extant part set does not contain parts for viola, violoncello, and organ. Moreover, the composing score contains an empty line for “*basson*” instead of a line for violoncello.

^bThe original heading and the first musical line was damaged by water except for the two letters, “no.”

^cThis part, pitched in *Chorton*, contains two titles, “*Violono* ~~*é Bassono*~~.”

^dThis harp part is in two-part texture and contains an obbligato melody at the top line. The unfigured bottom line is derived from the organ part.

^eIt seems most likely that Zachow pitched these cantatas at *tief-Cammerton*.

^fThere is a transposed continuo part, as well as some vocal parts, in the set of parts for later performances.

^gThe title-page of this cantata lists this part as “*Fagotto*.” Therefore, this part is pitched in *Chorton*.

^hThese parts are untitled.

Moreover, Zachow's interchangeable use of the two terms “*Continuo*” and “*Organo*” in the part-counts and the title of each part also supports the assumption that the organ was Zachow's primary figured bass instrument, as Table VII shows. When Zachow listed the single figured bass part of TV 6 and 31 on their respective title pages as the “*Continuo*,” he actually indicated these figured bass parts as the “*Organo*.” One can also find this interchangeability in the majority of the cantatas with two virtually identical figured bass parts: TV 10, 12, 13, 26, and 28. Although Zachow listed the two figured bass parts of these cantatas on their respective title-pages as “*Continuo a doppio*” or “*Continuo*,” he always indicated one of the two parts as “*Organo*.”

TABLE VII Continuo group in the extant cantatas with two figured bass parts				
TV	title-page	chordal instruments	sustaining instrument	ripienists; brass
2a	<i>Continuo a doppio</i>	<i>Continuo/Continuo</i>	<i>Fagotto</i> ^a	N/A [S solo]
5	<i>Organo a doppio</i>	<i>Continuo</i> ^{bc} / <i>Organo</i> ^c	N/A	SATB; trumpets
10	<i>Continuo a doppio</i>	<i>Organo/Continuo</i>	N/A	SATB; trumpets
12	<i>Continuo [a doppio]</i>	<i>Continuo/Organo</i>	<i>Bassone, Fagotto</i>	SSATB
13	<i>Continuo a dopp[io]</i>	<i>Organo</i> ^d / <i>Continuo</i>	<i>Bassone</i>	N/A
20	<i>Organo [a doppio]</i>	<i>Organo/Continuo</i>	<i>Bassone</i>	SATB; horns
23	[Untitled]	<i>Cembalo/Organo</i>	<i>Basson</i>	N/A
26	<i>Continuo a doppio</i>	<i>[Continuo]/Organo</i> ^b	<i>Fagotto</i>	SSAATB
28	<i>Continuo a doppio</i>	<i>Continuo/Organo</i>	<i>Fagot[t]o</i>	SAT; trumpets
29	<i>Organo [a doppio]</i>	<i>Continuo/[Organo]</i> ^e	<i>Basson</i> ^f , <i>Fagotto</i> ^g	SATB
^a The original heading, “ <i>Continuo</i> ,” was scratched out and changed to “ <i>Fagotto</i> .” Interestingly, this part is also figured. ^b Red wavy lines were added in certain passages in these figured continuo parts. ^c These two identical figured bass parts contain an obbligato organ line in the alto aria. ^d There is a figured continuo part with transposition and some vocal parts for later performances. ^e The original heading and the first musical line were damaged by water. ^f The part-counts of this cantatas does not include this part. ^g The title-page of this cantatas includes the indication of “ <i>Fagotto ô Violone</i> .”				

Moreover, Zachow's description of the two figured bass parts on the title pages of TV 5, 20, and 29—as “*Organo a doppio*” or “*Organo*,” and in the parts, “*Organo*” and “*Continuo*”—further supports that the assumption that the organ was Zachow's primary figured bass instrument for the unidentified continuo parts.

Given that Zachow specified harpsichord in only two of the thirty-three extant cantatas (TV 14 and 23), the harpsichord seems to have been a less frequent member of the continuo team. Nevertheless, the harpsichord, which was also most likely pitched in *Chorton*, would have been the secondary instrument for some of the unidentified “*Continuo*” parts that are pitched at *Chorton*.⁵² As Serauky has shown, the *Marienkirche* owned two harpsichords, which were most likely used in Zachow's cantatas performances.⁵³

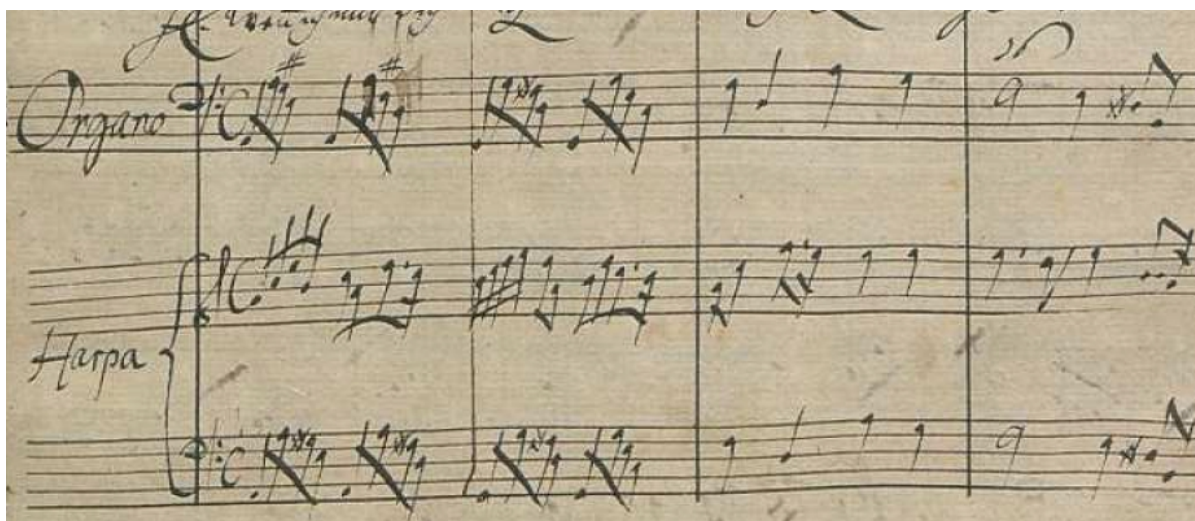
The harp, unlike the harpsichord, was not a regular member of the continuo group, since Zachow included harp only once: in TV 11, in an obligato role. As Facsimile III shows, this harp part, notated as a two-part texture, contains an obligato melody and a bass line, derived from the organ part. The unfigured bass line suggests that the harpist did not realize the bass. Yet one cannot rule out a possibility that the harp could have been used as a supplementary continuo instrument to the organ, or harpsichord, for one of the unidentified “*Continuo*” parts in the extant cantatas with two figured bass parts. Similarly, other cantata composers in Zachow's time frequently employed a lute or a theorbo along with the organ or harpsichord. Thus, Zachow might have considered the harp as his supplementary continuo instrument.⁵⁴

52. Stahlke, 460. Krieger also pitched his harpsichords in *Chorton*.

53. Serauky, 117, 172, and 300.

54. It is not clear which figured bass instrument among the organ, harpsichord, and harp would have been used

FACSIMILE III The organ and harp in the TV 11 full score, mm. 1-4.



The sources suggest that Zachow used an organ or harpsichord for the unidentified continuo parts in thirteen of the extant cantatas with a single figured bass part (TV 1, 2, 3, 7, 8, 15, 17, 22, 24, 25, 27, 30, and 32) and two organs, or one organ and one harpsichord, in the other six cantatas with two figured bass parts (TV 2a, 10, 12, 13, 26, and 28). On rare occasions, Zachow could have employed a harp instead of a harpsichord to cover the “*Continuo*” parts in the six cantatas with two figured bass parts.

Exploration of these six cantatas poses another question: why did Zachow employ a single chordal instrument in some cantatas and two instruments in others? For example, TV 9 and 31, two of the three cantatas composed for four vocal concertists and ripienists and more

for the unspecified “*Continuo*” parts in TV 18 and 19. As discussed above, these parts were most likely pitched at *tief-Cammerton* since they share the same key with the French woodwind instruments such as the *hautbois* and *basson*, which were most likely pitched at *tief-Cammerton*. It is evident that a *Chorton* organ was not able to cover these parts, unless one finds evidence that Zachow pitched one of the organs in the *Marienkirche* in *tief-Cammerton*. It is most likely that Zachow used one of the harpsichords to cover these parts in TV 18 and 19, since the harpsichord, like string instruments, can be pitched to either to *Chorton*, *tief-Cammerton*, or any other pitch standard. Although there is a possibility that Zachow re-pitched a harp to cover these parts, it is less likely that the harp was readily available for his cantata performances, unlike the two harpsichords in his church.

than nine instruments, include only a single figured bass part. Meanwhile, TV 2a, composed for solo soprano and five instruments, contains two figured “*continuo*” parts, along with a bassoon part that is also figured.⁵⁵ Considering the size of each cantata, it would be more reasonable to suppose that Zachow employed a single figured bass instrument in TV 2a and two instruments in TV 9 and 31.

One might assume that the employment of the vocal ripienists in some of the cantatas would have required two figured bass instruments. And in fact, seven out of the ten extant cantatas with two figured bass parts (TV 5, 10, 12, 20, 26, 28, and 29) include vocal ripienists, although the remaining three cantatas (TV 2a, 13, and 23) do not. Moreover, four cantatas (TV 3, 9, 31, and 32) that include vocal ripienists do not include another copy of the figured bass part. From this evidence, there seems to be no clear relationship between Zachow's employment of two chordal instruments and of vocal ripienists.

Or perhaps the employment of the trumpets or horns in some of the cantatas would have required two figured bass instruments. Four out of the ten extant cantatas with two figured bass parts (TV 5, 10, 20, and 28) surely include the trumpets or horns as well. However, ten cantatas (TV 7, 8, 15-19, 22, 25, and 31) that include trumpets or horns do not include another figured bass part. This evidence suggests that there seems to be no clear relationship between Zachow's employment of two chordal instruments and of trumpets or horns, either. From this conflicting evidence, it seems most likely that Zachow was not able

55. Since the title-page of TV 2a contains the indication, “*Continuo a doppio*,” it is not likely that the figured bassoon part was shared by a third chordal instrumentalist. The original heading of this bassoon part was changed from “*Continuo*” to “*Fagotto*.” Moreover, this bassoon part functions only as the bass instrument of the string ensemble, whereas the two identically figured bass parts function as the through-bass to the entire composition.

to secure two chordal continuo players for every cantata performance. Though he usually employed a single chordal instrument player in many cantata performances, he would likely have used other chordal players when they were available.

The second set of questions is related to the string and woodwind instruments of Zachow's continuo group:

- what kind of bass instruments did Zachow use in his cantata performances?
- did these bass instruments double the figured bass line exactly?
- if not, what were the functions of these bass instruments?
- were the string bass instruments used in the extant cantatas at 8-foot or 16-foot pitch?
- whether or not a bass instrument shared the bass line with a chordal instrument in the cantatas for which Zachow did not create a separate sustaining bass part?

Zachow included three kind of bassoons and two kind of bass string instruments in his continuo team. He used the *fagotto* nine times, the *basson* (sometimes spelled as *bassone*) eleven times, the *bassonno* once (a *Chorton* instrument like as the *fagotto*), the violone (sometimes spelled as *violono* or *violon*) three times, and the violoncello (or *violoncino*) twice, in twenty-three out of the thirty-three cantatas. He used a single bass instrument in eighteen cantatas and two simultaneously in five cantatas (TV 12, 17, 21, 29, and 32). Curiously, he did not create any bass instrument parts in the remaining eleven cantatas (TV 2, 5, 6, 10, 11, 14, 15, 18, 22, 25, and 27).

Considering the frequent use of the bassoons, it is clear that Zachow preferred a woodwind instrument to a string as the primary sustaining bass instrument in his continuo group. This was not only Zachow's own practice, but also the well-established practice among cantatas composers throughout the seventeenth century: Selle, Kuhnau, and

Heinichen also used a bassoon as the primary bass instrument of their continuo group in their concerted church music. Even Bach employed it as the primary bass instrument in his early cantatas: BWV 131 and 150, for example. On the other hand, given his infrequent use of them, Zachow seems to have considered the violone and the violoncello as only supplementary bass instruments in his continuo group.

Though Zachow's bassoon parts never double the figured continuo line exactly, his violone bass parts do. In the seven *Chorton* cantatas that include a *fagotto* (TV 1, 2a, 3, 26, 28, 30, and 31) and in TV 24 which includes a *Chorton bassonno*, Zachow gives this bass instrument two functions: the bass of the string ensemble, or occasionally, in the movements where these ensembles play, the bass of the string, woodwind, and brass instruments.⁵⁶ In the six *tief-Cammerton* cantatas that include a *basson* (TV 7, 8, 13, 19, 20, and 23), Zachow gives this instrument two functions: firstly, as the bass of various kind of French woodwind ensemble, and secondly, in the movements these ensembles play, it functions as the bass of the string and French woodwind ensemble.⁵⁷ In the two *Chorton* cantatas that include a single violone (TV 9 and 16), Zachow gives this instrument only a single function: it doubles the figured bass line in all movements.⁵⁸

56. In TV 1, 2a, 3, and 30, Zachow employs various string ensembles, in which the bassoon plays only when strings play. In TV 24, Zachow employs not only a string ensemble but also two *cornettini*, yet the *bassonno* functions only as the bass instrument of the strings. In TV 26 and 28, Zachow employs various woodwind and brass instruments to their respective string ensembles. In TV 31, Zachow employs not only a string ensemble but also a trumpet choir, yet the bassoon functions only as the bass instrument of the strings.

57. In TV 8, 20, and 23, Zachow employs not only strings but also various sizes of French woodwind ensemble, in which the bassoon plays only when these woodwind ensembles play. Curiously, Zachow does not assign a sustaining instrument as the bass of the string ensembles of these cantatas although it seems musically compelling. In TV 7, 13, and 19, Zachow employs various sizes of the string and French woodwind ensemble, in which the French bassoon provide the bass to the string and French woodwind ensembles.

58. In TV 9, Zachow gives all the notes of the organ continuo to the violone part except for two things, the figures (which is unnecessary to a violonist) and the vocal cues in the recitatives. He even includes the clef

FACSIMILE IV The unwritten *basson* and cello in the TV 4 composing score, mm. 1-7.



On the other hand, it is impossible to know what the function of the cello is in TV 4 and 21. The violoncello part of TV 4 is not extant and the set of parts of TV 21, which contains a cello part, are not available to the writer at this moment. Interestingly, instead of a line for the cello, the composing score of TV 4 contains only an empty line only for the

changes (namely, *bassetto* passages which indicate various entries without the vocal or instrumental bass) of the organ part. In TV 16, Zachow also gives all the notes of the organ continuo to the violone part except for two things, the figures and the clef changes. Zachow substitutes *bassetto* passages in this cantata with rests. However, he even adds some slurs to the violone part.

basson, as Facimile IV shows. Moreover, the title-page of TV 4 parts-set bears the cancelled indication of “*Bassone*,” and the set of parts does contain neither the bassoon nor the cello part. Because the other strings in this cantata are pitched at *Chorton* D-Major, which share the same key with the organ, it is most likely that the cello functioned as the doubler of the organ bass (as the violone does in TV 9 and 16), rather than the bass of the two French oboes (as the bassoon in TV 8, 20, and 23).

Zachow's wind and string bass instruments function as expected in the five cantatas that include two such instruments: TV 12 (“*Bassone*” and “*Fagotto*”), 17 (“*Basson*” and “*Violon*”), 21 (“*Basson*” and “*Violoncino*”), 29 (“*Basson*” and “*Fagotto*”), and 32 (“*Basson*” and an untitled sustaining instrument). The *fagotto* in TV 12 and 29 functions as the bass instrument of string ensemble, whereas the *basson* in TV 12, 17, and 32 functions as the bass instrument of various French woodwind ensembles. In TV 29, the *basson* unexpectedly doubles the other bass instrument, the *fagotto*, instead of serving as the bass of the French oboe. Thus, it functions as the bass of string ensemble, which is the primary function of Zachow's *fagotto*. Since the part-counts of this cantata do not include this extra *basson* part, it is more likely that this part would have been a substitution for the original *fagotto* part. In TV 32, the untitled instrument doubles the organ continuo, while the *basson* functions as the bass of the optional French woodwind ensemble. Therefore, it is most likely that this untitled part was designed for the violone or cello.⁵⁹

59. It is also difficult to know the function of the *violon* in TV 12, since the full score of this cantata does not clearly indicate which part the *violon* plays. It is most likely that the *violon* would have doubled the organ continuo as it does in TV 9 and 16 since the other bass instrument, *basson*, functions only as the bass of the French woodwind choir.

Interestingly, the interchangeability between the *bassonno*, the *fagotto*, and the violone shown in the verbal indications of TV 9 and 29 supports the thesis that Zachow's violone was not only used occasionally to substitute for the *fagotto*, but also was designed to play with the German bassoon at the 8-foot pitch level. The modified title-heading, “*Violono ô Bassone*[sic.],” in the violone part in TV 9, suggests that the *bassono* (which is pitched in *Chorton*) could substitute for the violone, although this idea was cancelled eventually. The indication “*Fagotto ô Violone*” in the title-page of TV 29 suggests the opposite idea that the violone could substitute for the *fagotto*. Therefore, Zachow could have employed a violone when the *fagotto* was not available in TV 29, and possibly in some of his other cantatas with a *fagotto*. This interchangeability between the instruments is easily possible if Zachow's violone was an 8-foot instrument rather than a 16-foot instrument. Otherwise, Zachow's cantatas with a *fagotto* were lacking a sustaining bass line in the 8-foot register whenever the violone had substituted for the *fagotto*.

As Tables VIII and XI show, the eleven cantatas without separate parts for bass instruments (TV 2, 5, 6, 10, 11, 14, 15, 18, 22, 25, and 27), and the three cantatas without a bass string or woodwind instrument in the bass of string ensembles (TV 8, 20, and 23), lead us to pose a question: would a bass instrument have played from the figured bass part in these cantatas? Except for TV 5, the other thirteen cantatas do not contain any trace of Zachow's own practice of a sustaining bass instrument sharing the figured bass line.

The TV 5 set of parts contains a rare piece of evidence of Zachow's practice of a bass instrument sharing the figured bass line. As Facsimile V shows, one of the two figured

continuo parts in this cantata contains curious red wavy lines in certain passages.

TABLE VIII Cantatas without separate parts for a bass instrument				
TV	pitch standard	chordal instrument	vocal part	instrumental part
2	<i>Chorton</i>	organ	A solo	2 violins
5	<i>Chorton</i>	organ/[organ] ^a	SATB	3 trumpets, timpani, 2 violins, viola
6	<i>Chorton</i>	organ	SS duet	2 violins
10	<i>Chorton</i>	organ/continuo	SATB/ SATB	3 trumpets, timpani, 2 violins, viola
11	<i>Chorton</i>	organ	SATB	2 violins, 2 violas, harp
14	<i>Chorton?</i>	harpsichord	S solo	2 violins
15	<i>Chorton</i>	continuo	SATB	2 trumpets, 2 violins, 2 violas
18	<i>tief-Cammerton</i>	continuo	SATB	2 horns, 2 flutes ^b , 2 oboes, 2 violins, viola, 2 viola da gambas ^b
22	<i>Chorton</i>	continuo	SATB	2 trumpets, 2 violins, viola
25	<i>Chorton</i>	continuo	SATB	2 trumpets, 2 violins, viola
27	N/A	continuo	B solo	1 violin

^aWhile this part is titled as “*Continuo*” in the part heading, it is titled as “*Organo a doppio*” in the part-counts. This part and the other organ parts are identically figured and contain the concertato organ movement.

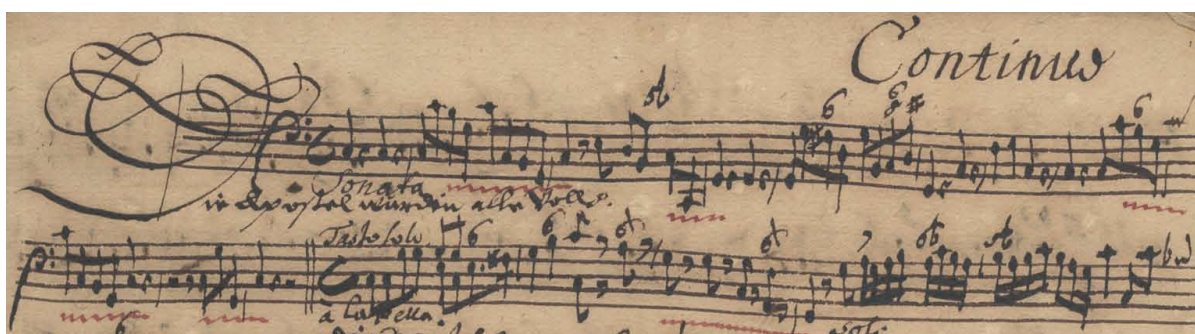
^bIt is most likely that these instruments were played by oboists and string players, since they appear only in inner movements as soloists.

TABLE IX Cantatas that do not include a bass part for the string ensembles				
TV	pitch standard	chordal instrument	vocal part	instrumental part
8	<i>Chorton/ tief-Cammerton</i>	continuo	SATB	2 horns, 2 oboes, 1 bassoon, 2 violins, 1 viola
20	<i>Chorton/ tief-Cammerton</i>	organ	SATB/SATB	2 horns, 1 oboe, 1 bassoon, 2 violins, 1 viola
23	<i>Chorton</i>	harpsichord/organ	SAATTB	2 oboes, 1 <i>taille</i> , 1 bassoon, 2 violins, 2 violas

This “*Continuo*” part is most likely intended for an organ since the title-page of TV 5 bears the indication “*Organo a doppio*.” These wavy lines correspond to the entries of the three trumpets, timpani, and all the other instruments. Therefore, tutti passages in this cantata are

carefully specified. This specification appears as some sort of an indication for sound reinforcement, for example, a stop change between solo and tutti passages. In addition, these wavy lines also may have indicated the employment of the pedal-board, if the large organ was used—or perhaps the participation of a sustaining bass instrument like a bassoon or violone?

FACSIMILE V The “*Continuo*” part in the TV 5 with red wavy lines, mm. 1-15.



One can find further pieces of evidence on the practice of a bass instrument sharing the figured bass part only in the four cantatas that contain one or two bass parts (TV 9, 21, 26, and 32). TV 26 also contains red wavy lines in certain passages in one of the two figured continuo parts, this time, in the “*Organo*.” These wavy lines correspond to the entries of the six ripienists and all the other instruments—that is, the tutti passages. This indication is most likely meant for an organ stop change between solo and tutti passages, or the employment of the pedal-board rather than the employment of an extra bass instrument, since this cantata contains a separate *fagotto* part that sometimes doubles the passages with the wavy lines and other times supports the string ensemble. However, one also cannot rule out the possibility of a bass instrument sharing this “*Organo*” part, if a small organ, instead of the main organ, was

used.

The sustaining bass parts in TV 21 and 32 show other evidence of Zachow's sharing practice. These cantatas, which carry the indication "*Continuo a doppio*" on their title-pages, unusually contain one chordal bass part and one sustaining bass part (the violone in TV 21 and a untitled bass part that is also most likely the violone in TV 32), instead of two chordal bass parts, like the rest of the cantatas with two figured bass parts. This trace suggests that Zachow's term "*Continuo*" can include not only chordal instruments like the organ, harpsichord, and harp, but also sustaining instruments like violone. Thus, one of the figured bass parts in the cantatas with two figured bass parts could be substituted or doubled by a sustaining bass instrument. Moreover, the extra violone part that is not listed in the part-counts in TV 9 shows Zachow's sharing practice in the cantatas with one figured bass part as well. It is most likely that Zachow needed to create this violone part, since, for some reason, it was impossible for the violonist to share the "*Organo*" part: perhaps both of them faced away from the choir and orchestra. The violonist would not have been able to share the part if the organist had been using the main organ.

Considering all the evidence that Zachow left in the extant cantatas, it is most likely that he occasionally doubled the figured bass line with a string or woodwind instrument in some of the twelve cantatas and TV 8, 20, and 23. Zachow's normal practice is either to indicate the doubling passages with red wavy lines or to create a separate part for violone. Since none of these cantatas contain red wavy lines or separate parts, it is most likely that a violone shared the "*Continuo*" part if a harpsichord or small organ was used and a violonist

was available.

As discussed, the extant cantata *oeuvre* shows that Zachow's continuo group was flexible in its constitution. Zachow utilized chordal instruments like organ and harpsichord for his cantata performances, and depending on their availability, Zachow could have used a single instrument (organ or harpsichord) or two instruments (two organs or organ and harpsichord) simultaneously. Unlike other cantata composers at that time, Zachow did not have the lute or theorbo in his continuo team: instead, the harp would have functioned as the supplementary chordal instrument in some of his cantatas. Zachow's use of bass wind or string instruments in his continuo team is distinct from that of a typical middle eighteenth-century continuo group. For example, Zachow normally used a bassoon, instead of a violone or cello, to support his string ensemble. These instruments did not double the figured bass line exactly; instead, they played only whenever other instruments were employed. Zachow's violone, which was most likely an 8-foot instrument, is the only exception: this instrument's surviving parts double the figured bass line exactly. It is most likely that Zachow occasionally employed a violonist to double the figured bass line in some of the cantatas without a sustaining bass instrument in the string ensemble.

Conclusion

How can one make use of this knowledge concerning Zachow's own performance practice? Some of Zachow's extant cantatas that are notated in *tief-Cammerton* ($a^1=395\text{Hz}$) could be too high for singers and horn players (thus they would sound forced and pinched)

while others that are notated in *Chorton* ($a^1=465\text{Hz}$) could be too low for singers, thus they would sound dull and colorless. Therefore, for the most optimum circumstances for performances, it is necessary to perform these cantatas at their original pitch standards.

If one has the option, performing these cantatas with a period instrumental ensemble would be a better solution than not, since they are more accustomed to variable pitch standards than a modern instrumental ensemble. Admittedly, it is difficult to find a period ensemble that uses *tief-Cammerton* and *Chorton* at the same. In fact, period ensembles today usually tune the strings, woodwinds, and horns in *Cammerton* ($a^1=415\text{Hz}$) and only the trumpets and trombones in *Chorton*. Sometimes they use *tief-Cammerton* or $a^1=440\text{Hz}$ as pitch standard, but they rarely use *Chorton*. Therefore, it is difficult to find a period ensemble that uses Zachow's two pitch standards simultaneously. A better solution is to partially transpose some or even all of the instruments to match Zachow's pitch standard in certain cantatas. However, in some cases, it would be better to maintain the originally notated keys when transpositions yield key areas of more than four sharps or four flats, which were foreign to Zachow and other contemporary composers.

Evidence on the size of Zachow's cantata choir and orchestra emphasizes the flexibility of his vocal forces and instrumental forces, which were typical to those of many Lutheran composers working during this time. While it is not required to literally match the exact number of singers and instrumentalists, one can adjust his/her own choral and orchestral forces according to the *concertato* principle that Zachow respected: a group of vocal/instrumental soloists with an optional/mandatory vocal/instrumental group.

It is important to keep in mind that Zachow wrote these cantatas for a group of soloists who sing throughout and a small group of optional (or sometimes mandatory) ripienists who sing only in tutti passages. He did not write these cantatas for chorus who sing throughout, in addition to a group of soloists who sing only in their solo movements. In that sense, it is recommended that one identify the best solo singers from one's choir and, if possible, place them within his/her choir rather than separate them from the choir. In addition, employing a one-player-per-part ensemble is also encouraged. Having more instrumentalists in the strings is a possibility for balance with the choir, if one employs a larger choir than Zachow originally would have had. Yet one should use these extra string players only as *ripieni* in tutti passages.

Various pieces of evidence on the constitution of Zachow's continuo group help one to realize his continuo lines. While it is not required to match exactly the number of chordal and sustaining instruments used by Zachow, one can try to include the instruments that Zachow used as closely as possible. Zachow preferred the organ to the harpsichord: therefore, as a result, the majority of his cantatas could be performed with one organ, or sometimes two. Having a single harpsichord is also equally acceptable, but it is more suitable in cantatas with relatively moderate vocal/instrumental forces. Combining the organ and the harpsichord, or even the harp, is also recommended. However, since the harp is less frequently found in today's period ensembles, one might substitute for the lute or theorbo (even though neither of them were a member of in Zachow's continuo group.) Zachow also preferred a bassoon to the violone or cello. Therefore, the use of a bassoon as a bass string instrument in the bass of

string ensembles should be encouraged, although one might substitute a basson with an 8-foot violone or cello, if needed. The violone should not have to double the continuo line in every cantata; instead, it can be used in cantatas with large vocal and instrumental forces.

SELECTED BIBLIOGRAPHY

- Baselt, Bernd. ed. Stanley Sadie and Anthony Hicks. "Handel and his Central German Background," *Handel: Tercentenary Collection*, Ann Arbor: UMI Research Press, 1987.
- Carter, Stewart and Jeffery T. Kite-Powell. *A Performer's Guide to Seventeenth-Century Music*, Bloomington, 2012.
- David, Hans T., and Arthur Mendel. *The Bach Reader: A Life of Johann Sebastian Bach in Letters and Documents*. New York: W. W. Norton, 1966.
- Dreyfus, Laurence. *Bach's Continuo Group: Players and Practices in His Vocal Works*. Cambridge, Mass: Harvard University Press, 1987.
- Flummerfelt, Joseph. *Friedrich Wilhelm Zachow: A Study of His Published Church Cantatas and Their Influence Upon Handel*. Ph.D. Thesis, University of Illinois, Urbana-Champaign, 1977.
- Haynes, Bruce. *A History of Performing Pitch: The Story of "A"*. Lanham, Md: Scarecrow Press, 2002.
- Parrott, Andrew. *The Essential Bach Choir*. Woodbridge, Suffolk, UK: Boydell Press, 2000.
- Serauky, Walter. *Musikgeschichte der Stadt Halle. mit Musikbeilagen und Abhandlungen*. 2, I. Halle: Buch. des Waisenhauses, 1971.
- Snyder, Kerala J.. *Dieterich Buxtehude: Organist in Lübeck*. Rochester, 2007.
- Spitzer, John, and Neal Zaslaw. *The Birth of the Orchestra: History of an Institution, 1650-1815*. Oxford: Oxford University Press, 2004.
- Stadničenko, Vladimir M. *Studien zur Vokalmusik Friedrich Wilhelm Zachows: Quellen - Stil - Kontext*. Freiburg (Breisgau), Univ., Diss., 1999.
- Stahlke, Mary Benson. *Johann Krieger and Sacred Vocal Music in Zittau, 1682-1735*. Ph.D. Thesis, University of Southern California, 2002.
- Thomas, Günter. *Friedrich Wilhelm Zachow*. Regensburg: Bosse, 1966.
- Unger, Melvin P. *The German Choral Church Compositions of Johann David Heinichen (1683-1729)*. A.Mus.D. Thesis, University of Illinois at Urbana-Champaign, 1986.

Walther, Johann Gottfried, and Friederike Ramm. *Musicalisches Lexicon, oder, Musicalische Bibliothec: Studienausgabe im Neusatz des Textes und der Noten*. Kassel: Bärenreiter, 2001.

Webber, Geoffrey. *North German Church Music in the Age of Buxtehude*. Oxford: Clarendon Press, 1996.