

THE GIANTS OF THE DULCIAN FAMILY AN EXPLORATION OF THE *DOPPEL FAGOTT* AND *FAGOTCONTRA* IN THE WRITINGS OF MICHAEL PRAETORIUS

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Izvleček: Veliki dulcijani so bili pomembna basovska glasbila za izvajanje glasbe 16. in 17. stoletja. Razprava se osredotoča na dvojni fagot in kontrafagot, kot ju v svojem delu *Syntagma musicum* opisuje Michael Praetorius.

Ključne besede: dulcijan, dvojni fagot, kontrafagot, Michael Praetorius, *Syntagma musicum*

Abstract: Large dulcians were prominent members of the bass group in music of the sixteenth and seventeenth centuries. This article focuses on the *Doppel Fagott* and the *Fagotcontra* as described by Michael Praetorius in his *Syntagma musicum*.

Keywords: dulcian, *Doppel Fagott*, *Fagotcontra*, Michael Praetorius, *Syntagma musicum*

In the sixteenth and seventeenth centuries, bass double-reed instruments were likely to be the most potent instruments able to sustain the bass part in compositions performed in large acoustic spaces. In spacious churches, high pitched instruments, such as the cornetto and the recorder, can sound crystal clear, whereas large bass instruments tend to become blurred and muffled as regards articulation. The distinctive “reedy” sound of bass double-reed instruments carries remarkably well in large spaces and is, therefore, a valuable addition to the continuo group. This article will focus on the *Doppel Fagott* and the *Fagotcontra* as described by Michael Praetorius in his *Syntagma musicum* (1614–1620).

The Dulcian

The dulcian is a double reed instrument, developed in the early sixteenth century supposedly by the Bassano family in the Veneto. The main characteristic of its design is a bore that folds over itself, making the length of the instrument half the length of its inner bore. The dulcian generally has two keys which enable the player to close holes that fingers cannot reach. These keys are protected by key-covers made of brass. The double reed is placed on a bocal inserted into the top of the instrument next to the bell. Because of its construction with a double bore, the dulcian has a compass that descends a fourth lower than that of most other wind instruments.

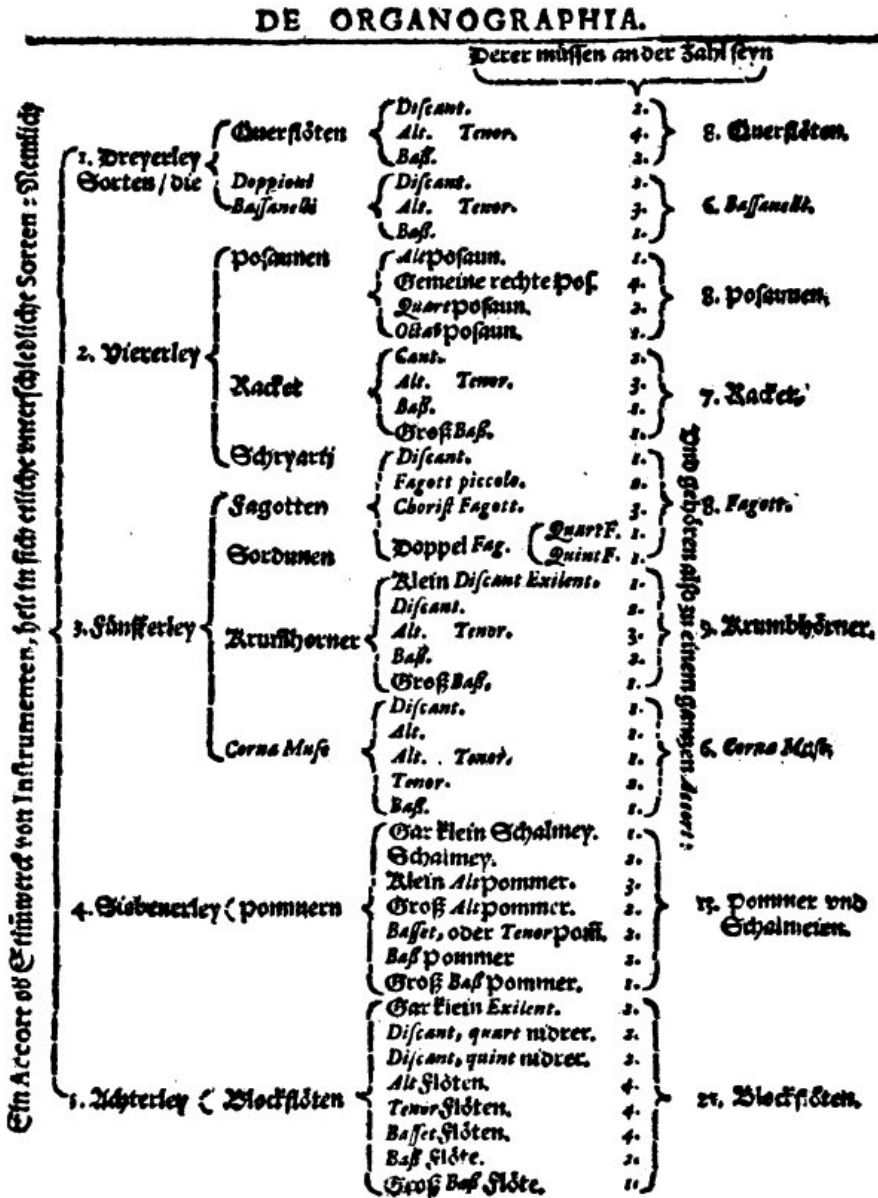


Figure 1
 Classification of woodwind consort instruments from *Syntagma musicum II*, 13. (Public domain.)

Traditionally, during the sixteenth century, we find the dulcian playing in ensembles together with other loud instruments, such as bombards, cornetts and trombones. In the seventeenth century wind instruments lost popularity in favour of stringed instruments. The common bass dulcian, however, became popular as a virtuosic solo bass instrument and established its position as a bass for stringed instruments such as the violin and viola da gamba. The largest dulcians of the family, the *Doppel Fagott*, or great-bass dulcian, and the *Fagotcontra*, or contrabass dulcian, were members of the bass group when they became available, mostly for large-scale vocal pieces.¹

However, we find the great-bass dulcian used additionally in smaller-scale works, where it is combined with other sizes of dulcians and with strings, as occurs in an anonymous *Sonata a 4 Viole & 4 Fagotti*.²

The Dulcian Consort

Like most instruments in the sixteenth century, the dulcian was built in consorts. Praetorius describes a consort as:

[...] an entire family of pipes, dulcians, or whatever, which contains every size in order from the largest pipe at the bottom to the smallest at the top.³

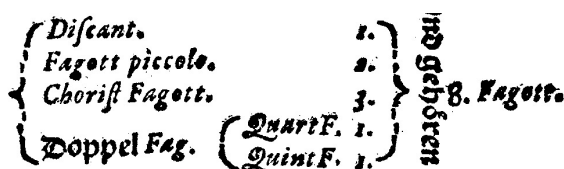


Figure 2

Detail of Praetorius's classification of consort instruments. (Public domain.)

According to Praetorius, a complete dulcian consort consists of eight instruments corresponding to four registers:

1 <i>Discant</i>	alto
2 <i>Fagott piccolo</i>	tenor
3 <i>Chorist Fagott</i>	common bass
<i>Doppel Fagott</i> :	-1 Quart-Fagott (Quart-bass dulcian)
	-1 Quint-Fagott (Quint-bass dulcian)

Consort wind instruments were traditionally built in sizes a fifth apart. In the dulcian

¹ A listing of all ten extant large dulcians, including their technical details, can be found in Kilbey, *Curtal, Dulcian, Bajón*.

² Kassel, Gesamthochschul-Bibliothek, Landesbibliothek und Murhardsche Bibliothek, 2° Ms. Mus. 60f.

³ Praetorius, *Syntagma musicum II*, 12.

consort described by Praetorius, however, there is an exception: the *Quart-Fagott*. Instead of being a fifth lower than the common bass instrument, the quart-bass dulcian is pitched a fourth lower, descending to GG.

In his description of a dulcian consort Praetorius assigns the instruments to four types: alto, tenor, bass and great-bass, whereby the overall range becomes a fourth lower than that of the more common SATB consort. Praetorius recommends transposing music down a fourth or a fifth if the parts are too high to be played on dulcians.

Mit 4. Posaunen / vnd 4. Dolcianen oder Fagotten
eine Quarta niedriger.
1. Chorus. Tromboni. 2. Chorus. Fagotti vel Bombardoni.

io. In Quarta inferiore

Figure 3
Syntagma musicum III, 164. (Public domain.)

In the staves indicated by the black rectangle we see an example by Praetorius of a choir that should be transposed down a fourth when played by *Dolcianen oder Fagotten*.⁴ The upper staff shows the original clefs: C3, C4, F3 and F4; the lower staff, the clefs used when transposing down a fourth: C4, F4, F4 and F5. The second combination of clefs suits an ensemble of tenor dulcian, two common basses and a great-bass dulcian.

Table 1

Original clefs	Clefs used for dulcians transposing down a fourth or fifth
C3	C4
C4	F4
F3	F4
F4	F5

Doppel Fagott

Praetorius divides the great-bass dulcian called *Doppel Fagott*, *Fagotto Doppio* or *Fagotto*

⁴ Praetorius explains in his text discussing the dulcian (*Syntagma musicum II*, 38) that the terms *Dolcianen* and *Fagotten* are interchangeable.

Grande, into two varieties: the quart-bass and the quint-bass. These two sizes can be considered to operate within a single register. The prefixes quart- and quint- are chosen through comparison with the common bass dulcian, which descends to C. Accordingly, the quart-bass dulcian is tuned a fourth lower than the common bass instrument and has the compass GG–g, whereas the quint-bass is tuned a fifth lower and has the compass FF–f.

Praetorius:

The lowest note on the common bass dulcian (Choristfagott) is C, and on the quint-bass dulcian FF. However, it must be noted that there are two kinds of *Doppel Fagott*: one that reaches the same FF as the great-bass shawm and is called the Quint Fagott, and the other called Quart Fagott which descends only to GG.

The Quart Fagott is most suited for music with a b-natural in the signature and the Quint Fagott for flats. It is convenient to have both kinds available, because the semitones cannot be produced so well with keys over the holes as with fingers.⁵

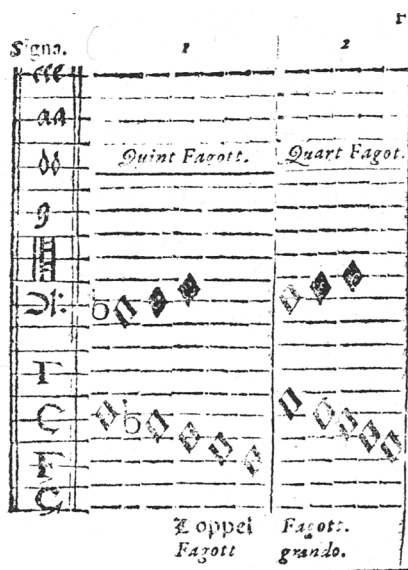


Figure 4

Detail of chart XI, showing the compass of the quart- and quint-bass dulcian, taken from *Syntagma musicum II*, 23. (Public domain.)

⁵ Praetorius, *Syntagma musicum II*, 38: “Im Chorist Fagott ist der unterste Clavis C im Doppel Fagott F. Doch ist diß hierbey zu observiren, daß der Doppel Fagotten zweyerley seyn: Einer do man das F gleich dem grossen Baß Pommer unten haben und Quint Fagott genennet wird: Der ander aber Quart Fagott welcher allein biß ins G gebracht werden kan. Daher dieser in Cantu duro jenner aber in Cantu bmolli zum füglichensten zugebrauchen: und sehr bequem ist wenn man in der Music beyderley dieser arten haben kan: denn die Semitonia können in den Löchern durch die Schlüssel nicht also füglich als durch die Finger geendert und zu wege bracht werden.”

Fagotcontra

Praetorius mentions the *Fagotcontra* only once. At the end of his description of the dulcian on page 38 of his *Organographia* he writes:

The maker who made the octave sackbut is currently working on a large *Fagotcontra*, tuned a fourth lower than the great-bass dulcian, or an octave lower than the common bass dulcian, and should give a CC at sixteen foot. If he succeeds, it should be a wonderful instrument, the like of which has never been seen before. It would be an astounding accomplishment because even organ makers have a hard time making the lowest notes D or C in sixteen foot of the Posaun stop speak clearly and in tune. Time will tell.⁶

Obviously, Praetorius had never actually seen a *Fagotcontra* in 1619. The earliest evidence of the existence of a contra-bass dulcian, however, dates already from 1609. An inventory made for the city council of Nürnberg, which lists the musical instruments kept in the Frauenkirche, mentions:

Two large Dulcin or Fagott in black wooden cases, one an octave, the other a quart-bass Dulcin, both made by Jörg Haas [...].⁷

It is surprising that Praetorius was not aware of this instrument. Soon after his death we find a second contrabass dulcian listed in an inventory dating from 1626 that refers to the Barfüßerkirche in Frankfurt am Main. It mentions the purchase of an *Octav-Fagott* and a *Quint-Fagott*, possibly made by Endres Hußgatt from Nürnberg.⁸

Clefs

In the sixteenth century the compass of musical instruments was reflected in the clefs they used. A tenor instrument would play a part notated in the tenor clef with a compass approximating that of a tenor singer. Because of the low register of large dulcians and a general reluctance to use ledger lines, parts for great-bass dulcians are normally notated in the F5 clef. In a few compositions, as in the concerto *In dulci júbilo*, Praetorius even

⁶ Ibid.: “Es ist izo der Meißter welcher die Octav Posaunen gemacht im Werck einen grossen Fagotcontra welcher noch ein Quart unter dem Doppelfagott unnd also ein Octav unterm ChoristFagott das C von sechzehnen Füß Thon geben unnd intoniren sol zuverfertigen; gereth es ihm so wirts ein herrlich Instrument werden dergleichen hiebefore nicht gesehen und sich wol drüber zuverwundern seyn wird; Sintemahl auch den Orgelmachern bißweilen schwer fürfelt die untersten zween Claves D oder C von sechzehnen Füßen in den grossen Posaunen recht rein und wol anzubringen. Die zeit wirts geben.”

⁷ Nickel, *Der Holzblasinstrumentenbau*: “Zwen große Dulcin oder Fagott in schwarzen hülzernen Futteraln, dern ainer ein Oktav-, der ander ein Quart Dulcin, so beede Jörg Haas gemacht [...].”

⁸ Valentin, *Geschichte der Musik*, 266.

employs for the part named *Fagotto Doppio* an F6 clef, placing the clef symbol on a ledger line in order to keep the notes within the staff.⁹

XXXIV.

In dulci Jubilo: à. 12. 16. & 20. cum Tubis.

The image shows a musical score for 'In dulci Jubilo' by Michael Praetorius. The score is divided into sections: 1. Chorus, 2. Chorus, 3. Chorus, Capelle, Tubæ, and B. Gen. Each section has a specific clef and instrumentation. The clefs are: 1. Chorus (C1), 2. Chorus (C1), 3. Chorus (C1), Capelle (C1), Tubæ (C1), and B. Gen. (C1). The instrumentations are: 1. Chorus (Voc. 1., 2., 3., 4.), 2. Chorus (Voc. 1., 2., 3., 4.), 3. Chorus (Voc. 1., 2., 3., 4.), Capelle (Voc. 1., 2., 3., 4.), Tubæ (Voc. 1., 2., 3., 4.), and B. Gen. (Voc. 1., 2., 3., 4.). The score also includes various other instruments and parts, such as Cornet, Viol., Cor., Flautis & Fagotto, Tró. Tr. Tr., Fag. Fag. doppio, 1. Clarin., 2. Clarin., Principal, and AlceBass.

Figure 5
Clefs and instrumentation of *In dulci jubilo* by Michael Praetorius. (Public domain.)

Plate X in the gallery of instruments shows the dulcian family, together with some other double-reed instruments, such as a consort of rackets and the bass of the sordun consort. Interestingly enough, Praetorius does not merely offer drawings of the dulcians that he mentions in *Syntagma musicum III* as constituting a dulcian consort: in this engraving he additionally depicts an even smaller size, the soprano dulcian, which is the highest-pitched member of the dulcian family. Conversely, he omits the largest instrument of the consort, the quint-bass dulcian. This omission may be linked to the fact that he categorizes the quart- and quint-bass as a single instrument: the *Doppel Fagott*.

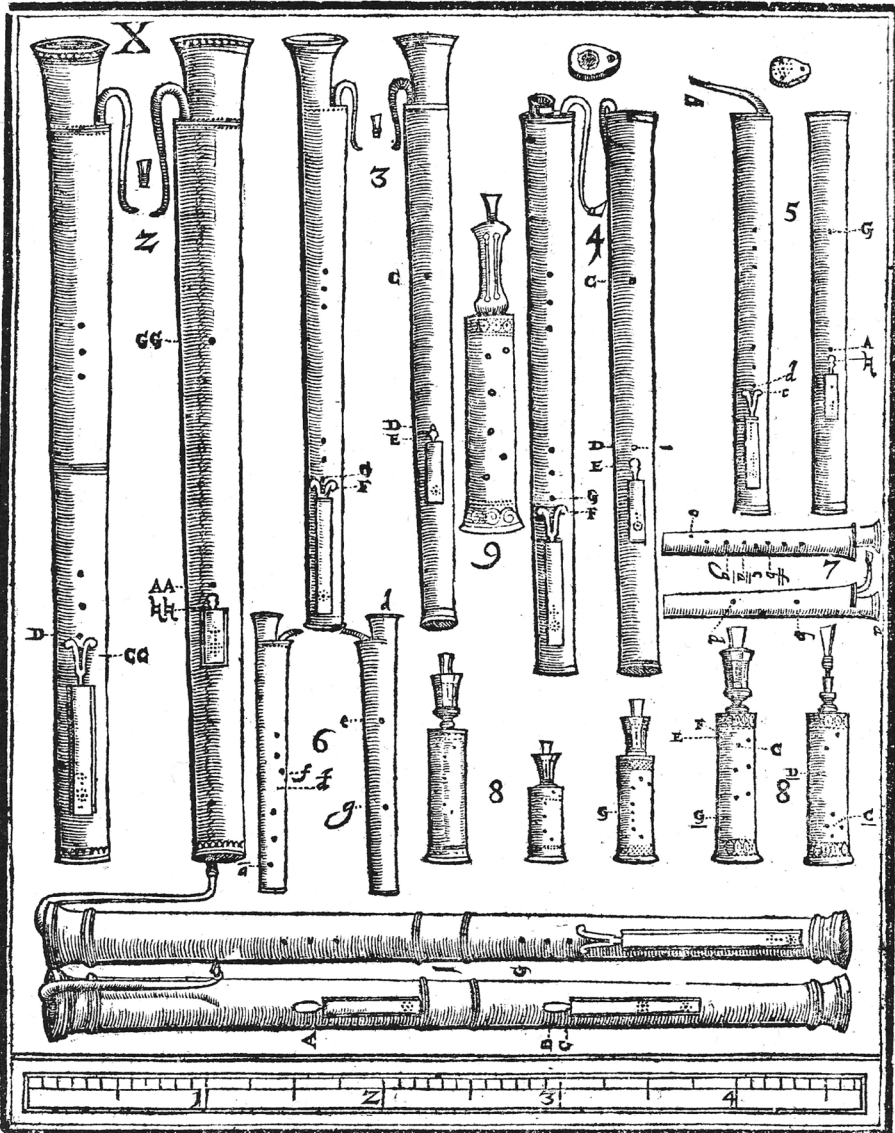
The Use of the *Doppel Fagott*

In his *Syntagma musicum* Praetorius proposes three different ways of using large dulcians, including the *Fagotcontra*, in the performance of repertoire from the sixteenth and early seventeenth centuries.

1. Assigning musical instruments to vocal parts or parts without specific indication of instrument

Volume three of *Syntagma musicum*, entitled *Termini musici*, deals with performance practice. Information about how to assign musical instruments to vocal parts or parts without a specific indication of instrument is found in chapter seven of part three, headed “How any concerto and motet may be arranged quickly and without great effort for few or many choirs and for various instruments and voices”. In this chapter Praetorius also

⁹ Praetorius, *Polyhymnia caduceatrix et panegyrica*, no. XXXIV.



1. Sorduca-Bas auff beyden Seiten. GG. 2. Doppel-Fagott bis ins GG. 3. Offen Chor-
 rist-Fagott C. 4. Gedact Chorist-Fagott. C. 5. Jung. Kollholt. bawerit(er) Teil or Jun. Chorist-
 Fagott. C. 6. Alt. d. 7. Discant oder Exilent zum Chor; Fagott. a. 8. Stimmeret Kacetten.
 9. Grefß Kacett/ so tieff als der gar Grosse Bas-Bombard, CC, Vff 16. Fuß, Thon.
 NB. Zuden 1. 2. 3. 4. 5. sehen die Buchstaben des Clavis bey m. 2 och/ do es zug-macht wird
 Im 6. 7. 8. 9. aber sehen die Buchstaben des Clavis, do das Loch-öffen bleibt.

Figure 6
 Syntagma musicum II (Plate X). (Public domain.)

examines the various possibilities of using dulcians in combination with other instruments, such as sackbuts and bombards, in instrumental performances of vocal repertoire.



Figure 7

Example of using loud instruments transposing down a fourth or a fifth. (Public domain.)

Figure 7, on the right-hand side, shows an example of using sackbuts together with bombards or dulcians in a six-part setting. On the upper staff Praetorius gives the original clefs of the composition. The lower staff shows the clefs to be used when one transposes down a fourth or a fifth.¹⁰

2. Parts headed *Doppel Fagott*, *Fagott gran(de)* and *quart or quint Fagott*

Apart from vocal pieces played instrumentally, there are parts with the designation *Doppel Fagott*, *Fagott gran(de)* or *quart/quint Fagott*. Large dulcians are often used in combination with other sizes of dulcian or with sackbuts.

3. Doubling the *basso continuo* part of a large-scale composition at sixteen-foot pitch

[...] the bass, being the foundation of all voices, must be heard everywhere more clearly than the other parts, especially when the choirs are placed far apart in the church.¹¹

Provided enough players are available, quite a splendid sound is produced in *tuttis*, if one assigns to a bass – at the regular pitch – a common bass trombone, a chorist fagotto, or bombard; in addition, a double bass trombone, greatbass dulcian, or greatbass bombard, and greatbass violin, which all sound an octave lower, like sub-basses on organs. This is particularly common in contemporary Italian concerti and can be sufficiently justified.¹²

¹⁰ Praetorius, *Syntagma musicum III*, 164.

¹¹ *Ibid.*, 92: “Und dieweil endlich der Baß als das Fundament aller Stimmen an allen örthen unnd enden bevorab wenn die Chor in der Kirchen weit von einander unterschiedlich angestellet viel mehr und eigentlicher als die andere Stimmen gehöret werden muß.”

¹² *Ibid.*, 96: “Daher auch in Pleno Choro gar eine prächtige Harmoniam von sich gibt wenn man zu einem Basse do die menge der Instrumentisten vorhanden eine gemeine oder QuartPosaun, ein ChoristFagott oder PommerBombard welche den Baß im rechten Thon: Und darneben ein OctavPosaun doppel Fagott oder groß doppel Bombard und groß Baßgeyg welche gleich wie in

In the course of investigating Praetorius's *Syntagma musicum* it has become clear that the dulcian consort was a mainstream instrumental component in sixteenth-century Germany. When, in the seventeenth century, large-scale, polychoral compositions influenced by Venetian composers such as Giovanni Gabrieli and Monteverdi came into vogue, composers looked for instruments to reinforce the bass and add magnificence to the *tutti* sound of the ensemble. Even though, in the same century, many of the double-reed consort instruments once so popular passed out of fashion, large dulcians, with their clear, reedy sound, remained in great demand.

Today's performers of music from the Renaissance and early Baroque are warmly invited to follow Praetorius's advice on when to use the *Doppel Fagott* and the *Fagotcontra*, the giants of the dulcian family.

Music example

Detail of *O sapientia* by Christoph Strauss, showing the instrumentation, which includes three sizes of dulcian.

*Nova ac Diversimoda Sacrarum
Cantionum,
Vienna, 1613*

O Sapientia

Christoph Strauss
(1575? -1631)

Concert. à 3 Faggot, 3 Cornet: & 2 Voce. Altus

The musical score is arranged in a system with eight staves. The top four staves are for vocal parts: Cantus (Cornetto, Sec. Chor.), Sexta vox (Cornetto, Sec. Chor.), Octava vox (Cornetto, Sec. Chor.), and Altus (Voce, Sec. Chor.). The bottom four staves are for instrumental parts: Tenor (Voce, Pri. Chor.), Quinta vox (Fagotto piccolo, Pri. Chor.), Septima vox (Fagotto comune, Pri. Chor.), and Bassus (Fagotto grande, Pri. Chor.). The lyrics are: O sa - pi - en - ti - a quæ ex o - re al - tis - si -

Non-commercial edition by Charles Toet. *O sapientia* is one of seven compositions including a “Faggot gran.” *NOVA AC DIVERSIMODA SACRARVM CANTIONVM COMPOSITIO, SEV MOTETAÆ*, 5. 6. 7. 8. 9. & 10. *tàm Vocibus quàm Instrumentis varijs (vt ad illas superius ac in Indice annotatum est) maximè accommodatae [...] LIBER PRIMVS*. Vienna, 1613. Multiple dulcian parts, including one for a great-bass dulcian, can also be found in works such as Johann Stadlmayr's *Domini est terra* and *Benedicam Dominum* and Daniel Selich's *Alleluja, lobet den Herrn alle Heiden* and *Herr der du bist vormals gnädig gewesen*.

Orgel in Orgeln die subBässe oder Untersätze eine Octav drunter Intonirn, anordnet: Welches dann in den jezichen Italiänischen Concerten gar gebräuchlich und gnugsam zu verantworten ist.”

Bibliography

- Kilbey, Maggie. *Curtal, Dulcian, Bajón: A History of the Precursor to the Bassoon*. St. Albans: M. Kilbey, 2002.
- Nickel, Ekkehard. *Der Holzblasinstrumentenbau in der freien Reichsstadt Nürnberg*. Munich: E. Katzbichler, 1971.
- Praetorius, Michael. *Polyhymnia caduceatrix et panegyrica*. Wolfenbüttel: Gurlitt, Willibald, 1619.
- . *Syntagma musicum II: De organographia*. Wolfenbüttel: Elias Holwein, 1619.
- . *Syntagma musicum III: Termini musici*. Wolfenbüttel: Elias Holwein, 1619.
- Valentin, Caroline. *Geschichte der Musik in Frankfurt am Main: vom Anfange des 14. bis zum Anfange des 18. Jahrhunderts*. Frankfurt am Main: Völckers Verlag, 1906.

ORJAKA IZ DRUŽINE DULCIJANOV. O DVOJNEM FAGOTU IN
KONTRAFAGOTU V SPISIH MICHAELA PRAETORIUSA

Povzetek

Syntagma musicum tudi danes ostaja najbolj izčrpen vir informacij o glasbi od 16. do zgodnjega 17. stoletja. Takrat priljubljeno glasbilo dulcijan ali *fagotto* se pojavlja na več mestih v vseh treh delih Praetoriusovega dela. V morda najbolj znanem drugem delu, imenovanem *Organographia*, so natančno opisana glasbila vseh velikosti iz družine dulcijanov. V prvi knjigi se dulcijan pojavlja v klasifikacijskih tabelah glasbil, znanih v 16. in zgodnjem 17. stoletju, v tretji pa avtor navaja dragocene podatke o uporabi teh glasbil pri izvedbah takratnega glasbenega repertoarja ter podaja razlage o transpozicijah in možnih instrumentacijah.

Na podlagi najnovejših raziskav je uporaba basovskega dulcijana precej dobro znana, manj pa vemo o tem, kako so uporabljali največji glasbili iz te družine: dvojni fagot in kontrafagot.

Veliki basovski dulcijan se je uporabljal kot osemčeveljsko glasbilo za parte z oznakami *Doppel Fagott*, *Fagott grande*, *Quart* ali *Quint Fagott*. Kadar je basovski skupini glasbil dodan veliki basovski dulcijan, Praetorius predlaga, da se igra oktavo nižje v šestnajstčeveljskem registru, v kolikor obseg glasbila to dovoljuje. Za oktavni basovski dulcijan ali kontrafagot z obsegom, ki je celo oktavo nižji od navadnega basovskega glasbila, Praetorius pravi, naj igra vedno v šestnajstčeveljskem registru.

V svojem monumentalnem delu *Syntagma musicum* Praetorius skuša bralcu pojasniti vsa ta vprašanja. Pričujoča razprava izhaja iz pojasnil Michaela Praetoriusa o dvojnem fagotu (*Doppel Fagott*) in kontrafagotu (*Fagotcontra*) – orjakoma iz družine dulcijanov.