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Organological Questions and Their Significance in J. S. Bach's Fourth Brandenburg Concerto

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ONE CENTRAL QUESTION among the traditionally discussed problems surrounding the Fourth Brandenburg Concerto concerns its classification: is this a solo concerto for violin with ripieno strings and woodwinds, or is it a concerto grosso for a concertino of violin and woodwinds with ripieno strings? In the preface to his edition of the Brandenburg Concertos for the nineteenth-century publication of Bach's collected works, Wilhelm Rust, taking the solo-concerto view, refers to the autograph title and to the style of the work and claims that there is "no way one can speak of a triple concerto for violin with flutes."¹ Only a few years later, in his extended biography of Bach, Philipp Spitta, raising the concerto-grosso view, also refers to the autograph title and the style of the work and counters:

[It] is a *Concerto grosso* in the manner of [Brandenburg Concerto] No. 2. . . . W. Rust, in the B.-G. edition, is wrong in calling it a violin concerto. The word *ripieni* in the title applies only to the violins, since there are no *flauti ripieni*. Besides this, the intention is clear from the work itself.²

The autograph title reads "Concerto 4^{to}. ã Violino Prencipale. due Fiauti d'Echo. due Violini, una Viola è Violone in Ripieno, Violoncello è / Continuo."³ and thus Spitta's observations turn out more accurately than Rust's to reflect the immediate text-critical facts. The force of Rust's conclusions depends somewhat on his having placed commas instead of periods before and after "due Fiauti d'Echo" in citing Bach's title.

Posing this sort of "does s/he or doesn't s/he" question to the Fourth Brandenburg Concerto will hold certain practical consequences for us that would not necessarily have come up as an issue for Bach. For example, music publishers conventionally print groups of staves together, and their choices in formatting staves will reflect their classification,

1. Bach (1869), vi.

2. Spitta (1883–85), 2: 133–34; Spitta (1873), 741.

3. It is unclear whether Bach corrected the comma after "Ripieno" from a period.

consciously or unconsciously considered, of the concerto.⁴ Similarly, performers nowadays conventionally organize themselves on the concert stage into functional categories (e.g., soloists stand, while the other players sit), and their set-ups will betray their view of the piece.⁵ But taking into account Bach's notation of the staves in the Margrave of Brandenburg's score (Am.B.78, Deutsche Staatsbibliothek, Berlin, which has no bracketing of subgroups) and carefully considering what the setup procedures for Bach's own performances of the piece could have been (did Bach group his instrumentalists functionally?), we might find the either/or question to have a false urgency. The very ambiguity of classification for the Fourth Brandenburg Concerto might instead, as I will argue, be interpreted as an interesting aspect of the meaning of the piece.

Even from a superficial glance at the score it is clear that Bach's "Violino Principale" part commands by its overt virtuosity a great deal of attention within the ensemble. It is also clear that the "Fiauti d'Echo" parts command by their thematic prominence more attention than the ripieno string parts. This is, of course, why it was possible in the first place to sustain extended discussion of whether this is a solo or triple concerto. But Bach may in fact be moving beyond the two-way (concertino/tutti) textural contrast of the traditional baroque concerto and making it three-way: one soloist versus two other soloists, and these together against the ensemble. Moreover, the oppositions may be seen to involve not only musical ones between full and reduced textures, between string and woodwind instrumental timbres, and so on, but, as I will suggest, also deeper, social oppositions between "first-" and "second-rank" instruments within the ensemble.

* * *

Before pursuing the social aspect of this interpretation, it will be necessary to come fully to terms with the problem of what instruments

4. See Rust's edition (Bach [1869]), where the *Flauti IIII*, *Violino di ripieno IIII*, and *Violoncello/Violone* are grouped together by three separate brackets (i.e., solo-concerto formatting). Compare this with the new collected edition of Bach's works (Bach [1957]), where *Violino principale/Flauto dolce IIII* and *Violino in ripieno IIII/Viola in ripieno/Violoncello/Violone/Continuo* are grouped together by two separate brackets (i.e., triple-concerto formatting).

5. I have witnessed several performances of the Fourth Brandenburg Concerto with the woodwind players standing next to the solo violinist and several other performances with them sitting next to the ripieno strings.

are called for by Bach's designation "Fiauti d'Echo." Although the issue remains controversial among musicologists, instrument makers, and some players,⁶ the research on the question, both published and unpublished, has been either unrigorous or too limited in scope.⁷ It seems worthwhile, therefore, to pursue here a painstaking examination of relevant aspects of Bach's instrumental writing and terminology. I will be defending the position that the Fourth Brandenburg Concerto was written for two standard-sized alto recorders (i.e., instruments upon which all fingers down produces the note *f'*). For purposes of the present interpretation it does not strictly speaking matter whether Bach's instrument was one kind of recorder or another—only that it was not some other sort of woodwind instrument. Thoroughly researching the case for recorders constructed in *f'* is nonetheless a worthwhile project, for without its results it remains impossible to clinch the argument for recorder in general. To avoid misunderstanding, I should stress at the outset that the organological component to this essay is not designed to solve once and for all the precise identity of the "Fiauti d'Echo" as a factual problem which some readers might find interesting for its own sake. The discussion functions rather to provide a sufficiently grounded technical context for a social interpretation of the scoring and style of the piece. Seen in this light, it will be clear that an even more conclusive organological study than the one given here would not actually strengthen the point of the broader discussion. The details of this organological component will all the same be rather long and involved, however, and so many readers may wish to jump ahead at first to the style-critical discussion starting on page 22 below. Consideration of the status of recorders within the eighteenth-century musical hierarchy is taken up on pages 32 and following.

According to Ulrich Prinz's little-known terminological investigations on selected instruments in Bach's *Instrumentarium*, a study based not on the critical editions but on Bach's manuscript materials, the term "Fiauto" or "Flauto" by itself in Bach always refers to recorder.⁸

6. Seeking immediately practical solutions for performances, however, ensembles today generally decide either for the transverse flute or for the alto recorder in *f'*.

7. A useful but somewhat cursory summary of some of this research is provided in Martin, *The Recorder* 9 (1989). My thanks to David Lasocki for this reference.

8. Prinz, 109–26. For a survey of early terminology on recorders in middle and northern European countries, see Degen, 25–41.

The transverse flute is never called simply “Flauto” in the original Bach materials.⁹ This instrument is always designated with some form of the word “traversa,” and in the vast majority of cases the designation does not include a preceding word like “Flute” or “Flauto.”¹⁰ Thus on terminological grounds it is unlikely that Bach’s “Fiauto d’Echo” refers to some form of transverse flute.¹¹

As access to Prinz’s study is very limited, I will list in full his terminological survey of Bach’s “Flauto” parts.

In the following Bach vocal works the original materials give the designation “Flauto” (i.e., these designations are found in titles on or headings within the autograph score, and in titles on or headings within Bach’s separate performance parts):

- Brich dem Hungrigen dein Brot*, BWV 39
Gleichwie der Regen und Schnee vom Himmel fällt, BWV 18
Herr Jesu Christ, wahr’ Mensch und Gott, BWV 127
Himmelskönig, sei willkommen, BWV 182
Jesus schläft, was soll ich hoffen?, BWV 81
Lobe den Herrn, meine Seele, BWV 69a

9. It is sometimes claimed, e.g., that the transverse flute is called “Flauto” in Bach’s cantatas *Erwünschtes Freudenlicht*, BWV 184, and *Komm, du süße Todesstunde*, BWV 161, as well as in the Suite in B Minor, BWV 1067. Prinz, 137, counters, however, by pointing out that this occurs only in manuscripts not associated directly with Bach. The wrapper to the orchestral parts to *Dem Gerechten muß das Licht immer wieder aufgehen*, BWV 195 (Mus. ms. Bach St 12, Staatsbibliothek Preußischer Kulturbesitz, Berlin), with its indication “. . . /2 Hautbois è Flauti/. . .” in Bach’s handwriting, presents another apparent exception. The woodwind parts to this cantata as we know it are clearly for transverse flute. Not only does the range correspond, but the autograph score (Mus. ms. Bach P 65, Deutsche Staatsbibliothek, Berlin) reads “Recit. 2 Trav: 2 Hautb. e Soprano” at the heading to the fourth movement. Furthermore, the separate parts (St 12/13–14) are unambiguously labelled “Traverso” (*sic*, i.e., not “Traversa,” the correct usage). According to current research, the orchestral parts, the principal vocal parts, and the (revision-copy) score to the cantata are dateable to between August 1748 and October 1749, while the ripieno vocal parts are dateable to 1742; the wrapper, however, would on the basis of its watermark appear to date still earlier, from about 1727 to 1732 (Kobayashi, 50 and 61; and Kaiser). Perhaps a (lost) pre-1742 version of the cantata was scored with recorders instead of flutes. There are a number of indications that the bass aria “Rühmet Gottes Güt und Treu” was originally written for tenor, and this would open up the possibility for the participation of recorders in an earlier version (as mentioned by Prinz, 119).

10. Prinz, 136–37.

11. Addington, 47, states that Bach’s instruments in the Fourth Brandenburg Concerto “were certainly not recorders in F. Bach wrote a different version of the concerto for the latter, in their home key [BWV 1057, with obbligato harpsichord in place of the solo violin]. The *flauti d’eco* must have been flutes or recorders pitched a whole tone higher, in G; and the ‘little quart flute’ [i.e., a smaller traversa], which is mentioned by Quantz and in the *Encyclopédie*, fits the bill exactly.”

Das neugeborne Kindelein, BWV 122

Schauet doch und sehet, ob irgend ein Schmerz sei, BWV 46

Tritt auf die Glaubensbahn, BWV 152

In the following works the original materials give the designation “Flaute”:

Es ist nichts Gesundes an meinem Leibe, BWV 25

Himmelskönig, sei willkommen, BWV 182

In the following works the original materials give the designation “Flauti”:

Er rufet seinen Schafen mit namen, BWV 175

Gott ist mein König, BWV 71

Jesus schläft, was soll ich hoffen?, BWV 81

Kommt, eilet und laufet, ihr flüchtigen Füße, BWV 249

Magnificat, BWV 243a

Das neugeborne Kindelein, BWV 122

Preise, Jerusalem, den Herrn, BWV 119

Schmücke dich, o liebe Seele, BWV 180

Sie werden aus Saba alle kommen, BWV 65

Was mir behagt, ist nur die muntre Jagd!, BWV 208

In the following works the original materials give the designation “Flaut:”:

Er rufet seinen Schafen mit namen, BWV 175

Kommt, eilet und laufet, ihr flüchtigen Füße, BWV 249

Das neugeborne Kindelein, BWV 122

Schauet doch und sehet, ob irgend ein Schmerz sei, BWV 46

Tritt auf die Glaubensbahn, BWV 152

In the following work the materials give the designation “Flutti”:

Gott ist mein König, BWV 71

In the following works the original materials give the designation “Fiauto”:

Himmelskönig, sei willkommen, BWV 182

Matthäus-Passion, BWV 244

Meine Seufzer, meine Tränen, BWV 13

Preise, Jerusalem, den Herrn, BWV 119

In the following work the original materials give the designation “Fiaut.”:

Himmelskönig, sei willkommen, BWV 182

In the following works the original materials give the designation “Fiauti”:

Brich dem Hungrigen dein Brot, BWV 39

Matthäus-Passion, BWV 244

Preise, Jerusalem, den Herrn, BWV 119

Sie werden aus Saba alle kommen, BWV 65

In the Second Brandenburg Concerto, BWV 1047, and the F-major concerto with harpsichord, BWV 1057, the original materials give the designation “Fiauto.” The F-major concerto, BWV 1057, also gives “Fiauti à bec,” while the memorandum submitted by Bach to the Leipzig Town Council on 23 August 1730 refers to “Flöten à bec.”¹²

According to this terminological survey, Bach’s “Fiauti d’Echo” would seem to point in the direction of recorders. Although the use of the term “Fiauto d’Echo” in Bach’s works is unique to the Fourth Brandenburg Concerto, we should notice that he employs it only in the title of the piece. In the staff headings Bach designates the instruments simply “Fiauto 1^{mo}” and “Fiauto 2^{do}” (i.e., with one of his conventional terms for recorder).

The f’-g^m range of the *Fiauti d’Echo* parts corresponds to the typical range of the recorder parts in Bach’s vocal and instrumental works.¹³

12. “Kurtzer, iedoch höchstnötiger Entwurff einer wohlbestallten Kirchen Musik” (“Short but most Necessary Draft for a Well-Appointed Church Music”). A translation of this document is found in David, 120–24. In the context that the term appears in the *Entwurff*, it is clear that Bach is referring to recorders with the term “Flöten à bec”: “If it happens that the church piece is composed with flutes also (whether they be à bec . . . or *Traversieri* . . .), as very often happens for variety’s sake, at least 2 more persons are needed.” Since there are about twenty church pieces by Bach from before 1730 with “Flauto” (i.e., recorder) parts, about forty church pieces with “Traversiere” (i.e., transverse flute), and no church pieces designated with some other term clearly pointing to another kind of flute, Bach must be referring to recorders by the “Flöten à bec” in the *Entwurff*. Also, the fact that the original performance parts to the F-major concerto BWV 1057 are designated simply “Fiauto” (i.e., one of the standard terms for recorder) indicates that the “Fiauto à bec” heading in Bach’s score refers to recorders. Furthermore, Johann Gottfried Walther (Bach’s Weimar cousin) uses the term “Flüte à bec” unambiguously to refer to recorder in his *Musikalisches Lexicon*, 250. Dart, (1960): 340, incorrectly claims that the term “Fiauto à bec” is unique in Bach to the F-major Concerto, BWV 1057, and he goes on to suggest that “Diderot and d’Alembert incline one to believe that a ‘flüte-à-bec’ was not a recorder but the larger of . . . two kinds of flageolet [in g^m and d^m], which possessed a characteristic ‘beak’.”

13. Published accounts of ranges in Bach’s recorder parts are incorrect or confusing. This is because they are based on printed editions which often do not accurately reproduce

Thus Thurston Dart's ingenious suggestions that Bach's "Fiauto d'Echo" referred to what the contemporary English called "echo flute" and that "echo flute" in turn referred to an instrument the French called "flageolet" fail to hold up to close musical scrutiny. The two-octave compass of the flageolet is not wide enough for the Fourth Brandenburg Concerto, and a perusal of Bach's instrumental writing reveals that he without exception allows flute and recorder ranges to be exceeded only when he has provided doubling by other instruments possessing the required ranges.¹⁴

The notation of clefs in the *Fiauto d'Echo* parts conforms to Bach's notation of clefs in the recorder parts in his vocal and instrumental works. All recorder music in Bach's handwriting is notated in the "French violin clef," indicating g' on the lowest line of the staff.¹⁵ Bach

either Bach's notation of key relationships or his octave placement within the separate orchestral parts for movements performed *colla parte*. This problem is especially acute in the closing chorales of Leipzig church cantatas, where the parts are commonly printed an octave too low. The standard published accounts are Terry (1932) and Schmidt (1964).

14. Dart admits in a footnote ([1960]: 340) that there is an f' in m.183 of the first movement, but he refers to it as an example of Homer-nodding. He does not mention that there is also an f' in m.227 and an f' in m.201, whose presence seriously further weakens his argument; see also observations regarding range in Higbee (1962), who argues on this basis for two recorders in f' . (Although Addington's quart-flute hypothesis was already challenged above on terminological grounds, it should be added here that the range of the g' -traversa is also not wide enough for the Fourth Brandenburg Concerto.) Dart advances the most sustained and sophisticated argument against recorder for Bach's "Fiauti d'Echo." He bases it to a considerable extent on a complex web of plausible ties between contemporary French, English, Prussian, and Saxon court musicians who probably distributed modish instruments like French flageolets and who may have called them "echo flutes" (or "Fiauti d'Echo"). As will be clear from the present discussion, however, Dart's research suffers seriously from inadequate consideration of the notational and technical aspects of Bach's instrumental writing. See Dart (1960) and Dart (1961). A new examination by David Lasocki of a wider range of English archival documents has shown, however, that the "echo flute" cultivated in England must have been some sort of recorder (*Galpin Society Journal* [forthcoming], and [1991]).

15. The original score of *Das neugeborne Kindelein*, BWV 122, might be cited as an exception (see, e.g., Ruët, *Musik und Kirche* [1935]: 184–85). It should be pointed out (as is mentioned in Prinz, 112), however, that in Bach's composing score the three recorder parts in the recitative "Die Engel, welche sich zuvor" are notated in treble-treble-alto clefs only because Bach initially had violin-violin-violi, oboe-oboe-taille, or the combination of these two groups of instruments in mind (the score is preserved as Mus. ms. Bach P 868 in the Staatsbibliothek Preußischer Kulturbesitz, Berlin). When Bach decided to change the scoring to recorders, he entered the first notes of the three voices respectively a sixth higher, a sixth higher, and a second lower, thereby specifying placement of the parts in French violin clef one octave higher. Then to avoid all confusion he entered the heading "Recit. Soprano è 3 Flauti." The separate parts used in the original performance are notated in French violin clef (Thomana Collection 122, Stadtarchiv Leipzig).

never notates music for transverse flute in this clef.¹⁶ In fact the instances of Bach's using French violin clef outside recorder music are extremely rare. And even then the clef is used not for entire parts but for only a few bars at a time, when staff lines are too close together to accommodate high treble-clef entries.¹⁷

The notation of key relationships between the *Fiauto d'Echo* parts and the rest of the parts in the score to the Fourth Brandenburg Concerto conforms to Bach's contemporary practice (i.e., in Köthen) of notating recorders and the strings in the same key. (See his notation of the *Fiauto* part in the Second Brandenburg Concerto.) In Bach's Mühlhausen cantatas the recorders are notated a whole step higher than the rest of the ensemble, because there the recorders were tuned to *Kammerton* ("chamber pitch," lying about a semitone lower than the standard pitch of today), while the strings, organ, and voices were tuned to *Chorton* ("choir pitch," lying about a semitone higher than modern pitch).¹⁸ In Bach's Weimar church cantatas the recorders are notated a minor third higher than the rest of the ensemble, because there the recorders were tuned to *Tief-Kammerton* ("low chamber pitch," lying about a whole tone lower than modern pitch), while the strings, organ, and voices were tuned to *Chorton*.¹⁹ In Bach's Leipzig church cantatas the recorders, strings, and voices are notated at the same pitch, because there they were all tuned to

16. According to Prinz, 138, Bach without exception notates transverse flute parts in the treble clef.

17. For example, mm.40–42 of the fugue in the G-minor solo violin sonata, BWV 1001, and mm.86–88 and 195–99 of the chaconne in the D-minor solo violin partita, BWV 1004 (Mus. ms. Bach P 967, Staatsbibliothek Preußischer Kulturbesitz, Berlin). These two examples are mentioned in Prinz, 26. For mm9–10 of first movement in the First Brandenburg Concerto, Bach notates the first oboe part in French violin clef for this same reason.

18. Bach's Mühlhausen cantatas with recorder include *Gott ist mein König*, BWV 71 (Deutsche Staatsbibliothek, Berlin: Mus. ms. Bach St 377 and P 45/1, where Bach notates the recorders in D for this C-major cantata), and *Gottes Zeit ist die allerbeste Zeit*, BWV 106 (Staatsbibliothek Preußischer Kulturbesitz, Berlin: Mus. ms. Bach P 1018, an apograph copy, where the recorders are notated in F for this E_♭-major cantata).

19. Bach's Weimar cantatas with recorder include his earliest version of *Himmelskönig, sei willkommen*, BWV 182 (Mus. ms. Bach St 47, Deutsche Staatsbibliothek, Berlin, and Mus. ms. Bach P 103, Staatsbibliothek Preußischer Kulturbesitz, Berlin; Bach notates the recorder in B_♭ for this G-major cantata), *Tritt auf die Glaubensbahn*, BWV 152 (Mus. ms. Bach P 45, Deutsche Staatsbibliothek, Berlin; Bach notates the recorder in G for this E-minor cantata), and *Komm, du süße Todesstunde*, BWV 161 (according to the apograph copy Mus. ms. Bach P 124, Staatsbibliothek Preußischer Kulturbesitz, Berlin, Bach notated the recorders in E_♭ for this C-major cantata).

Kammerton, while the organ, there tuned to *Chorton*, is notated a whole step lower.²⁰

Coordinating the already mentioned information on ranges of Bach's recorder parts with information on their notation and pitch relationships, it will become clear that Bach's players used not variously oriented recorders but instruments with F-orientation. The single clear exception to this is the *Flauto piccolo* part to the cantata *Ihr werdet weinen und heulen*, BWV 103, composed in 1725 in Leipzig.²¹ Notated in French violin clef, the part is written a minor third higher than the rest of the ensemble in both Bach's score and his separate performance part. The instrument required is the soprano recorder in d", called the "sixth flute" in English-speaking countries because its lowest note lies a sixth above the standard recorder in f'. Bach's player performed on the sixth flute as if it were an F-instrument. Thus, e.g., in the opening chorus of the cantata, he could play from his D-minor part and match the B-minor *Kammerton* parts of

20. The one exception to this involving recorder is the cantata *Gleichwie der Regen und Schnee vom Himmel fällt*, BWV 18. Bach composed the cantata in Weimar for voices, four violas, cello, bassoon, and continuo ("Organo o Violono"). All the parts, including the bassoon, are notated at the same pitch, for performance in *Chorton* (Mus. ms. Bach St 34/1-5, 8-13, Deutsche Staatsbibliothek, Berlin). For a Leipzig performance Bach had the Thomasschule student Christian Gottlob Meißner copy out doubling parts for recorders from the top two viola parts. These were transposed a ninth higher, thereby adding a 4' effect to the original scoring (Mus. ms. Bach St 34/6-7; a *Kammerton* continuo part in A minor, St 34/14, was also copied out by Meißner). Meißner's task was an especially easy one, since G-minor viola parts in alto clef can be "transposed" to A-minor recorder parts in French violin clef without changing the positions of the notes on the staves. For this cantata the Leipzig string players and singers must have abandoned their normal practice of performing in *Kammerton* by switching to *Chorton*. They would have had to do this to match the fixed, *Chorton* pitch of the Leipzig organ, which played from the original Weimar part, St 34/1, marked "Violono o Organo." The recorders, then, would have been not some specially constructed instruments, but standard, *Kammerton* f'-recorders (i.e., the pitch of Bach's A-minor, *Kammerton* recorder and continuo parts matched the G-minor, *Chorton* parts for the rest of his ensemble). The best discussions of the thorny problems of pitch in Bach are Haynes (1985) and Haynes (1986). The *Chorton-Kammerton* situation for recorders in Bach's cantatas was clarified already by Ruëtz, *Zeitschrift für Hausmusik* (1935).

21. Mus. ms. Bach P 122, Deutsche Staatsbibliothek, Berlin and Mus. ms. Bach St 63, Staatsbibliothek Preußischer Kulturbesitz, Berlin. According to studies of watermarks and handwriting, the allocation of this part for transverse flute or violin comes as a substitute from later performances when a *Flauto piccolo* player was not available (see Dürr, [1976], 80). Bach prepared a similar substitute scoring for the *Flauto piccolo*, this time an f'-recorder, in a reperformance of *Herr Christ, der einge Gottessohn*, BWV 96 (see Dürr, [1976], 75). Contrary to the indications in various older editions to these works, Bach did not design his *Flauto piccolo* parts to be doubled at the lower octave by violin. See also n. 86 below.

the rest of the ensemble.²² In other words, Bach without any exceptions notates his recorder parts to be played as if the instruments have F-orientation, and the pitch relationships to the rest of the ensembles are always carefully accommodated. (And perhaps it should be stressed here that only *Bach's* notational practices for recorders of various sizes are relevant to the present discussion.) Thus the frequently encountered suggestion that the several surviving eighteenth-century "G-oriented" recorders might have been intended for the Fourth Brandenburg Concerto and that "Fiauti d'Echo" might have been the name for these instruments will not hold up to scrutiny.²³ To accommodate G-oriented recorders in a G-major concerto, Bach would have notated the parts a step lower than the rest of the ensemble.²⁴

If the terminological and notational evidence points to F-recorders, a close consideration of some technical aspects of Bach's writing for recorder in the cantatas and of his writing for the *Fiauti d'Echo* in the Fourth Brandenburg Concerto should effectively settle the question.

As was already mentioned above, the typical range of Bach's recorder parts is $f'-g'''$. This corresponds exactly to the ranges provided in nearly all the fingering charts listed in seventeenth- and eighteenth-century

22. Although in this case there is no transposed, *Chorton* organ part to confirm it, we know that the basic pitch of the ensemble must have been *Kammerton*. While the minor-third relationship between the recorder and strings might have suggested *Tief-Kammerton* sopranino recorder in f' with *Chorton* strings, voices, and continuo (in which exceptional case Bach would be reproducing in Leipzig the key relationships of his Weimar cantatas), this would not accommodate the minor-third relationship between the recorder and the oboes d'amore. Since there is no evidence that *Chorton* oboes and oboes d'amore were constructed in Germany (see Haynes [1985]), the only available minor-third relationship remaining for Bach's cantata would be between *Kammerton* oboes d'amore and a *Kammerton d''*-recorder. Furthermore, a normal D-instrument playing from the part notated in C (*Chorton*) is the most likely candidate for the trumpet part in the tenor aria.

23. The instrument maker, historian, and performer Arnold Dolmetsch was the apparently first to put forth this prevalent view (see Higbee [1962]). The recorder historian Edgar Hunt assumed and later abandoned the idea (see Hunt [1977], 76). See also the quotation of Addington, given above in n. 11. Oler, 22, also suggests a smaller recorder for the Fourth Brandenburg Concerto. Castellani has pointed out that the baroque recorder as it is documented by Bartolomeo Bismantova in 1677 is in G; Castellani goes on to suggest that Bach's "Fiauti d'Echo" (an Italian term) may refer to this type of G-recorder, while Bach's French usage in the F-major concerto BWV 1057 would refer to the F-instrument. Castellani's information on Bach is mentioned, and apparently endorsed, by Lumsden, 85.

24. Furthermore, he would not have called for notes outside the range of the instrument, especially if it were not to be doubled by an instrument possessing the notes (i.e., see the discussion of the f 's and f' above in n. 14). In the context of the "Fiauti d'Echo" problem, the issue of whether we should consider these higher-pitched recorders to be G-instruments in *Kammerton* or F-instruments in *Chorton* is, of course, moot.

woodwind treatises, manuals published with a wide market of mostly amateur players in mind.²⁵ Some of Bach's cantatas, however, feature difficult parts written for specific professional players who were capable of performing ranges extending beyond two octaves and a note. For example, the Weimar version of *Himmelskönig, sei willkommen*, BWV 182, reaches a''' in the first and final choruses and $a^{b'''}$ in the first chorus and alto aria; *Gleichwie der Regen und Schnee vom Himmel fällt*, BWV 18, reaches a''' in the sinfonia; and the sixth-flute part in *Ihr werdet weinen und heulen*, BWV 103, reaches $f^{#'''}$ (i.e., fingered as a''' on an F-oriented instrument) in the opening chorus. The fact that these parts were written for technically advanced professional players needs to be emphasized, for it is common among circles of modern amateur recorder players to lament Bach's ostensibly unidiomatic treatment of their instrument in his unpublished vocal music, and to laud by (invidious) comparison the technically more ingratiating published chamber sonatas of Bach's contemporaries (e.g., Handel's and Telemann's²⁶).

In addition to calling for extended (but playable) ranges in his recorder parts, Bach employs some obtainable but unusually difficult notes that do fall within the range of two octaves and a note. Bach's use or avoidance of some of these notes in the cantatas will prove especially revealing for the solo woodwind parts in the Fourth Brandenburg Concerto.

The bane of many alto recorder players is the note $f^{#'''}$. Only one music treatise published before Bach's death includes a solution for obtaining the note: Joseph Friedrich Bernhard Caspar Majer's *Museum Musicum Theoretico Practicum* (Schwäbisch-Hall, 1732; rev., Nuremberg, 1741).²⁷ Majer's fingering for $f^{#'''}$, $\ominus/13/457$, produces a slightly flat g''' on baroque recorders.²⁸ Majer must have included the fingering mostly

25. A composite chart is given in Lasocki (1970).

26. It is worth pointing out there is also, however, some much more difficult music by Telemann, e.g., a Concerto in F for alto recorder and strings which calls for ranges extending beyond g''' . Apparently arranged by Gottfried Grunewald and Christoph Graupner from one of Telemann's D-major flute concertos, this F-major concerto was meant to be performed on recorder, almost certainly by Grunewald's fellow court musician at Darmstadt, Michael Böhm (i.e., a professional player). See Linde, 82; and Vester, 484.

27. See Lasocki (1970): 134. Incidentally, an unpublished seventeenth-century recorder manual by an anonymous Italian author providing an unsatisfactory fingering for $f^{#'''}$ (but no fingering for $f'''!$) is discussed in Delius (1976).

28. Closed holes on the recorder are represented by the symbols 0 (thumb-hole), 123 (first, second, and third fingers of the left hand, respectively), 4567 (first, second, third, and fourth fingers of the right hand), and x (end-hole). A half-holing is indicated by striking through a number.

“for the sake of completeness” anyway, for the note appears very rarely in recorder music other than Bach’s.²⁹ The only completely satisfactory way to obtain this note is by fingering g''' ($\Theta/13/46$ or $\Theta/13/467$) and closing the end-hole of the instrument against one’s leg simultaneously ($\Theta/13/46/x$ or $\Theta/13/467/x$).³⁰ Although playing the f''' in isolation with this method is, of course, not so very difficult, it requires considerable hand and leg coordination to produce the note in musical contexts of running eighth or sixteenth notes. Therefore it should not be surprising that the note does not appear in the eighteenth-century chamber sonatas published with amateur players in mind.

Although this somewhat peculiar and ungainly manner of producing the note is not suggested by the early fingering charts, it must have been used by some of Bach’s recorder players. The fingering $\Theta/13/46/x$ (or $\Theta/13/467/x$) provides the only way of producing Bach’s f''' s in the following instances: measures 21, 23, and 27 of the sinfonia in *Gleichwie der Regen und Schnee vom Himmel fällt*, BWV 18; measure 69 of the first chorus in *Komm, du süße Todesstunde*, BWV 161;³¹ measure 13 of the sinfonia and measures 4 and 26 of the alto aria in the Weimar version of *Himmelskönig, sei willkommen*, BWV 182.³² In each of these instances the musical context allows enough time to employ the against-the-leg technique.

For the other places that the note f''' appears in Bach’s recorder parts it is possible to employ another trick fingering, one that likewise is not mentioned in the contemporary treatises. In all of these places the note

29. See, e.g., Telemann’s C-major concerto for alto recorder and strings, which contains several f''' s.

30. It was theoretically possible to construct an f' -recorder with an easily obtainable, perfectly in-tune f''' , but such an instrument would have had unusual and undesirable bore features. I would like to thank Friedrich von Huene for pointing this out to me.

31. The implied trill here can be produced by shaking fingers 4 and 6 simultaneously. Note that since Bach composed this cantata at Weimar, the recorders were notated in E \flat (for performance in *Tief-Kammerton*), while the strings, organ, and voices were in C (*Chorton*). The autograph score to the cantata is lost, but Mus. ms. Bach P 124, Staatsbibliothek Preußischer Kulturbesitz, Berlin appears to be an accurate copy of Bach’s score (see Dürr [1977], 49). The set of parts Mus. ms. Bach St 469, Staatsbibliothek Preußischer Kulturbesitz, Berlin, are not Bach’s personal materials, but they may derive from a Leipzig arrangement by Bach, for they contain a transposed continuo part in B \flat . The woodwind parts are notated in C major in treble clef, specified for transverse flutes. Davis (1972) does not distinguish the two transmissions of the cantata and therefore incorrectly concludes that Bach intended the woodwind parts for D-oriented recorders.

32. Note that since Bach composed this cantata at Weimar, he notated the recorder in B \flat (for performance in *Tief-Kammerton*) and the strings, organ, and voices in G (*Chorton*) (Mus. ms. Bach P 103, Staatsbibliothek Preußischer Kulturbesitz, Berlin).

is preceded by the note e''' , allowing the player to slip into the f''' by slurring from $\ominus/12/45$ (i.e., the standard fingering for e''') to $\ominus/45$. Interestingly, the fingering $\ominus/45$ will produce f''' *only* if slurred from $\ominus/12/45$. If tongued, $\ominus/45$ will invariably produce an ugly, tonally imprecise "squawk." The fingering $\ominus/45$ slurred from $\ominus/12/45$ provides a satisfactory way of producing the f''' 's in the following instances: measures 56 and 63 of the soprano aria in *Es ist nichts Gesundes an meinem Leibe*, BWV 25; measure 66 of the first chorus in *Komm, du süße Todestunde*, BWV 161; and measure 12 of the sinfonia in the Weimar version of *Himmelskönig, sei willkommen*, BWV 182. It is worth mentioning, however, that none of these places was marked with a slur in Bach's own manuscripts.³³ The against-the-leg fingering is in fact still practicable in each of these instances.

There were also occasions when Bach apparently had less talented recorder players on hand and therefore would avoid the problem-note f''' , even if this turned out to be at the marked expense of the musical line. For example, in carefully avoiding f''' 's by substituting f'' 's in the recorder part to the Leipzig revision of the Weimar cantata *Himmelskönig, sei willkommen*, BWV 182, Bach allowed his counterpoint to suffer noticeably (as, e.g., in measures 40–41 of the first chorus and measures 124 and 134 of the final chorus).³⁴

It is clear, then, that the mere presence or absence of the note f''' in an organologically ambiguous Bach woodwind part would not tell us whether recorder should be ruled in or out. Examining the specific ways that the note is employed in the woodwind parts to the Fourth Brandenburg Concerto will present no obstacle to a recorder hypothesis for "Fiauto d'Echo." The specific ways that the note is avoided, however, will clinch the argument in favor of the recorder in f' .

The note f''' appears three times in the first *Fiauto d'Echo* part of the Fourth Brandenburg Concerto: see measures 51 and 279 of the first movement and measure 57 of the third movement. Although the first two instances are not actually marked with slurs, it is possible in their musical contexts to produce them on the recorder in f' by slurring from the normal fingering for e''' to the "trick," $\ominus/45$ fingering for f''' . For the

33. BWV 25: Mus. ms. Bach St 376, Staatsbibliothek Preußischer Kulturbesitz, Berlin; BWV 182: Mus. ms. Bach St 47, Deutsche Staatsbibliothek, Berlin.

34. The recorder parts in the Weimar and Leipzig versions *Himmelskönig, sei willkommen* have, unfortunately, never been described accurately. For that reason and, moreover, because they are of great relevance to the Fourth Brandenburg Concerto, they are discussed briefly in Appendix 1 below.

EXAMPLE 1. Bach: *Fiauto I* parts in the Fourth Brandenburg Concerto, BWV 1049, and the Concerto in F Major for Harpsichord, Two Recorders, and Strings, BWV 1057, first movement, mm301–309.

example from the third movement, however, it will sound musically most convincing on the f' -recorder only with the somewhat difficult (but, in context, nonetheless playable), against-the-leg fingering.³⁵ In other words, the presence of the note f''' in the Fourth Brandenburg concerto in no way precludes performance on the recorder in f' .

The note f''' is strikingly avoided twice in the second *Fiauto d'Echo* part of the Fourth Brandenburg Concerto: see measures 50 and 278 of the first movement. Bach cannot have found the f''' s here contrapuntally superior to f''' s. This is obvious from the direction of the line itself, from the direction of the line established and properly followed in the first *Fiauto d'Echo* part (see measures 47–52), and from the fact that when Bach arranged the piece as the Concerto in F Major, BWV 1057, he wrote not e'' s but e''' s in the corresponding places.³⁶ Such an obvious avoidance of f''' suggests that Bach was (as we have seen him doing in some of the Leipzig cantata examples) accommodating a specific player's technical difficulty in producing the note on the recorder in f' . Bach also, much less obviously, avoided the f''' on one occasion in the first *Fiauto d'Echo* part: see measures 301–8 in both versions of the concerto,

35. See, e.g., Gustav Leonhardt's well-known recording for Seon of the Brandenburg Concertos, on which Frans Brüggen succeeds in producing the f''' in question by means of the against-the-leg technique. Remember too that there are quite a number of cases in the recorder parts to the Bach cantatas in which this is the *only* satisfactory way of producing the note.

36. At the risk of laboring a point, it perhaps ought to be mentioned again that despite the fact that there are eighteenth-century fingering charts with fingers-only indications for f''' , Bach and his contemporaries evidently knew that these fingerings did not work. They must have reckoned with the awkwardness of the undocumented against-the-leg method for producing f''' s. Otherwise they would not have found it necessary to restrict employing the note to certain contexts for professional players or to avoid the note altogether for amateurs.

as illustrated in Example 1. While Bach's "Fiauto 1^{mo}" player was apparently capable of producing the note with the against-the-leg technique in measure 57 of the third movement (and therefore would probably have been capable of producing it in measures 304 and 305 of the first movement), Bach apparently considered the note too risky to manage in the musical context of measure 306 in the first movement (i.e., when approached from a thirty-second note e^m on a weak beat, a strong-beat f^m will, for many players, almost inevitably "squawk").³⁷ The potential explanation that Bach's first player had an F-oriented recorder actually capable of producing an in-tune f^m by means of fingers-only technique, while the second player did not, would fail to account for Bach's careful avoidance of this note at measure 306 in the first part.

Another problem-note for many baroque f'-recorder players is f^z' (fingering: 0/123/4567), especially on instruments with only a single hole for finger 7. There are extant some baroque instruments fitted with double holes for fingers 6 and 7 in order to make obtaining g^z' (fingering: 0/123/456) and f^z' much easier. Almost all instruments produced today, however, do have the double holes. Bach's especially careful employment or avoidance of the note f^z' would seem to indicate that his players' instruments were not fitted with double holes. In any case, the fact that the note g^z' appears rather frequently while f^z' appears rarely in Bach's recorder parts suggests another, equally likely explanation: his players may have found the f^z' awkward to produce in many musical contexts because they, employing a technique followed by many players today, held up their instruments by buttressing finger 7 against the top

37. Bach's avoidance of f^m here in the first part shows that Krainis's, 7; Davis's, 47; and Haynes's (1985): 92 suggestion that this part was for recorder in g' while the second part was for recorder in f' will not hold up to scrutiny. This idea has recently been revived by the recorder maker Fred Morgan ([1989]: 19); my thanks to David Lasocki for this reference. Bach would not have needed to avoid f^m for measure 306 in a g'-recorder part (i.e., in that case the note would be fingered unproblematically as an e^m on an F-oriented instrument). Furthermore, according to Bach's notational practices, as outlined above in the main text, Bach would not write out the g'-recorder part to a G-major concerto in G. He would give it in F. Observing that the first *Fiauto d'Echo* part does not go below g' is, in this context, not relevant. Compare this with the Leipzig version of the recorder part to *Himmelskönig, sei willkommen*, BWV 182, whose range, according to Bach's revisions in his score, was g'-f^m. This might also suggest a recorder in g' (as, e.g., in Davis, 49). But for a G-oriented instrument Bach would clearly not have marred his counterpoint by avoiding the note f^m in mm.40–41 of the first chorus and mm.124 and 134 of the final chorus.

of the foot joint (or perhaps even over the hole for finger 7, which in most cases will not affect intonation).³⁸

Bach almost never employs the note f^\sharp unless the recorder is doubled by another instrument (i.e., in which case it would not matter if the note spoke distinctly). The note appears doubled by viola in measure 25 of the recitative and litany in *Gleichwie der Regen und Schnee vom Himmel fällt*, BWV 18; doubled by oboe in measure 12 of the bass aria in *Gott ist mein König*, BWV 71; and doubled by violin twice in measure 80 of the final chorus in *Gott ist mein König*. In measures 2, 6, 10, and 17 of the bass aria in *Gott ist mein König* there are f^\sharp 's that are not doubled by other instruments, but in their contexts (on weak beats, slurred from and back to g 's) the notes are not difficult to produce. The only strong-beat, undoubled f^\sharp in Bach's recorder parts occurs in measure 20 of the bass aria in *Gott ist mein König*.³⁹

There were apparently also occasions when Bach felt constrained to avoid the f^\sharp , even if this turned out to be at the obvious expense of the musical line. For example, for the second aria in *Meine Seufzer, meine Tränen*, BWV 13—scored for bass, two recorders with solo violin in unison, and continuo—Bach broke both the counterpoint and the unison writing in measure 45 by giving new readings avoiding f^\sharp in the recorder parts.⁴⁰ Similarly, for the G-major Leipzig version of the recorder part to *Himmelskönig, sei willkommen*, BWV 182, Bach allowed the lines to suffer in measures 10 and 32 of the alto aria by revising the melodies rather than transposing the a 's of the $B\flat$ -major, Weimar part to f^\sharp 's.⁴¹ And, finally, in his arrangement of the Fourth Brandenburg Concerto as the Concerto in F Major, BWV 1057, Bach revised measures 186

38. There are several eighteenth-century treatises advocate using finger 6 over the hole in a buttress-finger technique. Some players consider this technique to work slightly less well than using finger 7. See Hunt (1977), 103; and Linde, 33.

39. Writing in Mühlhausen, Bach notated the two recorder parts, the two oboe parts, the single bassoon part, and the single cello part in D (for performance in *Kammerton*) and the rest of the ensemble in C (for performance in *Chorton*) (Mus. ms. Bach P 45/1 and St 377, Deutsche Staatsbibliothek, Berlin).

40. These special readings show up not in Bach's score (Mus. ms. Bach P 45/4, Deutsche Staatsbibliothek, Berlin), but, without any signs of correction, in the (autograph) separate parts (Mus. ms. Bach St 69, Deutsche Staatsbibliothek, Berlin).

41. As with several of the $f^{\sharp\sharp}$ examples already mentioned, the copyist of the separate recorder part to the Leipzig version of this cantata (Mus. ms. Bach St 47a/5, Deutsche Staatsbibliothek, Berlin) overlooked Bach's revision in the score for the example of measure 10 (thus contrary to modern editions and to Prinz, 112 and 126, the note f^\sharp was nowhere required in the Leipzig version of this cantata).

and 197 of the first movement and measure 27 of the second movement in order to avoid f^{\sharp} .⁴²

It is clear, then, that the mere presence or absence of the note f^{\sharp} in an organologically ambiguous Bach woodwind part would not tell us whether recorder should be ruled in or out. Examining the specific ways that the note is employed in the woodwind parts to the Fourth Brandenburg Concerto will present no obstacles to a recorder hypothesis for "Fiauto d'Echo." The specific ways that the note is avoided, however, will clinch the argument in favor of the recorder in f' .

Bach calls for the f^{\sharp} in measure 201 of the second *Fiauto d'Echo* part in the first movement of the Fourth Brandenburg Concerto. This occurs within a context similar to the above-mentioned examples from the recorder parts to the bass aria in *Gott ist mein König* (i.e., on a weak beat, slurred from and back to g'). In other words, the presence of the note f^{\sharp} in the Fourth Brandenburg concerto does not preclude performance on the recorder in f' .

The note f^{\sharp} is strikingly avoided in the second *Fiauto d'Echo* part, however, in measures 50–51 of the slow movement. Here Bach breaks not only the counterpoint but also an eighteenth-century convention of woodwind articulation. Bach marks the eighth notes in measure 50 with a slur over only the first two notes. This pattern (two notes slurred, two notes detached) was a new articulation in the mid-eighteenth century and only later became the favorite for woodwinds,⁴³ as it continues to be today. The obvious avoidance of f^{\sharp} suggests that Bach was accommodating a specific player's technical difficulty of producing the note in this context (as opposed, e.g., to the context of measure 201 in the first movement) on the recorder in f' . (The registral shift to the next note, b'' , would not in fact need to be prepared.) Similarly, the lack of a slur over the third to fourth eighth-notes suggests that Bach was accommodating

42. Dart's suggestion ([1960]: 340) that the woodwind parts in the Concerto in F, BWV 1057, in being designated for "due fiauti à bec" were intended for the larger variety of the two kinds of eighteenth-century French flageolet was shown in n. 12 above to be dubious already on terminological grounds. Here it should be added that Bach would not have revised the parts to avoid f^{\sharp} if the parts were intended for a D-oriented flageolet (similarly, he would not have revised the parts to avoid e' : compare m201 of the first movement in the two versions of the concerto). Solo flageolets in other keys than d'' or g'' were not produced until much later than the time the Brandenburg Concertos were written. And all French and German treatises up to 1756 list d'' as the key note, while in England, it was g'' . On the history of this instrument and its repertory, see Steinmann (1976).

43. See Mather, 43 and 50.

a specific player's technical difficulty of producing the slur from a' to g'' on the recorder in f'. (On the other hand, Bach may simply have forgotten to notate a slur here.) That is, a player who had found it difficult to produce f''' and f' might be likely also to have found it difficult to slur smoothly in this exposed passage from a' to g''.⁴⁴ Such a mildly uncoordinated player would probably "flub" the move of four fingers and the thumb from 0/123/45 to /2/.

In sum, since both of the woodwind parts in the Fourth Brandenburg Concerto not only work on f'-recorder but also both appear to have been designed to accommodate specific, idiosyncratic problems in this instrument's technique (i.e., problems that would not have obtained on transverse flutes, flageolets, or recorders oriented to other keys than F), Bach's designation "Fiauti d'Echo" must refer to F-oriented recorders.⁴⁵ All of this is not to suggest that Bach had detailed knowledge of the technical abilities of the Margrave of Brandenburg's recorder players. Rather, Bach would have conceived the recorder parts for his own ensemble and presumably not have consciously decided to alter them for the Margrave's copy of the score. (That is, there is no evidence to support the notion that Bach composed, rather than compiled, the Brandenburg Concertos for the Margrave of Brandenburg.)

* * *

Having established that Bach's designation "Fiauti d'Echo" must refer to recorders, we are now in a position to consider relationships between scoring and structure in the Fourth Brandenburg Concerto, as promised at the outset of the essay.

44. On Bach's apparently detailed knowledge of slurring difficulties in recorder technique, see Appendix 2 below.

45. Regarding Thurston Dart's use of sopranino recorders in performance of the Fourth Brandenburg Concerto, see Appendix 3 below. John Martin (*The Recorder* 9 [1989]: 3) has suggested that all of the controversy over the "Fiauti d'Echo" may have been generated by "nothing more profound than a misprint or a misunderstanding." Martin wonders if Bach "may [have] intended a fully Italian name, perhaps *fiauti becco* which somehow became changed into *fiauti d'echo*." Against this, Lasocki calls attention to the fact that Italian would require "*fiauti a becco*" ("beaked flute," not "flute beak"), and, furthermore, that this term was very rarely used in Italian, the standard eighteenth-century terms being "*flauto*" and "*flauto dolce*" (see Lasocki [1991]: 14). If by "misprint" Martin means printed editions of the Brandenburg Concertos, his observations will not hold up here either. Bach's manuscript reads clearly and distinctly "*due Fiauti d'Echo*," with no signs of revision or hesitation. See Wackernagel (1947), a facsimile which has been widely reprinted. More recently Martin has questioned, on the basis of the handwriting criteria, his observations made in *The Recorder* 9 (1989); see *The Recorder* 10 (1989): 21. He has also brought forth several new suggestions which are discussed in Appendix 4 below.

In all three movements of this concerto, Bach extends the instrumental contrasts beyond typical ones between tutti and solo to include exploration of less conventional oppositions between the instruments that do not belong to the ripieno-strings section of the ensemble. By various means, Bach appears to bring up the roles for the recorders—having them act as prominent members both of concertino and ripieno groups—and to draw back the soloistic hegemony of the violin.

Unconventional relationships between soloists are most apparent in the peculiar stylistic environment of Bach's slow movement. Bach structures the rhythm of the Andante as in a French sarabande: the music flows in a slow, triple meter with accents on the second beats of the measures and with hemiolas at the cadences. At the same time he structures the thematic material as in a Vivaldian concerto movement: measures 1–18 have the characteristic features of a tonally closed ritornello with forepiece, sequence, and epilogue segments (points of division occurring at measures 9, 13 and 16);⁴⁶ and subsections of this opening period come back throughout the movement. But the textural contrasts conform to neither the conventions of the orchestral sarabande nor the concerto. In Vivaldian concertos the concertino episodes are typically framed by orchestral ritornellos, and in French orchestral dance music the trio episodes are typically scored for two recorders and viola.⁴⁷ In

46. Vivaldi's specific contributions to the development of the Venetian baroque concerto were to make opening tuttis tonally closed and to intensify the stabilizing function of the tuttis by employing literal or transposed quotations from all of the now easily separable segments in the opening tutti. By contrast, in the concertos of his predecessors often only the head of the first—tonally "open"—tutti would return in the course of a movement, while the continuations—also tonally open, except, of course, the final one—might employ different thematic material in each instance. (For a detailed discussion of the baroque concerto and Vivaldi's specific formal contributions to the history of the style, see Talbot.) In his concerto-style works Bach shows a predilection for a Vivaldian ritornello type containing three clearly differentiated internal divisions, a type which falls within the category of what modern German-speaking students of Vivaldi's music have labelled the *Fortspinnungstypus* ("spinning-forth-type"). In the Vivaldian ritornello favored by Bach the first segment grounds the tonality with primarily tonic and dominant harmonies, ending on either the tonic or the dominant (more typically the dominant). The second segment follows with sequential thematic material whose harmonic rhythm is marked mostly by root movement by fifths. And the third segment, whether involving further sequencing or other procedures, brings the ritornello to a satisfying close by way of a cadential gesture in the tonic. Writers in various languages still refer to the three segments of this particular variety of *Fortspinnung*-type ritornello with the German terms *Vordersatz*, *Fortspinnung*, and *Epilog* (these terms were derived from similar ones employed in Fischer [1915]). I have adopted the words "forepiece," "sequence," and "epilogue" in their stead.

47. Or two oboes and bassoon, or three solo string instruments. See Anthony, 106.

Bach's Andante, however, trio concertino textures appear in various guises. First, as echoes within ritornello segments (see measures 3–5, 7–9, 10–11, 12–13, and their transpositions). Second, as echoes within orchestrally scored episodes (see measures 20–21 and 23–24 and their transpositions; the example of measures 23–24, however, is not a note-for-note echo). Third, as interludes within orchestrally scored episodes (see the trio passages of measures 18–19 and its transposition, as well as solo-recorder passages in measures 29–30, 31–32, and 68–69). And fourth, even as a substitute for the tutti within a ritornello statement (see the ritornello of measures 61–67, where the sequence segment appears in trio texture before the epilogue segment appears more “properly” in tutti texture). The scoring of these unconventional tutti-solo contrasts is for a concertino trio of two recorders and the principal violin (not viola) against the ensemble.

Bach assigns a strikingly secondary role to the solo violin throughout this movement. In the outer sections of the movement's quasi-symmetrical structure of five blocks,⁴⁸ the three soloists for the most part double the ripieno violins in the tutti statements, while in the concertino-textured echoes or interludes the recorders assume the main voice and the solo violin takes on an accompanying *Bassätchen* function.

It is perhaps in this connection that the significance of Bach's title for the Fourth Brandenburg Concerto emerges. The heading reads: “Concerto 4^{to}. ã Violino Prencipale. due Fiauti d'Echo. due Violini, una Viola è Violone in Ripieno, Violoncello è Continuo.” This use of the term “Echo” following an instrumental designation is unique in Bach, and this use of the term “Prencipale” attached to violin, though common in Italian concertos of the period, is nearly unique for Bach. The only other place he employs it is in the solo violin part to the revised versions of the Fifth Brandenburg Concerto.⁴⁹ Since, as we have seen, the woodwind parts in the Fourth Brandenburg Concerto conform notationally, technically, and musically to the characteristics of Bach's standard f'-

48. That is, compare mm.1–18 with 55–71 and mm.18–28 with 45–55.

49. The second version is transmitted in the set of autograph parts, Mus. ms. Bach St 130 (Deutsche Staatsbibliothek, Berlin), and the nearly identical third version is transmitted in the Margrave of Brandenburg's dedication score (Am.B.78, Deutsche Staatsbibliothek, Berlin). The markedly different earliest version is transmitted in the set of parts Mus. ms. Bach St 132 (Staatsbibliothek Preußischer Kulturbesitz, Berlin). These parts were copied by Bach's son-in-law, Johann Christoph Altnickol, who labels the part “Violino concertato”; it is also worth pointing out that the wrapper to the set of Köthen parts (St 130) refers to “Violino Obligato” (see Dürr [1975]).

recorder parts, we could reasonably conclude that the designation "Fiauto d'Echo" does not refer to some special kind of instrument.⁵⁰ (But if it does refer to some as yet unknown special instrument, it will clearly have to be some kind of F-oriented recorder.) It is worthwhile in this connection to consider Bach's employment of the linguistic parallelism "Violino *Prencipale*"—"Fiauti d'Echo". The former predicate is clearly employed to designate not a special kind of violin, rather the *role* of the violin in this piece. Similarly, the latter predicate would not (necessarily) designate a special kind of "Fiauto," but perhaps rather the function of the instrument (i.e., it would refer to "recorders of the echo," not "echo-recorders").

It should also be pointed out that, contrary to the information presented in the critical report to the standard scholarly edition of the piece,⁵¹ there is no definite proof that Bach referred to the recorders with the term "Fiauti d'Echo" in his lost pre-Margrave manuscript. According to Appendices 5 and 6 in this essay, the manuscript Mus. ms. Bach P 259, Staatsbibliothek Preußischer Kulturbesitz, Berlin, which also uses the term "Fiauti d'Echo," does not go back to Bach's composing score but is in fact dependent on the dedication score Bach sent to the Margrave of Brandenburg. Recall, too, that for the staff headings in the Margrave score, Bach designates the woodwind parts merely "Fiauto" (i.e., recorder).

At the risk of laboring a point, it should perhaps be stressed again that, strictly speaking, the organological component of this essay has been designed not to solve for its own sake the merely factual problem of the precise identity of the "Fiauti d'Echo," but rather to provide a sufficiently grounded technical context for a social interpretation of the relationships of scoring and style in the piece. In this interpretive context nothing would be essentially gained by the discovery of a more precise answer than that "Bach's 'Fiauti d'Echo' were some sort of F-recorder." Regarding the possibilities that the instrument was a recorder fitted with a special key to allow for genuine contrasts in dynamics or that it was some sort of double-recorder, see Appendix 4 below.

50. Calling attention to a performance solution of the ensemble *Concentus musicus Wien* directed by Nikolaus Harnoncourt, Higbee ([1986]: 133) endorses the idea that the "d'Echo" describes the way Bach's f'-recorders were played for this slow movement: from off-stage, the players having 22 measures to rejoin the ensemble before their entrance in the Presto.

51. Bach (1957), *Kritischer Bericht*, 90–92.

Bach's "d'Echo" may well refer to the function of the recorders, but perhaps not merely to the obvious *piano* effects in the Andante.⁵² The word "echo" implies a secondary, relatively "powerless" function. For example, the Echo of ancient mythology could speak with only the words, or consecutive syllables, she had just heard. She could, however, mean them in a different sense from the original speaker.⁵³ The term "Prencipale," on the other hand, is very commonly attached to "Violin" in Italian concertos, where it accurately describes the "principal" (primary, or relatively "powerful") function of the solo violin part. Perhaps Bach's terms are best interpreted ironically, for the parallelism of his designations suggests a secondary role for the recorders and a primary role for the violin. But, obviously, in the slow movement at least, the actual functions are reversed: the recorders are in fact primary, and the solo violin is secondary.⁵⁴

An easily overlooked notational peculiarity of Bach's dedication copy for the Margrave of Brandenburg strengthens this interpretation. The top line of the score might strike us as an obvious place for a "Violino

52. I am aware of one example outside Bach in which the term "Flauto Eco" appears to refer to the standard recorder in *f*. The F-major aria "Canoro rosignuolo" in *Il Fiore delle eroine* by Giovanni Bononcini (1704, in Vienna) is scored with "2 Flauti" and "2 Flauti Eco." Since the range for both pairs of instruments is exactly the same and since the "Eco" pair merely imitates the ends of the normal recorders' phrases, the term "Eco" would seem to refer merely to the function of second pair of recorders (i.e., which apparently were also standard *f*-recorders and not some special type of instrument). It is worth noting that Bononcini also uses the term "echo" in the same way for the aria "Lieti geplausi" in *Euleo festeggianti nel ritorno d'Allessandro Magno dall'Indie* (1699, in Vienna). Here "2 Trombe Ecco" imitate solo trumpet and tenor. It seems especially unlikely that Bononcini's *Trombe Ecco* were some sort of mechanically altered instrument (since any kind of trumpet can play loudly and softly). Bononcini's "Ecco" would most logically have functional, not organological, significance). These examples are discussed in Kubitschek, 103–104.

53. Thus, e.g. for the echo aria "Treues Echo dieser Orten" in Bach's cantata "Hercules auf dem Scheidewege" (*Laßt uns sorgen, laßt uns wachen*), BWV 213, Echo will iterate a final, tonally closing "Ja" or "Nein" not spoken immediately before that by Hercules. That is, Hercule's interrogative "Ja" becomes Echo's indicative "Ja." (See also the adaptation of this aria as "Flößt, mein Heiland, flößt dein Namen" in the fourth part of the *Christmas Oratorio*, BWV 248). One of the most striking examples in baroque music of this sort of echo procedure involving changes in meaning occurs in the motet "Audio, coelum" from Claudio Monteverdi's *Vespro della Beata Vergine* (Venice, 1610), where "... gaudio" turns into Eco's "Audio!", "... benedicam" becomes "Dicam!", and so on.

54. A similar "reversal" in significance and function can be seen in the echo aria from the *Christmas Oratorio* (see n. 53 above). We know from recent studies of the theological traditions behind seventeenth- and eighteenth-century German poetry that the (ostensibly "weak") echo answering the soprano's prayers has to be understood to be the voice of (the "all-powerful") Christ. See Koch, 203–11.

Prencipale" line, but the standard ordering for orchestral scores in Germany during Bach's lifetime was: trumpet–timpani–horn–flute (or recorder)–oboe–(all) violins–viola–continuo.⁵⁵ Thus in the few original scores of Bach's violin concertos including woodwind parts in the orchestra, the solo violin appears in the middle of the score, not the top (as, e.g., in the D-Major Sinfonia, BWV 1045, surviving only as a fragment,⁵⁶ or the third movement of the First Brandenburg Concerto). In arias with obligatos for woodwind and string instruments but no ripieno string section, Bach likewise normally notates the woodwind instrument or instruments above the obligato string instrument or instruments.⁵⁷ For the Andante in the Fourth Brandenburg Concerto it would have been visually appealing and, certainly on the face of it, musically more logical to have conformed to the conventions of eighteenth-century German *Partituranordnung* (i.e., by placing the two recorders above the solo violin). To do so would have put the bass line of the concertino sections "properly" beneath the two soprano lines. Interestingly, however, Bach's notation of the violin part at the top of the score might be interpreted to call all the greater attention to the secondary character of the solo violin part within the concertino.⁵⁸

55. See Haller, 223–32.

56. Mus. ms. Bach P 614, Staatsbibliothek Preußischer Kulturbesitz, Berlin. There are no surviving autograph scores to Bach vocal works in which the orchestral staves include one staff or more staves for woodwind as well as a solo violin part with its own separate staff throughout the score. (The complicated relationship, however, between the peculiar notations of the concertato violin parts in the cantatas *Angenehmes Wiederau, freue dich in deinen Auen!*, BWV 30a [Mus. ms. Bach P 43, Deutsche Staatsbibliothek, Berlin] and *Freue dich, erlöste Schar*, BWV 30 [Mus. ms. Bach P 44, Staatsbibliothek Preußischer Kulturbesitz, Berlin] are discussed in Prinz, 29–30.)

57. Prinz, 32; at 32–33 Prinz also points out curious exceptions to this in the cantatas *Brich dem Hungrigen dein Brot*, BWV 39, and *Gott ist unsre Zuversicht*, BWV 197. In the former the aria "Seinem Schöpfer noch auf Erden"—scored for oboe, violin, alto, and continuo—is notated with the violin above the oboe (although Bach's heading "correctly" reads: "Aria 1 Hautb è 1 Violino"). In the latter Bach notates the aria "Vergnügen und Lust"—scored for violin, two oboes, soprano, and continuo—with the violin above the oboes (he arranged this from the aria "Ich lasse dich nicht" in his cantata *Ehre sei Gott in der Höhe*, BWV 197a, where the scoring was for oboe, bass, and continuo—i.e., transposing these parts for the BWV 197 arrangement, Bach assigned the original obligato for oboe to violin and enriched the aria with chordal filler played by a pair of oboes).

58. Haller, 152, has explained Bach's notation of the Fourth Brandenburg Concerto differently, an interpretation which by virtue of its greater simplicity may be more appealing to some readers: he suggests that Bach notated the violin part at the top of the score to call attention to the fact that this is essentially a solo violin concerto, not a triple concerto, although the two woodwind instruments, as he puts it, "certainly do occasionally 'intrude' upon the solo violin."

The discrepancies of functions for the concertino instruments in the *Andante* can be explored a bit further by considering their relationship to another curious stylistic feature of the movement. While it was already mentioned that the ritornello sections of the movement bring together rhythmic properties of French orchestral sarabandes and thematic properties of Vivaldian concertos, it is worth considering also the significance of French and Italian stylistic traits in the episodes. In measures 29, 31, and 68–69, the French sarabande rhythm and texture is broken by the insertion of short, Italianate improvisatory passages. Interestingly, these “cadenzas” are scored for the first recorder, something which may be considered doubly inappropriate. This isolates the first recorder from its stylistically inseparable partner, the second recorder. And, in a second way of making essentially the same observation, so long as there are going to be Italianate improvisatory passages in this sarabande, it would seem that the solo violin would have been the more obviously appropriate vehicle for them (i.e., since the violin is the more readily separable solo instrument within the concertino). Furthermore, although it is well known that the origins of the baroque violin are Italian, it may not be so well known that the origins of the baroque recorder are French. This only heightens a general sense of the violin’s being “snubbed” in this slow movement: the French duet-instrument takes on a stylistic prerogative of the Italian solo instrument.⁵⁹

Differing degrees of tension between the recorders and violin are also maintained in the two fast movements to this concerto. Consider first the extraordinarily long ritornello of the opening *Allegro* (measures 1–83). Measures 1–13 are scored with the two recorders at the center of attention, while the rest of the orchestra, including the solo violin, assumes a secondary, written-out basso continuo function. Bach organizes the

59. On the French origins of the baroque recorder, see, e.g., Chapter 3 of Hunt (1977). This described polarity between the soloists would of course be lost in Bach’s substituting the solo violin with the obbligato harpsichord for the F-major version of the concerto (BWV 1057). There (partly because of this lost polarity?) Bach has the harpsichord alone take over all of the concertino-textured material in the slow movement. I would not argue, incidentally, that the trumpet is being “snubbed” by its exclusion from the slow movement to the Second Brandenburg Concerto. The (conventional) absence of brass in slow movements to concertos allows the players much-needed rest, and this practice in fact reinforces the prominence of brass instruments by setting starkly in relief the return of their participation for the fast movements. If, however, a standard, “primary” solo instrument does participate in a strikingly “secondary” way throughout a movement (something I have not encountered outside Bach), it would warrant being described as having been “snubbed.”

rhythm of this material as in a $3/8$ minuet, grouped in two-measure units.⁶⁰ In fact, the length of this section roughly corresponds to the length necessary for the standard Z-formation of dance steps in the baroque minuet.⁶¹ This court dance was cultivated as a strict and formal affair in which the social hierarchy was rigidly respected: the most prominent couple was the first to execute the elegant dance steps, while lower strata looked on. Bach's scoring of the excerpt can be viewed to provide an instrumental representation of this sort of social situation. The strings "look on" with first-beat accompanimental chords, while the pair of recorders alone outlines the *pas de minuet à deux mouvements* dance pattern.⁶² This bit of material comes back in measures 23–35 in the dominant and in measures 57–69 in the tonic, interspersed by blocks of sequential material and concluded by a hemiola block which brings the macro-block of measures 1–83 to a formal division marked by tonal closure. In other words, the opening minuet gesture turns out able to be

60. Among Bach's instrumental movements expressly designated by him as a minuet, the only one with a $3/8$ time signature is found in the Suite in A Minor, BWV 818a, a movement also featuring arpeggiated sixteenth-note motion in the head of its opening theme. Bach's pre-1724 arias in minuet style are notated in $3/4$, and from 1724 on they are notated in $3/8$, perhaps due to Vivaldi's influence. See Finke-Hecklinger, 46.

61. The basic step pattern of the minuet consists of four steps taken to six beats (described below in n. 62). Thus the basic unit is two measures (in $3/4$ or $3/8$), not one or four, and there is not necessarily a strong accent on the second downbeat. Since the letter Z floor design ordinarily took six step patterns to execute, the ideal musical strain would be twelve bars long (just as many of Jean-Baptiste Lully's minuets for Louis XIV's court are twelve bars long; many composers more typically wrote in eight- or sixteen-measure strains). See Little, 353–58.

62. Bach's beat pattern conforms remarkably closely to the demands of the popular pattern *pas de minuet à deux mouvements*, in which the *demi-coupé* (bend and rise) occurs twice and is followed twice by the *pas marché* (step on the ball of the foot). The *élevé* (rise) of the first *demi-coupé* is on the right foot and the second is on the left, occurring on beats one and three of the first measure. The first *plié* (bend) is on the upbeat to the measure and the second is on beat two. The first *pas marché* is on the right foot and the second is on the left, occurring on beats one and two of the second measure. Bach's stylized Allegro minuet strain is notated in $3/8$, like Italian-baroque minuets, but the beat patterns adhere closely to the slower $3/4$ French minuet. That is, Italian minuets have longer phrases than the French (usually eight bars, rather than two or four), and they make more use of sequencing to sustain a clear sense of direction. On the characteristics of the French and Italian minuet, see Little, 353–56. Considering the opening gestures of the first two movements of the Fourth Brandenburg Concerto as related to the minuet and sarabande, we might also view Bach switching around the sarabande-to-minuet ordering of the baroque dance suite.

reinterpreted as a forepiece segment returning within a Vivaldian orchestral ritornello otherwise subdivided by a number of sequential sequence segments and a closing hemiola epilogue. (The sequence segments starting in measures 13, 35, 43, 47, and 69 and the epilogue starting in measure 79.)

After such an unusually extended ritornello with its own internal returns of the forepiece segment and with some of its own internal textural contrasts, Bach's relatively modest entry in measure 83 for the solo violin with the sole accompaniment of pedal-point continuo seems by comparison, strangely, to be a bit of a disappointment. With lackluster, "chordal" thematic lines over pedal points in two-measure groupings, the violin wends its way from measures 83 and 105 for the duration of half Z-formations. It also sequences from measures 91 and 113 for the duration of a full Z-formation, three times interrupted by the tutti quotations of the head of the opening forepiece segment (see measures 89, 103, and 111). A thematically more deliberate sense of movement picks up in measure 125 with episodic sequential material derived from the ritornello (see measures 35–43). In other words, the violin, when it has its own thematic material, proceeds in a (comparatively speaking) static manner. It seems to rely on the invocation of material derived from the ritornello (dominated by the recorders) to get things moving more purposefully. This ritornello-derived material of measures 125 and following brings a modulation not to the dominant (the direction the violin had been heading, conforming to stylistic conventions for the first return of the opening ritornello in a baroque concerto movement), but to the relative minor. Interestingly, in this procedure it is the recorders which have again assumed the principal voice.

Only the recorders end up generating a genuine "Solo Theme" within this Allegro (see measures 157–85). This appears to set off a series of stylistically unconventional reactions in the solo violin part. The subsequent forepiece segment of supertonic ritornello (measures 185 and following) becomes nearly overwhelmed by a burst of running 32nd-note histrionics from the solo violin. From the point of view of convention, this is, of course, strongly inappropriate. The place in concertos for such overt virtuosity is in solo episodes, not orchestral ritornellos. Furthermore, its inappropriateness is especially marked in this case, since, as was noted above, the forepiece segment of the ritornello can be viewed as alluding to the standard formation of dance steps in the baroque minuet, a dignified and elegant court dance in which such outbursts would have been severely frowned upon. Thus, to invoke the ready

notion of "Decorated Ritornello" in describing this section would, in the present interpretation, be to fail to have captured the exceptional sense of the passage. (It would not be essentially different, e.g., from describing the extraordinary moment effected by the initial bass entry of the augmentation canon on the chorale melody *Dies sind die heiligen zehn Gebot* in Bach's much-discussed cantata *Du sollt Gott, deinen Herren, lieben*, BWV 77, as a "diatonic tetrachord.")

A stylistically more restrained sort of virtuosity invades the subdominant ritornello in measures 209 and following. Here the violin "shows up" the two recorders from a different angle. Instead of drawing attention to itself by means of frenzied virtuosic material distinct from the recorders' more staid material, as it did up to this point in the movement, the violin now appears intent to assert its superiority by taking on the recorders' parallel-thirds theme by itself (i.e., through double-stopping). Furthermore, the violin performs the theme without the necessity for breathing: the characteristic rests in the recorder parts are replaced by the tied-over parallel sixths in the solo violin part (measures 217–20).⁶³ This, however, may obfuscate slightly the original clarity of the first step of each group of *pas marché* steps in the minuet rhythm,⁶⁴ and so, perhaps partly for this reason, the recorders join the continuo here to mark the downbeat of the second measures for each of the two-measure dance units.

A secondary role for the solo violin within a concertino of three treble instruments can also be traced in the third movement of the concerto. For several of the episodes in this concerto-style fugue (Bach structures the ritornello as a fugal exposition), the violin acts as a sort of rhythmic continuo while the recorders assume the principal contrapuntal voices (see measures 41–63 and 179–203). In its one venture into overt virtuosity (measures 87–127) the violin sinks into histrionics that are at the same time more extreme and more pointless than they were in the opening Allegro. Impervious to the tutti instruments in the measures following 95 and 105, the violin forges ahead, the eventual close appearing designed to be anti-climactic. (In the case of measures 105 and following, there are ritornello fragments in the *tripieno*—not marked *piano*—which perhaps are intended, as it were, to remind the wayward

63. This point about the double stops and the played-over rests was made by Goebel (1987, Nr. 8): 18; as Goebel puts it of the violin, "Nun denn, Platz da, Flöten, ich mach's besser!" ("All right then, flutes, step aside—I'll do it better!")

64. (See the definitions in n. 62 above.)

soloist of the "truth" it is deviating from.⁶⁵) The rhythmic drive slows from sixteenths to eighths in measure 120, which instead of cadencing on the goal of E minor arrives on the dominant of its subdominant. Moreover, when the initially undermined arrival does in fact occur at measure 127, the violin turns out tonally to be exactly where it had started, in E minor. (The beginning of the episode, measure 87, was marked by an E-minor cadence of the fugal tutti.) This assessment of the "vanity" of the violin's virtuosity is further heightened by observing that not only all of the other episodes in this movement but also all of the internal ritornellos modulate.

* * *

It seems, then, that the traditional dilemma concerning whether the Fourth Brandenburg Concerto is a solo concerto for violin with ripieno recorders and strings or a triple concerto for violin, two recorders, and ripieno strings could be abandoned for a new, third way of looking at the work. In this interpretation the answer to the either/or classification question would be "both and neither." On closer consideration of Bach's treatment of the instruments, the piece would appear essentially to be a triple concerto with tension-filled surface leanings towards the solo concerto. The scoring is for two recorders (technically unimposing but often thematically central), a solo violin (technically ostentatious but often thematically less central), and ripieno strings.

This general elevating of the recorder at the more than occasional expense of the violin probably ought not to be viewed merely as a creative or even clever deviation from conventions of eighteenth-century instrumental treatment. It is worth considering the significance of the fact that at the time the Brandenburg Concertos were compiled, the recorder and the violin were virtually at opposite ends of the musical-social hierarchy.⁶⁶ In the early eighteenth century the first (i.e., solo)

65. It is intriguing to notice that histrionics are rare in Bach's concertos and that when they do occur, they are often accompanied by ritornello fragments in the orchestra (see, e.g., mm.105–16 of the third movement to the A-minor violin concerto, BWV 1041).

66. In this connection it may be interesting to note that recently there surfaced some evidence documenting the interest that Prince Leopold of Köthen (Bach's employer at the time the Brandenburg Concertos were compiled) had in making analogies between political and musical structures. See Hoppe, 30–31, citing Staatsarchiv Magdeburg, Abt. Köthen. A1 Nr.22^{II}, fol. 18, which transmits a lecture pointing out correspondences between politics and music that was given during Leopold's coronation ceremonies. It should also be pointed out that relationships between politics and music were discussed in a general way by various baroque music-theorists. For quotations, see Scherliess, 270–83. See also Attali (1985) and Leppert (1989). Social implications of relationships between

violinist was typically the highest paid member of the court orchestra, next to the conductor.⁶⁷ The recorder, on the other hand, was at this time a secondary orchestral instrument of the oboist and a chamber instrument of the (mostly middle-class) amateur. It had become extremely rare for court payroll records to list musicians specifically as recorder players. In orchestral music the recorder was used mainly as a special-effects instrument. It was associated, e.g., with pastoral scenes or with death, and composers most typically called for pairs of *f'*-instruments. The parts were played either by court oboists (in the event that the court had titled oboists), who it was tacitly assumed were able to play the recorder, or, perhaps even more commonly, by members from the municipal music guilds who were specially hired for the occasions. Even in the *Stadtpfeiferei*, as these municipal guilds were called in Germany, the recorder was only a secondary instrument and therefore was typically not mentioned or included in the examination requirements.⁶⁸

Bach's subtle and peculiar deflating of the high-ranking violin and distinguishing of the low-ranking recorders within manipulations of minuet, sarabande, concerto, and fugal structures in the Fourth Brandenburg Concerto, seen, then, in this light as a social allegory of sorts,⁶⁹ can gain a greater significance than one of artistic novelty. In the present interpretation, Bach appears to view commonly held—though tacit—social assumptions as unwarranted value judgements (“are violins inherently ‘better’ than recorders?”). Moreover, stretching this interpretive idea to its broadest historically tenable limits, I would argue that he may well have considered such uncritical views to be dissonant with his Lutheran beliefs:⁷⁰ according to the Reformation doctrine of the priesthood of all believers, in God's eyes individuals or classes are not better than others, regardless of their earthly status. More subtly, the relationships set up by the composer—“creator” between scoring and structure in

scoring and structure for other Brandenburg Concertos are discussed in Marissen, *Beiträge zur Bachforschung* (forthcoming), *Bach Perspectives* 1 (forthcoming), and (1990).

67. On the history of the violin, see Boyden (1965).

68. See Degen, 91. On the history of the *Stadtpfeiferei* in Germany, see Wolschke (1981). On the later situation in Köthen, see Zimpel (1985).

69. For a similar interpretation involving recorder and violin, see Marissen (1985) and (1988). For autograph-based completions to the two versions of this now fragmentary but once complete work, see Marissen, ed., *Sonate A-Dur* and *Sonate C-Dur* (both Hänssler, forthcoming).

70. Following the discovery of Bach's heavily annotated personal Bible, the sincerity of his religious beliefs can no longer be readily dismissed; see Cox (1985). For a systematic survey of Lutheran theology, see Althaus (1966).

the Fourth Brandenburg Concerto might also be seen to allegorize, even more clearly than the other concertos of the Margrave's set, the relationships between the Creator's "alien" and "proper work." According to orthodox Lutheranism, God's real ("proper") work involves raising people up to salvation from sin, a process far from immediately apparent in daily life on this dreary earth. This "proper work" is much more readily perceived as "alien," in that it involves God's striking people down in realization of their sin, i.e., an action *by which* they will be raised up to salvation.⁷¹ In "raising up" the lowly "Fiauti *d'Echo*" (to frequent positions of primary status within both the concertino and the ripieno) and by stealthily "bringing down" somewhat the super-eminent "Violino *Principale*" (at best, to *primus inter pares* status), Bach may be considered to have created in the Fourth Brandenburg Concerto an unparalleled structure representing musically the breach between appearance and essence familiar from everyday social and religious experience.

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APPENDIX 1

Notes on the recorder part in the Weimar and Leipzig versions of *Himmelskönig, sei willkommen*, BWV 182

Taking his early Weimar score of the cantata *Himmelskönig, sei willkommen* in which the recorder part was notated in B \flat (*Tief-Kammerton*, corresponding in pitch to the G of the rest of the Weimar ensemble at *Chorton*),⁷² Bach during his tenure at Leipzig entered a number of revisions so that the recorder part could there be played a third lower, in G at *Kammerton* (thereby matching the G-major *Kammerton* of his Leipzig ensemble). For a number of instances the student copyist of the separate performance part for Leipzig overlooked Bach's revisions,⁷³ including those in measures 40–41 of the first chorus and measure 134 of the final chorus. Thus contrary to all modern editions (the corresponding *Neue Bach-Ausgabe* volume has not yet appeared) and to Prinz's survey of Bach's

71. See one of Bach's interesting treatments of this idea in the cantata, *Wer sich selbst erhöht, der soll erniedriget werden*, BWV 47, in particular the soprano aria, within whose B section virtuosic double-stop violin playing accompanies the text on God's association of pride with the devil, as contrasted to the association of meekness with Christ in the A section. Another interesting example of Bach's associating violin histrionics with hell, vanity, and the like is the alto aria in the cantata *Wer mich liebet, der wird mein Wort halten*, BWV 74.

72. Mus. ms. Bach P 103, Staatsbibliothek Preußischer Kulturbesitz, Berlin.

73. The part in question is Mus. ms. Bach St 47a/5, Deutsche Staatsbibliothek, Berlin.

recorder parts,⁷⁴ the note f''' was nowhere required in the Leipzig version of this cantata. There is also a violin part,⁷⁵ which doubles the recorder in the choruses and in measures 17 to the end of the opening *Sonate* for another performance of the cantata in Leipzig, and the copyist of this part overlooked Bach's avoidances of f''' only in measure 134 of the final chorus. Apparently confused by the key relationships within Bach's score (i.e., a woodwind part in $B\flat$ notated in French violin clef looks exactly like a woodwind part in G in treble clef, especially when all the other lines of the score are in G), the copyist of the Leipzig recorder part neglected to employ the French violin clef and shift the positions of the notes on the staves down a third. He transposed the original recorder part from $B\flat$ to G merely by substituting the treble for the French violin clef. While this opens the possibility that the part actually ended up being played in Leipzig on the transverse flute, it is clear that Bach had the technical constraints of the f' -recorder in mind when he made revisions in his score: e.g., he changed the counterpoint to avoid going to e' (too impractical here for the recorder, although it is technically possible to obtain a very soft e' with the fingering 0/123/4567/*) in measures 5–6, 8–9, 20–23, 27–28, and 42 of the alto aria (the lowest note on the baroque transverse flute, however, is d').⁷⁶

APPENDIX 2

Notes regarding idiomatic slur markings in Bach's manuscript recorder parts

It may be interesting to note that Bach's evidently rather keen awareness of certain slurring difficulties on recorder is not always reflected in modern critical editions of his works. There are two particularly striking examples of this in the original performance parts to *Schauet doch und sehet, ob irgend ein Schmerz sei*, BWV 46.⁷⁷ Measures 132–34 of the opening chorus are reproduced in modern editions with slurs over nn.1–4 in each group of running sixteenth notes. But in both of the separate recorder parts used in Bach's performances, the nn.1–4 slurring pattern is broken to the slurring of nn.1–3 for the (unison) c''' - d''' - e''' - c''' of the second beat in m.133. Apparently Bach was aware that slurring quickly from e''' to c''' is nearly impossible on most baroque recorders. Where an established pattern is not being broken, Bach's lack of slurring from e''' to c''' is less obviously significant. This is the case, e.g., in m.61 of the same movement and in m.59 of the second chorus in *Preise, Jerusalem, den Herrn*, BWV 119. The same holds true for the lack of slurring from e''' to d''' in m.25 of the alto aria in the

74. Prinz, 112 and 126.

75. St 47/9, also Deutsche Staatsbibliothek, Berlin.

76. Davis (1972) reports incorrectly that Bach notated the recorder part to this cantata in G in his score and that he entered revisions into a transposed separate part (in order to ensure that a smaller instrument could be used if a D-oriented recorder were not available).

77. Mus. ms. Bach St 78, Staatsbibliothek Preußischer Kulturbesitz, Berlin.

Weimar version of *Komm, du süße Todesstunde*, BWV 161. Also contrary to the modern editions, Bach breaks the pattern of slurs over nn.1–4 in groups of running sixteenth notes in m.14/beat 4 and m.15/beat 1 in the closing chorale of *Schauet doch*. Presumably Bach wished to avoid a slur from *e*" to *e*"', an articulation which in this context would be extremely difficult to produce on baroque recorders. See also mm.6 and 42 in the opening chorus of the cantata, where Bach avoids a technically difficult slur from *d*" to *f*". For Bach's arrangement of part of this chorus as the "Qui tollis" in the Mass in B minor, BWV 232, which is transposed down a minor third and scored with transverse flutes, the separate flute part does indicate slurring for the corresponding passage.⁷⁸

APPENDIX 3

Notes regarding Thurston Dart's use of sopranino recorders for Bach's *Fiauto d'Echo* parts

Neville Marriner's and Thurston Dart's early 1970s recording of the Brandenburg Concertos uses sopranino recorders in *f*' as practical substitutes for the *g*"-flageolets suggested in Dart's organological articles.⁷⁹ Dart claimed that normal *f*'-recorders would be virtually inaudible,⁸⁰ which was curious, for he was one of the few conductors of modern chamber orchestras at the time not to pit the metal flute in place of the recorder against the brass in recording the Second Brandenburg Concerto (see also Dart's 1959 recording of the Brandenburg Concertos,⁸¹ which, incidentally, uses normal alto recorders in *f*' for the Fourth Brandenburg Concerto). It is, in any case, worth noting that Dart's concerns about balance were later discovered to be unfounded when performances on originals or replicas of baroque instruments came into vogue. Since, especially in light of the absence of balance problems with baroque instruments, it is now widely agreed that Dart's performances of the Fourth Brandenburg Concerto with 4' recorders are unconvincing,⁸² there should not be any reason to believe that "Fiauti d'Echo" was Bach's term for sopranino recorders. If balance problems have disappeared for *f*'-recorders, the only potential advantage remaining for 4' instruments lies in Dart's claim that "the rich harmonies of the slow movement are [with 8' instruments] marred by the ungrammatical 6/4 chords sounded by the three soloists in bars 7, 8, and 12. . . . [in the F-major harpsichord concerto] Bach corrected [this] by changing the part-writing."⁸³ This view is not compelling, for the three examples occur during echo passages scored for

78. Mus 2405-D-21 Aut. 2⁴, Sächsische Landesbibliothek, Dresden. A general discussion of the issue of idiomatic slurring in Bach's manuscript flute and recorder parts is found in Marissen (1987).

79. See Philips 6700 045: "First recording of the original version."

80. Dart (1960): 340–41.

81. L'Oiseau-Lyre Sol 60005–6.

82. Note that the first edition of Hunt (i.e., 1962), 85, already took this view.

83. Dart (1960): 340.

only the soloists, and in each case the violin acts as a *Bassächten*. That is, since the bass has first been established clearly by the tutti and since the timbre of its imitation an octave higher in the violin is markedly different from the recorders, the violin part will be perceived as a true bass in the passages that Dart cites. Moreover, Bach was not correcting part-writing errors in his F-major arrangement of the concerto but taking concertino passages for two recorders and violin and adapting them in a way that would be practicable in his rescoring of the passages for solo harpsichord. That is, Bach's contrapuntal changes would be a corollary of—not the reason for—his reorchestration.

Another reason for doubting that "Fiauto d'Echo" might refer to soprano recorders is that Bach typically provides the word "piccolo" in his designation if he wants a smaller-than-standard size of an instrument. For example, Bach's manuscript materials designate various small recorders as "Fiauto (or "Flauto") piccolo" in the earliest versions of *Herr Christ, der einge Gottessohn*, BWV 96;⁸⁴ *Ihr werdet weinen und heulen*, BWV 103;⁸⁵ and *Liebster Gott, wenn werd ich Sterben*, BWV 8.⁸⁶ His materials designate a smaller-than-standard violin as "Violino Piccolo" in *Wachet auf, ruft uns die Stimme*, BWV 140;⁸⁷ in a later scoring of *Herr Christ, der einge Gottessohn*, BWV 96;⁸⁸ and in the First Brandenburg Concerto. Several Bach vocal works have obbligatos for the "Violoncello piccolo."⁸⁹ Finally, it may be worth pointing out that when Bach wanted the large 16' C-violone rather than the 8'-violone during his pre-Leipzig posts, a time when the former instrument was apparently not yet conventionally employed, he would use the term "Violono großo."⁹⁰

84. Thomana Collection 96, Stadtarchiv Leipzig. Peter Williams points out that in a mid-1730s Bavarian organ by Wieglieb the Hauptwerk and Oberwerk each had an auxiliary stop called "Echo" which seems to have been an octave coupler. He suggests, therefore, that Bach's "Fiauti d'Echo" may have been octave-instruments (see "Bach's 'Fiauti d' Echo,'" *Music and Letters* 42 [1961]: 101). Bach calls the octave-"fiauto" in Cantata 96, however, not "fiauto d'echo" but "fiauto piccolo."

85. Mus. ms. Bach P 122, Deutsche Staatsbibliothek, Berlin and Mus. ms. Bach St 63, Staatsbibliothek Preußischer Kulturbesitz, Berlin.

86. Ms. II 3905, Bibliothèque Royale, Brussels. The text-critical problems associated with the various separate flute parts to this cantata are extremely complicated (Bach's score is lost). I would suggest that Bach at one point probably had in mind a small recorder in f' *Chorton* (or g'-recorder in *Kammerton*, depending on how one looks at it) to play the woodwind part in the opening chorus only. He apparently substituted a transverse flute, however, already at the first performance.

87. Thomana Collection 140, Stadtarchiv Leipzig.

88. Thomana Collection 96, Stadtarchiv Leipzig; here the Violino piccolo substitutes for the Flauto piccolo at a reperformance of the cantata (see n. 21 above).

89. The identity of this instrument has been hotly debated among organologists. The most thorough recent discussions are Schrammek (1977) and Dreyfus, 172–75.

90. See Dreyfus, 143–44 and 151–56.

APPENDIX 4

Notes regarding (hypothetical) "echo-recorders"
with mechanical alterations

David Lasocki has recently suggested that Bach's *Fiauti d'Echo* probably were special instruments, the "echo flutes" played by the recorder virtuoso James Paisible in England during the second decade of the eighteenth century.⁹¹ What exactly Paisible's "echo flute" was remained unclear (remember that Dart believed it was the g"-flageolet⁹²). A promising line of study had been opened up by Jeremy Montagu, who suggested that the instruments "may have been recorders with some additional mechanical device allowing them to play loud and soft without going out of tune. If such instruments existed, they have not survived; nor has any mention of them."⁹³ Soon Montagu published a response from Cary Karp, the curator at the Stockholm Musikmuseet: "He reminded me of the Dolmetsch [i.e., twentieth-century] chin-key which opens a small hole opposite the mouth of a recorder, increases the area of open hole, raising the pitch and thus demanding softer blowing to get back in tune. There is a *flûte d'accord* [double recorder] in the Stockholm collection by Veyrat (18th century) with a key for the lower thumb which could be just such a device (the holes it covers are roughly opposite the mouths), though it may be an octave key; the instrument doesn't work well enough to be sure. So, just possibly, something like the Dolmetsch key was known in Brandenburg?"⁹⁴ In the following year Montagu summed up in a letter to Lasocki: "Since the [Veyrat] instrument doesn't work, we have no definite proof, but at least as a hypothesis it's a great deal nearer to answering [the question of the identity of the "echo flute"/*Fiauti d'Echo*] than anything else."⁹⁵

Montagu has reported to Lasocki more recently (summer of 1990), however, with new information regarding Karp's suggestion: "When I was in New York . . . a couple or so years ago, we visited Bob Rosenbaum [a prominent collector of musical instruments], and he had in his collection an instrument identical to that which Cary [Karp] refers, with such a key. It doesn't do what Cary thought it might. So the question is still wide open, though Cary's idea of something equivalent to Dolmetsch's chin-key still seems to me to be probable."⁹⁶

91. Lasocki (1987): 146.

92. Dart (1960).

93. Montagu, *FOMRHI Quarterly* 23 (1981): 20–21; quoted in Lasocki, *Galpin Society Journal* (forthcoming).

94. *FOMRHI Quarterly* 25 (October, 1981): 9; quoted in Lasocki, *Galpin Society Journal* (forthcoming).

95. Quoted in Lasocki, *Galpin Society Journal* (forthcoming).

96. Letter of 12 June 1990 quoted in Lasocki, *Galpin Society Journal* (forthcoming). This new essay of Lasocki's, as already mentioned in the main text to this essay, was able to demonstrate by reference to various archival evidence that Paisible's "echo flutes" were most likely some sort of recorder.

An intriguing new avenue of research has recently been opened up by John Martin.⁹⁷ He suggests that the "echo-flute" may have been two recorders fastened together, not with a view to playing them simultaneously, but in order to perform on them alternately without having to put the one down and pick up the other. If the recorders on this double instrument were tuned to slightly different pitches, it would require different breath pressures to match the pitches, thereby making it possible to "echo." While no historical double recorders of this sort have yet been found, Martin does point to some compelling evidence suggesting that they may have existed: in his diary entry for January 20, 1667–68, Samuel Pepys wrote that he "did stop at Drumbleby's, the pipe-maker, there to advise about the making of a flageolet to go low and soft, and he do shew me a way which do do, and also a fashion of having two pipes of the same note fastened together, so as I can play on one, and then echo it on the other, which is mighty pretty."⁹⁸ Some weeks later Pepys fell in love with the recorder and bought one from Drumbleby.⁹⁹ It seems possible, Martin suggests, that Drumbleby made "echo-flutes" by fastening together not only loud and soft flageolets but also recorders, and that when Paisible a few years later arrived in England he might well have purchased such an Echo Recorder. This he would probably have played at first for friends as a sort of "party instrument," and later in his career he may have decided to promote it in public concerts, as a novelty.

Assuming that Bach's "*Fiauti d'Echo*" in Köthen were the same instruments as Paisible's "echo flutes" in London (a reasonable assumption, but one which, of course, by no means necessarily follows), we might see some evidence for the idea of a mechanically altered instrument in the plethora of *p*[iano] and *f*[orte] markings in the recorder parts to the slow movement of Bach's Fourth Brandenburg Concerto. It is well-known, after all, that normal recorders are not capable of producing genuine dynamic contrasts, so it would seem probable that Bach's dynamic markings point to a specially modified recorder.

Considered in the context of Bach's general notational habits, however, these dynamic markings will no longer appear so obviously to support the idea of an altered recorder. It is Bach's normal procedure, with many exceptions, to notate in his composing scores the notes only. His students then copied out separate performing parts. While proofreading these parts, Bach would enter articulation and dynamic markings.¹⁰⁰ Normally, again with many exceptions, Bach's dynamic markings correspond to formal categories. In arias the singer's passages are marked *p* in the obbligato instrumental parts, and ritornellos are marked *f*, especially if it is not obvious in looking at only the separate part where in the form the player has arrived. In concertos the solo episodes are often marked *p* in the secondary voices, again, especially if it is not obvious from looking at only

97. See Martin, *The Recorder* 10 (1989): 20–22.

98. Martin is quoting this Pepys reference from Welch (1911), 64, n. 1. Welch's materials pertaining to the recorder have been reprinted, with corrections (and a new introduction by Edgar Hunt) in Welch (1961).

99. See Welch (1911) [or (1961)], 138.

100. A useful summary in English of Bach's methods in preparing performance materials can be found in Butt, 78–90.

the separate part where in the form the player has arrived. The slow movement to the Fourth Brandenburg Concerto fits with this practice. Bach marks the solo violin and recorder parts *p* in mm.3–5 and 7–9 already in his score because he will not be there to supervise the production of the separate performing parts that would need to be copied from this score if its dedicatee, the Margrave of Brandenburg, were to have the concerto performed. These markings need to be made throughout the slow movement in the recorder parts so that the players will be able readily to see whether they are at any given moment going to be performing tutti or solo (eighteenth-century instrumental concerts were typically performed on very little rehearsal). The violin's tutti and solo material is thematically differentiated, however, and so once the violinist grasps the pattern specified in mm.3–5 and 7–9, Bach does not need to signal the tutti and solo distinctions in this staff again until beat 2 of m.61 and beat 3 of m.65. (Here the distinctions would not be obvious in reading from a separate performance part prepared from this score.) Given that there are Bach recorder obbligatos marked with *p* and *f* in order to make explicit the tutti/solo distinctions in his cantatas and Second Brandenburg Concerto, we do not have to conclude that the dynamic markings in the slow movement to the Fourth Brandenburg Concerto necessarily point to the use of a recorder specially constructed so that it is in fact capable of producing genuine dynamic differences. In this connection it is worth mentioning that there are also among Bach's other recorder parts (i.e., labeled by him merely "Flauto") several "echo" passages marked *p* even though Bach surely knew that normal recorders are not capable of genuine dynamic contrast. See, e.g., the ritornello in the aria "Schafe können sicher weiden" from *Was mir behagt ist nur die muntre Jagd!*, BWV 208, and the instrumental "Amen" at the close to *Gottes Zeit ist die allerbeste Zeit*, BWV 106. Perhaps the most well-known piece for recorder with *piano* and *forte* markings in the non-orchestral repertory is the seventeenth-century Dutch recorder player Jacob van Eyck's *Fantasia & Echo* from *Der Fluyten Lust-hof*.¹⁰¹ It does not seem likely that Van Eyck had some sort of mechanically altered recorder in mind, for in the prefaces to the various printings of *Der Fluyten Lust-hof* his (C-oriented) instrument is illustrated and its fingerings described in some detail (in prose).

One would not have to sense possible organological significance in the observation that only the slow movement of the three movements to the Fourth Brandenburg Concerto contains dynamic markings. This observation would, in any case, not be entirely accurate. There are "*pianissimo*" markings in

101. Van Eyck (1649 and 1654; facsimile, ed. Otten [1979]), vol. 1, 19/left to 19/right. Although other instruments are also mentioned on the title page (for marketing purposes), Van Eyck's collection was apparently conceived for recorder (see Griffioen [1988], especially 422; and Griffioen [1991], Section 6.1.3.). It is true that in *Fantasia & Echo* the player is to a large extent being encouraged to accentuate the already built-in dynamic difference between the recorder's high and low registers (the echoes here are in each instance an octave lower). But there is also both a *forte* passage featuring the lowest notes on the instrument (m.42) and a *piano* passage going into the upper range (m.26). (The latter may, however, have been intended to be *forte*, as the lack of this marking at the eighth note of m.23 is probably a printing error.)

mm.235–36 and 251–52 and a “[*forte*]” in m.241 in the string parts in the first movement of Bach’s score. Interestingly, these mark “echoes” both literal (i.e., softer) and metaphorical (i.e., slight change in “meaning” of the gesture, effected by the differing rhythmic placement of the echoing voices).

Some further observations on the *p* and *f* markings in Bach’s slow movement are worth making in connection with Martin’s double recorder hypothesis. Martin sums up a standard view succinctly: “. . . Bach clearly indicates that [the *Fiauti d’Echo*] are to play alternate sections loud and soft. When playing loudly, they are part of the full ensemble; when playing softly, they are accompanied by a single violin or nothing at all. So the echo must have been very effective.”¹⁰² The fact is, however, that if his *Fiauti d’Echo* were double recorders (or, for that matter, if they had Dolmetsch’s chin-keys), Bach could just as well have instructed his players to play softly for the tutti sections and loudly for the episodes, and in doing so the movement’s (built-in) echo effects would still have been very effective.

There are also straightforward technical problems with Martin’s observations on how Bach’s slow movement “seems to be written with [two double recorders] in mind—although the movement is mostly in lilting [eighth-notes], every change of dynamic in the flute parts is preceded by a [quarter-note] or a rest, allowing just enough time to switch mouth and fingers to the ‘other’ recorder.”¹⁰³ Changes in dynamic that are in fact preceded by neither a rest nor by a note which is longer in duration than an eighth-note occur, however, in four instances. In mm.61 and 65 the changes are preceded by eighth-notes, and, according to modern editions, in mm.30 and 32 changes in dynamics are preceded by sixteenth-notes. Beyond these objections, moreover, it should be pointed out that modern editions do not accurately transmit Bach’s notation in mm.30 and 32. Bach’s *forte* markings appear in his manuscript on the second, not the first, beats of the measures.¹⁰⁴ That is, the purpose of these two *forte* markings is more to signal to the player that the tutti is entering on the second beats than actually to call for sudden louder playing on the second beat of the respective dotted half-notes.¹⁰⁵ (Remember that this player would not be performing

102. Martin, *The Recorder* 10 (1989): 21.

103. Martin, *The Recorder* 10 (1989): 22.

104. Facsimiles of Bach’s manuscript have been widely reproduced (see n. 45 above). In the slow movement to the Fourth Brandenburg Concerto Bach’s dynamic markings consistently appear below the respective staves in the concertino. The ripieno parts contain no dynamic markings.

105. In both instances the markings occur between the first and second beats and are inclined towards the right, if considered according to the alignment of the voices below them in the score. From the fact that each of the measures in the staff to which the markings refer (i.e., the recorder 1 staff) still has plenty of room for the “*f*” in front of the stems of the respective notes, it becomes clear that Bach’s placement after the stems ought to be interpreted as belonging on the second beats. In the latter instance (m.32), incidentally, the presence of music in the lowest three staves (“*Violoncello*,” “*Violone*,” and “*Continuo*”) for this one measure makes it a “tutti” passage, the only one in which the upper ripieno-strings do not play. That is, there are no “piano” markings appearing in tutti passages. The only concertino passage not marked “piano” occurs at m.18, which is the

from the Margrave of Brandenburg's dedication score, but from a separate orchestral part copied from it; Bach needed to indicate dynamics already in his score because he would not be present to supervise the production of parts in the event that the Margrave's ensemble were to perform the concerto.) It would not make any sense to notate the markings and the pitches in this way if the players were expected to switch recorders on the second beats (i.e., if Bach had wanted switching, he would have notated mm.30 and 32 as quarter-notes followed by half-notes at the same pitch, not as dotted halves). Note also that the *piano* passages in mm.29 and 31 (see m.68 as well) are not literal "echoes" of tutti material. These passages, like the literal "echoes," are so marked more to indicate for the separate performing parts that the passages in question are solo episodes, not so much that they ought to be played softly.

Taking all of this into consideration, we might find the simplest solution to the problem of the identity of Bach's *Flauti d'Echo* in abandoning the idea of an "Echo recorder" (i.e., an instrument with mechanical alterations) and in adopting the idea of a functional/metaphorical "recorder of the Echo" (i.e., a normal instrument). (This is not to say that as a general principle the simplest solution is always the best one.) The effectiveness of Bach's slow movement does not seem obviously to suffer from a lack of genuine dynamic contrasts in standard recorders. The same would hold true for the only other, little-known piece of orchestral music for recorders marked with the word "echo," namely the F-major aria "Canoro rosignuolo" in *Il Fiore delle eroine* by Giovanni Bononcini. (See the discussion in n.52 above, where Bononcini's probably functional use of "Trombe Ecco" is also mentioned.) Here the scoring is for four players ("2 Flauti" and "2 Flauti Eco"), with one pair imitating the phrase endings of the other (the *Flauti Eco* players would not likely be playing only half of a double instrument).

Thus the explanation of double recorders appears technically untenable for Bach's *Flauti d'Echo* and rather unlikely for Bononcini's *Flauti Eco*. What exactly Paisible's "echo-flute" in England was remains a mystery (here, while we have no specific pieces of music to which to refer and no surviving instruments, a mechanically altered instrument seems more likely), and Martin's and Lasocki's complementary research on this question is surely the most promising to date.

first concertino passage in the movement that is not an "echo." Bach himself may have been confused by this as he made his F-major arrangement of this concerto with obbligato harpsichord, BWV 1057. At first he entered these notes into the recorder staves of the arrangement, but then he crossed them out, remembering that the solo harpsichord was to take over the concertino passages from the Brandenburg version (Bach's manuscript of BWV 1057 is kept under the call number Mus. ms. Bach P 234 in the Deutsche Staatsbibliothek, Berlin).

APPENDIX 5

Text-critical notes on an early copy of the Fourth
Brandenburg Concerto

In his critical report for the *Neue Bach-Ausgabe*,¹⁰⁶ Heinrich Bessler lists some readings found in the manuscript Mus. ms. Bach P 259 (Staatsbibliothek Preußischer Kulturbesitz, Berlin) that vary from the readings of the Margrave's dedication score (Am.B.78, Deutsche Staatsbibliothek, Berlin). Bessler suggests that P 259 was copied from an earlier version than the one transmitted in Am.B.78, and he further suggests that the copyist of P 259 worked from the same rough-copy score that Bach used as the basis for writing out Am.B.78.

Bessler gives the following reasons for concluding that P 259 was copied from Bach's pre-Am.B.78 version:

- for note 4 in measure 153 of the first recorder part in the first movement, P 259 reads e^{'''}; Am.B.78 reads c^{'''}, having been corrected from a^{''} and later marked by Bach with the tablature letter "c." Apparently this passage was so unclearly notated in Bach's pre-Am.B.78 score that it caused some confusion not only to the copyist of P 259 but also to Bach.

- for n.2 in m.329 of the viola part in the first movement, P 259 reads c'; Am.B.78 reads b' (Bessler's "h'" must be a typographical error for "h"), having been corrected from c' and later marked by Bach with the tablature letter "h."

- for n.4 in m.342 of the first recorder part in the first movement, P 259 provides d^{''}; Am.B.78 reads b', having been corrected from d^{''} and later marked by Bach with the tablature letter "h." P 259 at first gave b', but the copyist apparently concluded from rechecking Bach's pre-Am.B.78 score that this was a mistake, and therefore he carefully corrected the note to d^{''}.¹⁰⁷

* * *

The validity of Bessler's observations may be questioned:

- the e^{'''} of n.4 in m.153 of the first recorder part in the first movement is notated in P 259 at the proper height for c^{'''} on a French violin clef staff (i.e., its two ledger lines are squeezed very close together; n.3, also an e^{'''}, is notated at the proper height with its two ledger lines more widely spaced). This suggests that the copyist originally copied c^{'''} (i.e., with one ledger line) and subsequently squeezed in a second ledger line because, thinking in treble clef while copying from Am.B.78 itself, he was confused by the tablature letter "c." Bach's revision

106. Bach (1957), ed., Bessler, *Kritischer Bericht*, 90.

107. Bach (1957), ed., Bessler, *Kritischer Bericht*, 90, also mentions that there are some insignificant variant readings in mm.125, 140, 148, and 230 of the third movement. These differences are not actually to be found in P 259, but rather in Mus. ms. Bach St 151 (Staatsbibliothek Preußischer Kulturbesitz, Berlin). As Bessler (correctly) points out, St 151 must have been copied from P 259 (St 151 reproduces each of the variant readings and idiosyncratic errors that came up in P 259).

from a" to c" most likely did not come up because of messy notation in the pre-Am.B.78 score; Bach probably had switched at or after the sixteenth rest to the second recorder part and noticed his mistake immediately.¹⁰⁸

- the c' of n.2 in m.329 of the viola part in the first movement in P 259 must be a simple error. It cannot be an early reading revised to b by Bach, for the note c' is a highly unwelcome dissonance here. The initial reading in Am.B.78 was in any case not c' but f'.

- the revision from b" to d" in m.342 of the first recorder part in the first movement in P 259 could very well have been occasioned by copying from Am.B.78 itself. Bach revised his reading from a d" possessing a small note-head to a b" possessing a large note-head and then marked it with a tablature letter "h." Thinking in treble clef, the copyist of P 259 may have been confused by Bach's tablature letter: visually recognizing the priority of the note-head for b", the copyist first entered that note; but Bach's tablature letter suggested to him to change it to d" (i.e., b" in treble clef occupies the same position on the staff as d" in French violin clef).

* * *

There are a number of indications in P 259 suggesting that it is dependent on Am.B.78 and not an earlier transmission. In the following places, slightly careless notations in Am.B.78 are reflected in P 259:¹⁰⁹

- n.1 in m.32 of the continuo part in the first movement was corrected in P 259 from c to d. Bach placed this note very low in Am.B.78, and therefore it could easily be misread as a note c.

- n.6 in m.136 of the solo violin part reads d"-natural. In Am.B.78 Bach's sharp sign is unclear and written in such a way that it could be mistaken for a natural sign.

- n.3 in m.291 of the second recorder part has a trill.¹¹⁰ In Am.B.78 Bach's sharp sign for n.4 is notated in such a way that it could be mistaken for a trill for n.3.

- n.5 in m.309 of the first recorder part was corrected from d" to a". In Am.B.78 the sharp sign for n.6 is blotched and squeezed in on top of n.5, and therefore it could easily be misread as a note d".

- n.3 in m.8 of the solo violin part in the second movement is incorrectly marked staccato. In Am.B.78 there is a small dot over the barline for m.9, and this could be misread as a staccato marking for n.3 of m.8.

108. Compare Bach's switching to an adjacent staff in m.101 of the second recorder part in the third movement (the reading in recorder 2 was revised from a" to e"; a" is the reading of recorder 1) and m.220 of the second violin part (the reading was revised from c" to b'; d' is the reading of the viola part, and the position of d' on the alto clef staff of the viola part corresponds to c" on the treble clef staff of the violin part).

109. None of these observations is listed in Bach (1957), ed., Besseler, *Kritischer Bericht*.

110. Bach (1957), ed., Besseler, *Kritischer Bericht*, 95, incorrectly lists the trill over n.2 (incidentally, Bach does notate a trill over n.2 in the F-major version of the concerto, BWV 1057).

- nn.1–2 in m.36 of the first ripieno violin part are incorrectly marked with a tie. In Am.B.78 Bach carelessly marked these two notes with a tie (cf. the correct articulation in the solo violin and the first recorder parts, which here are playing in unison with the first ripieno violin).

- n.3 in m.14 of the solo violin part in the third movement was corrected from e" to d". Bach placed this note very high in Am.B.78, and therefore it could easily be misread as an e".

- n.3 in m.85 of the solo violin part was corrected from g" to a". In Am.B.78 Bach notated the ledger line for the half-note a" only within the boundaries of the note-head, and therefore the note could easily be misread as a g".

- n.10 in m.119 of the solo violin part reads d"-natural. In Am.B.78 Bach's sharp sign is unclear and written in such a way that it could be mistaken for a natural sign.

Furthermore, in the following places in Am.B.78 there are small dots above the barlines, and these markings correspond to page or line breaks in P 259 (i.e., the dots evidently were put into Am.B.78 for tracking purposes by the copyist of P 259): m.188 in the first movement (6^r in P 259), m.193 (line break within 6^r in P 259), m.226 (7^v in P 259), m.342 (10^v in P 259), m.20 in the second movement (11^r in P 259), and m.67 (line break within 12^v in P 259).

And finally, the following errors in P 259 can be explained by reference to page breaks in Am.B.78:

- n.1 in m.306 of the solo violin part in the first movement was corrected from b' to a'. Measure 306 marks a page turn from 9^r to 9^v in P 259; and m.304, whose first note is b', marks a page turn in Am.B.78. The copyist evidently went to the beginning of the page in Am.B.78 after he had turned the page in his own manuscript.

- n.1 of m.7 of the second ripieno violin part in the third movement has a dangling tie, which occurs at a line break within 13^r. A careful look at all of m.7 as well as n.1 of m.8 reveals a faintly visible erasure of the readings of m.6 to n.1 of m.7 (the sharp sign and the d" above the g' of m.8 are more clearly visible, and the tie was not erased at all). Measure 6 marks a new page in Am.B.78. The copyist evidently went to the beginning of the page in Am.B.78 after he started a new line in his own manuscript.

- n.1 in m.101 of the second ripieno violin part was corrected from c" to a' (the correction is only faintly visible in P 259). Measure 101 marks a page break in Am.B.78. The copyist evidently went to the wrong line at the page break in Am.B.78: n.1 in the first ripieno violin part (i.e., the adjacent staff) is a c".

APPENDIX 6

Text-critical notes on revisions in the Margrave of Brandenburg's dedication score of the Fourth Brandenburg Concerto

In the Margrave's copy of the Fourth Brandenburg Concerto (Am.B.78, Berlin) there are the following revisions whose original readings do not show up in

the manuscript Mus. ms. Bach P 259 (Staatsbibliothek Preußischer Kulturbesitz, Berlin), something further weakening Heinrich Bessler's suggestion that P 259 was copied from a pre-Am.B.78 version of the concerto:¹¹¹

- m.41 of the continuo part in the first movement originally read as a doubling of the solo violin part.

- mm.53–54 of the continuo part originally read as a doubling of the violone part.¹¹²

- n.1 in m.156 of the viola part originally read as an *a'*, which Bach revised to *f'* to avoid parallel octaves with the bass.

- mm.179 and 182 of the continuo part originally read as a doubling of the cello part (perhaps m.182 was revised first and then 179 was changed analogously).

- m.219 of the cello and continuo parts originally read as a doubling of the violone part.

- m.311 of the cello part originally read an octave lower (there is the beginning of a notehead for E but no ledger line), and the continuo part originally read as the revised cello part.

- m.344 of the cello part originally read as a quarter-note B with an eighth rest.

- m.348 of the continuo part originally read an octave higher, which suggests that the "da capo" may have been marked for m.344 in all staves of Bach's exemplar (compare mm.1–4 of the bass with mm.345–48, in particular m.4 with m.348).

- m.154 of the first ripieno violin part originally read as an *a''*,¹¹³ and Bach provided the revision to *e''* with a tablature letter.

- mm.159–66 of the cello part appear to have been added in the score (compositional corrections for n.2 of m.162 and n.3 of m.163?): the left hand of the harpsichord in Bach's arrangement of the Fourth Brandenburg Concerto as the Concerto in F Major for harpsichord, two recorders, and strings, BWV 1057, closely follows the cello line of its exemplar, but at mm.159–66 of this movement it follows the more active continuo line.¹¹⁴

- m.171 of the continuo part originally read as a doubling of the cello part.

* * *

111. See the first paragraph of Appendix 5 to this essay. None of these revisions is reported by Bach (1957), ed., Bessler.

112. In this case, of course, Bach may have merely miscopied from the adjacent staff.

113. Bach (1957), ed., Bessler, *Kritischer Bericht*, 99, suggests that the note was either a *g''* or an *a''*, but *a''* looks much more likely (in which case there may have been a revision, not a correction of a copying error).

114. The continuo line of the F-major concerto (marked "V[ioloncello]. è V[iolone]." by Bach in Mus. ms. Bach P 234, Deutsche Staatsbibliothek, Berlin) follows closely the violone line of the exemplar. Presumably the violone line was followed primarily for practical reasons: apparently having been designed for one of two types of 16' violones (see Dreyfus, 143–44), the ("gamba-style" D-violone) part in the Fourth Brandenburg Concerto assiduously avoids the note C, which means that it can be unproblematically transposed down a step for cello and "cello-style" C-violone.

There is some evidence to suggest that Bach added the part marked "Continuo" for the Am.B.78 version, i.e., that his exemplar had eight staves, not nine (hinted at also by some of the revisions listed above):

- in places where the continuo line differs from the cello line and the violone is silent, the continuo readings are not duplicated in Bach's F-major arrangement of the concerto, BWV 1057 (compare mm.179–83 and 293–311 of the first movements and 171–74 of the third movements). In mm.159–66 of the third movement the F-major concerto does duplicate the readings of the continuo part, but for this one instance the *cello* readings appear to have been added in the Brandenburg version.

- in places where the continuo line differs from the cello/violone line (see mm.28–31 and 191–94 of the first movement) and in places where all three bass parts are different (see mm.162–72 of the first movement), the continuo readings are not duplicated in Bach's F-major arrangement of the concerto, BWV 1057.

These observations support the (commonsensical) assumption that Bach arranged the F-major concerto from the exemplar he employed for copying out Am.B.78 and also that he did not bother to update the exemplar by indicating the few places where the "Continuo" line of Am.B.78 differs from its violone and cello lines. If the continuo line was added for Am.B.78, then the fact that P 259 reproduces the part further suggests that P 259 cannot have been based on an earlier transmission of the concerto. Even if the part was not added for Am.B.78, however, P 259 would, of course, have to reproduce the original readings of Bach's revisions for Besseler's stemma to hold up to scrutiny.¹¹⁵

115. See Bach (1957), ed., Besseler, *Kritischer Bericht*, 92.

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