The Conflict of Symmetrical Form and Text Setting by J. S. Bach*

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Music is *Concord*, and doth *hold* Allusion With every thing that doth *oppose* Confusion. In comely *Architecture* it may be Known by the name of *Uniformity*; Where *Pyramids* to *Pyramids* relate, And the whole *Fabrick* doth configurate; In perfectly *proportion'd* Creatures we Accept it by the Title *SYMMETRIE*: When many Men for some *design* convent, And all Concentre, it is call'd *CONSENT*: Where mutual Hearts in *Sympathy* do move, Some few *embrace* it by the name of *LOVE*.¹

"I have found a paper of mine among some others", said Goethe today, "in which I call architecture petrified music". Johann Peter Eckermann, Goethe's personal secretary, noted this on 23 March 1829, using a metaphor that has since become a commonplace. The underlying notion that architecture and music are related did not derive from Goethe's own poetic imagination. It had its predecessors in literature and also in music history: in eighteenth-century music-theoretical texts, a parallel was often drawn between musical composition and

- * An early version of this paper was given as a public lecture in 2010 at the Liszt Academy (Budapest) and later incorporated into my PhD thesis entitled *J. S. Bach és a zenei forma két kultúrája* (J. S. Bach and the two cultures of musical form), defended in 2013. Parts of the paper were presented in 2015 at the Seventh J. S. Bach Dialogue Meeting at Madingley Hall, University of Cambridge.
- ¹ Excerpt from the prefatory poem by John Jenkins in Christopher Sympson's *A Compendium: or, Introduction to Practical Music* (London: Godbid, 1678). Jenkins presumably wrote the poem for the second edition, as an appendix to his preface (1678); it does not appear in the first edition (1667), but can be found in all subsequent editions.
- ² 'Ich habe unter meinen Papieren ein Blatt gefunden, sagte Goethe heute, wo ich die Baukunst eine erstarrte Musik nenne. Und wirklich, es hat etwas'. Johann Peter Eckermann, Gespräche mit Goethe in den letzten Jahren seines Lebens, Zweyter Theil (Leipzig: Brockhaus, 1837), 88. English translation by John Oxenford in Conversations of Goethe with Eckermann and Soret, Vol. 2 (London: Smith, Elder & Co, 1850), 378.
- For the literary forerunners of Goethe's statement see Michael Bright, *Cities built to music* (Columbus: Ohio State University Press, 1984), 82–4.

the construction of buildings. The entry 'Ouverture' in Johann Gottfried Walther's *Musicalisches Lexicon*, for instance, starts with the following description: 'Ouverture takes its name from the phrase to open because this Instrumental-pièce opens the door, as it were, to Suites, or other things that follow.'4 Multimovement works or cycles were looked at as buildings from time to time, and so were independent musical movements. The spatial metaphor for music was typically used during the discussion of form, or to use its rhetorical equivalent, the dispositio. As Ruth Tatlow aptly demonstrates in her 2015 book, the planning of musical compositions was typically described in early eighteenth-century music theoretical texts as an analogue of building planning.⁵ The often quoted statement by Johann Mattheson in Der vollkommene Capellmeister⁶ is a good example, and so is Meinrad Spiess' extended analogy, which he presumably took from Mattheson. Spiess was one of the most highly educated musicians of the eighteenth century, who, notwithstanding his conservative world view, was familiar with the entire modern music-theoretical literature. He became the seventh member of Lorenz Mizler's Societät der Musikalischen Wissenschaften in 1743, a few years before Bach joined. He wrote the following in *Tractatus Musicus Compositorio-Practicus,* his 1745 composition textbook for church musicians:

Disposition or arrangement is nothing else but a well-considered organisation of the musical work. [...] General disposition is when, for example, the setting of the whole text of an opera, etc. is read through, weighed up, studied, and a specific Modus Musicus, specific instruments, emotional expressions, etc., are chosen for each Aria by the *Symphoniurgus* following the example of an architect, who makes a sketch or plan to show where the reception room, where the store, chamber, room, kitchen, etc. should be placed. In brief: [general disposition] is when the composer gets his head around all the threads of his projected musical composition and forms it into a perfect system.⁸

- 4 'Ouverture hat den Nahmen vom Eröffnen, weil diese Instrumental-Pièce gleichsam die Thür zu den Suiten oder folgenden Sachen aufschliesset'. Johann Gottfried Walther, Musicalisches Lexikon (Leipzig: Wolfgang Deer, 1732), 455.
- See the chapter 'Bars, compositional planning and proportional parallelism' in Ruth Tatlow, Bach's Numbers: Compositional Proportion and Significance (Cambridge: Cambridge University Press, 2015), 102–29.
- ⁶ 'Johann Mattheson, *Der vollkommene Capellmeister* (Hamburg: Christian Herold, 1739), 235. English translation by Hans Lenneberg in Hans Lenneberg, 'Johann Mattheson on Affect and Rhetoric in Music (II)', *Journal of Music Theory*, 2/2 (1958), 193–4.
- ⁷ Rainer Bayreuther, 'Spieß, Meinrad', MGG², Personenteil Vol. 9, 1629–31.
- Dispositio, oder die Einrichtung überhaupt ist eine wohl ausgesonnene Eintheilung eines Musicalischen Wercks. [...] [Dispositio] Generalis ist, wann E.g. der Symphoniurgus den ganzen Text einer Opern wohl überlesen, überlegt, ausgesonnen, jeder Ariae einen gewissen Modum Musicum, gewisse Insturmenta, gewisse Ausdruckungen der Leidenschaften ausersehen, nach dem Beyspiel eines Architecti, so einen Entwurff oder Riß macht, anzuzeigen, wo der Saal, wo der Stadel, Stuben, Zimmer, Kuchen solte angeleget werden. Kurz: Wann der Componist sein ganzes vorhabendes Musikalisches Werck im Kopf zu Faden schlägt, und sich davon ein vollkommenes System formirt'. Meinrad Spiess, *Tractatus musicus compositoriopracticus* (Augsburg: Johann Jacob Lotter, 1745), 134. Translation (partly) by Ruth Tatlow, *Bach's Numbers* 106.

Spiess uses the metaphor of architecture not only during the discussion of *dispositio* but also for the assessment of other parts of rhetoric. 'After laying down the location of the hall, the room and the chamber, we must be careful to work them out in line with the rules,' he writes in the context of *elaboratio*.⁹ The work of the architect (or of the composer) does not end there, since it is also necessary to adorn the interior spaces of the finished structure. This belongs to the phase of *decoratio*. 'Just as we hang nice pictures in a well-built hall, room, etc. and ornament it with valuable wallpapers, [in] the same way the composer must plan how his musical work can be prettified.'¹⁰

Unlike Mattheson, who put his theory of form into practice by analysing an aria by Benedetto Marcello, Spiess does not present a concrete musical example, so we can only guess exactly what he means when he talks about a 'perfect system' of a musical work put together in the head of the composer. But perhaps we are not entirely wrong in assuming that such a 'perfect system' would be represented by the architectonic type of musical forms in which the individual building elements are organised in symmetrical structures and in which Johann Sebastian Bach seems to have demonstrated a more intensive interest than his contemporaries.

Symmetry in music

The expression 'symmetry' is used rather easily and freely in musicology texts from the late twentieth century; a search on the word in the online edition of the *Grove Dictionary* brings dozens of relevant results,¹¹ although their meaning cannot be easily interpreted nor a common meaning identified. In an everyday sense, symmetry usually applies to mirror symmetry, whereby a shape retains its geometrical characteristics after being reflected over an axis. Commenting on whether such symmetry exists in music, Arnold Schoenberg expressed his doubts in a footnote of his composition textbook:

Former theorists and aestheticians called such forms as the period symmetrical ... but the only really symmetrical forms in music are the mirror forms, derived from contrapuntal music. Real symmetry is not a principle of musical construction. Even if the consequent in a period repeats the antecedent strictly, the structure can only be called 'quasi-symmetrical'.¹²

Schoenberg actually confuses the two possible realisations of musical symmetry, the notions of reflecting the notes in the score over a vertical or a horizontal axis. The contrapuntal technique called mirror inversion creates symmetry in musical space, whereas a period built up from two 'rhyming' sections creates symmetry

- ⁹ 'Nachdem nun den Saal, Zimmer, Cammer, etc. sein Ort angewiesen worden, ist man weiters bedacht, daß man sie auch Regul-mäßig ausarbeite'. Spiess, *Tractatus*, 134 (translation mine).
- 'Gleichwie man einen wohlgebauten Saal, Zimmer etc. mit schönen Gemählden und köstlichen Tapeten zu behängen und zu zieren pflegt; also muß der Herr Compositeur auch dahn sinnen, wie er sein Musicalisches Werck wohl schön möge heraus schmücken'. Ibid, 135 (translation mine).
- www.oxfordmusiconline.com (accessed 15 October 2015).
- ¹² Arnold Schoenberg, Fundamentals of Music Composition (London: Faber & Faber, 1967), 25.

in musical time. Here we are interested in the notion of symmetry in time, so the word 'structure' will not be used to refer to chords or polyphonic tricks but in relation to musical form.

If the notion of symmetry is used in a strictly geometric sense, we could say, following in the footsteps of Schoenberg, that symmetry is not decisive in the creation of musical form, nor is it even possible. Even works that use a vertical reflection cannot be unaffected by the principle of time: a melody or chord-progression played backwards will change its basic characteristics because its time sequence is reversed. But the notion of symmetry is much broader and should not be reduced to a unique geometrical transformation by insisting on its most general meaning.

Two science historians, Giora Hon and Bernard R. Goldstein, have recently shown that such a restrictive use of symmetry is rather a late development even in the field of natural sciences: the phenomenon we call symmetry was described by many different words until the end of the eighteenth century.¹³ The notion entered into modern thinking with the fifteenth-century rediscovery of Vitruvius, an important architect in ancient Rome, and for several centuries the expression only meant the common measure of things after the Greek expression *sum metros*, referring to proportion and balance. It was used in this meaning in the various arts, primarily in architecture.

In the early eighteenth century, the word symmetry was not in use in Germanspeaking areas. As a synonym, however, eurhythmy was used. Christian Wolff, the famous student of Leibniz and professor at the University of Leipzig, created a unique German equivalent for it. In his *Vollständiges Mathematisches Lexicon* published in 1716, he used the expression *Wohlgereimheit* – a mirror translation of the Latin word – which is best translated as 'good consonance'.¹⁴ In 1734, the *Universal-Lexicon* edited by Johann Heinrich Zedler gave the following description of the concept under the entry eurhythmy:

Eurhythmy or good consonance [Wohlgereimheit] is a term used in architecture to mean the agreement of the sections and decoration, and applied to the whole building, such that all parts of a building coordinate well together with the aim that the building is harmonious. ... For instance, when the doors of a building are in the centre and the windows are placed on both sides in identical numbers and at an equal distance, in such cases we say that the rules of eurhythmy were taken into consideration. ... If this rule is followed as much as possible, then we can state that the left side of the building responds in every way to the right side. ... What we call eurhythmy the French use the word *Symmetrie*. ¹⁵

¹³ Giora Hon-Bernard R. Goldstein, From Summetria to Symmetry: The Making of a Revolutionary Scientific Concept (Heidelberg: Springer, 2008), 1.

¹⁴ Ibid, 158

¹⁵ 'Eurythmia, die Wohlgereimheit, heisset in der Bau-Kunst die Uebereinstimmung in denen Abtheilungen und Zierden, daß sich alle Theile eines Gebäudes wohl zusammen schicken, auch dem End-Zweck eines Gebäudes am nächsten zutreffen. ... Vermehret die Eurythmie überaus eine wohlgemachte Disposition derer ähnlichen Theile eines Gebäudes, und deren Anordnung zu beyden Seiten in Ansehung eines unähnlichen Mittels. Z.B. Wenn die Thüre eines Gebäudes in der Mitten ist, und die Fenstern zu beyden Seiten in gleicher Zahl von ihr

Writings about music in the period mostly discussed symmetry in a general sense, and it is typical that Walther's *Musicalisches Lexicon* does not include an entry for symmetry. But it does have an entry for eurhythmy:

Eurhythmy: decoration and beauty, which in music arises from numbers, specifically when a melody is organised according to numbers, which is particularly necessary to be observed in French pieces.¹⁶

With the expression *Frantzösischen Pieces*, Walther obviously refers to the dance movements of the baroque suite, or more precisely to their periodic structure, the various types of which are discussed in detail by Mattheson in *Der vollkommene Capellmeister*. Mattheson analyses a minuet using a musical example in which he marks the phrase endings with commas, colons and semi-colons at the end of every second bar under the lines, with the various punctuation marks signalling the weight of the various phrases within the period.¹⁷ Based on the example of metrical foot in poetry, he introduces the expression *Klang-Fuß*, or 'tone foot', which he uses to describe the characteristic rhythmical motifs of the musical material and he marks them above the lines in the score.

The basic geometrical unit is the number four, as it is characteristic throughout all good dance movements. ... The tone feet of the first and second bars return in the fifth and sixth bars and the tone feet appearing in the ninth and tenth bars can be again heard in the eleventh and twelfths bar, which creates an arithmetic uniformity.¹⁸

Twentieth-century music theorists used the word 'symmetrical' to describe the phrase structure of the 8–12–16-bar long musical period used by composers of the second half of the eighteenth century. This kind of periodicity was described in 1793 in the third volume of Heinrich Christoph Koch's treatise, *Versuch einer Anleitung zur Composition*, ¹⁹ but the functioning of two-bar units had already been presented in great detail in 1755 in Joseph Riepel's work entitled *Grundregeln zur Tonordnung insgemein*, in a similar way to Mattheson's interpretation of the

gleich weit abstehen, auch alle von gleicher Höhe und Breite und von einander gleich weit entfernet sind; so saget man, es sey die Eurythmie beobachtet worden. ... Was hier Eurythmia genennet wird, heisset bey denen Franzosen *Symmetrie'*. Johann Heinrich Zedler, *Grosses Vollständiges Universal-Lexicon aller Wissenschaften und Künste*, Band 8 (Leipzig: Zedler, 1734), 2208–2209. Translation partly by Ruth Tatlow, *Bach's Numbers*, 37.

- ¹⁶ 'Eurythmia, die Zierlichkeit und Schönheit so in der Music aus den Zahlen entstehet, wenn nemlich eine Melodie nach dem Numero wohl eingerichtet wird, dergleichen hauptsächlich in Frantzösischen Pieces zu observiren nöthig ist'. Walther, *Musicalisches Lexicon*, 232. Translation by Ruth Tatlow, *Bach's Numbers*, 111.
- ¹⁷ Mattheson, Der vollkommene Capellmeister, 224.
- ¹⁸ 'Der geometrische Verhalt ist hier, wie durchgehends bey allen guten Tantz-Melodien, 4, ... Die Klang-Füsse des ersten und zweiten Tacts werden im fünften und sechsten wieder angebracht. Die andern, so sich hernach im neunten und zehnten Tact angeben, höret man gleich im elften und zwölften noch einmahl, woraus denn die arithmetische Gleichförmigkeit erwächst'. Ibid, 224–5.
- ¹⁹ Heinrich Christoph Koch, *Versuch einer Anleitung zur Composition*, Dritter und letzter Theil (Leipzig: Böhme, 1793), 128–52.

structure of the minuet.²⁰ Although neither of them use the word 'symmetry', Mattheson's *arithmetische Gleichförmigkeit* is arguably a synonym for the term 'eurhythmy' found in Walther's *Musicalisches Lexicon*. Therefore, it is safe to say that the periodic structure of French suite movements was considered symmetrical as early as the first half of the eighteenth century.

The symmetry, meaning the periodic phrase structure, of these binary-form dance movements is clearly audible. However, there is another type of symmetry in the compositional thinking of this era which cannot be grasped by the senses, only by the intellect. This kind of symmetry might be called 'architectonic' because it is not the melody but the large-scale structure of the whole movement (or the multi-movement work) that is 'organised according to numbers' (as Walther puts it).

Disdaining the ear

The primacy of *ratio* or *sensus* was one of the most important aesthetic questions in Bach's time; it was the backdrop to almost all public debates on musical matters. The attitude towards the role of the ear in music was basically defined by generation. As Constantin Bellermann (1696–1758), cantor and rector in Münden, put it in an article published by Lorenz Mizler in *Musikalische Bibliothek* in 1747, in years past two judges—intellect and hearing—ruled in music, and because of the learned style of the older music, it was the intellect which was preferred by former generations. But Bellermann is content with the new developments: 'Nevertheless, the composers of today put hearing again to her rightful place in musical judiciary and treat intellect not as a mistress, but as a maid when they make judgments about music.'²¹ As for Mizler, who named Bach a 'good friend and patron'²² and studied with him,²³ he thought that 'good musical taste should primarily be grounded on intellect', and he further explained his view in another note on Bellermann's essay:

Composers, who think of hearing as the silver thread and use the intellect in music only as a maid, do something very bad, they upset nature, as they change the mistress into a maid, and the maid into a mistress, they invalidate all truth, and they make music a game, that is grounded on an outer sense.²⁴

- ²⁰ Joseph Riepel, Grundregeln zur Tonordnung insgemein (Frankfurt am Main, 1755), 36-66.
- ²¹ 'Die heutigen Componisten aber haben dem Gehöre wieder den gehörigen Platz des Richteramts bey der Musik angewiesen, und die Vernunft nicht als eine Herrscherinn, sondern als eine Dienerinn bey Beurtheilung einer Musik zugelassen'. Constantin Bellermann, 'Einladungschrift von dem musikalischen Musenberg', Neu-eröffnete Musikalische Bibliothek 6/3 (1747), 563.
- ²² '...guten Freunde und Gönner ...' BDok II, 322.
- ²³ Rainer Bayreuther, 'Mizler (von Kolof)', MGG², Personenteil Vol. 12, 280.
- ²⁴ 'Die Componisten also, die das Gehör zur Richtschnur u. die Vernunft nur als eine Dienerinn in der Musik setzen wollen, thun sehr übel, verkehren die Natur, indem sie die Frau zur Magd, u. die Magd zur Frau machen, alle Gewißheit aufheben, u. die Musik zu einem Spiele, so sich hauptsächlich auf einen äusserlichen Sinn gründet, machen'. Mizler's note to Bellermann, Einladungschrift, 566.

As there are no surviving music theoretical texts by Bach, and as aesthetic problems are not mentioned in his surviving letters, it is hard to discern his opinion on the question. A secondary and a primary source, however, can prove that he agreed with his pupil Mizler, and thought that intellect should play a more important role in music than the senses.

The long and well-known debate between Johann Adolf Scheibe, representative of the younger generation, and Johann Adam Birnbaum, Bach's spokesman, also brought up the topic of the ear. ²⁵ In his 1739 response to Scheibe, Birnbaum summarises his opponent's opinion the following way: 'a musical piece should be beautiful not only to make the ear tingle, but also to appeal to the intellect'. ²⁶ There is no disagreement between Scheibe and Birnbaum in this respect. The question revolves around which should play a more important role in music. In his response, Birnbaum repeats his former argument that music was not invented 'to please the delicate ears, that is, for blind dilettanti, who love little ditties, where thirds and sixths step on each other'. ²⁷ The beauty of Bach's music is based not on its sensual charm, says Birnbaum, but 'in the unusual ideas, the orderly and regular elaborations, the moving and proper expressions'. ²⁸ In 1745 Scheibe republished Birnbaum's article with 165 footnotes of his own, thus having the last word. For Birnbaum's comment above he tagged the following:

[My opponent says, that] Since not all music that pleases the ear can be considered beautiful, it follows, that music can be beautiful even without charming the ear. How can someone get to such a tasteless conclusion from my words? My opinion both here and in the response is the following: Any music should please foremost the ear; it is the first sign of its beauty.²⁹

As a spokesman of Bach, who made high demands on performers of his music, Birnbaum could not agree with Scheibe. Since performances are by their nature always imperfect, he wrote, we cannot judge them with the ear: 'So I cannot see another way to make a judgment of it, than to look at how the work has been notated.'³⁰

- ²⁵ For an overview of the dispute see Beverly Jerold, 'The Bach-Scheibe Controversy: New Documentation', *Bach*, 42/1 (2011), 1–45.
- ²⁶ 'Ein musikalisches Stück muß nicht nur schön seyn, weil es das Ohr kitzelt, sondern auch, und zwar vornehmlich, weil es dem Verstande gefällt.' *BDok* II, 353.
- 27 '... daß sie nur zärtlichen Ohren allein gefallen solle, das ist, den blinden Liebhabern solcher einfältigen Liederchen, in denen die Terze uns Sexte hinten und vorne Trumpf sind.' Birnbaum, 'Vertheidigung', in *Critischer Musikus*, new enlarged edn. (Leipzig: Breitkopf, 1745), 1003. The passage is missing from *BDok* II.
- ²⁸ '... seltenen Erfindungen, ordentlichen und regeläßigen Ausarbeitungen, rührende und der Sache gemäße Austdrückungen'. *BDok* II, 353–4.
- 'Weil nicht eine jede Musik, die dem Gehöre gefällt, auch wirklich schön ist; so folget auch, daß eine Musik schön seyn kann, ohne dem Gehöre zu gefallen. Wie fließt ein so abgeschmackter Schluß aus meinen angeführten Worten? Meine Meynung is sowohl allhier, als auch in der Beantwortung, diese: Eine Musik müsse allerdings dem Gehöre gefallen; dieses wäre das erste Merkmaal ihrer Schönheit.' Scheibe, 'Vertheidigung', 1002. This note of Scheibe is also missing from BDok II.
- ³⁰ '... so sehe ich keinen andern Weg davon ein Urtheil zu fällen, als man muß die Arbeit, wie sie in Noten gesetzt ist, ansehen'. *BDok* II, 355.

That music was much more than a sensual phenomenon, as far as Bach was concerned, is clear from cantata BWV 201 *Der Streit zwischen Phoebus und Pan*, the first piece performed by the Leipzig *Collegium musicum* under his direction in 1729.³¹ According to the autograph title page of the part books, the genre of the piece composed for this specific occasion is a *'Drama per Musica'*.³² It is not an oversimplification to say that this one-act opera is about disdaining the ear. The plot was taken from the eleventh book of Ovid's *Metamorphoses* (the librettist was Picander). Apollo, the Greek god of the sun, music and poetry, is challenged to a musical contest by Pan, god of shepherds and the wild. According to the foolish King Midas, Pan is a much better musician than Apollo, so Apollo rewards him with the ears of an ass.

It is quite clear that the work is much more than a mere entertainment piece for the public of the Zimmerman coffeehouse: it is an aesthetic manifesto. Apollo represents Bach and the learned style, while Pan is a representative of the new school. In their first dialogue (in secco recitative) Pan says that 'The entire forest marvels at my sound',³³ but earthly success has no merit for Apollo: 'For nymphs you are right', he says to Pan 'However, to please the gods / Your flute is far too wretched'. Apollo's contest song is a meticulously elaborated da capo aria (for six independent instrumental parts and bass soloist), while Pan sings a rustic aria (also in da capo form but only for violins in unison, continuo and bass). The text for the latter reads as follows:

Zu Tanze, zu Sprunge, So wackelt das Herz. Wenn der Ton zu mühsam klingt Und der Mund gebunden singt, So erweckt es keinen Scherz. For dancing, for leaping,
Thus shakes the heart.
If the note sounds too laboured
And the mouth sings with restraint,
It arouses no mirth.

The comic vein of the aria is clear from the beginning, and it becomes even subversive at the word 'wackelt'. Christoph Wolff writes that the aria of Pan 'makes use of one of the stock effects of early comic opera, the rapid repeat of a single syllable, while its pointed poetic and musical perversion "so wa-a-a-a-ckelt das Herz" (so wobbles the heart), makes a mockery of the device'. Wolff's description is right, but he is a bit too chaste. The perversion is not only poetic and musical: the way Bach uses this opera buffa device is quite bizarre; it is not only the vowel that is repeated in a fast tempo (as Wolff took it down: wa-a-a-ckelt), but also the consonant: 'wack-ack-ack-elt', as can be seen in the autograph bass part (Figure 1). It is scatological humour at its best.

³¹ Alfred Dürr, *The Cantatas of J. S. Bach*, trans. Richard D. P. Jones (Oxford: Oxford University Press, 2006), 912.

³² D-B, Mus. ms. Bach St 33a.

³³ All translations of the cantata libretti are by Richard D. P. Jones.

³⁴ Christoph Wolff, Johann Sebastian Bach: The Learned Musician (New York: Norton, 2000), 356.



Figure 1: Bass part (Pan) from BWV 201, bb. 41-5 (D-B, Mus. ms. Bach St 33a)

Contrary to the general opinion that the winner of the contest was Apollo, King Midas treats Pan as the winner. In a comic tenor aria—with very high off-beat notes for the tenor, and a strange, irregular phrase-structure—he gives the following explanation for his decision: 'Pan is master, let him go! / Phoebus has lost the game, / For to my two ears / Pan's singing is incomparably fine.' Bach's opinion is pretty clear about those who judge music only by their ears. In the middle section of the aria Midas sings a long sustained note on the word 'Ohr' (ear), while the violins play a motive that imitates the donkey's braying. Although in the mythological story Pan is given the ass's ears only later, Bach's music gives them to him in advance. And the fact that the 'donkey motive' and the vocal part are constructed according to the rules of invertible counterpoint (a few bars later the motive appears in the bass), is supreme irony on Bach's part (Example 1).



Example 1: The 'donkey motive' in the aria of Midas (BWV 201/11), bb. 108-119

Although today it can seem odd that a composer ridicules the ear, music in the baroque era, and especially in Lutheran Germany, was not something merely audible.³⁵ As Manfred Bukofzer put it in 1947:

The question is treated in detail by Ruth Tatlow in the chapter 'Unity, proportions and universal Harmony in Bach's world', *Bach's Numbers*, 73–101.

[In the baroque era] Music reached out from the audible into the inaudible world, it extended without a break from the world of the senses into that of the mind and intellect. We would make a fatal mistake if we tried to deny the intellectual nature of inaudible order [...]. It would, however, be equally fatal to ignore it because it can only be known and not heard. We must recognize the speculative approach to music as one of the fundamentals of baroque music and baroque art in general without exaggerating or belittling its importance.³⁶

And, looking at Bach's music, we can discern the audible surface and the inaudible structure sometimes rubbing up against each other as when, for example, Bach prioritises formal symmetry over proper text-setting.

Symmetrical patterns in da capo form

If we apply the concept of architectural symmetry to music—that is, if we look for examples of 'a distinctive middle part between two similar parts', as the Zedler lexicon says—the da capo, or A–B–A, form is the first that comes to mind. Da capo form was the most usual musical structure suggested by early eighteenth-century aria texts, so it plays a significant role in the vocal pieces of all the composers of the era, including Bach. However, there are a surprisingly large number of da capo movements among Bach's instrumental works as well, and it is clear that Bach is playing with different strategies of symmetries in these movements.³⁷ Duetto no. 2 in F-major (BWV 803), published in 1739 as part of the third part of *Clavier-Übung*, is the most spectacular piece in this respect: it seems to take structural symmetry to the extreme.

The B-section of the piece is exactly twice as long as the A-section. Not only is the whole piece arranged in a symmetrical way, the middle part is too: between two extremely chromatic and strictly canonical sections, the main theme from the A-section comes back in an inverted form at the exact middle point of the whole piece (Figure 2). At the point where the musical events reach the vertical axis, Bach reflects the theme on the horizontal axis: musical time and space intersect (Example 2a-b).

In an illuminating and speculative study, Ulrich Siegele attributes a theological meaning to the unusual structure of the movement, while David Yearsley interprets the piece in the context of the Scheibe-Birnbaum debate.³⁸

- ³⁶ Manfred Bukofzer, *Music in the Baroque Era* (New York: Norton, 1947), 369.
- ³⁷ Instrumental da capo movements by Bach include the third movement of Brandenburg Concerto no. 6 (BWV 1051); the first and third movements of the E major harpsichord concerto (BWV 1053); the opening sinfonia of cantata BWV 42 ('Am Abend aber desselbigen Sabbats') originally conceived presumably as an oboe concerto; preludes to the English suites in A minor, G minor, F major, E minor and D minor (BWV 807–811); etc.
- Ulrich Siegele, Bachs theologischer Formbegriff und das Duett F-Dur: ein Vortrag, Tübinger Beiträge zur Musikwissenschaft, 6 (Neuhausen-Stuttgart: Hänssler, 1978); for English translation see 'Bach's Theological Concept of Form and the F Major Duet', Music Analysis, 11/2-3 (1992), 245-78; David Yearsley, Bach and the Meanings of Counterpoint (Cambridge: Cambridge University Press, 2002), 93-110.

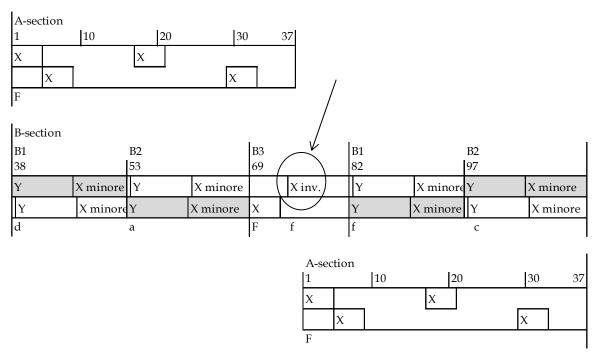


Figure 2: Symmetrical design of the F major Duetto (BWV 803)



Example 2a: Beginning of the Duetto in F major (BWV 803), bb. 1-10



Example 2b: Middle point of the Duetto in F major (BWV 803), bb. 69-80

The various interpretations, however, do not mention that this sort of symmetrical structure is not unique in Bach's oeuvre: the fifth movement of the 1724 Cantata 'Gelobet seist du Jesu Christ' (BWV 91) is built on the same principle as the keyboard piece in F major. Incidentally the movement uses two vocal parts, soprano and alto, so it is also labelled *duetto*.

The text of the movement is based on the sixth stanza of the original Lutheran chorale text used in the cantata. The unknown poet framed the original ideas into a stanza structure that conforms to the da capo aria tradition: it is composed of two syntactically and semantically different units, made up of three lines each.



Example 3a: A-section of the Duetto (BWV 91/5), from the beginning to the middle ritornello, bb. 1–15.



Example 3b: First part of the B-section of Duetto (BWV 91/5), bb. 36-50

Die Armut, so Gott auf sich nimmt, Hat uns ein ewig Heil bestimmt, Den Überfluss an Himmelsschätzen. Sein menschlich Wesen machet euch Den Engelsherrlichkeiten gleich, Euch zu der Engel Chor zu setzen. The poverty that God takes upon Himself, Has ordained for us an eternal Salvation, The abundance of heavenly treasures.

His human nature makes you
Like the angels' splendours,
Placing you in the angels' choir.

In setting this text to music, Bach followed the general rule of composing da capo arias: he divided the two blocks of text between the A- and B-sections of the aria. The musical ideas belonging to the different lines were shaped according to the affect of the text (Example 3a-b). As Alfred Dürr pointed out:

In the duet Bach treats the contrasts of the text—poverty/abundance, human nature/the angel choir—as an opportunity for musical differentiation. The contrasts of the main section are: 'Die Armut' ('poverty'): imitative suspensions, 'Hat uns ein ewig Heil bestimmt' ('Has ordained for us an eternal Salvation'): homophonic parallel voice-leading. Those of the middle section are: 'Sein menschlich Wesen' ('His human nature'): rising chromaticism, 'Den Engelsherrlichkeiten gleich' ('Like the angels' splendours'): coloraturas, triadic melody. The symbolism of these antitheses is clear.³⁹

Dürr is correct to say that the symbolism of the text setting is clear. However, something strange occurs in the middle of the middle section (Example 4). After the text of the B-section has run its course for the first time (that is, the second half of the stanza, lines 4-6), Bach brings back the instrumental ritornello (with the dotted rhythms in the violins), then repeats the text. Repetition of the text in the solos between the instrumental ritornelli is a routine procedure by Bach and his contemporaries, but in this case he repeats the text without repeating the musical material. In bars 52-58 of the 108-bar-long movement, that is, in the geometrical middle point, Bach brings back the dissonant imitative suspensions used at the beginning of the A-section for the first line of the text. So the fourth line ('His human nature makes you') is set to music originally invented for the first line ('The poverty that God takes upon Himself'). It might be assumed that there is some theological explanation for this strange compositional decision, as if the music is expressing that the poverty taken on by God was none other than human existence. But two bars later, even the fifth line ('Like the angels' splendours') can be heard with the same music. Up until this point the words 'the glory of the angels', the 'angel choir' or 'heavenly treasures' have not been set to chromatic or dissonant music but heard in homophonic parallel voice-leading and diatonic coloraturas, according to the symbolism described by Dürr. It is doubtful that the dissonant music assigned here to the angels is designed to represent the failure of salvation. But then what is the explanation for the odd text setting? An attempt to answer this question requires a look at the overall form of the movement (Figure 3).



Example 4: Middle part of the B-section of Duetto (BWV 91/5), bb. 50-59

The A-section begins with a four-bar ritornello in E minor. The first solo lasts for eleven bars and contains all three lines of the first stanza: the line about 'poverty' with dissonant suspensions, the line about 'eternal Salvation' with parallel voice leading and triadic melodies, and the third line about 'heavenly treasures' set to a one-bar cadencing idea that leads to the dominant minor. After a four-bar B minor ritornello, the whole sequence of musical events is repeated in a slightly longer form (thirteen bars), now modulating back to E minor. An exact repetition of the first ritornello closes the A-section. Thus far everything is as normal as could be for a duet written in the 1720s: the music expresses the content of the text, a ritornello in the tonic opens and closes the section, and there are two modulating solos, one that leads into B minor, where there is a central ritornello, and one that turns back to E minor.

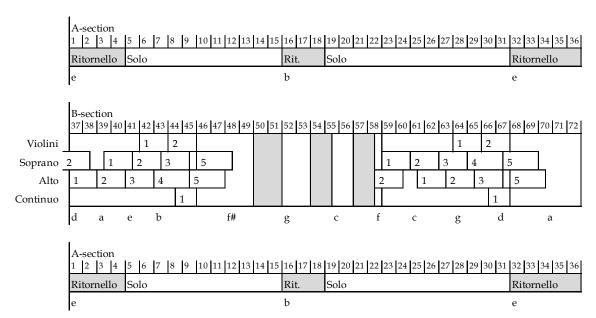


Figure 3: Symmetrical design of the Duetto from BWV 91

The middle section is a harder nut to crack. As we saw before, the fourth line about 'human nature' is set to a chromatic motif, while the fifth and sixth lines about the 'angels' splendour' and the 'angels' choir' are set to diatonic coloraturas. The first part of the B-section lasts for thirteen bars and all three lines of the stanza appear in it: this densely written polyphonic fabric is actually what is called a permutation fugue, and not only the two vocal parts, but also the violins and the continuo participate in the game (see the numbered building blocks of the permutation fugue in Figure 3). The fugue goes through the circle of fifths, starting from D minor, touching upon A minor, E minor and B minor, arriving in bar 50 to F sharp minor. This moment is the starting point of a middle section within the middle section. The instrumental ritornello for two bars is heard again, then Bach brings back the dissonant suspensions originally invented for the first line of the text, now used for the fourth line, then again the ritornello, the suspensions with the fifth line and the ritornello. In the centre of the movement the deepest level of tonality is reached: after G minor and C minor is F minor; this tonality is quite rare in E minor movements of the era. This is the point where a second round of the permutation fugue complex starts, going through the circle of fifths (F minor, C minor, G minor, D minor) again, and finally reaching A minor, where the whole B-section ends. What is really astonishing is that this extremely complex, scrupulously symmetrical section is exactly as long as the 'normal' A-section of the movement: 36 bars.

So why did Bach make the text setting of the middle part confusing? Given that no sketches or drafts survive for this movement, if they ever existed, we cannot give a definite answer. But we can play with hypotheses, and mine is the following. When Bach started to work on the composition, in the phase of the *inventio*, he created musical ideas that fit the content of the text perfectly. Then in the phase of the *dispositio*, when he thought about the overall form of the movement, he made the decision about the perfect symmetry, with the musical quotation of the A-section in the very middle of the B-section. This compositional

strategy, however, raised serious problems relating to the text: the first line could not be brought back with the music, since the conventions of da capo arias did not allow the text assigned to the A-section to appear in the B-section. When Bach had to decide whether he wanted the text setting to be right or the musical logic to be flawless, he chose the latter.

Poets vs. composers

This sort of 'self-propelled' music, which has the effrontery to follow strictly musical rules independent of the words, is referred to as Intellectualmusik by the Berlin musician and lawyer Christian Gottfried Krause in his book Von der musikalischen Poesie [On poetry for music] written in 1747 and published in 1752.40 Krause, who both in terms of his age and aesthetic views belonged to the same generation as Bach's sons, wrote his book for librettists. In the first chapter he says that a poet who writes a libretto 'will be enslaved by music and will sacrifice sense for the composer's comfort, and poetry will lose what music gains'.41 He most likely borrowed the metaphor of slavery from Johann Christoph Gottsched, who used it in his famous 1730 book, Critische Dichtkunst.⁴² In his book, Gottsched strongly criticises composers for destroying poetic imagination in their text settings, for not being cultivated in literature, and for not being interested in the structure of texts. Gottsched asks the rhetorical question: why are poets so obedient to composers? 'What if once, through the guidance of the mind, the poet were to tell the composer how to set to music the cantata text?'43 On the next page, he uses even stronger wording:

I am not exaggerating because nowadays composing an aria or setting a text to music is nothing more than rendering [the text] incomprehensible, in other words it's the destruction of the art and work of the poet.⁴⁴

Gottsched's goal was to establish a new, enlightened literary theory, to create harmony between mind and nature and prove that, like French and English, German could also be used as a literary language in line with the principles of rational aesthetics.⁴⁵ Therefore it is understandable that from his theoretical perspective all applied forms of artistic language use were considered

- 40 Christian Gottfried Krause, Von der musikalischen Poesie (Berlin: Johann Christian Voss, 1752), 36
- ⁴¹ '... werde ein Sclave der Tonkunst; er opfere die Vernunft der Bequemlichkeit des Componisten auf, und die Poesie verliehe da, wo die Musik gewinnet.' Ibid., 3.
- ⁴² Johann Gottfried Gottsched, Versuch einer Critischen Dichtkunst, 4th edn. (Leipzig: Breitkopf, 1751), 720.
- ⁴³ 'Wie wäre es, wenn ein Poet seinem Componisten auch einmal, nach Anleitung der Vernunft sagte, wie man seine Cantaten setzen sollte?' Ibid., 721.
- ⁴⁴ 'Ich sage nicht zu viel: denn wirklich heißt heute zu Tage, eine Arie componiren, oder in die Musik bringen, nichts anders, als dieselbe unverständlich machen: d.i. dem Dichter seine Kunst und Arbeit verderben'. Ibid., 722.
- ⁴⁵ For a concise summary of Gottsched's philosophy, see the chapter 'Gottsched and the High Noon of Rationalism' in Frederick C. Beiser, *Diotima's Children: German Aesthetic Rationalism from Leibniz to Lessing* (Oxford: Oxford University Press, 2009), 72–100.

suspicious.⁴⁶ In one of the calmer instances of his anti-music outbursts, Gottsched says that 'music in itself is a gift from above, and I even accept the fact that composers incorporate a lot of art into their works'.⁴⁷ The appearance of the concept of 'music in itself' (*Musik an sich selbst*) in the 1730s deserves attention, and indicates that the harmony between music and words in the late baroque was not nearly as strong as music history textbooks tend to suggest.

The Kyrie of the Mass in G major (BWV 236) serves as a further case study to illustrate this point. In the late 1730s Bach wrote several Lutheran mass compositions. These were 'compositions' in the original sense of the word: Bach compiled the music for these mass movements from various earlier cantatas. The G major *Kyrie* is the parody of the opening movement of Cantata BWV 179, from 1724, the first Leipzig cycle. It is an extremely complex counter-fugue with three themes, one of the most spectacular contrapuntal showcases in Bach's *oeuvre*. Naturally, the vocal parts had to be made to fit the newly added Latin text, but Bach's changes did not affect the structure of the fugue or the overall form of the movement. The minor adjustments, made mostly in the bass part and the continuo, are not important in the present context.

The original text of the cantata movement was taken from the Bible (Sirach 1:28):

Siehe zu, dass deine Gottesfurcht nicht Heuchelei sei, und diene Gott nicht mit falschem Herzen! See that your fear of God is not hypocrisy and do not serve God with a false heart!

The relationship of words and music was already unusual in the cantata movement, since the musical structure of the piece is somewhat independent from that of the text. The fugue exposition starts in the bass voice with a theme carrying the first section of the text (*Siehe zu, dass deine Gottesfrucht nicht Heuchelei sei*). The second entry in the tenor brings in the inverse form of the theme, from bar 7, while a countersubject appears in the bass: a diatonic ascent on the words *und diene Gott* with a chromatic descent on *nicht mit falschem Herzen* (Example 5). The theme and its countersubject are invented so as to fit each other both in original form and in inversion; thus the two themes are always heard simultaneously in the first part of the movement. According to the nature of a *stile antico* fugue, the music moves on in a continuous flow, the first caesura, a cadence in the tonic appears in bar 37, after which a third theme is introduced.

The fact that new material appears at this point is not surprising, at least from the perspective of the musical logic. However, it is strange that there is no new text belonging to the new idea. Since the first theme and its countersubject absorbed the whole text Bach planned to use in the movement, the new idea (that

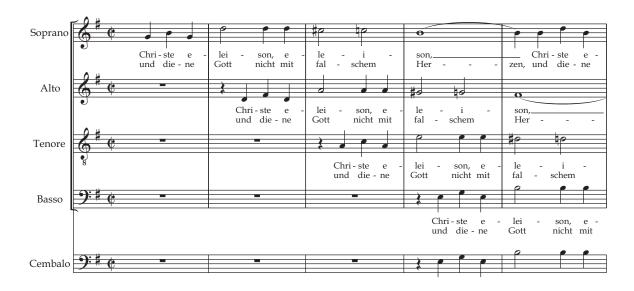
⁴⁶ On Gottsched's experience as a 'librettist' with Bach, who set one of his odes to music without any respect for its poetic structure, see the case of *Trauer Ode* (BWV 198); it is analysed from the perspective of text setting by Laurence Dreyfus in *Bach and the patterns of invention* (Cambridge, MA: Harvard University Press, 1996), 232–244

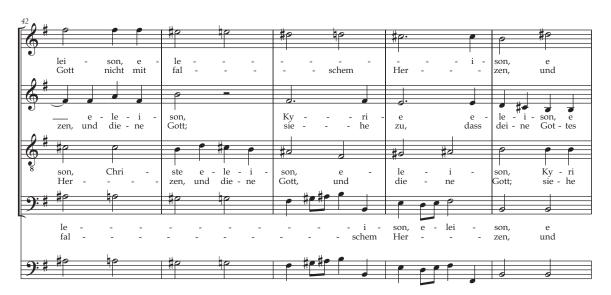
⁴⁷ 'Die Musik an sich selbst ist eine edle Gabe des Himmels; ich gebe es auch zu, daß die Componisten viel Kunst in ihren Wercken anzubringen pflegen'. Gottsched, *Versuch einer Critischen Dichtkunst*, 741.

runs through the whole vocal ensemble from the soprano to the bass in a canon at the fourth) carries again the second section of the text, that is, the text of the countersubject (Example 6). Even its shape is similar: a diatonic ascent (*und diene Gott*) with a chromatic descent (*nicht mit falschem Herz*). When it comes to Bach, it can be assumed that the third theme will fit the first as its countersubject, and this is indeed the case. Thus, the appearance of the new theme can be justified on musical grounds: although it adds nothing to the interpretation of the text, from bar 37 onwards Bach can choose from a rich selection of contrapuntal feats. The movement closes with the material of the third theme.



Example 5: Beginning of the Kyrie (BWV 236/1), bb. 1–18. (German text from its original form: BWV 179/1)





Example 6: Beginning of the middle section of the Kyrie (BWV 236/1), bb. 37-45. (German text from its original form: BWV 179/1)

'It is enough to know the name of the famous composer to look to his piece as a model for vocal writing style', Friedrich Wilhelm Marpurg, Bach's disciple, wrote about the movement in his 1752 textbook on fugue. He gives a detailed analysis of the mass version of the piece, which suggests that Bach was proud of his work, and it was considered a benchmark of vocal fugue writing by his pupils. As we saw, the only important difference between the G major Kyrie and the opening movement of BWV 179 is the text: the complex sentence of the German biblical passage had to be replaced by a two-word Latin plea. Marpurg says the following about the movement:

⁴⁸ 'Es ist genug, daß man den Namen des berühmten Verfassers davon weiß, um sie als ein Muster in dieser Schreibart zu betrachten'. Friedrich Wilhelm Marpurg, *Abhandlung von der Fuge II* (Berlin: Haude und Spener, 1752), 136.

The movement has three themes: one for the text for *Kyrie eleison*, the second for *Eleison* and the third for *Christe eleison*, uniting the three parts of *Kyrie*, which is normally developed separately.⁴⁹

In the 1730s the three sections of the Kyrie text are usually set to music in separate movements, as Marpurg states, although unifying the three into one movement was not unheard of either, as can be seen in some cases even among Bach's works.⁵⁰ Marpurg does not seem to be bothered, however, by the fact that Bach has a unique way of splitting the text and assigning its two blocks to the three themes. Kyrie eleison and Christe eleison are assigned to the first and third themes, while the second theme features only *eleison*. It appears unprecedented in the history of church music for a composer to assign the word *eleison* to a separate theme, removing it from Kyrie or Christe. Lorenz Mizler, in a 1754 article describing the previous eight years of activity of the Societät he founded, writes that the members of the association (which included Bach until his death in 1750) once discussed a double fugue in which the composer divided the text Alle Land sind seiner Ehren voll between two themes. It is hard to imagine, says Mizler, 'who encouraged the composer to compose a double fugue first for the text of alle Land and then for that of sind seiner Ehren voll. They cannot be split up because they do not have any meaning on their own.'51

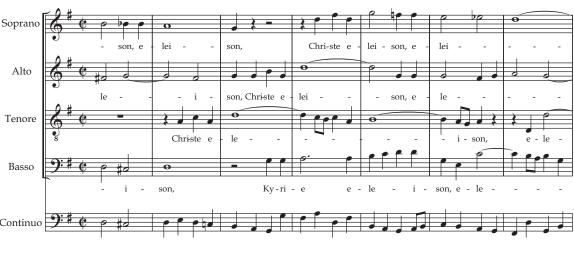
However, the Kyrie of the G major mass features something even more strange that Marpurg did not note, possibly because he was simply uninterested in the question. Bach's decision to assign the *Christe eleison* text to the theme appearing in the middle of the movement in the reworking of the cantata movement—that is, to the third theme following the G major cadence in bar 37—is fully comprehensible. The music of the first formal section is assigned to *Kyrie eleison* and the middle to *Christe eleison*. But as we saw previously, the original cantata movement closes with the material of the third theme, so the G major Kyrie does not end with the words *Kyrie eleison* but rather with *Christe eleison*, which is highly unusual in western church music (Example 7). Bach was well acquainted with the mass repertoire⁵² so he was surely aware of the traditions of setting the liturgical text to music, but he regarded keeping the musical structure as more important than following those traditions.

⁴⁹ 'Es finden sich darin drey Hauptsätze, der erste über *Kyrie eleison*, der zweyte über *Eleison*, und der dritte über *Christe eleison*, indem die drey Theile des *Kyrie*, wovon jeder sonst besonders ausgearbeitet wird, hier zusammengeschmolzen werden.' Ibid.

⁵⁰ See Mass in F major and Mass in G minor (BWV 233 and 235).

^{51 &#}x27;... wer hat den Componisten genöthiget eine Doppelfuge erstlich aus *alle Land* und zweytens sind seiner Ehren voll zu machen. Dieses kann ja nicht getrennet werden, weil beydes allein keinen Verstand hat.' Lorenz Mizler, 'Nachricht von der Societät der musikalischen Wissenschaften in Deutschland von 1746 biß 1752', *Musikalische Bibliothek*, 4/1 (1754), 117.

⁵² See Christoph Wolff, 'Bach and the Tradition of the Palestrina style', in Wolff, *Bach. Essays on his life and music* (Cambridge, MA: Harvard University Press, 1991), 84–106.





Example 7: End of the Kyrie (BWV 236/1), bb. 104-17

In December 1774 and January 1775, Carl Philipp Emanuel Bach wrote two letters about his father to Johann Nikolaus Forkel, a young lecturer at the University of Göttingen who was preparing the biography of the 'old Bach', published in 1802. It is telling that after apologising for his late reply and describing matters enclosed in his letter (some musical pieces and the *Versuch*), the first thing C. P. E. Bach thinks important to explain is his father's text-setting habits:

As to the church works of the deceased, it may be mentioned that he worked devoutly, governing himself by the content of the text, without any strange misplacing of the words, and without elaborating on individual words at the expense of the sense of the whole, as a result of which ridiculous thoughts often appear, such as sometimes arouse the admiration of people who claim to be connoisseurs and are not.⁵³

C. P. E. Bach's words could be interpreted as a neutral explanation of his father's text-setting technique; equally, they could be seen as a defence—as if some of his

father's text-setting decisions were less than self-evident. As we saw in the two examples analysed above (one an original work, the other a reworking of an older composition), Bach sometimes put a purely musical idea, such as the symmetrical disposition of a da capo form or a well-elaborated fugue structure, above the immaculate musical representation of the words. In the last paragraph of his biography, with great pathos, Forkel names Bach as 'the greatest musical poet and the greatest musical orator that ever existed'.⁵⁴ Taking into consideration how he worked on keeping intact his meticulously constructed musical edifices, he could also be called one of the greatest 'musical architects'.