

Analysis Proverb / Corona

During the summer of 1950 I ~~were~~ visited Europe for the first time after the conclusion of World War II. Whilst in Venice to conduct my Fifth Symphony at the opening concert of the music festival held in connection with the Biennale art exhibition, I was approached by Signor Luigi Ragnini of the Italian Broadcasting Corporation with the request to contribute a composition to a cycle of broadcasts which the Italian radio was preparing in honor of ~~the~~ Johann Sebastian Bach. This cycle was to be offered — within the framework of a newly inaugurated service called Teatro Programma, which was fashioned after the model of the famous Third Programme of the British Broadcasting Corporation.

The specifications which I was given for the composition were that it should last not longer than ten minutes, be for a small chamber ensemble, and employ the musical anagram B-A-C-H, that is, a musical theme consisting of the four tones which in German musical nomenclature correspond to the four letters of the name of the master to be honored. In English terminology they are B-flat, A, C, D.

It is well known that Johann Sebastian Bach himself was the first to use ~~the~~ in a composition the musical symbol of his own name. The third subject of the triple fugue which ~~under the title~~ "Cantus Firmus" ~~is~~, is the last ~~piece~~ stem of "The Art of the Fugue"; ~~it~~ consists of those four ~~the~~ tones. There is a touch of awesome mystery about the fact that the master could not any longer ~~complete~~ his formidable fugue and thus ~~except~~ complete the towering pinnacle over the fabulous edifice of his last major work. It is as if ~~he~~ had composed himself out of this world when he incorporated himself into his music ~~through~~ by introducing the symbol of his name. There was only strength enough left in him to dictate to his son-in-law his irreversibly last musical utterance, the Chorale Prelude "Vor deinen Thron fühl' ich alltag" which not only through its textual connotation, but also because of its otherworldly, quasi astronomical ordering of its musical substance seems to emanate from a spirit that already has passed beyond the confines of earthly music making. The strange coincidence of Bach's death with his putting his name into music has always reminded me of the charming Chinese legend about the painter who for many years had worked on a large canvas for the emperor and who, when ~~the~~ the emperor finally saw the work and found some fault with it, was so chagrined by the criticism of his lord that he painted himself into the picture, ~~thus~~ eliminating himself from this life and transfiguring his self into the immortal medium of his art.

In the course of the historical studies to which I applied myself ^(consistently) ~~with~~ from 1939 to 1947 I had become aware of the ~~significance of~~ the extraordinary significance of Bach's injecting his magic anagram into the processes of tonal music. This little

(Accidentals modulations around Glare Regis)

The voices
of the giant
~~the~~ fugue
are left
dangling
in mid-
air, shortly
after the
entrance
of that
third
subject.

of melodic formula, consisting of two half-tone steps, introduced into the ~~musical~~ accepted procedures of composition ^{a disturbing element.} which was bound to unsettle the ~~assumption~~ ^{In the present discussion} stability of tonality, music, so we conventionally call the ^(the serum) delineates the principles which were applied in musical composition since approximately 1600 in order to establish intelligible context in a musical organism. The chief vehicle here ~~was~~ ^{is} the relationships supposed to exist between chords, ~~in other words~~, of certain standard types, like triads, or seventh-chords, within the frame of reference of the diatonic (major or minor) scale. As a melodic ~~element~~ ^{feature} of the B-A-C-H motif transcends that frame of reference in spite of its small size, since no more than three of its four tones can be identified as belonging to any one major or minor scale. It emphasizes the element of chromaticism, which even since the days of the musica reservata of the 15th, or of Gesualdo of the 16th century, was laying in ambush at the fringes of the well-disciplined area of diatonia. (By chromaticism — understand) In this discussion we ~~get~~ briefly melodic motion in half-tone steps which eludes the conventionally accepted harmonic relationships of tonality, since any harmonic ~~lead~~ ^{substructure} which could be built under such a melody would ~~lead~~ to chord progressions subjecting the concept of tonal unity to considerable stress. ~~Introducing such~~ Introducing such ^a motif into tonal music was a bold stroke; even the few measures which are left of ~~that fragmentary fugue~~ ^{that fragmentary fugue} after BACH had ~~entered~~ entered the scene show the enigmatic and problematical harmonic world ^{of} which the master had lifted the veil when he touched it with the magic wand of his name. He was not unprepared for the adventure, for the chromatic countertenor subject that ~~he~~ gains ascendancy ever since ^{the} Contrapunctus VIII causes harmonic upheaval of a vertiginous kind in the later ~~phases~~ ^{of} the "Art of the Fugue". But B-A-C-H is chromaticism in a concentrated form, which would go far in undermining the foundations of tonality. Like Moses, Bach was not allowed to enter the promised land which he had envisioned. ~~magically opened up~~ But the powerful charm which he had conjured up did not die with him.

The project of writing a composition on B-A-C-H two hundred years after the master's death suggested to me in the first place the employment of the musical idiom which in my ~~my~~ interpretation of the historical evolution had resulted from the increasing

3) use of chromaticism. This idiom is commonly known as atonality, a term that has caused protracted and tedious controversies. Without going into the semantic subtleties of the matter, I define atonality for the purpose of this discussion as a musical idiom in which ~~harmonic~~^{the} relationships are not evaluated by virtue of the material is not limited to the standard types of tonal harmony; in which harmonic relationships are not evaluated by virtue of the position of the fundamental tones of the chords in the diatonic scales, but are based rather on variations of the degrees of tension which the various chords exhibit ~~on~~ on the strength of intervals, the relative mildness or sharpness of their constituent intervals, in which structural context rests upon factors of melodic design rather than on harmonic relationships; in which the musical process may or may not temporarily center about certain tones, which tones, however, since they are thrown into relief by melodic and rhythmic rather than harmonic factors, do not assume the grammatical meaning of a tonic ^{in the sense of} tonality.

Considering further that the B-A-C-H motif had first appeared in a work in which the combinatory elements of tightly knit construction stand conspicuously in the foreground ~~I felt~~ ⁱⁿ ~~my~~ composition should have a similar character. Thus it was plausible that I would make specific use of the twelve-tone technique which had been evolved by Arnold Schoenberg and his associates in order to facilitate the establishment of structural context within the atonal idiom.

The ostensible purpose of the piece was an homage to the memory of J. S. Bach. This notion generated the idea of the wreath, or crown (Corona) to be dedicated to the master. When I thought about how to represent the ~~good~~ shape of a wreath in a musical form, I remembered the circular canon that Bach put into his "Musical Offering", with the subtitle "per sonos". This canon is so devised that it ends one whole step higher than it started, and this ending leads immediately into a repetition of the canon on that higher level so that the process may ~~be~~ theoretically be repeated endlessly. Of course, after the sixth repetition the higher ~~two~~ octave of the opening section is reached and for practical purposes one would stop there. In the course of the procedure the canon has passed through seven

This was also suggested by the circumstance that ⁱⁿ the program series for which the Italian Radio had commissioned the work pronounced emphasis was placed upon the intellectually demanding, so-called "high brow" qualities of the material presented.

4) different pitch levels, or keys, whence the description "per tonos"?
But translated into the terms of the twelve-tone technique, the idea of
attaching such a "circular" piece would plausibly be represented in a com-
position in which the twelve possible transpositions of the basic
twelve-tone row were ~~had~~ run through in some organized se-
quence. I decided that this should be reserved for the final
section of the contemplated work and that ~~the~~ the preceding
sections should lead up to it, as a preparation for the "Corona"
properly speaking. ^{Two more} ~~other~~ conclusions was ~~was~~ followed from this
assumption: Since the Corona would carry the main burden of the homage,
the B-A-C-H motif should not appear prominently in the earlier parts
of the work. Furthermore, the various transpositions of the twelve-tone
row should not be ^{extensively} used before the final section.

Another idea that suggested itself strongly was to include
a section of intricate contrapuntal devices in order to reminisc-
ingly the atmosphere of technical ambition and concentration
so evident in the work in which B-A-C-H appeared for the first time.
(This was dedicated to the explanation of the work.)

p. 3 The twelve-tone row which I chose as basic pattern for my work reads as follows:

Ex. 1 The B-A-C-H motif forms the center group of four tones. The re-
maining eight tones, divided into two groups of four tones each pre-
ceding and following the central feature were chosen mainly with a view
toward obtaining a suitable variety of intervals. If the row is ar-
ranged so that ~~the~~ its tones follow each other in the same direction

Ex. 2. it can be easily seen that it contains all but two of the dif-
ferent intervals available within ^{the span of} an octave. The figures beneath
the intervals signify the number of half-tone steps comprised by
each interval. It may be that I chose D as the first tone of the row
^{becoming} ~~was~~ unconsciously aware of what I was planning to do later, as I
shall explain soon.

In the twelve-tone technique we do not only use the original row
but also its inversion, that is a transformation of the original
in which the direction of the interval progressions is changed
into the opposite of the original, ^{while} retaining ~~their~~ size. Furthermore
each, original and inversion, may be ~~had~~ shifted to eleven
different pitch levels. These forms are called transpositions.
Finally anyone of these forms may be used by retrogression,
that is, reading it backwards, beginning with the last tone and
proceeding to the first. The following table (Example 3) shows
all basic forms of the twelve-tone row. In the left column

we find the original form ⁽⁰⁾ and its eleven transpositions and
in the right column the inversion ⁽¹⁾ with its transpositions, num-
bered from 1 to 12. The retrograde forms of the original (R)
and of the inversion (R1) are not listed separately, for they can

*In view of the differentiation of the transpositions in the "Corona",
the transpositions are listed at intervals of fourths between
the forms.*

5)

ans. be easily obtained by reading the O-and L-forms backwards.

cont. from
p. 4

This would conveniently be carried out in a series of canons of various descriptions. It would then appear desirable to contrast this relatively austere part of the composition with a movement in a lighter vein in which the loosely knit framework of freely articulated, delicately balanced, floating phrases so typical of the most successful achievement of the twelve-tone technique would prevail. This section could well serve as an opening movement for the whole work.

This general plan, satisfactory as it appeared as a blue-print for the whole structure,^{sit} seemed to be somewhat conventional in relation to the deeper significance which I attached to the basic theme. Searching for a solution I hit upon the idea of introducing ~~that~~ a section which would demonstrate ad oculos that very significance in tangible symbolism. To me it has always seemed that the constructive aspects of Schoenberg's compositional style could clearly be traced to Beethoven's late quartets. The manner in which Schoenberg in his First Quartet, Opus 7, ~~does~~ develops the individual themes of the work from a small group of basic motives set forth in the fugato following the exposition of the main theme is closely related to the thematic integration ~~of~~ so evident in Beethoven's C-sharp minor Quartet and the Great Fugue. There is no doubt that this tendency toward simplification of thematic design ultimately led Schoenberg to the concept of the twelve-tone technique when he tried to realize such unification in the absolute idiom.

But in Beethoven's late quartets we encounter ^a startling phenomenon: three of them are based on a four-tone motif consisting of two half-tone steps, exactly like the B-A-C-H formula. The A-minor Quartet, Opus 132, begins with the motif G-sharp-A-F-E. Ex. 4. If its first two tones are transposed an octave higher, the motif appears to be identical with the four-tone group which dominates the C-sharp minor Quartet, Opus 131. The basic motif of the Great Fugue, Opus 133, presents the two half-tone steps, in the same direction: Ex. 6. It is easy to see that this figure is ^{Ex. 5} a retrograde form of B-A-C-H. It appeared to be more than coincidence that Beethoven took up the ~~dis~~-tonality - according chromatic ingredient which Bach had provided, when he ~~had~~ occupied himself with the particularly dense construction of the late quartets, thus foreshadowing the intellectual climate of the twelve-tone technique, which was the ultimate consequence of the victory of chromaticism.

It happens to be the inversion of this enigmatic motif.

6) However, the nineteenth century has generated another work of gigantic dimension based on a chromatic four-tone motif, a work that has gone further than any other in stretching the concept of tonality to the breaking point and thus preparing their eventual transformation into atonality. This work is "Tristan and Isolde".^(Ex. 7) Here the triumph of chromaticism is complete. For here the two half-tone steps follow each other in the same direction, without any other interval between them. And yet, this motif too is only a modification of D-A-C-H. If we change the succession of the two half-tone steps, we obtain the inversion of the "Tristan" motif.
(or retrogression)

Ex. 7 b)

It is this historical perspective that I wished to demonstrate in the section ~~the~~ which was still missing in my plan. Apart from quoting the three Beethoven- and the Wagner four-tone motives I wanted to ~~not~~ ~~expect~~ refer to the "Art of the Fugue" by alluding to its main theme. Of course all of these quotations had to be formulated by means of the twelve-tone row which I had chosen. This could only be done by letting the tones which were necessary for the quotations follow each other in one voice while the other tones of the row would have to be placed contrapuntally or harmonically in the other voices so as to retain the order of tones given in the row. The main theme of the "Art of the Fugue" is D-A-F-D-C-sharp-D-E-F. In my row these tones happen to be rather far apart from each other, so that it appeared impossible to engineer even partial a statement of Bach's theme with desirable clarity. I therefore decided to try a derivative row ~~if~~ obtained according to a method that Alban Berg had used in several instances. ~~This new row~~ every fifth tone of the original form. ~~would~~ There would be formed by consist of a succession of ~~the~~ is only one other row which can be derived from the original in this fashion, namely by selecting every seventh tone, for five and seven are the only numbers by which twelve is not divisible. It is not difficult (below twelve)

to see and to understand that the seven-tone selection is a retrograde form of the five-tone selection, so that in fact the selective procedure yields only one derivative row.

Ex. 8

To my great surprise (see first three tones of) my five-tone selection yielded immediately the succession D-A-F which I needed for the Bach quotation. This was entirely unpremeditated. It was not the only mysterious coincidence upon which I came across while penetrating into this enigmatic materialistic work.

The material being thus prepared and the structure of the piece laid out, I began to ~~complete~~ composition on September 21 ~~during~~ ~~and a~~ one day visit while spending one day in Davosbruehl and completed it five days later in Valbella, a mountain resort in the Swiss canton of Graubuenden, or Grigioni, where I visited -

(the ancient Roman province Rhaetia)

7) friends of mine. I do not remember having done much work on it between the two dates as these days were taken up with travel and ~~business~~^{affairs} social business in Basel, so that the actual work was accomplished in two days. The basic twelve-tone row was formulated in Venice on September 3, apparently immediately after my conversation with Signore Rognoni.

Considering the manifold intellectual aspects of the concept of the whole, I felt ~~that~~ the necessity of some explanatory remarks which I decided to put on the title page. Since the work was meant to be performed for the first time by the Italian Radio, I did not think that English words would be appropriate. Not being able to write Italian, I hit upon the idea of using the Latin language, which would also be in keeping with the ancient practice to which Bach adhered when he added technical information to his contrapuntal compositions.

* In the following paragraphs a detailed analysis of the composition is presented:

The work opens with the "Argumentum", or subject. The basic row is played by the three instruments, violin, viola, and violoncello, in unison. The fermatas over the fourth and eighth tones articulate the grouping of the row and set off the B-A-C-H motif as its center part.

The second section is intituled "Symphonia"; this term is used here in ~~the~~ the meaning it carried in the seventeenth and eighteenth centuries - a concerted force having the character of an overture. In this section the ~~basic~~ row is ~~employed~~ employed in its four basic forms: Original (O), Inversion (I), Retrograde form (R), and Retrograde Inversion (R I). These forms appear always on the same pitches, without transposition to other pitch levels.

The first two entrances of the row will be analyzed in detail so that the reader may become acquainted with the application of the twelve-tone technique. O begins in the cello (meas. 1), and the same instrument plays the second and third tones (D-sharp, G-sharp). The fourth tone appears in the viola (E, in meas. 2). The violin continues in the same measure with tones 5, 6, and 7 (B-flat, A, C). The eighth tone (B) is presented by the violin in measure 5. Tones 9 and 10 are played simultaneously by viola and cello (F-sharp, C-sharp). The next - eleventh - tone (F) is played by the viola, and the last tone, G, appears in the cello as an eighth note, slightly anticipated, as it really should enter after the F. Such minute shifts are common usage in the twelve-tone technique. The D of the cello in

8) measure 5 is the beginning of the second entrance of O. It continues with D-sharp (the second tone of the row) in the violin (measure 6), and this instrument also plays the subsequent tones: G-sharp, and E(measure 7). B-flat, A, and C follow in the viola(measure 7). The cello supplies the eighth tone of the row (B) in measure 8. The viola follows with F-sharp and C-sharp, and the violin completes the row with F and G in measure 9.
 9) The next entrance of O begins with the D of the violin in measure 10. This is completed with the G of the viola in measure 12, and this instrument presents immediately ~~the~~ another O on the last note of measure 12. It also brings it to an end with the G in measure 16. In measure 17 the cello ~~also~~ enters with the inversion of the row(1), on D. The viola has another I-form in measure 20, ~~by~~ playing its first two tones(D and C-sharp) together. Measure 25 brings O in the violin, measure 26 presents I in the viola, and in the same measure the cello begins another O.

From here on we shall list the entrances of the forms of the row in an abridged manner:

measures	30	O	violin (D)
	31	I	viola (D-C-sharp)
	33	O	violin (D)
		I	cello (D)
	38	R	violin (G)
	43	R I	viola (A)
	48	R I	cello (A)
	50	R	violin (G)
	55	I	cello (CD)
	58	I	violin (D)
		R	cello (CG-F)
	61	O	viola (D)
	66	I	cello (D; this D is at the same time the last tone of R which was started in measure 58)
	68	I	violin (D)
	72	O	violin (D)
	76	O	cello (D)

(a loosely put together sequence
of general ideas)

The musical form of this movement is loosely built from ~~various~~ ~~ideas~~ ~~of~~ ~~general~~ ideas which are identified by their general character rather than by sharply defined thematic outlines. The first thematic area covers measures 2 to 24 and consists of three phrase units: measures 2 to 10, 10 to 17, and 17 to 24. The second idea whose lower eighth note motion had been foreshadowed by the assimilation of measures 10 to 12 covers measures 25 to 37. A slightly contrasting element is introduced ~~by~~ the violin in measure 38. This is developed until measure 53.
 (in the high register of the

9) From here on to the end of the movement (measure 82) the features of the first theme again dominate. A characteristic new motif is added ~~again~~ (measures 58; violin, 59; viola, 68 and 72: violin).

The third section, called "Invocations," contains the quotations discussed earlier. Here the derivative twelve-tone row is put into action. It starts in the ^{part} viola (measure 83) and is continued by the violin in measures 85 and 86. Its last tone, D, appears in measure 88. The viola begins with the inversion of the derivative row in measure 86. The theme of the "Art of the Tugue" is presented by the viola in measures 83 to 88(a). At b) the cello sets forth the form-tone motif from Beethoven's A-minor Quartet (marked in the score by brackets). It is obtained through a combination of R 5 of the derivative row, beginning with the F of the violin in measure 90, and O of the same row, starting on D in the viola part, measure 91. At c) in measure 94 the viola presents the form-tone motif of Beethoven's C-sharp minor Quartet, resulting from a combination of R 5 (F of the cello part, measure 94) and 5 (D, G of the violin, same measure). The Tristan motif, approximating the ^{chord} harmonic progression of Wagner, is found at d) (measures 100 to 102). This quotation made it necessary to begin a retrograde ~~version~~ form of the derivative row on the D of the violin in measure 102. Its second tone is the G-sharp of the cello in that measure. By another strange coincidence the following six tones of that row form two diminished triads (B-flat, D-flat, G, in measure 103, and E-flat, G-flat, C, in 104) - a chord combination strongly suggestive of Wagner's harmonic idiom. The last ~~four~~ tones of this row (E, F, A, D) ~~not~~ immediately lead back to the harmonic flavor of D minor, the key of the "Art of the Tugue." The composition returns to the original row, presenting ^(a four-tone figure closely approximating the second part of) the theme of Beethoven's Grand Tugue through a combination of O and R. At f) (measure 112) the B-A-C-H theme is ~~presented~~ thrown into relief for the first time, thus concluding the "Invocations".

The next section, "Contropassi variis" (divers counterpoints), begins with a canon at the octave (a), using the original row. At b) (measure 120) the violin ~~repeats~~ repeats the theme of the canon, but the imitation now occurs at a different interval, that is, at a diminished fifth (G sharp of the viola, measure 107). In measure 122 the canon theme appears inverted (cello, at c). It is imitated at the unison (that is, the same pitch) in its upright form by the viola at c) in measure 123. In the meantime the violin begins a second canon theme at d) (last note of measure 122). This is imitated, ~~at the unison~~ again at a distance of a fourth,

The ancient term for his interval is to tones, i.e. three whole tone steps.

8/10

T It has been said that the use of canonic devices in the twelve-tone technique is of lesser merit than ~~that of it~~, because the canon is the simplest way of a free contrapuntal setting) applying the basic principle of the technique according to which all elements of a musical ~~process~~ ^{form of the} are constituted by means of constant repetitions of the ~~process~~. It also has been pointed out that in the atonal idiom the lack of necessity of fitting the contrapuntally concerned canonic process into an a priori given harmonic system makes the writing of canons comparatively too easy for considering them fine specimens of elegant compositional procedure. Both objections are valid to a certain extent. But if in an atonal canon control over the fluctuations of intervallic tensions is exercised, especially the more complicated forms of canon, in which through the application of double counterpoint, augmentation, "canzonans," and the like a number of previously set conditions must be fulfilled, offer sufficient problems to be regarded as a technical challenge.

10) by the cello at d) in measure 124, and by inversion in the viola part at e), measure 125. A redundant entrance of the first canon theme is offered by the violin in measure 127. Its last two tones (B, C-sharp) occur in measure 130, viola.

A new canonic theme, at a faster pace, is introduced by the cello in measure 129 (f). ~~This is initiated by imitation~~ Initiation by inversion is brought out by the violin in the following measure. An additional, non-canonic voice is supplied by the viola at g) (measure 131), provided by the derivative row. In measure 132 it switches to the low C of the cello, which continues it in the following measure. This row ends with A-flat of the violin and B of the viola in measure 133. The canon continues with a new entrance of its theme in the viola part at h) (measure 132). The imitation is by inversion, at a different pitch (cello, at h), measure 133.

The third canonic theme, ^{coming again} appears at i) (violin, measure 137), reaching to the third eighth (g) of measure 139. It is imitated by retrogression in the cello part (i), measure 137. In measure 139 the violin continues with a retrograde inversion of his theme (j), while ^{straight} imitation by ^(straight) inversion at j) in measure 140.
(the cello brings an)

The fourth canonic theme, of incisive rhythmic ~~outline~~, ^{contour} is presented by ^{the} violin (k, measure 142). It is imitated by inversion in the same measure by the cello. At the same time the viola offers an imitation of this theme by retrograde inversion and augmentation (l, measure 141). That means that the theme is played backwards and turned upside down (the final three notes of the theme, G, C, D-flat, in the violin part, measure 144, appear as D, E-flat, A-flat in the viola, measures 141 and 142). Furthermore the theme is "augmented", that is, the time values of the individual notes are doubled (eighth notes become quarter notes, sixteenth notes become eighth notes, and so on). An augmented imitation of this theme by inversion begins in the viola at m) (measure 144, B-flat, A-flat) and continues in the cello part, measure 145. A final imitation of the theme in straight form (at m), measures 146 and 147) concludes the "Contrapuncti variis". Measures 149 to 159 constitute a brief transitional postlude.

The "Corona" is organized according to the following plan that all twelve transpositions of 0 and 5 are used in the order of the table of Example 3. They may be located by consulting the following table:

(1)

0 1	Viola	meas. 155
0 2	Viola	157
0 3	Viola	158
0 4	Violin	159 72 cello
0 5	Viola	161 (B flat) 73 viola
0 6	Violin	163 74 viola
0 7	Violin	166 75 viola
0 8	Viola	170 76 cello
		77 violin
0 9	Viola	173 78 viola
0 10	Violin	175 79 violin
0 11	Viola	178 710 viola
0 12	cello	180 711 viola
		712 cello

In each one of the twenty-four appearances of 0 and 7 the central group of four tones, that is, the D-A-C-H motif and its inversion, stands out clearly.

The ^{concluding} ~~first~~ cadence consists of the last four tones of 712 (violin),
 (measures 183 and 184)

of 711 (viola), and of 012 (cello). It is interesting that the final chord again hints at the harmonic sphere of the "Not of the Fugue".

To balance the "Argumentum" with a similarly brief postscript, I decided to ~~attach~~ attach to the work a "Clausula", consisting of a simple harmonization of the central motif. For this purpose I selected ~~the~~ ^{from all} forms of the row - ~~the~~ ^{more} 0, 7, R, or R 7 - in which the tones B flat, C, A, B would appear in this succession, with exception of the basic row itself, in which they were stated deliberately in this order. It appeared that only four forms would answer the requirement:

R 4, R 10, 74, and 710. The four tones of the BACH motif were given to the violin and the remaining eight tones of each form of the row were arranged to form the harmonic substructure. Measure 188 has R 10, distributed thus:

(3) B flat	(6) A	(1) C	(12) B
(2) D	(7) F sharp	(9) D flat	
(1) E	(4) E flat	(10) F	

(5) A flat (8) G

The respective arrangements for measures 186 (74), 187 (710) and 188 to 189 (R 4) may be easily identified in the score.

The idea of "indulgences" as materialized in Bach's circular canon discussed earlier is reflected here, but the connection was concluded.

12) To my amazement it turned out that in each of these four phrases the final chord was the same: G, D flat, F, B. Only ~~the last~~
~~the chord~~ was slightly different in that ~~G~~ ^{G flat} was substituted for G.
(resulting from R 4) I decided to use this phrase for the ending
~~of~~ of the piece as the progression of the bars from G to G-flat
would enhance the feeling of finality. ↑

The work was performed for the first time on a broadcast
of the Radio Italiana in Rome on January 15, 1951

This correspondence of chords at the end of those four forms
of the row - selected from ~~the forty-eight~~ ^{(the total of} for an entirely different
reason (that is, the location of B flat A C H) - to me appears to be the
most puzzling of the several mysterious coincidences encountered
in the course of this composition.