The Riddles and the Meaning of J.S. Bach’s ‘The Art of the Fugue’

by Prof. Yelena Vyazkova

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Greetings to the participants in the conference, in the name of the Gnesin Academy of Music in Russia. My presentation resonates to Mr. LaRouche’s ideas, about the saving role of culture, art, and creativity, for the future of our civilization and our planet, and about the special role of Classical music in this regard.

My area of scientific interest is the creative process—more precisely, the strategy of creativity. My research began with deciphering the sketchbooks of Beethoven, a composer who expressed on paper almost the entire process of creation of a work (with all the initial forays, probes, different versions, and doubts). I continued, researching the sketches of other composers, which made it possible to observe a certain typology of creative processes. I intend to develop that theme in a seminar setting, while my topic today is a different one.

This year, the world marks the 250th anniversary of the death of the great German composer Johann Sebastian Bach. Coinciding with this anniversary, is the anniversary of his most remarkable last work, the cycle Die Kunst der Fugue (The Art of the Fugue). This date, the Bach Year, prompted my choice of topic for this conference.

There are certain works in the history of music, whose lot it is to remain unsurpassed peaks, for long centuries. J.S. Bach’s cycle, The Art of the Fugue, is such a rare work. Infinite, endlessly profound, this work becomes accessible to the understanding gradually, allowing penetration into previously uncomprehended depths, upon each contact with it. The philosophical comprehension of earthly and, perhaps, cosmic being; a grasping and reflection of the laws of the universe—this could best be called the “theme” of this amazing work, revealed in the language of music.

There is a halo of mystery around the cycle: It remained unfinished, and the final fugue breaks off literally in mid-measure. In the autograph, at that point there is a notation by Bach’s son: “[Working] on this fugue, where the name BACH enters in the countersubject, the composer died.” Although this phrase is not accurate—Bach died almost eight months later—the impression made by this unfinished character, remains literally stunning: Death, unexpected and inexorable, interrupts the life and creative work of the great musical thinker and artist.

If people could hear, understand, and take into themselves, what the great Bach said in his final work, the world would be a better and more perfect place—of that, I am absolutely convinced.

The Art of the Fugue is a cycle of fugues and canons, written on a single theme. As you know, a fugue is a polyphonic composition, in which the main theme is introduced repeatedly in all the
FIGURE 2
‘Frère Jacques,’ a Simple Round or Canon

The Duke

cou brió
La donna è mobile qu'pio ma al

legen

don to, muta d'accen to e di pen sier o,

voices. All the voices are equal in weight. For example, see Figure 1. There, the theme has entered three times, in the various voices.

A canon is a more complex musical form, in which all the voices sing the same melody at once, but they enter in turn, with a certain delay. Here, for example, is the well-known children’s song, “Frère Jacques” (Figure 2). This is, of course, a more complex musical technique than a melody with accompaniment (Figure 3).

Let us turn to the cycle. Its main theme sounds very serious (Figure 4). All of the fugues and canons are written in the same key.

This theme is characterized in the literature, with language ranging from "profoundly expressive" to "colorless." Albert Schweitzer characterized it in the following strange and almost inaccurate
way: “Really, this theme cannot be called interesting; it seems not to have been born of some intuitive genius, but rather invented for the sake of its subsequent thorough development and inversion. And yet, it transfixed the attention of anyone who hears it. A quiet world opens before us, a serious world, desert-like, deathly cold, colorless, gloomily without motion, it does not gladden or entertain. And yet, we cannot tear ourselves away from the theme.”

The only thing that can be called accurate here, are the following words: “And yet, it transfixed the attention of anyone who hears it.” “And yet, we cannot tear ourselves away from the theme.”

It seems to me, that this theme was born of intuitive genius, and that there is profound meaning in its content (about which I shall speak, later).

Throughout the cycle, the theme is varied: Here is the form it takes in inversion (where the melody becomes like a mirror reflection: What went upwards, now goes downwards, and vice versa) (Figure 5). Please pay particular attention to this, because it is an important element to understand for some of the ideas I shall be developing.

There are also more complex melodic variations (Figure 6).

It is known, that Bach took part in preparing the cycle for publication: He even produced (recopied, in calligraphy) some of the pages. One part of the cycle (#1 through 11) was numbered by him, while the other (from #12 to the Final Fugue) remained unnumbered. Nonetheless, I have found indirect evidence that Bach gave instructions for this part, as well. It is also evident, however, that at the last moment the publishers were left without his guidance, and then they included in the first, Original Edition, all the material that Bach had left, related to this cycle, without regard for the order conceived by Bach.

This decision by the publishers had its pluses and its minuses. It is good, that in this way all the precious pages of Bach’s music were preserved. It is bad, because total disorder arose in the sequencing of pieces in the second half of the cycle, violating the author’s conception.

Ever since then, publishers and performers have been arbitrarily changing the order of the fugues and canons, while researchers attempt to restore the sequence as Bach conceived it. (How many versions have been proposed! Several pages in the multi-volume book by Walter Kolneder are devoted just to enumerating them.)

This question of the correct sequence, is identified in the literature as one of the most important. In order to imagine how important it is, consider an analogy: In a novel with a dense plot, would it be possible to change the order of the chapters? Could a work like The Four Seasons be performed in a different order, with summer coming directly after winter, and then spring, or with May being followed by December, and then August? Of course not. The Art of the Fugue, as Bach conceived it, has a remarkable dramatic composition: Bach leads the listener, logically, consistently, step-by-step developing his thought. If Bach’s ordering is violated, the cycle loses its wonderful organization, and becomes a free assemblage of pieces, which are beautiful, but not arranged into a single organism. A truly perfect dramatist such as Bach, could never permit such a thing.

I have been studying this amazing cycle for around thirty years. As a result

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I was very interested in trying to answer all of these questions, and it seems to me that, in the course of thirty years, I have managed to understand something. It is striking, that Bach’s text contains answers to all the questions: It is necessary only to study it very closely.

For example, the unusual names of the fugues help to answer the question of the ordering: Bach does not call them fugues, but “counterpoints.” This means that it is necessary to research the species of counterpoint, and to understand the logic of their succession. After the works of the Russian composer and scholar S.I. Taneyev, this is not difficult to do: It is quite possible to avoid the type of subjective factor, which played a role in the judgment of previous researchers. In other cases, and even certain mistakes during publication, suggest answers to controversial questions.

I won’t exhaust you with the details of this analysis, but will just show you in this table [Table 1] what I have observed, namely, that only slight changes are required in the Original Edition, in order to turn it into a cycle, corresponding to Bach’s conception. (I should explain, that the majority of scholars are of another opinion. They consider the second half of the cycle to be totally wrong—they put the canons before the mirror fugues, and distort the ordering within the groups.) I have been able to find indirect evidence, that while preparing the cycle for publication, Bach was giving instructions to his assistants almost until the last moment. Therefore, any rearrangement is a violation of the will of the author.

There are six groups of fugues in the cycle. The sixth “group” consists of the unfinished, Final Fugue, which would have been a very big fugue. I should say that this “six” is not just picked out of a hat. With Bach, no number is devoid of meaning.

In the table, you can see the errors in the second half of the cycle. There is an extra fugue, which is a variation of the tenth fugue. The fugue for two claviers is

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**TABLE 1**

<table>
<thead>
<tr>
<th>No.</th>
<th>Part I (follows Original Edition)</th>
<th>No.</th>
<th>Part II</th>
<th>Orig. Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Simple Fugues</td>
<td>T</td>
<td>12/1</td>
<td>T</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>T</td>
<td>12/2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>13/1</td>
<td>4-part Mirror Fugue (rectus)</td>
<td>T</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>13/2</td>
<td>4-part Mirror Fugue (inversus)</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3-part Mirror and Counterfugue (rectus)</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3-part Mirror and Counterfugue (inversus)</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td><strong>Variants of Fugue No. 10</strong></td>
<td></td>
<td></td>
<td>12/2 ↑</td>
</tr>
<tr>
<td></td>
<td><strong>Publications No. 8</strong></td>
<td></td>
<td></td>
<td>12/1 ↓</td>
</tr>
<tr>
<td>5</td>
<td>The Counterfugues</td>
<td>T</td>
<td>14</td>
<td>T</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>T</td>
<td>15</td>
<td>same</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>T</td>
<td>16</td>
<td>T</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>17</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td><strong>Two Fugues for 2 Claviers—variants of Fugues No. 13, 1 &amp; 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Triple Fugue</td>
<td>T</td>
<td>18</td>
<td>T</td>
</tr>
<tr>
<td>9</td>
<td>Double Fugue</td>
<td>T</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>Double Fugue</td>
<td>T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Triple Fugue</td>
<td>T</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unfinished (Quadruple)</td>
<td></td>
<td>Final Fugue</td>
<td>(?)</td>
</tr>
</tbody>
</table>

**T** = theme in normal form  
**T** = theme in inverted form

Non-repetition of the combination “T” and “T” within the same fugue group:

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T T T T T T T T
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Main symmetry of the theme forms:

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T T T T T T T T T T T
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- **T** is the mirror form of the symmetry **T** T — so-called “portable symmetry” (**A – A’**)

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of my research, I can substantiate solutions for all of the controversial questions “around” this cycle: the number of pieces, their ordering, and the significance of the concluding, unfinished fugue (which some authors do not even consider to be a part of this cycle).

I have made a detailed analysis of the text of *The Art of the Fugue*, of its manuscript (which was, happily, published in Germany by H. Hoke), both from the standpoint of someone observing the creative process of the composer, and from the standpoint of a specialist in polyphony (counterpoint). The manuscript makes it possible to imagine, that you are as if present with the composer in his creative process, at the moment of creation. You see how he writes, and then corrects what he has written; it seems that the composition is finished, but then suddenly he adds two measures. This is an extremely engaging task—to understand, why he did it this way, and not some other way, or what a new version gives, by comparison with the first draft, or why the fugues are ordered in the autograph, differently from their order in the finished cycle, even in the first part, which Bach sanctioned. Why are some of them written out in a strange way, not in succession, but one under the other?
also interpolated, with repeats of fugues 13/1 and 13/2. The table reproduces the ordering of the pieces in the original edition (OE) but I have numbered only those that ought to be included in the cycle, leaving unnumbered those, which in one form or another repeat pieces that are already present in the cycle, and which should therefore be removed from the cycle. For a long time, the conventional practice has been to put these in an appendix to the cycle (they are indicated with arrows), while the ordering of the rest of the pieces has constantly been violated by editors, publishers, and performers down to the present day.

The resulting version is shown in Table 2. With the one additional change indicated, namely, to reverse the order of fugues 12/1 and 12/2, which are mirror inversions of each other, I believe this shows the correct order.

Even a non-musician can see in the table, that Bach deliberately thinks through the ordering of his use of the theme in its direct and mirror-inverted forms (grouping the fugues, he never repeats the way they are combined). (See Table 1, bottom section.) The “T” symbol is the direct form of the fugue. The inverted “T” is in inversion.

When we write out, horizontally, all the themes—marking whether they are the direct form of the main theme, or its inversion—we see a remarkable symmetry. First there is symmetry on the left side, then a symmetry, pivoted on the center of the cycle, and then another symmetry at the end. It is unknown, what would have been on the far right, since the Final Fugue remained unfinished. Symmetry, of course, is a fundamental principle of nature, and Bach’s use of it is a highly significant hint, for determining the organization of the cycle.

Bach’s mastery can be seen in these diagrams, of course, but it is even more noticeable when the music of this marvellous cycle is played.

I shall now discuss another extremely important problem: the idea and meaning of this mysterious work, and the problem of its ending. Essentially, this will be a discussion about the meaning of the musical information. Music is always “informative”—what’s important, being what it conveys. What ideas, does this work of Bach convey?

The amazing unity and dramatic wholeness of this cycle, have naturally prompted attempts to search out the hidden thought-content of the conception. The version suggested by the Romantic notation of C.P.E. Bach at the end of the autograph became logically connected with the idea of the finiteness of human life (although, as I mentioned, it does not correspond to what actually happened).

Erich Schwebsch made the next attempt: He considered that the cycle embodies the birth of the personality and self-consciousness, personified by the theme B-A-C-H.2

It is a monogram of the name, “Bach.” Bach placed this musical theme-symbol of his name at the end of the work, like a kind of author’s signature (Figure 7), but he prepared this moment throughout the entire cycle, introducing this theme in more or less covert form.

2. In musical notation, German uses the letter H where English uses B♮.

Schwebsch’s idea was further developed in the conception of Erich Bergel on the polarity and unity of two spiritual spheres—the human and the divine, the cosmic, incarnated by the chromatic (in the BACH theme), and this diatonic music of the main theme.

Hans Heinrich Eggebrecht looked at the BACH theme in the Final Fugue, together with its continuation. This researcher especially emphasized the theme’s striving toward the main tonic of the cycle—“D.” While Schwebsch had written about this as follows: “Just as Bach himself stood at the threshold in 1750, so The Art of the Fugue is spiritually located between the Cosmos and ‘I’-ness [individuality]. Only someone with the heart of Bach would, in the face of death, dare to place his ‘I’ as representative of the center of a universal development. His further elaboration of this central kernel shows that Bach was acting with all the seriousness of a universal artistic mind”; Eggebrecht suggests, that “here Bach’s intention was not to say I, BACH, am bound up with the tonic and will attain it.”

Eggebrecht explains the significance

<table>
<thead>
<tr>
<th>No.</th>
<th>Part I (follows Original Edition)</th>
<th>Part II</th>
<th>Orig. Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simple</td>
<td>T</td>
<td>12/1</td>
</tr>
<tr>
<td>2</td>
<td>Single-theme Fugues</td>
<td>T</td>
<td>12/2</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>13/1</td>
<td>12/2</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>13/2</td>
<td>12/2</td>
</tr>
<tr>
<td>5</td>
<td>Counterfugues (with counter-subject in inversion)</td>
<td>14</td>
<td>Canon in Augmentation and Inversion</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>15</td>
<td>Canon at the Octave</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>16</td>
<td>Canon at the Tenth</td>
</tr>
<tr>
<td>8</td>
<td>Triple Fugue</td>
<td>18</td>
<td>Concluding fugue</td>
</tr>
<tr>
<td>9</td>
<td>Double Fugue</td>
<td></td>
<td>(unfinished, quadruple)</td>
</tr>
<tr>
<td>10</td>
<td>Double Fugue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Triple Fugue</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

T = theme in normal form  = theme in inverted form

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**TABLE 2**

Corrected Ordering of Pieces in *The Art of the Fugue*

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2. In musical notation, German uses the letter H where English uses B♮.
less significant, that Bach did not dictate the last fugue any farther, but left it unfinished. Although the picture of how everything should be was before his mind’s eye, it seems that he came to the realization, that his own path was finished.”

The character of the cycle is, of course, not biographical, but philosophical and having to do with worldview, but it does seem that each of the versions I have mentioned contains some grain of truth.

To explain my idea, let us return to the main theme of the cycle. The theme is comprised of two elements (Figure 8). It turns out, that these are elements from Protestant chorales. For Bach, the motif from a chorale is a “signifier” of a certain idea, a guide for the listener’s understanding.

The theme of The Art of the Fugue is composed from elements of two chorales: the Christmas chorale, “Wie schön leuchtet der Morgenstern” (“How beautifully shines the morning star”), except that the chorale is in the major mode instead of minor (Figure 9).

You may know the theme of the A♭ major fugue from The Well-Tempered Clavier, which is also a variation of this theme (Figure 10). It is in major, but a minor version of the theme is later introduced.

The second element, is from the Easter cantata “Christ lag in Todesbanden” (“Christ Lay in Death’s Bands”). Combined together, it is as if they denote the extreme points of life—birth and death—as if concentrating the entirety of this tonic (“God”) [“D”—Deo], with reference to the chorale “Vor Deinem Thron tret ich hiermit” (“I come before Thy throne”), which expresses the idea of the transit from this world to the next. Although this chorale is really not a part of this cycle, it was attached to the unfinished cycle by the publishers “for the satisfaction of friends of Bach’s music,” as they wrote in an introduction.

Allow me to make a small digression, on the problem of the unfinished fugue. Most researchers believe that the cycle remained unfinished, due to Bach’s illness and death (for which the aforementioned notation by Bach’s son Carl Philipp Emanuel on the last line of the unfinished Final Fugue gave some grounds). Therefore, they undertook many attempts to complete that fugue, writing it out after Bach’s death.

It is my view (for which I have a whole array of evidence), that Bach deliberately left the fugue unfinished. I have encountered the idea, that Bach might have intentionally written the Final Fugue as unfinished, only in the writings of the German researcher Joseph Müller-Blattau, but he also explains this in purely biographical terms: “It is no
expressed in this way. This originally
Eastern idea, which was adopted by Py-
thagoras and Plato, was originally inter-
preted in the works of Leibniz (whom Bach knew personally, and Leibniz’s books were in Bach’s library): Although Leibniz himself wrote about the “meta-
morphoses” of the soul, not about its re-
incarnations, his teaching did potentially contain this idea, and his followers neces-
sarily came to this idea. (The Russian
philosopher N. Lossky studied this prob-
lem.) It is not to be excluded, that among
these followers was Johann Sebastian
Bach.

In this context, the gradual increase
in complexity of the work with the theme
in this cycle, reflects the gradual devel-
opment and perfection of the soul. Its
final stage—the return to its divine source—remains a mystery for human-
ity: It is at this moment, when the invis-
ible, eternal depths are revealed, that the
Final Fugue stops. Therefore, the cycle
is deliberately unfinished. It is an expres-
sion of those invisible depths, before
which man is powerless.

Not only the main version of the
theme, but also its variations and the
other themes, allow us to see a certain
logic of associations, going in the same
direction. Thus, the second variation
of the theme may be connected with the
theme of the chorale, “Was willst du
dich, o meine Seele” ("What wilt thou, o my soul") (Figure 11). This theme, inci-
cidentally, perhaps not by accident, ech-
chos the theme of the Sanctus in one of
the masses by the sixteenth-century
composer Palestrina.

These associations, of course, are
not accidental.

The theme of the Final Fugue evokes
the following associated images: The
first theme evokes the chorale, “Aus
tiefer Not schrei ich zu Dir” ("Out of the
depths I have cried to Thee") (Figure 12).

The German musicologist Wilhelm
Keller showed the resemblance of the
main theme of The Art of the Fugue
taken in inversion (Figure 5), with this
chorale, as well.

The second theme of the Final
Fugue, it seems to me, also is comprised
of elements of two chorales: the ending
of the chorale “Christ lag in Todes-
banden,” and the opening of the
chorale “Schwing dich auf zu deinem
Gott” (”Lift thyself up unto thy God”) (Figure 13).

There is one additional idea in the
theme itself of the Final Fugue. It is
symmetrical; it reads the same, back-
wards and forwards, left to right or right
to left. Its graphic representation (the
theme in direct and inverted form) gives
mutually reflected pictures of the let-
ters “W” and “M”; “W”=Welt (world),
and by the mystical relationship of Rus-

sian and German orthography, the same
word, in Russian, begins with the let-
ter “M” (мир). You don’t have to be a
musician, to see this in the notes (Fig-
ure 14).

These associations are not acciden-
tal. The symbolic language of the epoch
should be borne in mind, in order cor-
rectly to interpret the ideas of Bach’s
works.

Music often reflects universal laws,
before science discovers them. It is pos-
sible that The Art of the Fugue is a phi-
losophical conceptualization of the laws
of the universe, expressed by means of
music. And perhaps, in this connection,
the numerical symbology of the main
theme of the cycle is also no accident. It
contains 12 tones (12 is a holy number:
the number of the Church, the 12 apos-
tles; adding across, 12 = 1 + 2 = “3,”
which is the number of the Trinity). The
alpha-numerical symbology of the theme
[D is the fourth letter, therefore
“4,” A is “1,” F is “6,” and the “numbers”
of the notes in the theme may be added
cross] includes the concepts of “law”
(10) and “God,” “wholeness,” “being”
(1). Thus it symbolizes the idea of the
laws of the world and of existence, laws,
given to us by God: Evidently, this is

FIGURE 11
Comparison of The Art of the Fugue with Chorale ‘Was willst du
Dich, o Meine Seele,’ and a work by Palestrina

FIGURE 12
Comparison of Chorale ‘Aus tiefer Not schrei ich zu Dir’ with
Final Fugue of J.S. Bach’s The Art of the Fugue
how Bach elucidates the circle of ideas in his composition.

This interpretation of the content of the cycle (the concept of the infinite development, unity, and mutual reflection of worlds) is hypothetical, of course, but quite lawful: In the last years of his life, Bach said that only now had he comprehended the internal spirit of music, and that he wanted to investigate it anew. The Art of the Fugue, most likely, is this study.

It is also not accidental, that Schumann said about Bach, that “he knew a million times more, than we can imagine.”

In any event, the cycle occasioned the remark by one German musicologist, Ernst Meier: “Here Bach, the ‘Prometheus Unbound’ of thinking, acts in a truly revolutionary way. He is a true enlightener, who, together with the natural science and philosophy of his time, opens a new future: the victory of active, investigating thought, over dogma.”

The Art of the Fugue is a work of genius, a bequest to posterity, infinite in its depth of thought, and each generation of people, with the development of knowledge and consciousness, will discover in it more and more new ideas.