Musical Analysis

Composer: Anton Weber
Piece: Op. 27
Movement: II *Sehr Schnell*

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Introduction:

This text is an analysis from the second movement of Op. 27, written in 1936 by Anton Weber. Many other people involved in music theory have attempted to explain the creative process of the piece. In this work, I will provide the reader with my interpretation. To understand my reasoning, the reader needs to have the score, the matrix, table 1, and table 2.

Objective:

Analyze and interpret the rows through the use of corresponding colors to gain a better understanding of Weber's compositional choices. Explain how the piece was created by the matrix, and tables 1 and 2.

Sehr schnell ("Very fast") is the name of the second movement of Op. 27. Weber began writing this piece in August 25th, 1936 and finished his work on November 5th 1936. Despite that the three movements use the same matrix, the overall result of the compositions is different.

Score - *Sehr schnell* Op. 27: The attached score has highlighted sections to clearly identify the matrix rows used in the piece. Predominantly, there are two highlight colors: yellow and green. Yellow provides an unbroken connection between all the rows from the first note Bb until the last note Bb in the piece. Green also connects all the rows from the second note G# of the piece until the last note of the piece G#. The other highlighted colors and rows will be explained further in this paper. The piece has a repeat between measures 11 and 12, before measure 11. The section after measure 12 will be referred to as the second part or second section.

Matrix: The attached matrix illustrates the melodic material used in the piece.

Table 1 – Octaves and Dynamic: This table is principally divided in three sections. The first section is the first vertical row, which contains the 12 notes of the scale. The second and the third rows display the number of the octave used on the piano. Finally, the last two rows show the dynamics used in the piece.

Table 2 – Hand – Pitch pattern: This table is divided in to three main sections that each have the two corresponding parts; stream 1 and 2, note 1 and 2, and hand 1 and 2. The streams of the piece are illustrated by different colors that show the rows used in the matrix. Stream 1 is green in the score and stream 2 is yellow. Notes 1 and notes 2 show the beginning note and the end note of each corresponding row. Hand 1 and hand 2 use the symbols "R" as right and "L" as left, showing the hand used in the first note of the row and the hand used at the end of the row.

Explanation:

The same last and first note of each row provides a clear transition between all the rows throughout the piece, allowing for a mirrored structure. The green portion of the score is a constant that connects Stream 1, which contains specifically the following rows in the matrix P8, I3, I8, and P1. The yellow portion of the score is also a constant that connects Stream 2, which contains the following rows in the matrix I10, P3, P10, and I3. Each row has its own color, the following pentagrams display the color, the corresponding letter and number of the matrix row, and the number translated in pitch.


I10
10 9 1 11 2 0 6 5 4 8 7 3
P8
8 9 5 7 4 6 0 1 2 10 11 3
I3
3 2 6 4 7 5 11 10 9 1 0 8
P3
3 4 0 2 11 1 7 8 9 5 6 10
P10
10 11 7 9 6 8 2 3 4 0 1 5
I8
8 7 11 9 0 10 4 3 2 6 5 1
P1
1 2 10 0 9 11 5 6 7 3 4 8
I5
5 4 8 6 9 7 1 0 11 3 2 10

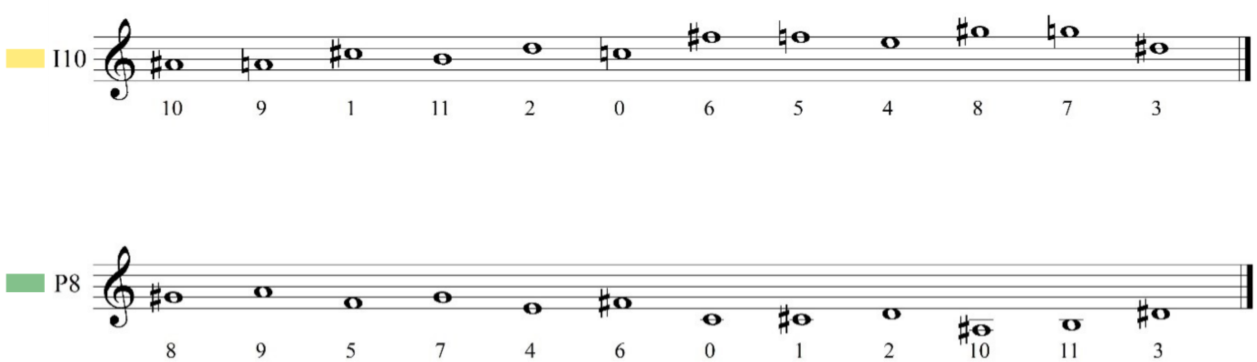
This piece is an inverted canon, which is a mirroring of the primary voice through a same voice but in the second section. This quality is displayed by comparing P8 with I8. P8 contains a half tone up, a major tone down, etc. I8 mirrors this by also containing a half tone down, major third up, etc.

The canon centers around the note A, which is the center point of the reflection. By comparing rows I10 and P8, the musician can observe that A is the second note in both rows and if one begins writing intervals in one row, it reflects in the other direction. Example:

A (P.C.9) as a center - Row I10: Half step up, A (P.C.9), Major third up, etc.

A (P.C.9) as a center - Row P8: Half step down, A (P.C.9), Major third down, etc.

To avoid confusion, see the example below.

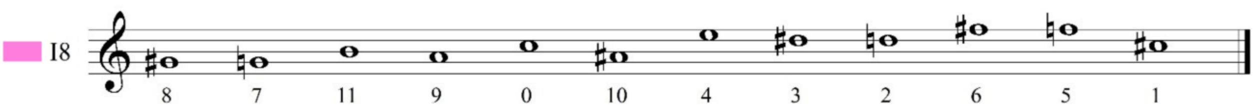


P10 and I8 with I10 and P8 are also comparable. The same pattern occurs but in a different direction, while A remains the center point. The note A in P10 and I8 is the fourth note in both rows and if one writes intervals in one row, it reflects in the other. Example:

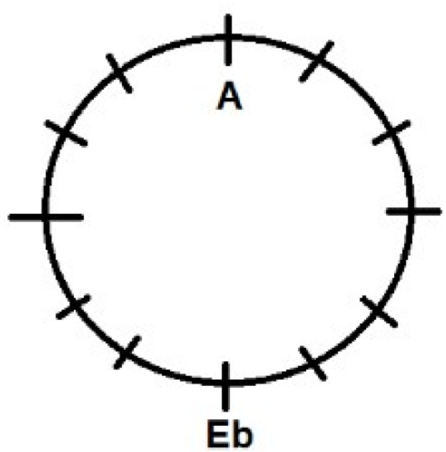
A (P.C.9) as a center – RowI8: half step down, one step down, one step up, A (P.C.9), minor third up, etc.

A (P.C.9) as a center – Row P10: half step up, one step up, one step down, A (P.C.9), minor third down, etc.

Example:



It is important to see that the D# or Eb are also repeated in the same position in rows P8 and I10. It is the middle note in the circle. In rows I8 and P10 is A. It is because D# or Eb are the tritone in the circle of notes, it is exactly in the middle.



Looking at the first table (in #2), Weber's compositional ideas can be identified through patterns. The score, the matrix and table 1 and 2 allow for a deeper understanding of the piece. The piece was created as a mirror, taking the A4 p (p = Piano Dynamic) as the middle. Each dynamic or octave is reflected in the other side. In terms of register, A4 is also the middle point, which is demonstrated in table 1 while examining G#, which goes down one octave (G#3), in both parts of the piece. Again, it is demonstrated in table 1 while examining Bb, which goes up one octave and occurs in both parts of the piece. If you go one direction the other half is going to do the contrary.

This pattern is still kind of true in the dynamic. Nevertheless, it is not exactly the same. It reflects but we can see a kind of complex expansion. It begins in a "p" in A and it changes many times while transitioning to Eb in both directions in both parts. Every change affects the other side. It still has this mirror relation between the both sides. "A" is the middle and Eb is its tritone. The piece is like a circle where A is a point at the top and Eb is a point at the bottom directly below A. Weber made those patterns to create this musical effect, like a "reflection".

The pattern of voice crossing is influenced for the inverted movement as well. The hands move as a mirror, taking A4 as the middle point. Knowing and understanding this pattern, one would play this piece differently. With this information, there is theory knowledge to support this interpretation, in this case highlighting the movement between the hands and the inverted voicing. The interpretation of playing this piece with the author's design includes different hand movements other than just keeping the hands in a comfortable position. This movement is illustrated in table 2.

Looking at image 1, patterns were drawn from both of the rows that Weber chose. This illustrates the beginning and ending notes of each row and how they connect not only within each part, but also within the piece as a whole.

The notes of the beginning of each row are organized to surround the A4 like a perfect circle. Every interval is at the same distance to the A4 and every row connects perfectly with the other. It seems as if it could begin again. The circle could begin and continue as an infinite form because the end is the beginning.

It would be extremely difficult to predict this piece. To predict this piece, it is necessary to have the first rows surrounding the A4. The rows must be inverted, and they need to connect with each other. The dynamics and the octaves need to go in the patterns that we saw in the first table. Furthermore, the hands need to move in opposite directions to complete a whole "mirror" movement. It would be possible to deduce other patterns knowing the first two and build the piece as a puzzle, for example: I_{10} begins in Bb and ends in D# (Eb). Then one needs to find the row that begins in Eb and ends in Bb and then this pattern would continue

It is possible to continue building but it would be very difficult.

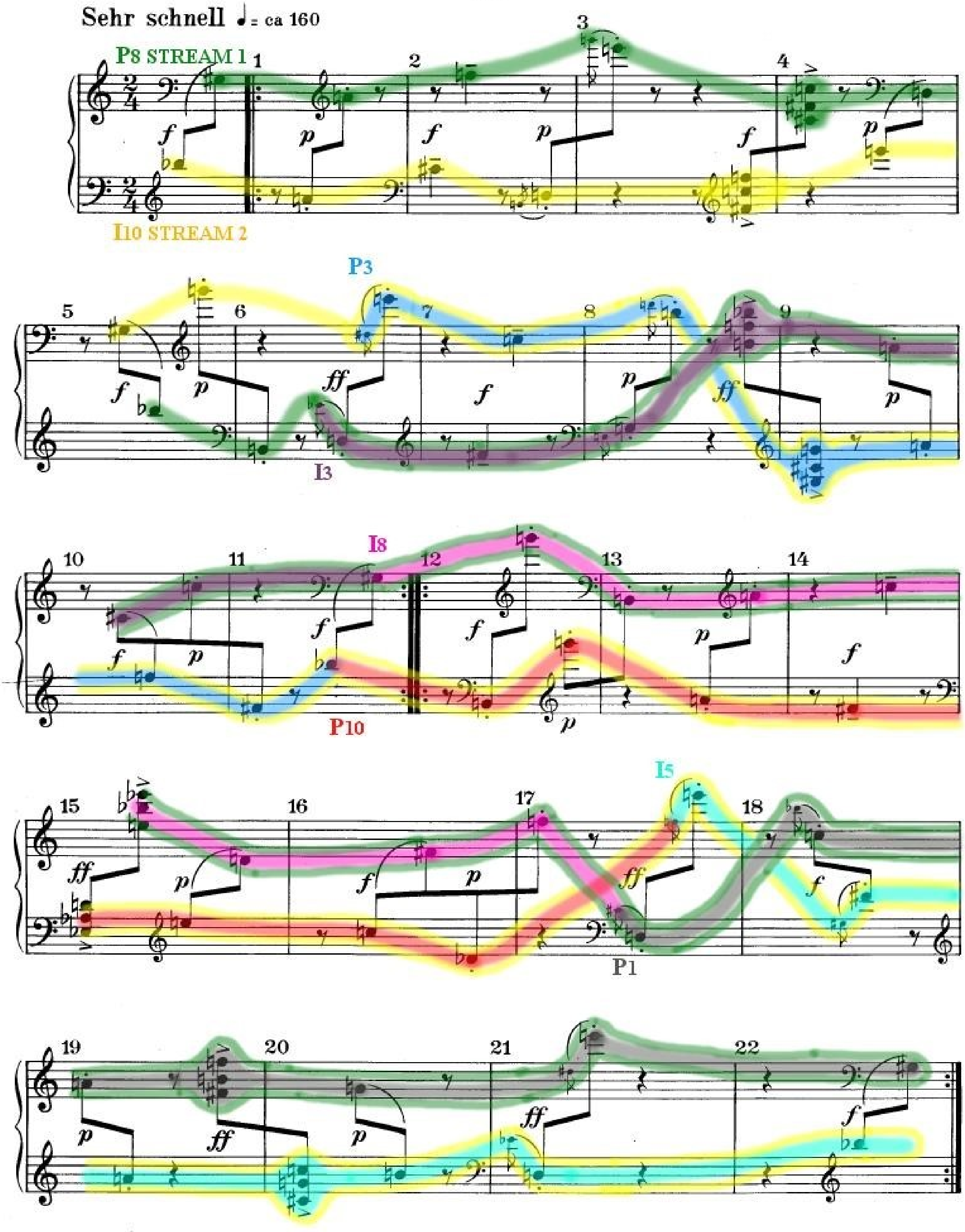
Weber wrote this this piece in that way to continue with the "mirror" movement. We can see that every time one hand moves, the other hand goes in the opposite direction. If Weber did not write that way, we lose the inverted motion in the hands. This mirror movement can be seen in the form, in the rows, in the octaves, dynamics, and, in this case, also in the hands.

T his piece is called "Variations"because one can identify varied rows surrounding A (P.C.9). Everything is created starting with dodecaphonic rows. One can generate relations starting with P8; P10 is inverted, P3 is the same but a perfect 4th above, I3 is a perfect 4th below. Everything in this piece is a kind of mirror variation.

SCORE

II

Sehr schnell ♩ = ca 160



MATRIX

	I_0	I_1	I_9	I_{11}	I_8	I_{10}	I_4	I_5	I_6	I_2	I_3	I_7	
P_0	0	1	9	11	8	10	4	5	6	2	3	7	R_0
P_{11}	11	0	8	10	7	9	3	4	5	1	2	6	R_{11}
P_3	3	4	0	2	11	1	7	8	9	5	6	10	R_3
P_1	1	2	10	0	9	11	5	6	7	3	4	8	R_1
P_4	4	5	1	3	0	2	8	9	10	6	7	11	R_4
P_2	2	3	11	1	10	0	6	7	8	4	5	9	R_2
P_8	8	9	5	7	4	6	0	1	2	10	11	3	R_8
P_7	7	8	4	6	3	5	11	0	1	9	10	2	R_7
P_6	6	7	3	5	2	4	10	11	0	8	9	1	R_6
P_{10}	10	11	7	9	6	8	2	3	4	0	1	5	R_{10}
P_9	9	10	6	8	5	7	1	2	3	11	0	4	R_9
P_5	5	6	2	4	1	3	9	10	11	7	8	0	R_5
	RI_0	RI_1	RI_9	RI_{11}	RI_8	RI_{10}	RI_4	RI_5	RI_6	RI_2	RI_3	RI_7	

TABLE 1

<table>
<tr><th>Note</th><th colspan="4">Part 1</th><th colspan="4">Part 2</th><th colspan="4">Dynamics Part 1</th><th colspan="4">Dynamics Part 2</th></tr>
<tr><th></th><th>P8</th><th>I10</th><th>I3</th><th>P3</th><th>I8</th><th>P10</th><th>P1</th><th>I5</th><th>P8</th><th>I10</th><th>I3</th><th>P3</th><th>I8</th><th>P10</th><th>P1</th><th>I5</th></tr>
<tr><td>E♭</td><td>4</td><td>5</td><td>4</td><td>5</td><td>6</td><td>3</td><td>4</td><td>5</td><td colspan="4">ff</td><td colspan="4">ff</td></tr>
<tr><td>E</td><td colspan="2">6</td><td>3</td><td>6</td><td colspan="2">5</td><td colspan="2">6</td><td colspan="3">p</td><td>ff</td><td>ff</td><td>p</td><td colspan="2">ff</td></tr>
<tr><td>F</td><td colspan="4">5</td><td colspan="4">5</td><td colspan="2">f</td><td>ff</td><td>f</td><td>p</td><td>ff</td><td colspan="2">ff</td></tr>
<tr><td>F#</td><td colspan="4">4</td><td colspan="4">4</td><td colspan="3">f</td><td>p</td><td colspan="2">f</td><td>ff</td><td>f</td></tr>
<tr><td>G</td><td colspan="2">6</td><td>3</td><td>4</td><td colspan="2">6</td><td colspan="2">4</td><td colspan="2">p</td><td>p</td><td>ff</td><td>f</td><td>p</td><td>p</td><td>ff</td></tr>
<tr><td>G#</td><td colspan="4">3</td><td colspan="4">3</td><td colspan="2">f</td><td colspan="2">ff</td><td>f</td><td>ff</td><td colspan="2">f</td></tr>
<tr><td>A</td><td colspan="4">4</td><td colspan="4">4</td><td colspan="4">p</td><td colspan="4">p</td></tr>
<tr><td>B♭</td><td colspan="4">5</td><td colspan="4">5</td><td colspan="2">f</td><td colspan="2">ff</td><td>ff</td><td colspan="3">f</td></tr>
<tr><td>B</td><td colspan="2">2</td><td>4</td><td>5</td><td colspan="2">2</td><td colspan="2">4</td><td colspan="2">p</td><td>ff</td><td>p</td><td>p</td><td>f</td><td>ff</td><td>p</td></tr>
<tr><td>C</td><td colspan="4">5</td><td colspan="4">5</td><td colspan="2">f</td><td>p</td><td>f</td><td colspan="2">f</td><td>f</td><td>ff</td></tr>
<tr><td>C#</td><td colspan="4">4</td><td colspan="4">4</td><td colspan="3">f</td><td>ff</td><td>ff</td><td>p</td><td colspan="2">ff</td></tr>
<tr><td>D</td><td colspan="3">3</td><td>6</td><td colspan="2">4</td><td colspan="2">3</td><td colspan="2">p</td><td>ff</td><td>p</td><td>p</td><td>ff</td><td colspan="2">ff</td></tr>
<tr><td>(E♭)</td><td>4</td><td>5</td><td>4</td><td>5</td><td>6</td><td>3</td><td>4</td><td>5</td><td colspan="4">ff</td><td colspan="4">ff</td></tr>
</table>

TABLE 2

Hand 1	R – L	L – R	R – L	L – R
Notes 1	G# - E♭	E♭ - G#	G# - C#	C# - G#
Stream 1	P_8	I_3	I_8	P_1
Stream 2	I_{10}	P_3	P_{10}	I_5
Notes 2	B♭ - E♭	E♭ - B♭	B♭ - F	F - B♭
Hand 2	L – R	R – L	L – R	R – L