

Otto Virtanen

Sudoku toccata

for bassoon and piano

2021



Music Finland

Copyright © by the Composer

This may be copied
by any means
of the composer



Full Score

Otto Virtanen

Sudoku toccata

for bassoon and piano

*commissioned for Turku Double Reed Competition 2021 for young performers
by Finnish Double Reed Society*



Sudoku toccata is an interactive composition. The bars 4 - 84 consist of 81 bars in which each bar of the bassoon part is equivalent to a single number in a classic 9 x 9 Sudoku grid. The bassoonists willing to play the piece must choose from 9 different types of pre-given one-bar gestures for each digit in the grid according to their preference. After this election the composer will determine the character of each row by placing the gestures in suitable octaves and adding dynamics and then produce an individual solo part for the performance. Finally, there are 362 880 permutation equivalent possibilities in which the music can appear in the bassoon part.

The Sudoku grid used in this piece is automorphic with 180° rotational symmetry. The digit 5 plays a special role as it is fixed by the permutation. When observing the grid and the score together it might be a point of interest to notice that there are some equalities in the numbers of the grid affecting the bassoon part likewise in the following bars:

$$4 - 11 = 77 - 84$$

$$14 - 17 = 71 - 74$$

$$32 - 34 = 54 - 56$$

The grid used in Sudoku toccata is this:

ROW (bars)

1 (4 - 12)	1	8	7	6	4	3	2	9	5
2 (13 - 21)	4	2	9	1	8	5	6	3	7
3 (22 - 30)	6	5	3	2	9	7	4	1	8
4 (31 - 39)	9	6	5	4	3	1	8	7	2
5 (40 - 48)	7	4	1	8	5	2	9	6	3
6 (49 - 57)	8	3	2	9	7	6	5	4	1
7 (58 - 66)	9	6	3	1	8	7	5	4	2
8 (67 - 75)	7	4	5	2	9	1	8	6	3
9 (76 - 84)	1	8	7	6	4	3	2	9	5



The music is using five different Japanese pentatonic scales named here according Seiichi Tokawa's classification and Fumio Koizumi's tetrachord characterization of scale types:

Rows 1 & 9: *In type* (*Miyako-bushi*) scale
 Rows 2 & 8: *Kon-go type* scale (2nd transposition)
 Rows 3 & 7: *Yo type* (*Ritsu*) scale
 Rows 4 & 6: *Yo type* scale (3rd transposition)
 Row 5: *Ryu-kyu type* scale (2nd transposition)

Instructions:

On the following page you find 9 one-bar gestures (A - I) presented in all 5 different scales. After careful study of the score and the Sudoku grid make your choice of gesture for each number (1 - 9).

There is no right or wrong choice in this quest! The only rule is that every number must have its own gesture. Use your imagination and fantasy and try to find the beauty in the grid.

Send your list to the composer (for example: 1 = A, 2 = B etc...) via e-mail.

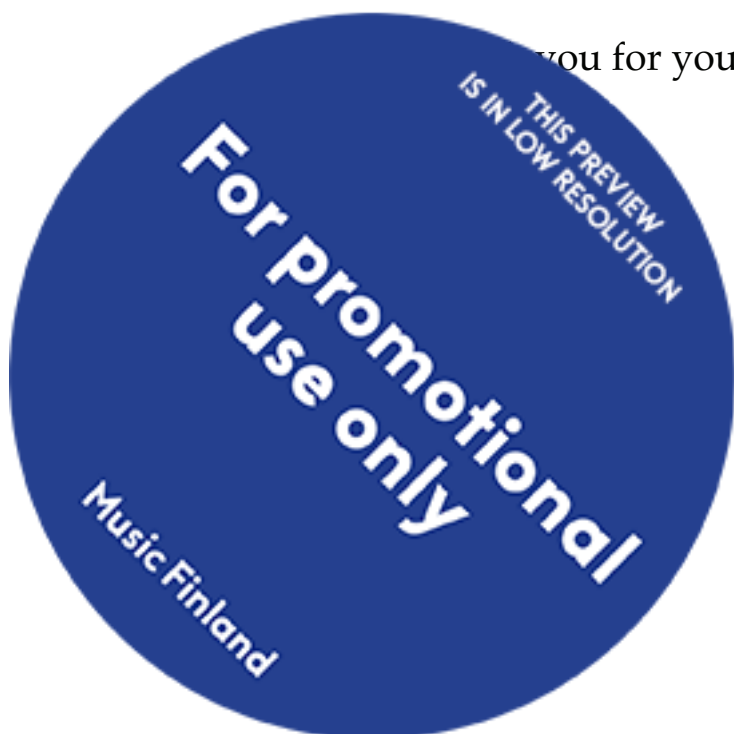
You will get the music of your unique version with both bassoon and piano parts after that. It will take some days at least.

In the gesture **H** the last quaver will be either lower or higher of the notes written. The decision will be made by the composer.

If you have any questions, please feel free to ask.

Thank you for your interest!

Otto Virtanen
 virtasenotto@gmail.com



One-bar gestures (A-I) in 5 scales:

	<i>Miyako-bushi:</i>	<i>Kon-go:</i>	<i>Ritsu:</i>	<i>Yo:</i>	<i>Ryu-kyu:</i>
A					
B					
C					
D					
E					
F					
G					
H					
I					



to Selim
Sudoku toccata
version x

Otto Virtanen
2021

Vivace

Bassoon

f *dim.*

Vivace

Piano

mf *dim.*

4 **1**

Bsn.

1

Pno.

p



12 2

Bsn.

Pno. *mf* *mp*

16

Bsn.

Pno. *poco a poco cresc.*

20 3

Bsn.

Pno. *f*



27

Bsn.

Pno.

cresc.

30

Bsn.

Pno.

mf

4

35

Bsn.

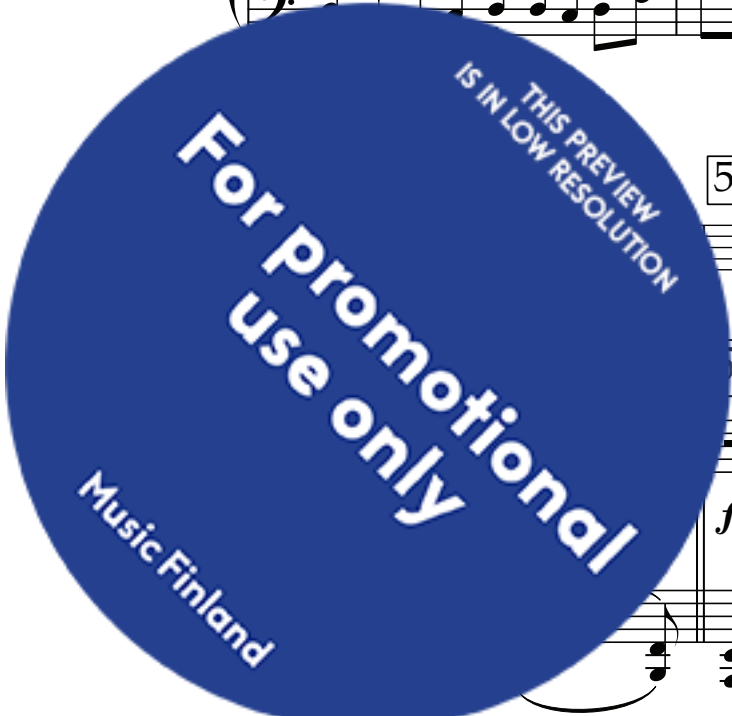
Pno.

5

Bsn.

Pno.

f



43

Bsn.

Pno.

48

Bsn.

Pno.

6

6

mp

53

Bsn.

Pno.

dim.

p

58

Bsn.

Pno.

cresc. poco a poco



61

Bsn.

Pno.

65

Bsn.

Pno.

f *mp* *f* *mp* *mf* *mp*

69

Bsn.

Pno.

mf *p*



cresc.

76 9

Bsn.

Pno.

f

mp poco a poco cresc.

79

Bsn.

Pno.

82

Bsn.

Pno.

