

My personal approach of using the Iranian santour

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Managing accidentals on the double bridges santour

Before addressing this text, I invite the reader to read, in the following order, my two previous texts:

- [Double bridges santour](#)
- [Managing sound universes on the double bridges santour](#)

Definition

The term « accidental » is used in this text to refer to:

- the modification of the initial pitch of a note, for example passing from a G to a G#, or more broadly,
- the use of one or more variants of a note, eg, E, E koron (Eb^) and E flat (Eb)

On the double bridges santour we can use two types of accidentals: static and dynamic.

Static accidentals

There are 4 approaches of using a static accidentals.

Accidental on a doubled string

On a G santour with 9 rows of strings, the E strings (bridges 1 and 8) and the F strings (bridges 2 and 9) are doubled. That allows us to have, for example an Eb and an Eb^ simultaneously, each positioned on a different string. I also use the string 1 to double the string 6 (the D string).

Kook																
			F		F	F #				F #	F #	F	F		B b	C
		E	E b		D #	E b	E b^	E			E	E b^	E b		A b	
D #	D	D b^	D b		D b	D b^	D	D #		D #	D	D b^	D b		G	
		C #	C		C	C #	C #					C #	C		F	
		B	B b		B b	B b^	B	B				B	B b		E b	E
A #	A	A b^	A b		A b	A b^	A	A #		A #	A	A b^	A b		D	
		G #	G		G	G #					G #	G	G		C	C #
		F #	F		F	F #	G #					F #	F		G #	B
E	E b^	E b	D		D	E b	E b^	F			E	D	C		B b	

Figure 1

Accidental positioned on the octave

This is an accidental borrowed from another register. For example, using an Ab[^] on the right white bridge and an Ab on the left white bridge.

Kook

			F		F	F [#]			F [#]	F [#]	F	F		B ^b	C
		E	E ^b		D [#]	E ^b	E ^{b[^]}	E		E	E ^{b[^]}	E ^b		A ^b	
D [#]	D	D ^{b[^]}	D ^b		D ^b	D ^{b[^]}	D	D [#]	D [#]	D	D ^{b[^]}	D ^b		G	
		C [#]	C		C	C [#]	C [#]				C [#]	C		F	
		B	B ^b		B ^b	B ^{b[^]}	B	B			B	B ^b		E ^b	E
A [#]	A	A ^{b[^]}	A ^b		A ^b	A ^{b[^]}	A	A [#]	A [#]	A	A ^{b[^]}	A ^b		D	
		G [#]	G		G	G [#]				G [#]	G	G		C	C [#]
		F [#]	F		F	F [#]	G [#]				F [#]	F		G [#]	B
E	E ^{b[^]}	E ^b	D		D	E ^b	E ^{b[^]}	E		E	D	C		B ^b	

Figure 2

Accidental positioned on a free string

This is done by using a string that is not used (at the given moment or not at all) in the song and by assigning another note to it. In this example, I use a G[#] on the second bridge to alter the G on the third bridge (see Figure 6 below, the universe for Bach Sarabande).

Kook

			F		F	F [#]			F [#]	F [#]	F	F		B ^b	C
		E	E ^b		D [#]	E ^b	E ^{b[^]}	E		E	E ^{b[^]}	E ^b		A ^b	
D [#]	D	D ^{b[^]}	D ^b		D ^b	D ^{b[^]}	D	D [#]	D [#]	D	D ^{b[^]}	D ^b		G	
		C [#]	C		C	C [#]	C [#]				C [#]	C		F	
		B	B ^b		B ^b	B ^{b[^]}	B	B			B	B ^b		E ^b	E
A [#]	A	A ^{b[^]}	A ^b		A ^b	A ^{b[^]}	A	A [#]	A [#]	A	A ^{b[^]}	A ^b		D	
		G [#]	G		G	G [#]				G [#]	G	G		C	C [#]
		F [#]	F		F	F [#]	G [#]				F [#]	F		G [#]	B
E	E ^{b[^]}	E ^b	D		D	E ^b	E ^{b[^]}	E		E	D	C		B ^b	

Figure 3

Accidental positioned on the right yellow bridge

The right yellow bridges, double a part of the left white birdges. Thus, they could be used as their accidentals (see Figure 6 below, the universe Bach Sarabande).

Kook

			F		F	F [#]			F [#]	F [#]	F	F		B ^b	C
		E	E ^b		D [#]	E ^b	E ^{b[^]}	E		E	E ^{b[^]}	E ^b		A ^b	
D [#]	D	D ^{b[^]}	D ^b		D ^b	D ^{b[^]}	D	D [#]	D [#]	D	D ^{b[^]}	D ^b		G	
		C [#]	C		C	C [#]	C [#]				C [#]	C		F	
		B	B ^b		B ^b	B ^{b[^]}	B	B			B	B ^b		E ^b	E
A [#]	A	A ^{b[^]}	A ^b		A ^b	A ^{b[^]}	A	A [#]	A [#]	A	A ^{b[^]}	A ^b		D	
		G [#]	G		G	G [#]				G [#]	G	G		C	C [#]
		F [#]	F		F	F [#]	G [#]				F [#]	F		G [#]	B
E	E ^{b[^]}	E ^b	D		D	E ^b	E ^{b[^]}	E		E	D	C		B ^b	

Figure 4

Dynamic accidentals

This is accomplished by changing the position of a bridge in the course of the piece being played. In the example below of the Moghadame Gerayeli of the Radif, we shift from Db[^] to D in the ending cadence of the piece. In order to use the D of the same register, we push the right white bridge to its new position. In my next text, [Successfully executing dynamic accidentals on the double bridges santour](#), take this example and describe in detail and in a step by step manner the right way to perform this action.

At the beginning of the song, the Db[^] is used. The right white bridge is on position 2

In the course of the piece, you have to push the right white bridge slightly to the right of the position 3 to be able to play a D natural

Shur G 2 - 334 4 244

		F		F	F#			F#	F#	F	F	Bb	C
D#	D	Db [^]	Db	D#	Db	Db [^]	D+1/2	D#				Ab	
		C#	C	C	C#	C#				C#	C	F	
		B	Bb	Bb	B [^]	B	B			B	Bb	Eb	E
A#	A	Ab [^]	Ab	Ab	Ab [^]	Ab	A	A#		A	Ab	D	
		G#	G	G	G#	G#				G#	G	C#	C#
		F#	F	F	F#	F#	G#			F#	F	G#	B
E	Eb [^]	Eb	D	D	Db	Db [^]	Eb [^]	E		E	D	C	Bb

The yellow color indicates where the dynamic accidental is located

F	1	1	1	2
E	1	2	1	
D	2	2	2	
C	1	1	1	
B	1	1	1	1
A	1	2	2	
G	1	1	2	1
F	1	1	1	2
E	3	3	1	

F				
E				
D	2	2		
C				
B				
A				
G				
F				
E				

C8. Moghadame Gerayeli (Shur G/C)

En cours → D5b[^]:D5 (1/2:3+1/2)

2

The number 5 indicates that the D is on register 5 (the G santour with 9 rows of bridges covers 4 musical registers from the lowest to the highest [3, 4, 5 and 6])

Figure 5

In the below universe that I use to play Bach's Sarabande from the Cello Suite No. 1, the right white bridge C is repositioned on C# in the course of the piece and repositioned back on C later in the piece.

At the beginning of the piece, a C natural is used. During the piece you must move the white right bridge to position 3 in order to play a C#. Later in the piece, you must move the bridge back to position 1 to play a C natural again.

Mineur E 4 - 424 4 244 - Majeur G 442 4 442

		F		F	F#			F#	F#	F	F	Bb	C
D#	D	Db [^]	Db	D#	Db	Db [^]	D	D#				Ab	
		C#	C	C	C#	C#				C#	C	F	
		B	Bb	Bb	B [^]	B	B			B	Bb	Eb	E
A#	A	Ab [^]	Ab	Ab	Ab [^]	Ab	A	A#		A	Ab	D	
		G#	G	G	G#	G#				G#	G	C#	C#
		F#-1	F	F	F#	F#	G#			F#	F	G#	B
E	Eb [^]	D#	D	D	Db	Db [^]	Eb [^]	E		E	D	C	Bb

F	1	1	3	2
E	2	4	3	
D	3	3	3	
C	1	1	1	
B	2	3	3	1
A	3	3	3	
G	1	1	1	2
F	2	3	1	2
E	2	2	3	

F			3	
E		4		
D				
C				
B			3	1
A		3		
G				
F	2	3	1	2
E	2	2		

L1. Sarabande... (Major G)

En cours → C5:C5#C5 (1/1:3:1)

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The forward slash « / » indicates that the bridge to move during the piece is on the right side of the white bridges. If necessary, the yellow bridges is identified with the backward slash « \ »

Figure 6

Application examples

The figure 7 below shows a mapping between the music score of Bach's Sarabande and the sound universe that I use to play it. This figure shows all types of accidentals I have presented in this text, with the exception of the accidental positioned on the octave.

Sarabande.

Legend:

- Orange circle: C-C# Register 6 – Accidental positioned on the right yellow bridge
- Blue circle: C-C# Register 5 – Dynamic accidental
- Red circle: G-G# - Accidental positioned on a free string
- Green circle: D-D# - Accidental on a doubled string (also F-F# [line 1 of the music score] strings 9 and 2)

Tables:

Table 1: Mineur E 4 - 424 4 244 - Mineur G 442 4 442

		F	F#			F#	F#	F	F	Bb	C
		E	Eb	D#	D	E	Eb	D#	E	Ab	
D#	D	Db	D	D#	D	D	D	D	D	G	
		C#	C	C#	C	C#	C	C	C	F	
		B	Bb	B	B	Bb	B	B	B	E	
A#	A	Ab	A	Ab	A	Ab	A	A	A	D	
		G#	G	G#	G	G#	G	G	G	C	
		F#	F	F#	F	F#	F	F	F	B	
E	Eb	D#	D	D#	D	D#	D	D	D	Bb	

Table 2:

F	1	1	3	2
E	2	4	3	
D	3	3	3	
C	1	1	1	
B	2	3	3	1
A	3	3	3	
G	1	1	1	2
F	2	3	1	2
E	2	2	3	

Table 3:

F			3
E	4		
D			
C			3
B			3
A	3		
G			
F	2	3	1
E	2	2	

Additional Information:

L1. Sarabande... (Major G)

En cours → C5:C5#;C5 (#1:3:1)

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Figure 7