either/or

James Saunders

either/or

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programme note

either/or is a flexibly-scored piece in which players' actions are individually governed by assessing the activity of other players at specified time points: logic gates instruct them either to play a sound, or not.

information

instrumentation: at least three players – fl.ob.cl.tpt.tbn.perc.vn.vla.vc.db

duration: up to 20 minutes

either/or was written between December 2008 – January 2009

the first version of either/or was performed by either/or at the Ontological Theatre in New York on 11 December 2008

the full version of either/or was first performed by London Sinfonietta on 18 March 2009 at a BBC Invitation Concert at LSO St Luke's, London

the composition of either/or was supported by the London Sinofonietta's Blue Touchpaper project

performance instructions

either/or uses a cueing system for sounds based on the actions of other players at specified time points

each player has a sheet with sounds and a sheet with time points (any time sheet may be combined with any list of sounds)

in rehearsal, each player chooses two other reference players (player A, player B) from whom cues are taken: they might be seated either side of the player, or elsewhere in the space

during the performance, in advance of each time point select a sound to play from the page of sounds

at the next time point, play the sound only if the conditions marked next to it are met as indicated below: conditions refer to all subsequent time points until a change is indicated

conditions: 1 means the player is playing, 0 means the player is not playing, so if player A is on the left, and player B is on the right (A-B), and the current instruction is 1-1, play the chosen sound only if both players are playing

1-1			Play if both are playing (AND)
0-0 [r]	0-1	1-0	Play unless both are playing (NAND)
0-1	1-0 [r]	1-1	Play unless neither is playing (OR)
0-0			Play if neither is playing (NOR)
0-1 [r]	1-0		Play if either is playing (XOR)
0-0	1-1 [r]		Play unless either is playing (XNOR)

if the configuration has [r] marked, repeat previously played sound

sounds should be sustained until the next time point

for sounds where a re-articulation is necessary (e.g. to breathe, bow change etc.), do these as required but aim for as continuous a sound as possible

work through all sounds (including forced repetitions) before beginning the sequence again if necessary

general

in all sound production, the noise component should be the focus with any pitch component being a secondary colouring

the beginnings and ends of sounds should be as abrupt as possible (no crescendos or diminuendos), unless the means of production precludes this (e.g. some clarinet multiphonics) – as if you are pressing a button to turn something on or off

where staves have fewer than five lines, each line represents a relatively pitched sound with the indicated timbre/technique: decide on suitable fingerings or playing positions to make each sound distinctly different

[minimal movement]	the smallest range of bow movement possible to make an audible sound
[very slow bow]	a marginally faster bow speed, creating an unstable sound
[tailpiece]	bow the tailpiece [with indicated sound result where notated]
[bow spike]	bow the spike with a firm pressure, with either the cello on lap (spike in air) to produce an oscillating sound, or with the spike on the floor (noise/tone)
[side of bridge]	bow side of bridge to produce a noise/high-pitched squeak
[body]	choose three differently pitched noise bowing positions on the body of the instrument alternatively, substitute three other bowed wood noise sounds (e.g. three different pieces of wood on a stand)
[polystyrene preparation]	insert a small cube of polystyrene between indicated strings and bow it lightly
[stick preparation]	a chopstick or piece of thin dowel inserted between strings (below middle two, and above highest and lowest) over the fingerboard – bow near the stick to produce a noise sound with a hollow resonant pitch component created by sympathetic vibration through the stick
[damp]	loosely damp indicated strings with left hand to produce a noise sound with a hollow pitch component
[damp at nut]	loosely damp the indicated string near the nut

wind

[minimal air]	the smallest amount of air possible to make an audible sound
[throat]	a very rapid series of single articulations of the air stream in the throat (not flutter tongue)

flute

[air noise]	air noise directed almost fully into the instrument with no whistle tone component
[air noise/whistle tone]	air noise with an equal whistle tone component
[whistle tone]	a whistle tone with no air noise component: whistle tone should be moderately unstable

oboe

[air noise]	air noise directed fully into the instrument
[air noise, no reed]	remove reed: air noise directed fully into the instrument
[noise/crackle]	high pressure/air volume resulting in moisture crackle with unstable pitch component (like radio static) – fully open or fully closed tube (high/low)
[diffuse tone]	alternate fingering to produce a diffuse pitch-noise sound

clarinet

[air noise]	air noise directed fully into the instrument
[flutter]	flutter tongue
[M]	multiphonic built on indicated pitch: pure in tone, diffuse and indistinct (not complex overtone structure)

[air noise]	air noise directed fully into the instrument
[bleed]	partially depress valve/trigger to destabilise pitch
[throat]	a very rapid series of single articulations of the air stream in the throat (not flutter tongue)
mutes	mutes are indicated with boxed text and only refer to the module to which they are attached
+	closed mute position
⌖	blocked mute position (minimal air released)
〰〰〰〰〰〰〰〰	mute trill (small movements)

instruments	two surfaces [surface 1, surface 2] – surfaces should: have a small amount of resonance; be textured enough to respond to objects; be noticeably different to each other; be large enough to allow for continuous friction sounds. NB: an additional two different surfaces may be used for the polystyrene (four in total)
	two paper coffee cups [cup 1, cup 2] – standard coffee cups of different size so as to produce different sounds when played as indicated
	polystyrene block [polystyrene] – a small piece of relatively dense polystyrene
cups, polystyrene	constant, steady dragging across the indicated surface – avoid articulations on direction change where possible
∪	use base of cup on surface
∩	use rim of cup on surface (upside down)
[circle]	a faster circling action

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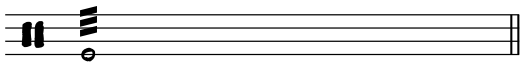
[air noise/whistle tone]
[throat]



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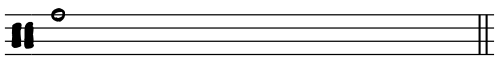
[air noise]



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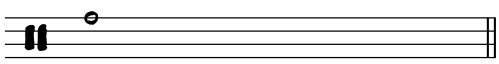
[whistle tone]



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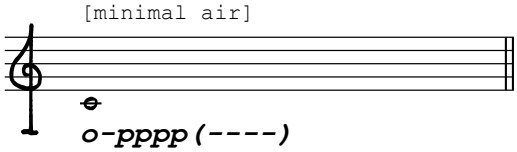
[minimal air]



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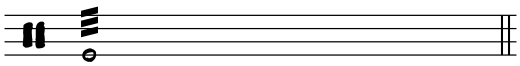
[air noise]
[throat]



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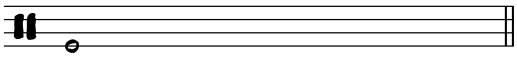
[whistle tone]



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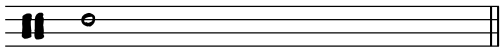
[whistle tone]



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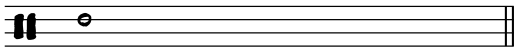
[air noise/whistle tone]



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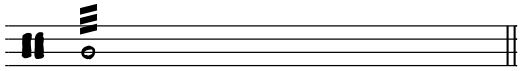
[whistle tone]
[throat]



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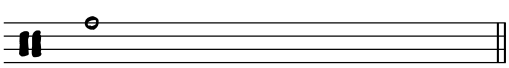
[air noise/whistle tone]



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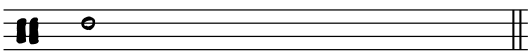
[air noise]



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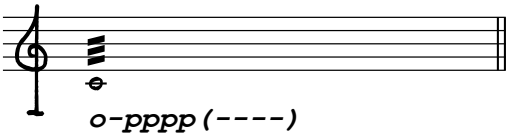
[throat]



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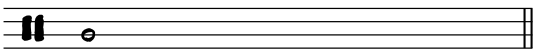
[air noise/whistle tone]



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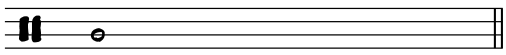
[air noise]



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flute

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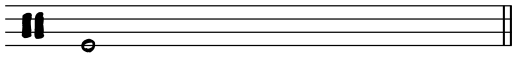
[air noise, no reed]



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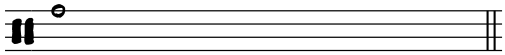
[air noise]



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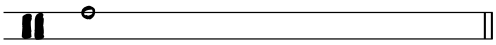
[noise/crackle]



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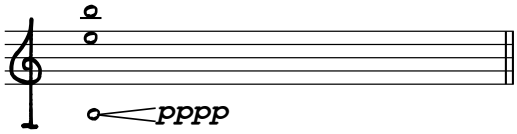

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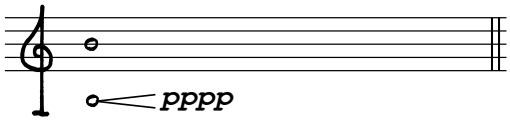
[diffuse tone]



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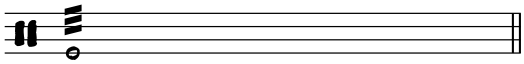
[air noise]
[throat]



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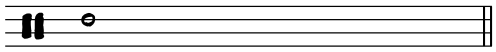
[air noise]



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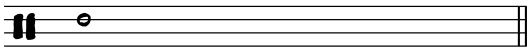
[air noise, no reed]



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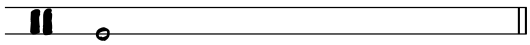
[diffuse tone]

pppp

[noise/crackle]



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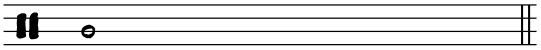
[air noise, no reed]



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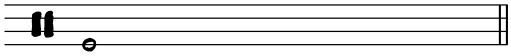
[air noise]



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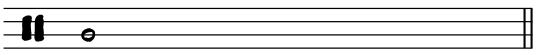
[air noise]



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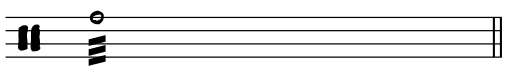
[air noise, no reed]
[throat]



o-pppp (----)

oboe

either/or

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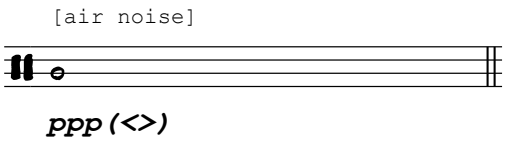

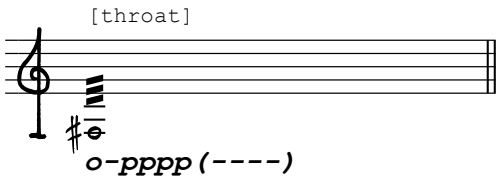

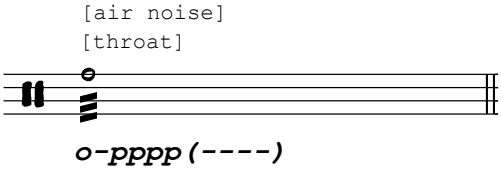

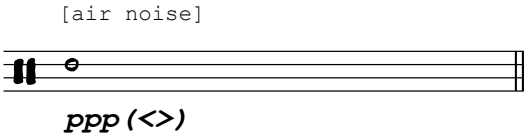

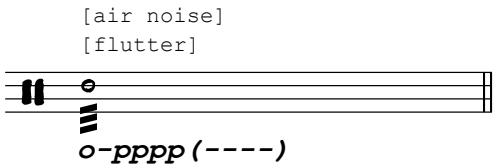

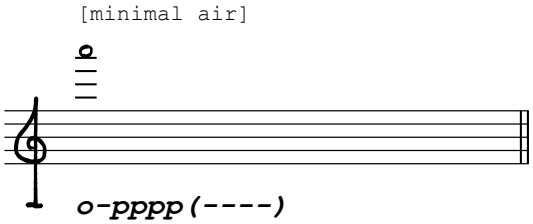

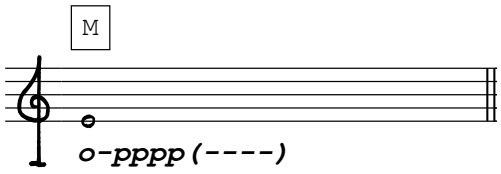

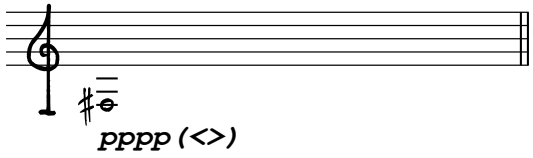

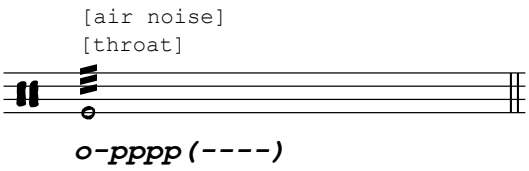

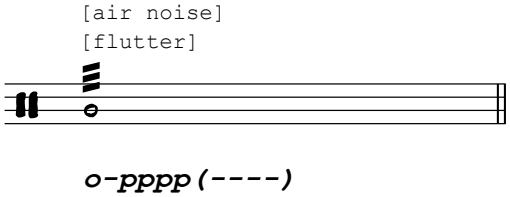

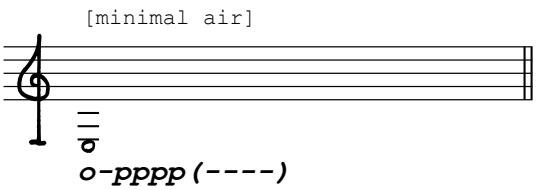

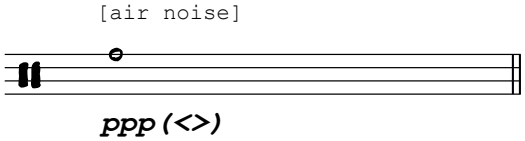

clarinet

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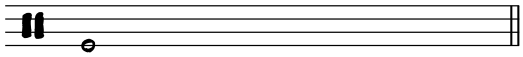
cup mute
[air noise]



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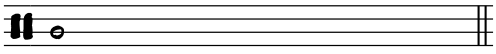
[air noise]



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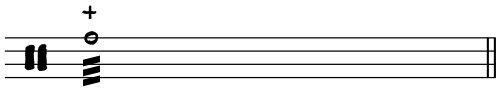
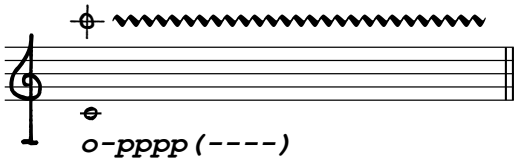
plunger mute
[air noise]
[throat]



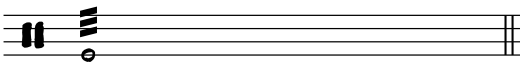
o-pppp (----)

plunger mute



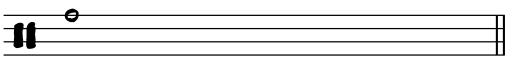
o-pppp (----)

[air noise]
[throat]



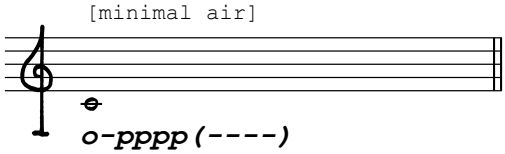
ppp (----)

[air noise]



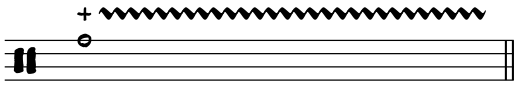
ppp (<>)

silent mute
[minimal air]



o-pppp (----)

wawa mute [air noise]

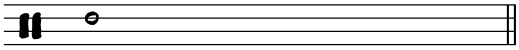


o-pppp (----)

plunger mute [air noise]

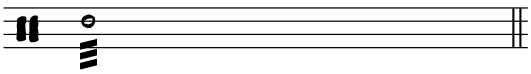
o-pppp (----)

[air noise]



ppp (<>)

[air noise]
[throat]

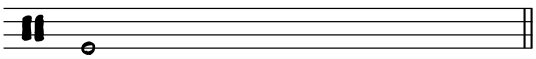


ppp (<>)

silent mute
[bleed]

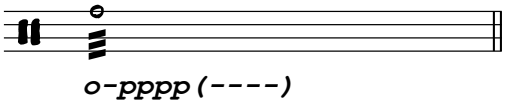
o-pppp (----)

[air noise]



ppp (<>)

cup mute
[air noise]
[throat]



o-pppp (----)

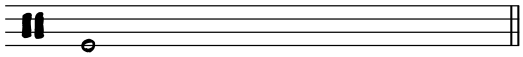
trumpet

either/or

James Saunders

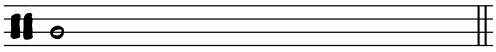
cup mute

[air noise]



ppp (<>)

[air noise]

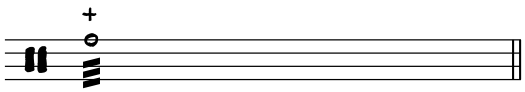


ppp (<>)

plunger mute

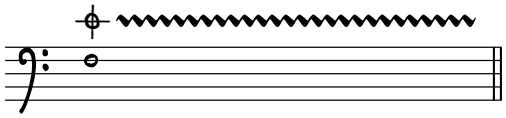
[air noise]

[throat]



o-pppp (----)

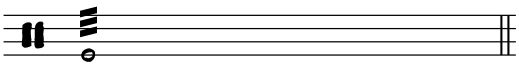
plunger mute



o-pppp (----)

[air noise]

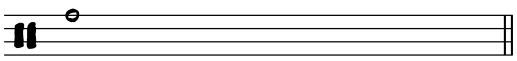
[throat]



ppp (----)

bucket mute

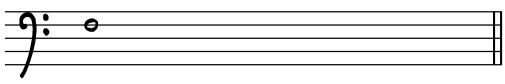
[air noise]



ppp (<>)

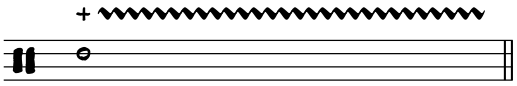
silent mute

[minimal air]



o-pppp (----)

wawa mute [air noise]

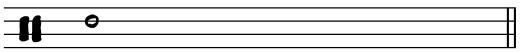


o-pppp (----)

plunger mute [air noise]

o-pppp (----)

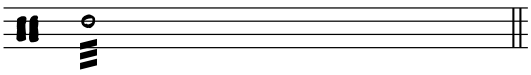
[air noise]



ppp (<>)

[air noise]

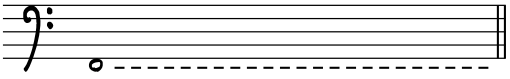
[throat]



ppp (<>)

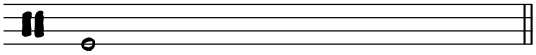
silent mute

[bleed trigger]



o-pppp (----)

[air noise]

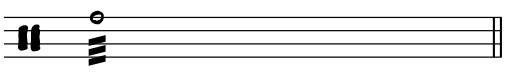


ppp (<>)

bucket mute

[air noise]

[throat]



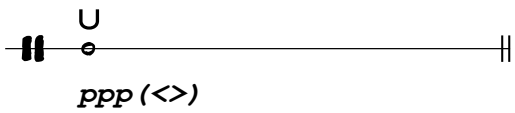
o-pppp (----)

trombone

either/or

James Saunders

cup 1 / surface 1

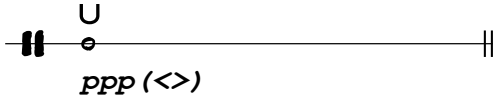


ppp (<>)

cup 2 / surface 2

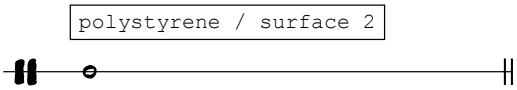
ppp (<>)

cup 2 / surface 1



ppp (<>)

polystyrene / surface 2



ppp (<>)

polystyrene / surface 1

[circle]

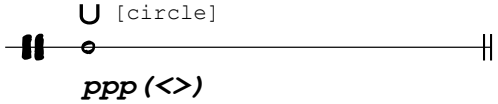
ppp (<>)

cup 1 / surface 2

ppp (<>)

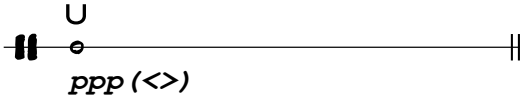
cup 2 / surface 1

[circle]



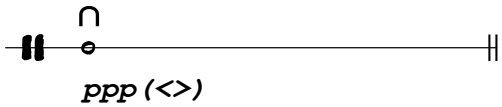
ppp (<>)

cup 2 / surface 2



ppp (<>)

cup 1 / surface 1



ppp (<>)

polystyrene / surface 2

[circle]

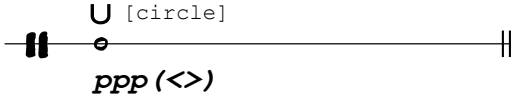
ppp (<>)

cup 2 / surface 1

ppp (<>)

cup 1 / surface 2

[circle]



ppp (<>)

polystyrene / surface 1

ppp (<>)

cup 1 / surface 2

ppp (<>)

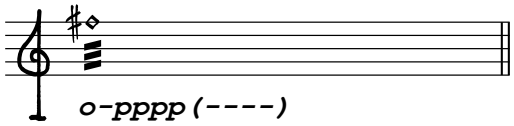
percussion

either/or

James Saunders

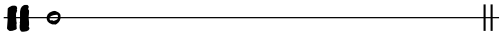
[minimal movement]

I.



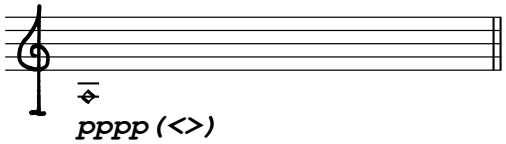
o-pppp (----)

[tailpiece]



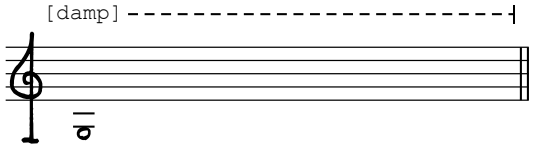
pppp (<>)

IV.



pppp (<>)

[damp]

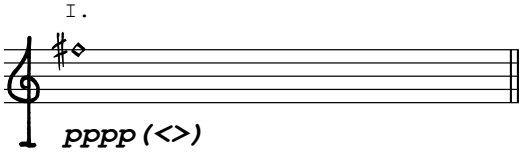


ppp (<>)

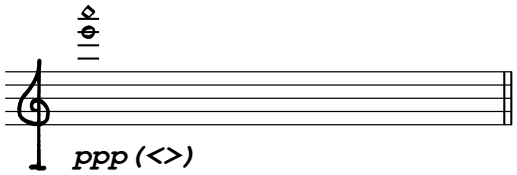
[side of bridge]

o-pppp (----)

I.

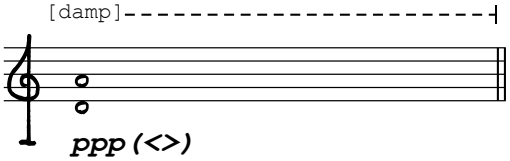


pppp (<>)



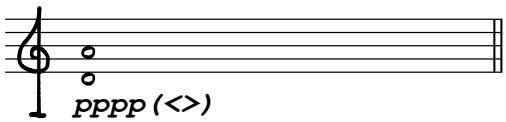
ppp (<>)

[damp]



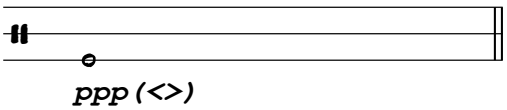
ppp (<>)

polystyrene preparation



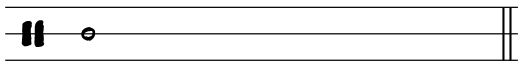
pppp (<>)

[body]



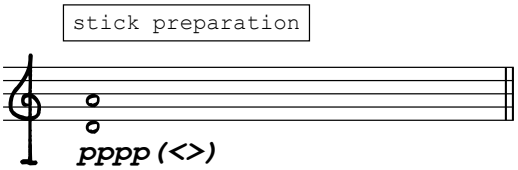
ppp (<>)

[body]



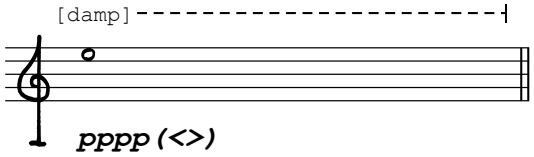
ppp (<>)

stick preparation



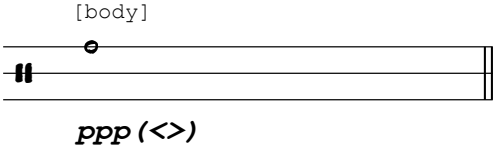
pppp (<>)

[damp]



pppp (<>)

[body]



ppp (<>)

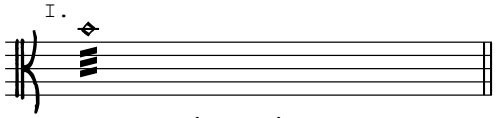
violin

either/or

James Saunders

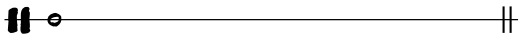
[minimal movement]

I.



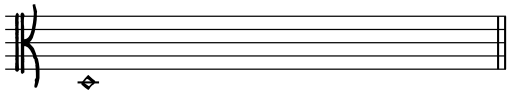
o-pppp (----)

[tailpiece]



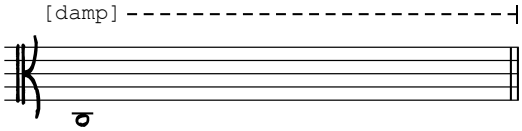
pppp (<>)

IV.



pppp (<>)

[damp]



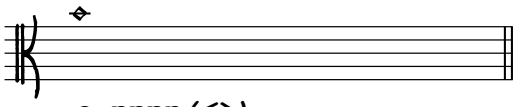
ppp (<>)

[side of bridge]

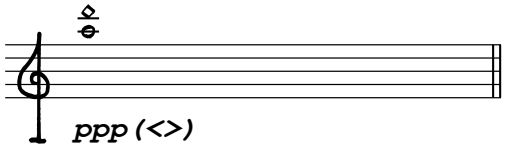
o-pppp (----)

[very slow bow]

I.

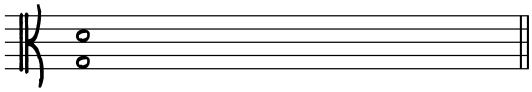


o-pppp (<>)



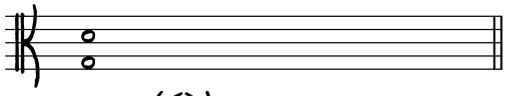
ppp (<>)

[damp]



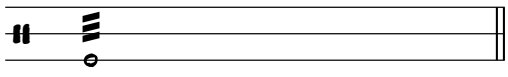
ppp (<>)

polystyrene preparation



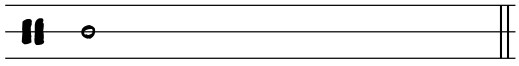
pppp (<>)

[body]



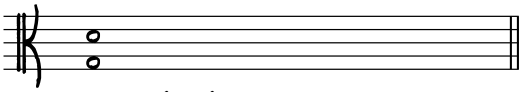
ppp (<>)

[body]



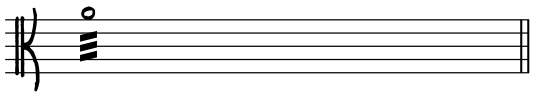
ppp (<>)

stick preparation



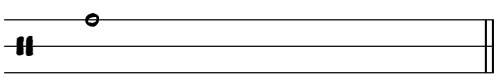
pppp (<>)

[damp]



pppp (<>)

[body]



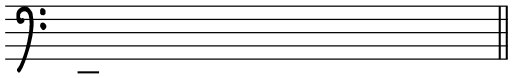
ppp (<>)

viola

either/or

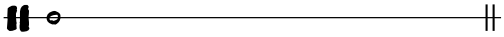
James Saunders

[damp (at nut)]
[very slow bow]



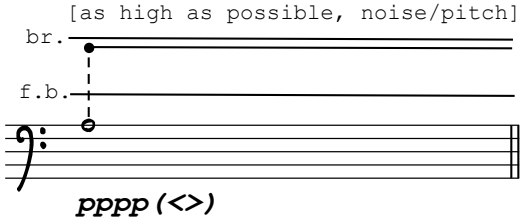
pppp (<>)

[tailpiece, no pitch]



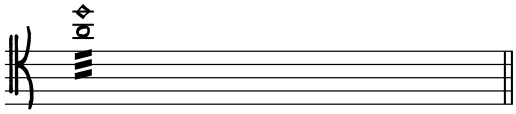
pppp (<>)

[as high as possible, noise/pitch]



pppp (<>)

[minimal movement]

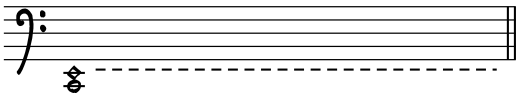


o-pppp (----)

[bow spike, cello on lap]

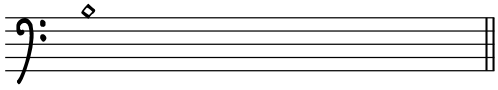
ppp (<>)

barely touching node, with harmonic
sounding intermittently



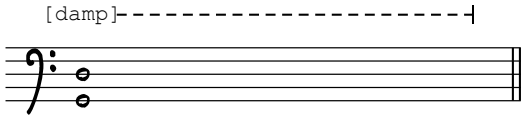
o-pppp (----)

[very slow bow]



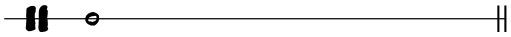
pppp (----)

[damp]



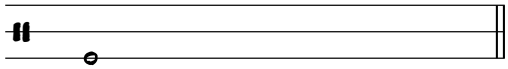
ppp (<>)

[tailpiece, noise/pitch]



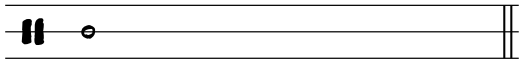
pppp (<>)

[body]



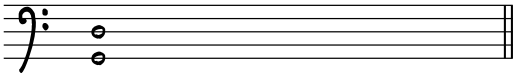
ppp (<>)

[body]



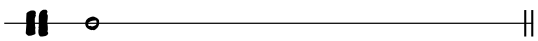
ppp (<>)

polystyrene preparation



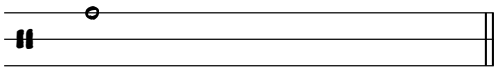
pppp (<>)

[bow spike, spike touching floor]



ppp (<>)

[body]



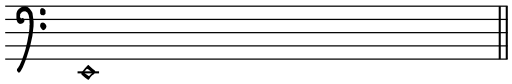
ppp (<>)

cello

either/or

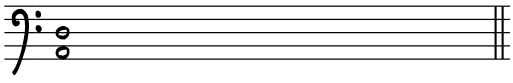
James Saunders

[damp (at nut)]
[very slow bow]



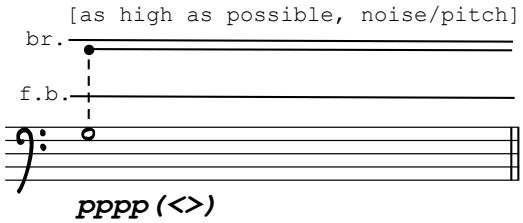
o-pppp (----)

stick preparation



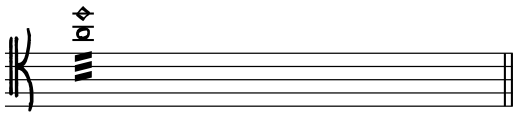
pppp (<>)

[as high as possible, noise/pitch]



pppp (<>)

[minimal movement]

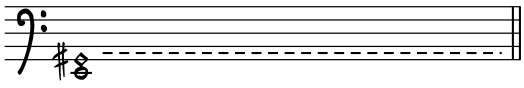


o-pppp (----)

[side of bridge]

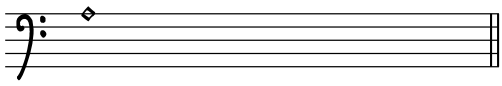
ppp (<>)

barely touching node, with harmonic
sounding intermittently



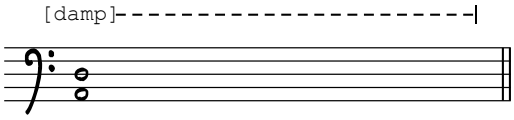
o-pppp (----)

[very slow bow]



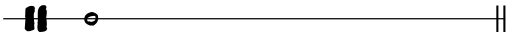
o-pppp (----)

[damp]



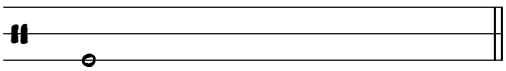
ppp (<>)

[tailpiece, noise/pitch]



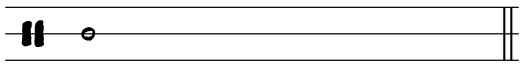
pppp (<>)

[body]



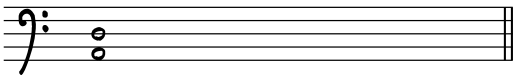
ppp (<>)

[body]



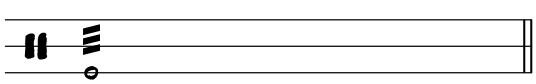
ppp (<>)

polystyrene preparation



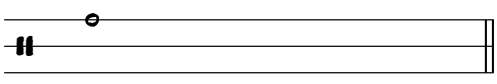
pppp (<>)

[body]



ppp (<>)

[body]



ppp (<>)

double bass

either/or

James Saunders

[#001]

0:00	[silent]			
0:06	0-0			
0:17				
0:28				
4:28	0-1 [r]	1-0		
5:25				
5:47				
6:15	0-0	1-1 [r]		
6:47				
8:59				
10:05	1-1			
10:36				
11:00	0-0 [r]	0-1	1-0	
12:15				
13:39				
14:09				
14:43				
15:00				
15:40	0-1	1-0 [r]	1-1	
17:16				
17:24				
17:56				
18:12				
18:32				
19:39	0-0			
20:00	[stop]			

either/or

James Saunders

[#002]

0:00	[silent]			
1:18	0-0	1-1 [r]		
1:23				
2:57				
3:06				
3:15				
3:43	1-1			
5:17				
6:12	0-0 [r]	0-1	1-0	
6:48				
7:45				
8:35				
8:50				
9:27				
10:23				
10:43	0-1	1-0 [r]	1-1	
11:20				
11:31				
12:27				
13:25	0-0			
14:50				
16:40				
17:42				
18:21	0-1 [r]	1-0		
19:32				
20:00	[stop]			

either/or

James Saunders

[#003]

0:00	[silent]		
0:24	0-0		
1:44			
2:10			
4:00			
4:25	0-1 [r]	1-0	
4:55			
5:08			
5:41			
10:39	0-0	1-1 [r]	
10:46			
11:44			
11:58			
13:10	1-1		
13:14			
14:39	0-0 [r]	0-1	1-0
14:42			
16:00			
16:32			
17:46			
17:52			
18:47	0-1	1-0 [r]	1-1
19:02			
19:15			
19:31			
20:00	[stop]		

either/or

James Saunders

[#004]

0:00	[silent]		
0:22	0-0 [r]	0-1	1-0
1:22			
1:44			
2:50			
3:42			
4:02			
5:04			
5:25			
5:42			
6:48			
7:05			
7:28	0-1	1-0 [r]	1-1
9:17			
9:31			
11:40			
11:46	0-0		
15:10			
15:41			
16:53			
18:11	0-1 [r]	1-0	
18:42			
19:13			
19:50	0-0	1-1 [r]	
19:58			
20:00	[stop]		

either/or

James Saunders

[#005]

0:00	[silent]		
1:07	0-0	1-1 [r]	
1:15			
2:02			
4:05			
5:16	1-1		
6:45			
7:08			
7:50			
8:12	0-0 [r]	0-1	1-0
8:25			
8:38			
9:50			
10:14			
11:17			
11:44			
12:15	0-1	1-0 [r]	1-1
12:36			
13:37			
13:50			
16:55			
17:28			
18:15	0-0		
19:24			
19:50			
20:00	[stop]		

either/or

James Saunders

[#006]

0:00	[silent]		
0:21	0-1	1-0 [r]	1-1
1:14			
1:26			
2:01			
3:20			
4:08			
5:07	0-0		
6:13			
7:15			
7:35			
8:37	0-1 [r]	1-0	
8:44			
9:46			
11:28			
12:00			
12:28	0-0	1-1 [r]	
13:25			
13:57			
15:31			
17:38	1-1		
17:59			
18:51			
19:06	0-0 [r]	0-1	1-0
19:13			
20:00	[stop]		

either/or

James Saunders

[#007]

0:00	[silent]		
0:55	0-0		
1:41			
1:58			
2:15			
2:53			
3:07	0-1 [r]	1-0	
4:14			
4:28			
5:18	0-0	1-1 [r]	
6:23			
8:33			
10:52			
11:36	1-1		
12:09			
12:13			
12:49	0-0 [r]	0-1	1-0
13:03			
15:16			
15:43			
17:16			
17:22			
19:29	0-1	1-0 [r]	1-1
19:44			
19:51			
20:00	[stop]		

either/or

James Saunders

[#008]

0:00	[silent]		
0:12	0-0	1-1 [r]	
0:23			
1:59			
2:02			
2:49			
3:06			
3:15			
4:19	0-1	1-0 [r]	1-1
4:24			
5:36			
9:04			
10:47			
11:43			
12:31			
13:00	1-1		
13:43			
14:25			
14:29			
14:40			
14:58	0-0		
15:48			
16:24			
16:53	0-0 [r]	0-1	1-0
19:08			
20:00	[stop]		

either/or

James Saunders

[#009]

0:00	[silent]		
0:14	0-0 [r]	0-1	1-0
0:34			
1:52			
2:32			
3:14			
3:35	0-0		
3:57			
4:26			
4:32	0-0	1-1 [r]	
4:48			
5:14			
7:24			
7:40			
8:08	0-1	1-0 [r]	1-1
8:29			
9:03			
9:44			
12:06			
13:30			
16:16			
17:05	1-1		
17:18			
17:42			
19:53			
20:00	[stop]		

either/or

James Saunders

[#010]

0:00	[silent]		
0:02	0-0		
0:31			
1:09			
1:21			
1:58	0-1	1-0 [r]	1-1
2:08			
3:10			
3:36			
4:02	1-1		
5:11			
5:57			
8:55			
9:29	0-0	1-1 [r]	
9:40			
10:34			
11:27	0-0 [r]	0-1	1-0
12:18			
15:09			
16:01			
16:13			
16:44	0-1 [r]	1-0	
16:56			
17:10			
18:50			
20:00	[stop]		

either/or

James Saunders

[#011]

0:00	[silent]
0:33	0-0
1:34	
2:31	
2:49	0-1 [r] 1-0
4:36	
5:01	
6:06	
7:02	
7:16	
7:29	
7:33	
8:02	0-1 1-0 [r] 1-1
8:48	
9:04	
10:42	
10:44	
11:59	0-0 1-1 [r]
12:49	
14:52	
15:08	1-1
16:09	
16:28	
17:33	
18:41	
20:00	[stop]

either/or

James Saunders

[#012]

0:00	[silent]		
1:11	0-1	1-0 [r]	1-1
2:01			
4:12			
5:23			
6:00			
6:17			
7:22			
7:29			
7:48			
9:56	0-0		
11:02			
11:17			
12:06			
13:37	0-1 [r]	1-0	
14:32			
15:11			
15:21			
16:07	0-0	1-1 [r]	
16:48			
18:04			
18:30			
18:48	0-0 [r]	0-1	1-0
19:23			
19:31			
20:00	[stop]		

either/or

James Saunders

[#013]

0:00	[silent]		
0:18	0-0	1-1 [r]	
3:30			
4:02			
4:57			
5:11			
5:30	0-0 [r]	0-1	1-0
7:36			
7:44			
8:15			
8:26			
8:43			
9:22	0-0		
9:35			
9:45			
10:38	0-1 [r]	1-0	
12:29			
12:42			
12:56			
13:07	0-0	1-1 [r]	
13:55			
14:39			
18:06	0-1	1-0 [r]	1-1
19:09			
19:41			
20:00	[stop]		

either/or

James Saunders

[#014]

0:00	[silent]		
0:03	0-0	1-1 [r]	
1:00			
1:22			
2:37	0-1	1-0 [r]	1-1
2:44			
3:57			
4:17			
4:52			
5:44			
5:46			
6:00	0-1 [r]	1-0	
8:50			
10:06			
10:32			
12:40	0-0		
13:31			
13:47			
13:58	0-1	1-0 [r]	1-1
14:54			
17:36	0-0 [r]	0-1	1-0
18:14			
18:19			
18:54			
19:54			
20:00	[stop]		

either/or

James Saunders

[#015]

0:00	[silent]		
0:50	0-0 [r]	0-1	1-0
1:13			
1:24			
1:57	0-0	1-1 [r]	
2:06			
2:32			
3:10			
3:23	0-1	1-0 [r]	1-1
3:42			
6:44			
8:13			
8:21	0-0		
8:53			
9:31			
11:21			
12:17			
13:02	0-1	1-0 [r]	1-1
13:31			
15:52			
16:33			
16:54	1-1		
18:37			
18:52	0-0 [r]	0-1	1-0
19:56			
20:00	[stop]		