

Jordan Dykstra  
*The Psychological Future*

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*for an ensemble of gamelan and string players*

## Program Notes

### *The Psychological Present*

In his 1976 paper “The Making of the Present: A Tutorial Review”, Dutch experimental psychologist John A. Michon wrote about the term “the psychological present” which he defined as “a time interval in which sensory information, internal processing, and concurrent behavior appear to be integrated within the same span of attention.” Michon found that the width of this subjective “present” was highly variable but noted the upper limit seemed to lie between 7 or 8”. Although *The Psychological Future* draws its formal inspiration from this upper limit (beginning with 7.5” between each event) and stretches it almost threefold (ending with 20” between each event), its other main concerns involve the anticipation and gradation of micro-intervals, site-specific yet performer-chosen harmonies, and timbral contingencies. If the events in *The Psychological Future* begin within the “present” threshold and then move far beyond the attention span of integration, can this “disintegration of the present” allow us to move into a new mode of “future listening” and perception?

### *Instrumentation*

The entire ensemble is divided into 2 equal halves: half gamelan players and half string players. The string half is comprised of any bowed instrument capable of sustaining. The gamelan half is comprised of any Javanese or Balinese instruments with at least one gong. Before beginning all players need to jointly decide whether to uniformly play either a pelog or slendro scale.

### *Scordatura*

The string players carefully tune all open strings to any sounding pitch from (any of) the gong(s). This includes not only the fundamental but any overtones. It is recommended that the tuning be aided by a spectral analysis software such as the program *Spear*. If needed (although not preferable) the string players may choose an octave displacement to avoid excessive stretching of the string.

### *Form*

Cycling upwards, the pieces begins at a rate of 7.5” per pulse (with an increase of .5” per cycle). Each cycle has 4 equal time-based iterations before moving onto the next cycle. For each specifically timed *pulse* the gamelan ensemble player strikes any note of any gamelan instrument, making sure to always to pick a new note (i.e. never striking the same note consecutively). For each cycle, the string ensemble players each pick one pulse duration and individually select and sustain any open string(s) or natural harmonic(s) of their choosing, making sure to always pick a new pitch (i.e. never bowing the same pitch consecutively). For instance, in Cycle 1 the player might choose to sustain their pitch during Pulse 3 (0:15:0–0:22:5) but in Cycle 2 they might

choose to sustain their pitch during Pulse 1 (0:30:0–0:38:0). The piece ends with a natural fade into silence after the last pulse in the 26<sup>th</sup> cycle is fully realized.

#### *Versions*

Finally, I would like to add that as long as the performers stay within the essence of the piece, there are other combinations of instrumentation that could and may work. I myself have tried other versions including one with 24 metal objects (which replaced the gamelan ensembles role and was performed by a percussion duet) with sine-tones (whose pitches were generated through spectral analysis of the metal objects, the one pulse per cycle randomly chosen, and performed by two players). In another version we used 15 pitched woodblocks (performed by a percussion trio replacing the gamelan ensemble) with a viola trio (again, their pitches generated through spectral analysis of the woodblock). The essence of the piece mainly lies within two areas: the form, which conceptually stitches the sound events together, and the scordatura, which connects both ensembles through pitch content. If there are any questions regarding what may be understood as “going too far” or “pushing against the score” please feel free to contact me (honestly I will probably either tell you its fine or to go much further).

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*January 2017*

## Full Score Timeline

<u>Cycle) duration</u>	<u>seconds per pulse</u>	<u>(seconds per cycle)</u>
1) 0:00:0—0:30:0	<b>7.5"</b>	(30")
2) 0:30:0—1:02:0	<b>8"</b>	(32")
3) 1:02:0—1:36:0	<b>8.5"</b>	(34")
4) 1:36:0—2:12:0	<b>9"</b>	(36")
5) 2:12:0—2:50:0	<b>9.5"</b>	(38")
6) 2:50:0—3:30:0	<b>10"</b>	(40")
7) 3:30:0—4:12:0	<b>10.5"</b>	(42")
8) 4:12:0—4:56:0	<b>11"</b>	(44")
9) 4:56:0—5:42:0	<b>11.5"</b>	(46")
10) 5:42:0—6:30:0	<b>12"</b>	(48")
11) 6:30:0—7:20:0	<b>12.5"</b>	(50")
12) 7:20:0—8:12:0	<b>13"</b>	(52")
13) 8:12:0—9:06:0	<b>13.5"</b>	(54")
14) 9:06:0—10:02:0	<b>14"</b>	(56")
15) 10:02:0—11:00:0	<b>14.5"</b>	(58")
16) 11:00:0—12:00:0	<b>15"</b>	(60")
17) 12:00:0—13:02:0	<b>15.5"</b>	(62")
18) 13:02:0—14:06:0	<b>16"</b>	(64")
19) 14:06:0—15:12:0	<b>16.5"</b>	(66")
20) 15:12:0—16:20:0	<b>17"</b>	(68")
21) 16:20:0—17:30:0	<b>17.5"</b>	(70")
22) 17:30:0—18:42:0	<b>18"</b>	(72")
23) 18:42:0—19:56:0	<b>18.5"</b>	(74")
24) 19:56:0—21:12:0	<b>19"</b>	(76")
25) 21:12:0—22:30:0	<b>19.5"</b>	(78")
26) 22:30:0—23:50:0	<b>20"</b>	(80")

Pulse Listing

<i>Cycle</i>	<i>Pulse 1</i>	<i>Pulse 2</i>	<i>Pulse 3</i>	<i>Pulse 4</i>
1	0:00:0	0:07.5	0:15:0	0:22:5
2	0:30:0	0:38:0	0:46:0	0:54:0
3	1:02:0	1:10:5	1:19:0	1:27:5
4	1:36:0	1:45:0	1:54:0	2:03:0
5	2:12:0	2:21:5	2:31:0	2:40:5
6	2:50:0	3:00:0	3:10:0	3:20:0
7	3:30:0	3:40:5	3:51:0	4:01:5
8	4:12:0	4:23:0	4:34:0	4:45:0
9	4:56:0	5:07:5	5:19:0	5:30:5
10	5:42:0	5:54:0	6:06:0	6:18:0
11	6:30:0	6:42:5	6:55:0	7:07:5
12	7:20:0	7:33:0	7:46:0	7:59:0
13	8:12:0	8:25:5	8:39:0	8:52:5
14	9:06:0	9:20:0	9:34:0	9:48:0
15	10:02:0	10:16:5	10:31:0	10:45:5
16	11:00:0	11:15:0	11:30:0	11:45:0
17	12:00:0	12:15:5	12:31:0	12:46:5
18	13:02:0	13:18:0	13:34:0	13:50:0
19	14:06:0	14:22:5	14:39:0	14:55:5
20	15:12:0	15:29:0	15:46:0	16:03:0
21	16:20:0	16:37:5	16:55:0	17:12:5
22	17:30:0	17:48:0	18:06:0	18:24:0
23	18:42:0	19:00:5	19:19:0	19:37:5
24	19:56:0	20:15:0	20:34:0	20:53:0
25	21:12:0	21:31:5	21:51:0	22:10:5
26	22:30:0	22:50:0	23:10:0	23:30:0

