

Palindrome Triptychs – Part Three  
**... Turning Water into Wine ...**  
 (for tubular bells, marimba, harp and piano)

**Pitch Matrices**

C – D<sup>b</sup> – D – E<sup>b</sup> – A<sup>b</sup> – A – B<sup>b</sup> – B – E – F – G<sup>b</sup> – G

	<b>I<sub>0</sub></b>	<b>I<sub>1</sub></b>	<b>I<sub>2</sub></b>	<b>I<sub>3</sub></b>	<b>I<sub>8</sub></b>	<b>I<sub>9</sub></b>	<b>I<sub>10</sub></b>	<b>I<sub>11</sub></b>	<b>I<sub>4</sub></b>	<b>I<sub>5</sub></b>	<b>I<sub>6</sub></b>	<b>I<sub>7</sub></b>	
<b>P<sub>0</sub></b>	C	D <sup>b</sup>	D	E <sup>b</sup>	A <sup>b</sup>	A	B <sup>b</sup>	B	E	F	G <sup>b</sup>	G	<b>R<sub>0</sub></b>
<b>P<sub>11</sub></b>	B	C	D <sup>b</sup>	D	G	A <sup>b</sup>	A	B <sup>b</sup>	E <sup>b</sup>	E	F	G <sup>b</sup>	<b>R<sub>11</sub></b>
<b>P<sub>10</sub></b>	B <sup>b</sup>	B	C	D <sup>b</sup>	G <sup>b</sup>	G	A <sup>b</sup>	A	D	E <sup>b</sup>	E	F	<b>R<sub>10</sub></b>
<b>P<sub>9</sub></b>	A	B <sup>b</sup>	B	C	F	G <sup>b</sup>	G	A <sup>b</sup>	D <sup>b</sup>	D	E <sup>b</sup>	E	<b>R<sub>9</sub></b>
<b>P<sub>4</sub></b>	E	F	G <sup>b</sup>	G	C	D <sup>b</sup>	D	E <sup>b</sup>	A <sup>b</sup>	A	B <sup>b</sup>	B	<b>R<sub>4</sub></b>
<b>P<sub>3</sub></b>	E <sup>b</sup>	E	F	G <sup>b</sup>	B	C	D <sup>b</sup>	D	G	A <sup>b</sup>	A	B <sup>b</sup>	<b>R<sub>3</sub></b>
<b>P<sub>2</sub></b>	D	E <sup>b</sup>	E	F	B <sup>b</sup>	B	C	D <sup>b</sup>	G <sup>b</sup>	G	A <sup>b</sup>	A	<b>R<sub>2</sub></b>
<b>P<sub>1</sub></b>	D <sup>b</sup>	D	E <sup>b</sup>	E	A	B <sup>b</sup>	B	C	F	G <sup>b</sup>	G	A <sup>b</sup>	<b>R<sub>1</sub></b>
<b>P<sub>8</sub></b>	A <sup>b</sup>	A	B <sup>b</sup>	B	E	F	G <sup>b</sup>	G	C	D <sup>b</sup>	D	E <sup>b</sup>	<b>R<sub>8</sub></b>
<b>P<sub>7</sub></b>	G	A <sup>b</sup>	A	B <sup>b</sup>	E <sup>b</sup>	E	F	G <sup>b</sup>	B	C	D <sup>b</sup>	D	<b>R<sub>7</sub></b>
<b>P<sub>6</sub></b>	G <sup>b</sup>	G	A <sup>b</sup>	A	D	E <sup>b</sup>	E	F	B <sup>b</sup>	B	C	D <sup>b</sup>	<b>R<sub>6</sub></b>
<b>P<sub>5</sub></b>	F	G <sup>b</sup>	G	A <sup>b</sup>	D <sup>b</sup>	D	E <sup>b</sup>	E	A	B <sup>b</sup>	B	C	<b>R<sub>5</sub></b>
	<b>RI<sub>0</sub></b>	<b>RI<sub>1</sub></b>	<b>RI<sub>2</sub></b>	<b>RI<sub>3</sub></b>	<b>RI<sub>8</sub></b>	<b>RI<sub>9</sub></b>	<b>RI<sub>10</sub></b>	<b>RI<sub>11</sub></b>	<b>RI<sub>4</sub></b>	<b>RI<sub>5</sub></b>	<b>RI<sub>6</sub></b>	<b>RI<sub>7</sub></b>	

This palindromic twelve-tone row can be subdivided into a triptych of chromatic minor-thirds, with each group separated by a perfect-fourth.

0 – 1 – 2 – 3 – 8 – 9 – 10 – 11 – 4 – 5 – 6 – 7

	<b>I<sub>0</sub></b>	<b>I<sub>1</sub></b>	<b>I<sub>2</sub></b>	<b>I<sub>3</sub></b>	<b>I<sub>8</sub></b>	<b>I<sub>9</sub></b>	<b>I<sub>10</sub></b>	<b>I<sub>11</sub></b>	<b>I<sub>4</sub></b>	<b>I<sub>5</sub></b>	<b>I<sub>6</sub></b>	<b>I<sub>7</sub></b>	
<b>P<sub>0</sub></b>	0	1	2	3	8	9	10	11	4	5	6	7	<b>R<sub>0</sub></b>
<b>P<sub>11</sub></b>	11	0	1	2	7	8	9	10	3	4	5	6	<b>R<sub>11</sub></b>
<b>P<sub>10</sub></b>	10	11	0	1	6	7	8	9	2	3	4	5	<b>R<sub>10</sub></b>
<b>P<sub>9</sub></b>	9	10	11	0	5	6	7	8	1	2	3	4	<b>R<sub>9</sub></b>
<b>P<sub>4</sub></b>	4	5	6	7	0	1	2	3	8	9	10	11	<b>R<sub>4</sub></b>
<b>P<sub>3</sub></b>	3	4	5	6	11	0	1	2	7	8	9	10	<b>R<sub>3</sub></b>
<b>P<sub>2</sub></b>	2	3	4	5	10	11	0	1	6	7	8	9	<b>R<sub>2</sub></b>
<b>P<sub>1</sub></b>	1	2	3	4	9	10	11	0	5	6	7	8	<b>R<sub>1</sub></b>
<b>P<sub>8</sub></b>	8	9	10	11	4	5	6	7	0	1	2	3	<b>R<sub>8</sub></b>
<b>P<sub>7</sub></b>	7	8	9	10	3	4	5	6	11	0	1	2	<b>R<sub>7</sub></b>
<b>P<sub>6</sub></b>	6	7	8	9	2	3	4	5	10	11	0	1	<b>R<sub>6</sub></b>
<b>P<sub>5</sub></b>	5	6	7	8	1	2	3	4	9	10	11	0	<b>R<sub>5</sub></b>
	<b>RI<sub>0</sub></b>	<b>RI<sub>1</sub></b>	<b>RI<sub>2</sub></b>	<b>RI<sub>3</sub></b>	<b>RI<sub>8</sub></b>	<b>RI<sub>9</sub></b>	<b>RI<sub>10</sub></b>	<b>RI<sub>11</sub></b>	<b>RI<sub>4</sub></b>	<b>RI<sub>5</sub></b>	<b>RI<sub>6</sub></b>	<b>RI<sub>7</sub></b>	

This palindromic twelve-tone row can be subdivided into a triptych of chromatic minor-thirds, with each group separated by a perfect-fourth.

## Chords of the Matrix

**Trichords:** Two types ...

012: 3-1 (012) [9-1] <210000>	TE4: 3-5 (016) [9-5]
123: 3-1 (012) [9-1]	E45: 3-5 (016) [9-5]
238: 3-5 (016) [9-5] <100011>	456: 3-1 (012) [9-1]
389: 3-5 (016) [9-5]	567: 3-1 (012) [9-1]
89T: 3-1 (012) [9-1]	670: 3-5 (016) [9-5]
9TE: 3-1 (012) [9-1]	701: 3-5 (016) [9-5]

**Tetrachords:** Three types ...

0123: 4-1 (0123) [8-1] <321000>	TE45: 4-9 (0167) [8-9]
1238: 4-6 (0127) [8-6] <210021>	E456: 4-6 (0127) [8-6]
2389: 4-9 (0167) [8-9] <200022>	4567: 4-1 (0123) [8-1]
389T: 4-6 (0127) [8-6]	5670: 4-6 (0127) [8-6]
89TE: 4-1 (0123) [8-1]	6701: 4-9 (0167) [8-9]
9TE4: 4-6 (0127) [8-6]	7012: 4-6 (0127) [8-6]

**Pentachords:** Two types ...

01238: 5-5 (01237) [7-5] <321121>	TE456: 5-7 (01267) [7-7]
12389: 5-7 (01267) [7-7] <310132>	E4567: 5-5 (01237) [7-5]
2389T: 5-7 (01267) [7-7]	45670: 5-5 (01237) [7-5]
389TE: 5-5 (01237) [7-5]	56701: 5-7 (01267) [7-7]
89TE4: 5-5 (01237) [7-5]	67012: 5-7 (01267) [7-7]
9TE45: 5-7 (01267) [7-7]	70123: 5-5 (01237) [7-5]

**Hexachords:**

012389: 6-5 (012367) * <422232>	TE4567: 6-5 (012367) *
12389T: 6-z6 (012567) [6-z38] <421242>	E45670: 6-z38 (012378) [6-z6]
2389TE: 6-5 (012367) *	456701: 6-5 (012367) *
389TE4: 6-z38 (012378) [6-z6] <421242>	567012: 6-z6 (012567) [6-z38]
89TE45: 6-5 (012367) *	670123: 6-5 (012367) *
9TE456: 6-z6 (012567) [6-z38]	701238: 6-z38 (012378) [6-z6]

\*Complement and Inversion produce the same set (all-combinatorial).

**Heptachords:** Two types ...

012389T: 7-5 (0123567) [5-5] <543342>	TE45670: 7-7 (0123678) [5-7]
12389TE: 7-5 (0123567) [5-5]	E456701: 7-7 (0123678) [5-7]
2389TE4: 7-7 (0123678) [5-7] <532353>	4567012: 7-5 (0123567) [5-5]
389TE45: 7-7 (0123678) [5-7]	5670123: 7-5 (0123567) [5-5]
89TE456: 7-5 (0123567) [5-5]	6701238: 7-7 (0123678) [5-7]
9TE4567: 7-5 (0123567) [5-5]	7012389: 7-7 (0123678) [5-7]

**Octachords:** Three types ...

012389TE: 8-1 (01234567) [4-1]	TE456701: 8-9 (01236789) <644464>
12389TE4: 8-6 (01235678) [4-6]	E4567012: 8-6 (01235678) [4-6]
2389TE45: 8-9 (01236789) [4-9]	45670123: 8-1 (01234567) [4-1]
389TE456: 8-6 (01235678) <654463>	56701238: 8-6 (01235678) [4-6]
89TE4567: 8-1 (01234567) <765442>	67012389: 8-9 (01236789) [4-9]
9TE45670: 8-6 (01235678) [4-6]	7012389T: 8-6 (01235678) [4-6]

**Nonachords:** Two types. Note that the sequence varies slightly from that of its complement Trichords (listed above).

012389TE4: 9-1 (012345678) [3-1]	TE4567012: 9-5 (012346789) [3-5]
12389TE45: 9-5 (012346789) [3-5]	E45670123: 9-1 (012345678) [3-1]
2389TE456: 9-5 (012346789) <766674>	456701238: 9-1 (012345678) [3-1]
389TE4567: 9-1 (012345678) <876663>	567012389: 9-5 (012346789) [3-5]
89TE45670: 9-1 (012345678) [3-1]	67012389T: 9-5 (012346789) [3-5]
9TE456701: 9-5 (012346789) [3-5]	7012389TE: 9-1 (012345678) [3-1]

**Decachords:** Two types ...

012389TE45: 10-1 (0123456789)	TE45670123: 10-1 [Interval class 1]
12389TE456: 10-5 (012345789T)	E456701238: 10-1
2389TE4567: 10-1 <988884>	4567012389: 10-1
389TE45670: 10-1	567012389T: 10-5 [Interval class 5]
89TE456701: 10-1	67012389TE: 10-1
9TE4567012: 10-5 <888894>	7012389TE4: 10-1

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