**025:250 COMPOSITION: ELECTRONIC MEDIA I**

**Fall 2010**

**Rigid and Non-rigid Transpositions**

1. Gestures may be transposed to create additional source material for the final composition project. These

 transpositions may be non-rigid and rigid. In mathematics, any transformation on a set of points is rigid if the distance or interval between points is left unchanged after the transformation. A transformation is said to be non-rigid if the distance or interval between points is changed after the transformation. An example from geometry will be given in class. In music, a *real* transposition in rigid; a *tonal* transposition is generally non-rigid.

2. If you bounce the gestures from Assignment 3 and change the pitch in Peak, this will produce rigid transpositions. If

 you stay in the Pro Tools environment and transpose the beginning of a gestures up by 1 semitones, the middle of the

 gesture down by 1 semitone, and the end of the gesture down by 2 semitones, this will produce a non-rigid

 transposition. The table below lists some of the non-rigid transpositions that can be performed on a gesture. Note

 that *beginning* refers to any or all regions that occur in what the composer regards as the beginning of the gesture.

 Similarly, *middle* refers to any or all regions that occur in the middle of the gestures, and *end* refers to any or all regions that occur at the end of the gesture.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Beginning: Raise 1-2 semitonesMiddle: Lower 1-2 semitonesEnd: Lower 1-2 semitonesBeginning: Lower 1-2 semitonesMiddle: Raise 1-2 semitonesEnd: Lower 1-2 semitonesBeginning: Lower 1-2 semitonesMiddle: Lower 1-2 semitonesEnd: Raise 1-2 semitonesBeginning: Lower 1-2 semitonesMiddle: Raise 1-2 semitonesEnd: Raise 1-2 semitonesBeginning: Raise 1-2 semitonesMiddle: Lower 1-2 semitonesEnd: Raise 1-2 semitonesBeginning: Raise 1-2 semitonesMiddle: Raise 1-2 semitonesEnd: Lower 1-2 semitones | Beginning: Raise 3-12 semitonesMiddle: Lower 3-12 semitonesEnd: Lower 3-12 semitonesBeginning: Lower 3-12 semitonesMiddle: Raise 3-12 semitonesEnd: Lower 3-12 semitonesBeginning: Lower 3-12 semitonesMiddle: Lower 3-12 semitonesEnd: Raise 3-12 semitonesBeginning: Lower 3-12 semitonesMiddle: Raise 3-12 semitonesEnd: Raise 3-12 semitonesBeginning: Raise 3-12 semitonesMiddle: Lower 3-12 semitonesEnd: Raise 3-12 semitonesBeginning: Raise 3-12 semitonesMiddle: Raise 3-12 semitonesEnd: Lower 3-12 semitones | Beginning: Raise *n* pseudo-octavesMiddle: Lower 1-16 semitonesEnd: Lower 1-16 semitonesBeginning: Lower 1-16 semitonesMiddle: Raise *n* pseudo-octavesEnd: Lower 1-16 semitonesBeginning: Lower 1-16 semitonesMiddle: Lower 1-16 semitonesEnd: Raise *n* pseudo-octavesBeginning: Lower *n* pseudo-octavesMiddle: Raise 1-16 semitonesEnd: Raise 1-16 semitonesBeginning: Raise 1-16 semitonesMiddle: Lower *n* pseudo-octavesEnd: Raise 1-16 semitonesBeginning: Raise 1-16 semitonesMiddle: Raise 1-16 semitonesEnd: Lower *n* pseudo-octaves |