Invertible Counterpoint!

Background: The trick with invertible counterpoint is making sure that your counterpoint still works after you invert all the intervals. This just means 1) that dissonances are still prepared/resolved correctly, and 2) that perfect intervals are approached correctly.

Inversion at the octave is pretty easy. Dissonances invert to dissonances. Imperfect consonances invert to imperfect consonances. The only snag is that consonant P5s invert to dissonant P4s (unless they're between upper voices). Also, legal parallel fourths become illegal parallel fifths.

8	***7***	***6***	***5***	***4***	***3***	***2***	***1***
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***

Inversion at the twelfth (fifth) is also pretty good. Everything inverts to the same type of interval ***except*** that sixths become sevenths and vice versa. And note that thirds invert to thirds!

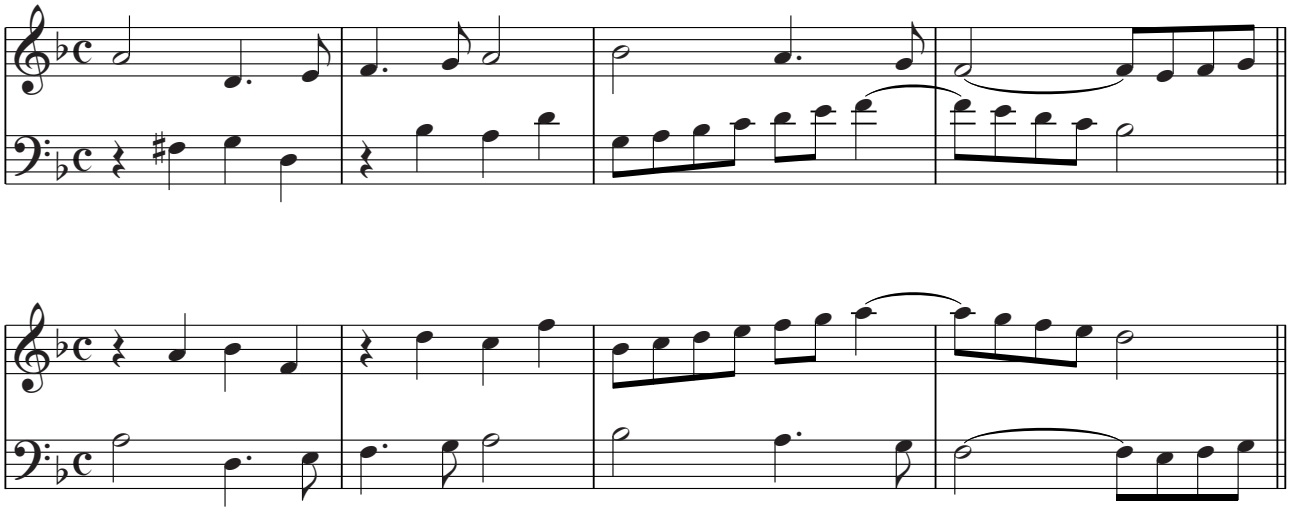
5	***4***	***3***	***2***	***1***	***7***	***6***	***5***
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***

Inversion at the tenth is also possible, but it's less convenient. Dissonances invert to dissonances, and consonances invert to consonances. ***But***: imperfect consonances invert to perfect consonances, and vice-versa. This means that passages based on parallel thirds or sixths are not invertible, because they become parallel fifths and octaves.

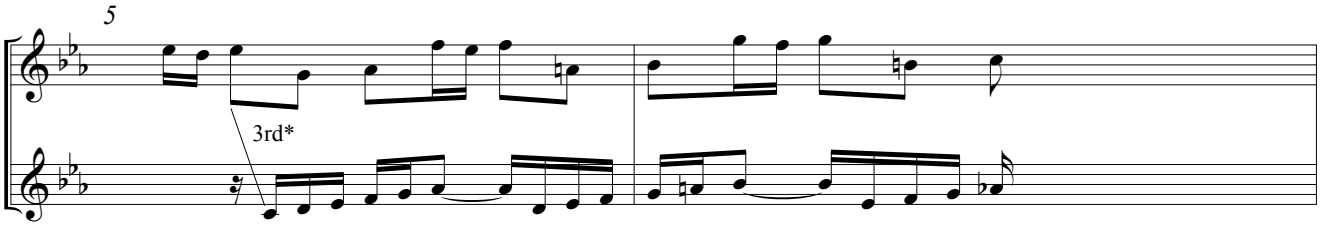
10	***9***	***8***	***7***	***6***	***5***	***4***	***3***
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***

Exercise: Contrapunctus X from Bach's *Art of the Fugue*

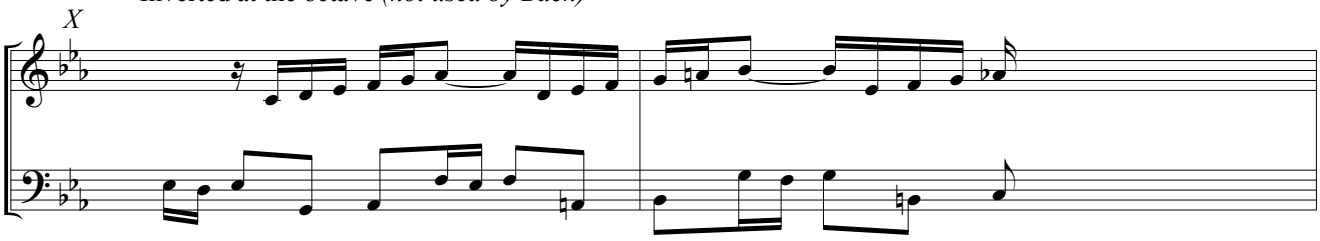
This passage is invertible at **two** of the three intervals we've discussed. Which type of inversion is shown below? Which of the other intervals will work?



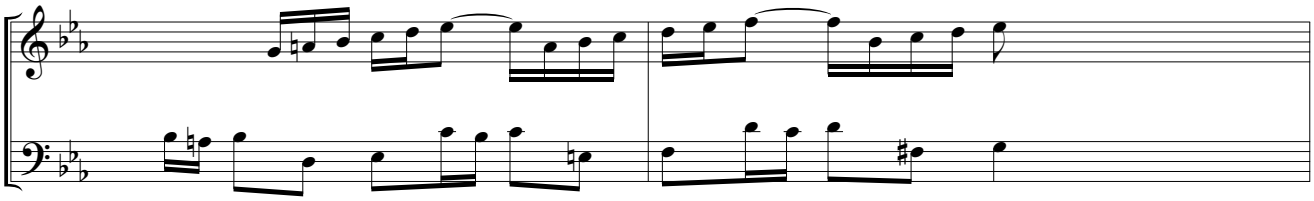
Original counterpoint:



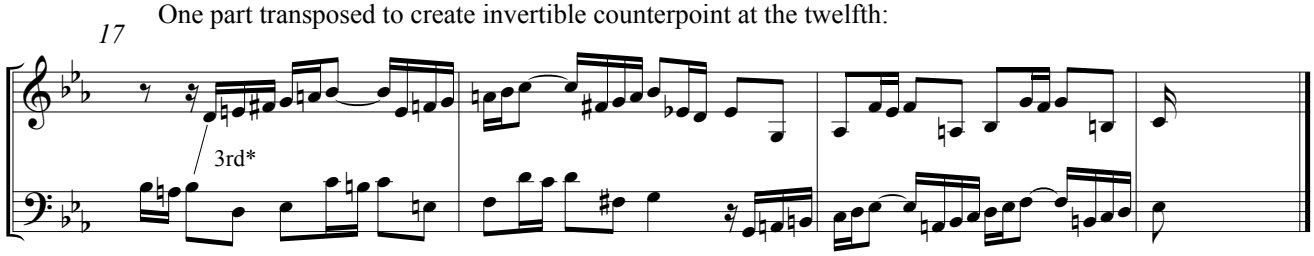
Inverted at the octave *(not used by Bach)*



Both parts transposed *(not used by Bach)*



One part transposed to create invertible counterpoint at the twelfth:



*Note: A third in the original counterpoint becomes a third in invertible counterpoint at the twelfth.