

musical harmony of Bach, Schubert, Hindemith

... her mind is a very thin soil, laid an inch or two upon very barren rock.
— virginia woolf

We study the horizontal and vertical pitch relations of the art music of the German-speaking countries from the 19th and neighboring centuries as represented in the work of John Bach, George Handel, Louis Beethoven, Frank Schubert, John Brahms, Gus Mahler, and Paul Hindemith. Our approach is phenomenological: we'll describe without deep explanation which arrangements of pitches in time tend in this idiom to sound beautiful and expressive.

Pitches and Intervals

just intonation and 53 EDO

27 basic chords

Let us stack three intervals, each a minor third, major third, or fourth, on top of a root note — say, **C**. The 27 combinations are:

C , **Eb**, **Gb**, **A** 1 dimin

C , **Eb**, **Gb**, **Bb** 1 dimin dom7 b3 minor maj6

C , **Eb**, **Gb**, **B** 1 dimin maj7 7 major fla2

C , **Eb**, **G** , **Bb** 1 minor dom7

C , **Eb**, **G** , **B** 1 minor maj7

C , **Eb**, **G** , **C** 1 minor

C , **Eb**, **Ab**, **B** b6 minaj

C , **Eb**, **Ab**, **C** b6 major

C , **Eb**, **Ab**, **Db** b6 major sus4

C , **E** , **G** , **Bb** 1 major dom7

C , **E** , **G** , **B** 1 major maj7

C , **E** , **G** , **C** 1 major

C , **E** , **Ab**, **B** 1 augme maj7 3 major min6

C , **E** , **Ab**, **C** 1 augme

C , **E** , **Ab**, **Db** 1 augme fla2 b2 minor maj7

C , **E** , **A** , **C** 6 minor

C , **E** , **A** , **Db** 6 minaj
C , **E** , **A** , **D** 6 minor sus4
C , **F** , **Ab**, **B** 4 minor sha4
C , **F** , **Ab**, **C** 4 minor
C , **F** , **Ab**, **Db** 4 minor min6 b2 major maj7 (neapolitan/tonic)
C , **F** , **A** , **C** 4 major
C , **F** , **A** , **Db** 4 major min
C , **F** , **A** , **D** 4 major maj6 2 minor dom7
C , **F** , **Bb**, **Db** 4 susp4 min6 b7 minaj
C , **F** , **Bb**, **D** 4 susp4 maj6 1 susp4 dom7
C , **F** , **Bb**, **Eb** 4 susp4 dom7