

# Compiling and Processing The Yale–Classical Archives Corpus



*ycac.yale.edu*



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## What's in it?

Pitch-class and time data from  
MIDI files contributed by users  
of [classicalarchives.com](http://classicalarchives.com)

**505** composers  
**8,980** pieces/movements  
**3,818,712** quarter notes of music  
**12,415,229** chords

### DATA (per slice)

Offset  
Chord  
Normal Form  
PC Normal Order  
Global Scale Degrees  
Highest Pitch  
Lowest Pitch  
MIDI Filename  
Composer  
Local Tonic  
Local Mode  
Local Scale Degrees  
Confidence

### METADATA (per piece)

Title  
Composer  
Catalogue No  
Date  
Instrumentation  
Genre  
Nationality  
Key  
Modulations  
MIDI filename

## KEY FINDING

A windowed key-profile analysis was performed with music21 using the Krumhansl-Schmuckler (KS) key-finding algorithm and the Bellman-Budge key profiles (see Krumhansl 1990, Bellman 2005, and Cuthbert and Ariza 2011).

Windows were 8 slices in length. Thus each slice was analyzed in 8 windows.

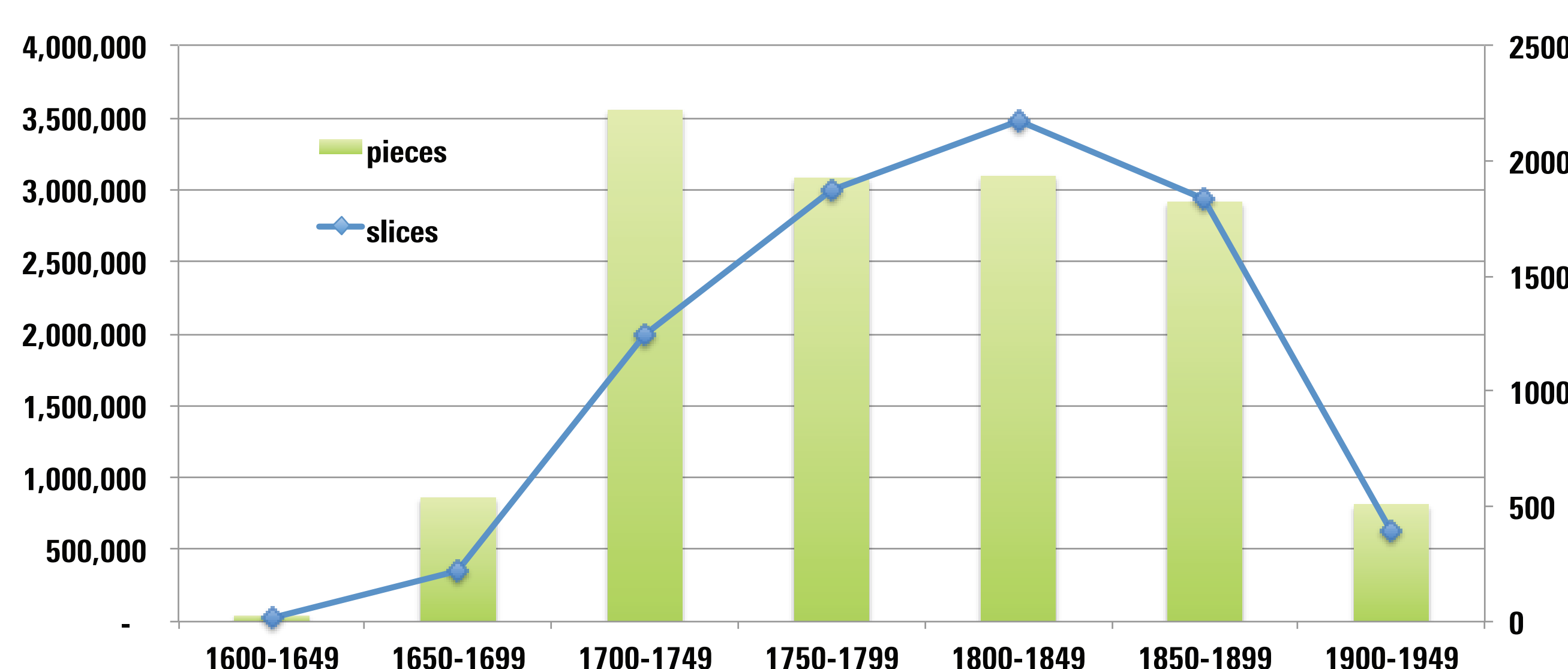
If a slice was analyzed in two different keys in two different windows **and** the maximal KS confidence values for the two keys was 0.1 or less, no local key was recorded. Otherwise the key producing maximal KS confidence was recorded as the **Local Key** for the slice.

## WHAT'S A "SLICE"?

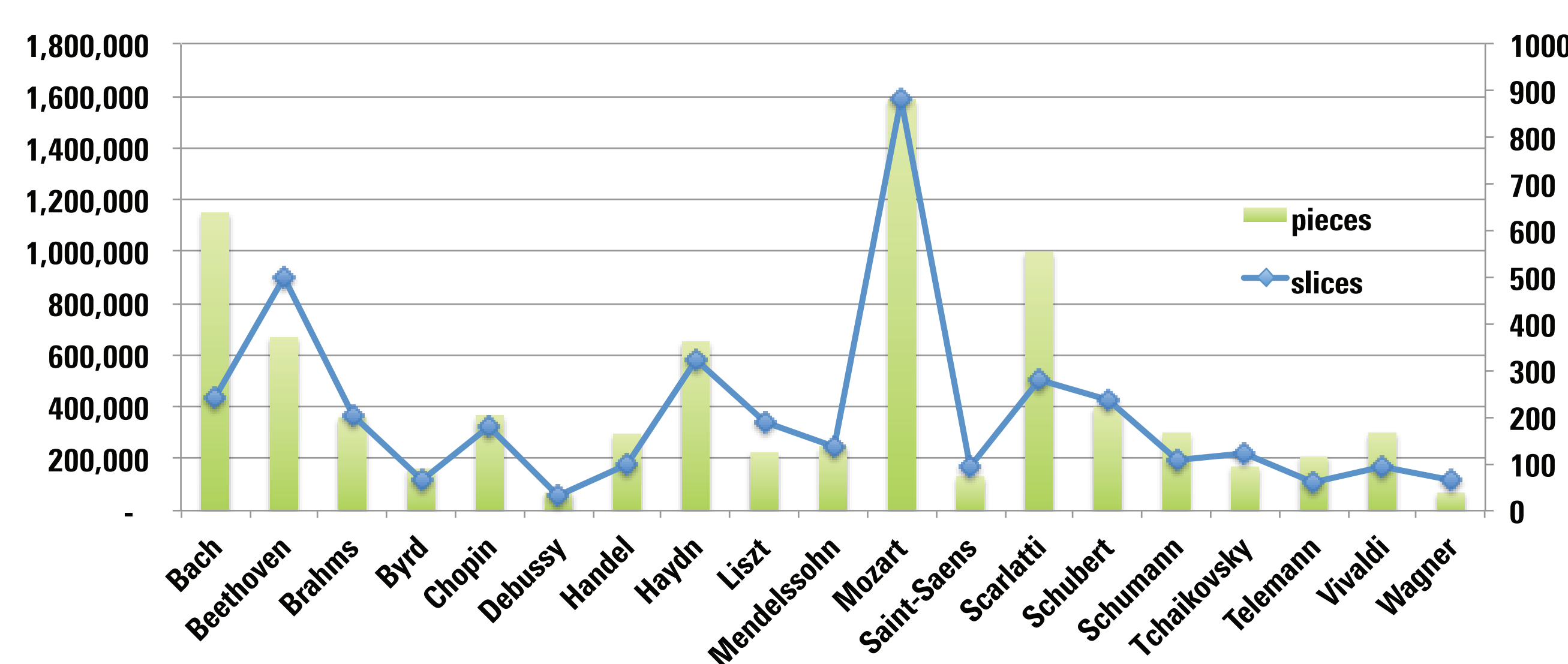
"Salami slicing" is our term for a cheap way of dealing with polyphonic data. A new slice is drawn whenever a note enters or leaves the texture. Music21 calls this "chordifying."



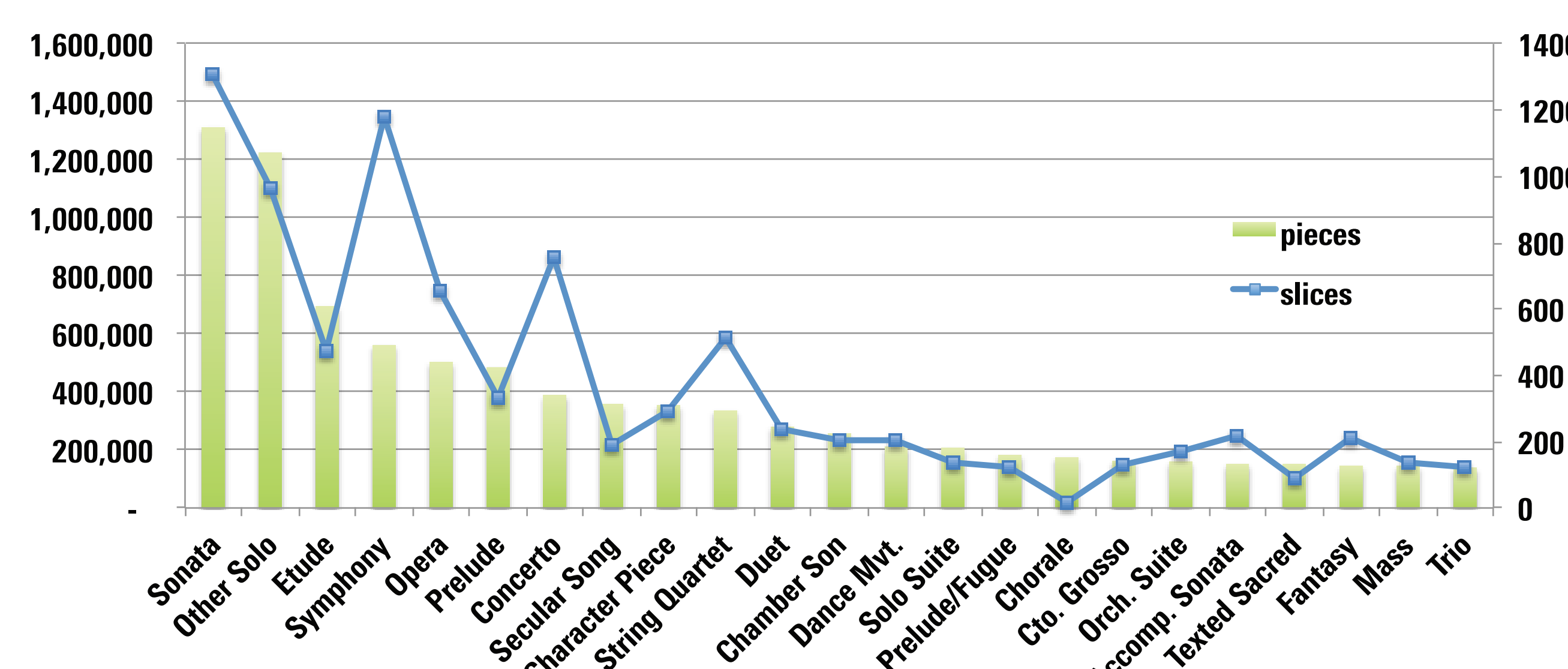
## TIME PERIODS



## TOP COMPOSERS



## TOP GENRES



## TOP SLICES (BY SCALE DEGREE CONTENT)

SD	n	Log(f)	SD	n	Log(f)	SD	n	Log(f)
I	374631	-1.05	Re Sol	64643	-1.81	vi	29171	-2.16
Sol	242347	-1.24	Ti	58621	-1.85	La Do	27243	-2.19
Do	174454	-1.38	Re Fa	55378	-1.88	Le	26148	-2.20
V7	156050	-1.43	Do Me	50368	-1.92	vii°7	23645	-2.25
i	149263	-1.45	Fa Sol Ti	44435	-1.97	iv	23533	-2.25
V	146436	-1.46	IV	44273	-1.98	Do Fa	23448	-2.25
Do Mi	136987	-1.48	La	43199	-1.99	iii	22552	-2.27
Do Sol	109906	-1.58	Fa Sol	42267	-2.00	vi°7	21067	-2.30
Mi Sol	94982	-1.64	Me Sol	41544	-2.00	bVI	19946	-2.32
Re	85732	-1.69	Me	40180	-2.02	Do Re	19853	-2.32
Mi	78252	-1.73	Ti Re	38253	-2.04	Fi	19618	-2.33
Sol Ti	73901	-1.75	vii	34391	-2.09	Do Re Sol	19307	-2.34
Fa	73578	-1.75	ii	29614	-2.15	Do Re Mi Sol	18288	-2.36
Re Fa Sol	68660	-1.78	Fa La	29276	-2.15	Do Re Fa	17980	-2.37