ELVIS

Music Research with Computers

Electronic Locator of Vertical Interval Successions

Julie Cumming, Christopher Antila, and Others

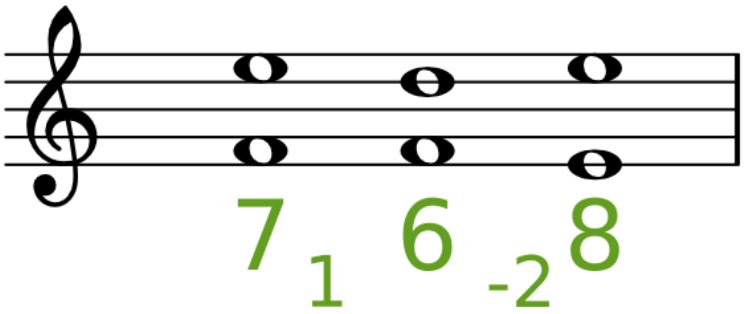
Montréal Digital Humanities Showcase
UQAM

24 January 2014

Inspiration

- John Sinclair's *Corpus, Concordance, Collocation* (1991)
- What are the most commonly repeated patterns in polyphonic music?
- We still don't understand counterpoint

Contrapuntal Modules



Online Database

- More than 6000 pieces
- Focus on early music
- Score-like symbolic formats

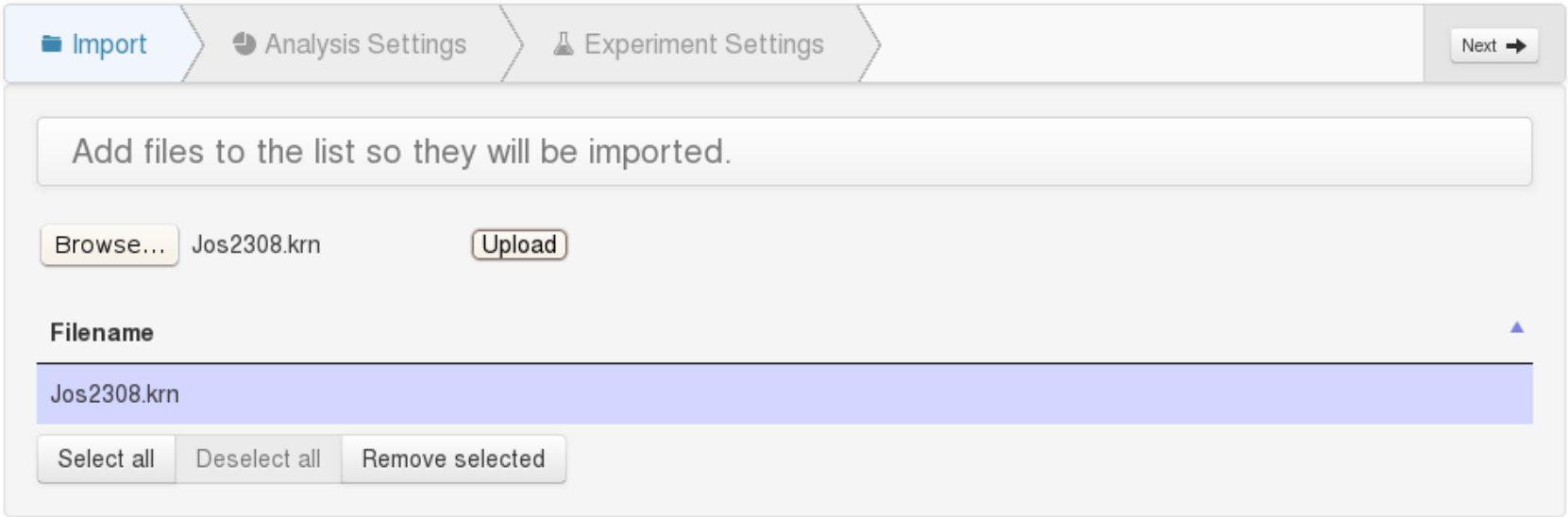
VIS Framework

- Modular, extensible Python API
- Well-documented
- Well-tested
- Foundation for the future

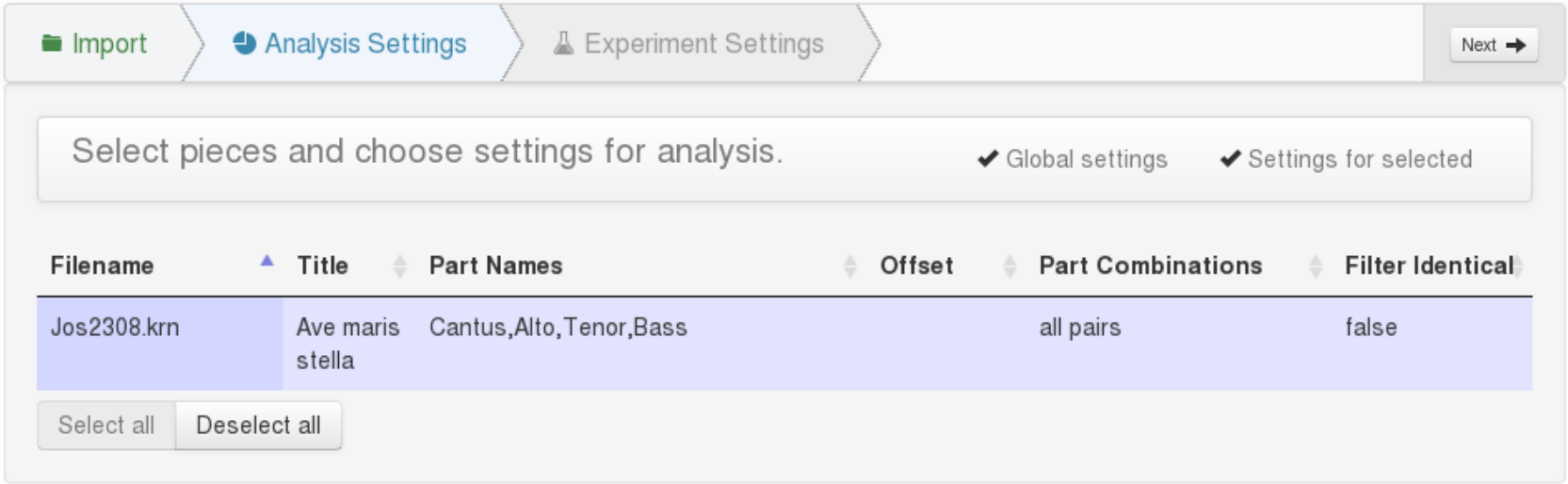
Counterpoint Web App

- Built on the VIS Framework
- Contrapuntal module analysis
- Easy for non-programmers
- Visit `counterpoint.elvisproject.ca`

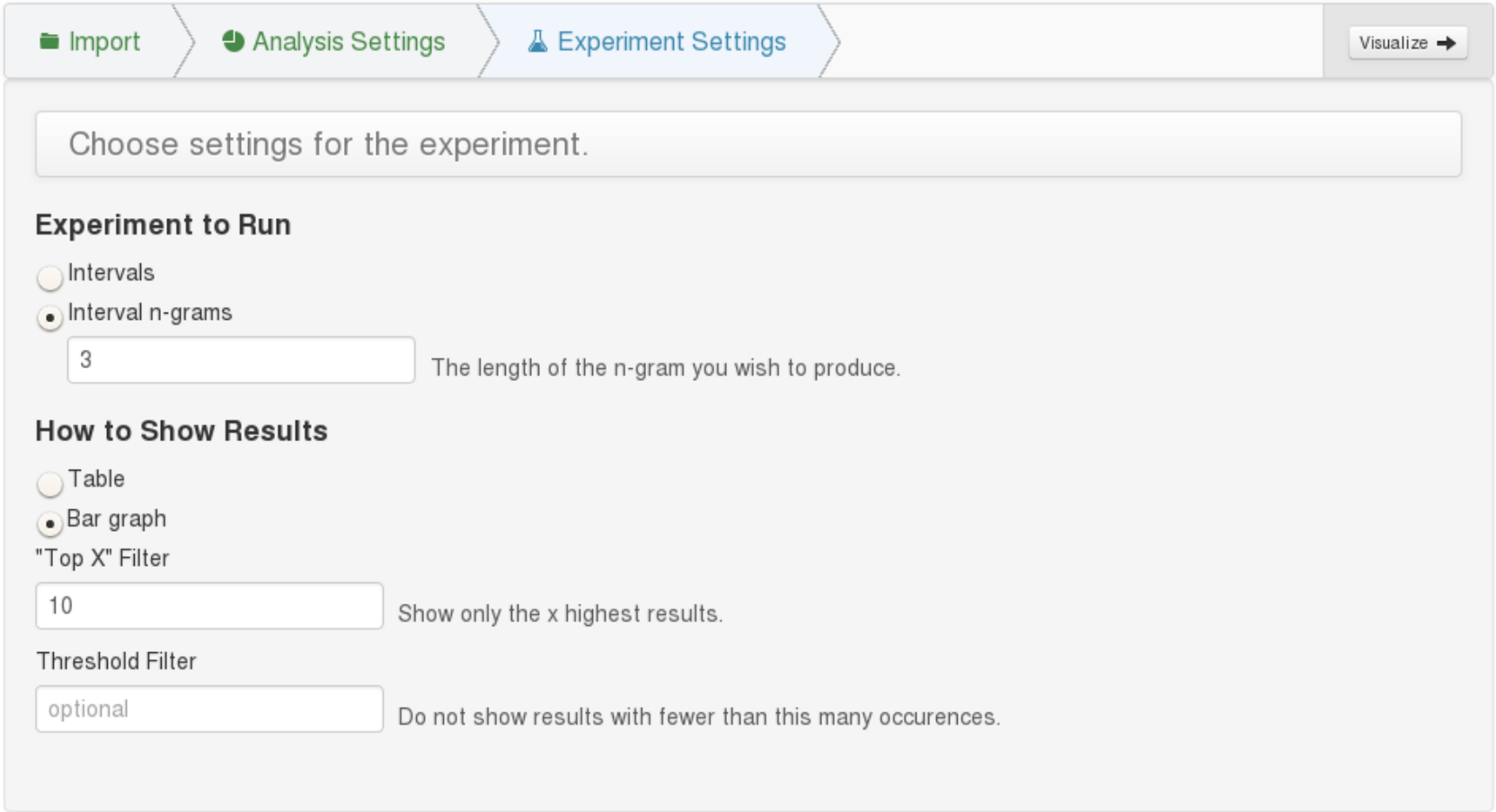
Import


Import
Analysis Settings
Experiment Settings
Next
Add files to the list so they will be imported.
Browse...
Jos2308.krn
Upload
Filename
Jos2308.krn
Select all
Deselect all
Remove selected

Choose Parts



Experiment


Import
Analysis Settings
Experiment Settings
Visualize
Choose settings for the experiment.
Experiment to Run
Intervals
Interval n-grams
3
The length of the n-gram you wish to produce.
How to Show Results
Table
Bar graph
"Top X" Filter
10
Show only the x highest results.
Threshold Filter
optional
Do not show results with fewer than this many occurences.

Visualize

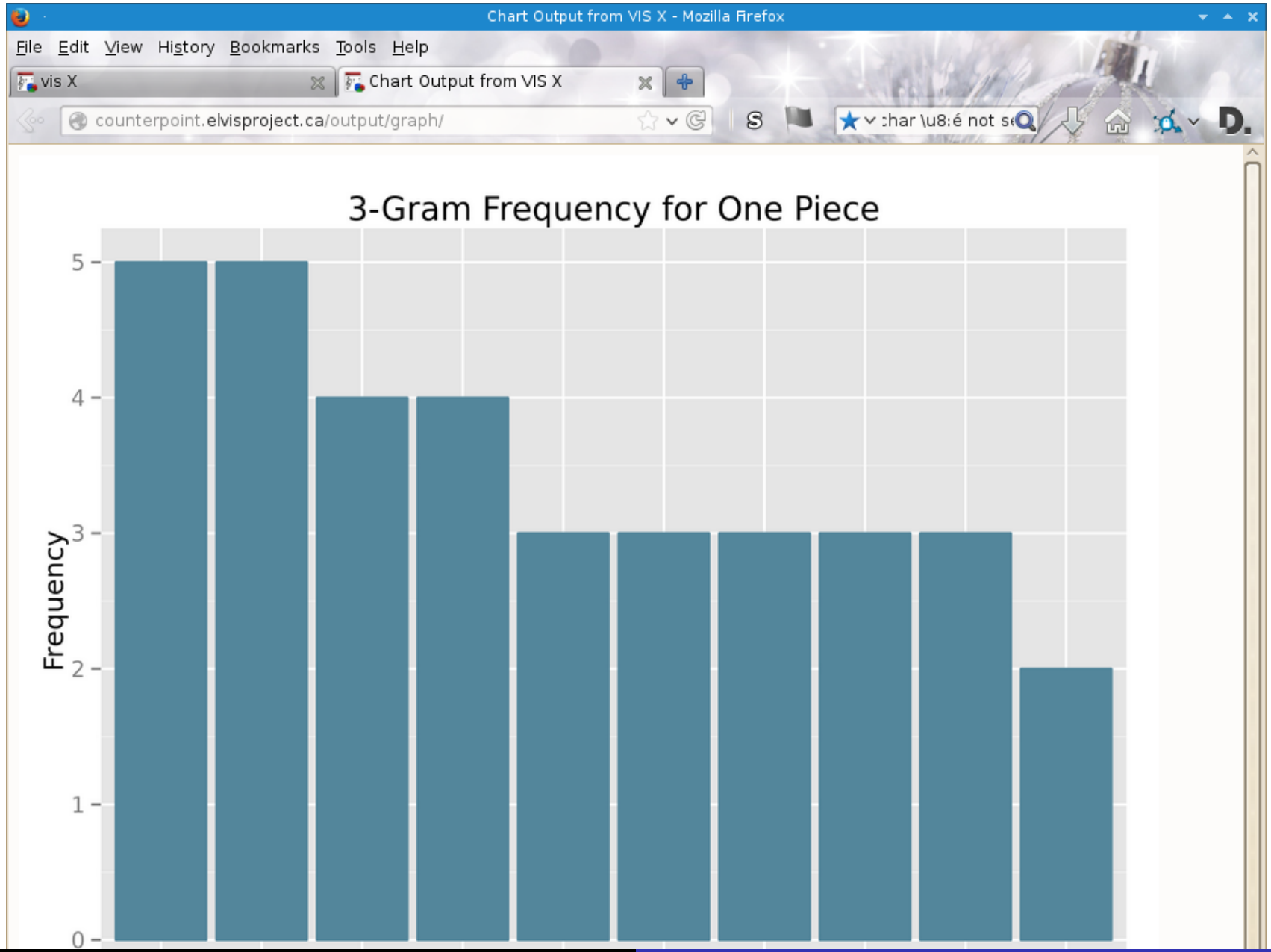
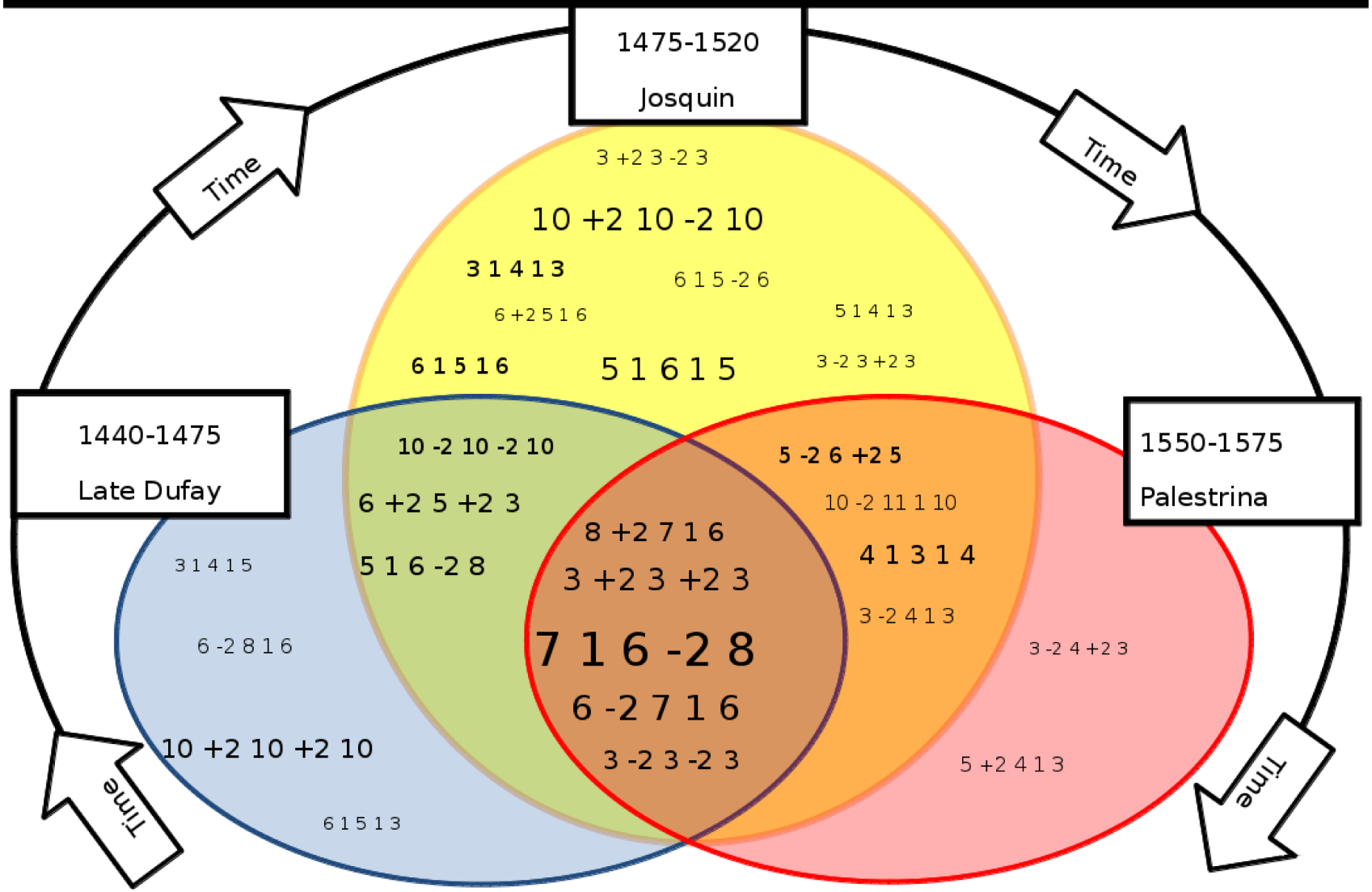


Chart Output from VIS X - Mozilla Firefox
File Edit View History Bookmarks Tools Help
vis X
Chart Output from VIS X
counterpoint.elvisproject.ca/output/graph/
3-Gram Frequency for One Piece
Frequency
0
1
2
3
4
5

Module Frequency over Time



More Information

ELVIS Project Website
`elvisproject.ca`

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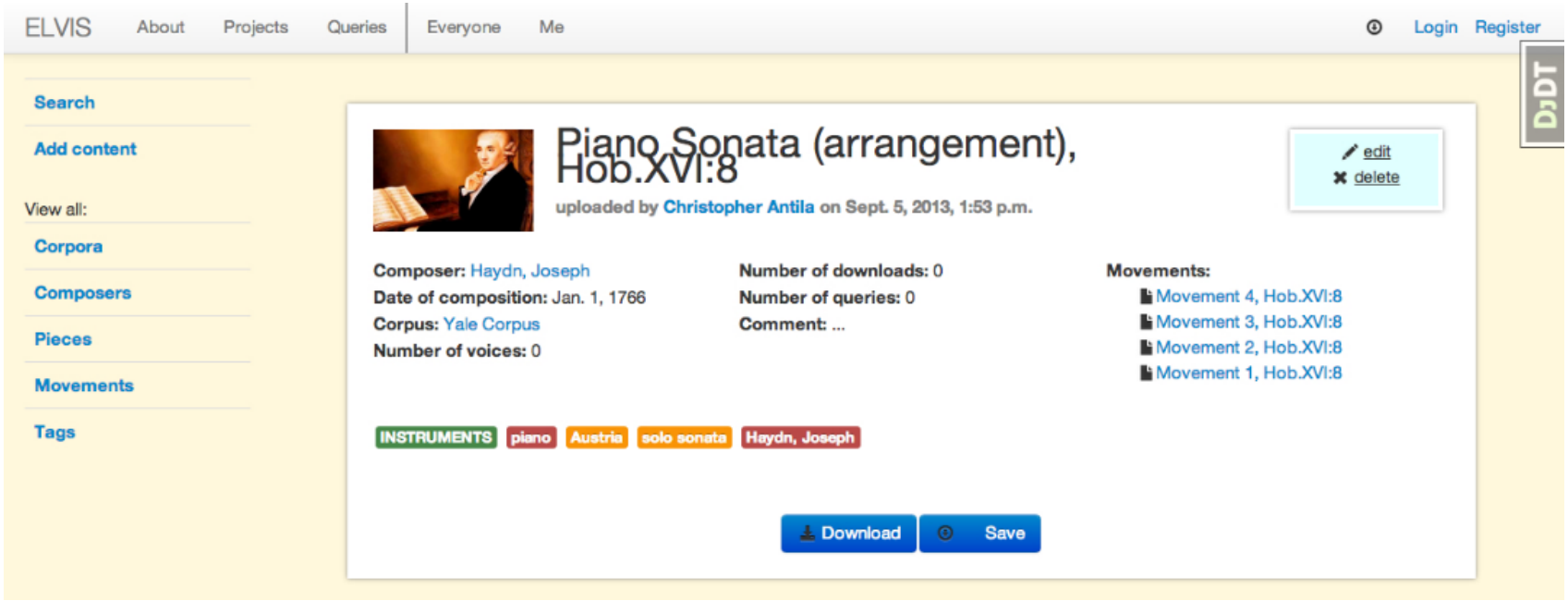
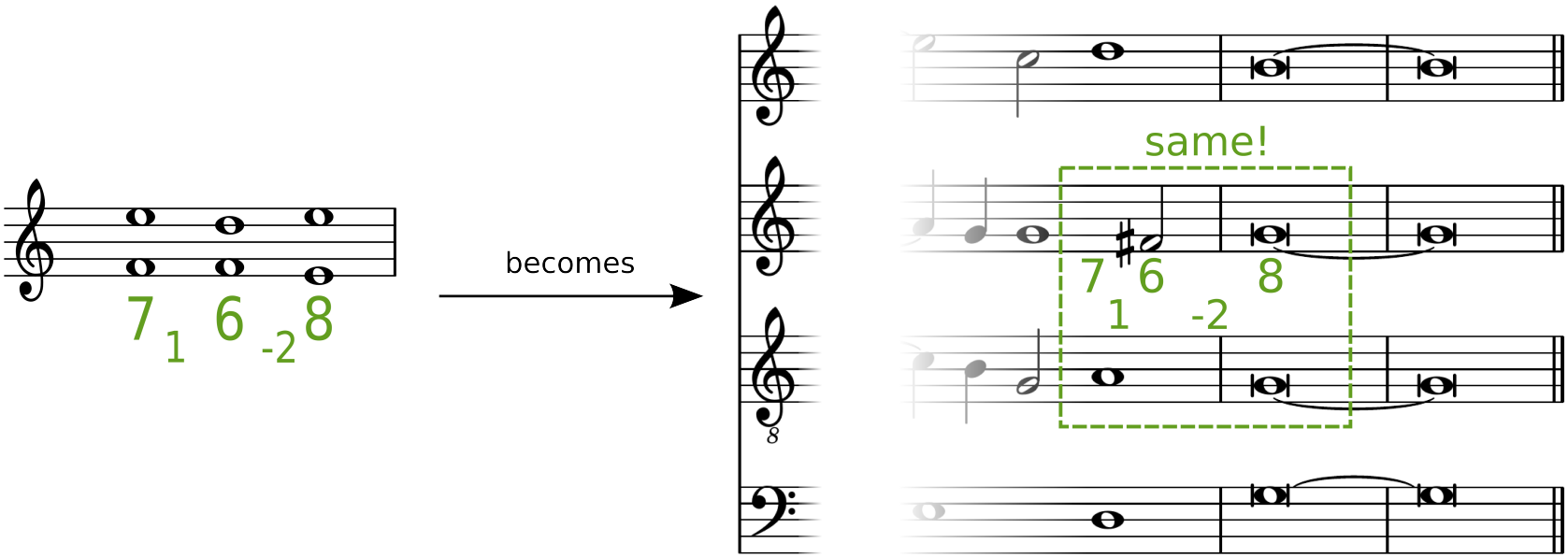
And visit our poster!

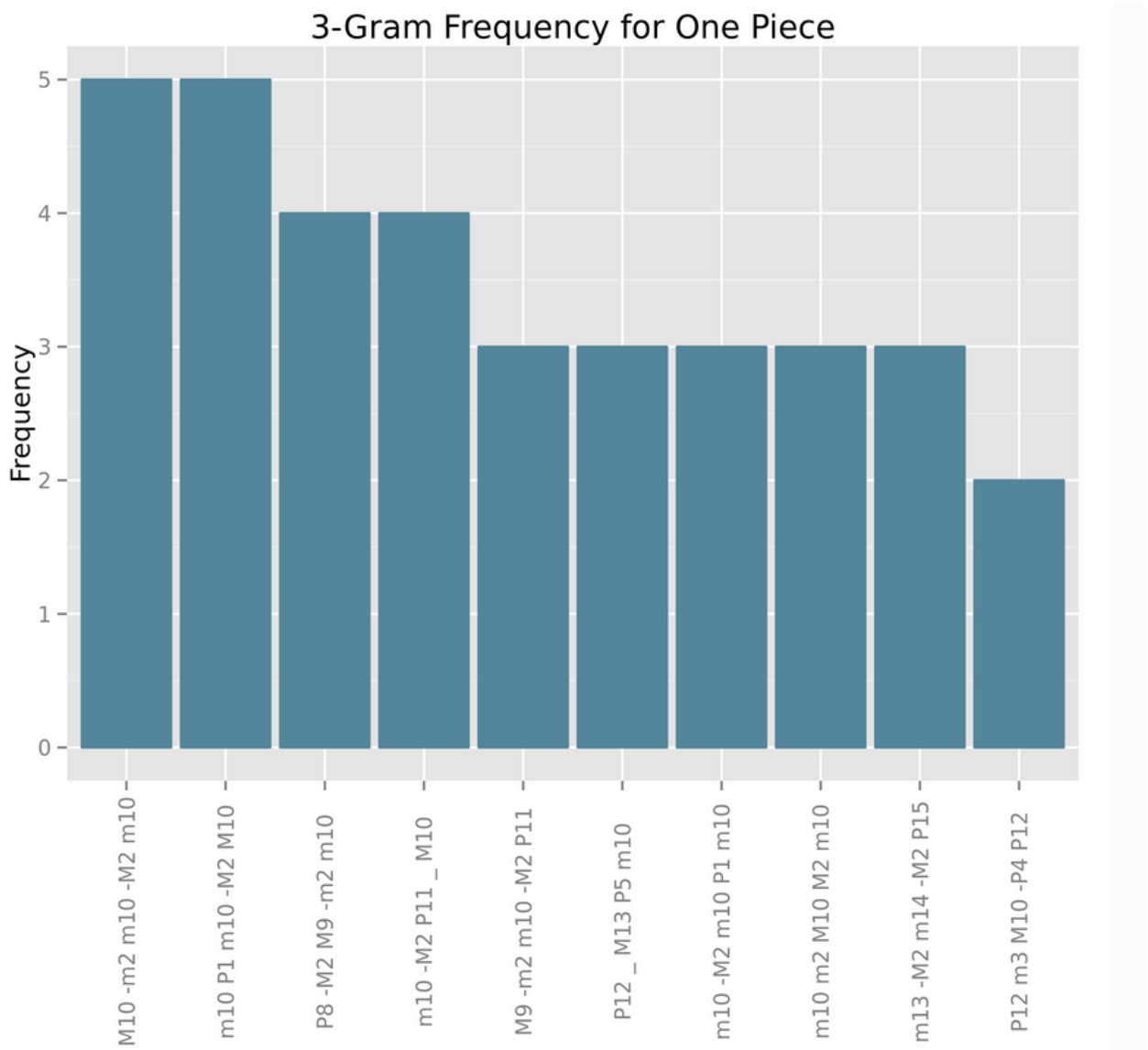
Bonus: the Database Website



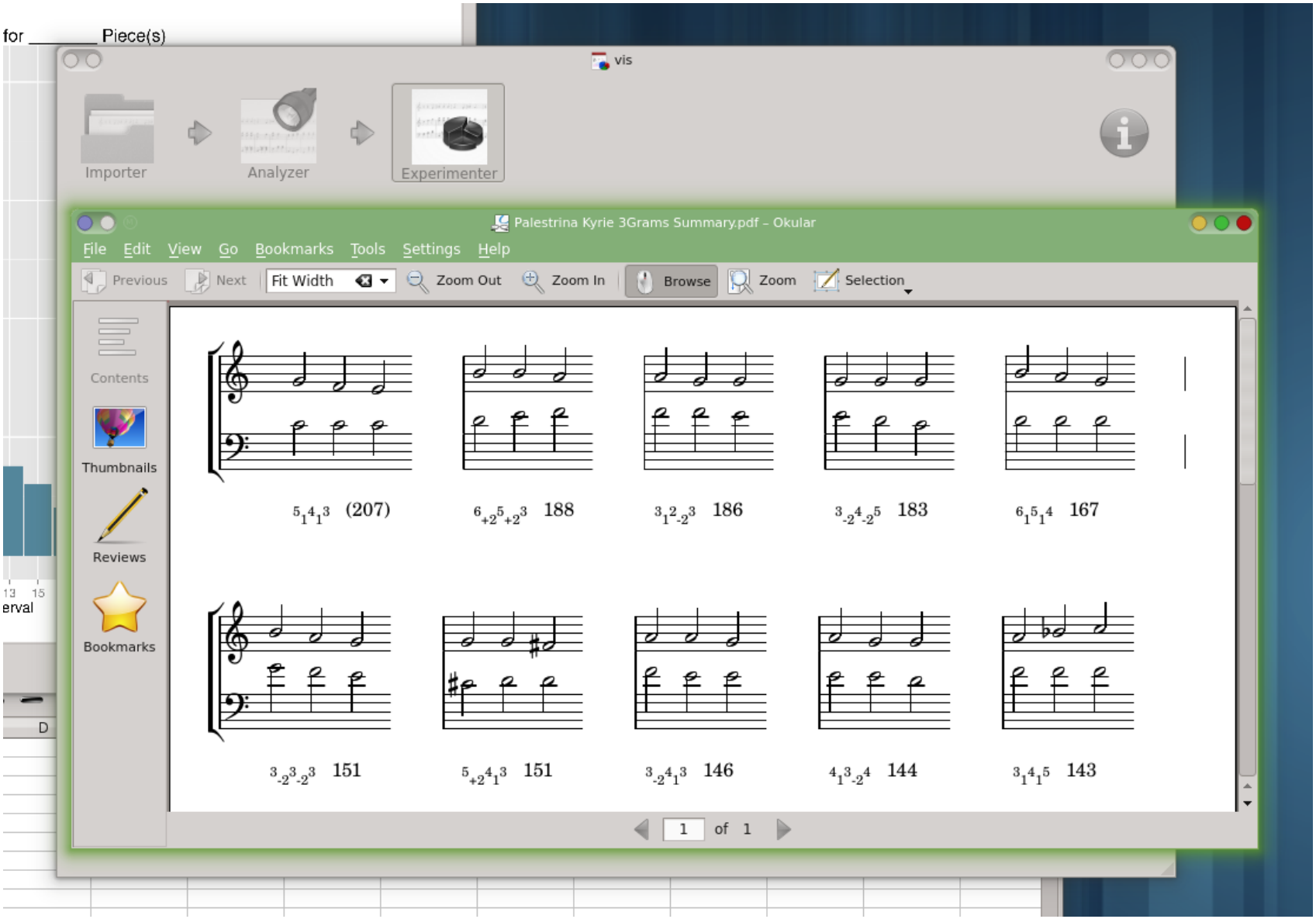
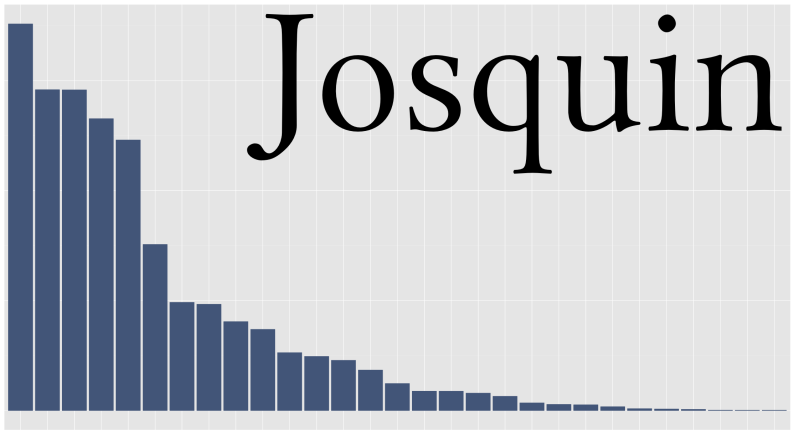
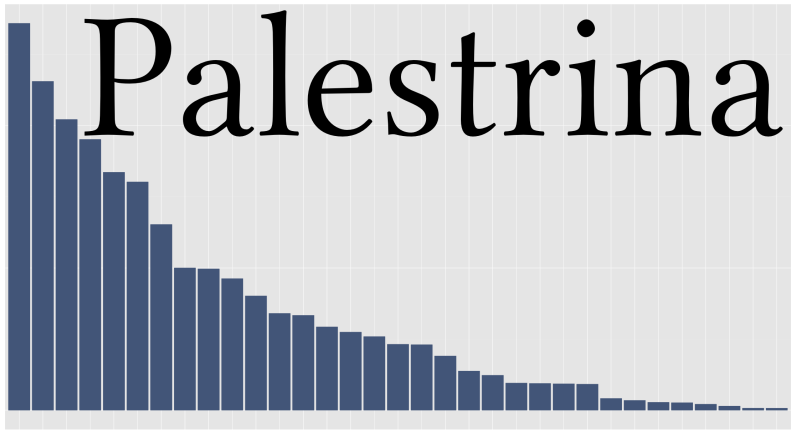
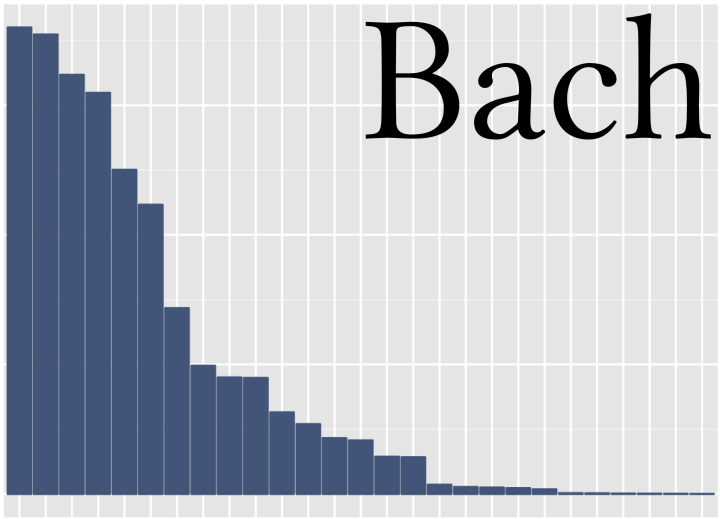
Bonus: Module in Music



Bonus: the Bar Graph



Bonus: Score Summary



Bonus: Composer Comparison