

ELEANOR STRIBLING
CAROLINE WINTER
PYCON 2017, MAY 21

GOTHIC COLORS



THE GOTHIC

- ▶ Gothic literature emerged in Britain in the late eighteenth century
- ▶ “the Gothic” is a constellation of literary style, aesthetics, and modes of representation
- ▶ Gothic art is anti-realist and pro-imagination; it is interested in fear and dread, often caused by the supernatural

AGENDA

- ▶ Introductions
- ▶ Digital Humanities: A Primer
- ▶ Approach and prelim results

TEXT

INTRODUCTIONS



ELEANOR STRIBLING

eleanor@sloan.mit.edu

@eleanorstrib



CAROLINE WINTER

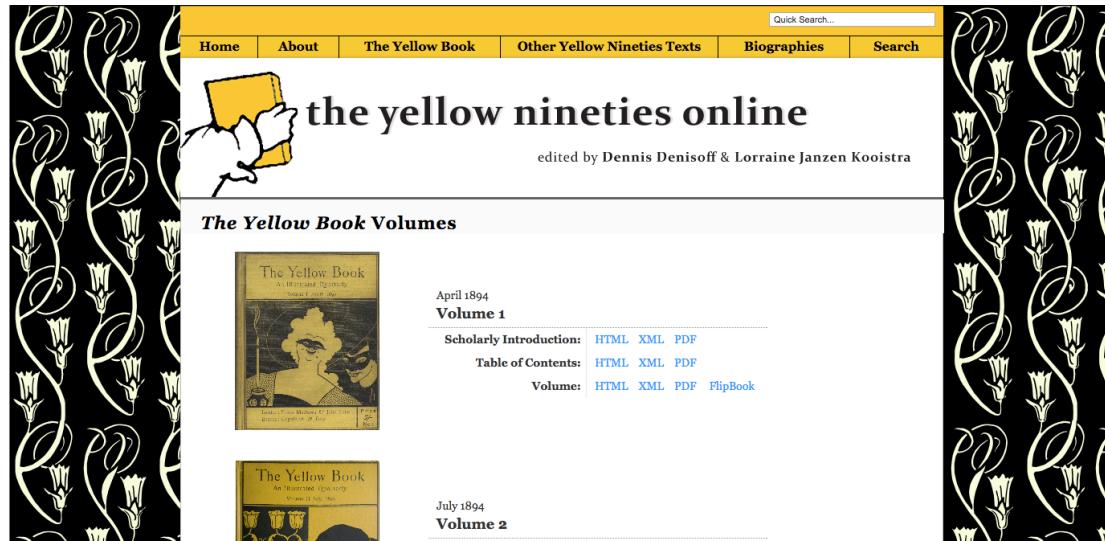
winterc@uvic.ca

@editrixcaroline

WHAT IS DIGITAL HUMANITIES (DH)?

- ▶ Using computers and digital technologies to study the humanities
- ▶ Using humanities frameworks to study digital technologies
- ▶ Pedagogy
- ▶ Methodology
- ▶ Materiality
- ▶ Theory
- ▶ Access

DIGITAL EDITIONS & ARCHIVES

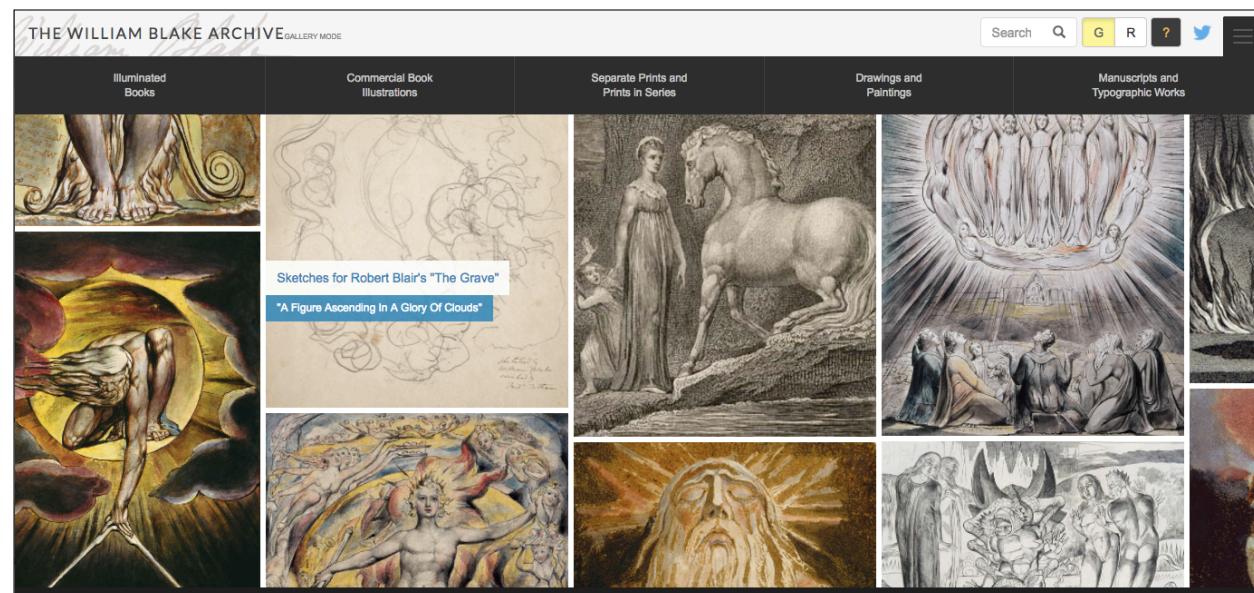


The Yellow Nineties

<http://www.1890s.ca/>

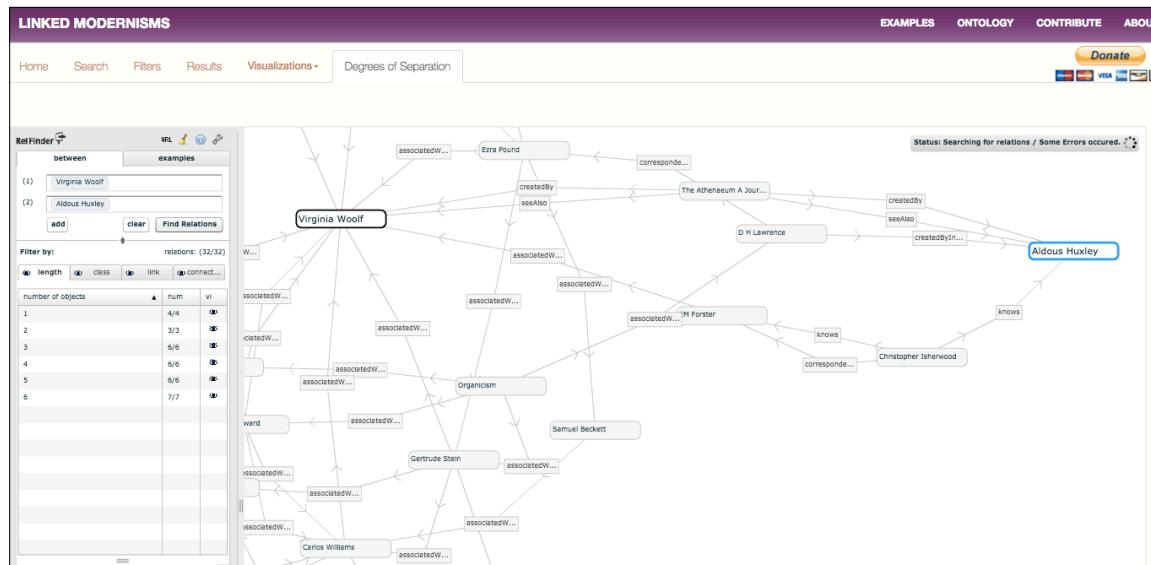
The William Blake Archive

<http://www.blakearchive.org/>



TEXT

NETWORK ANALYSIS

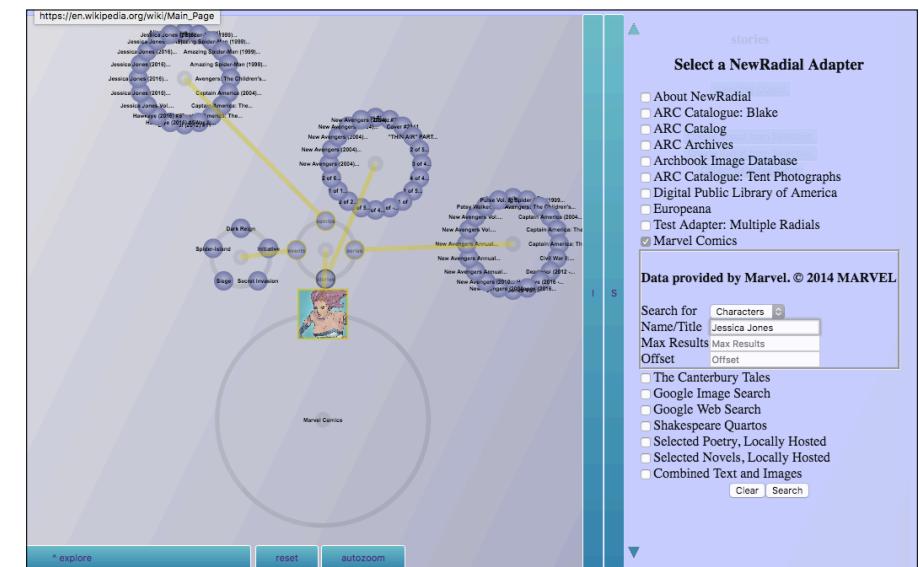


Linked Modernisms

<http://linkedmods.uvic.ca/>

New Radial

<http://inke.acadiau.ca/newradial/>



TEXT ANALYSIS

What the Computer Said

Click for instructions

Voice Switches

Computer Switches, by Degree of Confidence

- High (█)
- Medium (█)
- Low (█)

Human Switches

- The Class (█)

Nam Sibyllam quidem Cumis ego ipse oculis meis vidi in ampulla pendere, et cum illi pueri dicerent: Σιβυλλα τι θελεις; respondebat illa: αποθανειν θελω.

For Ezra Pound
Il miglior fabbro.

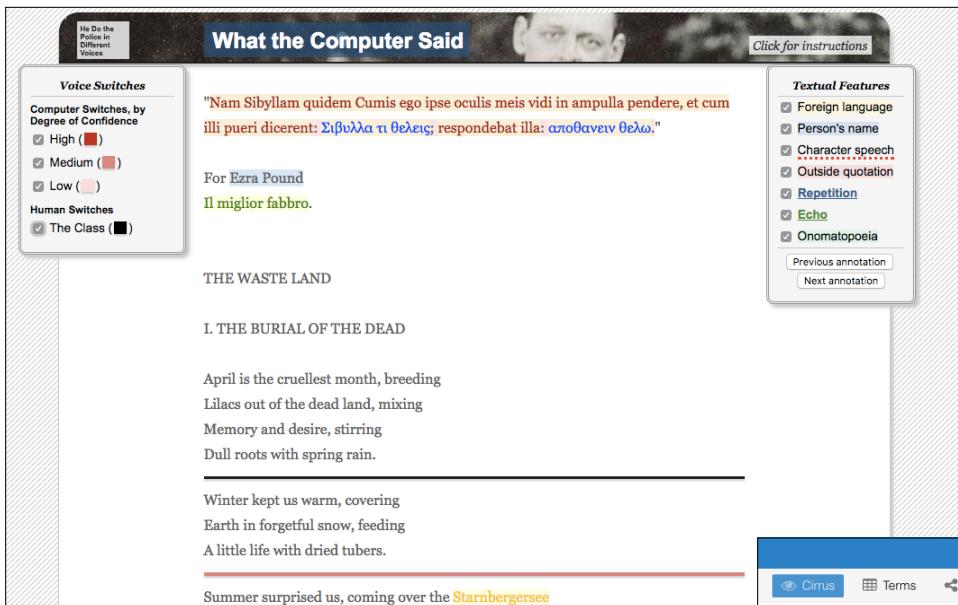
THE WASTE LAND

I. THE BURIAL OF THE DEAD

April is the cruellest month, breeding
Lilacs out of the dead land, mixing
Memory and desire, stirring
Dull roots with spring rain.

Winter kept us warm, covering
Earth in forgetful snow, feeding
A little life with dried tubers.

Summer surprised us, coming over the Starnbergersee



He Do the Police in Different Voices

<http://hedothePolice.org>

Voyant Tools

<https://voyant-tools.org/>

Cirrus Terms Links Reader Trends Document Terms

austen_prideprejudice

The Project Gutenberg Ebook of Pride and Prejudice, by Jane Austen This Ebook is for the use of anyone anywhere at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this Ebook or online at www.gutenberg.org

Title: Pride and Prejudice
Author: Jane Austen
Posting Date: August 26, 2008 [EBook #1342]
Release Date: June, 1998
Last updated: October 12, 2012

Raw Frequencies

Document Segments

elizabeth

Summary Documents Phrases

This corpus has 1 document with 125,367 total words and 6,831 unique word forms. Created now.

Vocabulary Density: 0.054

Average Words Per Sentence: 20.9

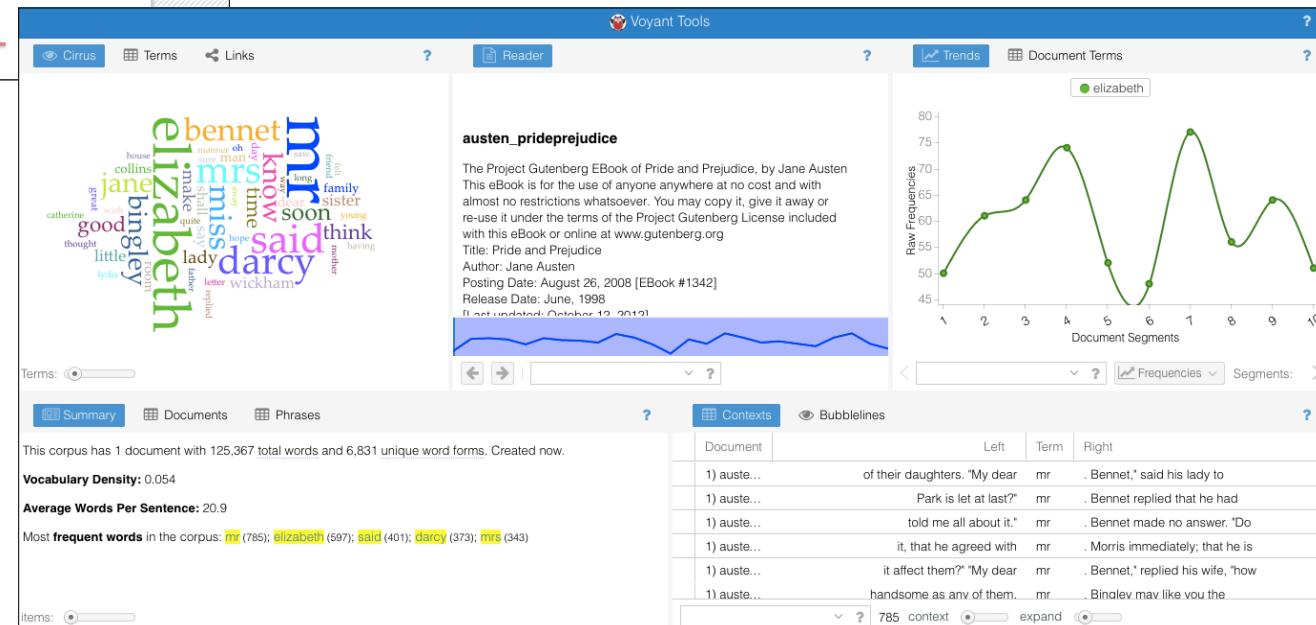
Most frequent words in the corpus: mr (785); elizabeth (597); said (401); darcy (373); mrs (343)

Items:

Contexts Bubblelines

Document	Left	Term	Right
1) auste...	of their daughters. "My dear	mr	. Bennet," said his lady to
1) auste...	Park is let at last?"	mr	. Bennet replied that he had
1) auste...	told me all about it."	mr	. Bennet made no answer. "Do
1) auste...	it, that he agreed with	mr	. Morris immediately; that he is
1) auste...	it affect them?" "My dear	mr	. Bennet," replied his wife, "how
1) auste...	handsome as any of them..	mr	. Bingley may like you the

785 context expand



TEXT ANALYSIS

Uses computational stylistics (studying words using computers) to analyze meaning in texts

- ▶ Stylometry
- ▶ Topic modelling
- ▶ Distant reading

- ▶ What color palette does Mary Shelley's *Frankenstein* use?

FRANKENSTEIN. MARY SHELLEY (1818)

His **yellow** skin scarcely covered the work of muscles and arteries beneath; his hair was of a lustrous **black**, and flowing; his teeth of a **pearly whiteness**; but these luxuriances only formed a more horrid contrast with his watery eyes, that seemed almost of the same colour as the **dun-white** sockets in which they were set, his shrivelled complexion and straight **black** lips.

GOTHIC COLORS

PURPOSE

- ▶ Discover the color palette of C19 British Gothic literature

METHODOLOGY

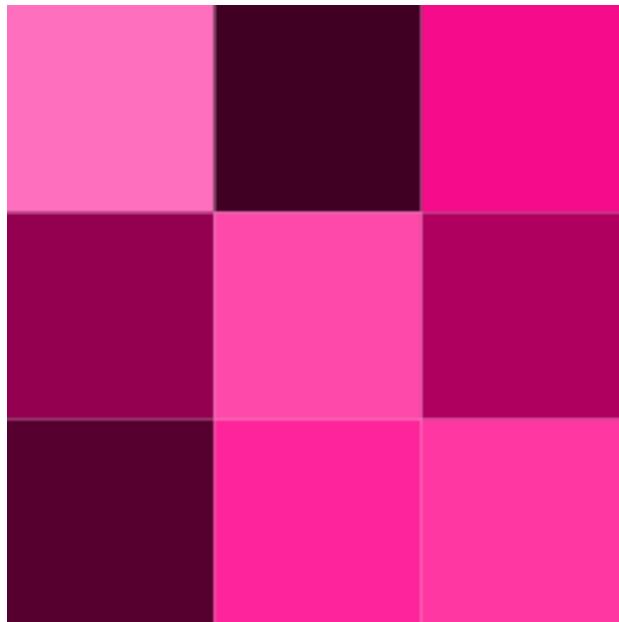
- ▶ Identify period color words
- ▶ Assemble a corpus of representative texts
- ▶ Use Python to analyze the corpus: find named colors, determine frequency and order of each, visualize results





TEXT

ROSE != ROSE



Adjectives



TEXT ANALYSIS

Categorizing words into parts of speech

```
for pos, item in enumerate(tagged_text):
    try:
        if item[1][0] == 'N':
            nouns.append((item[0], pos))
        if item[1][0] == 'J':
            adjectives.append((item[0], pos))
        if item[1][0] == 'V':
            verbs.append((item[0], pos))
```

Checking against OED list

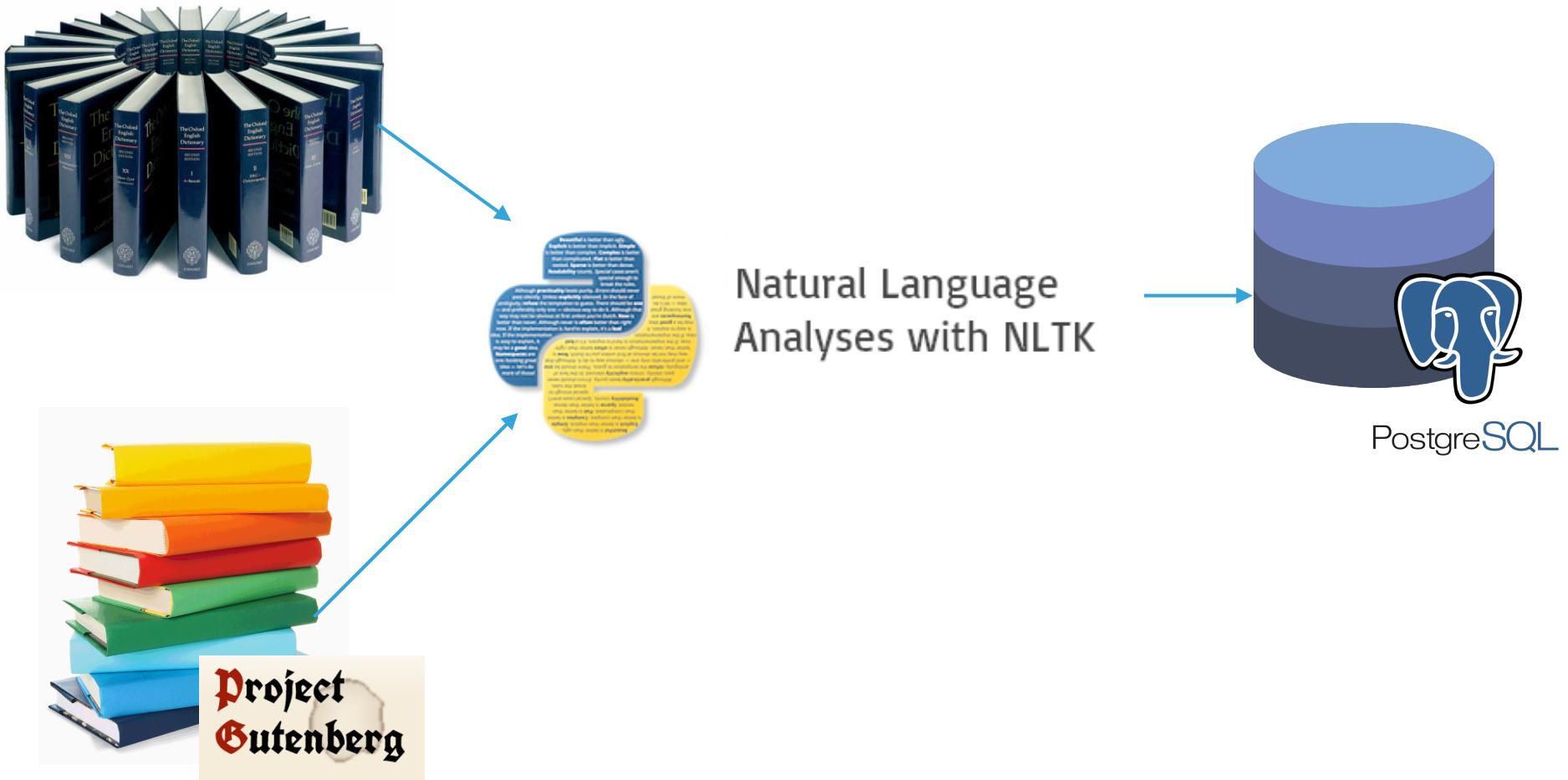
```
lemmatizer = WordNetLemmatizer()
for item in typed_list:
    lemmatized_word = lemmatizer.lemmatize(item[0])
    if lemmatized_word in color_word_list:
        filtered.append(item)
return filtered
```



Natural Language
Analyses with NLTK

TEXT

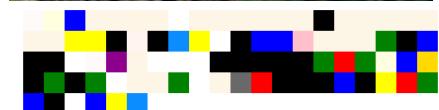
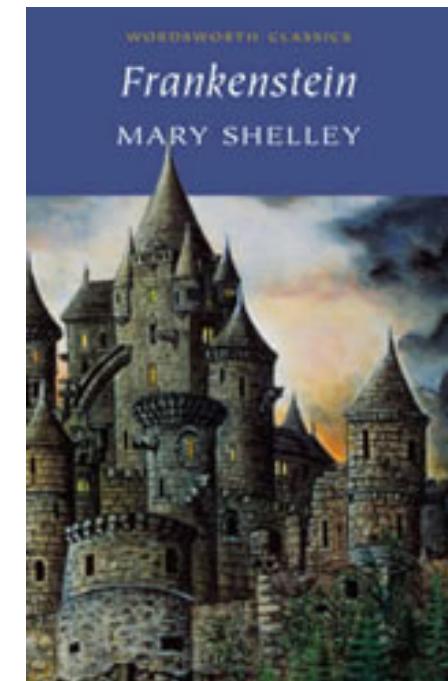
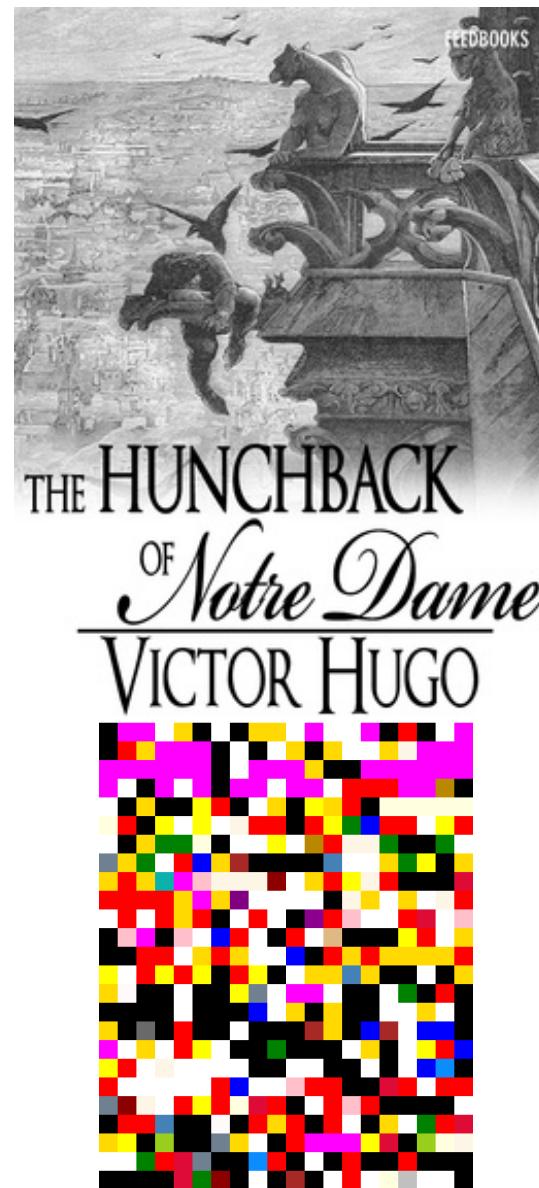
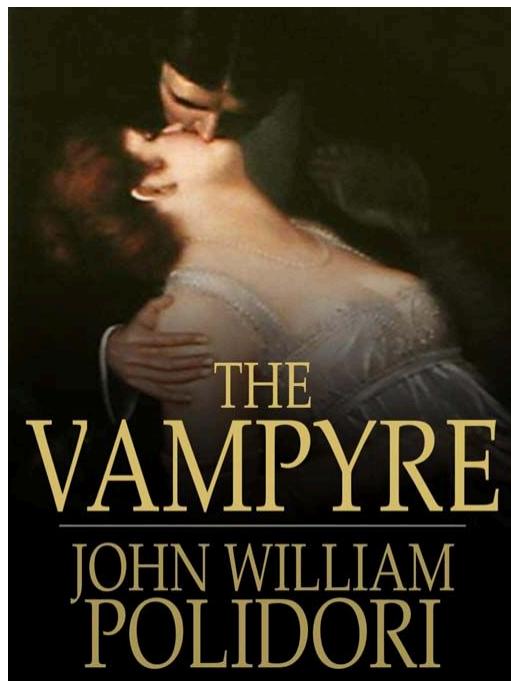
APPROACH



RESULTS & RESEARCH QUESTIONS

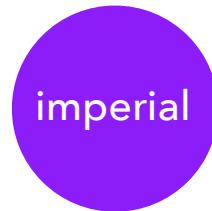
- ▶ [[TO COME: graph of overall color palette of the complete corpus—top 10 colours, maybe?]]
- ▶ [[TO COME: graph of overall color palette of the Romantic corpus]]
- ▶ [[TO COME: graph of overall color palette of the Victorian corpus]]

PRELIMINARY RESULTS - WIDE VARIATION



OUTSTANDING RESEARCH QUESTIONS

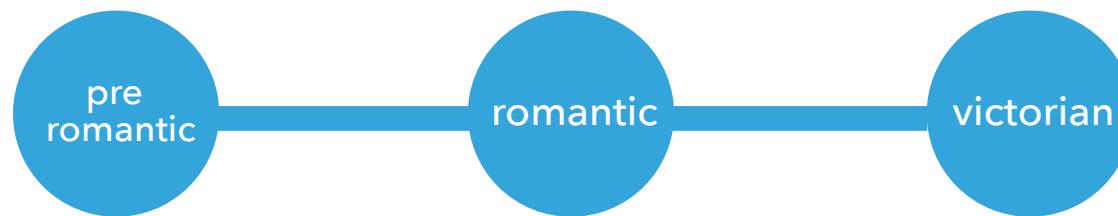
- ▶ Color words in context



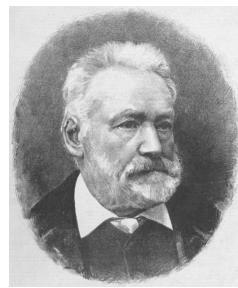
- ▶ Frequency and proportion & position of occurrence

OUTSTANDING RESEARCH QUESTIONS

- ▶ Trends over time in colors used or frequency



- ▶ By author



VS



VS



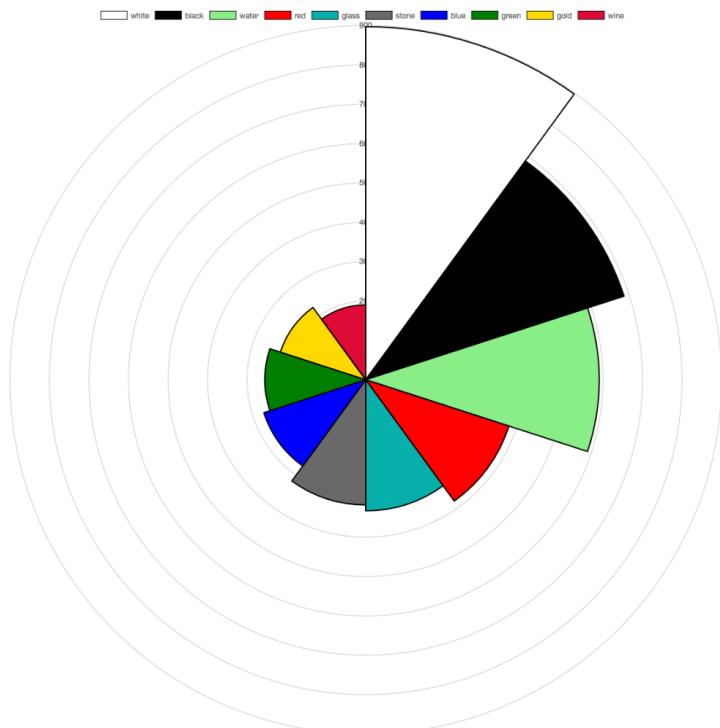
Romantic Palette

Avg. 0.07% Color Words

[[Graph to come]]

Victorian Palette

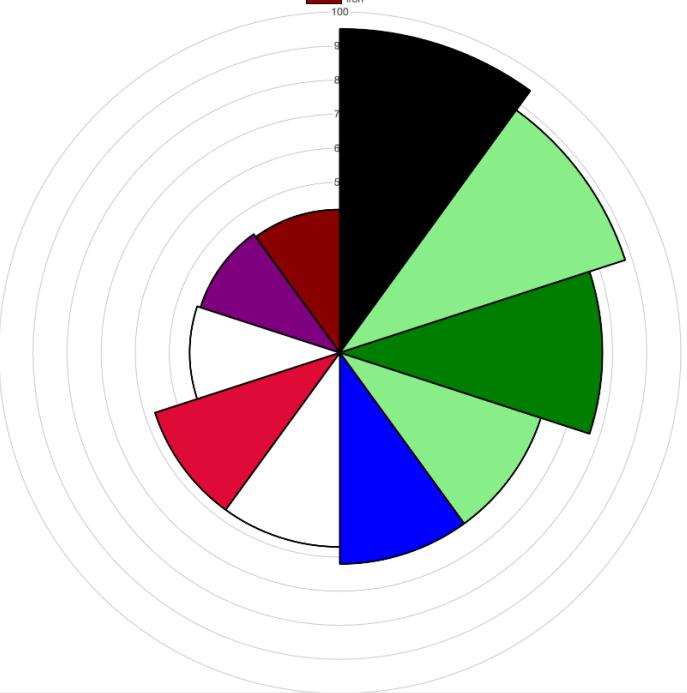
Avg. 0.33% Color Words



Ann Radcliffe

6 works, avg. 0.17% color words

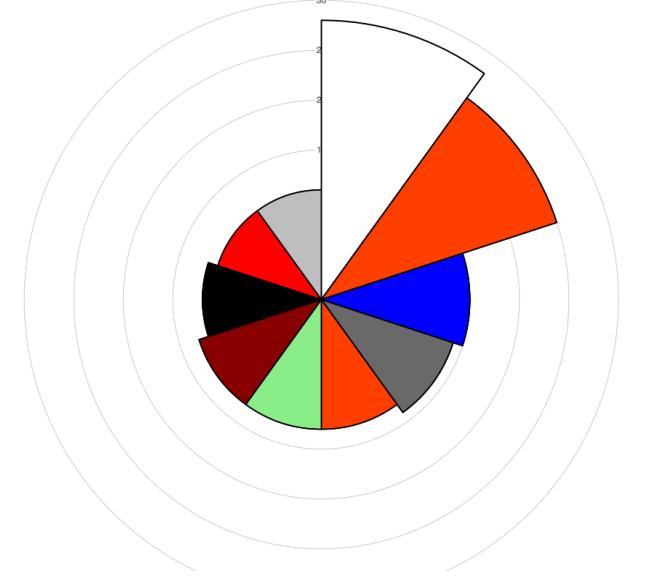
black waters green water blue white wine marble purple
iron



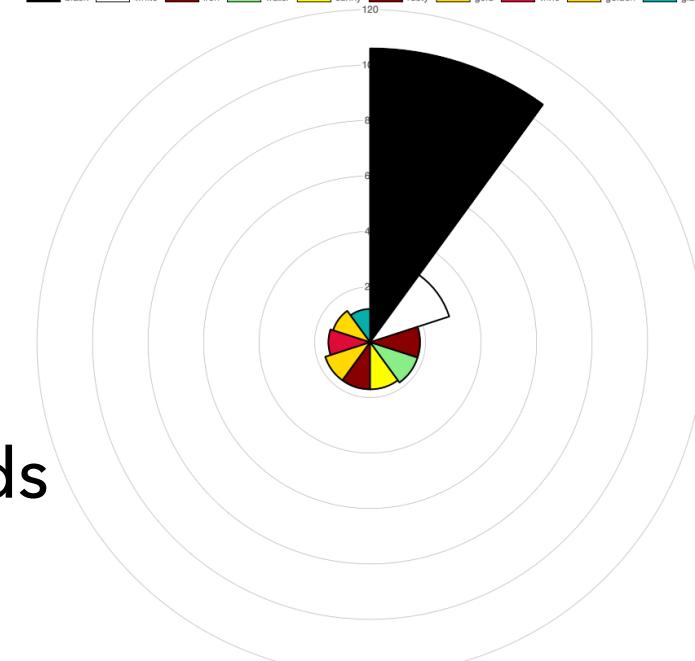
Matthew Gregory Lewis

3 works, avg. 0.34% color words

white flames blue stone flame water iron black red silver



black white iron water sunny rusty gold wine golden glass



Nathaniel Hawthorne

3 works, avg. 0.42% color words

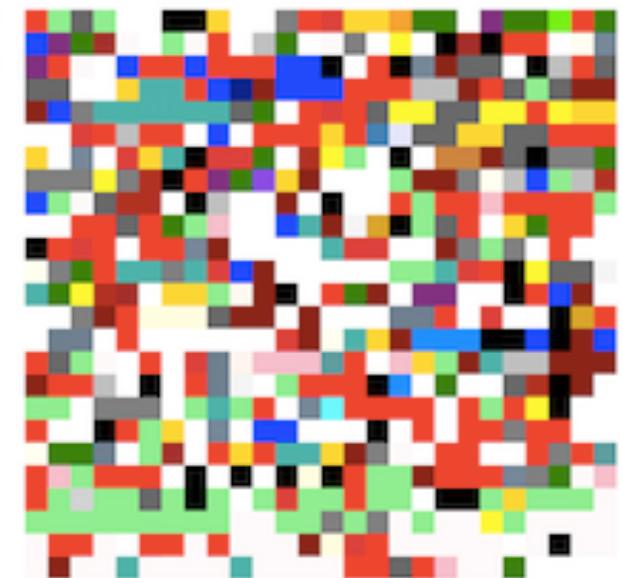


VAMPIRE TALES THROUGH THE CENTURY

Christabel, 1798 "The Vampyre," 1810 "The Vampyre," 1819



Varney the Vampire, 1847 *Carmilla*, 1872 *Dracula*, 1897





Color	Color Code	Percentage
#000018	0.295207	
#181818	0.249311	
#000000	0.094986	
#301818	0.040386	
#180018	0.040275	
#303030	0.022314	
#483030	0.013444	
#484848	0.012948	
#481818	0.012452	
#d8c0c0	0.012121	
#606060	0.010744	
#181830	0.007603	
#787878	0.007328	
#c0a8a8	0.007107	
#303048	0.007052	
#d8d8c0	0.006722	
#c0c0c0	0.006612	
#d8d8d8	0.006336	
#483018	0.005895	
#d8c0a8	0.005840	
#604830	0.005399	
#f0d8d8	0.005399	
#484830	0.005289	
#303018	0.005234	
#a89090	0.004848	
#786048	0.004848	
#909090	0.004683	
#484860	0.004242	
#907860	0.004187	
#001818	0.004132	
#a8a8a8	0.003912	
#786078	0.003691	
#c0a890	0.003581	
#606048	0.003526	
#907890	0.003416	
#604848	0.003361	
#606078	0.003361	
#786060	0.003140	
#c0a878	0.003030	
#907848	0.003030	
#a89060	0.003030	
#a89078	0.002865	
#907878	0.002865	
#604860	0.002534	
#d8c090	0.002314	
#c09078	0.002259	
#c0a8c0	0.002259	
#a87860	0.002039	
#c0c0a8	0.002039	
#a890a8	0.001873	

THANK YOU!

- ▶ PyCon
- ▶ PyLadies
- ▶ SSHRC