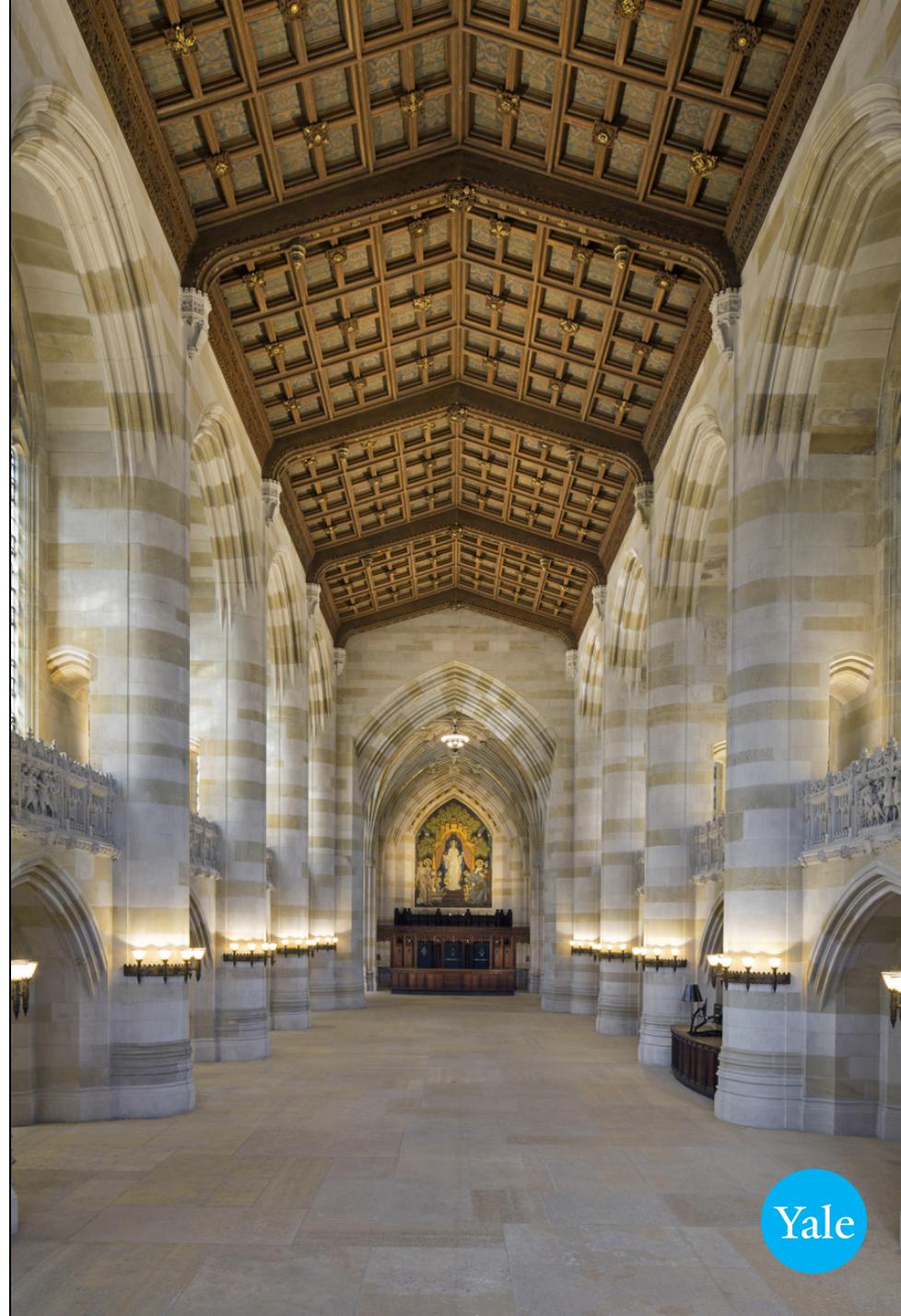


Building Digital Humanities at Yale University

Yale UNIVERSITY LIBRARY
Digital Humanities Laboratory

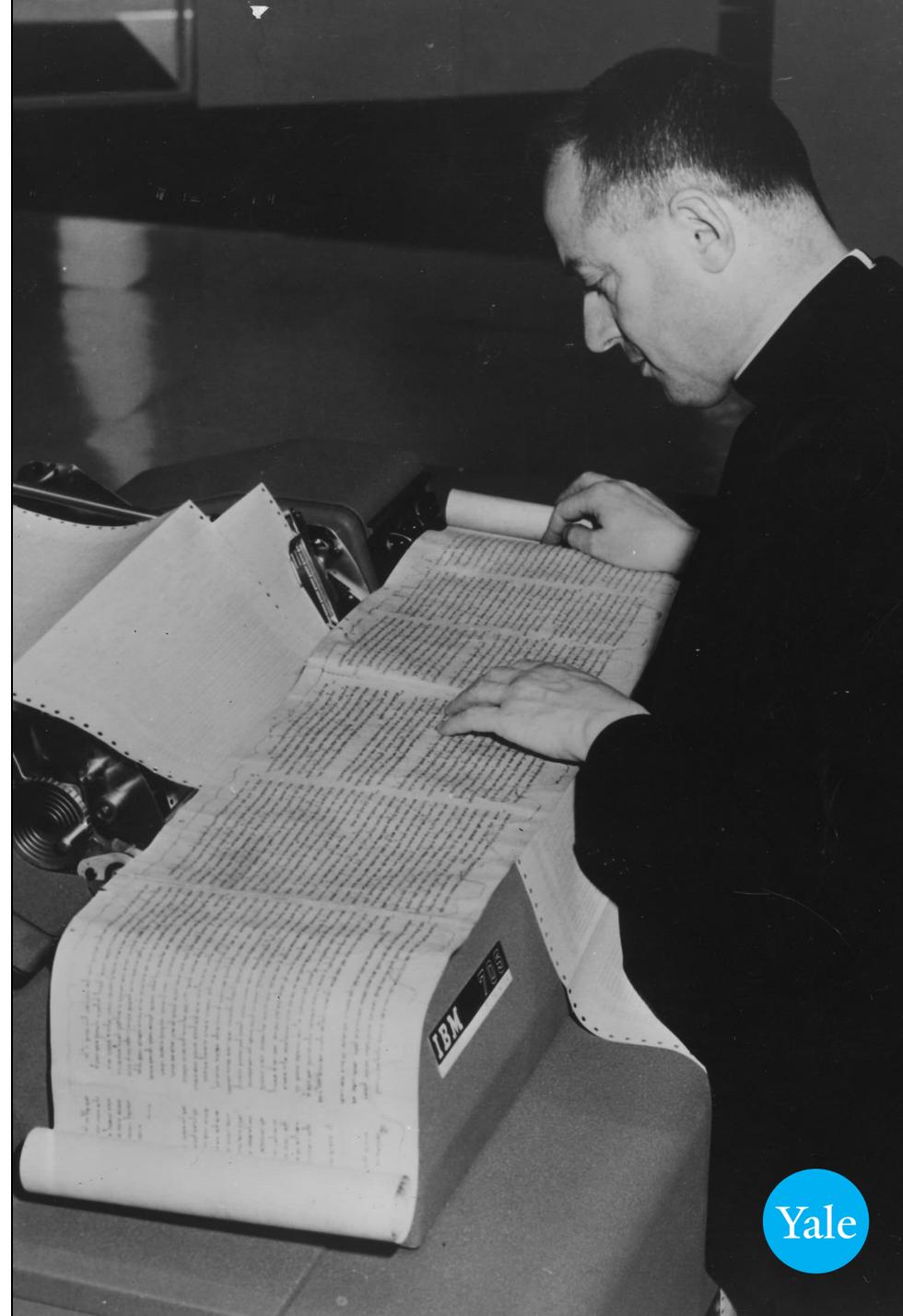
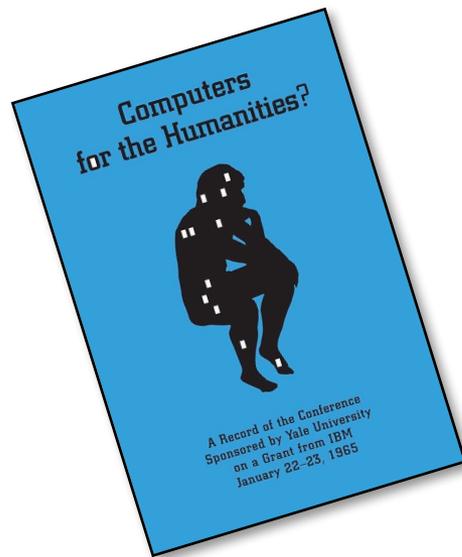
Yale University Library

- “The Library is the Heart of the University”
- 500 employees+
- 15 million+ print & electronic volumes
- 15 libraries across campus



Early Yale DH

- 1956 Father Roberto Busa at Yale
- 1965 IBM-Sponsored Conference at Yale



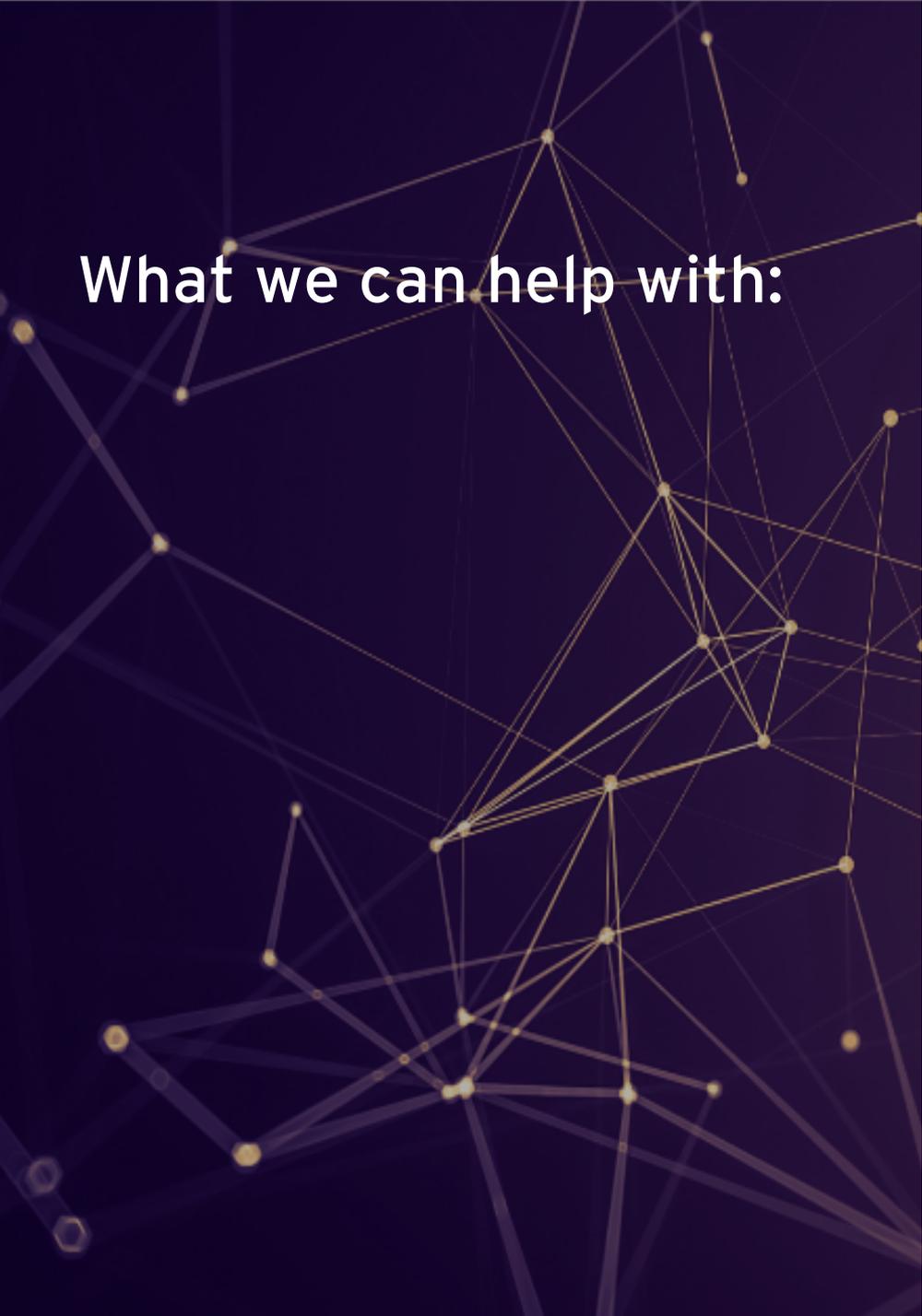
Yale DHLab Origins

- 2008 Digital Humanities Working Group
 - Graduate student leadership
- 2013 Librarian for Digital Humanities Research
 - Within Humanities Librarians group
- 2015 Grant for DHLab
 - Support for STEAM at Yale (STEM + Arts & Humanities)
 - 3 FTE positions
- 2018 Newly renovated space
 - 460m² historic reading room



What is “Digital Humanities?”





What we can help with:

The analysis,
visualization **and**
engagement **of**
humanities data **in**
pursuit of humanistic
questions.



What we can help with:

Textual Analysis

Visual Analysis

Network Analysis

Geo-Spatial Analysis

The analysis,
visualization **and**
engagement **of**
humanities data **in**
pursuit of humanistic
questions.

Faculty Digital Humanities Committee

2017-2018

Amy Hungerford (Chair), Dean of Humanities, Bird White Housum Professor of English, Professor of American Studies

Marijeta Bozovic, Assistant Professor of Slavic Languages and Literatures

Wai Chee Dimock, William Lampson Professor of American Studies, Professor of English

Jennifer Frederick, Executive Director, Yale Center for Teaching and Learning

Susan Gibbons, University Librarian and Deputy Provost for Collections & Scholarly Communication

Stephen Krewson, English and Computer Science (Graduate Student)

Peter Leonard, Director, Digital Humanities Laboratory

Mary Miller, Sterling Professor in the History of Art; Senior Director, Institute for the Preservation of Cultural Heritage

Angel Nieves, Visiting Associate Professor, Women's, Gender, and Sexuality Studies

Anna Shechtman, English (Graduate Student)

Dragomir Radev, A. Bartlett Giamatti Professor of Computer Science

Laura Wexler, Professor of Women's, Gender, and Sexuality Studies and Professor of American Studies

Anna Zayaruznaya, Assistant Professor in the Music Department



Building Support for Digital Humanities

Access to DH methods and ideas

Analysis using data science

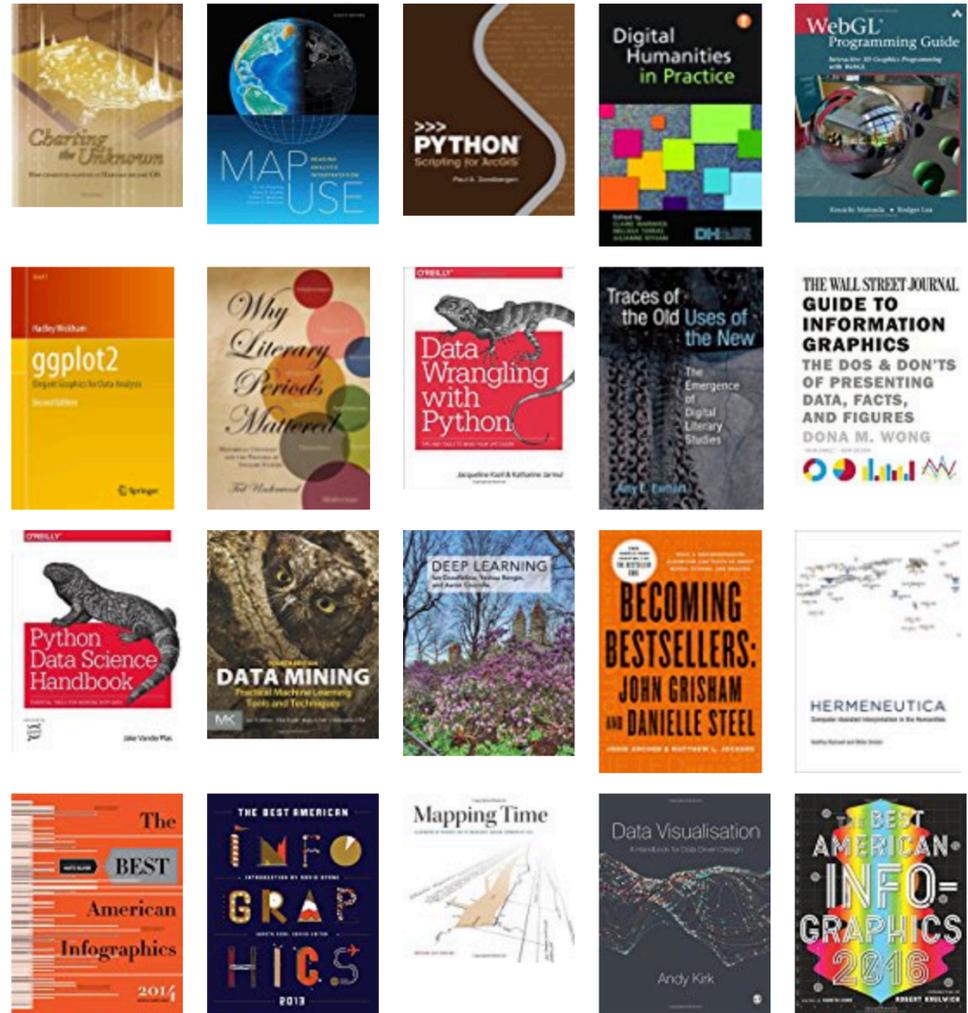
Engagement with collections

Access to DH methods and ideas

The Digital Humanities Lab provides space,
community **and** resources **for Yale scholars,**
faculty, and librarians.

Digital Humanities Reference Collection

Visitors to the DHLab can refer to over one hundred volumes of both theoretical and practical expertise.

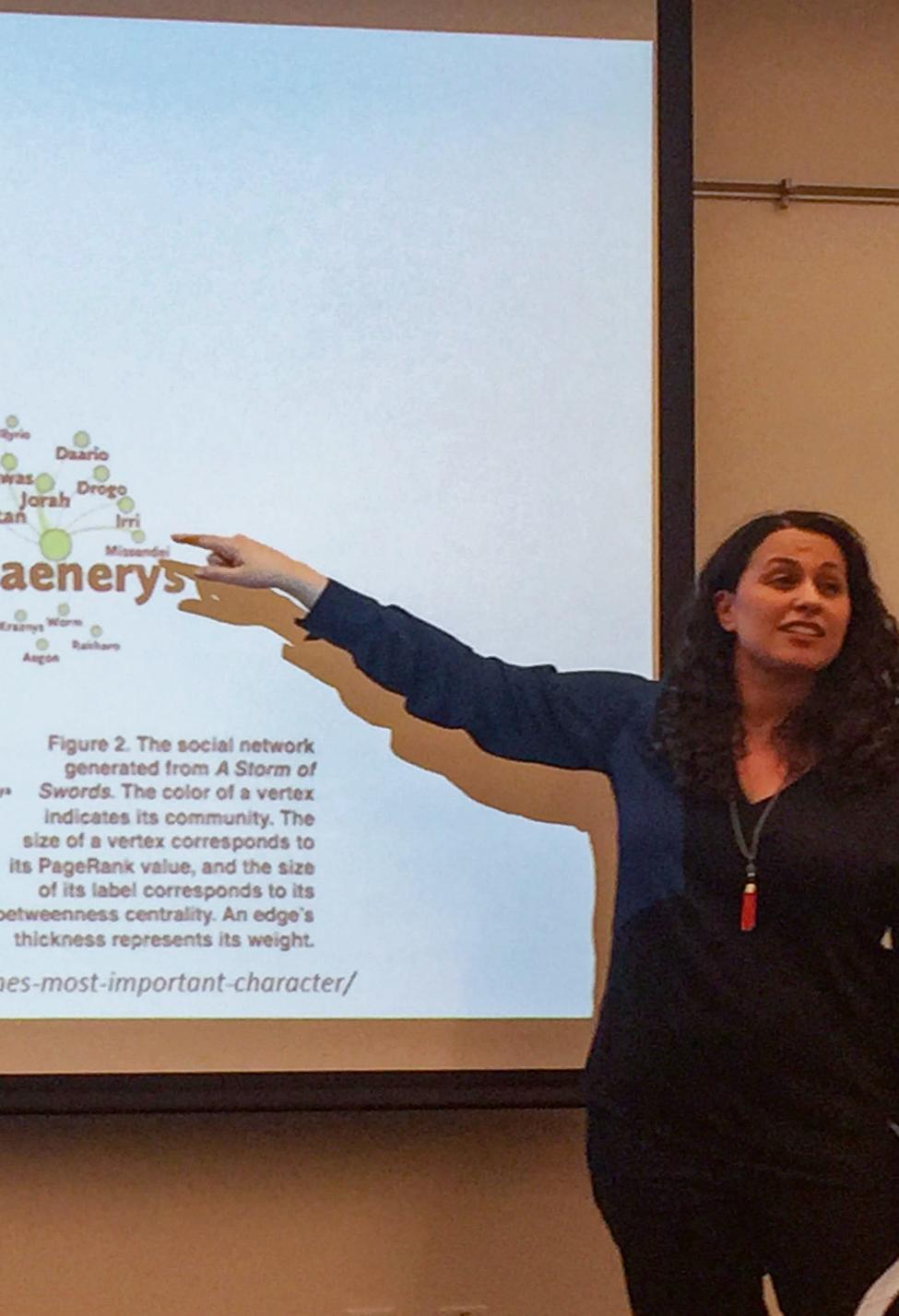




In-Person Consultations

The DHLab holds office hours two afternoons a week.

Scholars have access to a Developer, User Experience Designer, Outreach & Engagement Specialist, Research Data Specialist, and GIS Librarian.



Bringing Learning Communities Together

The DHLab taught or sponsored **over** thirty workshops **last year**.

Topics **are determined** by the questions **that scholars bring to office hours**.

Training Scholarships

US\$500 for week-long, discipline-relevant training opportunities for librarians & graduate students

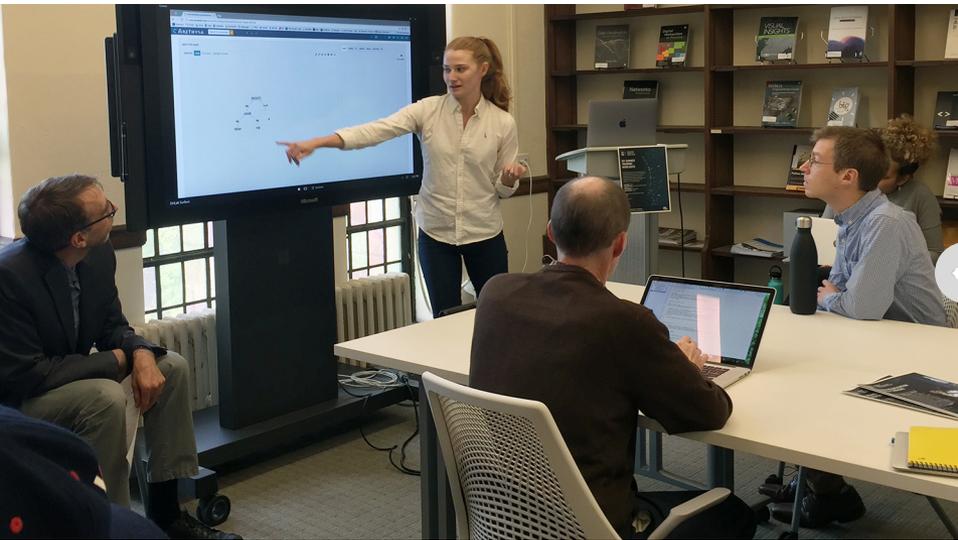
- Digital Humanities Summer Institute (DHSI)
- Humanities Intensive Learning and Teaching (HILT)
- Digital Humanities @ Oxford (DHOxSS)
- DH @ Guelph
- Trier Digital Humanities Autumn School
- Leiden Summer School in Chinese Digital Humanities

Awardees commit to sharing expertise upon return



Text Encoding Initiative

Colin McCaffrey (Classics Librarian)



The Perseus Project

Jennifer Weintritt (Graduate Student, Classics)

2016-2017



Andrew S. Brown is a fourth-year PhD candidate in the Department of English, specializing in Renaissance/early modern literature. His dissertation focuses on how English playwrights engaged with the political, religious, and literary implications of the concept of representation. Other research interests include the history of printing and the intersections between the digital humanities and book history more generally.

As an assistant to Professor Heather Klemann, Andrew will work with the DHLab to develop several assignments for the English Department course "Vampires, Castles, Werewolves". Students will learn how to use tools and software in the areas of mapping/GIS, digital curation, and text visualization. In doing so, they'll have the opportunity to create their own online resources that explore the connections between Gothic literature and the

history of art and architecture, as well as the rich, complex publication history that lies behind many of the period's novels and stories. *Spring 2017*



Fadila Habchi is a Ph.D candidate in African American Studies and American Studies. She specializes in contemporary literature from the African diaspora, in French and English. She is especially interested in narratives of migration in the context of movements of decolonization. Her current project explores literary representations of the postcolonial city in postwar Caribbean literature.

As a digital fellow, Fadila works closely with Professor Wexler to assist undergraduates students in developing their own digital humanities project. *Spring 2017*



Bo Li is a Ph.D. candidate in the English Department, working on a long history of new media, with a special interest in feminist engagements with populist media forms. She is excited to be working with Professor Wai Chee Dimock on "Performing American Literature," a course that will expand the definition of "performance" to include modes of digital expression, ranging from gaming, spatial and temporal mapping, e-texts, and the creative use of social media.

In addition to her research and teaching, Bo is also engaged with pedagogical development, with particular focus on academic writing. She works with the Yale College Writing Center and is a McDougal Fellow at the Center for Teaching and Learning. *Spring 2017*



Kimberly Quiogue Andrews is currently completing her PhD in the English Department at Yale, and was excited to be the test case for scaling up DH methods for use in a lecture course. Her research focuses in the main on the cultural contexts of contemporary American poetry. Her current project explores the relationship between experimental poetry and the university after the second world war; specifically, she aims to show the ways in which innovative poetic methodologies borrow and engage with more 'traditional' research practices in the analytic humanities.

As an assistant to Professor R. John Williams in the English Department, Kim worked with the DHLab to develop a number of digital projects for a course entitled "Countercultures."

This course explored a number of states of "altered consciousness" throughout the 1960s and 1970s, offering a more nuanced exploration of what it meant to cultivate an experience that ran "counter" to the dominant practices of American bourgeois society. Students learned how to use network visualization tools, topic mapping, and trend visualization software — as well as a few digital tools by which they can create their own countercultural projects — to better understand the relationship between what runs against mainstream culture, and the mainstream culture that has a tendency to absorb it. *Fall 2016*

Teaching Fellows

Since 2015, the DHLab has worked with 13 graduate student DH Teaching Fellows.

Each Fellow proposes a plan for bringing DH methods to an undergraduate class.



2016-2017 POSTDOCTORAL ASSOCIATES



Jonathan Schroeder uses the methods of the digital humanist, conceptual historian, and literary scholar to compare how European frameworks of emotion were institutionalized in the Americas. His manuscript, *Prisoners of Loss: An Atlantic History of Nostalgia*, charts the first phase in the globalization of nostalgia, tracking how this medical concept was carried to the New World and used to design new health care systems for slaves and soldiers in America, Brazil, Cuba, and Haiti. By virtue of this process, he argues, nostalgia was transformed from a disease of travel suffered by

European ethnics into the exemplary disease of racial captivity in the nineteenth century, one that can potentially help us make sense of present-day scenes of racial and ethnic melancholy.

His project at the DHLab, "Passages to Freedom: Worlding the North American Slave Narrative," examines the language and geography of 294 African-American slave narratives. How did African-Americans make their escapes? What does the mobility of slaves look like in slavery? In freedom? Are there distinct languages of slavery and freedom? And how do answers to these questions change after the Fugitive Slave Act of 1850? After the slave narrative was affiliated with antebellum abolitionist networks?

He received his Ph.D. in English Language and Literature from the University of Chicago. His work has appeared in *American Literature* and is forthcoming in *Arizona Quarterly*.

2015-2016 POSTDOCTORAL ASSOCIATES



Carol Chiodo is a writer, scholar, and educator whose work investigates how the material and structural changes in the reproduction, storage and transmission of texts impact the ways we read, write and learn. She received a Ph.D. degree in Italian Language and Literature with a dissertation on medieval vernacular poetry and the mechanical arts.

Her current research uses social network analysis to explore the membership rolls of early scholarly societies in North America as a source for women's history. The project re-situates the female membership of the first decades of

the Dante Society of America, one of the oldest in North America, in relation to contemporary social and institutional networks associated with racial egalitarianism, religious and educational reform, and universal suffrage. While her primary interest is in how these women influenced the reception and dissemination of Dante's work in North America, their activity also sheds light on the broader context of higher education and religious reform.

Postdoctoral Associates

Each year, the DHLab supports two Postdoctoral Associates for 12 months.

Postdocs are appointed by an academic department; their office space is in the DHLab.



From Physical Collections to Digitally-Actionable Research Objects

Book **and** microfilm scanners **allow researchers to transform** physical holdings **into material suitable for** digital investigation.



Digital Humanities support in the context of Yale Library

- Experimenting **to find new avenues of research on Yale Library's existing and emerging digital collections**
- Advising **on how Yale researchers might benefit from DH methods**
- Keeping current **on state of the field/new DH research projects and tools**
- Advocating purchase **of raw data for large digital collections licensed and bought with library funds**

Analysis using Data Science

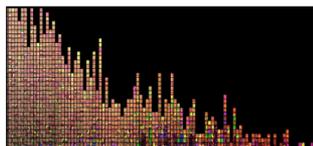
The Digital Humanities Lab helps
librarians, students and faculty analyze
digital collections in new ways.

Robots Reading *Vogue*

Data Mining is in Fashion

Few magazines can boast being continuously published for over a century, familiar and interesting to almost everyone, full of iconic pictures — and also completely digitized and marked up as both text and images. What can you do with over 2,700 covers, 400,000 pages, 6 TB of data? Students, librarians and faculty are excited about the possibilities of working with *Vogue* to explore questions in fields from gender studies to computer science. We highlight some early experiments below:

Slice Histograms



Direct visualization of color patterns.

[Explore »](#)

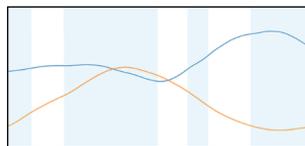
Cover Averages



Visual continuity and change across the decades.

[Explore »](#)

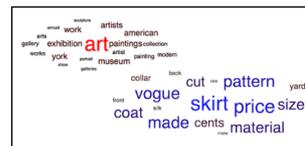
n-gram Search



Search and compare word usage in 400,000+ pages within ads, articles, or all texts.

[Explore »](#)

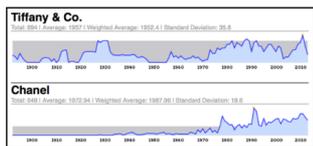
Topic Modeling



Self-organizing themes determined by word co-occurrence.

[Explore »](#)

Advertisements



Sort ads by frequency, date, and industry.

[Explore »](#)

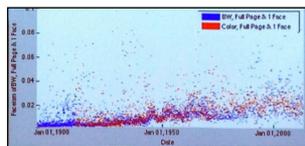
Statistics



View figures on circulation, ratio of articles to advertisements, price per issue, and number of pages per year.

[Explore »](#)

Student Work



See projects conducted by Yale students using this data.

[Explore »](#)

Colormetric Space



Hue, Saturation and Lightness.

[Explore »](#)

Metadata Explorer: California

Showing 2,985 of 2,985 photographs {reset}



Stockton 4/43 Collins



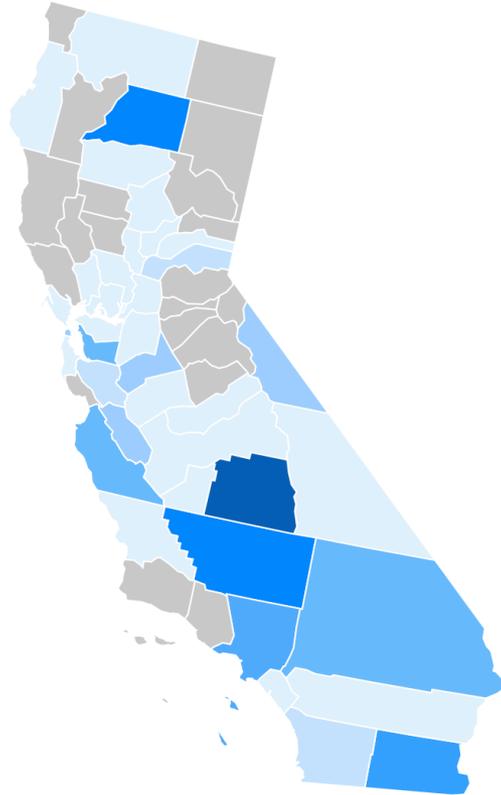
San Francisco 4/43 Rosener



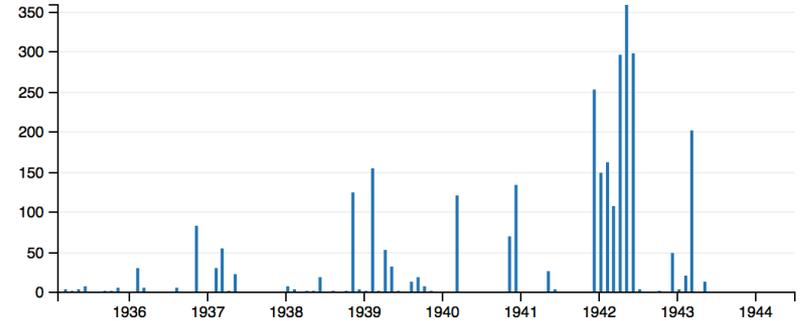
San Francisco 4/43 Rosener



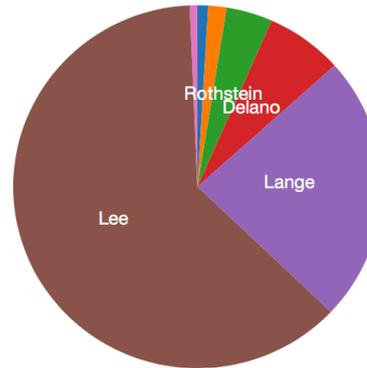
County



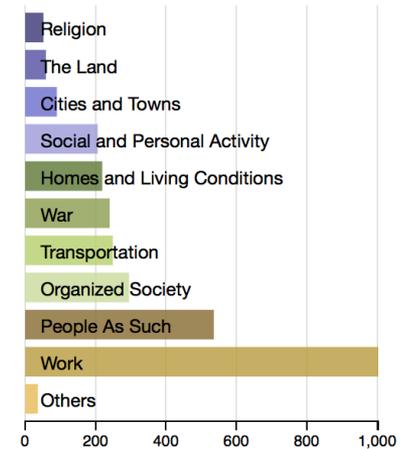
Month



Photographer



Classification



Your query returned 131 results

Previous Use Later Use

Similarity MIN MAX

Sort by ▼

An Elegy wrote in a Country Churchyard. 1751

Thomas Gray

parting Day, The lowing Herd wind slowly o'er the Lea, The Plow-man homeward plods **his weary Way, And leaves the World to Darkness, and to me. Now fades** the glimmering Landscape on the Sight, And all the Air a solemn Stillness holds;

Read Compare Favorite Visualize

1825 *Elegy. Dedicated to **** A Parody on Gray.*

Edward

of day, Th' attorney's clerk goes slowly to his tea; And mine begins to plod **his weary way, And leave my rooms to solitude and me. Now fades** the glitt'ring river on my sight, And all the air a solemn stillness feels;

Read Compare Favorite Visualize

71%

An Elegy wrote in a Country Churchyard. 1751

Thomas Gray

homeward plods his weary Way, And leaves the World to Darkness, and to me. **Now fades the glimmering Landscape on the Sight, And all the Air a solemn Stillness holds; Save where the Beetle wheels his** droning Flight, And drowsy Tinklings lull the distant Folds. Save that from yonder Ivy-mantled

Read Compare Favorite Visualize

1825 *Elegy. Dedicated to **** A Parody on Gray.*

Edward

begins to plod his weary way, And leave my rooms to solitude and me. **Now fades the glitt'ring river on my sight, And all the air a solemn stillness feels; Save when the rake wheels round his rapid flight, And drowsy watchmen follow at his heels. Save, that from yonder darkly shaded tow'r, The**

Read Compare Favorite Visualize

74%

Search for a narrative

Without the slightest objection on my master's part, the gentlemen left the carriage at **Gordon** , for Milledgeville (the capital of the State). ↻

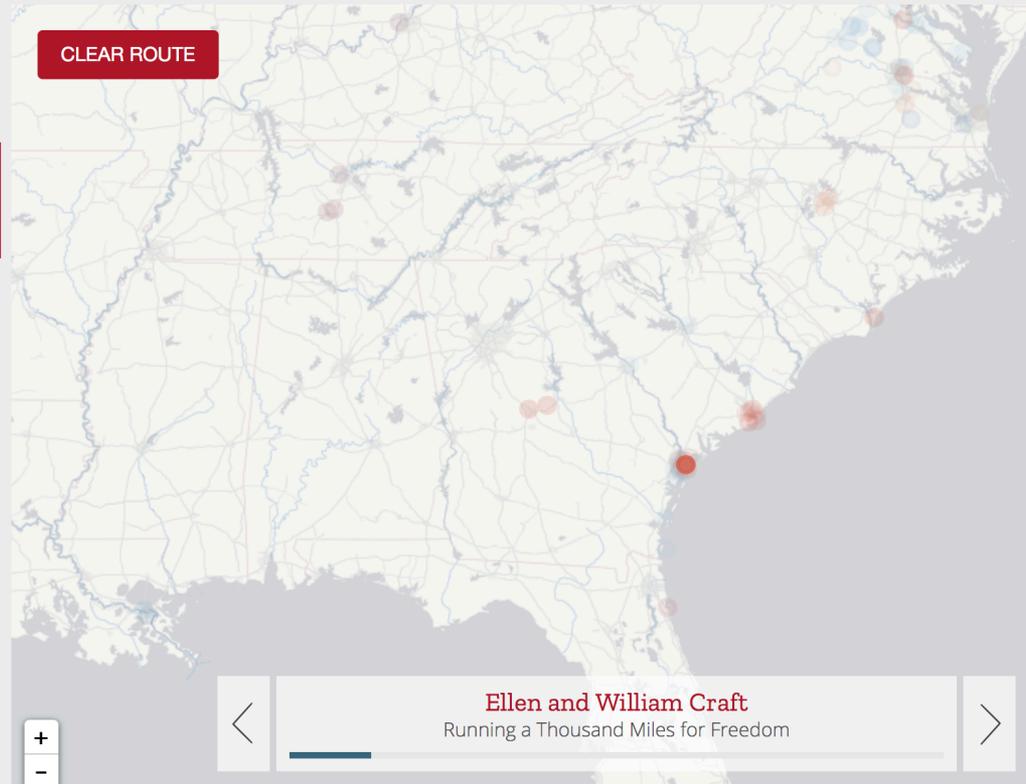
We arrived at **Savannah** early in the evening, and got into an omnibus, which stopped at the hotel for the passengers to take tea. ↻

When we left Maçon, it was our intention to take a steamer at **Charleston** through to Philadelphia; but on arriving there we found that the vessels did not run during the winter, and I have no doubt it was well for us they did not; for on the very last voyage the steamer made that we intended to go by, a fugitive was discovered secreted on board, and sent back to slavery. ↻

So I ordered a fly to the door, had the luggage placed on; we got in, and drove down to the **Custom-house Office** , which was near the wharf where we had to obtain tickets, to take a steamer for Wilmington, North Carolina ↻

He thanked him kindly, and the young officer begged

CLEAR ROUTE



166
MILES TRAVELLED

Ellen and William Craft
Running a Thousand Miles for Freedom

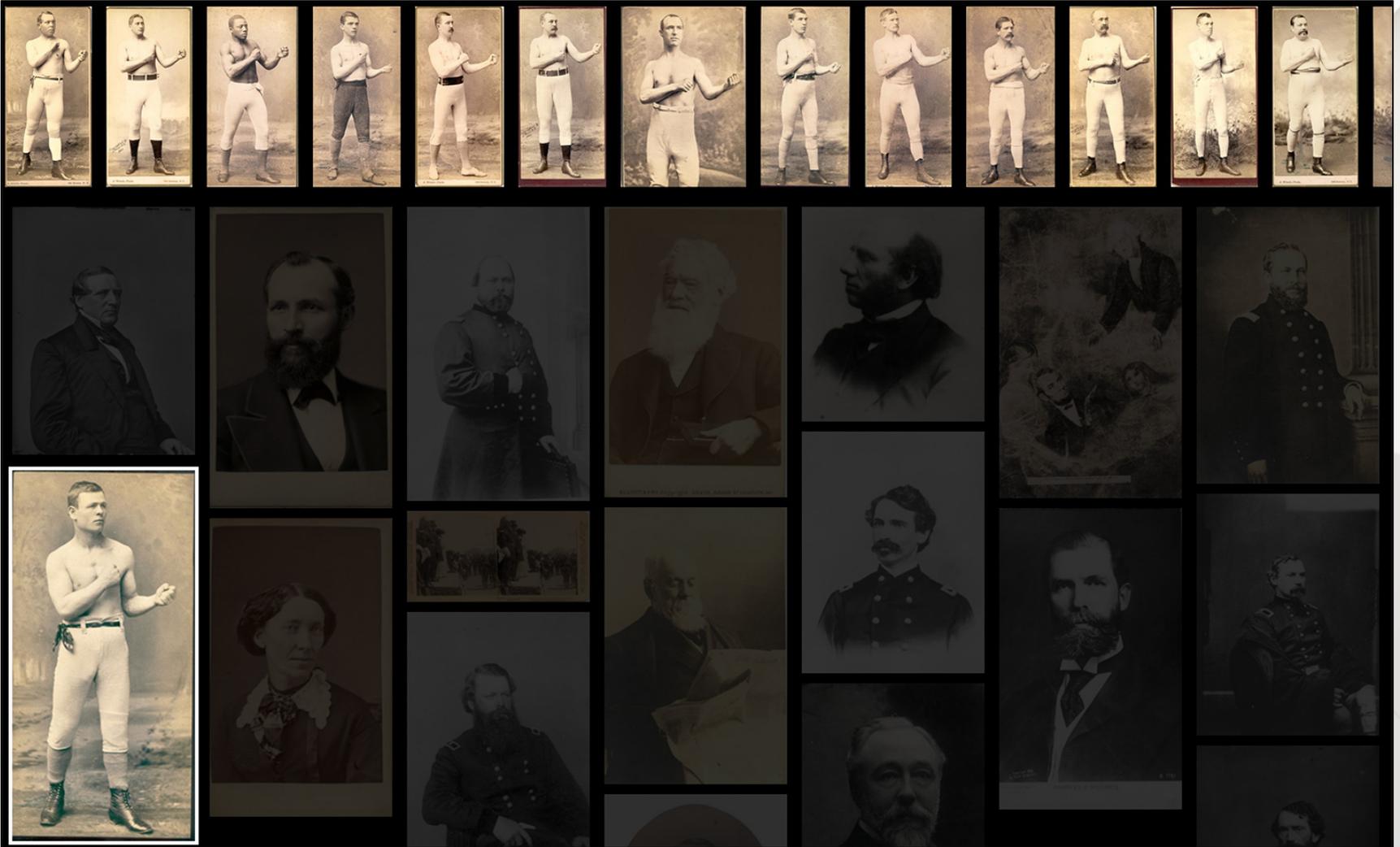


Neural Networks for Visual Similarity

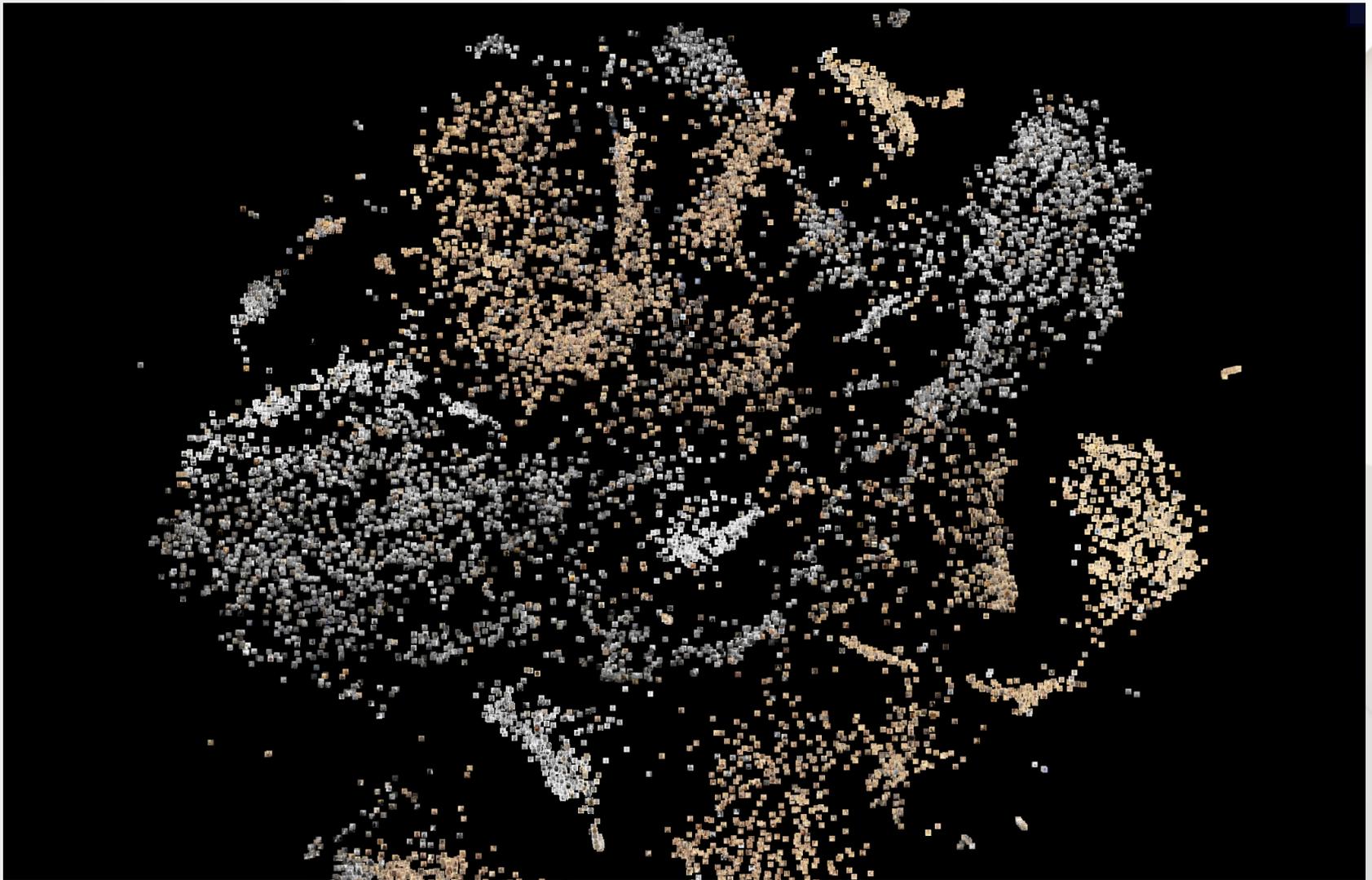
The Meserve-Kunhardt Collection originated as one of the largest private collections of 19th-century photography.

Now part of the Beinecke Rare Book and Manuscript Library, the archive of over 73,000 images is a world-renowned record of America from the Civil War to the Gilded Age.





Visual Similarity: Pugilists



Dimensionality Reduction with t-SNE

Engagement with collections

Digital Humanities in the Library promotes engagement by capturing the expertise of users, empowering researchers with new datasets, and connecting archives to learning contexts.



Browse 90 years of programs to see what's available to mark or transcribe:



Ensemble: History of theater at Yale

Ensemble@Yale provides the Yale community with a new way of engaging with archival information by crowdsourcing the transcription of data in historical performance programs.



Yale

ENSEMBLE

MARK TRANSCRIBE ABOUT LOGIN

Help create a database of Yale theater history

Click a button below to get started:

MARK

TRANSCRIBE



Browse 90 years of programs to see what's available to mark or transcribe:



1925 - 1955 · DEPARTMENT OF DRAMA



1955 - 1966 · FOUNDING ERA



1966 - 1979 · ROBERT BRUSTEIN



1979 - 1991 · LLOYD RICHARDS



1991 - 2002 · STANLEY WOJEWODSKI JR.



2002 - 2016 · JAMES BUNDY

Goals of Ensemble

- Increase access to minimally-processed archives
- Generate database of Yale theater history
- Answer reference questions:
 - “How many Ibsen plays have been staged at Yale?”
 - “Which roles did Meryl Streep play while she was a student at the School of Drama?”
 - “Which actors have played Hamlet at Yale?”

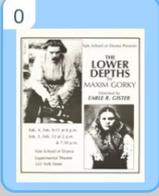


Browse 90 years of programs to see what's available to mark or transcribe:



Engagement with Archives

- Yale School of Drama and Yale Repertory Theatre ephemera collection has a box / folder organization
- Modified "Dean/Artistic Director" structure simplifies interface and allows browsing



Yale School of Drama Presents

THE LOWER DEPTHS
by
MAXIM GORKY

Directed by
EARLE R. GISTER



Feb. 4, Feb. 9-11 at 8 p.m.



Start by finding the program page that lists all or most of this information. Draw one rectangle around all of the text comprising the field you are selecting. Click the DONE box when you're finished, and then select another field to mark, or click the X to delete your selection and re-mark the same field.

- Title (and Subtitle)
- Playwright
- Director ?
- Dates

NEXT

BAD PLAYBILL



Yale School of Drama Presents

THE LOWER DEPTHS

by

Type the title of the play. ?

Title

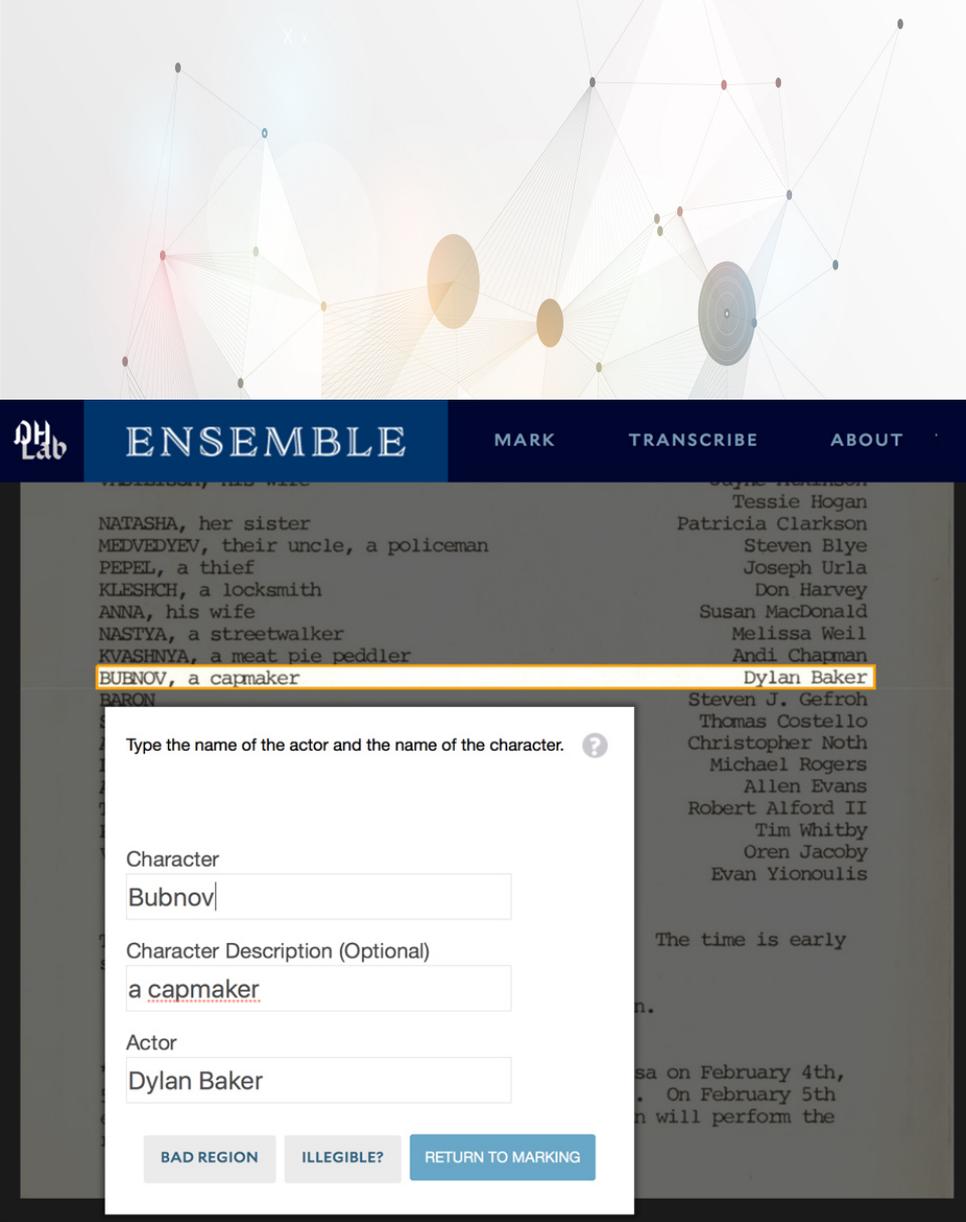
Subtitle (Optional)

BAD REGION

ILLEGIBLE?

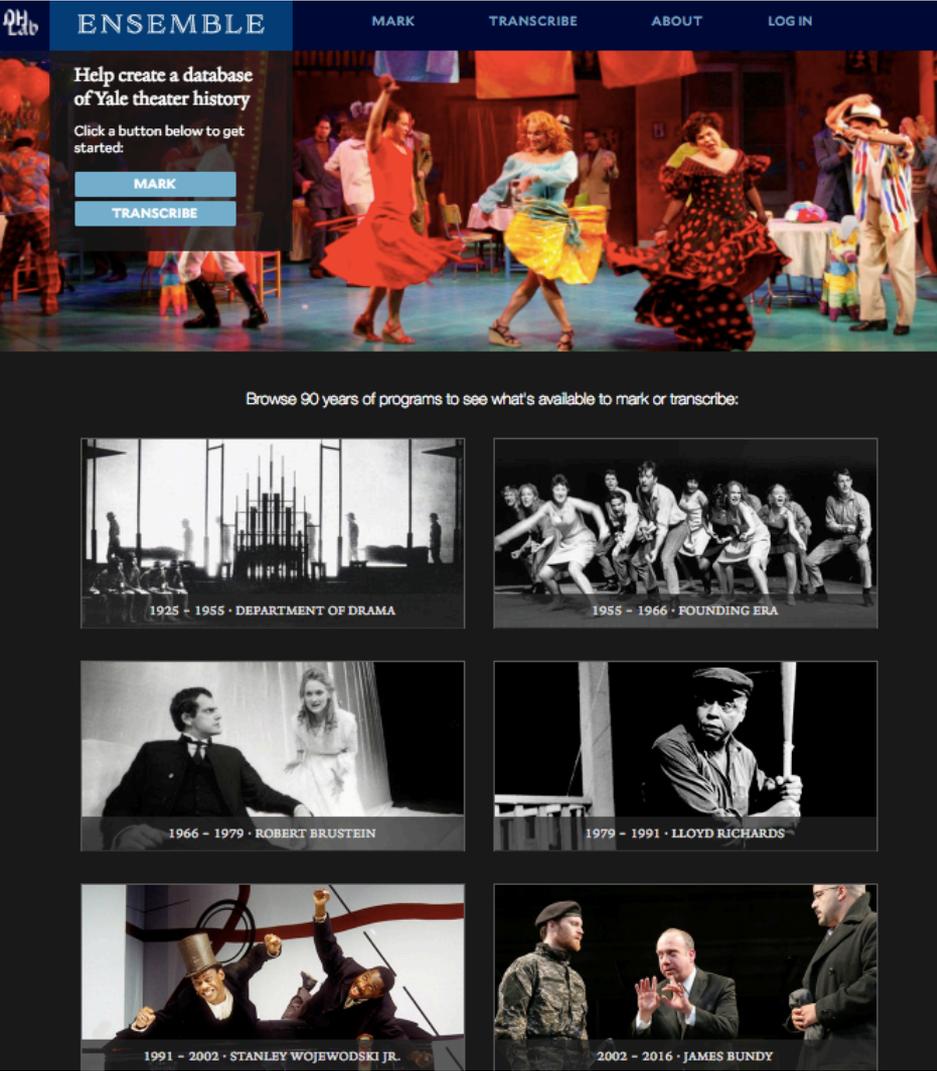
NEXT ENTRY

Transcribe workflow



Engaging community with collections

- Yale's sizable theater community:
 - Current students, faculty, alumni
 - 2016-17 was 50th anniversary season for Yale Rep
- Adding new collections of programs, such as:
 - Yale Cabaret & Summer Cabaret
 - Dramat (Yale Dramatic Association)
 - Yale Drama Coalition



Looking ahead for Ensemble

- Normalization of transcribed data for ease of searching
- Other Ensemble launches working towards a multi-collection, interoperable database of theater history
- [Visualizations](#) of 'big theatrical data'

< Back

[recto]

Historical chronology
Kilpatrick Collection of Cherokee Manuscripts
Box 11, Folder 1017
Transcriptions licensed under CC-0 »

Transcribe

Discuss

< Prev | Page 1 of 2 | Next >

Sign in

SHZJ 23, 1866 DB 055h A098 AD

DOLJAV RIG OLEGLD00 JY5BPB

CLPT 2ZP0 S04.00W hVuf D0 00T.HAJ

9P0W hV9 TGT 05JBUJR

DOLJAJ Dh RWJIP hSA0W ShW0C

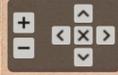
hkhESMAT | 1795

SV9 0P0W0T | 1811

JH LYG 9P0W0 | 1813

ZPB 0h0(9)AR | 1833

hV0 S S000R A0P JAP0J | 1816



SHZJ 23, 1866 DB 055h A098 AD

DOLJAV RIG OLEGLD00 JY5BPB

CLPT 2ZP0 S04.00W hVuf D0 00T.HAJ

9P0W hV9 TGT 05JBUJR

DOLJAJ Dh RWJIP hSA0W ShW0C

.. hkhESMAT.. 1795-

.. SV9 0P0W0T.. 1811

.. JH LYG 9P0W0.. 1813

.. ZPB 0h0(9)AR.. 1833

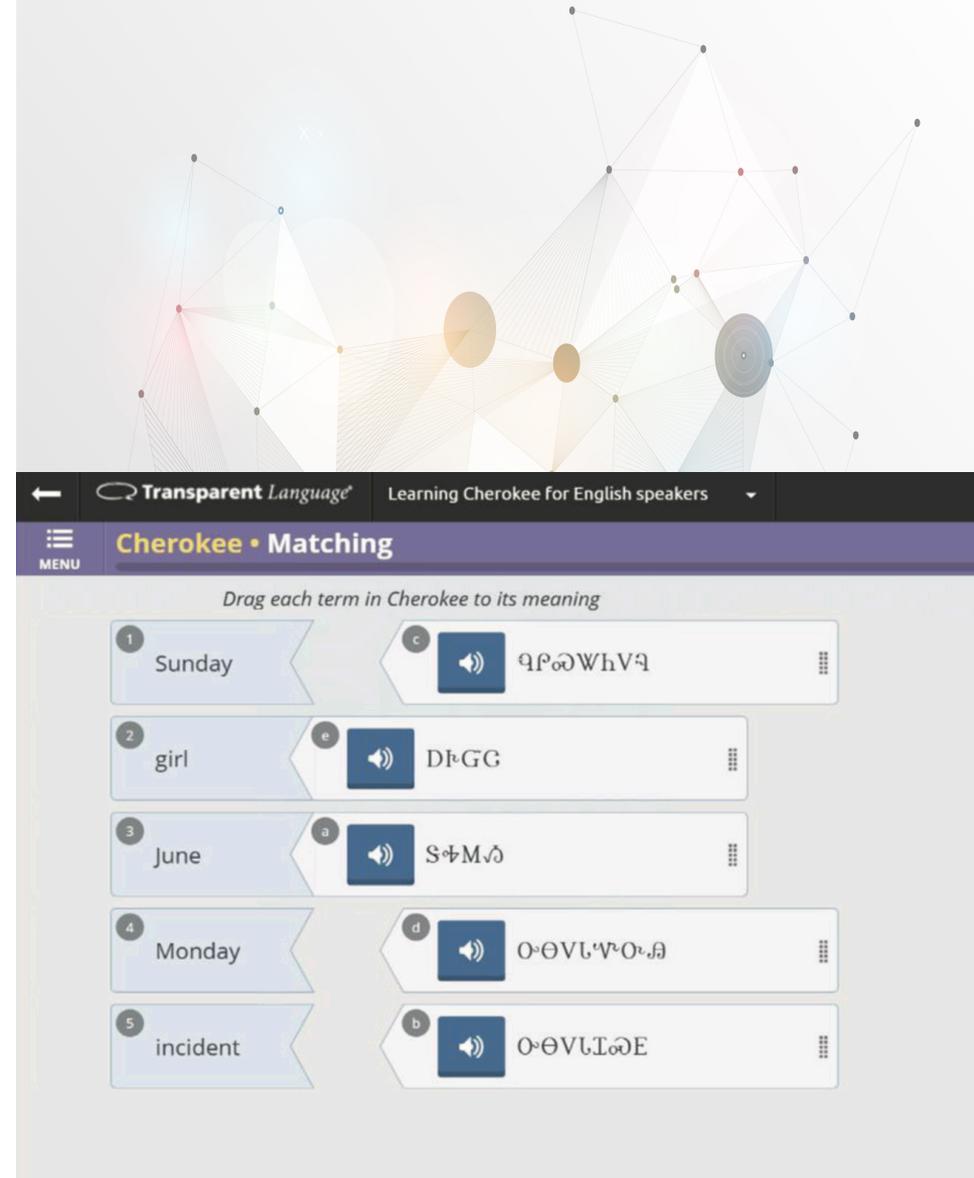
.. hV0 S S000R A0P JAP0J.. 1816

.. 1821

From Archival Box to Learning Environment

The nonprofit 7000 Languages works with endangered language communities to create language learning software, including custom lessons based on parallel texts.

With the open, Creative Commons-licensed transcriptions from *Transcribe@Yale*, 7000 Languages is able to input text from the Kilpatrick papers into custom lessons so that learners can work with real shopping lists, letters, obituaries, and other materials that are valuable for learning.



The screenshot displays a web-based learning interface for Cherokee. At the top, there is a navigation bar with a back arrow, the logo for 'Transparent Language', and the text 'Learning Cherokee for English speakers'. Below this is a purple header with a 'MENU' icon and the title 'Cherokee • Matching'. The main content area features the instruction 'Drag each term in Cherokee to its meaning'. There are five numbered items on the left, each with an English word and a corresponding Cherokee word in a blue box with a speaker icon and a three-dot menu icon. The items are: 1. Sunday (Cherokee: Ⴑႃႆႃႆႃႆႃႆ), 2. girl (Cherokee: Ⴑႃႆႃႆႃႆ), 3. June (Cherokee: Ⴑႃႆႃႆႃႆ), 4. Monday (Cherokee: Ⴑႃႆႃႆႃႆ), 5. incident (Cherokee: Ⴑႃႆႃႆႃႆ). The Cherokee words are: c. Ⴑႃႆႃႆႃႆ, e. Ⴑႃႆႃႆႃႆ, a. Ⴑႃႆႃႆႃႆ, d. Ⴑႃႆႃႆႃႆ, b. Ⴑႃႆႃႆႃႆ.

Building Support for Digital Humanities

Access to DH methods and ideas

Analysis using data science

Engagement with collections



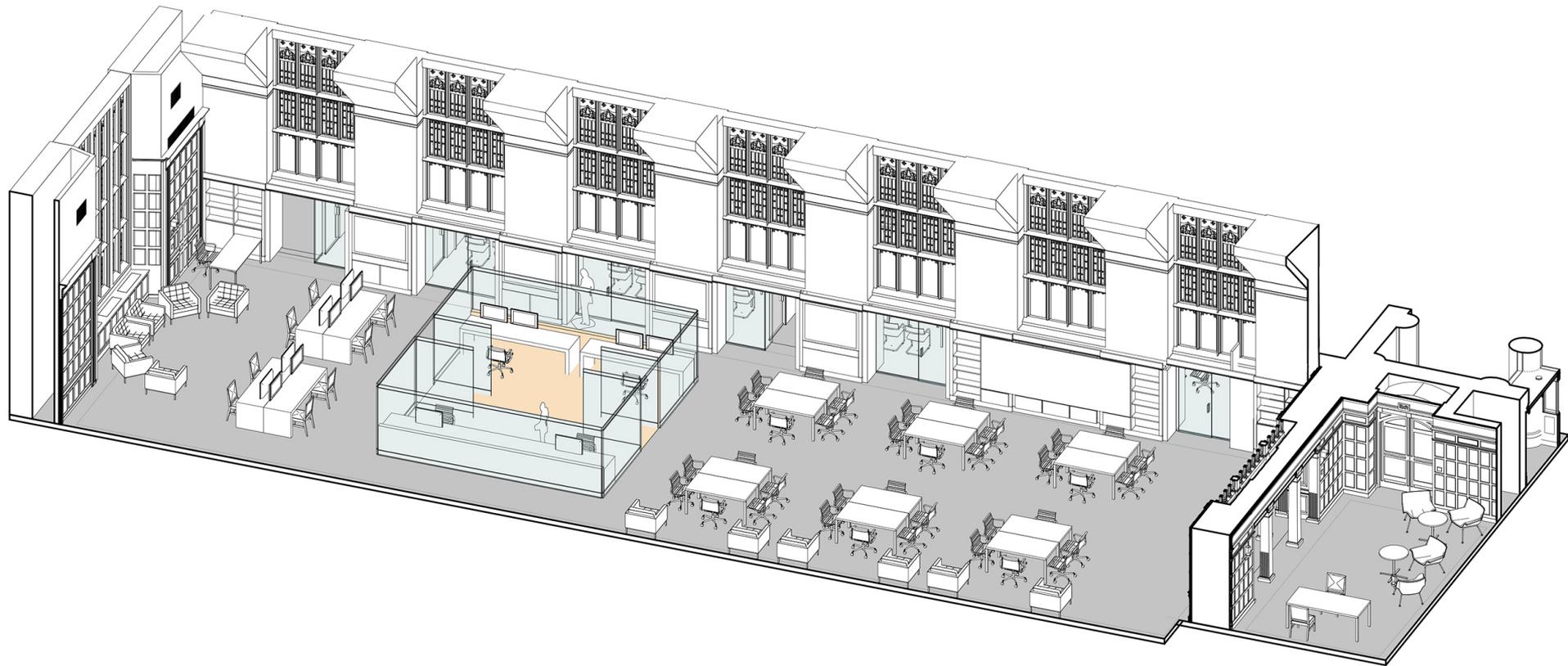
Space for Digital Humanities





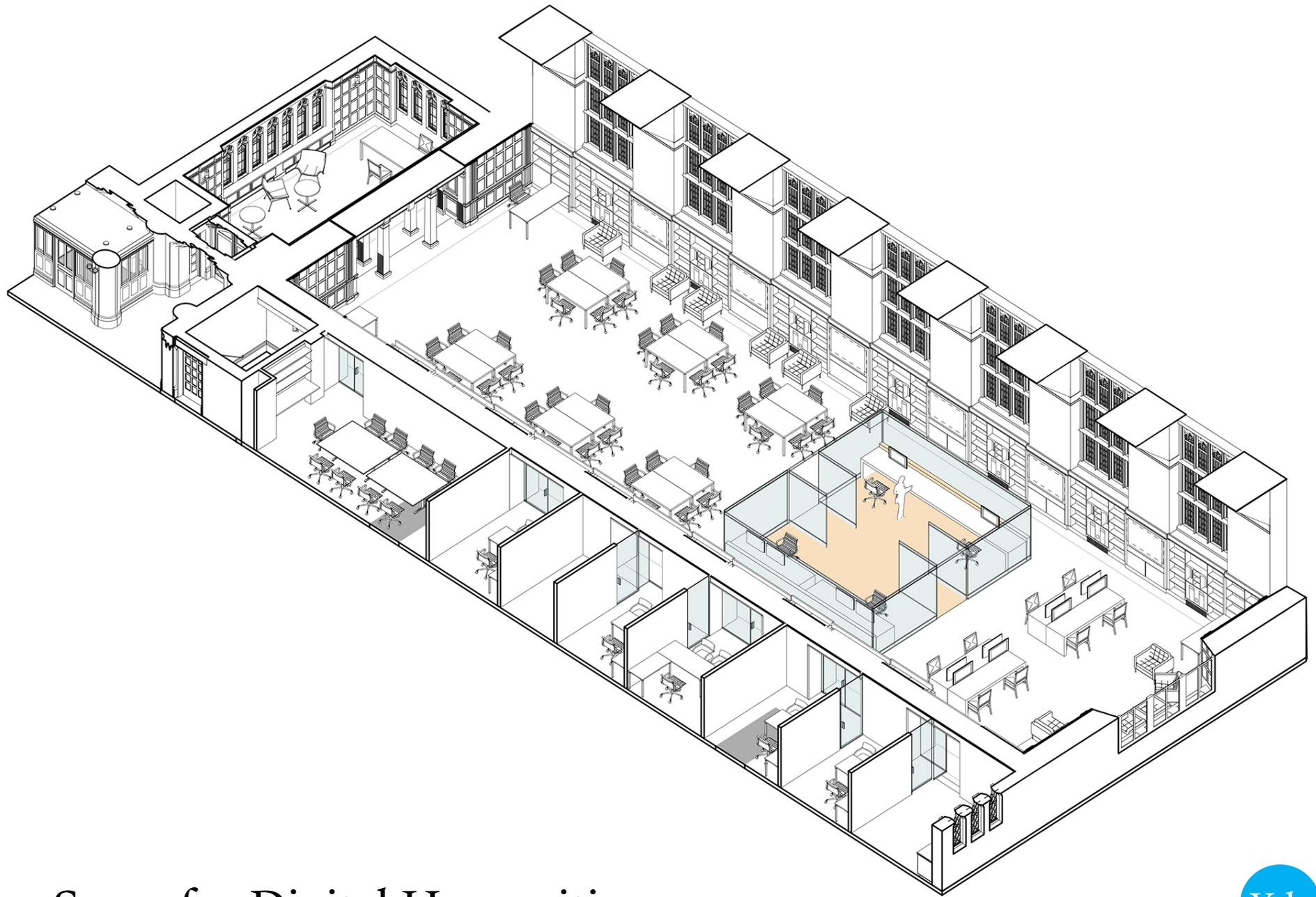
Space for Digital Humanities





Space for Digital Humanities





Space for Digital Humanities



Building Digital Humanities: What's worked at Yale?

- Build **community of interested people**
- Experiment **with with Data Science on Library & researcher collections**
- Support **training for faculty, librarians, & students**
- Provide **opportunities for sharing skills and information**

Thank you
&
Questions

Yale UNIVERSITY LIBRARY
Digital Humanities Laboratory