# University of Pittsburgh Library System

### Modern Technology Unlocks New Avenues of Discovery:

Library 3D Scanning Reveals the Secrets of an Ancient Roman Lamp



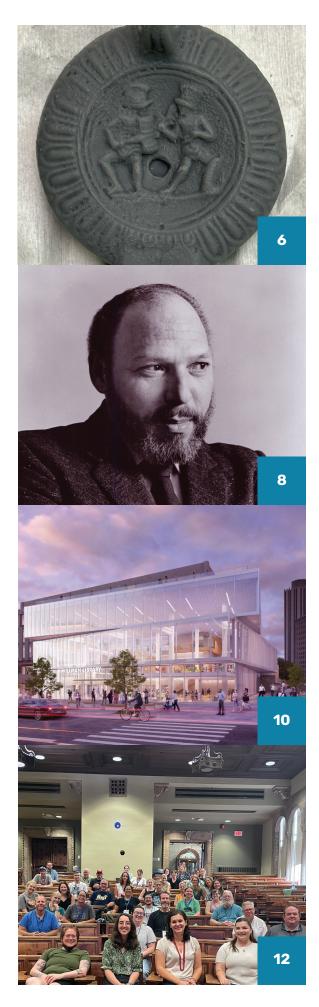


University of Pittsburgh Library System

#### ULS LIBRARIES

Bevier Science & Engineering Library Center for American Music Finney Music Library Frick Fine Arts Library Hanley Library (Bradford) Haskell Library (Titusville) Hillman Library Millstein Library (Greensburg) Owen Library (Johnstown) Thomas Blvd. Library

Photography and design by University of Pittsburgh Copyright 2024 University of Pittsburgh



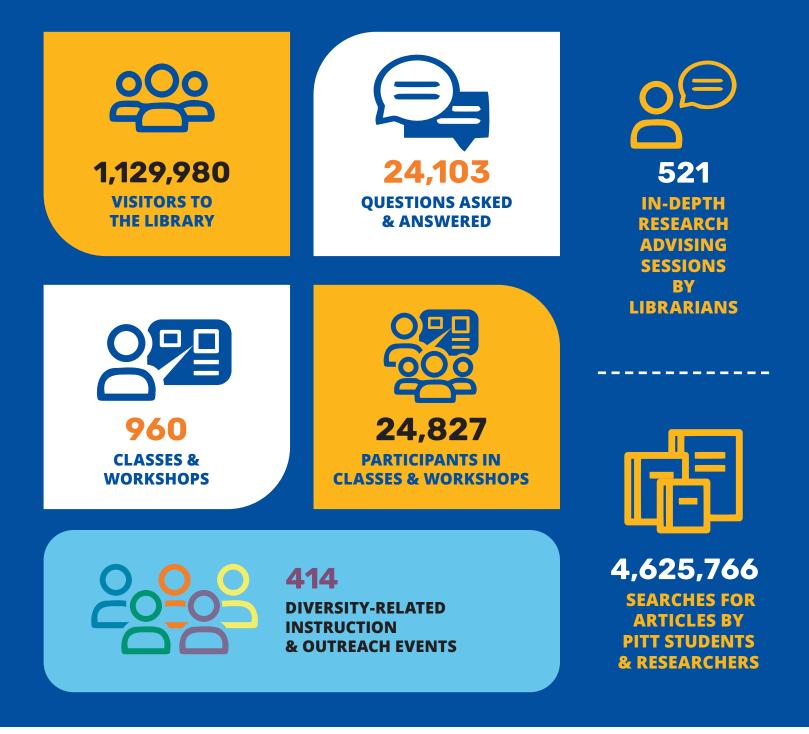
#### UNIVERSITY OF PITTSBURGH LIBRARY SYSTEM

## TABLE OF CONTENTS

LIBRARY SPOTLIGHT	4
USING TECHNOLOGY TO ILLUMINATE THE PAST	6
ARTIFICIAL INTELLIGENCE IN THE LIBRARY	8
COMPLETION OF HILLMAN LIBRARY RENOVATION	10
LIBRARY MATERIALS AND EXPERTISE DRAW EDUCATORS FROM ACROSS AMERICA	12
DONOR SPOTLIGHTS	14

# **2023** SPOTLIGHT of the University of Pittsburgh Library System

of the University of Pittsburgh Library System





### 6,108,408 BOOKS OWNED





### **2,722,286** eBOOKS OWNED

28,679 BOOKS LOANED



**11,957** BOOKS BORROWED BY OTHER LIBRARIES WORLDWIDE



33,282 GROUP STUDY ROOM BOOKINGS



# Using New Technology to Illuminate the Past

### Advanced Technology at the Open Lab Revealed Remarkable Details about a 2,000-year-old Roman Lamp

"It's one of those magic moments where you blend the hands of ancient craftspeople with modern technology to develop an understanding across centuries. It's a beautiful moment," said Professor Sylvia Rhor Samaniego, Director and Curator of the University Art Gallery (UAG). Rhor was describing a recent experience at the Open Lab maker space in Hillman Library. She and Professor Thomas Morton, History of Art & Architecture Assistant Chair, initiated a project with the Open Lab to get a more detailed view of a Roman oil lamp approximately 2,000 years old. The lamp was used to guide people in the dark and could easily fit into the palm of one's hand.

The UAG has over 3,500 artworks, but like most museums, only a fraction of its permanent collection is displayed or made accessible to the public. A few years ago, Rhor created an "Object Lesson" public program series to spotlight more of their collection. During the lessons, a graduate student or faculty member speaks about the selected object so students and patrons can learn more about the UAG's hidden treasures.

Along with colleague Professor Maggie Beeler, the Pitt Archaeology in Greece Faculty Director and LHSLP Field School Director, Morton presented the lamp for an Object Lesson. Their talk raised many questions, including what technologies could be used to augment the study of the lamp. So, Morton, Beeler, Rhor, and some students went to the Open Lab in Hillman Library to see what was possible.

"That kind of technology can seem daunting; you don't know where to begin. They made it easy, approachable, and fun," Rhor said.

The group consulted with Dan Kaple, Digital Creation Specialist at Open Lab, and explained their goals. Kaple suggested they use 3D scanning technology to get a full-dimensional perspective of the lamp. Once scanned, the detailed image could be used with one of the Lab's 3D printers to print a replica. Students could then hold the replica while viewing a detailed image of the lamp, giving them a robust, tactile understanding of the object without damaging the original.

"Roman art and architecture are best when you can experience them in person. And that's a little hard to do when you're based in Pittsburgh and researching Roman architecture from the ancient Mediterranean," Morton said. "Folks can imagine walking around with the lamp and the amount of light it might emit."

Besides the benefit of sharing the replica in class, students can now view the lamp in greater detail. Morton explained that lamps like this one are usually mold-made and decorated. The digital scan also held a surprise. The detail of the scan and replica revealed a previously invisible relief of two gladiators fighting, giving students richer context and perspective than what could be seen with the naked eye.



"People can look at the 3D scan and then hold this reproduction simultaneously and understand it more clearly and deeply to pull that research to a new level," Rhor said.

Professor Morton also uses the Open Lab for immersive Virtual Reality (VR) sessions. In his *World Cities* course, students wearing VR headsets can visit preselected points in Rome, such as the Forum, the Pantheon, and the Colosseum. To be able to "stand" in the Colosseum brings the material to life in a way no book or lecture can.

This initiative showcases how ancient craftsmanship meets modern 3D scanning and printing to enable hands-on learning and in-depth analysis. The discovery of previously unseen gladiator reliefs on the lamp highlights the power of these technologies to enhance historical research.

*"It's critically important to get students in the Open Lab," Morton said. "There are so many possibilities there."* 

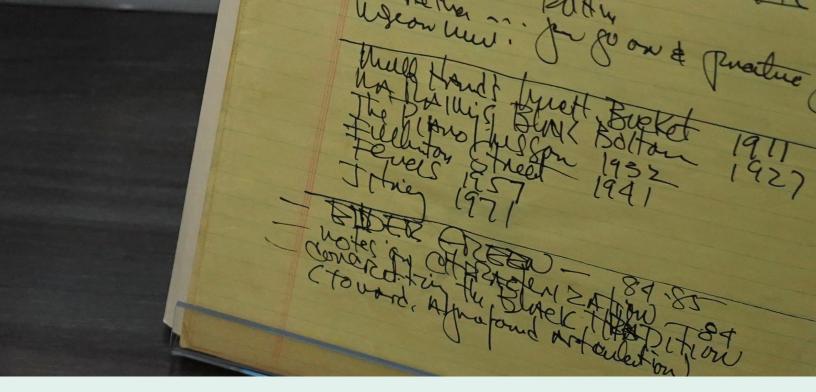
## Artificial Intelligence in the Library Transcribing August Wilson's Corpus of Handwritten Notes

A cross-departmental library team, including Archives & Special Collections (A&SC), Information Technology (IT), and Digital Scholarship Services (DSS), are collaborating on an innovative project to make August Wilson's handwritten notes accessible using Artificial Intelligence (AI). The Pittsburgh-born Pulitzer Prize Award-winning playwright was known to write on yellow legal pads, sometimes using different ones throughout the day, scribbling poems, sketches, or lines of dialogue throughout the page or in the margins. Wilson's bursts of inspiration and fragments of his plays are written alongside grocery lists and phone numbers. These nonlinear thoughts, paired with his distinct penmanship written with various pens or pencils, are challenging to read.



"The notebooks are the single most important thing that researchers and scholars want to see because they truly show Wilson at work," said Ed Galloway, Associate University Librarian for Archives and Special Collections. Galloway said many researchers visit the Archive to study Wilson's plays closely, learn more about his relationships with actors, or to find creative inspiration.

Not everyone interested in Wilson's work can travel to Pittsburgh, however, and even if they did, approximately 700 notebooks exist in the August Wilson Archive. Researching this valuable content is difficult, especially for researchers looking for specific details or concepts about a particular play or character.



Digitizing Wilson's notes would enable researchers to quickly keyword search the Archive without physically accessing the materials. Those researchers could also glean insight into Wilson's thought process as he pieced together his next play or story without needing to decipher his handwriting.

Before AI technology, the only way to transform these notebooks into an electronic searchable corpus was to transcribe all pages by hand. Now, instead of manually transcribing 700 notebooks, a small percentage of the content is transcribed and used to "train" the AI to read Wilson's unique script. Then, the AI is set loose against the rest of the pages. Once everything is in an electronic format, it can be used to create a searchable database of every word he wrote in the notebooks. It enables a researcher to find what would have taken hours and hours of manual work in seconds.

The transcription unlocks the corpus of Wilson's handwritten notes from the confines of an analog system and brings them into the digital age. This work is in the early stages, but the results so far are promising. The words in Wilson's plays are highly evocative of a place, time, and culture; they leap off the page into the heart and mind of the viewer. This AI project aims to similarly free his thoughts, ideas, and musings from the page and into a format that will make it easier for researchers to peer into the mind and process of a genius.



# **Completion of the Hillman**

The fully renovated Hillman Library, opening in 2025, will offer new and exciting scholarly and creative opportunities for students and researchers. A main attraction on the ground floor will be a suite of media production spaces, including a light- and sound-controlled black-box film studio. The audiovisual equipment lending library will be next door, where folks can get everything they need to film in or outside of the studio. There will also be a sound-controlled audio recording space for podcasts, digital narratives, or film audio recordings. Two editing booths will provide users more advanced options than commonly available film and audio editing software offer. Surround-sound audio and color correction software, lighting, and monitors will be available. The simple, walk-up Calderone One Button Studio that was in place before renovations will be returning. Much of this transformation is made possible by the generosity of our donors, to whom we are extremely grateful.

In the Digital Scholarship Lab, computers will be available to develop 3D modeling projects, code, video editing, and more. Librarians and staff with expertise in digital scholarship will offer programming around digital research methods and scholarship, such as text mining, data visualization, and digital mapping.

A digital interactive wall on the first floor will showcase research activity by faculty and students at the University.

A new glass entrance volume will welcome visitors, provide visibility into the bustling library, and create an architectural connection between the library and its neighbor, the Cathedral of Learning.

Be on the lookout for an invitation to our Homecoming Open House event!





# **Library Renovation**

purchased, the property inclu al out buildings, and tennis co

SEE EVENTS LIST

2/

erdenle 100 feet to minches

vscraper Unit

# Library Materials and Expertise Draw Educators From Across America

K-12 teachers, librarians, and museum educators from around the country convened in Pittsburgh to learn about the 1892 Homestead Steel Strike using unique resources and expertise from the ULS. *The Homestead Steel Strike and the Growth of America as an Industrial Power* workshop, funded by the National Endowment for the Humanities, provided educators with a complete account of the circumstances that led to the Battle of Homestead and its lasting impact on Pittsburgh and throughout the United States. The program enabled participants to immerse themselves in the battle from both sides by examining the Library's unique archival materials related to Andrew Carnegie's and Henry Clay Frick's business practices, labor's working conditions, the direct aftermath of the battle, and what came in later years as American business took stock of the relationship between management and labor. The availability of pertinent online resources through the ULS ensured teachers could bring this unique Pittsburgh event, which is an important part of American history, back to their schools with compelling visuals and a unique perspective gained from their time at the library and from their regional site visits.

# *Out of This Furnace* Makes Its Way into Pittsburgh Classrooms

Kevin McGuire is a librarian at Woodland Hills High School in the Pittsburgh borough of Braddock. He attended the Homestead Steel Strike workshop in 2022 and returned in 2024 to lecture on the workshop's required reading, *Out of This Furnace*, a novel by Thomas Bell. McGuire is a scholar of Bell's writing, and was instrumental in erecting a historical marker dedicated to the book in Braddock.



Thomas Bell grew up in Braddock in the early 1900s and worked in the steel mills as a teenager. *Out of This Furnace* follows three generations of a fictional family (based on Bell's kin) and details the pivotal events of the Homestead strike in 1892. The novel was published in 1941 by Little, Brown and Company and resurged in popularity when it was reissued in 1976 by the University of Pittsburgh Press.

McGuire's lecture dove into the history of writing *Out of This Furnace* and how it gives readers insight into the local perspective of a historical event in Braddock. "This book gives you a sense of what it would have been like walking down the same streets as Thomas Bell," McGuire explains. To have a previous year's participant back as a lecturer demonstrates the unique value that can be unlocked when library resources, local partners, and the uniqueness of place are combined and shared.

"The content was beyond expectations. The link between all of the content and primary sources, alongside giving voices and different perspectives to the events, was enlightening and provided ideas on how to make those connections with students." – workshop participant



## Library Receives Transformative \$1M Gift to Name the Archives & Special Collections Gallery

We have received a transformative \$1M gift to name the Archives & Special Collections Gallery on the third floor of Hillman Library. This gift will allow us to enhance our distinctive collections through the acquisition and preservation of material of national and international importance and will greatly facilitate our outreach efforts in supporting Pitt's strategic mission of community engagement and global relevance.

# **Donor Spotlights**

#### Mary Lou Burton (SCI '82)

Several years ago, Mary Lou supported the Hillman Reinvention with a gift to name a group study space on the fourth floor of Hillman Library. In 2023, Mary Lou shifted her giving to support experiential learning, one of the ULS priorities, through funding for an IT resident.

"When my husband Carl was alive, he always wanted us to donate to libraries. As a librarian, I am aware that libraries are almost always on the bottom of the list when it comes to getting funds. I wanted to keep up with what Carl had started. Thus, I donate to libraries."

#### John Calderone, PhD ('78)

The ULS has been the sole beneficiary of John's philanthropy to Pitt with gifts to the General Library Fund, Hillman Library Reinvention, and the August Wilson Archive. Most recently, John has committed his support to fund new spaces in Hillman Library including a group study room, the Calderone One Button Studio, and Calderone Media Row.

"As a student, I had the good fortune to learn and use film and video. These media tools added new dimensions to my studies. The Calderone One Button Studio and Calderone Media Row will provide Pitt students with the same opportunity. This unique space in the ULS will be a creative vehicle for exploration, connection, discovery, and fun within your studies and personal pursuits."

#### Jim Fleischmann (A&S '67)

Jim has supported the ULS for nearly 30 years through gifts to the General Library Fund and by creating two endowed funds. The Virginia Lee Rogerson Fund is used for library acquisitions and The Zillah Saul Fleischmann and Justin Fleishmann Endowment provides discretionary support.

"Great universities are built around great libraries. Great libraries allow great universities to further engage in cutting edge research and pivotal exploration which expands our insights into all aspects of the arts and sciences. This is why I have been regularly supporting the University Library System."

#### Robert Palmer (A&S '70)

Robert has been a donor to the University for 44 years. Along with gifts to the ULS that have impacted the General Library Fund, Hillman Library Reinvention, the Archival Scholar Research Award, the August Wilson Archive, and Archives & Special Collections, Robert provided funding to name a group study room on Hillman Library's fourth floor.

"I was an undergrad when the Hillman Library was new, and it became my regular hang. I'd hoped to make friends who took academics seriously, and the library made that happen. But I also appreciated the building's moments of solitude, when it seemed an island of calm surrounded by the constant activity of the city. I'm sure others have similar experiences today."



### Brian Wongchaowart (A&S '08, '10)

Brian has generously supported the General Library Fund, Hillman Library Reinvention, the Archival Scholar Research Award, and the August Wilson Archive. His current gift supports the Calderone Media Row in Hillman Library which upon completion of the renovation, will provide hardware, software, and equipment for creating film and other visual media.

"The media lab will enable many forms of creative expression, but the result of them all is knowledge."

### HILLMAN LIBRARY REIMAGINED FOR A NEW ERA

The multi-year, top-to-bottom Hillman Library Reinvention ends in 2025.

Learn more at **library.pitt.edu/hillmanreinvention**.

