

News from the
MIT Libraries

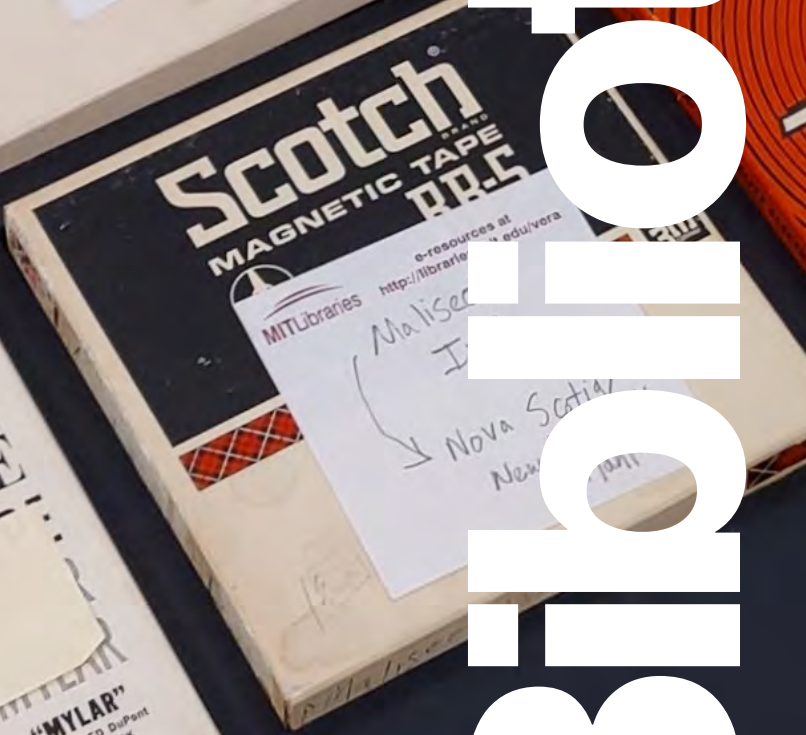
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Bibliotech

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Design

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Cover Image

Tapes from the Kenneth L. Hale papers, Department of Distinctive Collections.

Cover Photo

Anna Britton

From the Director

The MIT Libraries have always adapted and innovated to keep pace with MIT's speed of discovery. We have evolved to meet information needs that have become overwhelmingly digital. We've relied on collaborative strategies like resource sharing. We have worked to make MIT knowledge accessible to a global community. Throughout these transformations, we've kept the Institute's mission at the center. Our most recent service changes (read more at libraries.mit.edu/service-updates) are no different.

Our current strategy reflects our vision for the future, with its emphasis on digital collections and services, open scholarship, and support for data-intensive and computational research. In this issue of *Bibliotech*, you'll see examples of our progress towards these priorities. Work by Distinctive Collections staff to digitize language recordings from the Kenneth Hale papers aims to catalyze new linguistic research (p. 8). Winners of the 2025 MIT Prize for Open Data (p. 4) demonstrate how open data drives innovation in key areas for MIT such as climate change. A new, streamlined search experience on our website, enhanced by machine learning, gives users a more comprehensive view of our diverse collections (p. 14).

Our collections, services, and spaces will inevitably change, but our commitment to sharing knowledge and fueling research and learning across MIT endures.

Thank you for your ongoing support of the Libraries.

All my best,



Chris Bourg, PhD
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Photo
Shawn Henry



Recognizing the Next Generation of Open Data Leaders

MIT President Sally Kornbluth joins the Libraries and the School of Science in celebrating the 2025 MIT Prize for Open Data



The fourth annual MIT Prize for Open Data, which included a \$2,500 cash prize, was awarded in October to seven individual and group research projects. Presented jointly by the School of Science and the MIT Libraries, the prize highlights the value of open data — research data that is openly accessible and reusable — at the Institute.

The 2025 awards were presented at a celebratory event held during International Open Access Week. Winners gave five-minute presentations on their projects and the role that open data plays in their research. MIT President Sally Kornbluth opened the event by offering her congratulations to the winners, noting their creativity and determination and the wide range of projects being celebrated.

“I was excited to see how many of these projects support priorities we’ve identified for MIT, high-impact areas where we have a responsibility to harness our collective efforts and make a real difference — from climate and health care to generative AI and manufacturing,” said Kornbluth.

Winners were chosen from more than 65 nominees, representing 30 different academic departments, labs, centers, and institutes:

- Lucas Attia, a graduate student in chemical engineering, won for fastsolv, along with graduate student Jackson Burns and faculty members Patrick S. Doyle and William H. Green. Fastsolv, an open-sourced deep learning model for organic solubility prediction, is freely available online.
- Timur Cinay, a graduate student in earth, atmospheric, and planetary sciences (EAPS), won for the Galapagos Emissions Monitoring Station, a first-of-their-kind continuous dataset monitoring ocean emissions of the greenhouse gas nitrous oxide, made completely free and openly available to all researchers globally.

Image
Opposite page:
2025 MIT Prize for Open
Data honorees.
This page, left to right:
Sally Kornbluth, Lucas Attia,
Timur Cinay.

All Photos
Bryce Vickmark



Image
Left to right: Danika Eamer from the Geo-TIDE team, Austin Saragih and Willem Guter.

- Edgar Costa, a research scientist in mathematics, was recognized for the L-functions and modular forms database (LMFDB), a database of mathematical objects arising in number theory and arithmetic geometry that illustrates some of the mathematical connections predicted by the Langlands program.
- The team behind the Geospatial Trucking Industry Decarbonization Explorer (Geo-TIDE) was recognized for this open data platform that synthesizes fragmented public datasets into more than 400 curated, cloud-hosted geospatial layers for freight decarbonization planning.
- Austin Saragih, PhD candidate, MIT Center for Transportation and Logistics, Willem Guter, research engineer, MIT CAVE and MIT Intelligent Logistics Systems, and their collaborators won for SCGraph, an open source Python package that transforms scattered open transportation datasets into clean, ready-to-use geographic networks for research and real-world analysis.

- Nada Tarkhan, graduate student in architecture, and Paolo Giani, postdoctoral associate, EAPS, won for their project, “Extreme-Aware Meteorological Years: Open Weather Data for Climate-Resilient Building Simulations.” The project’s novel weather file formats embed extreme events into building simulation workflows using anomaly detection and climate model emulators.
- Jonathan Zheng, graduate student, chemical engineering, and his collaborators won for their project, “Widespread misinterpretation of pKa terminology for zwitterionic compounds and its consequences.” This work explained an error in a widely used biochemical dataset, ChEMBL, examined the downstream repercussions, and made recommendations for data curation to avoid these issues in the future.

Learn more about the winning projects, as well as honorable mentions, and see links to all the projects’ research data, at libraries.mit.edu/opendata.

Image
Left to right: Paolo Giani and Nada Tarkhan, Jonathan Zheng.

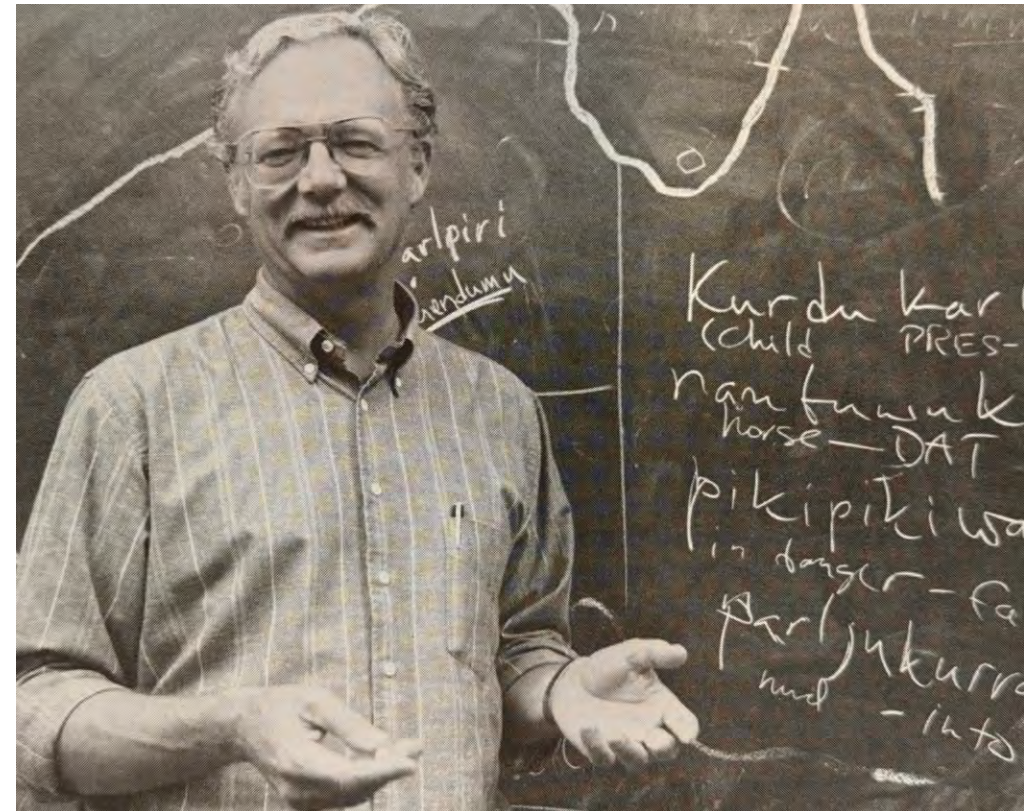
Libraries Digitize Indigenous Language Recordings

Distinctive Collections preserves Kenneth L. Hale's audio recordings in partnership with language communities

A renowned linguist and activist for endangered languages, Kenneth L. Hale (1934-2001) was professor of linguistics at MIT, where he taught for three decades. MIT Libraries' Distinctive Collections is home to Hale's papers, which he and his wife, Sara (Sally) Hale, donated in several installments in the late 1990s and early 2000s. Among them are recordings and field notes from the 1950s to the 1970s of more than 80 distinct languages and dialects from around the world, predominantly Indigenous languages.

In 2024, the MIT Libraries' Distinctive Collections received a Recordings at Risk grant from the Council on Library and Information Resources (CLIR) for a project to digitize these recordings. Led by Libraries staff members Rachel Van Unen, Ece Turnator, Amanda Hawk, and Jenn Morris, the project was recently completed and resulted in nearly 600 hours of digital content, as well as nearly 4,000 images documenting the tape cases.

Hale's tapes appear to be mostly field recordings, language lessons, and other documentation of the endangered languages that he studied, often recorded on his research trips. The majority



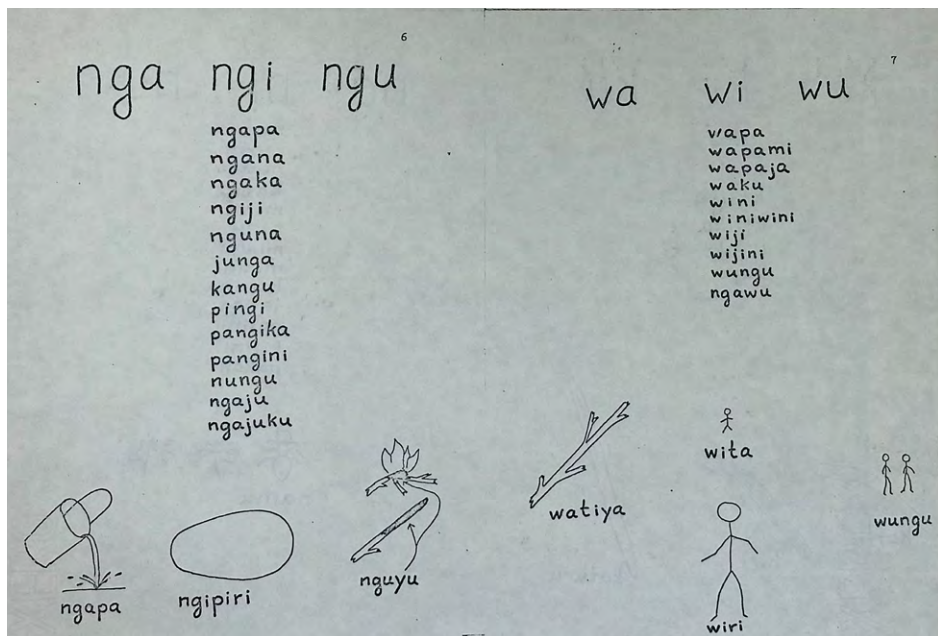
of the languages originate from the present-day southwest region of the United States, Mexico, and Australia. These recordings are invaluable for the communities now doing language restoration work and for future linguistic research. In the case of some languages with very few fluent speakers left, Hale's recordings are some of the last linguistic resources remaining.

For the project team, ensuring the long-term preservation of the recordings was just one aspect of their goal — a thoughtful process for evaluating the recordings' content and determining corresponding access and use policies would be just as crucial. "We wanted to approach working with an Indigenous language collection with the appropriate level of expertise and an ethic of care," says Hawk.

To that end, the Libraries assembled an advisory group of Indigenous language speakers, professors of linguistics, special collections professionals, and language technology experts. The group provided feedback on policies and terminology as well as assistance with contacting native speakers. The project team continues to reach out to the different language communities represented in the recordings in order to establish a shared

Image
Kenneth Hale, MIT
Spectrum, 1989

Photo
J.D. Sloan



“When you lose a language, a large part of the culture goes, too, because much of that culture is encoded in the language.”
–Kenneth Hale

Image
 Pages from “A Warlpiri Syllabary” by Ken Hale, 1974, Kenneth L. Hale Papers, MC-0523, Box 99. Department of Distinctive Collections.

understanding with those communities about how the tapes should be preserved and described, whether the original media should be returned, rights to the content, and who should have access.

“From the beginning, our goal with this project has been to partner with language communities in the long-term stewardship of the recordings,” says Van Unen. “Our work with the Indigenous groups represented in the collection will be ongoing to ensure we are providing broad access to the recordings while respecting culturally sensitive content and the evolving needs of the creator communities.”

By the Numbers: The Kenneth Hale Language Recordings

333

Open reels

365

Audio cassettes

4

VHS tapes

590

Hours of content digitized

Grassroots Initiatives in Cultural Heritage Preservation

Aga Khan Documentation Center hosts international symposium
By Rami Alafandi



Image
Rami Alafandi (left) gives a tour of “Ink, Stone, and Silver Light” in the Maihaugen Gallery.

On October 18, 2025, the Aga Khan Documentation Center, in collaboration with the Aga Khan Program for Islamic Architecture at MIT, hosted the international symposium, “Grassroots Initiatives in Cultural Heritage Preservation.” The gathering brought together scholars and practitioners from Syria, Palestine, Iraq, Yemen, Libya, Sudan, and Kosovo to address an urgent question: In the absence of state and institutional support, how can cultural heritage be protected, what role do local communities play, and how can we learn from their efforts to better support them?



The symposium offered a rich and deeply moving exchange of experiences. Presentations by Kristin Parker, Ruba Kasmó, Florina Jerliu, Hiba Alkhalaf, Zaydoon Zaid, Shatha Safi, Hiba Omari, Mehiyar Kathem, Suha Hasan, Stephenie Mulder, and Nada Al Hassan reflected both the profound challenges and the enduring hope that define this work. Across diverse contexts marked by conflict, sanctions, economic hardship, and political instability, speakers demonstrated how grassroots actors continue to preserve archives, document historic sites, safeguard crafts, and transmit memory — often with limited funding and little formal recognition.

A central theme emerged clearly: when institutional frameworks falter, communities themselves become the primary custodians of heritage. Their efforts are driven not only by professional commitment but by personal connection, collective memory, and a deep sense of responsibility toward place.

Beyond individual case studies, the symposium created space for critical reflection. The discussion session focused on how collective experience can meaningfully give back to the communities at the heart of this work.

The symposium was complemented by a visit to the exhibition *Ink, Stone, and Silver Light: A Century of Cultural Heritage Preservation in Aleppo* in the Maihaugen Gallery. The exhibition traces over a century of civic engagement in Aleppo, illustrating how local initiatives have long shaped preservation efforts.

Together, the symposium and exhibition underscored a shared message: local communities are the primary custodians and true preservers of cultural heritage, and the future of heritage preservation depends on strengthening — rather than overshadowing — the voices of those to whom that heritage belongs.

Watch a recording of the presentations at archnet.org

Image
From left: Shatha Safi, Director of RIWAQ; Florina Jerliu, Faculty of Architecture, University of Prishtina, Kosovo; Hiba Omari, Development Officer, RIWAQ.

What's New

Image

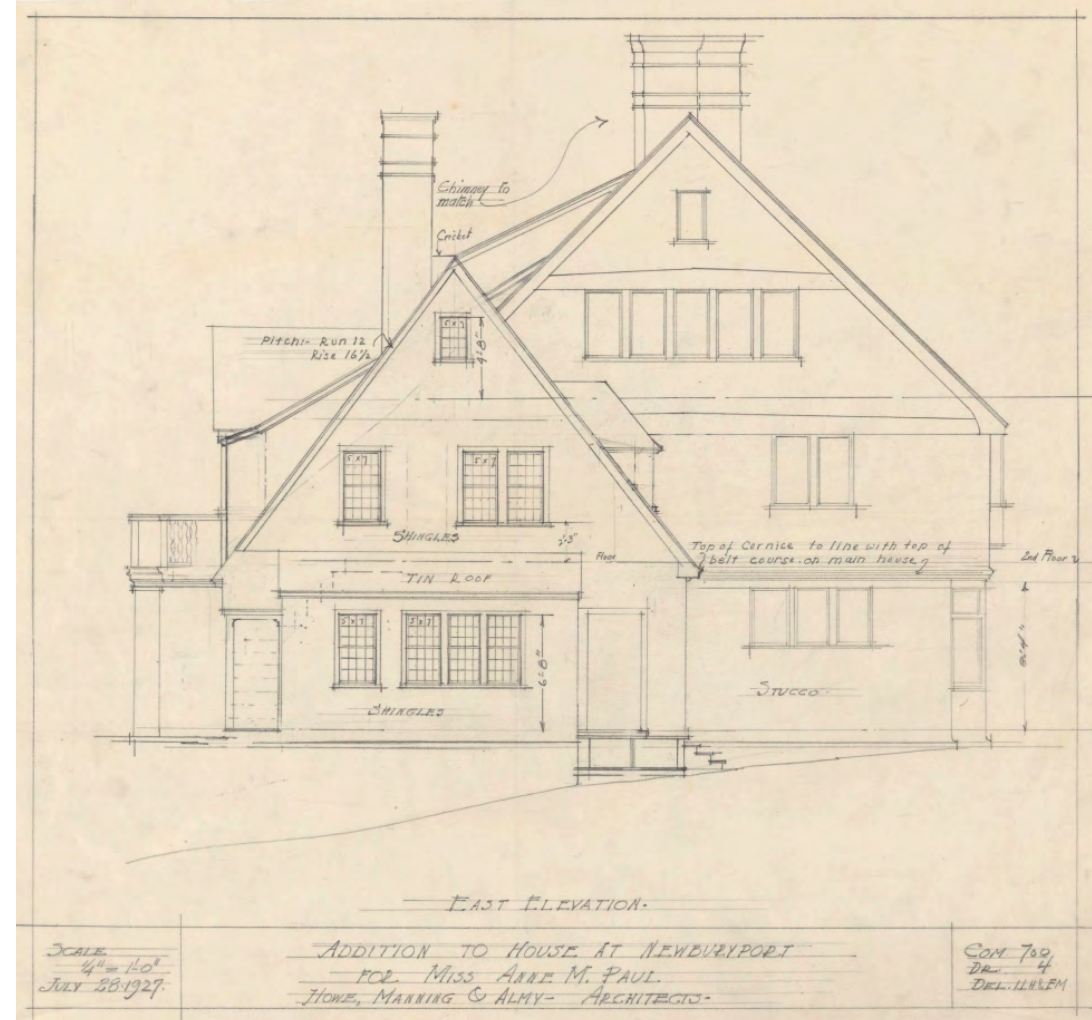
Commission 700: Paul, Miss Anne M., 1927. Records of Howe, Manning & Almy, Inc. and the papers of Lois Lilley Howe, Eleanor Manning O'Connor, and Mary Almy, MC-0009. Department of Distinctive Collections.

Howe, Manning & Almy: The Changing Face of Architecture

A new exhibit will celebrate the first-known all-women architecture firm in Massachusetts, founded in 1900 by Lois Lilley Howe, the first woman to graduate with an architecture degree from MIT. Howe, along with architects Eleanor Manning and Mary Almy, completed more than 900 commissions throughout the course of their company's history. The exhibit will look at the role MIT's architecture program played in supporting women in the field since the 1890s, as well as Howe, Manning & Almy's influence on the built environment of Cambridge and the firm's ecofriendly approaches to renovation. See it in the Maihaugen Gallery August 19–December 10, 2026.

Libraries Streamline Search Experience

MIT Libraries staff are developing an improved online search experience that provides more comprehensive results from across multiple catalogs and systems. Library users will get a single, integrated view of results from across all MIT Libraries systems — including books, articles, archives, databases, geographic information systems (GIS) data, the DSpace@MIT repository, and more. The new search is part of a larger strategy to transform how users experience the Libraries' digital spaces, making them more efficient, accessible, and even delightful.



Why I Give: Leslye Miller Fraser SB '78, SM '80



Leslye Miller Fraser received bachelor's and master's degrees from MIT in chemical engineering and a Juris Doctor degree with honors from the UCLA School of Law. She retired in 2016 from her position as an environmental appeals judge and mediator at the U.S. Environmental Protection Agency, the first person of color in this role. Fraser is a life member of the MIT Corporation, where she serves on the Executive Committee and on two Visiting Committees. A former member of the Libraries' Visiting Committee, she has received numerous awards and honors, including a U.S. patent for an elastomeric material she co-invented for spacecraft hydraulic systems.

What role did the Libraries play in your life as a student? Why have you chosen to give to the Libraries as an alumna?

I lived in East Campus as an undergraduate and spent quite a bit of time in Hayden Library, as it was very close to both my dorm and to my department. It was both a sanctuary of peace, given its beautiful setting overlooking the Charles River, and an opportunity to see a diverse set of students from across all communities on campus. MIT has a wonderful policy of letting students self-select their living situation, which tends to result in us living with people with whom we have common interests and/or backgrounds. The library is a place that brings those communities together through happenstance — a need to study, do a problem set, or just enjoy some peace and quiet. It is for these reasons that I gave to the Libraries in addition to my department, other affinity programs, and alumni groups that also supported my journey at MIT.

You have supported the Women@MIT archival initiative in Distinctive Collections. Why is it important to you to illuminate and elevate the stories of women at the Institute?

As a young Black woman growing up in Long Island in a public high school, there were not very many students like me who enjoyed math and science. I have often told prospective students that when I got to MIT, which at that time had 25% women, including 20 Black women in my class, I felt like a fish that had finally been put back in water. I think it is important to tell the stories of the early women who paved the way for those of us who came later to MIT — as many of them also faced barriers and challenges through lack of representation — along with the stories of women who continue to achieve, to help inspire others to pursue their dreams.

What do you wish more people at MIT knew about the Libraries?

I wish more people knew how the Libraries have been transformed to match advances in technology and needs on campus. The Libraries today at MIT are not the Libraries we went to 50 years ago, in terms of how research materials are provided. However, they still provide that same sense of sanctuary and community. Just as we need to keep our departments updated and relevant, we need to ensure the Libraries have the funding to do the same.

The other aspect that I think is important for people to know is that our libraries serve the larger public and other institutions, not just MIT, and so there is a tremendous service that MIT contributes to the community at large.



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