Technology as a Bridge to the Museum

In the 21st century, the purpose of the museum has been thrown into question, but global conflict and climate change have made it more important than ever that Museums act as repositories and hubs for the dissemination of knowledge. Technology is revolutionizing not only the way museums of all types undertake this mission. From providing new means to store and disseminate collections, to offering new opportunities to inspire, teach, and collaborate with a wider segment of the public than ever before. The conference **Technology as a Bridge to the Museum** at the **Institute for the Study of Ancient Cultures (ISAC)** will provide a forum for exploring how technology can be used to foster relationships between museums of all types and their constituent communities both local and international: scholars, students, communities of origin, and the general public.

Schedule:

May 23, 2025

Keynote Speaker

9:00 AM

Medea Csoba-DeHass et al.

Advancing Heritage Preservation through Artificial Intelligence, 3D Scanning, and the Co-production of Knowledge Framework

Coffee Break

10 AM

Session 1: A Bridge to the Classroom

Talks are 30 minutes with 10-minute question sessions.

10:15 AM

Christopher Hoffman

Photogrammetry Phridays - Student engagement and visualization technologies as a bridge to the museum

10:55 AM

Elizabeth Minor

"Fail Forward" Pedagogy and Student Success in Museum-Based Digital Cultural Heritage Courses

11:35 AM

Nicola Sharratt et al.

Museum Practice as Pedagogy: leveraging technology to engage students in collections management, exhibition development, and community outreach

12:15 PM

Christine Johnston

Teaching the Ancient World with Reproductions: 3D Printed Objects and Authentic Active Learning

Lunch

12:55 PM

Session 2: A Bridge to the Communities of Origin

Talks are 30 minutes with 10-minute question sessions.

2:00 PM

Eric Hollinger and Vince Rossi

3D Digitization and Replication Bridging Source Communities at the Smithsonian

2:40 PM

Mengge Cao

Reimagining Curatorial Narratives for Dispersed Chinese Art Objects through Digital Reconstruction

3:20 PM

Helen Robbins

Low-Tech - Old Tech: Creating Bridges through Increased Transparency

4:00 PM

Jan Bender Shetler

Facilitating the Digital Return of Oral Tradition through Relationships with Communities of Origin in the Mara Region, Tanzania

4:40 PM

Erica Phillips

Eliciting Proof: The Tira de Santa Catarina Ixtepeji, Digital Repatriation, and the Production of the Real in the Age of Digital Collections.

May 24, 2025

Session 1: A Bridge to Scholars

Talks are 30 minutes with 10-minute question sessions.

9:00 AM

Rita Lucarelli

Recontextualizing Egypt's Ancient Material Heritage: The 'Return to the Tomb' Project

9:40 AM

Isabelle Marthot-Santaniello

The digital age as a chance for scholars to reach a larger audience: New insights from Greek Papyrology

Coffee Break

10:20 AM

10:35 AM

Kea Johnston

TBD

11:15 PM

Laure Dussubieux

New scientific approaches for the study of ancient collections at the Field Museum: a bridge between Ancient Egypt glass researchers

Lunch

11:55 PM

Keynote Speaker:

1:00 PM

Isaac Epp

People Will Remember How You Made Them Feel

Session 2: A Bridge to the Public

2:00 PM

Birney Robert

Art at the Intersection of Technology: exhibits, community engagement, and a degree program at Georgia Tech

2:40 PM

Foy Scalf

Curating the Digital Abyss: Discovery and Rediscovery in the Age of Information (Overload)

3:20 PM

Gunnar Almevik and Jonathan Westin

Making Agency of History: Methodological Cases of Practitioner Research, Reconstruction, and Civic Science

4:00 PM

Quinn Dombrowski

The Digital is a Fragile Medium: Lessons from Saving Ukrainian Cultural Heritage Online

Abstracts

Listed alphabetically by the first author's last name.

Almevik, Gunnar[1] and Jonathan Westin[2]

1-Professor, Department of Conservation, University of Gothenburg, 2- Associate Professor in Digital Humanities, Gothenburg Research Infrastructure for Digital Humanities (GRIDH), University of Gothenburg

Making Agency of History: Methodological Cases of Practitioner Research, Reconstruction, and Civic Science (Section: Bridge to the Public)

The academic community's meritocracy is driven by research publications evaluated through peer review, creating a "publish or perish" mentality. While "third mission" activities—such as popular science, data sharing, and societal collaboration—are encouraged, they are often inadequately rewarded.

This paper examines the implications of recognizing third mission activities as legitimate research. By drawing upon our research cases, we theorize collaboration, professional practice, and data sharing within historical research, highlighting the necessity of reconceptualizing "dissemination." We advocate for collaboration with societal stakeholders and the integration of theory and practice as essential scientific activities.

Our perspective is informed by action research, which is common in the social sciences but less so in historical research. This approach values experiential learning, prioritizing inter-subjectivity and practical outcomes to address real-world challenges. The methods employed are derived from practitioners' experiences and expertise.

The paper consolidates our experiences with museums and heritage communities, analyzing the reconstruction of *Södra Råda*, a medieval church that was transformed into a craft and community hub following its destruction by arson. Another project involves an immersive exhibition on an old stave church at the Swedish History Museum, which features a film, a virtual reality reconstruction, and interactive elements. We also reference a project that documents historical graffiti at St. Sophia Cathedral in Kyiv. These research cases are presented as a rhizome to explore suitable frameworks and methods for linking academic research with museum practice, with a focus on practitioner research, reconstruction, and civic science.

Birney Robert

Director of External Engagement, Georgia Institute of Technology

Art at the Intersection of Technology: Exhibits, Community Engagement, and a Degree Program at Georgia Tech (Bridge to the Public)

In recent decades, museums have increasingly implemented technology, both to better assist in the visitor experience and also within the art on display. The rise of technology within art museums has coincided with a rise in art at the intersection of technology at Research One (R1) universities, offering alternative pathways to learning. The implementation of art programming at Georgia Tech, an R1 university, supports ongoing research to integrate pedagogy into gallery spaces and undergraduate curricula focusing on art and technology. This paper discusses two exhibits at this intersection and their effects on the university. This work contributes to the shifts in interdisciplinary museum practices and draws on models of co-curation and community engagement from anthropological and museum perspectives.

Cao, Mengge

Postdoctoral Scholar, Center for the Art of East Asia, University of Chicago

Reimagining Curatorial Narratives for Dispersed Chinese Art Objects through Digital Reconstruction (Bridge to Communities of Origin)

The large-scale displacement of Chinese art objects during the first half of the twentieth century has left museums outside China and the artifacts' communities of origin grappling with challenges of accessibility and representation. Since the late 1990s, digital technologies have emerged as transformative tools, enabling international collaborations and fostering innovative approaches to address the dispersal of Chinese cultural heritage. For instance, the International Dunhuang Project (1994-) established a framework for institutions of different countries to collaborate and made their collection accessible via an online database. Likewise, the Comprehensive Collection of Ancient Chinese Paintings Project (2005-2022) initiated by Zhejiang University and Zhejiang Provincial Administration of Cultural Heritage published high-resolution images of Chinese paintings in museums and private collections around the world. These landmark initiatives have demonstrated the potential of technology to compile and share fragmented collections, creating open-access platforms that bridge geographic and institutional divides. Building on this

foundation, the Dispersed Chinese Art Digitization Project (DCADP, 2006-), a collaboration between the University of Chicago and Xi'an Jiaotong University, goes further by striving to digitally restore displaced artifacts to their original contexts. By offering a multi-party platform that connects global museums with communities of origin, DCADP not only enhances accessibility but also opens up possibilities for co-curation and storytelling that foreground diverse voices from multiple perspectives. This research uses case studies from DCADP to explore how digital technologies and collaborative frameworks can help museums reimagine curatorial narratives for dispersed Chinese art objects. Specifically, it considers how digital reconstruction fosters inclusive storytelling, reconnects fragmented artifacts with their cultural and historical contexts, and bridges the divide between institutions, scholars, and the public.

Csoba DeHass, Medeia[1], Lori Colins[2], Alexandra Taitt[3], Julie Raymond-Yakoubian[4], and Lisa Ellanna[4]

1-Associate Professor, Department of Geography, University of Missouri, 2-Argonne National Laboratory, 3-University of Alaska Fairbanks and The Anchorage Museum, 4 - Kawerak, Inc.

Advancing Heritage Preservation through Artificial Intelligence, 3D Scanning, and the Co-production of Knowledge Framework (Keynote Speech)

Recent advancements in artificial intelligence (AI) and 3D scanning technologies have transformed the heritage preservation sector, enabling high-precision digital documentation, analysis, and visualization of museum collections and heritage sites. Integrating AI-driven analysis and machine learning models enhances the classification of collection pieces, predictive restoration, and pattern recognition, while advanced 3D scanning and photogrammetry facilitate the creation of virtual museums, interactive digital exhibits, and digital reconstructions of historical sites, features, and objects. These applications serve as powerful tools for safeguarding cultural heritage.

The design and management of digital heritage preservation projects require sustained, collaborative engagement between communities, researchers, heritage professionals, and digitization technologists. The use of AI and 3D technologies in Indigenous heritage preservation and perpetuation requires responsive approaches, as these initiatives intersect with complex Indigenous data and knowledge systems. The Co-Production of Knowledge (CPK) framework offers a model for trust-based collaboration, ensuring that digital heritage projects are guided by reciprocity, respect, and shared authority and

promote true and full collaboration through the project's entire life cycle. Better understanding of local heritage practices through AI and emerging technologies can inform new forms of knowledge co-production and develop comprehensive approaches to open science in the heritage sector.

Dombrowski, Quinn

Academic Technology Specialist in Literatures, Cultures, and Languages, Center for Interdisciplinary Digital Research, Stanford University

The Digital is a Fragile Medium: Lessons from Saving Ukrainian Cultural Heritage Online (Bridge to the Public)

Much to the surprise those who imagine the internet simply "backing itself up in the cloud", everything online is ultimately tied to physical things: servers, power lines, internet cables. Russia's full-scale invasion of Ukraine in February 2022 made visible the connections between the physical and the digital, as attacks on the power grid jeopardized the stability of websites. Saving Ukrainian Cultural Heritage Online (SUCHO) is an initiative to archive and preserve Ukrainian cultural heritage websites and born-digital content like memes, which circulate throughout the global Ukrainian diaspora to build a narrative around the war. This talk covers SUCHO as a socially-engaged public and digital humanities initiative, how lessons learned from the project have informed subsequent work on web and data archiving in other spheres, and draws upon the #DHmakes movement and a "Data Visualization with Textiles" course at Stanford to speculate on alternate data futures in an age where "putting it online to keep it safe" seems like a decreasingly viable option.

Dussubieux, Laure

Senior Research Scientist, The Field Museum

New Scientific Approaches for the Study of Ancient Collections at the Field Museum: a Bridge to Researchers of Ancient Egyptian Glass (Bridge to Scholars)

The Elemental Analysis Facility has served the Field Museum Anthropology Collections for almost 20 years by providing in-house non-invasive or quasi-non-invasive analytical techniques, able to determine the elemental compositions of ancient artifacts to unlock information related to their provenance and technology. This unique combination of state-of-the-art equipment and exceptional archaeological collections, all under one roof, created opportunities for research projects that wouldn’t have been possible in a different

configuration. These projects increased our knowledge in certain areas that are challenging to study for various reasons. We will illustrate this via an example dealing with the investigation with laser ablation – inductively coupled plasma – mass spectrometry (LA-ICP-MS) of ancient glass beads found in Egypt. The opportunities to study ancient glass objects excavated in Egypt are scarce, as Egyptian objects are difficult to export abroad for analysis, and the technology required for elemental analysis (LA-ICP-MS) is not available to archaeologists within Egypt. The Field Museum holds a small collection of Egyptian glass beads that entered the collections more than 100 years ago. Contextual information for this material is patchy, if not inexistent, but the use of a powerful analytical technique such as LA-ICP-MS provides new details related to their place of manufacture and chronology. Publishing and sharing our findings help colleagues in Egypt or elsewhere in the world, with no access to LA-ICP-MS or other analytical techniques, to have a better understanding of similar material.

Epp, Isaac

CEO and Game Director, Loligo Games

People Will Remember How You Made Them Feel (Keynote)

As a video game designer, there are basic principles of design that I use in my work. These are well known in the game industry but feel universal for building virtual and physical experiences. When leveraged in concert, these principles can all be applied to help make experiences more accessible and efficient. Arguably more importantly, they can also help target more squishy goals like “Oooh, that feels good to do”. One example can be found in what is often referred to as “The 40 Second Rule”. This rule stipulates that you want to have your game world designed in such a way that players will constantly be charmed by points of interest, novel discoveries, or just interesting details for them to notice roughly every 40 seconds. Pack things too densely and it just gets overwhelming for folks, and they start tuning out. Yet, if you go much longer than 40 seconds their focus and ability to stay in the zone decays. This principle could be used in both real and virtual exhibits, and exhibit designers might challenge themselves to test and time routes through their exhibit, arranging and even hiding points of interest in order to more deeply engage visitors. This talk will address this, and other lessons and techniques game design holds for those wanting to craft the most fun and memorable museum experiences possible.

Hoffman, Christopher

University of California Berkeley School of Public Health

Photogrammetry Phridays: Student Engagement and Visualization Technologies as a Bridge to the Museum (Bridge to the Classroom)

This paper presents several case studies in which students were engaged in projects utilizing imaging and immersive visualization technologies to document and interpret objects housed in museum collections. At UC Berkeley's Phoebe A. Hearst Museum of Anthropology, students developed 3D models of objects from the collections, working on site in the museum's exhibition space to photograph objects and build models. Because these student activities attracted the attention of museum visitors, Friday afternoons became known as "Photogrammetry Phridays". The success of these efforts led to similar projects at two natural history collections -- the University and Jepson Herbaria, and the UC Botanical Garden.

Initially, these efforts centered around photogrammetry as a means of museum documentation. However, as students gained a more sophisticated understanding of these museums, they became intrigued by the potential of these models and visualization technologies to narrate some of the stories they were hearing. Early efforts to develop virtual galleries in Unity were mostly experimental. However, a more significant opportunity emerged to develop a virtual reality experience based on an Upper Kingdom sarcophagus excavated from the Egyptian site of Saqqara. As discussed in another paper at this conference, students played a significant role as members of this project team and were crucial to the project's success. In another project, students crafted an augmented reality experience centered around the poetry and life of George Moses Horton (1798-1884), an African American author born into slavery who became the first published African American writer in the United States. More recently, these engagements have explored photogrammetry and other computer visualization technologies to narrate stories as part of the Book of the Dead in 3D project.

Throughout these projects, a number of themes and best practices emerged. Students participated in project teams that can be best described as diverse learning communities comprising undergraduate and graduate students, faculty, and staff from museums, the library, and a range of academic departments. These diverse perspectives brought a variety of tools, perspectives, methodologies and even resources to these efforts. Experimentation and innovation were key themes as well. Mistakes were made, and the teams learned to laugh at failed 3D models. In the end, it was this spirit of innovation,

experimentation, and storytelling that made these projects most successful especially for the students who brought their passion, creativity, and enthusiasm to their work with museums.

Hollinger, Eric[1] and Vince Rossi[2]

1-Repatriation Tribal Liaison, Smithsonian National Museum of Natural History 2- Branch Manager, Smithsonian Digitization Program Office, Smithsonian National Museum of Natural History

3D Digitization and Replication Bridging Source Communities at the Smithsonian (Bridge to Communities of Origin)

The application of 3D technology has become a powerful tool for the Smithsonian Institution's mission of the increase and diffusion of knowledge. Digitization is becoming commonplace as a means of increasing public access to the museum spaces and collections but, along with physical replication, 3D technology is emerging as a significant bridge connecting the museum with Indigenous communities. An outgrowth of the work of the Repatriation Office of the National Museum of Natural History, together with the Digitization Program Office and Smithsonian Exhibits, cultural heritage items including sacred objects, objects of cultural patrimony, funerary objects, hunting tools and other utilitarian items have been 3D replicated at the request of source communities. These collaborations have facilitated unique forms of access and engagement benefitting the museum, the public, and the communities of origin.

Johnston, Christine L.[1], Alan Wheeler,[2] Alexis Nunn,[3] and Erin Escobar[4]

1-Associate Professor, Western Washington University, 2-Graduate Student, Western Washington University, 3- Graduate Student, Western Washington University, 4-Graduate Student, Western Washington University

Teaching the Ancient World with Reproductions: 3D Printed Objects and Authentic Active Learning (Bridge to the Classroom)

This paper presents the results of a research project focused on the use of 3D printed reproductions in introductory courses on the histories and cultures of the ancient Mediterranean, West Asia, and North Africa. The goal of this project was to assess the

efficacy of using digital reproductions in classroom activities with the aim of fostering significant student learning through authentic active learning experiences and enhanced course accessibility, including for students with visual impairments. Objects were incorporated into daily lectures and class discussions in order to serve different modes of learning and were employed in learning modules that gave students the opportunity to apply historical and archaeological methods in the classroom. Three teaching modules were designed by the project on the decipherment of ancient scripts and texts; the study of Greco-Roman coins; and cultural heritage, museum holdings, and restitution. The materials incorporated focused on objects of every-day life, recentering human beings in antiquity, while providing students with the opportunity to engage with reproductions of objects predominantly housed in elite overseas institutions. The assessment of these digital reproductions also enhanced important conversations about digital technologies and cultural heritage, especially around avenues of restitution and rights of access. The paper will present the recently designed third module on cultural heritage, as well as the results of the in-class testing of the first two modules (the writing and numismatics modules) across five courses that ran between Winter 2020 and Spring 2023.

Johnston, Kea M.

Joint Postdoctoral Scholar, University of Chicago and the Field Museum

*Using Meroitic Pots to Automate Photogrammetry: The Aphoma (**A**utomated **Pho**togra**m**metry **A**ssets) Project*

Three-dimensional models of museum artifacts have proven very useful for conservation, research, and public outreach. These models have a variety of applications; from making custom mounts and detailed to-scale replicas to generating views of objects which would be otherwise unobtainable. It is, however, difficult to digitize large corpuses. The methods for doing so are either too expensive and do not scale well (laser scanning and structured light scanning) or slow and skill-dependent (photogrammetry). The Aphoma project is an automated asset pipeline which accelerates the photogrammetry process and requires minimal user input, allowing a complete 3D model to be built with photogrammetry in as little as ten minutes. The project was developed at Chicago's Field Museum but tested on a project to build 3D models of, and digitally spread out the decorative friezes of a large corpus of decorated Meroitic Fineware in the collection of University of Chicago's Institute for the Study of Ancient Cultures (ISAC) Museum.

Excavated by ISAC between 1960 and 1968 at sites in southern Egypt and Nubia, these cups, jugs, and bowls testify to the elite taste of one of the largest Sub-Saharan kingdoms

contemporary with the Roman Empire, Meroe. Featuring delightful friezes of animals and plants, painted on eggshell-thin ceramic, the pottery also demonstrates the mastery of Meroitic artisans. With most of the collection in storage, it is important to make these pots available to as wide an audience as possible, especially given the recent looting of the Sudan National Museum in Khartoum.

This paper will discuss the Aphoma project through the lens of ISAC's systematic digitization of Meroitic pots. These ceramics come in a variety of forms and conditions. Because of their fragility, each pot requires a different handling, photography and processing strategy. This need for flexibility drove the feature set of Aphoma and shaped the debugging and development processes in unexpected ways: pots that still contained material needed to be photographed on their sides, dictating the need for a setting to auto rotate these models to be in an upright position in their final versions. The need to reliably remove the backgrounds and mounts from the final model led to a variety of masking solutions including the development of an AI tool that can automatically sort out Meroitic and Assyrian ceramic assemblages. The development of the Aphoma project provided a protocol for future endeavors. The corpus of Meroitic pots created with Aphoma will provide the public and the scholarly community a much-needed awareness of Nubian craftsmanship and culture for years to come.

Lucarelli, Rita

Associate Professor of Egyptology, Department of Middle Eastern Languages and Cultures, University of California, Berkeley

Recontextualizing Egypt's Ancient Material Heritage: The 'Return to the Tomb' Project (Bridge to the Public)

The Return to the Tomb project deploys VR headset technologies to virtually reimagine the monumental stone sarcophagus lid of an ancient elite Egyptian military officer named Psamtek, now in the Phoebe A. Hearst Museum of Anthropology in Berkeley, California, back in its original historic context in a rock-cut tomb at the ancient cemetery of Saqqara near Cairo, Egypt.

Collaboratively produced by an interdisciplinary, international team (the four PIs are from UC Berkeley, UC Santa Cruz, Virginia Tech and The University of Bonn), this project is developing a dynamic VR experience that we hope offers new forms of multi-sensory and embodied engagement with difficult to access historic places.

This paper will present this VR application, which is designed as a 'reconstruction' of the site and tomb at the era of Psamtek's life (~665 BCE), its educational content and technical challenges.

Marthot-Santaniello, Isabelle

Professor, Department of Ancient Civilizations, University of Basel

The Digital Age as a Chance for Scholars to Reach a Larger Audience: New Insights from Greek Papyrology (Bridge to Scholars)

One of the most striking aspects of the digital age (and a reason one can argue that a digital revolution is taking place) is the accessibility of data and knowledge that were previously restricted to specialists. Greek papyrology illustrates very well this phenomenon: while forty years ago, only a handful of highly trained scholars could access and study such fragile and complex objects that are the Greek papyri, digitization first of their content (text) and then of their appearance (images) has totally changed the game. Dwelling upon research led in Basel (Switzerland) since 2018, this presentation will describe the state of the art in Digital Papyrology, with its current outcomes, challenges and search for best practices in order to take full advantage of the new possibilities offered by the digital age to improve science (especially transdisciplinary collaboration) and outreach to the general public.

Minor, Elizabeth

Assistant Professor of Anthropology, California Polytechnic State University, San Luis Obispo

"Fail Forward" Pedagogy and Student Success in Museum-Based Digital Cultural Heritage Courses (Bridge to the Classroom)

When encountering a course in Digital Cultural Heritage for the first time, many students express hesitancy and fear of the content. Anthropology (and other Social Science/Humanities) students routinely leave feedback that they almost did not enroll in the course because the title included the word "digital", and they feared they didn't have the technical skills necessary to succeed. Students from technology-based majors, such as Computer Science or Media Arts and Sciences, routinely leave similar feedback in which they say they were worried they did not have the research or subject area knowledge

necessary for the “cultural heritage” side of the course. At the core of the student success I have seen, over 10+ years of teaching museum-based digital cultural heritage courses, is to cultivate the “fail forward” mindset in students. Students are drawn to compelling museum collections and the opportunity to engage with diverse cultural heritage. Their hesitancy is rooted in a fear of leaving their respective comfort zone and encountering an iterative project design process.

I structure my courses to reward taking creative risks and exploring the positive outcomes of challenges. A key example is how their final projects are graded - 30% of the grade is the outcome of the final, working digital project, 30% of the grade is a written reflection on the process of building the project, and the remaining 30% of the grade is the cumulative record of check-ins and design steps along the way. Students undertake their project knowing that the majority of the points will come from their iterative design process, giving them credit for any work on components that don’t make it to the final published stage. We explore examples of “fail forward” case studies, including the Digital Humanities Awards category for “Best learning outcome from a failed project”. Students have a peer working group, composed of others who are working with similar software or design platforms, and they have a continuous discussion of user experience design and technical troubleshooting during class. By intentionally creating an open dialogue about trial and error (ala the baking show “Nailed It!”), students overcome their fear of acknowledging “failure” as a bad thing and instead come to see (and are rewarded) for embracing failure as a chance to learn and redesign their way to a better end product. Results have been creative and engaging digital projects that draw on museum collections, archives, and other diverse explorations of cultural heritage for public audiences.

Phillips, Erica

Exhibit Project Development Coordinator, University of Wisconsin, Milwaukee

Eliciting Proof: The Tira de Santa Catarina Ixtepeji, Digital Repatriation, and the Production of the Real in the Age of Digital Collections (Bridge to Communities of Origin)

The *Tira de Santa Catarina Ixtepeji* is a post-conquest codex from Ixtepeji, a Zapotec town in the Sierra Norte region of modern-day Oaxaca, Mexico. Created in 1691, the codex was suspiciously taken from the township sometime during the Mexican Revolution and was lost for approximately 100 years. The rediscovery of the codex in the American Geographic Society Library (AGSL) at the University of Wisconsin-Milwaukee in 2013 prompted the descendants of the codex’s creators to seek repatriation of their important land claim

document. Utilizing photographic digital technologies, university representatives chose to repatriate a high-quality material and digital facsimile of the codex to Ixtpejei while maintaining ownership of "the real" *Tira*. Interrogating the cultural concept of "the real" within collecting oriented institutions (i.e. museums, libraries, and archives), this paper employs the *Tira* case study to examine the dualism between facsimiles and originals in the construction of new valuations of authenticity via James Clifford's art-culture system. This paper argues that constructions of the real and the facsimile are contextually dependent, inherently contradictory, and socially produced. A cautionary tale, I present an example of how the monotony of power entrenches experiential digital mechanisms within pre-existing structuring principles.

Robbins, Helen A.

Provenance Research Director, The Field Museum

Low-Tech - Old Tech: Creating Bridges through Increased Transparency

Museums and the discipline of anthropology share a contested and precarious place in contemporary discourse. As both emerged and flourished in the crucible of colonialism, their legacy and continued relevance is a magnet for current, often impassioned, cultural debate. Inherent, however, within this ambivalent history and challenging present lies a paradox that is greater than the sum of its parts. There is (and always has been) the opportunity for museums to build bridges and develop relationships with a multitude of communities that not only includes the sharing of information but also addresses historic tensions and continued asymmetry. This paper will focus on some ways we have used technology to increase transparency, collaborate with Indigenous communities, and foster connection. These targeted and practical efforts include developing a website, digital initiatives, and creating a Flickr site using historic expedition photographs. Although digital initiatives have been pursued by museums for at least two to three decades, making data transparent is not the same thing as reaching an intended audience. Efforts to focus on partnership and connection are critical in resolving the future of museums and the many ways in which technology has a critical role to play.

Scalf, Foy

Research Associate, Head of Research Archives, Head of Integrated Database, Institute for the Study of Ancient Cultures, University of Chicago

Curating the Digital Abyss: Discovery and Rediscovery in the Age of Information (Overload)

Over the past twenty-five years, the Digital Humanities have increasingly embraced integration. Museums and research institutions managing vast datasets have adopted unified discovery platforms to enhance discoverability, democratize access to cultural heritage, and engage global audiences with diverse research needs. Successful projects include the Integrated Database (IDB) at the Institute for the Study of Ancient Cultures (ISAC). On a larger scale, the UChicago Node project aims to bridge divides across the University of Chicago by incorporating datasets like ISAC's IDB into a campus-wide discovery layer, facilitating cross-disciplinary discoveries. However, integrating extensive datasets into unified systems often presents a paradox: as data volume grows, locating and working with specific information becomes more difficult. Users, from scholars to the public, frequently struggle to identify and isolate the data most pertinent to their research amid the overwhelming amount of information. This talk examines the complex relationships between data organization, integration, and research within digital platforms, using ISAC projects as case studies. While metadata harmonization, semantic tagging, and search algorithm optimization can mitigate some challenges of aggregating disparate sources, many researchers still require access to discrete datasets. Ultimately, the future of digital curation hinges on fostering an ecosystem where discovery and rediscovery are seamlessly intertwined, balancing comprehensive data integration with the nuanced needs of diverse user groups.

Sharratt, Nicola,[1] Jeffrey Glover,[2] Brennan Collins,[3] Jessica Joyner,[4] and Jennifer Siegler[5]

1-Associate Professor of Anthropology, Georgia State University, 2-Professor of Anthropology, Georgia State University, 3-Associate Director of Writing Across the Curriculum and the Center for Instructional Effectiveness, Georgia State University, 4-Lecturer of Biology, Georgia State University, 5-Lecturer at the Ernest G Welch School of Art and Design, Georgia State University

Museum Practice as Pedagogy: Leveraging Technology to Engage Students in Collections Management, Exhibition Development, and Community Outreach

For more than a century, the opportunities that museums offer public education in the USA have been explored and exemplified. The power of creative exhibitions, of exposure to collections, and of interaction with museum researchers to inspire and instruct is well established. In this paper, we discuss recent endeavors at Georgia State University that highlight the pedagogical possibilities of engaging students not only with the products of

museums but also with the practice of museums. Leveraging diverse technologies and centering students as active participants in museum work, our projects span the natural sciences, anthropology, and the fine arts. They facilitate learning opportunities across the curricular range, from hands on experiential learning for freshmen through independent research projects for graduate students embarking on careers in the museum profession. They include collections management, curation, exhibition development in both physical and virtual space, outreach activities into the wider community, and partnerships with other institutions in Atlanta. We consider the challenges and successes of the multiple museum and technology initiatives underway in GSU's classrooms and propose future directions for our university and others.

Shetler, Jan Bender

Professor Emerita, Department of History and Political Science, Goshen College

Facilitating the Digital Return of Oral Tradition through Relationships with Communities of Origin in the Mara Region, Tanzania

Although repatriating ancient objects from European museums to the country of origin is more dramatic, the digital return of the more intangible documentation of oral tradition and history to African communities of origin is also an important way to provide local access and engagement in the work of preservation. Now in its third year, the Mara Cultural Heritage Digital Library (MCHDL), funded by the National Endowment for the Humanities, makes available online (maraculturalheritage.org) oral tradition interviews conducted by Dr. Jan Bender Shetler between 1995 and 2010 as well as other primary sources from the region. Digitizing and attaching metadata to this collection at Goshen College is a fairly straightforward, though time consuming, enterprise facilitated by partners at Michigan State University's Matrix Center for Digital Humanities. However, to achieve the goals of an ethically-informed digital return, the production of a website is not enough. The critical job of working with Mara communities of origin and Tanzanian scholars to raise awareness of and accessibility to the MCHDL is a much more complicated and slower process. It requires relationship building and constant problem solving with local coordinators of the earlier interview process in their communities. The grant established six Mara Cultural Heritage (MCH) centers in these communities that have developed into a nationally registered Tanzanian NGO that are conducting their own interviews and dissemination process. Outreach to public school teachers, teacher training programs and universities have raised interest in using the website in classrooms across Tanzania and beyond. Mara

diaspora communities in Tanzanian cities and abroad have become some of the most passionate advocates for language and historical preservation. But the challenges are real and many, including the lack of funding to sustain local initiatives in an economically deprived region with limited organizational capacity. Technological challenges for improving local accessibility are measurable and surmountable with additional funding, including the need for more Swahili interface, geopositioning and local language transcription for linguistic analysis and preservation. Although the ubiquitous mobile phone allows for personal access, data is still relatively expensive and Wi-Fi unavailable in this rural and relatively isolated region. But more fundamentally, successful digital return takes time and patience to gain trust with regional and district government offices, cultural organizations and schools and to build sustainable local centers with capacity for contributing leadership to the project. Although these aspects are much harder to quantify, they constitute the real work of digital return by fostering long-term reciprocal collaboration in the communities that claim this heritage. By foregrounding the ultimate goal of authentic partnerships, this paper will outline achievable steps toward ethically informed digital return in this and other contexts.