Heritage Futures

UT Austin Antiquities Action 7th Annual Symposium

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Abstracts and Bios

1. **Patterns of Cairo: Negotiating Heritage in a Digital Age**
   Yumna Moussa, Megawra-Built Environment Collective (presenting virtually)
   Hossam Elganainy, The University of Texas at Austin (presenting in-person)

Abstract:

Digital initiatives for documenting heritage have been on the rise in recent years. Among those is the "Patterns of Cairo" online database (www.patternsofcairo.com), which features a curated collection of 200 decorative patterns found in Historic Cairo. This paper presents the practical decisions and creative processes implemented by the project's team during the curation of the database. It discusses this digital initiative as a collaboration among architects, researchers, artisans, heritage specialists, and other creatives in celebration of Cairo's heritage.

The "Patterns of Cairo" database is implemented by Megawra, an Egypt-based architectural practice specialising in conservation and heritage management, in an effort to document, digitise, and democratise knowledge on patterns found within Historic Cairo. The database is a bilingual open-access platform that includes written descriptions, downloadable vector drawings, and photographs of the curated patterns. Brainstorming sessions with local designers and craftspeople fueled discussions on positionality and the historic Orientalist lens through which Cairo's patterns have been studied. These discussions shaped several themes within the database including the Egyptian self-image and how local memory has reimagined historic patterns. Questions on the accessibility of heritage—whether physically or digitally—, and the gap between contemporary creatives and traditional craft were all central to content ideation and the platform's development. While the initial conceptualisation of the project was focused on registered monuments, the escalating risk of demolition facing Cairo's unregistered heritage has influenced the project's development and direction.

Since the database's launch in July 2025, positive interactions, particularly within creative industries, and educational milieus have renewed interest in the use of heritage in modern contexts and its contemporary reimagining. Such interactions have inspired new discussions on the role of digital technologies in creating alternative futures for reviving heritage.

Yumna Moussa is an art historian at Megawra-Built Environment Collective, an Egypt-based twinship between Megawra, an architecture office specializing in conservation and heritage management, and the Built Environment Collective, an NGO specialising in place-based cultural and urban development. She has worked on several conservation projects of Islamic sites in Cairo such as the Fatimid Dome of Yahya al-Shabih and the Mamluk Dome of Safiyy al-Din Jawhar. Her most recent research project is the "Patterns of Cairo" online database, which aims to digitize and democratize knowledge on Cairo's heritage and to engage with oral history and indigenous craft practices. Moussa holds an M.A. in Islamic Art and Architecture from the American University in Cairo.

Hossam Elganainy is a PhD student in the Department of Art and Art History at the University of Texas at Austin. His research focuses on medieval and modern architectural conservation practices in Southwest Asia and North Africa. He previously worked for three years as an architect and researcher in Historic Cairo with Megawra, a Cairo-based architectural practice. Elganainy holds a master's degree in Critical Heritage Studies from the University of North Carolina at Charlotte, which he completed as a Fulbright Scholar.

2. Hold the Phone: iPhone lidar and 3D printing for digital conservation

Chris Ploetz, University of Texas at Austin

Abstract:
Heritage conservation increasingly depends on fast, repeatable 3D documentation that can be created, shared, and preserved even when time, budgets, and field conditions are constrained. In the Maya Lowlands of Belize, narrow excavation spaces, low light, and fragile materials make routine high-end 3D recording difficult to deploy consistently across projects, despite the clear need for robust digital archives and accessible public-facing outputs. How reliably can iPhone lidar generate field-ready 3D records that support conservation decisions and can be translated into accurate, durable 3D printed replicas for research, teaching, and outreach? A segmented capture strategy paired with straightforward reconstruction and print preparation produces coherent models suitable for documenting morphology and generating handling-safe replicas, while also making limitations and uncertainty explicit for features affected by occlusion, reflective surfaces, and thin edges. This approach matters because it lowers barriers to documentation, supports capacity building and return-of-results with community partners, reduces handling of vulnerable originals through high-quality replicas, and strengthens long-term stewardship by pairing accessible tools with transparent reporting standards.

Chris Ploetz is a PhD student in the Department of Geography and the Environment at the University of Texas at Austin, where he studies how emerging 3D technologies can improve archaeological documentation, conservation, and access to heritage. His research focuses on the ancient Maya region, with field experience in Belize, Guatemala, and Honduras, and he works at the intersection of remote sensing, field recording, and digital workflows. He is currently co-

authoring an article that evaluates iPhone lidar for 3D documentation in constrained environments such as tunnel excavations, comparing mobile lidar outputs to established survey and terrestrial scanning approaches. He is also developing a practical workflow for digitally reconstructing and 3D printing fragile artifacts that collapse during excavation, treating digital salvage as a repeatable field and lab practice. Through this work, he is interested in how low-cost tools can expand routine documentation, support conservation decision-making, and create tangible replicas that benefit teaching, museums, and community engagement.

3. **Inequities in Archaeometry: The Future of Education and Integration of Applied Sciences for Cultural Heritage Studies**
   Milo Pilgrim, University of Texas at Austin

Abstract:

Archeologists have increasingly integrated applied sciences to improve material analysis of archeological objects, structures, and environments in recent decades. Archaeometry utilizes established investigative practices from biology, chemistry, physics, and geology to quantitatively examine heritage materials. These processes usually require specialized training in their respective field, and heritage specialists with a humanities background may struggle to access these resources due to lack of training, cost of equipment, or distance from laboratory resources. This paper will discuss equity issues of both the physical resources and the interdisciplinary education required to successfully integrate archaeometric practices in excavations. The disparity between limited interdisciplinary training opportunities and laboratory expenses can prevent resource-strained sites from pursuing advanced research.

This paper encourages a reevaluation of teaching practices and field preparations. With stronger cross-disciplinary communication and public outreach, we may establish new relationships between underprivileged cultural institutions and advanced scientific centers to make archaeometric analysis more accessible.

Milo Pilgrim is a PhD student in the department of Art & Art History at UT, specializing in Roman architecture. Their dissertation explores the architectural patronage of Marcus Agrippa throughout the Mediterranean in the 1st Century BC. Milo holds a Masters in Archeological Sciences from the University of Padova and has excavated at Bibione, Northern Italy; Nora, Sardinia; Preslav, Bulgaria; and is currently an archeologist for the Oplontis Project.

4. **Wajood-e-Irtika: What Remains After Erasure**
   Ali Shariq Jamali, Simon Fraser University

Abstract:

Memory of the past is torment, O Lord

Take away my memory from me
Akhtar Ansari

This research brings three kinds of grain, from material to digital traces – *sand* grain as deep time, *pixel as machine time*, and *mark making as human time*, to explore new forms of memory constructions and erasure. It focuses on our capacity to conceptualize fragments alongside computational interpolation, prediction, and optimization of visual data as a machinic version of protention: a non-human form of anticipation that fills in gaps without cultural or embodied memory. This absence produces noise, hallucination, and algorithmic forgetting, phenomena that become central to understanding how digital systems "remember" and "misremember" fragments from deep and historical time.

By situating Mohenjo-daro, the major settlement of the Indus Valley Civilization in Pakistan, as a case study, this presentation looks back 5000 years of erosion, abandonment, and continual reinterpretation. Working across overlapping temporal scales – archaeological time, cultural time, and digital time, it argues that cultural memory is neither simply lost nor preserved but continuously reconfigured through technological mediation. In contexts where digital infrastructures are underdeveloped, the absence of sustained archival systems turns forgetting into a structural condition. While the proliferation of uncurated digital traces produces noise that obscures what matters. Through this lens, this study proposes that the politics of cultural memory must be understood as a negotiation between material fragility, technological mediation, and shifting regimes of attention.

Informed by contemporary artistic practices that work with memory, trauma, and the reappropriation of heritage and inheritance, *methodology is grounded in artistic field research and critical engagement with histories of representation*. This research project centres on artistic field research, phenomenological analysis of experience, and data collection in both digital and manual forms. These methods are articulated through theoretical and philosophical frameworks, which allow memory, technics, and social infrastructures to be thought together.

I ask: How do different forms of interpolation—embodied/manual and machinic/digital— challenge the infrastructure of cultural memory systems? In particular, how do reconstructions of missing heritage and inheritance based on cultural knowledge and expertise differ from AI- generated reconstructions that rely on statistics and patterns, and what does this mean for how we remember sites like Mohenjo-daro?

Ali Shariq Jamali is a visual artist, researcher, and educator from Pakistan. He holds a BFA from the National College of Arts, Lahore, and an MA in Art and Design Studies from Beaconhouse National University, Lahore, Pakistan.
His work has been shown extensively at private and public art institutions in Pakistan, India, Canada, the USA, and the UK, and he has participated in residencies and collaborative projects including EART: *A Manifesto of Possibilities*, *Wajood-e-Irtika: what remains after erasure*, and *Together at the South Asian Playground*.
His current research-based practice investigates fragmented, repurposed, or forgotten aspects of memory, focusing on the intersections of digital memory, cultural amnesia, and the materiality of

technological mediation. His work critically examines how memory is externalized, manipulated, and erased within material, technical, and digital systems.

Shariq is currently pursuing a PhD in Contemporary Arts at the School for Contemporary Arts, Simon Fraser University, Vancouver, Canada.

5. **What Cannot Be Rebuilt: Heritage Destruction, Irreversibility, and Counter-Archives in South Lebanon**

Zaynab Nemr, American University of Beirut
Rami Zurayk, Professor, American University of Beirut

Abstract:

The destruction of cultural and historical sites in South Lebanon during the 2023–2025 Israeli war marks an intensified phase in a longer trajectory of heritage erasure in the border region of Jabal Amel. This paper argues that heritage loss in South Lebanon operates primarily through deliberate wartime destruction that produces irreversible ruptures in material, architectural, and historical continuity. Post-war reconstruction by local communities—often cited as evidence of heritage transformation—is instead understood as a constrained response to prior acts of destruction rather than an autonomous process of erasure. Drawing on documented cases from the 2006 and 2023–2025 wars, the paper examines the targeting of religious, cultural, and historical sites, including Maqam Nabi Shamaʿ, century-old mosques such as the Abu Thar El Ghafari Mosque in Blida, and historic neighborhoods and souks in border towns such as Aitaroun and Bint Jbeil. Although some sites were later rebuilt using modern materials, complete destruction forecloses the recovery of original architectural forms, craftsmanship, and spatial memory. In this context, architectural change reflects material scarcity, economic pressure, and urgency rather than a voluntary abandonment of heritage. Methodologically, the study combines site-based historical analysis with systematic documentation of visual and testimonial evidence circulated on social media during the 2023–2025 war. It pays particular attention to post-destruction narrative interventions that seek to detach destroyed sites from their local historical contexts through archaeological or pseudo-scientific claims. In this paper we will also examines the Fighting Erasure initiative as a counter-archival infrastructure that preserves evidence of destruction and its long-term consequences. By framing heritage destruction as a future-oriented strategy that produces irreversibility, the study contributes to debates on heritage futures in conflict zones and argues for frameworks that reckon with loss, constraint, and the ethical limits of reconstruction.

Zaynab Nemr is a geoscientist and GIS expert at the American University of Beirut (AUB), Department of Landscape Design and Ecosystem Management. She holds MSc degrees in Environmental Geoscience from the Lebanese University and in Sustainable Blue Growth from the National Institute of Oceanography and Applied Geophysics (OGS) and the University of

Trieste. Her research explores how war and occupation reshape land, biodiversity, and communities, bridging agroecology, post-conflict recovery, and settler colonial studies. Her projects span South Lebanon, Palestine, and Sudan, integrating spatial analysis, climate data, and community resilience. She has published in *Springer Nature*, *Jadaliyya*, and *Current Muslim Affairs*.

Dr. Rami Zurayk is a professor at the Maroun Semaan Faculty of Engineering and Architecture at the American University of Beirut, Landscape Design and Ecosystem Management Department. He was a member of the Steering Committee of the High-Level Panel of Experts on Food Security and Nutrition (HLPE) of the Committee of World Food Security (CFS) from 2015-2019, and a commissioner on the EAT-Lancet commission on sustainable diets from sustainable food systems. He is a founding member of the Arab Food Sovereignty Network, an advisory board member of SEAL (Social and Economic Action for Lebanon) and an advisory board member for the Journal of Agriculture, Food Systems and Community Development. He has worked and written extensively on the Arab World, focusing on the political ecology of Arab food security and its linkages with the agrarian question. His latest work on the subject includes: Crisis and Conflict in Agriculture (CABI, 2018), The Agrarian Roots of the Arab Uprisings (with Anne Gough, Cambridge, 2014); Control Food, Control People: The Struggle for Food Security in Gaza (with Anne Gough, IPS, 2013) Food, Farming and Freedom: Sowing the Arab Spring (Just World Books, 2011). He obtained his BSc and MSc from the American University of Beirut and his DPhil from Oxford University.

6. **Data Sovereignty and the Digital Afterlives of Zapotec Painted Tombs**
   Katherine Schumann, Ph.D., University of Texas, Austin

Abstract:

The 3D LiDAR scans I created during my study of Zapotec painted tombs at Monte Albán and Suchilquitongo constitute valuable records for purposes of documentation of fragile spaces and artworks as well as continued research. However, as digital recreations of sacred funerary spaces containing genealogical imagery and ancestral narratives, they are not neutral material. Following recent scholarship positioning such models as carriers of Indigenous knowledges, it stands that descendant communities should hold meaningful authority over how these scans are circulated, accessed, and interpreted.

My own work examines how bodily movement through tomb spaces shapes the perception of mural programs depicting ancestral narratives and lineage authority. For descendant Zapotec communities—whose ancestors and living lineages are the subjects of this study—spatial experience within these funerary contexts carries significances that extend beyond any scholarly framework I could apply. The tombs are sites where relationships between the living and the dead were negotiated, and where access itself functioned as a political technology. Decisions about how these virtual spaces are accessed and circulated today should not rest solely with researchers or federal institutions.

The increasing accessibility of LiDAR technology heightens the urgency of these governance questions. If virtually anyone can create high-fidelity scans of Indigenous heritage sites, community-based authority over their use becomes more critical. Simultaneously, community governance opens pathways for digital repatriation, enabling descendant communities to reconnect with ancestral knowledges on their own terms.

I advocate a cooperative model in which Oaxaca's community museums—particularly the Unión de Museos Comunitarios de Oaxaca—are granted significant decision-making power alongside INAH over how digitized heritage from ancestral Zapotec sites is accessed and used. Grounded in the CARE Principles for Indigenous Data Governance, such restructuring would be a path toward ensuring that the digital afterlives of these sacred spaces can be determined by the communities whose ancestors built them.

Katherine Schumann is an art historian specializing in the ancient Americas, with a focus on Zapotec funerary art and architecture in Oaxaca, Mexico. She earned her Ph.D. from the University of Texas at Austin, where her dissertation employs experiential analysis and 3D LiDAR scanning to investigate how elite Zapotec families used funerary art and controlled access to sacred tomb spaces as technologies of political authority during the Classic period (250–950 CE). Her work theorizes how the interplay of visibility and concealment produced knowledge differentials that sustained hierarchical power structures in ancient Oaxacan society. Her current projects extend these questions into the present, addressing data sovereignty and the digital afterlives of Indigenous heritage. She holds an MA from the University of Houston and has held curatorial positions at the Dallas Museum of Art and the Museum of Fine Arts, Houston.

7. **Reframing Heritage Stewardship Through Inclusive Engagement: The Gandhara Resource Center Pakistan Model**
   Izzah Khan, University of Texas at Austin

Abstract:

The Gandhara Resource Center Pakistan (GRCP) provides a compelling model for community-centered heritage stewardship that balances scholarship, institutional collaboration, and local engagement. Located in Taxila, the historic heart of the Gandhara civilization, GRCP operates under the Center for Culture & Development (C2D) and seeks to preserve, interpret, and democratize access to Gandharan cultural heritage.

GRCP's approach emphasizes inclusive participation, inviting local communities, students, and scholars to co-create knowledge and programs. Through public lectures, exhibitions, heritage trails, and digital documentation projects, the Center fosters active engagement while preserving tangible and intangible cultural assets. Collaborative partnerships with universities, museums, and cultural organizations expand the reach of heritage initiatives and reshape traditional institutional roles.

Importantly, GRCP anticipates the challenges of the future, digital access, ethical stewardship, and climate- or development-driven pressures on archaeological sites, by embedding these considerations into programming and research. Its model demonstrates how local knowledge, community priorities, and institutional expertise can intersect to safeguard heritage sustainably, ensuring that preservation practices are responsive, adaptable, and forward-looking.

By highlighting GRCP as a case study, this presentation illustrates how collective responsibility and collaborative frameworks can redefine heritage practice. It underscores the potential for heritage institutions to act as partners rather than gatekeepers, creating pathways for communities to articulate long-term priorities while fostering resilience in cultural stewardship. The GRCP model offers a replicable approach for other regions, where inclusivity, shared expertise, and forward-thinking strategies ensure that heritage is both preserved and meaningful for future generations.

Izzah Khan is a cultural heritage professional and art historian specializing in museum ethics, illicit antiquities, and heritage governance, with over twenty years of experience working across international organizations, government agencies, and civil society in Pakistan and beyond. Her work focuses on provenance, art crime, authenticity, and the ethical responsibilities of museums and scholars. She serves on the Executive Board of ICOM Pakistan and is the founder of the Center for Culture and Development and the Gandhara Resource Center Pakistan. She is currently completing doctoral research at the University of Texas at Austin that consolidates her long-standing professional and policy-oriented practice.

8. **Archaeology in Dialogue: Building a Framework for Collaborative Research at Naranjo, Melchor de Mencos, Guatemala**
   Fernando José Véliz Corado, University of Texas at Austin

Abstract:

The ancient Maya city of Naranjo (Sa'al), located in the eastern Petén, served as the capital of a major regional dynasty from approximately 600 BC to AD 830. While traditional archaeological research has focused on the site's complex political history—characterized by shifting alliances and warfare with neighboring powers like Tikal, Calakmul, and Caracol—the Proyecto Arqueológico de Poder y Comunidad en Naranjo (PRAPOCONA) proposes a shift toward a more integrated, community-centric model. This presentation outlines the preliminary framework for a collaborative research design that seeks to bridge cutting-edge geospatial analysis with meaningful local social engagement in the municipality of Melchor de Mencos.

A critical foundation for this initiative is the 2019 Pacunam Lidar Initiative, which acquired 276 km2 of high-resolution data over Naranjo and its surrounding hinterlands. This technology revealed over 9,000 structures and numerous previously unrecorded sites, providing an unprecedented view of the ancient landscape. However, PRAPOCONA proposes that such

technological advancements must be accompanied by institutional and social legitimacy to be truly sustainable. To this end, recent progress has focused on establishing formal dialogues with local governance. Initial consultations with the Mayor and municipal authorities of Melchor de Mencos have been initiated to align the project's archaeological objectives with the town's broader development and educational needs. These early conversations represent a critical first step in ensuring that the local community is an active partner in the research process rather than a mere observer. Our proposed framework includes:

- **Educational Integration**: Developing didactic workshops for local schools and teachers to share the history of Naranjo.

- **Public Visibility**: Implementing educational signaling at the site and organizing guided tours for community leaders, students, and residents.

- **Collaborative Spaces**: Creating formal "spaces for dialogue" to exchange ideas, share oral histories, and build a collective future for the site's preservation.

Fernando Véliz is a Guatemalan archaeologist and a PhD student in the Department of Geography and the Environment at the University of Texas at Austin. His work employs geospatial analysis to examine the political geography of the Classic Maya Lowlands in Petén. Currently serving as one of the directors of the Proyecto Arqueológico de Poder y Comunidad en Naranjo (PRAPOCONA), his research treats the Eastern Petén as a historical palimpsest, exploring the evolution of political relations from the ancient past to contemporary geographic contexts.

Keynote

Title: **Beyond Charity, Beyond Commodity: Toward a Future of Archaeology and Heritage that Feeds**

Dr. Allison Mickel, H. Bruce McEver Chair in Archaeological Science and Technologies, Georgia Institute of Technology

Abstract:

Historically, discussions of resident communities' interest (or lack thereof) in archaeology and cultural heritage have often bemoaned a perception that communities-- particularly in the Global South-- are only interested in money, and not in the archaeological remains or what can be learnt from them. Not only does this framing instantiate racialized stereotypes, but it also fails to take seriously the role of political economy in archaeology and cultural heritage. Ultimately, however,

people need to eat, and the places where archaeologists work are often marginalized, impoverished, and excluded from the material benefits that others derive from archaeological remains and cultural resources. Archaeology, moreover, relies on the labor and expertise of members of these same local communities. Recognizing this, some archaeologists and NGOs have organized either charitable efforts or for-profit initiatives to support such communities, but these projects are often limited in impact or unsustainable. I argue that the future of labor and economic justice in archaeology and cultural heritage relies on imagining a third way forward that is neither rooted in charitable nor capitalist logics, but rather on seeking to build an archaeology that feeds.

Allison Mickel is the inaugural H. Bruce McEver Chair in Archaeological Science and Technologies at the Georgia Institute of Technology, where she is building an archaeology program for the first time in the university's history. Her work aims at thinking about who archaeology is for, dreaming of what it could be, and trying out some paths to get there. She is the author of two books, *Archaeologists as Authors and the Stories of Sites*, and *Why Those Who Shovel Are Silent: A History of Local Archaeological Knowledge and Labor,* which was awarded the Williamson Prize, the G. Ernest Wright Book Award, and the Biblical Archaeology Society's Best Book on Archaeology. Her current research, funded by the National Endowment for the Humanities, will tell the story of ongoing efforts to build local power and to assert workers' rights in Jordan. Mickel is also an active public anthropologist, writing for newspapers and magazines, speaking with K-12 schools and extracurricular clubs, and reviewing educational material for organizations like the Boy Scouts of America.