THE ARCHAEOLOGY CENTRE PRESENTS

DEBATES IN ARCHAEOLOGY SYMPOSIUM

THE ARCHAEOLOGY OF CAPTIVATING TECHNOLOGY: MAKING, WONDER, AND POWER IN MATERIAL PERSPECTIVE

APRIL 8 - 9, 2022

ARCHAEOLOGY CENTRE, UNIVERSITY OF TORONTO

VIRTUAL CONFERENCE

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LAND ACKNOWLEDGEMENT

The Archaeology Centre wishes to acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

THEME

Archaeologists have long recognized that technological systems and production processes are socially and politically embedded, possessing a powerful ability to inspire awe (e.g., Carter 2007; Warnier 2007; Swenson and Warner 2012). Existing scholarship likewise elaborates ways in which technological systems, from the bureaucratic apparatus of the state to monumental feats involved in large-scale architectural construction, arise from and work to materialize power relations (Cavanagh and Mee 1999; Thomason 2004; Smith 2015). Building on these insights, this symposium seeks to wed investigations of the performative sequence of the production process to the technological dimensions of power, what Ruha Benjamin, in her monograph, Capitivating Technology, calls the "underside of technoscience." (Benjamin 2019, 9).

Here we take 'captivating technology' in the ambivalent sense conveyed by Benjamin: a technology can enrapture people with its novelty—its ability to open up new possibilities for ways of being and interacting with the world—while simultaneously taking us captive, restricting or limiting us to certain ways of thinking, or trapping us within the hegemonic systems that created it. It is enough to evoke the now-banal image of fellow humans wandering like zombies lost in their smartphones through the busy streets of a city, or the tantrum of a child being deprived of its beloved tablet while going through airport security, to appreciate this doubly operative captivation of modern technology. Beyond the mundane incarceration of human attention and ingenuity within electronic devices, there are deeply sinister ways in which technology may oppress. Technology and design are not merely neutral innovations: they have a perspective and can encode existing biases and inequalities as much as they seem to genuinely spring from our positively valued human tendency to embrace novelty and progress.

In this conference, we draw from Benjamin's proposal and consider how thinking about discriminatory design may lead us to new insights into relationships among production processes, technological innovation, and sociopolitical forces of captivation in archaeological perspective. We seek to ask new questions of the archaeological record along these lines: Does technoscience necessarily reflect and reproduce inequities or hierarchies as far as we can discern from archaeological contexts? Can technology undermine or disrupt such structures instead? How do technologies amaze and inspire wonder, and how does this effect of enchantment interact with power structures? What can an archaeological perspective bring to a modern appreciation of the long human history of coercive, dominating, or discriminatory technologies?

This event could complicate archaeology's generally positive perspective on technological innovation and creativity by inviting scholars to consider technology's contribution to forces of segregation, oppression, and discrimination. Therefore, the symposium will encourage the development of an anthropologically sophisticated engagement with the power dynamics of ancient technologies. Topics might include: archaeological or ethnographic case studies that locate spectacular or extraordinary labour in their social, ritual, or political context; the contextual history of bureaucratic technologies for surveillance or incarceration; technologies of pacification or distraction; infrastructural power and technologies of place-making; the sociopolitical forces behind incentives for innovation or conservatism.

References

Benjamin, R. 2019. *Captivating Technology: Race, Carceral Technoscience and Liberatory Imagination in Everyday Life*, Duke.

Carter, T. 2007. "The Theatrics of Technology: Consuming Obsidian in the Early Cycladic Burial Arena," *Archeological Papers of the American Anthropological Association* 17.1: 88–107.

Cavanagh, W. and C. Mee. 1999. "Building the Treasury of Atreus," in P. Betancourt, V. Karageorghis, R. Laffineur, and W.-D. Niemeier, eds., *Meletemata: Studies in Aegean Archaeology Presented to Malcolm H. Wiener*, Liège, 93–102.

Smith, A. 2015. *The Political Machine: Assembling Sovereignty in the Bronze Age Caucasus*, Princeton.

Swenson, E. and J. Warner. 2012. "Crucibles of Power: Forging copper and forging subjects at the Moche ceremonial center of Huaca Colorada, Peru," *Journal of Anthropological Archaeology* 31: 314–333.

Thomason, A. 2004. "From Sennacherib's Bronzes to Taharqa's Feet: Conceptions of the Material World at Ninevah," *Iraq* 66: 151–163.

Warnier, J.-P. 2007. *The Pot-King: The Body and Technologies of Power*, Leiden.

SCHEDULE

FRIDAY, APRIL 8

WELCOME & INTRODUCTION
10:45 - 11:00 AM ET / 3:45 - 4:00 PM GMT / 7:45 - 8:00 AM PT

FLASH TALKS / DISCUSSION
11:00 AM - 2:00 PM ET / 4:00 - 7:00 PM GMT / 8:00 - 11:00 AM PT

Each speaker will briefly address the theme of the conference and stake out a position on technological innovation: is it a primarily positive force that pushes humanity forward or a primarily oppressive tool that is necessarily involved with power relations?

VIRTUAL SOCIAL HOUR
2:00 - 3:00 PM ET / 7:00 - 8:00 PM GMT / 11:00 AM - 12:00 PM PT

SATURDAY, APRIL 9

PANEL PAPERS: TECHNOLOGICAL INVENTION AND CREATIVITY
10:00 - 11:25 AM ET / 3:00 - 4:25 PM GMT / 7:00 - 8:25 AM PT

FREEING THE "CAPTIVES OF THE CAUCASUS": GOLDWORK AND THE DYNAMICS OF TECHNOLOGICAL REJECTION
Nathaniel L. Erb-Satullo, *Cranfield University*

THE CAPTIVATING RHYTHM OF MONUMENTS. TECHNIQUES OF CONSTRUCTION AND SPACES OF REPRESENTATION IN EARLY LEVANTINE NEOLITHIC
Rémi Hadad, *University College London*

CROSS-TECHNOLOGICAL INTERACTIONS: THE ACCIDENTAL DISCOVERY OF CERAMIC GLAZES AS BY-PRODUCT OF COPPER SMELTING?
Moujan Matin, *University of Toronto*

DISCUSSION
11:25 - 11:45 AM ET / 4:25 - 4:45 PM GMT / 8:25 - 8:45 AM PT

LUNCH BREAK
11:45 AM - 12:15 PM ET / 4:45 - 5:15 PM GMT / 9:45 - 10:15 AM PT

SCHEDULE

PANEL PAPERS: TECHNOLOGY AS A SOURCE OF CAPTIVATING WONDER
12:15 - 1:40 PM ET / 5:15 - 6:40 PM GMT /10:15 - 11:40 AM PT

FORTHCOMING
Ludovic Coupaye, *University College London*

MOLDING COMMUNITY: AN ANALYSIS OF THE STRATEGIC ARCHITECTURAL TECHNIQUES OF THE POSTCLASSIC LEADERS OF XALTOCAN, MEXICO
Kirby Farah, *Gettysburg College*

MEDIA TECHNOLOGIES AS SPECTACLES OF VIOLENCE: FROM THE PRE-COLUMBIAN MAYA TO THE CONTEMPORARY MOMENT
Christina T. Halperin, *Université de Montréal*

DISCUSSION
1:40 - 2:00 PM ET / 6:40 - 7:00 PM GMT / 11:40 AM - 12:00 PM PT

COFFEE BREAK
2:00 - 2:15 PM ET / 7:00 - 7:15 PM GMT / 12:00 - 12:15 PM PT

PANEL PAPERS: TECHNOLOGIES OF CAPTIVATION AND POWER
2:15 - 3:40 PM ET / 7:00 - 8:40 PM GMT / 12:00 - 1:40 PM PT

IMPERIAL CAPTIVATION: SEALS, COINS AND POWER IN THE ACHAEMENID EMPIRE
Henry Colburn, *New York University & The Cooper Union*

SLAVING IN STONE: INSCRIPTIONS AS INSTRUMENTS OF CONTROL IN 1ST CENTURY CE DELPHI
Katharine Huemoeller, *University of British Columbia*

DISCRIMINATORY DESIGN IN AGRO-TECHNOLOGIES: A NEO-ASSYRIAN CASE STUDY
Melissa Rosenzweig, *Northwestern University*

DISCUSSION
3:40 - 4:00 PM ET / 8:40 - 9:00 PM GMT / 1:40 - 2:00 PM PT

FINAL DISCUSSION
4:00 - 5:00 PM ET / 9:00 - 10:00 PM GMT / 2:00 - 3:00 PM PT

ABSTRACTS

IMPERIAL CAPTIVATION: SEALS, COINS AND POWER IN THE ACHAEMENID EMPIRE

Henry Colburn, *New York University & The Cooper Union*

This is an examination of two captivating technologies, namely seals and coins, and their role in creating and maintaining power structures in the Achaemenid Persian Empire (ca. 550-330 BCE). Both seals (along with their attendant bureaucracies) and coins are generally regarded by archaeologists as innovations or markers of progress. Yet, as Ruha Benjamin notes, "subjugation, after all, is hardly ever the explicit objective of science and technology," and "technoscience reflects and reproduces social hierarchies, whether wittingly or not." Indeed, both of these technologies were capable of captivation in multiple ways.

Despite their small size, seals (especially cylinder seals) can make elaborate images which require close scrutiny to perceive in their entirety. Seal users can also manipulate how these images are created based on how their roll their seals. At the same time, seals also held people captive as a result of their bureaucratic function. A seal was necessary to participate in the Achaemenid imperial bureaucracy, which extended across the empire from Egypt to Afghanistan and controlled access to roads, resources and information. Like seals, coins are captivating in the sense that their images can motivate careful examination. Coins can also constrain people within systems of exchange when the use of specific coins to the exclusion of other forms of money is mandated by a central authority. Yet unlike seals, coins never reached a pervasive degree of captivation in the empire. Instead, coinage adapted to existing local economic conditions, with the result that people across the empire were free to use whatever form of money they chose, provided it was accepted locally. These differing degrees of captivation attained by seals and coins provides valuable insight onto the nature of power in the Achaemenid Empire.

FORTHCOMING

Ludovic Coupaye, *University College London*

FREEING THE "CAPTIVES OF THE CAUCASUS": GOLDWORK AND THE DYNAMICS OF TECHNOLOGICAL REJECTION

Nathaniel L. Erb-Satullo, *Cranfield University*

The Caucasus was one of the first regions of the world to adopt complex goldworking technologies, with elaborate metalworking dating as far back as the early 4th millennium BC, and direct evidence for hard-rock gold mining dating to the late 4th millennium, the earliest direct evidence of gold mining globally. By the period 2500-1500 BC, the South Caucasus experienced an efflorescence of goldworking. Gold formed a crucial component of elite mortuary display, appearing in massive, richly-furnished kurgans, some exceeding 100 m in diameter and 12 m in height. Gold goblets, necklaces, brooches, and other implements served as key markers of status differentiation in death, and presumably in life, at a time when archaeological indicators of extreme social hierarchy sharply increase.

Yet, the captivation of gold did not endure. In some areas of the South Caucasus, gold artifacts steeply decline in the archaeological record from 1500-800 BC. To explore whether this archaeological pattern is a genuine reflection of ancient practices, refine the spatio-temporal extent of this discontinuity, and test explanatory models, I assembled a database of more than 4500 gold objects dating between 4000 and 500 BC across the South Caucasus (modern day Georgia, Armenia, and Azerbaijan). The data shows that the decrease in gold varies across regions, with the Middle Kura River zone experiencing the most pronounced decreases: by 2 orders of magnitude in terms of absolute numbers of objects or a 98% relative decline from the preceding period. Spatial analysis, when integrated with other archaeological evidence, permits testing of various models of technological discontinuance, such as a loss of access to gold sources, demographic factors like population decline and replacement, and social rejection. The data suggest that social rejection, correlating with a series of broader changes—most notably changing attitudes towards displays of extreme individual social difference—best explains the decrease in gold in the Middle Kura zone. This research has broader implications for how archaeologists identify and explain the understudied phenomenon of technological discontinuance, and challenges preconceived notions about the social conditions in which it occurs.

MOLDING COMMUNITY: AN ANALYSIS OF THE STRATEGIC ARCHITECTURAL TECHNIQUES OF THE POSTCLASSIC LEADERS OF XALTOCAN, MEXICO

Kirby Farah, *Gettysburg College*

A comparative analysis of architectural construction techniques at the Postclassic (AD 900-1521) central Mexican town of Xaltocan suggests that political leaders strategically used building materials to foster local solidarity and project power. Of particular interest in this study is the brief but deeply consequential Middle Postclassic period (AD 1240-1350), which marked the height of Xaltocan's political power and its last decades as an autonomous city-state capital. During this time, Xaltocan's political leaders used locally sourced, accessible, and inexpensive mudbricks to construct a massive platform upon which they would build a multiroomed structure that probably served as the town's tecpan (palace). This choice bound Xaltocan's rulers materially to their constituents, whose more modest houses were also built from mudbricks, and it distinguished them from contemporary regional elites who preferred stone architecture. However, the scale and use of other materials—particularly stucco—also set this structure apart from commoner buildings, and perhaps even obscured the underlying bricks. This paper considers the rationale for these unusual construction choices through the lens of local and regional sociopolitical hierarchies and analyzes them as components of ontological webs that relationally positioned Xaltocan's political leaders and their local constituents.

THE CAPTIVATING RHYTHM OF MONUMENTS. TECHNIQUES OF CONSTRUCTION AND SPACES OF REPRESENTATION IN EARLY LEVANTINE NEOLITHIC

Rémi Hadad, *University College London*

In the archaeological sequence of Levantine late prehistory, the canonical image of itinerant hunter-gatherers settling down in villages to engage in agriculture has long given way to a far more complex and fluctuant series of transformations. Rather than domesticity and subsistence economy, monumentality and the presence of the dead now seem to play the pivotal, if not primordial, role in the establishment of large permanent settlements at the beginning of the Neolithic. Yet, we continue to see this process through the lens of the same reductive, and rather anachronistic, gradual opposition of nomadic and sedentary ways of life. This presentation aims at contextualizing this issue by exploring a more qualitative and material aspect of the shifting modes of dwelling between the Epipalaeolithic Natufian and the Pre-Pottery Neolithic. I will argue that the tension between the early use of stone in architecture and the later spread of earthy materials is an expression of the overlooked temporal dimension of sedentism and its social correlates. While we moderns are willing to see in this phenomenon the triumphalist inscription of enduring, or at least finite, architectural forms into space, it is rather their relative impermanence and fluidity in time that appear to dictate the variability of place-making practices and affect the movement of people throughout the territory. Instead of searching for the reasons of immobility, a better understanding of fluctuations in rhythms can thus shed light on the sociopolitical and representational factors at work behind the emergence of the large early Neolithic settlements.

Vizenor, Gerald. 2008. Aesthetics of Survivance: Literary Theory and Practice. In *Survivance: Narratives of Native Presence*, edited by Gerald Vizenor, pp. 1-24. University of Nebraska Press, Lincoln.

MEDIA TECHNOLOGIES AS SPECTACLES OF VIOLENCE: FROM THE PRE-COLUMBIAN MAYA TO THE CONTEMPORARY MOMENT

Christina T. Halperin, *Université de Montréal*

Media technologies in the Pre-Columbian Americas did not begin as spectacles of violence. Yet in certain regions, such as the Maya area during the Late Preclassic period, visual media in stone, paint, and stucco began to be harnessed to not only reflect historic moments of violent political submission, but to serve as material participants in emotional performances of violence that extended beyond both single events and an individual's human flesh. Such ancient media technologies were indeed captivating – and they continue to be captivating long after their production, informing a cultural imaginary of a particular type of people seemingly distant from Spanish Colonial forces, whose oppressive violence took a different tactic, and seemingly distant from modern media technologies, whose countless images of violence are both quicker to appear and easier to forget. The archaeological record, nonetheless, reminds us that our contemporary engagements with media technology continue to comprise a series of relationships in which we are not innocent bystanders, but are captive participants.

SLAVING IN STONE: INSCRIPTIONS AS INSTRUMENTS OF CONTROL IN 1ST CENTURY CE DELPHI

Katharine Huemoeller, *University of British Columbia*

First century CE visitors to the famous sanctuary of Delphi in Greece walked amidst three centuries of "success stories." From 200 BCE to 100 CE, contracts for the release of more than 1,200 men and women from slavery were inscribed on surfaces throughout the site, from a retaining wall, to a column base, to the steps of the theater (Mulliez 1992). These inscriptions have long been mined for what they can tell us about manumission and freedom in the Greek world (Hopkins 1981, Zelnick Abramowitz 2005, Sosin 2015). But an equally compelling story can be told in the reverse: these inscriptions, while liberatory for the 1,200 individuals named, facilitated the enslavement of many thousands of others.

This paper examines the technology of inscribing on stone as a tool of slaving. Using the Delphic corpus as a case study, I argue that the practice of inscribing manumission contracts served the interests of slavers by falsely representing freedom as attainable and transformational. Through a multimodal analysis of the inscriptions (Mandell and Smoak 2018)—including textual content, material form, and relationship to the site—I show that their overdetermined formality concealed both the restricted availability of freedom for those seeking it and the restricted scope of freedom for those granted it. More generally, this paper makes the case that inscriptions, a particularly pervasive Greco-Roman technology, should be treated as instruments, rather than merely documents, of oppression.

Hopkins, K. 1981. *Conquerors and Slaves*, Cambridge.

Mandell, A. and J.D. Smoak. 2018. "Reading beyond Literacy, Writing beyond Epigraphy: Multimodality and the Monumental Inscriptions at Ekron and Tel Dan," *MAARAV* 22: 79-112.

Mulliez, D. 1992. "Les actes d'affranchissement delphiques," *Cahiers du Centre Gustave Glotz* 3: 31-44.

Sosin, J.D. 2015. "Manumission with Paramone: Conditional Freedom?" *TAPA* 145: 325-81.

Zelnick-Abramovitz, R. 2005. *Not Wholly Free: The Concept of Manumission and the Status of Manumitted Slaves in the Ancient Greek World*, Leiden.

CROSS-TECHNOLOGICAL INTERACTIONS: THE ACCIDENTAL DISCOVERY OF CERAMIC GLAZES AS BY-PRODUCT OF COPPER SMELTING?

Moujan Matin, *University of Toronto*

The Late Chalcolithic and Early Bronze Age (ca. 4500-2000 BC) in Egypt and the Near East was a period of widespread social and technological change. Innovations in pyrotechnological activities – involving transmutation of materials with fire and heat – such as copper smelting, ceramic glaze making, and glass manufacturing in particular, are considered to be among the primary driving forces behind these transformations, characterizing the Bronze Age societies of the Near East as major players in the most fundamental technological innovations in the development of early civilizations. The advent of glaze making in the late fifth to early fourth millennium BC in the form of green-blue vitreous (i.e., glassy) coatings on steatite (commonly known as soapstone/talc) and siliceous stones, such as quartz and quartzite, marked a leap forward in the development of ceramic technology and provided the basis for later inventions, such as glass.
This paper grapples with the question: how were the first ceramic glazes discovered or invented? Drawing upon the results of experimental replications and archaeological evidence, the paper explores the possibility that the earliest glazes were produced as by-products of copper-smelting practices during the late Chalcolithic and Early Bronze Age in the Near East and Egypt.

DISCRIMINATORY DESIGN IN AGRO-TECHNOLOGIES: A NEO-ASSYRIAN CASE STUDY

Melissa Rosenzweig, *Northwestern University*

Following the prompts of the organizers of Captivating Technology, this paper utilizes Ruha Benjamin's concept of "discriminatory design" as a heuristic for thinking through the ways in which large-scale, top-down land use schemes exacerbate inequality and extend the reach of state surveillance. In particular, this presentation examines the technologies of Neo-Assyrian agriculture in Upper Mesopotamia in the early first millennium BCE. In recognizing settled agriculture as a (weaponized) tool of Neo-Assyrian imperialism, opportunities unfold to grapple with the legacies of social evolutionary theory and archaeology's fascination with techno-social 'revolutions'; to understand land use practices as political acts; and to appreciate alternative agro-technological futures that hold emancipatory promise.


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