

RESTLESS INQUIRIES



NEUBAUER
COLLEGIUM
FOR CULTURE AND SOCIETY

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The Neubauer Collegium for Culture and Society offers a new approach to humanistic and social scientific research. The world we inhabit has never before been so dramatically shaped and altered by our own activity. But how are we to understand—and perhaps change—our world-making and world-destroying activities? The difficulty lies not only in the staggering complexity of the problems, but also in a peculiar but crucial aspect of our lives. If we are to understand ourselves adequately, we must do so, at least in part, in terms of our own understandings. The entire world we inhabit—our cultural and political institutions as well as the natural environment—is shaped by human thought. So, for example, if we want better to understand the possibilities for freedom, we need the most exacting studies we can devise for measuring income inequality, outcomes of early education, the impact of affordable health care, the availability of meaningful employment, the formation of social structures in which people feel safe, the electoral systems that honor people's choices, the challenges of technology and data-gathering, the psychological, social, and economic pressures that tend us toward bigotry and oppression, and so on; but we also need to understand what freedom *means*, what freedom has meant to us throughout the ages and, perhaps, what freedom should come to mean. The possibilities for freedom are inevitably tied to our conceptions of what freedom might be. This we can learn from poems and paintings, plays and novels, histories and memoirs, philosophy and ethics.

If we are to find ways to flourish—and to allow nature to flourish—in this age, we need more than vibrant thinking in the humanities and social sciences. We need to find new ways *to integrate* these remarkable modes of inquiry—so that the most rigorous search for new evidence is of a piece with the deepest exploration of our values and commitments. The Neubauer Collegium is committed to the idea that working together we can come to better understand ourselves and the world. Some of those understandings will be for their own sake. Surely, one of the triumphs of the human spirit is to understand; another is to create beauty. But other discoveries will be for the sake of addressing the many challenges that confront us. The aim is to use thinking and planning and creativity to make the world a better place.

Collaborations are ever more necessary because the issues that confront us require approaches from many perspectives. We need to develop research methods that may lead to the emergence of new areas of inquiry. Unique among research institutions, the Neubauer Collegium aims to integrate humanistic thinking into even the most advanced quantitative research. By taking the broad range of our thinking into account and facilitating constructive conversations, we can begin to rethink our possibilities. The Neubauer Collegium is above all an aid to the human imagination through collaborative conversations.

In its first five years, the Neubauer Collegium pursued its mission through four major initiatives. First, we supported collaborative research projects that brought together faculty from all areas of the University, as well as scholars, artists, curators, policymakers, tribal elders of

“Collaborations are ever more necessary because the issues that confront us require approaches from many perspectives.”

indigenous peoples, diplomats, and politicians from around the world. We have thus sponsored eighty collaborative research projects with 142 University of Chicago faculty. Second, our Visiting Fellows program has brought fifty-three thinkers to campus to join in the research projects, as well as to participate more broadly in the life of the University. These visits regularly establish contacts between the University and the home institutions and countries of our Visiting Fellows. Third, our exhibitions program supports our belief that artistic expression and aesthetic understanding need to be integrated into path-breaking research. The gallery hosts exhibitions that open up new ways of thinking about art, the human, the world we inhabit, justice, and beauty. Finally, through the Roman Family Director’s Lecture series we have brought major thinkers to campus to speak publicly on the most important challenges we face. Although only in our fifth year, the Neubauer Collegium is already a recognized center of excellence at the University of Chicago.

The next five years are crucial. The Neubauer Collegium needs to maintain its standards of excellence and enhance its current programs, but it also needs to develop in three new directions. First, there ought to be a Global Solutions initiative. Our research programs draw on the imagination and ingenuity of University faculty to devise research topics as well as methods. This has been enormously successful. In addition the Neubauer Collegium ought to isolate a pressing world-historical problem and invite applications from faculty and researchers around the world to form a research team to solve it. For example: How should democracies respond to contemporary challenges to their very existence? The Neubauer Collegium would support the proposal that had the most promise to make a real difference. In this way, the Neubauer Collegium could contribute to the University’s overall mission to make lasting global contributions through the finest research available. Second, the Neubauer Collegium needs to establish a robust Global Visiting Fellows program. In the first five years we have relied on visitors who have sabbatical funding from their home institutions or countries and on visitors from the University’s global centers. To achieve a truly global reach, we must be able to invite researchers, thinkers, policymakers, and artists from all over the world—especially from economically developing regions such as Africa, South America, South Asia, and the Southern Pacific—who do not have funds to support themselves on such a visit. Third, the Neubauer Collegium needs to launch a Next Generation program. We ought to invite interested undergraduates and graduate students to join the path-breaking research in which the Neubauer Collegium projects are already engaged. This requires building the infrastructure so that students can genuinely be integrated into the research, but it is an important investment in the future of thinking and research.

So, these are our projects and our goals. This book, *Restless Inquiries*, aims to give you a glimpse of what the Neubauer Collegium does.

—JONATHAN LEAR, ROMAN FAMILY DIRECTOR

FRESH PERSPECTIVES



These projects apply emerging methodologies or apply familiar methodologies in unfamiliar contexts.

CINEMATRICS ACROSS BOUNDARIES: A COLLABORATIVE STUDY OF MONTAGE

2013–
2015

Research Team

Michael Baxter[†], Emeritus
Professor of Statistical Archae-
ology, School of Science
and Technology, Nottingham
Trent University, 2013–2014
Neubauer Collegium Visiting
Fellow

Daria Khitrova, Assistant
Professor, Department of Slavic
Languages and Literatures,
Harvard University, 2013–2014
Neubauer Collegium Visiting
Fellow

Yuri Tsvian, William Colvin
Professor, Departments of Art
History, Slavic Languages
and Literatures, Comparative
Literature, Cinema and Media
Studies, and the College

It was only with the 2005 launch of the digital tool Cinemetrics that scholars began to realize the potential of a new approach to film studies made possible through the analysis of rate changes within films. Conceived by Yuri Tsvian and housed at the University of Chicago, Cinemetrics is an open-access, interactive website that collects, stores, and processes data about film editing. It has already emerged as an important forum for the world's leading film scholars, enabling them to share data and ideas about the statistical analysis of cinema.

Scholars interested in the history and aesthetics of film editing have been analyzing average shot lengths for many years. By dividing the total running time of a film by the total number of shots, they have gleaned useful information about the impact of new film technologies, the evolution of directors' styles, the range of experimentation across geographies and historical periods, and more. But average shot length reveals nothing about a film's internal dynamics. This is where the project's collaboration among specialists in film, movement, and statistical technologies has broken new ground, positioning film as a key narrative form for the twentieth and twenty-first centuries.

The project began by bringing two Visiting Fellows to campus to collaborate with Tsvian. Daria Khitrova brought the perspective from other similarly meter-driven arts—music, poetry, and dance—to discussion of film, thinking through with Tsvian the shared features of narrative structure and editing techniques and their implications. Michael Baxter, a statistician and quantitative archaeologist, applied

statistical methods to early cinema masters D. W. Griffith, Mack Sennett, and Charlie Chaplin. In this way the project added a critical analytical tool for understanding film's unique capacity to capture qualities of meter and motion, and reveal the editorial choices that shaped film's early narratives.

Tsvian, Khitrova, and Baxter coordinated closely as their research progressed, comparing discipline-specific methods and results. This collaboration has borne fruit in multiple forms that continue to progress, including work on a co-authored book. An early conference organized by project leaders historicized the idea behind quantitative measures of film. As part of the project's goal to share broadly its findings it held a capstone conference in Chicago, bringing together fifteen international leaders for the first-ever international conference of Cinemetrics scholars. (Supplementary support was provided by the Film Studies Center, the Cinema and Media Studies program, and the Franke Institute for the Humanities.) Conference participants included the world's most expert Cinemetrics users. Renowned film editor Sandra Adair described in her keynote address the unique continuity challenges she faced while editing twelve continuous years of footage for the critically acclaimed film *Boyhood* (2014), then recently released. Adair's participation at this key event in the project not only brought together the worlds of scholarship and artistic practice; she also shared her insights with the next generation of film experts. As part of her master class for undergraduates Adair demonstrated the value of Cinemetrics and other analytical tools that can help young filmmakers improve their editing skills in relation to tempo.

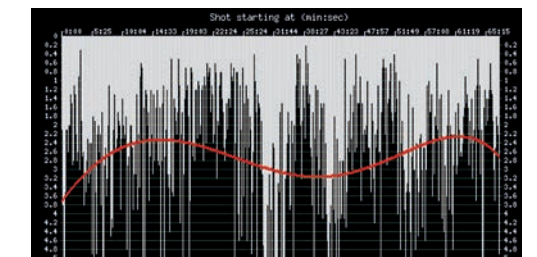
In addition to generating new ideas for the film-making process, the project also explored the role of film in revising our historical understanding of human psychology and the senses. Cornell University psychologist James Cutting gave a talk in which he used Cinemetrics analysis to show how Hollywood films have evolved to align better with human perception and cognition. Cutting looked at factors like motion, cutting rate, and color contrast—all of which correlate with increased attention and all of which, according to his research, have increased in popular movies over time.

In the process of examining film editing and its measure from the larger perspective of human history, the Cinemetrics project formed a new community of inquiry. The project brought together for the first time a large and growing international cohort of scholars and practitioners interested in exploring how this analytical tool can lead to a new understanding of film's relationship to social change. As the impact of the project's multiple intensive partnerships continues to unfold, we expect to see the emergence of new practices in filmmaking, and deeper understanding of the ways film reflects and shapes the processes of the human mind.

Images: Stills from *Battleship Potemkin* (1925). Bottom: Cinemetrics analysis of *Battleship Potemkin*.



The project's collaboration among specialists in film, movement, and statistical technologies has broken new ground, positioning film as a key narrative form for the twentieth and twenty-first centuries.



ECONOMIC ANALYSIS OF ANCIENT TRADE:

THE CASE OF THE OLD ASSYRIAN MERCHANTS OF THE NINETEENTH CENTURY BCE

2015–
2018

Research Team

Gojko Barjamovic, Senior Lecturer on Assyriology, Harvard University

Alain Bresson, Robert O. Anderson Distinguished Service Professor, Departments of Classics and History

Thomas Chaney, Professor of Economics, Sciences Po, Paris (then Professor of Economics, Toulouse School of Economics)

Kerem Coşar, Associate Professor of Economics, University of Virginia (then Assistant Professor of Economics, Stockholm School of Economics)

Thomas Hertel, Associate Professor of Assyriology, University of Copenhagen

Ali Hortaçsu, Ralph and Mary Otis Isham Professor, Department of Economics and the College

David Schloen, Professor of Near Eastern Archaeology, Oriental Institute and Department of Near Eastern Languages and Civilizations

Gil Stein, Professor of Near Eastern Archaeology, Oriental Institute and Department of Near Eastern Languages and Civilizations (then Director, Oriental Institute)

Edward Stratford, Assistant Professor of History, Brigham Young University

François Velde, Senior Economist and Research Advisor, Federal Reserve Bank of Chicago

For over 100 years, economists at the University of Chicago worked in close proximity to archaeologists and ancient historians, but they rarely worked together. That has started to change with the Economic Analysis of Ancient Trade project.

The first step toward this collaboration took the form of a two-year working group on comparative economics at the Neubauer Collegium. Researchers from the Booth School of Business and the Departments of Classics, History, Sociology, Economics, and Near Eastern Languages and Civilizations found common ground by considering how modern concepts of the managerial firm and bound labor might apply to the investigation of ancient markets. An important highlight from that project was a discussion with the economic historian Avner Greif, who shared insights he gained using Transaction Cost Theory and game theory to compare the dynamics of medieval trade in Muslim North Africa and Europe.

The Economic Analysis of Ancient Trade project builds on the ideas and close intellectual relationships that the working group forged. The project brings the tools and methods of economics together with the textual and area expertise of historians working on the ancient world to deepen our understanding of the Old Assyrian trading system of the nineteenth century BCE, the earliest documented case of profit-oriented long-distance trade conducted by mercantile entrepreneurs. The researchers focused on a large body of cuneiform tablets that detail long-distance trade along caravan routes that spanned northern Iraq and central Turkey, connecting ancient Assyria and Cappadocia.

Scholars have long debated whether this kind of entrepreneurial, profit-oriented trade was the norm or an exception in ancient times. The Economic Analysis of Ancient Trade project was the first attempt to use a comprehensive, interdisciplinary set of ideas and methods to study the actual mechanisms and dynamics of the trade process. Members of the research team extracted new information from texts and tested the soundness of theoretically derived market models by applying techniques from economic anthropology, New Institutional Economics, game theory, and network analysis. The project developed a collaborative methodology that allows specialists in the ancient world to ask new questions of their evidence. It also offers mathematically oriented economists an empirical testing ground to gauge the veracity of their working models.

The project brought together an unusual mix of scholars in an inaugural workshop to think through the problem of how the various economic models could speak to each other. The project staff then built the evidence base by digitizing thousands of Old Assyrian cuneiform texts using OCHRE, an innovative computational platform developed at the University of Chicago. OCHRE makes possible complex analyses of information from ancient sources, which are then aggregated for statistical analysis that is shaped by specific research questions. Software specialists continually tweaked and improved the methods to strengthen the analysis. Data specialists shared early results with researchers, working together to identify any problems with the approach. Economists presented preliminary research findings to experts on the region and period, and they received valuable feedback.



Knowledge generated in relation to trade that occurred thousands of years ago may help improve the economic policies of the twenty-first century.

These early encounters confirmed the need for continuous software innovations throughout the digitization process. The end result was a refined technique that served the team well and will benefit other researchers on later projects. At the same time, the core group of economists integrated the new data into their ongoing analyses of these ancient markets and continued to present their findings to other economists. Kerem Coşar was able to infer the location of ancient cities otherwise lost from the historical record by using a structural gravitational model of trade—a powerful example of the value of this sort of complex interdisciplinary approach.

This example of “lost cities found” is an early indicator of how important the project may turn out to be. The model Coşar used revealed important information about the economic landscapes of the Bronze Age—where people chose to live, what they produced, and how they traded. But it also has immediate relevance to economists and policymakers, who analyze the same processes to shape policy. The models developed and refined through the Economic Analysis of Ancient Trade project did not merely improve our understanding of the drivers and mechanisms that governed Old Assyrian trade—though that is, in itself, an important result. Using the past to improve the efficacy of economic modeling for the present, the project presents an opportunity for direct positive impact. Knowledge generated in relation to trade that occurred thousands of years ago may help improve the economic policies of the twenty-first century.

Image: Map of Anatolia, circa 1880 BC (cartography by Ivan d'Hostingue and Gojko Barjamovic, in Gojko Barjamovic, *A Historical Geography of Anatolia in the Old Assyrian Colony Period* (Copenhagen: Museum Tusulanum Press, 2011).

CRITICAL COMPUTATION: MACHINE LEARNING AND QUESTIONS OF QUALITY IN ART AND DESIGN

2016–
2019

Research Team

Sean Keller, Associate Professor, Director of History and Theory at Illinois Institute of Technology

Jason Salavon, Associate Professor, Department of Visual Arts

Can a computer be programmed to make and appreciate great art? This is the question at the heart of the Critical Computation project, which is investigating the creative potential and theoretical implications of machine-generated visual art and design. The project is among the first significant scholarly efforts to explore the use of machine learning for the creation and evaluation of cultural artifacts.

Computer scientists are now able to harness sophisticated algorithmic methods to identify common features across huge databases and then apply that learning in new contexts. Machines with the capacity to “learn” are reshaping our society in fundamental ways. New applications have improved medical diagnosis, demographic targeting, fraud detection, and financial analysis. Artists and designers are also experimenting with machine learning, though the humanistic questions posed remain largely unaddressed. What aesthetic possibilities are created through this new technology? How is machine learning itself shaped by the software engineers’ value judgments? Crucially, can machine-learning methods be adapted to incorporate traditional notions of quality?

Working with a team of undergraduate and graduate students, postdoctoral fellows, faculty, and staff, Jason Salavon has transformed his studio into a laboratory environment combining art production, computer science, applied mathematics, and philosophical inquiry. In its first year, the group conducted more than 500 experiments to test artificial intelligence capabilities with regard to still images and video. Early in their experimentation they focused on “deep learning”: machine learning that

uses large-scale neural networks to solve a wide range of otherwise intractable problems. Interest in deep learning is now spreading throughout the world, and the Critical Computation project’s early progress has placed it at the forefront of exploring deep learning’s capabilities in creative imaging and architecture. The researchers also developed ties to top researchers and developers working on computational art-making. And they hosted a private weekly seminar to share and brainstorm ideas, address technical challenges, and present formal papers.

Presentations that were open to the public gave the research team the chance to showcase their work and exchange ideas with audiences interested in artificial intelligence and machine learning. Salavon presented a series of “generative” paintings created by a program that had learned how to reproduce Abstract Expressionist style at the University’s 2016 Innovation Fest. He presented more recent experiments at the 2017 Eyeo Festival, an annual conference for professionals working at the intersection of art, data, and creative technology, and also exhibited ongoing work from the project at NIPS 2017.

In May 2017 the Neubauer Collegium welcomed Zoë Prillinger and Luke Ogrydziak, principals at the pioneering architecture firm OPA, who discussed three projects that applied generative computational methods to the design of residential homes. The University subsequently commissioned OPA to create a temporary architectural installation for the seventy-fifth anniversary of the first controlled nuclear chain reaction. Partially encircling Henry Moore’s *Nuclear Energy* sculpture with black rubber cord, OPA’s *Nuclear Thresholds* used computational modeling of unstable processes to provoke questions about the science, history, and existential realities of the nuclear age.



This project is among the first significant scholarly efforts to explore the use of machine learning for the creation and evaluation of cultural artifacts.

The Critical Computation project has enabled Salavon and a team of researchers and developers to create and launch Genmo, a neural-network-driven visual effects application that re-creates any photo or video using an entirely separate set of images. Genmo replaces standard social media filters with generative effects, bringing AI-powered creativity to mobile phone users around the globe.

“The proliferation of user-generated content and the creative limitations of existing technologies have paved the way for artificial intelligence to rethink the social photo/video creation and sharing experience, allowing for content creators to leverage their idiosyncratic behaviors and augment their visual production,” Salavon said. Genmo won the Winter 2018 UChicago App Challenge and is set to launch in 2018. Post-launch, the technology will begin to learn about users’ content interests and behaviors, and the app’s visual effects will evolve accordingly.

A gallery exhibition exploring the Critical Computation project’s central themes is planned for the 2019 Fall Quarter.

Image: A photo of the Chicago skyline re-created by Genmo.

SUSTAINABLE AGRICULTURE AS A RELATIONAL LEARNING PROCESS

2017–
2019

Research Team

Gary Herrigel, Paul Klapper
Professor in Political Science
and the College, Associate
Faculty in Sociology

Susanne Wengle, Assistant
Professor, Department of
Political Science, University of
Notre Dame, 2017–2018
Neubauer Collegium Visiting
Fellow

What does “sustainability” mean in the context of agriculture? Ask an executive at a large-scale dairy producer, and you will get one answer. Ask the organic cheesemonger at your local farmer’s market, and you will likely get another. Both responses have a point. But then what accounts for the differences? And what can we learn about sustainability from these variations?

This project attempts to gain a deeper understanding of the nature and potential of sustainable agriculture by examining farming methods in five of the world’s top dairy-producing countries: the United States, Germany, Ireland, Switzerland, and New Zealand. The researchers are studying the practices that facilitate or impede learning on sustainable dairy farms, and they are paying close attention to how such practices differ across social and political contexts. The researchers are focusing on case studies in each country because that allows them to compare empirical data on the three “ideal types” of sustainable dairy farms—large-scale corporate-industrial, mid-sized entrepreneurial, and small-scale artisanal. Market segmentation differs in each country, and variations in regulatory standards, community values, technological innovation, and global market integration help account for the divergent strategies that sustainable dairy farms in these markets pursue.

To understand how farms and processors pursue sustainability strategies one needs to understand how the very idea of sustainability can acquire different meanings for different groups—and how the meaning can shift according to social, political, and economic conditions. By categorizing sustainability models and evaluating the practices, the researchers aim to identify a broad range of

possibilities for sustainable agriculture, and thereby advance our understanding of what it means to be “sustainable.” The project is interdisciplinary in nature, as it draws on debates and methodologies in rural sociology, political economy, economics, and anthropology. It is also the first project to use a comparative value chain analysis as a way of deepening our understanding of sustainable agriculture.

A yearlong Visiting Fellowship provided Susanne Wengle the time, space, and resources to pursue this ambitious research agenda with Gary Herrigel. In the first year of the project, the researchers conducted extensive fieldwork in the United States and Europe. Their goal is to conduct interviews with farmers representing all three sectors across the full range of social and political contexts. Conversations with large industrial processors in California, Massachusetts, Wisconsin, Indiana, and Switzerland; mid-sized farms in California, Indiana, and Wisconsin; and several small farms in California, Illinois, Wisconsin, Germany, and Switzerland have already yielded valuable insights.

Early findings reveal expected differences, but also surprising borrowing across strategic and national boundaries. A small Swiss dairy farmer, for example, implemented a pasturing method he learned about from a successful experiment with pasture-based dairy farming among large-scale producers in New Zealand. Several large processors in the U.S. and Switzerland sought to engage their suppliers in ways that both lowered costs and enhanced producer ability to provide decent working conditions with environmentally friendly results. These primarily “commercial” practices resembled value chain governance practices pursued by organic dairy coops considered emblematic of alternative agriculture. Such exchanges have important

implications for how the relational learning process is shaping sustainable farming practices across the sample of countries in the study.

The project’s early findings suggest an intriguing message: Many of the oppositions that characterize contemporary debate about sustainability in food and agricultural production should be softened. Alternative agricultural producers are developing new sustainability techniques by adapting methods developed by their conventional and commercial “rivals.” At the same time, the success of small-scale alternative producers is pressing conventional producers to ratchet up their sustainability efforts. Value conflict here appears, at least in some cases, to be creating possibilities for mutual learning across the industry. The next steps in the project’s research will be to determine the conditions under which such mutual learning is enhanced—and to learn what factors undermine, disrupt, or block learning.

Image: Cow Number 3115, Waitsfield, Vermont, 2012 (© Martin Belan).



The researchers are studying the practices that facilitate learning on sustainable dairy farms in a range of settings.

UNLIKELY PARTNERS



These projects bring together scholars who do not normally collaborate to confront new challenges.

THE PAST FOR SALE:

NEW APPROACHES TO THE STUDY OF ARCHAEOLOGICAL LOOTING AND THE ILLICIT TRAFFICKING OF ANTIQUITIES

2014–
2017

Research Team

Fiona Greenland, Assistant Professor of Sociology, University of Virginia (then Research Director)

Morag Kersel, Associate Professor and Director of the Museum Studies Minor Program, Department of Anthropology, DePaul University, 2015-2017 Neubauer Collegium Visiting Fellow

Lawrence Rothfield, Associate Professor, Departments of English and Comparative Literature

The problem of archaeological looting has long vexed policymakers. But the opacity of the market for illicit antiquities makes it difficult for them to bring looting under control. Even as global demand rises and archaeological sites in war-torn regions are pillaged by terrorist groups, the search for effective policy responses remains hampered by longstanding disagreements. In particular, are legal and illegal market practices mutually dependent or largely unrelated? The Past for Sale project intervened in this debate by bringing together an unprecedented constellation of researchers, policy leaders, museum curators, buyers and sellers of antiquities—including representatives of the major auction houses—and law-enforcement officials. The group worked to assemble the available empirical research in order to formulate realistic solutions for policymakers across the world.

The three-year project focused initially on clarifying the general features of the illicit antiquities market as well as local variations. Highlights included a presentation by DePaul University anthropologist Morag Kersel, who is pioneering the use of aerial drone technology to capture real-time observations of archaeological sites in the Middle East before, during, and after looting. A two-day conference brought together a group of ten leading international scholars to compare case studies on looting networks. A workshop followed at the University's Center in Delhi that focused on the looting of idols from temples and other culturally significant sites in India.



In its second year, the Past for Sale project incorporated input from industry professionals, a rare intervention among scholars working on this issue. The “Dealing with Heritage” conference invited art dealers, collectors, museum directors, and top officials from Christie’s and Sotheby’s to share their views with archaeologists, anthropologists, economists, and legal scholars. Panel discussions on industry perspectives, the legal and regulatory environment, and prospects for policy collaboration sparked heated discussions among participants. The keynote address by Maxwell Anderson, former chair of the Association of Art Museum Directors, reviewed promising approaches to curbing and preventing trafficking. Anderson considered, in particular, the need for transparency, public access, due diligence, and prompt responses to claims of wrongdoing. One outcome of the event was an invitation from the editor of the *International Journal of Cultural Property* to the Past for Sale research team to guest-edit a special issue devoted to research from the project, forthcoming in 2018.



The project incorporated input from industry professionals, a rare intervention among scholars working on this issue.

The project generated new tools to measure illicit markets and new modes of analysis that are scalable and replicable. The concurrent rise of the Islamic State in Iraq and Syria (ISIS) brought archaeological looting to the attention of legislators who had not previously focused on the problem. Addressing the wide variation in estimates of how much ISIS was earning through the sale of looted antiquities, Fiona Greenland convened a group to model the antiquities trade in Iraq and Syria. The resultant MANTIS project, based at the Oriental Institute, used satellite images, archaeological records, and market data to delineate ISIS’s antiquities trade network and estimate the total market value of the objects buried at ISIS-controlled sites. MANTIS research, widely cited in policy circles, served as a corrective to prior estimates and generated a new evidence-based method for determining market values.

The final year of the project focused on synthesizing its conceptual and empirical contributions and articulating new best practices for policymakers. In the spring of 2017, Kersel and Greenland co-curated a Neubauer Collegium gallery exhibition titled *The Past Sold: Case Studies in the Movement of Archaeological Objects*. A multimedia display featuring aerial drone footage, photography, maps, archival documents, and Early Bronze Age pots, the exhibition added new dimension and a visual vocabulary to the research project. The exhibition also introduced the project’s findings to a broader public. The opening reception coincided with a capstone conference that included a keynote address by Richard Kurin, a longstanding government leader currently serving as the Smithsonian Institution’s Distinguished Scholar and Ambassador-at-Large.

Although it is too soon to report on the overall impact on cultural policy, the knowledge generated by the Past for Sale project is circulating broadly in academic journals and beginning to influence discussions in Washington. Larry Rothfield and Kurin are exploring the feasibility of lease programs for museums, an important innovation in dealing with black markets. And the Antiquities Coalition, a major advocacy group, has adopted tax recommendations Rothfield detailed in a briefing paper.

“All in all, the Neubauer support—both financial and logistical—has been spectacularly helpful in permitting us to think bigger and evolve our research agenda more easily than has ever been possible with any group grant I’ve been involved with,” Rothfield said.

Images: A coffee table containing the McCormick Theological Seminary tomb group, included as part of the *Past Sold* exhibition at the Neubauer Collegium (RCH | EKH). Opposite: Looted pot at the Early Bronze Age site of Fifa, Jordan (Austin C. Hill, courtesy of the Landscapes of the Dead project).

THE STATE AS HISTORY AND THEORY

2013–
2014

Research Team

Elisabeth Clemens, William Rainey Harper Professor of Sociology and the College

Bernard Harcourt, Isidor and Seville Sulzbacher Professor of Law, Columbia University (then Chair and Professor of Political Science and the Julius Kreeger Professor of Law & Criminology)

Stephen Sawyer, Professor and Chair, Department of History, The American University of Paris, 2013–2014 Neubauer Collegium Visiting Fellow

James Sparrow, Associate Professor of History and the College

The State as History and Theory project has fostered a collaborative network of scholars advancing a new approach to the study of U.S. democratic power. Bringing together a growing international cohort of historians, sociologists, and political scientists, the project has built on Max Weber's still-trenchant theories of the bureaucratic state to explore the multifaceted relationships between government and civil society. It has also complicated Weber's framework by examining cases of democratic governance and the theoretical issues they raise regarding the putative autonomy of the state.

Project leaders recognized that a new research community could overcome analytic blind spots by creating conversations that were simultaneously multi-disciplinary, comparative, and historically engaged. The effort to create a new research network began informally and progressed to a more formalized series of workshops at which members of the research team and prominent interlocutors read critical texts, exchanged ideas, and tested analyses. Discussions focused on areas where the influence of American state-building is often hidden or overlooked: the philanthropic sector, local communities, post-World War II international commitments, and other areas that historians have tended to disregard or underestimate as factors in governance. Although the project focused on the United States, these conversations were enriched by sustained comparisons with France and its parallel but quite different trajectory of democratic state-building. The ideas that collaborators developed in workshops produced scholarly articles and

longer monographic works. Members continued to develop these ideas in lectures at major research institutions and professional association gatherings. In all these efforts they were at the same time creating a research community, bringing together scholars from what had previously been different areas of inquiry.

Historian Stephen Sawyer, who served as a Visiting Fellow in the 2013–2014 academic year, played a pivotal role in the early efforts of the writing and reading groups. A specialist on French liberal political theory in the nineteenth century, Sawyer brought a transatlantic perspective to the research agenda and helped the project establish a presence in European scholarly networks. The research team organized a major conference on "The Democratic State in Trans-Atlantic Perspective," held at the University's Paris Center in June 2015. Sawyer also convened a conference at the American University of Paris (AUP) in May 2017 that strengthened links between scholars, politicians, and policy experts concerned with the contemporary crisis of democracy in the European Union.

Sawyer helped create and launch, with funding from the Mellon Foundation, the Center for Critical Democratic Studies at the American University of Paris. Among other activities, the Center serves as the institutional home of *The Tocqueville Review*, a bilingual journal on the comparative study of democracy in modern society, which Sawyer edits and to which Sparrow and Clemens contribute as members of the editorial board. The first issue under Sawyer's leadership, which appeared in 2012, was titled "The History of French and American States" and was almost entirely devoted to work produced by the State as History and Theory collaborators.

The project has fostered a collaborative network of scholars advancing a new approach to the study of U.S. democratic power.

A subsequent volume in 2015, "Beyond Stateless Democracy," also prominently featured the History and Theory collaborators and has attracted sustained scholarly attention.

The network of scholars expanded through a fruitful partnership with the Consortium on the History of State and Society (CHOSAS), a multi-year initiative that hosts rotating conferences at the University of Chicago, the AUP, Cambridge University, and the University of Michigan. The inaugural event, organized by Gary Gerstle and Joel Isaac and held at Cambridge in June 2015, explored the role of "states of exception" in American political development, with "exceptions" interpreted broadly to include both suspensions of the rule of law in the face of emergencies and jurisdictional gray zones. Isaac subsequently joined the University of Chicago as a member of the Committee on Social Thought and hosted a follow-up conference on these issues in May 2018, to which Clemens and Sparrow contributed (as they did in the 2015 meeting). The Neubauer Collegium provided funding to support this follow-up conference.

Clemens and Sparrow regrouped to extend their collaborative work through its next phase in the Problem of the Democratic State project (2015–2017). In May 2017 they convened a two-day conference, co-sponsored by CHOSAS, that explored how the "new liberalism" of the American postwar period was supplanted by the "neoliberalism" of the current era. Sparrow, Clemens, Gerstle, Isaac, and others presented original work that interrogated the paradoxical emergence of neoliberalism from a polity that was organized on nearly antithetical principles and politics—and considered possible signs of fracture in the wake of the 2008 financial crisis.

The project has yielded a large list of publications, including articles, books, special issues of academic journals, and edited collections. Notably, the collaboration invigorated and improved the quality of two book projects that were already underway. *Boundaries of the State in U.S. History*, a historical treatise edited by the research team that included an introduction, conclusion, and several chapters written by them, was published by the University of Chicago Press in 2015. *The Many Hands of the State*, a collection of essays theorizing political authority and social control, was released by Cambridge University Press in 2017. More scholarly output is forthcoming as the collaborative team continues to explore democracy and state formation in the United States.

Image: Detail from *Flags II* by Jasper Johns, 1970 (Digital Image © The Museum of Modern Art/Licensed by SCALA/Art Resource, NY).



GAMING ORIENTATION



2016–
2019

Research Team

Heidi Coleman, Director of Undergraduate Studies, Theater and Performance Studies, Founder/Director, Chicago Performance Lab

Patrick Jagoda, Associate Professor, Department of English Language and Literature, Department of Cinema and Media Studies

Kristen Schilt, Associate Professor, Department of Sociology

The Gaming Orientation project transformed the University of Chicago's 2017 college orientation into an immersive, alternate-reality game (ARG) called *The Parasite*. Incoming students were invited to collaborate on nine challenges, each of which helped them get acclimated to campus and prepared for college life. As they banded together in search of clues to solve a central mystery—*Where is the room that a secret society of masked monks seems to be guarding?*—they became acquainted with each other and with key sites on and near campus. Innovative participatory-learning activities throughout the week prompted them to confront questions about their own identity, the identity of others, and presumptions about each. Whether they realized it or not—the game was not announced as a game, intentionally blurring the border between fiction and reality—the students were being primed for valuable lessons about collaboration, leadership, inclusivity, and digital media literacy. They were also helping the research team test the effectiveness of ARGs as tools for twenty-first-century education.

Preliminary research suggests that ARGs and related forms of transmedia storytelling and gameplay can be a useful platform for collaborative learning. Participants report that gameplay improves critical thinking and problem-solving skills and strengthens social bonds. Pervasive games that involve role-playing and a mix of challenges are increasingly common in areas as diverse as business, marketing, education, and personal leisure. But with one exception (an ARG focused on the technical skills that incoming students needed at the University of Southern California's School of Cinematic Arts), large-scale gaming had not been attempted in a higher education environment prior



to this project. Its impact has never before been rigorously studied. *The Parasite* was the first ARG that aimed to shape the culture of a specific university cohort. The Gaming Orientation project will assess whether it succeeded. With more than 600 players online, a robust Facebook following, and live play that included roughly half the incoming class of 1,750 students, it was arguably the largest educational transmedia game ever created.

Designing, preparing, running, and evaluating a production at this scale required collaboration. The project included an interdisciplinary team of scholars with expertise in sociology, new media studies, digital game theory and design, theater and performance, and visual art. The team developed and coordinated plans in close partnership with academic and administrative leaders on campus and solicited contributions from creative professionals and institutions around Chicago. Current students were partners at every stage, from conception to live performance. Kristen Schilt worked with a group of undergraduates to gather ethnographic data on the 2016 orientation, which helped



The research team designed, ran, and evaluated a large-scale alternate-reality game to test its effectiveness as an educational tool.

the team plan for the 2017 event. An interdisciplinary "Big Problems" course, co-taught by Patrick Jagoda and Heidi Coleman in the 2016 Fall Quarter, introduced students to ARG theory and production while helping the research team tailor the game's design for its intended audience.

The process of designing the ARG was regarded as practice-based research, an opportunity to develop, test, refine, and transform concepts about performance, digital media culture, and game-based education. Jagoda, Coleman, and other collaborators have already presented and published several scholarly articles exploring various aspects of *The Parasite* and broader implications for the future of "networked play." The project has also received significant media attention, including a feature in *Wired* magazine that offered a nuanced portrait of *The Parasite* and quoted one first-year student who described it as "the coolest experience of my life."

Research continues as the scholars focus on measuring the game's effectiveness. Immediately after the game, they conducted a series of focus groups with approximately thirty first-year students, including those who did and did not participate. Those discussions are being translated into data and analyzed, and may inform the planning process for a proposed larger-scale ARG in 2019. The study's key indicators of success include improvements in students' co-curricular participation, mental and physical wellbeing, attitudes about diversity, feelings of integration into the University community, and degree attainment, particularly for underrepresented minorities.

If the evidence shows positive results, this innovative approach to student orientation will further establish the University of Chicago as a leader in understanding and addressing issues of diversity and social difference within a community. *The Parasite* may serve as a model for introducing new forms of participation and networked play into higher education curricula.

Images: Students at a Parasite activity (Freddy Tsao). Opposite, from left: Augmented reality play at the Smart Museum (Grace McLeod). Rehearsal at the Logan Center (Jean Lachat).

CRIMES OF PREDICTION

2017–
2019

Research Team

Kathleen Cagney, Professor of Sociology, Director, Population Research Center, NORC

Ishanu Chattopadhyay, Assistant Professor, Department of Medicine

Brett Goldstein, Senior Fellow in Urban Science at the Harris School of Public Policy, Senior Advisor to The Pearson Institute

Harold Pollack, Helen Ross Professor at the School of Social Service Administration, Affiliate Professor in Biological Sciences Collegiate Division and the Department of Public Health Sciences

Forrest Stuart, Assistant Professor of Sociology

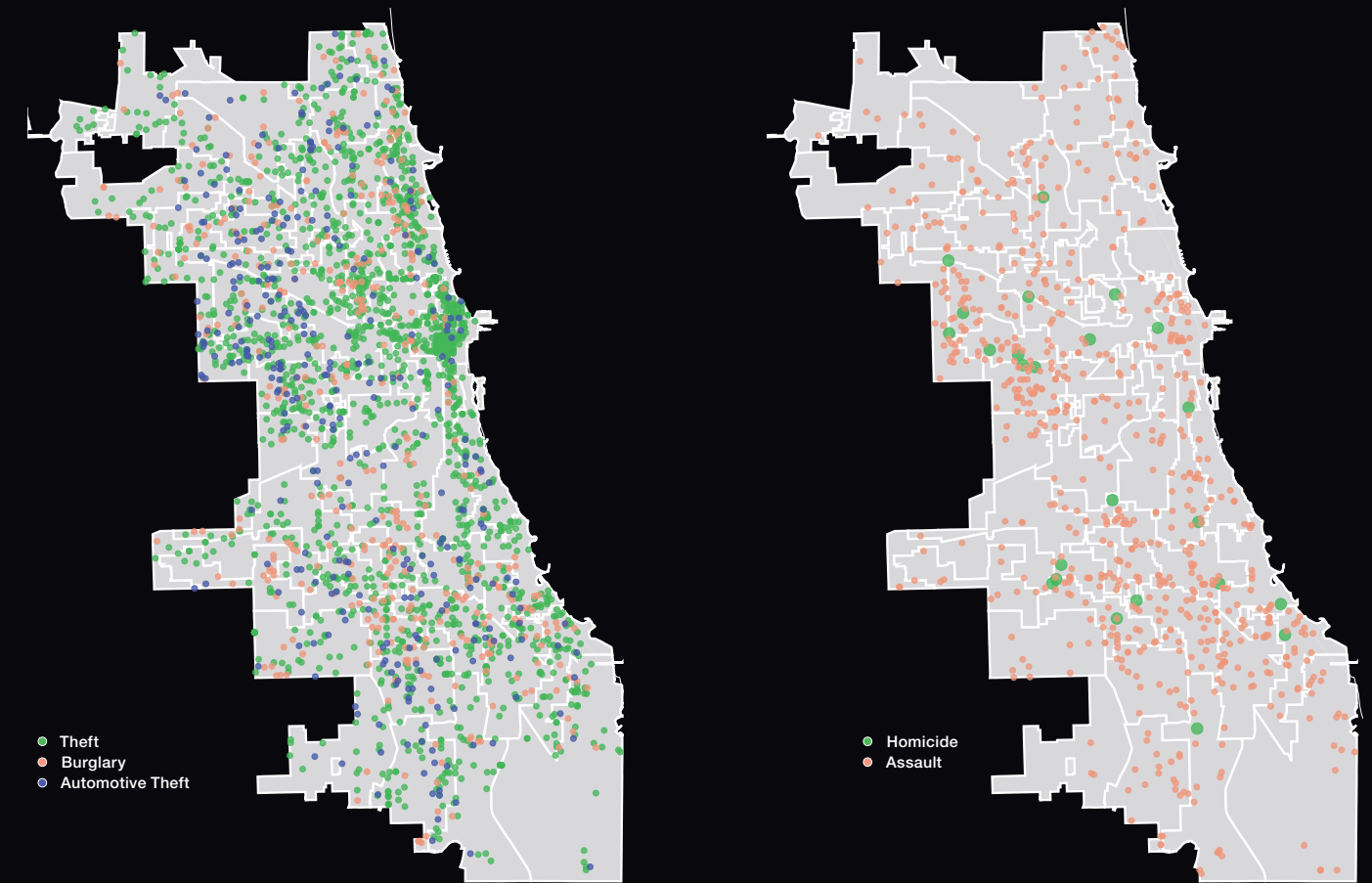
For the first time in human history, the majority of people live in cities. Thus understanding what it means to live in a city has never been more important. At the same time, technology has made more information available than ever before. But what are the social and ethical implications of knowing all that we know about humans and cities? In particular, what social policy decisions should we make when we have a vastly improved ability to predict where a crime is likely to happen?

The Crimes of Prediction project is a unique trans-disciplinary collaboration between big urban data and machine-learning approaches, on the one hand, and urban theorists, analysts, and ethnographers, on the other. The research team is investigating the predictability of criminal infractions, with the aim of dissecting the social and ethical issues accompanying our newfound abilities in the age of big data analytics. The project draws upon the spatio-temporal event logs from the City of Chicago Data Portal, enumerating the location and type of infractions over the past decade. These feed into sophisticated machine-learning algorithms to infer automatically millions of locally predictive models, which then self-assemble into a complex evolving mathematical object predicting future events with unprecedented accuracy.

Three big ideas distinguish this from similar efforts in the past. First, the project's pattern-learning algorithms use no prior domain expertise, and they very nearly eliminate manual tuning and human intervention. This hands-off approach minimizes the possibility of prediction bias, and it enables true pattern discovery. Second, unlike past efforts aimed at "predictive policing," the project focuses

on predicting the behavior of society as a collective organism that creates opportunities for crime, instead of attempting to predict the future actions of isolated individuals. Third, the approach loosens the "diffusion" assumption that prior systems have often held: crimes unfold across contiguous spaces in the self-evident spatial geometry of the city. Crimes of Prediction contends that communication and transportation technology, as well as heterogeneous patterns of habitation and migration, rewire the topology of the city in ways potentially impossible to intuit or render in a two-dimensional raster, but possible to reveal with data. The project aims to discover the degree to which crime unfolds not only across space, but also on a hidden social topology exploited by its models to make accurate event forecasts.

Going beyond predictive ability, inferred generative models allow for the first time a rigorous investigation of the existence of bias in law enforcement outcomes at a level of detail far greater than what is possible with summary statistics. Simple association studies between differences in outcomes with racial and other social groups obfuscate the direction of causality. And the possibility of statistical confounders renders even the existence of a systemic causal mechanism suspect. In contrast, these models are able to mathematically characterize the spatio-temporal event dynamics in the zero-bias scenario, where the dynamics and the corresponding enforcement responses are not modulated by unknown factors. Emergent anomalies then expose enforcement bias as statistically significant differences in responses to similar event evolution. While true causality is impossible to uncover simply from data, the research team aims to formulate an approach capable of identifying aberrations from



Non-violent (left) and violent (right) crimes (15 days in March 2016)

By discovering sources of possible bias in Chicago's criminal enforcement policies, this project opens a conversation on the ethics of predictive analytics.

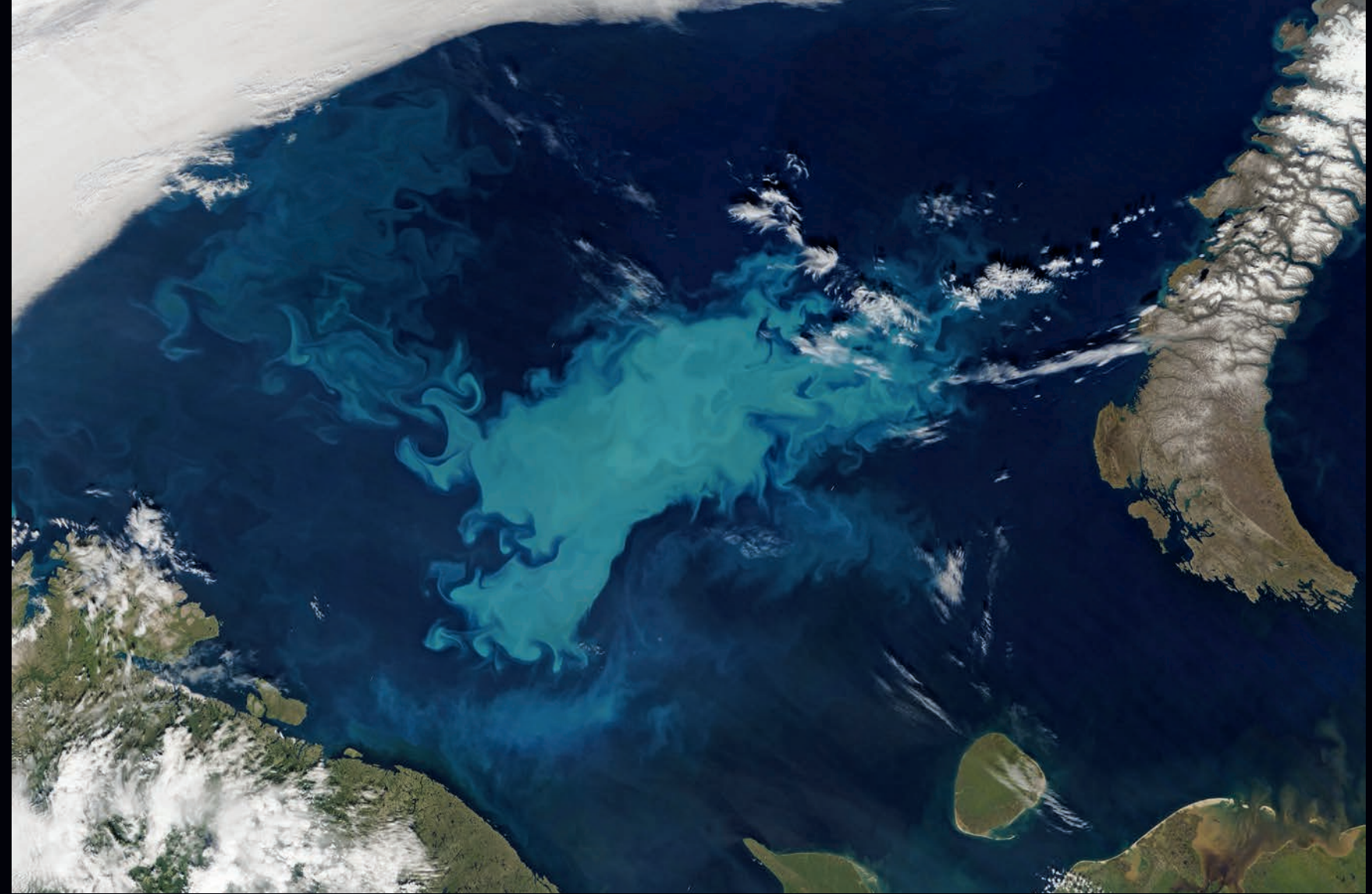
expected enforcement outcomes, identifying the existence and causal direction of hidden mechanisms that might underlie such differences.

Any validated predictability the researchers distill allows for the formulation of optimal intervention and predictive enforcement policies. Law enforcement has already begun to use data mining to inform resource allocation in the City of Chicago. These efforts have had limited success, and they have often garnered vocal allegations of systemic bias and racial profiling. In contrast, the algorithms used for this project operate on public event logs, use open source software, leverage unsupervised learning mechanisms, and attempt to account for a reporting or policing bias—all to minimize injection of personal bias. This potentially lays the foundation for the acceptable use of predictive analytics in law enforcement.

By minimizing modeling errors, illuminating sources of possible biases in enforcement policies via enabling transparent analytics in policing, the project focuses an ongoing conversation on the deeper questions remaining: How does the ability to accurately predict events impact society in the long term, and how does the use of such predictive analytics shape the evolution of urban spaces? The team will continue to tackle these and related questions in a series of quarterly workshops, where they will explore the broad implications of this work and attempt to deal with the overarching and unavoidable societal challenges that confront us at the dawn of the age of large-scale machine inference.

Image: An analysis of crime data from the City of Chicago generated by the Crimes of Prediction research project.

EMERGING FIELDS



These projects take inquiry in new directions and establish contours for new areas of research.

KNOWING AND DOING:

TEXT AND LABOR IN ASIAN HANDWORK

2014–
2016

Research Team

Francesca Bray, Professor Emerita, Anthropology, University of California, Santa Barbara, University of Edinburgh, 2014–2015 Neubauer Collegium Visiting Fellow

Jacob Eyferth, Associate Professor, Modern Chinese History in East Asian Languages and Civilizations, History, and the College

Donald Harper, Centennial Professor, Chinese Studies, Department of East Asian Languages and Civilizations

Annapurna Mamidipudi, Researcher, Technology and Society Studies, Maastricht University, 2015–2016 Neubauer Collegium Visiting Fellow

Lisa Onaga, Assistant Professor, History, Nanyang Technological University, Singapore, 2014–2015 Neubauer Collegium Visiting Fellow

Dagmar Schäfer, Director, Max Planck Institute for the History of Science, 2015–2016 Neubauer Collegium Visiting Fellow

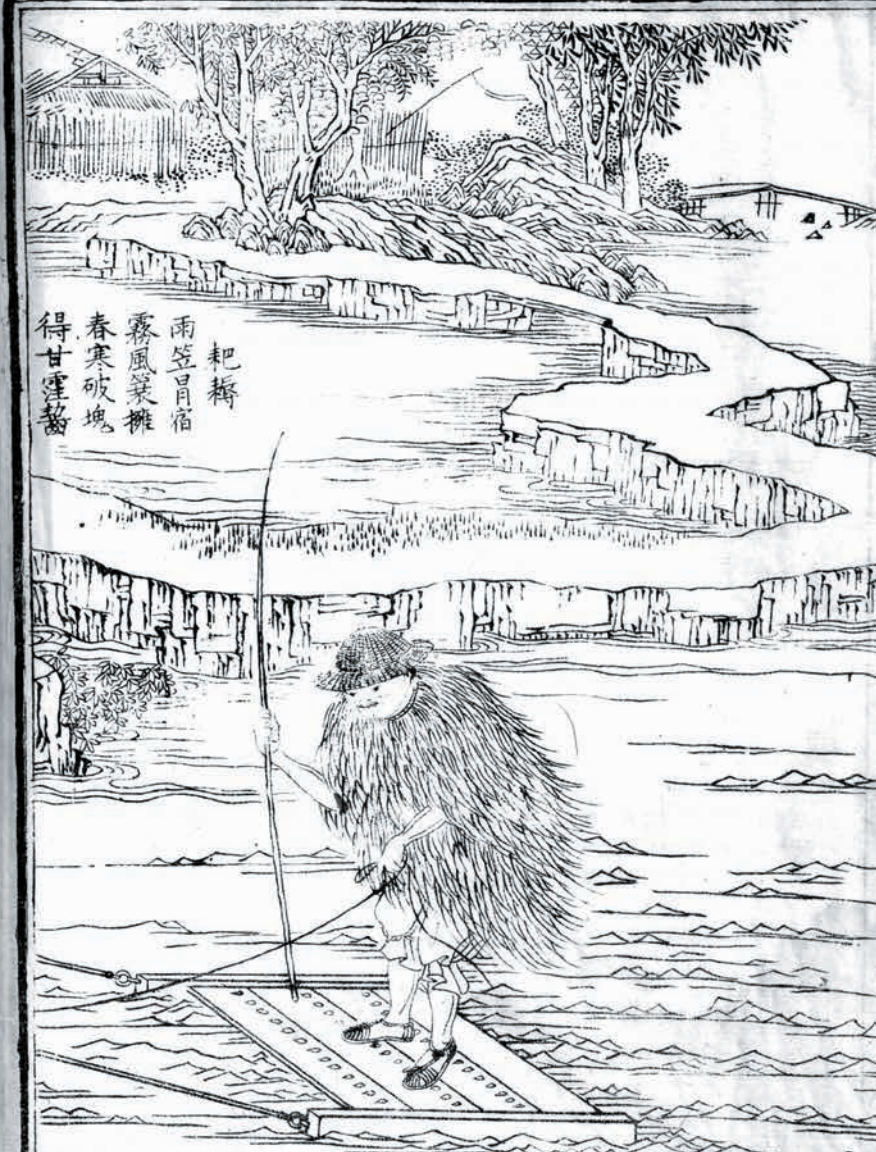
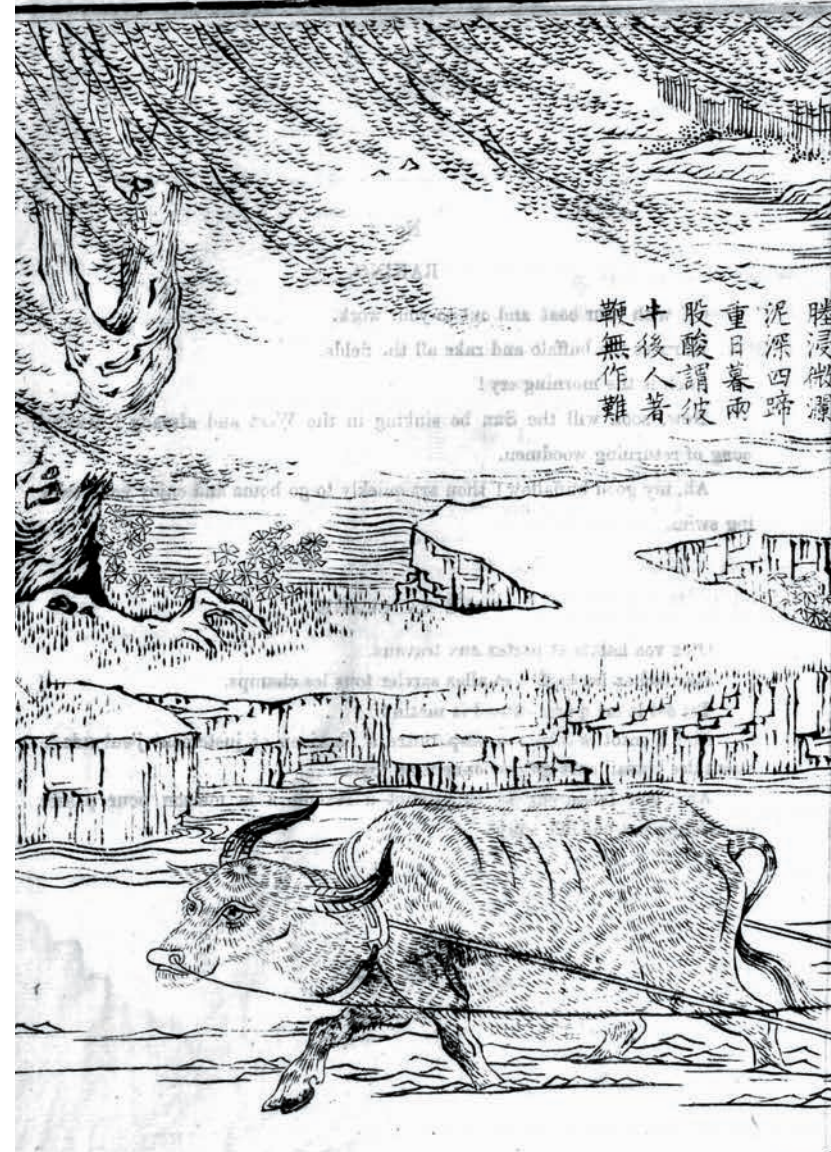
Humans express their creative genius and technical expertise in the ways they organize their agriculture, weave cloths and dress themselves, build walls, and structure their communities. Much of this has occurred without being recorded in writing. The Knowing and Doing project explored the nature and history of these non-written forms of knowledge—farm work, construction, crafts, and skills that produce material objects. The goal was to expand our conception of what might constitute a “text” in order to open up new ways of understanding human endeavors from the past.

The idea for the project grew out of a conversation between Donald Harper, a historian of pre- and early imperial China, and Jacob Eyferth, a social historian of modern China, who realized that they shared deep interest in learning more about Chinese technology “in action.” They turned to Francesca Bray, who is doing path-breaking work on technologies as expressions of complex socio-technical systems. Bray brings together the study of human practices and close analysis of materials into one complex inquiry. This approach is familiar in the European context, but it had not yet been used to improve our understanding of Asian history and culture. The central problem Bray explores is the divide that separates texts (which serve as ways to communicate expert knowledge) and the peoples whose knowledge was being recorded (who seldom wrote or read). Knowing and Doing is part of a movement to correct that elision, and thereby welcome humanity’s myriad creations as texts that can help us reimagine the shape of human history.



The project launched with a workshop on agriculture at which Bray and Lisa Onaga, an expert on modern Japanese science and technology, participated as Visiting Fellows. Early discussions helped identify the core questions and develop a methodology that would guide the project through its later stages. Collaboration among partners was essential, as historians and philologists learned about advances in computer modeling and GIS used by archaeologists and anthropologists, and vice versa. The workshop also unearthed important divides among scholars of East and South Asia, with the former focusing more on texts and the role of the state than the latter.

These conversations continued at a second workshop on manufacturing and a final workshop on transport and construction. As discussions evolved and scholarly contributions accumulated, the project’s scope expanded to encompass textual scholars, historians, anthropologists, and archaeologists working on time periods spanning many centuries



The project expanded our conception of what might constitute a “text” in order to open up new ways of understanding human endeavors from the past.

(from prehistorical to contemporary) and huge regions. Recognizing the need to circumscribe the inquiry, the research team narrowed their geographical scope to China, Japan, and India, with plans to expand later to encompass all Asia.

The project identified key scholars from around the world and brought them to campus for intensive engagement around the core set of research questions. In addition to Bray and Onaga, other Visiting Fellows included Dagmar Schäfer and Annapurna Mamidipudi, who contributed to the workshop on manufacturing; anthropologist Caroline Bodolec attended the final workshop. The Visiting Fellows spent significant time with graduate students interested in their fields, adding an important pedagogical dimension to the project’s research.

The Knowing and Doing project is part of a larger groundswell of interest among scholars, activists, and practitioners globally who recognize the need for better international policies around the issue of local producers. Students engaged with the project were intrigued to explore the policy implications of the project’s work in South and Southeast Asia, where handicrafts and other small-scale local forms of production employ millions of people and generate significant revenues, and yet are perpetually in a state of crisis. Through the workshops, publications, and collaborations among researchers and with the next generation of scholars interested in the topic, this project has laid the foundation for further growth of this emerging field at the University of Chicago. A new area of research on technology as a form of knowledge in Asia is now firmly established at the University, linking it with partners worldwide.

Efforts to foster the growth of ideas developed during the initial two years of seed funding are ongoing. One promising offshoot is a new project at the Max Planck Institute for the History of Science on the technology of weaving and textiles in China and India. Another is an examination of the material artifacts from archaeological excavations in the Chengdu region of China’s Sichuan Province, which will bring together methods from archaeology, the history of science and technology, and related fields needed to understand the diverse materials from those sites.

Images: A Gengzhi tu drawing of spring harrowing. Opposite: A woman at a loom, March 2016.

ENGINEERED WORLDS

2014–
2016

&

2016–
2017

Research Team

Timothy Choy, Associate Professor and Director, Science and Technology Studies, Associate Professor, Anthropology, University of California, Davis

Jake Kosek, Associate Professor and Undergraduate Faculty Advisor for Human Geography, University of California, Berkeley

Joseph Masco, Professor of Anthropology and of the Social Sciences in the College

Michelle Murphy, Professor of History and Women and Gender Studies, University of Toronto

Human beings are making a profound and irreversible impact on the natural world. This happens largely through industrial activity. And while we have sophisticated abilities to track such changes—for example, we can map the effects of carbon pollution—we lack a deep understanding of the social impact of these “engineered ecologies.” What new political, economic, and legal practices would help states and multinational organizations grapple more effectively with toxic exposure and the unequal distribution of ecological risk? The goal of the Engineered Worlds initiative—comprising two related projects—was to create new theoretical frameworks and social science methodologies to address these urgent questions.

Because any rigorous attempt to reconsider the terms of environmental justice requires a range of perspectives, the Engineered Worlds project adopted an interdisciplinary approach. The research team brought together anthropologists, historians, geographers, and environmentalists to work in a collaborative setting on the ways industry is irrevocably altering ecologies and social relations. In a series of seminars, workshops, and conferences, they considered what social policies might adequately address problems of toxicity introduced into the environment. More generally, they wanted to take on the challenge: How should humans deal with their own transformation of the natural world? But, of course, to take on the large issues one needs to study specific problems. The research group studied in detail cultural applications of changing agricultural processes, community organizing in the shadow of Washington State’s Hanford Nuclear Reservation, and metal production at Peru’s national seaport. Researchers considered



various forms of personal identification and collective action in light of the mounting effects of toxicity, financial insecurity, and militarism.

The project included the arts. In the spring of 2015, the research team welcomed two artists for talks co-sponsored by the University’s Arts, Science, and Culture initiative. The internationally renowned landscape photographer Michael Light discussed his work documenting the impacts of mining operations, nuclear weapons tests, and large-scale housing developments in and around Las Vegas, and Columbia University professor of architecture Laura Kurgan explored the use of data visualization as a tool for public education and mobilization on environmental issues.

From the outset, the project self-consciously enlisted the next generation as part of the larger network of scholars working on planetary-scale environmental change. Two collaborative seminars focused on problems of temporality and scale in

the earth sciences. Of particular concern was how to visualize the massive data that establishes environmental harm. With better visualization techniques we will be able to think better about how to address the ensuing social harms. Twelve graduate students have decided to do their research and write their dissertations addressing these issues. Several have been awarded external funding; some have presented their Engineered Worlds research to professional association meetings. These seem to be the beginnings of a new field of research.

Although the impact of this generational investment will come into focus over years, the project has already yielded concrete results. The research team is assembling case studies and co-authoring a series of papers to articulate a new methodology for studying planetary-scale industrial effects. They are also honing a new theory of “toxic violence” that reckons with the unintended consequences of industrial activity in the present and on geological time scale.

The group has also made a course on the Anthropocene widely available by circulating a syllabus, crucial texts, and topics for discussion. The challenges that this research team took up—environmental justice and the political challenges of climate change—are being studied by other concerned groups around the world, and a significant number of them are drawing on the work of the Engineered Worlds team.

Images: Departure shot of Pluto’s receding crescent from NASA’s New Horizons spacecraft (NASA/Johns Hopkins University Applied Physics Laboratory/Southwest Research Institute). Opposite: Michael Light, *Barney’s Canyon Gold Mine, Near Bingham Canyon, Looking South, UT, 2006* (© Michael Light).

The research team took on the challenge: How should humans deal with their own transformation of the natural world?

IMPERIAL INTERSTICES: AGENTS OF EURASIAN INTERACTION IN LATE ANTIQUITY

2016–
2017

Research Team

Clifford Ando, David B. and Clara E. Stern Professor of Humanities and Professor of Classics, History, Law and in the College

Paul Copp, Associate Professor in Chinese Religion and Thought, East Asian Languages and Civilizations

Whitney Cox, Associate Professor, South Asian Languages and Civilizations

Richard Payne, Associate Professor of Near Eastern Languages and Civilizations

When we look at maps of the premodern world we see centralized empires divided by bold lines. In fact, we are learning that the boundaries between empires were more often vibrant and fluid zones for intense production and exchange. This is particularly so for the less studied areas of contact between the East and West—the Central Asian steppes, the ports of the Indian Ocean, the mountain passes in the Caucasus and Hindu Kush.

The Imperial Interstices project aimed to advance the nascent field of premodern global history by convening discussions among archaeologists, philologists, and premodern historians who specialize in civilizational spheres on both sides of the Eurasian landmass. A series of three interlinked workshops refocused scholarship on the places *in between* the East and West Asian empires of late antiquity (200–800 CE) rather than on the empires themselves. Through careful analysis of these interstitial societies, the project upended traditional notions of the Silk Road, which regard the regions as passive highways without relevant civilizations of their own. By investigating premodern interstitial regions as major centers of production, consumption, and influence in their own right—a project that is impossible to pursue within the confines of existing disciplinary fields—the researchers fostered the collaborative work needed to produce an integrated history of Eurasian late antiquity.

This is the right time and place for collaboration on premodern world history. The University of Chicago is an internationally recognized center for important research in Classical, South Asian, East Asian, and Near Eastern studies, and the Oriental Institute is home to premier archaeologists and philologists with expertise in the relevant geographical

areas and time periods. Recent literature on the structural similarities between premodern civilizations has highlighted the need to study the interactions that connected—and, to varying degrees, shaped—these distinct and often distant societies. But scholars working on such questions rarely convene in interdisciplinary settings because their sub-fields require such high degrees of specialization. The Imperial Interstices project created space to facilitate collaboration and sustained engagement among specialists at the University. It also supported visits from outside experts whose insights on material and textual sources are crucial to the study of Eurasian interaction.

The workshops shifted attention away from the Roman, Chinese, Iranian/Islamic, and Indian centers in order to foreground the impact of neglected areas like the Central Eurasian steppes, Indian Ocean ports, and the passes of the Caucasus and Hindu Kush. Discussions focused on the interstitial merchants, political elites, and religious leaders who stimulated social change across Eurasia.



By investigating premodern interstitial regions as major centers of production, consumption, and influence, the research team fostered the collaborative work needed to produce an integrated history of Eurasian late antiquity.

Specialists in each of the categories presented research on their respective bodies of evidence in order to compare activities across Eurasia. Discussants brought the analyses together, identifying intersections and ruptures as a starting point for open-ended discussion.

The formal public presentations were preceded by informal private discussions, which allowed participants to become acquainted and identified areas of common interest and inquiry. These unstructured conversations helped establish a rapport among participants that transcended discipline and career stage, and the shared understanding enabled more focused discussion following the prepared talks. “It helped that the seminars were small,” noted Clifford Ando. “There was no way someone could sit back and listen. The form required sustained conversation among all participants.”

The discussions produced a shared vocabulary and three key canonical questions that will animate research going forward. Who were the actors and intermediaries responsible for transregional trade in late antiquity? To what extent were political regimes in the first millennium shaped by the exotic goods and styles that interstitial and imperial elites adopted? And how did religious institutions, especially monasteries, support transregional mobility and trade?

Recognizing the value of this new area of inquiry, and the need to continue nurturing the collaborative network fostered by the Imperial Interstices project, the Provost’s Office recently launched the Chicago Initiative for Global Late Antiquity. This new effort aims to make the University and its international centers a crossroads for scholars working toward global histories of the first millennium. It will

support conferences, publications, interdisciplinary archaeological projects, and, perhaps most important, training in key skills for graduate students to move beyond the boundaries of their respective fields and disciplines.

Two workshops held in September 2017 at the University’s Center in Paris and at New York University considered new research perspectives on the Iranian world and Western Central Asia in late antiquity. More activities are being planned for the 2018–2019 academic year, and publications are forthcoming.

Images: Fragment of a frieze from the central step of a stair leading up to a Buddhist shrine, from Chatchil-I-Gundi, Hadda, Afghanistan (Erich Lessing /Art Resource, NY). Opposite: A Sogdian mortuary couch.

TEXTUAL OPTICS

2017–
2020

Research Team

Jean-Gabriel Ganascia, Professor of Computer Science, University Paris 6–Pierre and Marie Curie, 2017–2018 Neubauer Collegium Visiting Fellow

Clovis Gladstone, Technical Director and Project Director

Hoyt Long, Associate Professor of Japanese Literature, East Asian Languages and Civilizations

Robert Morrissey, Benjamin Franklin Professor of French Literature, Committee on Interdisciplinary Studies in the Humanities

Marine Riguet, Postdoctoral Researcher, University Paris Sorbonne–Paris 4, 2017–2018 Neubauer Collegium Visiting Fellow

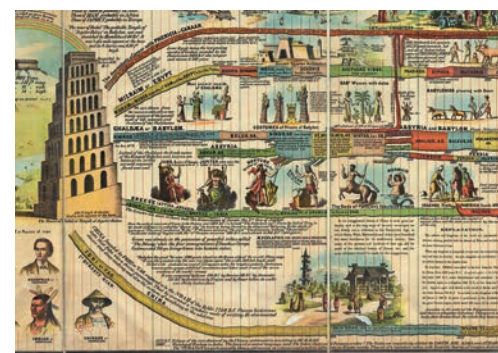
Haun Saussy, University Professor, Department of Comparative Literature and the College

James Sparrow, Associate Professor, Department of History and the College

Zhao Wei, Postdoctoral Fellow, School of Literature, Capital Normal University, Beijing, 2017–2018 Neubauer Collegium Visiting Fellow

With the rise of the digital humanities has come the promise of new methods of exploring literary texts on an unprecedented scale. How does our approach to literature and literary history change when the canon expands to include millions of texts—all of them immediately analyzable by cutting-edge methods? What previously undetectable trends, long-term shifts, and patterns within and across cultures are revealed when we study texts at this scale? Can software help us transcend language barriers to enable a truly global perspective for comparative literature? In recent years a diverse group of scholars at the University have taken up these research questions, exploring the possibilities and challenges that digital technology has introduced to the field of literary studies. The Textual Optics project brings these scholars together in a lab-like environment to consolidate and expand the scope of their work. The goal is to create a permanent home at the University for scholars pioneering this new approach to literary research.

The project centers on the concepts and practices associated with new scalable reading methods, many of which are imported from the sciences and enabled by recent software innovations—everything from data mining and visualization to machine learning and network analysis. The research team is employing a set of tools and interpretive methods that allow them to read textual archives through multiple lenses and scales of analysis, from single words up to millions of volumes. In particular, the project is considering how readers might move between close and distant readings of texts, alternating from a qualitative mode that involves traditional



exegesis to a quantitative mode that involves extracting statistically significant patterns from huge amounts of data.

To date, this shift between modes has not been well understood. The most sophisticated software tools in this area focus more on the distant reading aspect of text analysis, and therefore create a disconnect between the results of the algorithmic processing of texts and the texts themselves. The abstraction afforded by distant reading risks erasing the particularities of cultural and intellectual production that humanists value so greatly. By integrating tools that enable high-level pattern detection in large corpora with more traditional philological methods of text analysis, the research team will develop a system of scalability that allows for both close reading and distant reading within a unified digital workspace. Textual Optics ultimately aims to demonstrate the value and extraordinary potential of literary scholarship at the intersection of computation and humanistic inquiry.



The research team aims to demonstrate the value and extraordinary potential of literary scholarship at the intersection of computation and humanistic inquiry.

The potential of Textual Optics as a method largely depends on three components: a technical infrastructure that can facilitate the movement between distant and close reading; access to a wide range of corpora; and opportunities for scholars to work collaboratively on projects that cross linguistic and cultural domains. During the course of this project, the research team will leverage extensive technical experience in conceiving, developing, implementing, and using high-performance text analysis tools. Participants will produce a set of technical interfaces and models for digital literary study that expand access to this kind of work for humanities scholars and facilitate a critical awareness of where these methods stand in relation to other analytic frameworks. By creating a massive collection of digitized texts spanning multiple cultural and linguistic contexts and developing the tools and methods to extract insights from the data, the Textual Optics Lab will become a global destination for digital humanities scholars.

In its first year, the research team has been expanding an existing digital corpus by indexing into the University's PhiloLogic search engine more than ten collections of texts in Chinese, English, and Japanese. Collaborators are also developing a text-reuse detection tool, which allows them to find reuses and borrowings of passages within large text collections. This helps scholars track intellectual and literary influence between authors within a given time period and from century to century. The group demonstrated the potential of this new tool at the University's Digital Humanities Forum in May 2018, where they solicited feedback from

colleagues and aimed to foster new collaborative partnerships. The team is also strengthening ties with scholars and institutions in China and France through close collaboration with Visiting Fellows Zhao Wei, Jean-Gabriel Ganascia, and Marine Riguet. Plans for a new initiative that will introduce undergraduate students to the concepts, tools, and methods being explored at the Textual Optics Lab are in development.

Images: David Iliiff, *The Long Room of the Old Library at Trinity College Dublin*, 2015 (David Iliiff via Creative Commons). Opposite: Sebastian C. Adams, *Adams' Illustrated Panorama of History*, 1878 (Geographicus Rare Antique Maps via Wikimedia Commons).

RETHINKING POSSIBILITIES



These projects question long-held assumptions in search of new insights.



MATERIAL MATTERS

2013–
2016

Research Team

Bill Brown, Karla Scherer
Distinguished Service
Professor in American Culture,
Senior Advisor to Provost
on Arts

Elka Krajewska, Artist,
President and Founder, Salvage
Art Institute

Christine Mehring, Professor
of Art History and the College and
Chair of the Department of Art
History

Christian Scheidemann,
Senior Conservator and President,
Contemporary Conservation,
2013–2014 Neubauer Collegium
Visiting Fellow

Amanda Trienens, Founder
and Principal Conservator,
Cultural Heritage Conservation

Anna Weiss-Pfau, Campus
and Public Art Collection
and Conservation Manager

Lisa Zaher, Lecturer, Depart-
ment of Art History, Theory and
Criticism, School of the Art
Institute of Chicago; Research
Associate, Department of Art
History

When Christine Mehring first saw Wolf Vostell's *Concrete Traffic* sculpture in 2011, it was, as she later wrote in *Artforum*, “ceding its precarious nature as art.” Commissioned as a “happening” by the Museum of Contemporary Art in January 1970, the concrete-encased 1957 Cadillac was donated to the University in June of that year—and then suffered from decades of weather exposure on a neglected patch of grass before being relocated to a storage facility. Mehring's first encounter with the sculpture raised the questions at the core of the Material Matters research project. How do the changing qualities of materials alter the way humans experience and interpret art? At what point does a work of art cease to be art? Was it too late to conserve *Concrete Traffic*? If not, what form should the conservation take?

“I knew from the very beginning that I could not do this alone,” Mehring said. “It's clear to me that the funding and the imprimatur from the Neubauer Collegium put the proper conservation and return of the sculpture within reach.”

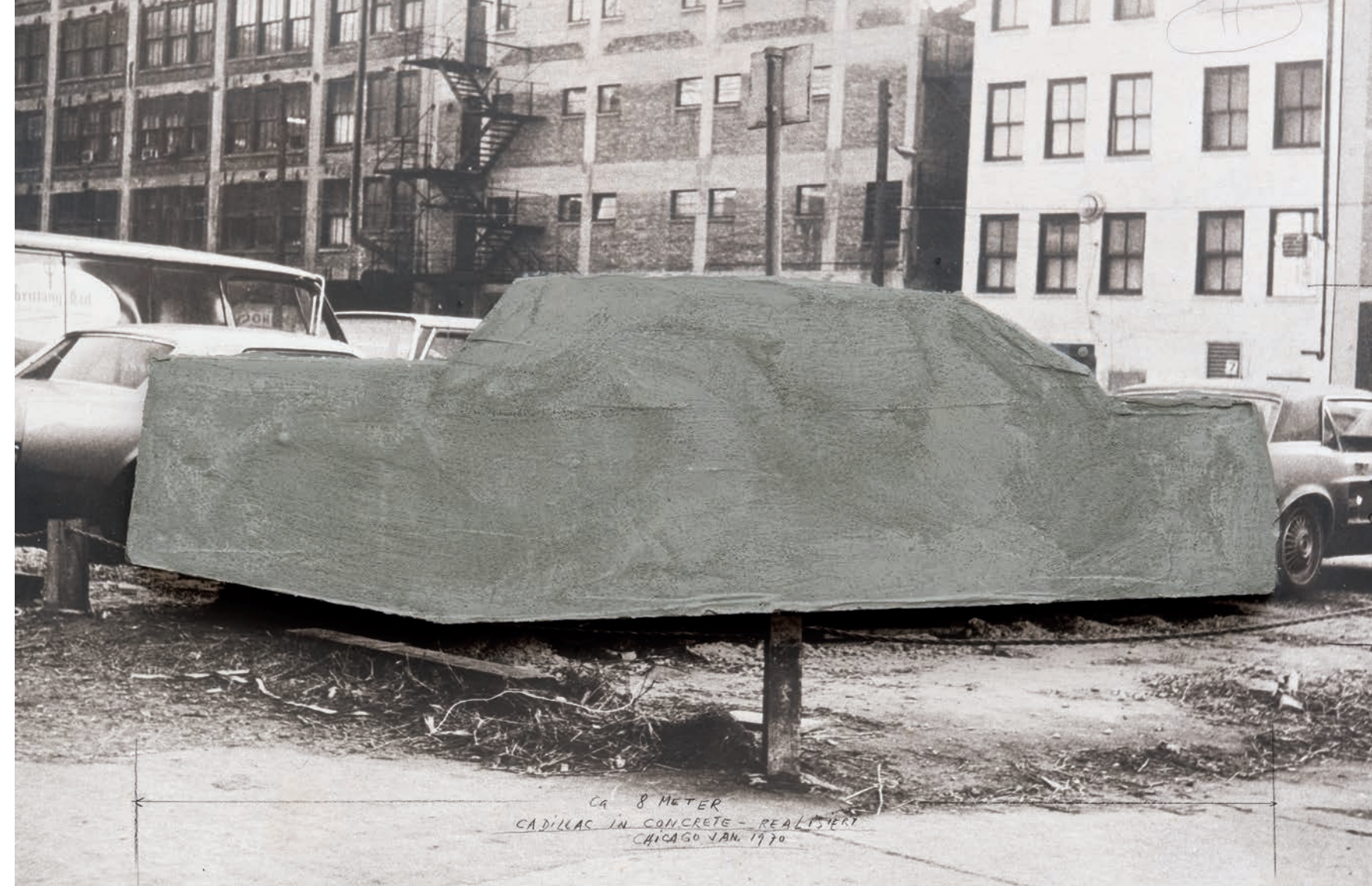
Conserving the work required sustained collaboration among art historians, who studied Vostell's intentions and situated the project within its historical and theoretical contexts, as well as structural engineers and art and technical objects conservators familiar with nontraditional art materials such as concrete and auto parts. A series of workshops and symposia provided the team with the insights and tools necessary to clean and patch the concrete; repair its underside and reinforce the structure without altering its original form; and identify a public site that would align with the artist's vision and protect the work from further deterioration. Discussions linked these practical considerations

to theoretical questions about aesthetic judgment, artistic intention, the ephemerality of performance art, and cultural translation and heritage.

Two exhibitions in the Neubauer Collegium gallery emerged directly from the Material Matters project. *No Longer Art: Salvage Art Institute* inaugurated the exhibitions program in the 2015 Spring Quarter with an exploration of works divested of value by insurance companies following accidental damage. Organized in partnership with Elka Krajewska, founder of the Salvage Art Institute, the show questioned the border between art and non-art, prompting visitors to consider how shifts in materiality affect the meaning, aesthetic experience, and commodification of artworks.

Fantastic Architecture: Vostell, Fluxus, and the Built Environment (Winter 2016) contextualized *Concrete Traffic* in relation to other works by Vostell and his peers in the Fluxus art movement, many of whom shared his interest in disrupting the urban environment through aesthetic experience. Thematically linked to concurrent exhibitions at the Smart Museum and the Special Collections Research Center, *Fantastic Architecture* was part of the University's Concrete Happenings celebration, a nine-month series of performances, film screenings, lectures, workshops, and happenings that brought together academics and members of the public to explore the ways that contemporary art can form and transform its publics.

The Material Matters project galvanized an institutional interest in art conservation at the University. In recognition of the value and material sensitivities of its public art collection, the University has hired a full-time public art curator and a conservation manager for its public art collection.



“If the sciences forge new understanding of materials and the environment at all scales, the arts and humanities can help us grasp the hermeneutic implications and practical applications of that work.”

CHRISTINE MEHRING,
DEPARTMENT CHAIR AND PROFESSOR OF ART HISTORY

The Provost's Office has convened a Public Art Committee to articulate and advance a campus art policy, oversee sitings and re-sitings of public artworks, evaluate acquisitions, and advise on communications and programming strategies. The project has also created new teaching and career development opportunities. *Concrete Traffic* is being taught in the recently revamped College Core class “Introduction to Art.” And two annual, newly developed Suzanne Deal Booth Conservation Seminars introduce students to the methods, theories, and strategies of conservation science. Leaders in the Department of Art History, the Institute for Molecular Engineering, and the Humanities Division have identified investment in the growing field of conservation science as a priority.

“If the sciences forge new understanding of materials and the environment at all scales, the arts and humanities can help us grasp the hermeneutic implications and practical applications of that work,” Mehring said. “Fundamentally interdisciplinary in their reach, conservation and conservation science are quintessentially UChicago fields that forge these very connections.”

Images: Wolf Vostell, *Cadillac in Concrete*, 1970, Part 1 (Collection of Smart Museum of Art, © The Wolf Vostell Estate); *Concrete Traffic* procession to the University of Chicago, September 30, 2016 (Eddie Quinones, © University of Chicago); *Concrete Traffic*, University of Chicago Campus North Parking Garage, 2016 (Michael Tropea).



THE BODY'S ROLE IN THINKING, PERFORMING, AND REFERENCING

2013–
2016

Research Team

Sian Beilock, President,
Barnard College (then Professor,
Department of Psychology)

Diane Brentari, Mary K.
Werkman Professor, Department
of Linguistics and Humanities
Collegiate Division, Director,
Center for Gesture, Sign and
Language

Peter Cook, Chair, Associate
Professor, Department of ASL-
English Interpretation, Columbia
College Chicago, 2013–2014
Neubauer Collegium Visiting
Fellow

Anastasia Giannakidou,
Professor, Department
of Linguistics and Humanities
Collegiate Division

Susan Goldin-Meadow,
Beardsley Ruml Distinguished
Service Professor, Departments
of Psychology and Comparative
Human Development

How does the body influence the mind? This compelling question has motivated researchers in psychology, linguistics, human development, and the performing arts for many years. Recent technological innovations and a turn toward interdisciplinary collaboration have opened up new possibilities for scholars seeking ways to disentangle thought from physical sensations. The University of Chicago has emerged as a globally recognized leader in this area of research, known as “embodied cognition,” with pioneering work on gesture, formal and informal sign languages, and the universal features of language. The Body’s Role project served as a catalyst for additional work in this area, uniting a number of small projects and establishing a foundation for empirical research that cuts across the humanities and social sciences.

The project supported three studies that looked at gesture and sign in relation to storytelling, action, and indexical pointing, respectively. For the storytelling study, Peter Cook—an American Sign Language (ASL) scholar and a renowned Deaf performance artist who served as a Neubauer Collegium Visiting Fellow in the 2013–14 academic year—helped conduct comparative analyses of poetry and performance in both English and ASL. The research team used video and motion-capture recordings of ASL and English performers, and then developed coding procedures to analyze aspects like metrical structure and rhythm. The comparisons yielded important insights on the similarities and differences between the ways Deaf and hearing storytellers use their bodies to narrate. Related work in this area explored the role of eye gaze and facial gestures in performance.

The second study used motion-analysis equipment to explore the connections between gesture and action. By observing participants as they encountered perceptual illusions, the researchers were able to determine the extent to which gesture mirrors the actions on which it is based compared to the language it accompanies. Preliminary results were presented at the 2016 International Society for Gesture Studies conference in Paris. A third study, the first of its kind, clarified distinctions between pointing gestures used by signers and pointing gestures speakers produce when they talk.

The schedule of Body’s Role activities at the Neubauer Collegium was ambitious, with conferences and performances, a quarterly workshop series, biweekly meetings, a sign language reading group, and related work. The project culminated with the October 2017 capstone conference, which included a lively evening of performances by sign-language and spoken-language artists, followed by a full day of presentations by graduate students and postdoctoral scholars on the project’s three studies. Herb Clark, a psycholinguist at Stanford University, delivered a keynote address on the use of the body in everyday communication. The event, cited by the research team as a high point of the project, “not only brought together the work that we have been doing on our Neubauer Collegium projects, but also made it clear that this is not a stopping point—we have laid the groundwork for a new set of interdisciplinary interests to flourish among our faculty and students.”

From the outset, the researchers considered next-generation training a central component of the project. Students and postdoctoral fellows were involved in every aspect of the research, from study design, data collection, and statistical analysis to

The project established a foundation for empirical research on embodied cognition that cuts across the humanities and social sciences.

the presentation and publication of findings. Young scholars’ contributions at regular working meetings and reading groups helped the research team think through technical challenges and keep the project’s many activities on track, and the project inspired nearly a dozen student-led projects.

“Very early on, the Neubauer project became an exciting cross-disciplinary hub,” said Kensy Cooperrider, a postdoctoral scholar in the Psychology Department who helped run the study on pointing in gesture and sign. “Collaborations were springing up between young scholars who might not otherwise have talked much to each other. And it wasn’t long before it felt like a community. In my case, being part of this community really broadened my understanding of my research and the questions I was asking—it got me thinking about issues that will be with me for the rest of my career.”

Significant supplemental support for the project was provided by internal partners at the Humanities Division, the Delhi Center, and the Center for Gesture, Sign, and Language, a research initiative launched by Diane Brentari, Anastasia Giannakidou, and Susan Goldin-Meadow in March 2013. A \$750,000 grant from the NSF Science of Learning competition will provide the collaborative network that the Body’s Role project fostered with funds for a three-year project to explore how the body can be incorporated into primary school math education. The Neubauer Collegium has also extended its commitment to this growing network with a new project, launching in the 2018–2019 academic year, that will study the relation between motion and meaning in classical Indian dance.

Image: Donna Washington at the “Gesture and Sign in Relation to Storytelling” performance, October 19, 2017 (Erielle Bakkum).



THE IDEALISM PROJECT: SELF-DETERMINING FORM AND THE AUTONOMY OF THE HUMANITIES



2015–
2017

Research Team

James Conant, Chester D. Tripp Professor of Humanities; Professor, Department of Philosophy and the College

Robert Pippin, Evelyn Stefansson Nef Distinguished Service Professor, Committee on Social Thought, Department of Philosophy, and the College

David Wellbery, LeRoy T. and Margaret Deffenbaugh Carlson University Professor, Department of Germanic Studies, Committee on Social Thought, and the College

The Idealism Project sought to reanimate possibilities in the humanities through a careful examination of its intellectual roots. Idealism emerged in Germany in the eighteenth century in response to a crisis in the Enlightenment's understanding of humanity's place in the natural world. Out of this crisis grew the field of humanistic inquiry, in which literature, art, and related expressions of humanistic knowledge became objects of academic study. The governing thought was that the very idea of the human would help shape these fields and, reciprocally, the understanding gained would help shape our conception of the human. Thus arose the idea that humans would help shape who they are via their own understanding of who they are. The Idealists coined the term "endogenous form" to capture this self-defining capacity.

The Neubauer Collegium team formed research collaborations with scholars in Leipzig, London, Harvard, and Johns Hopkins, and organized a transatlantic series of lectures, workshops, conferences, and graduate-level seminars focused on the meaning of the humanities in the context of its own conceptual history.

In the project's year, the researchers attempted to historicize the Idealist notion of form through three major events. A Fall Quarter conference brought together sixteen scholars to consider formal generalities in the humanistic disciplines, the evolution of philosophical thought with regard to formal unity, and the role of visual art in validating and challenging the notion. A number of conference participants returned to discuss these issues in greater depth at a Winter Quarter seminar

co-taught by the three collaborators and at weekly workshops on the same topic. These gatherings were intended to facilitate intellectual exchange between distinguished scholars and graduate students, many of whom produced dissertations shaped by their participation in the project. A Spring Quarter lecture on Cecco del Caravaggio's *Resurrection* by art historian and critic Michael Fried informed subsequent publications by students and members of the research team.

The collaborators extended their inquiry into the self-understanding embodied in objects of humanistic study with particular emphasis on aesthetic theory. Robert Pippin and David Wellbery co-taught a seminar titled "On Aesthetic Form," which drew on works by Goethe, Schelling, Hegel, Kierkegaard, Cavell, and others to interrogate the notion of form as the basis for aesthetic intelligibility. In January 2017, the "Concepts of Aesthetic Form" conference drew twenty scholars from the U.S. and Europe for three days of talks and high-level discussion. Presentations introduced important new research on Ibsen's tragedies, Hegelian phenomenology, poetry as a form of knowledge, and more.

Over the course of the project, an international community of inquiry took shape. The researchers all delivered lectures, attended conferences, and published theoretical and critical work on topics germane to the Idealism Project at institutions in the U.S. and abroad. Wellbery organized an international conference on Goethe's late style that brought a transatlantic cohort to the Neubauer Collegium in March 2016. A group of graduate students and faculty from the U.S. and Europe convened at the University of Leipzig for a Summer 2016 workshop that reconsidered German Idealism as a post-Kantian return to Aristotle. The project's efforts to



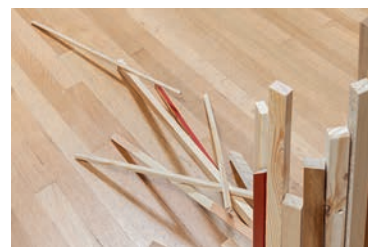
foster this community produced important direct and indirect results. Two external partners, Matthias Haase and Matt Boyle, were recently recruited to the University of Chicago Philosophy Department. And in 2016 the University of Leipzig successfully nominated James Conant for the prestigious Alexander von Humboldt Professorship, an honor that includes 5 million euros in funding for five years of research in Germany.

With more publications forthcoming and ongoing activities at several institutions, the ideas generated by the Idealism Project continue to resonate. "Working within the context of the Idealism Project, being inspired by my co-inquirers, having the sense that something heretofore only partially understood was coming into view—all these things deepened my sense that what we do in our research and teaching is crucial to human self-understanding," Wellbery said.

Images: Detail from *The Resurrection* by Cecco del Caravaggio (The Art Institute of Chicago/Art Resource, NY). Opposite, from top: Detail from *A View of the Opera and Unter den Linden, Berlin 1845* by Eduard Gaertner (Carmen Thyssen-Bornemisza Collection). Detail from *Laocoön and His Sons* (Vatican Museums).

The research team organized a transatlantic series of lectures, workshops, conferences, and graduate-level seminars focused on the meaning of the humanities in the context of its own conceptual history.

OPEN FIELDS: ETHICS, AESTHETICS, AND THE FUTURE OF NATURAL HISTORY



2015–
2017

&

2017–
2019

Research Team

Justin Richland, Associate Professor, Departments of Anthropology and Social Sciences, and the College, Associate Member, Law School

Jessica Stockholder, Raymond W. and Martha Hilpert Gruner Distinguished Service Professor and Chair, Department of Visual Arts

Alaka Wali, Curator, North American Anthropology, Field Museum, 2015–2019 Neubauer Collegium Visiting Fellow

An ambitious collaboration that brings together anthropologists, visual artists, curators, scholars of historic preservation, lawyers specializing in indigenous rights, and tribal elders from across North America, the Open Fields project is helping to redefine the concept of “natural history.”

Museums that display Native artifacts are increasingly compelled to reconsider curatorial and conservation practices that do not adequately reflect indigenous peoples’ understanding of their own heritage. As these museums look to the future, how should they present Native material culture in ways that are culturally appropriate and stimulating to both the general public and Native populations? And what normative frameworks would help assess and, if necessary, adjudicate indigenous people’s ethical, legal, and religious claims to the cultural property currently held in these museums?

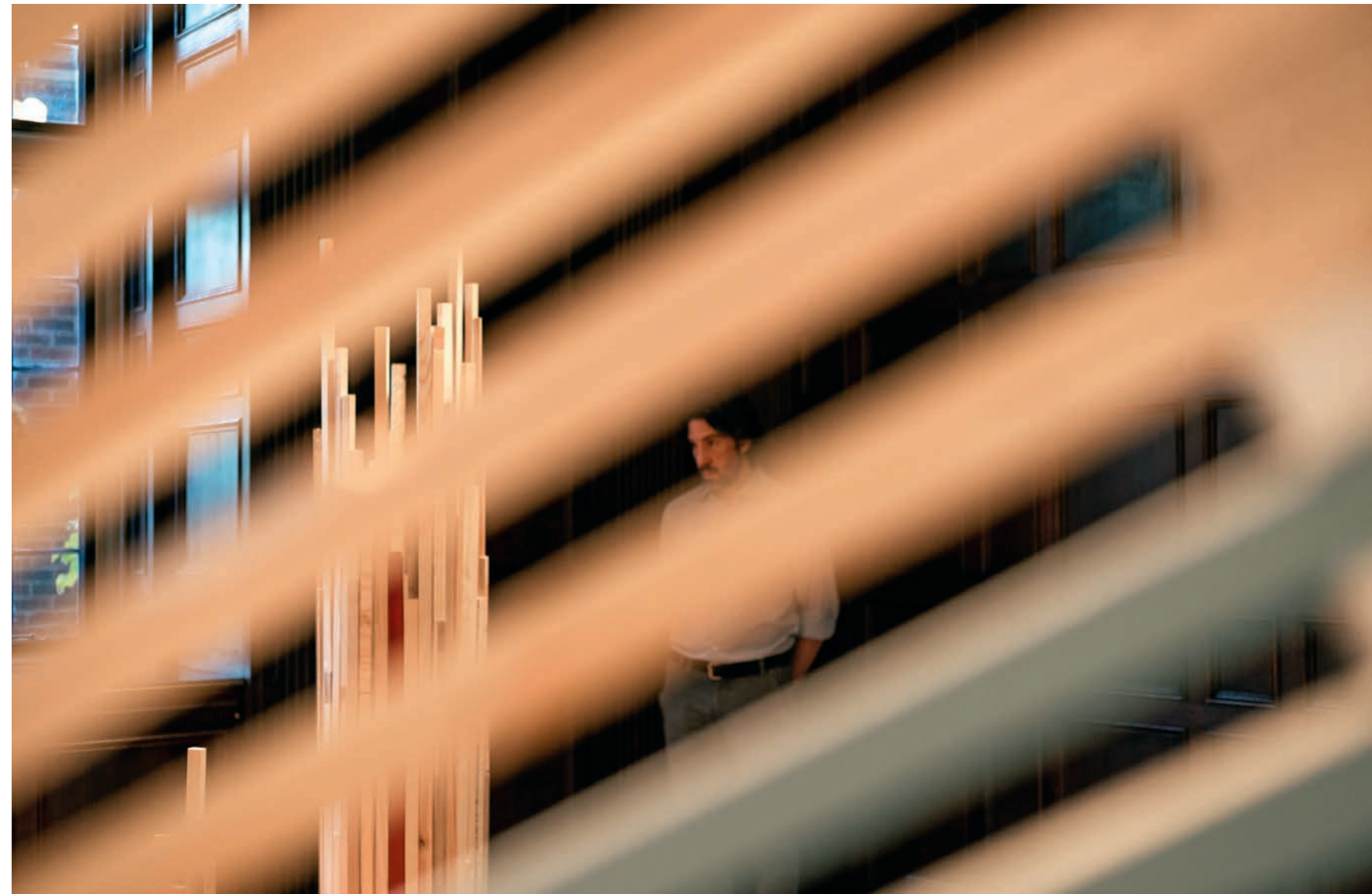
The site and subject of this crucial inquiry is Chicago’s Field Museum of Natural History, which houses one of the world’s largest collections of Native American artifacts and is committed to renovating its famed Hall of Native North Americans (“Great Hall”). “The Neubauer Collegium continues to be an important venue for inspiration and guidance as the Field Museum plans for the wholesale revision of the public presentation of its Native American collections,” said Richard Lariviere, President and CEO of the Field Museum. “This is hard, intellectual, and impactful work—a perfect task to be engaged with the Neubauer Collegium.”

Through a series of open-ended discussions at the Neubauer Collegium and the Field Museum, the Open Fields project has convened scholars, practitioners, and indigenous leaders representing a wide range of perspectives. The participants have come together to pursue two large-scale,



overlapping goals: articulating a vision for the future of ethnographic museology and updating antiquated methods of conserving and preserving indigenous material culture. In both contexts, substantive engagement with indigenous people supports an epochal shift from a period in which natural history collections were regarded as objects of scientific inquiry toward one in which they may prompt cross-cultural encounters with increasingly diverse publics.

The project’s first event, a multi-site conference organized by Jessica Stockholder in October 2015, examined how form, symbolic meaning, and social norms interact in art and law, particularly as they relate to First Nations artwork. Over the course of two days, a group of artists, scholars, and lawyers gathered at the Neubauer Collegium, the Field Museum, the Smart Museum of Art, and the Kavi Gupta Gallery for wide-ranging discussions and exhibition tours. One of the presenters was Anna Tsouhlarakis, a multimedia artist whose work pushes viewers to confront and rethink their cultural expectations when encountering Native art. Tsouhlarakis returned to the Neubauer Collegium a year later for a solo exhibition titled *She Made*



“The Neubauer Collegium continues to be an important venue for inspiration and guidance as the Field Museum plans for the wholesale revision of the public presentation of its Native American collections.”

RICHARD LARIVIERE,
PRESIDENT AND CEO OF THE FIELD MUSEUM

for Her. Presented as part of the Open Fields project, the show included three large-scale sculptures made from scrap materials sold by the furniture store IKEA. Audio recordings of Native women responding to the enigmatic works challenged traditional notions of critical authority while asserting the validity of Native aesthetic experience.

The Field Museum opened two exhibitions in the fall of 2016 that, like *She Made for Her*, showcase contemporary Native American art. *Drawing on Tradition* enlivens the Great Hall with Kanza artist Chris Pappan’s inventive take on nineteenth-century “ledger art,” featuring pencil drawings of iconic images on ledger paper, often playfully distorted to suggest public misperceptions of Native culture. *Full Circle/Omani Wakan* pairs Lakota artist Rhonda Holy Bear’s intricately carved and beaded figures with materials she selected from the permanent collection, completing a “sacred journey” that began with Holy Bear’s childhood trips to the museum.

By creating space for Pappan and Holy Bear to honor the past while exploring new forms of creative expression, these exhibitions suggest a viable path forward for curators at natural history museums. “When we realize that Native peoples are not just the objects of ethnographic inquiry, but are audiences and contributors to the ongoing stories of these collections, all of a sudden the Field Museum itself takes on a very different layer of meaning and importance,” said Anthropology professor Justin Richland.

Field Museum curator Alaka Wali, who has partnered closely with Richland as a Visiting Fellow, believes the project has fostered productive dialogue among stakeholders with distinct perspectives and interests. “Open Fields has contributed to the intellectual and theoretical foundations for the

renovation by creating a neutral space for open discussion,” Wali said. She also credited the project for helping her and her colleagues secure a Mellon Foundation grant that will enable the Field Museum to implement plans for the renovation and community engagement.

Resources from the Neubauer Collegium, leveraged with external funding from the Guggenheim Foundation and the McCormick Family Foundation, have also enabled the Open Fields research team to collect and study ethnographic data related to the Pappan and Holy Bear exhibitions. At a series of workshops in the summer and fall of 2017, the team shared their initial findings with museum professionals, indigenous artists, tribal leaders, and scholars. Employing recent methodological innovations in linguistic and visual anthropology, participants supplemented their review of traditional observational data with video and audio recordings collected during the planning, production, and installation stages. These efforts helped the research team identify promising strategies for curating and conserving Native artifacts on a broad scale. They also confirmed strong interest in the approach adopted for the Pappan and Holy Bear exhibitions.

Ongoing discussions with tribal elders, museum professionals, and ethnohistorians are advancing the team’s understanding of their findings and helping the Field Museum identify the goals and imperatives for its Great Hall renovation, currently underway.

Images: Anna Tsouhlarakis, *She Made for Her*, 2016 (Erielle Bakum). Opposite, from left: Detail from *She Made for Her* (RCH | EKH). Chris Pappan, *Red Owl’s Sacrifice* (© John Weinstein, The Field Museum).

EXHIBITIONS



Supported by the Brenda Mulmed Shapiro Fund, the exhibitions program is an essential part of the Neubauer Collegium's mission: to encourage thought and creativity to move in whatever directions they need to go to address problems of human significance. Since its gallery opened in the spring of 2015, the Neubauer Collegium has hosted thirteen exhibitions. Each of them has provided space for scholars, artists, practitioners, and the general public to engage with the arts in the context of collaborative research. Our aim is to integrate art and collaborative research as forms of inquiry.

NO LONGER ART: SALVAGE ART INSTITUTE

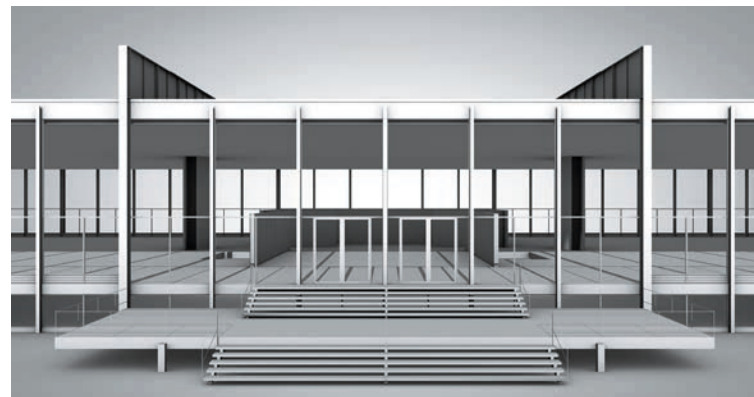
April 23 –
July 10, 2015



The inaugural exhibition in the Neubauer Collegium gallery considered the material afterlife of artworks that have been divested of value by the insurance industry due to accidental damage. The survival of these “salvaged” works challenges our common understanding of the borderline separating art from non-art. Visitors were encouraged to handle a collection of paintings, photographs, and sculptures from the Salvage Art Institute. Founded by artist Elka Krajewska, who co-curated the show, the Salvage Art Institute provides a refuge for art that has been removed from circulation while creating a forum for confronting the regulation of their financial, aesthetic, and social value. The exhibition emerged from the Material Matters research project, giving the Neubauer Collegium its first opportunity to present visual art as a form of humanistic inquiry.

VICTOR BURGIN: PRAIRIE

November 20, 2015 –
January 29, 2016



“All of my work is very heavily grounded in research,” Victor Burgin has said, “but I do not put the research on the wall.” For the digital projection work *Prairie*, Burgin created a quiet meditation on two iconic buildings: The Mecca, an apartment building constructed in 1892 on Chicago’s South Side and razed sixty years later, and Mies van der Rohe’s Crown Hall at the Illinois Institute of Design, which was subsequently erected on the same site. Through alternating passages of word and image, the work explores lost cultural histories that remain inscribed in the built environment. Publicly presented for the first time at the Neubauer Collegium, *Prairie* was produced with support from a Gray Center Mellon Collaborative Fellowship at the University of Chicago and included as part of the inaugural Chicago Architecture Biennial.



KATARINA BURIN: PETRA ANDREJOVA-MOLNÁR: CONTRIBUTION AND COLLABORATION

September 16 –
November 13, 2015

This exhibition presented a body of work attributed to the Czechoslovakian architect Petra Andrejova-Molnár, an overlooked (in fact, fictional) figure active in the first half of the twentieth century, as realized by Slovakian-born American artist Katarina Burin. In this complex and multidimensional project, Burin created not only the character of Petra Andrejova-Molnár, or P.A., but also her work, in the form of architectural drawings and models, graphic design, furniture, and “archival” photographs and documents.

Presented as part of the inaugural Chicago Architecture Biennial, *Contribution and Collaboration* surveyed a number of P.A. projects that Burin had reconstructed over the previous several years, including a new body of work in which Burin recovered and presented P.A.’s contribution to the Czechoslovakian pavilion at the 1925 *Exposition Internationale des Arts Décoratifs et Industriels Modernes* in Paris. In this project, P.A.’s work appeared alongside that of other young architects such as Farkas Molnár, Josef Fischer, Jaromír Krejcar, and Bohuslav Fuchs.

Part alter ego, part historical intervention, P.A. serves as a kind of cipher, allowing Burin to participate in the social, political, and aesthetic debates of an earlier historical moment as well as those of our present day. Then and now, the figure of P.A. questions notions of authorship and authenticity, the relationship between gender and the archive, and the historical tension between national identity and internationalist aspiration. Alongside the production and display of P.A.’s works, Burin’s exhibition mobilized the tropes and techniques of contemporary museological and academic discourse to establish the artistic persona of a figure who may not have existed but just as easily could have, pointing along the way to the mutability of the historical record itself. Ultimately, it is perhaps less important that P.A. is a fiction than that we encounter her today as a previously unknown player in this historical milieu. Filling in for the figures we don’t encounter in dominant historical narratives—those whose proper names, for whatever reason, are no longer available to us—she calls attention to their absence.

The exhibition was accompanied by a comprehensive catalogue, published by Koenig Books, featuring extensive documentation alongside essays by Neubauer Collegium curator Jacob Proctor, architectural historian Sean Keller, and writer J.A. Gibson. Bard College’s Center for Curatorial Studies hosted a book launch and panel discussion in New York City with Burin, Proctor, and publication designer Francesca Grassi, moderated by Prem Krishnamurthy.

IAN KIAER: ENDNOTE, LEDOUX

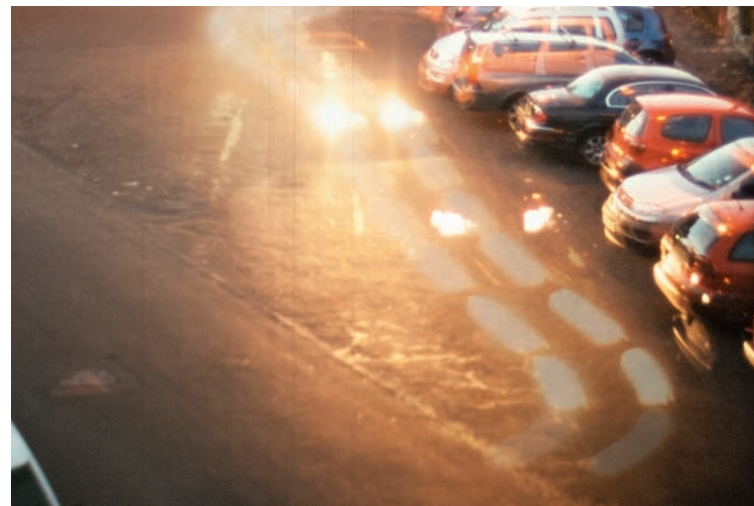
February 26 –
April 22, 2016



This exhibition of new works by London-based artist Ian Kiaer continued his longstanding engagement with the eighteenth-century French architect Claude Nicolas Ledoux. The gallery was transformed into a carefully calibrated landscape of found objects, enigmatic sculptures, and a tiny video projection—a playful, erudite take on Ledoux’s utopian designs. But Kiaer’s arrangements didn’t merely call to mind Ledoux’s neoclassical sketches for ideal cities. Necessarily contingent on their immediate context, they also prompted viewers to ask: What constitutes the category of “painting” today? And how do we understand the relationship between sculptural fragment and architectural model?

LUKE FOWLER

April 29 –
July 1, 2016



Glasgow-based artist Luke Fowler’s solo show centered on the relationships between sound and image, looking and listening, and different modes of portraiture. The show included the North American premiere of *For Christian*, a cinematic portrait of New York School composer Christian Wolff, including interview extracts and impressions from a trip to Wolff’s farm in Vermont. Fowler’s *Tenement Films* (2009) are intimate portraits of four individuals brought together by their residence on four floors of the same Glasgow tenement. On view alongside the films were two suites of color photographs representing individuals via the spaces they occupied: one was shot in the home of Italian photographer Luigi Ghirri, and the other in Karlheinz Stockhausen’s legendary studio for electronic music in Cologne, Germany. Related programming included a screening of Fowler’s earlier films and a panel discussion with Fowler, Neubauer Collegium curator Jacob Proctor, and musicologist and gallerist John Corbett.

JAKOB KOLDING: MAKING A SCENE

September 21 –
October 26, 2016



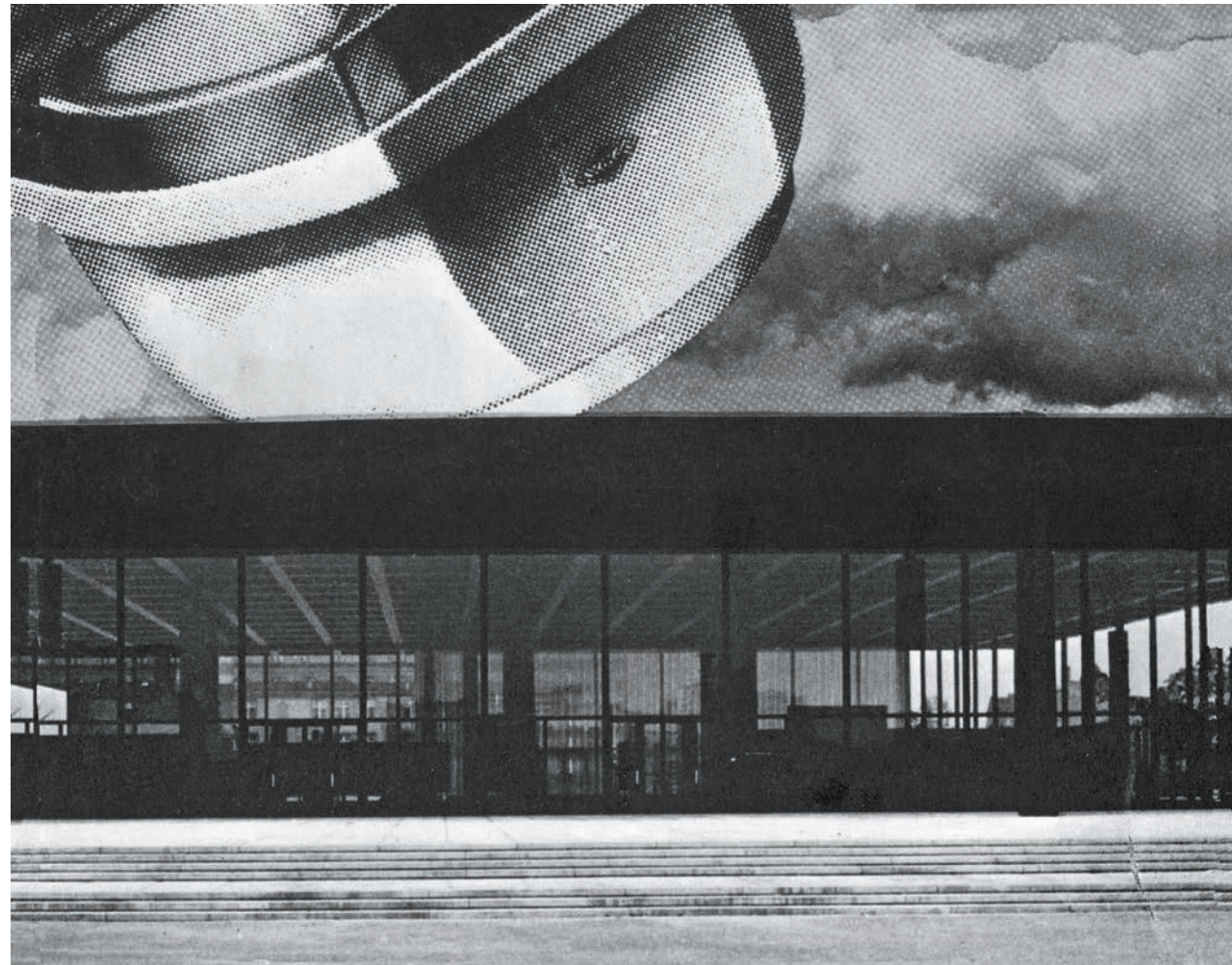
The Danish artist Jakob Kolding’s solo show reflected his deepening interest in scenography. At the time of the exhibition he was collaborating with the annual performing arts festival in Bregenz, Austria, to create the stage design for a new operatic production of Virginia Woolf’s *To the Lighthouse*. In the Neubauer Collegium gallery he created a stage-like environment featuring flat, life-size wood figures, surrealistic collages on paper, and large-format photomontage graphics that evoked theatrical backdrops. With its overt focus on construction and performative gesture, *Making a Scene* invited visitors into a drama staged at the nexus of real and imaginary space.

ANNA TSOUHLARAKIS: SHE MADE FOR HER

November 1, 2016 –
January 13, 2017



Anna Tsouhlarakis is at the forefront of contemporary Native American art. In *She Made for Her*, she created three large-scale sculptures made of materials purchased from IKEA’s “as-is” section. As viewers encountered the sculptures, their visual experience was mediated by a multi-channel sound installation featuring Native women describing those very objects. Some of the women approached the works as abstractions, some as utilitarian forms, and others as cultural symbols. The overlapping and divergent voices prompted viewers to rethink their cultural expectations when encountering the work of Native artists. This exhibition was presented as part of the Open Fields project.



FANTASTIC ARCHITECTURE: VOSTELL, FLUXUS, AND THE BUILT ENVIRONMENT

January 22 –
March 17, 2017

Fantastic Architecture presented various approaches to architecture, urban space, and the built environment within an expanded international community of Fluxus and related artists in the late 1960s and early 1970s. It was presented in conjunction with the re-siting of Wolf Vostell's monumental event-sculpture *Concrete Traffic* (1970), which was restored as part of the Material Matters research project. Concurrent shows at the University's Smart Museum and the Special Collections Research Center—along with a robust lineup of lectures, film screenings, public discussions, and performances—linked the Neubauer Collegium to a major UChicago Arts initiative called *Concrete Happenings*. The yearlong program inspired art lovers and car lovers, artists and scholars, experts and curious members of the public to reconsider the power of public art in a research setting.

The *Fantastic Architecture* exhibition placed *Concrete Traffic* in the context of Vostell's related works from the period, including photomontage proposals for alterations to architectural and urban spaces and event scores for happenings intended for specific cities. The show also considered Vostell as part of a loose network of peers and interlocutors with shared interests and similar approaches to public art as provocation. Like the influential 1969 book that shares the exhibition's title, *Fantastic Architecture* embraced the porousness and intellectual ferment of the experimental art world of the time. The show featured works and projects by Fluxus impresario George Maciunas, happenings inventor Allan Kaprow, conceptual artist Douglas Huebler, Christo and Jeanne-Claude, artist and poet Rosemary Mayer, and others.

These artists were all responding to massive changes in the urban landscape brought about by the rise of car culture and the construction of freeway systems in the postwar era. But as the exhibition revealed, the forms and concepts they found for their political and aesthetic projects varied in significant ways.

The show and related programming attracted record attendance and media attention. *Fantastic Architecture* offered "a timely study in the ways that certain avant-garde artists in the late 1960s and early '70s made art that looked like art while taking protest to heart," wrote critic Lori Waxman in a *Chicago Tribune* review. "If ever there was a time to recognize meaningful protest in all of its forms, from the highly aesthetic to the brutally pragmatic, that time is now."

THE PAST SOLD: CASE STUDIES IN THE MOVEMENT OF ARCHAEOLOGICAL OBJECTS

April 3 –
May 12, 2017



Archaeological artifacts are always moving—out of excavation sites, across geopolitical borders, into museums and private collections. This movement can be positive or negative, authorized or unauthorized, legal or illegal. *The Past Sold* presented these contrasting modes of artifact movement. The case studies under consideration included the legal, state-sponsored sale of Early Bronze Age antiquities from Jordan during the late 1970s and the illegal looting of archaeological sites in Jordan, Iraq, and Syria that continues to this day. The exhibition included ceramic pots from the Oriental Institute and the McCormick Theological Seminary along with unpublished archival documents, maps, photographs, and aerial drone video footage. By calling attention to these materials in a gallery setting, *The Past Sold* added new dimension and a visual vocabulary to the Past for Sale research project.

MARK STRAND: COLLAGES

May 24 –
June 30, 2017



Mark Strand is one of the great American poets of his generation. He is celebrated at the University as a longstanding member of the Committee on Social Thought. He also was an accomplished visual artist. Toward the end of his life, he produced a remarkable series of collages, eighteen of which were included in this exhibition. Working while the base paper was still wet, Strand "painted" with colored liquid pulps using brushes, small squirt bottles, and his own hands. This method gave the works their sense of gestural dynamism and chromatic vibrancy. Once the papers were dry, Strand cut and tore them, assembling the pieces into collages. Modest in scale and often deceptively simple, the works reward careful and extended looking. Semitransparent layers gradually reveal subtle depth of field, while seemingly casual details coalesce into surprisingly precise compositions.



TERENCE GOWER: HAVANA CASE STUDY

September 12, 2017 –
January 26, 2018

On August 24, 2017, the State Department announced that sixteen government employees working at the U.S. embassy in Cuba had received medical treatment for symptoms including headaches, nausea, and hearing loss. Although the Cuban government strongly denied any involvement in what the State Department suspected was a sonic attack, the U.S. launched an investigation and removed all nonessential staff from the building. A brief diplomatic thaw ended with a familiar freeze.

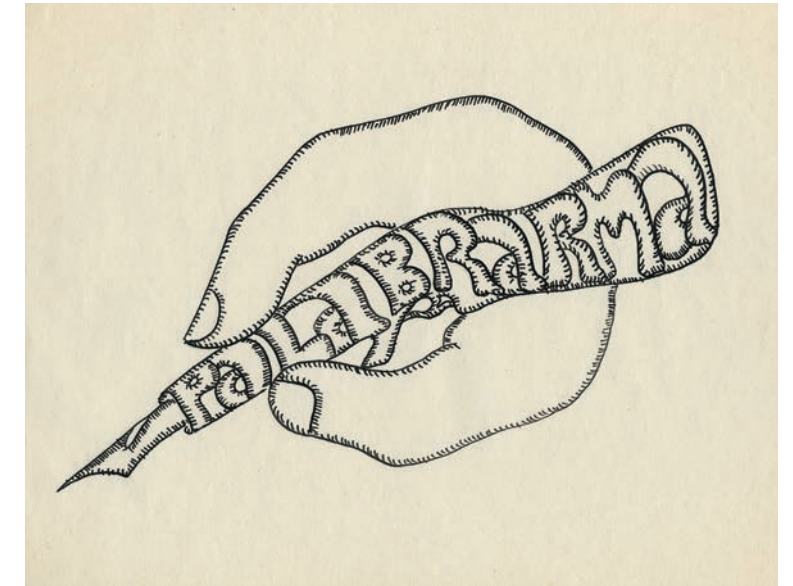
The announcement created an apt historical context for Terence Gower's *Havana Case Study*, which opened as part of the Chicago Architecture Biennial and is part of Gower's larger series on U.S. embassies and their design. The show presented the U.S. embassy building as symbolic of U.S.-Cuban relations. Gower conducted extensive research in Havana and in U.S. archives to study the embassy program's attempt to represent the government and its foreign policy through architecture and design—and the ways the meaning of the building has evolved since it opened in 1953.

The centerpiece imagined a comprehensive architectural exhibition in the style of the late 1950s, when postwar diplomatic ties were at their peak and the embassy was being hailed as a triumph of modernism. Across four massive vitrines, Gower framed details from this period in a complex display of architectural models, photographs, magazine spreads, and archival documents. Resting on top of the cases, free for viewers to handle, a set of photographs and newspaper clippings testified to the new, more propagandistic function the building acquired after it closed in the wake of the Cuban revolution. These more recent images obscured those underneath the glass, layering a troubled history over postwar ideals of transparency and progress. The images were reconfigured in a series of collages that juxtaposed architectural ambition and political fallout.

Gower's monumental sculpture *Balcony*, a 1:1 scale outline of the ambassador's balcony rendered in rebar, was installed outdoors on the Neubauer Collegium's terrace. When the embassy opened, the balcony was singled out for criticism by a State Department inspector, who described it as "Mussolini style" and worried about stoking Cuban sensitivity to perceived U.S. imperialism. Masses did eventually assemble below the balcony, but for anti-U.S. rallies organized by the Cuban government. As Gower explains in a limited-edition book the Neubauer Collegium published on the occasion of the exhibition, he found inspiration in the balcony as "an abstract symbol of the state of limbo that has characterized the material culture of post-revolutionary Cuba."

CECILIA VICUÑA: PALABRARMAS

March 29 –
June 3, 2018



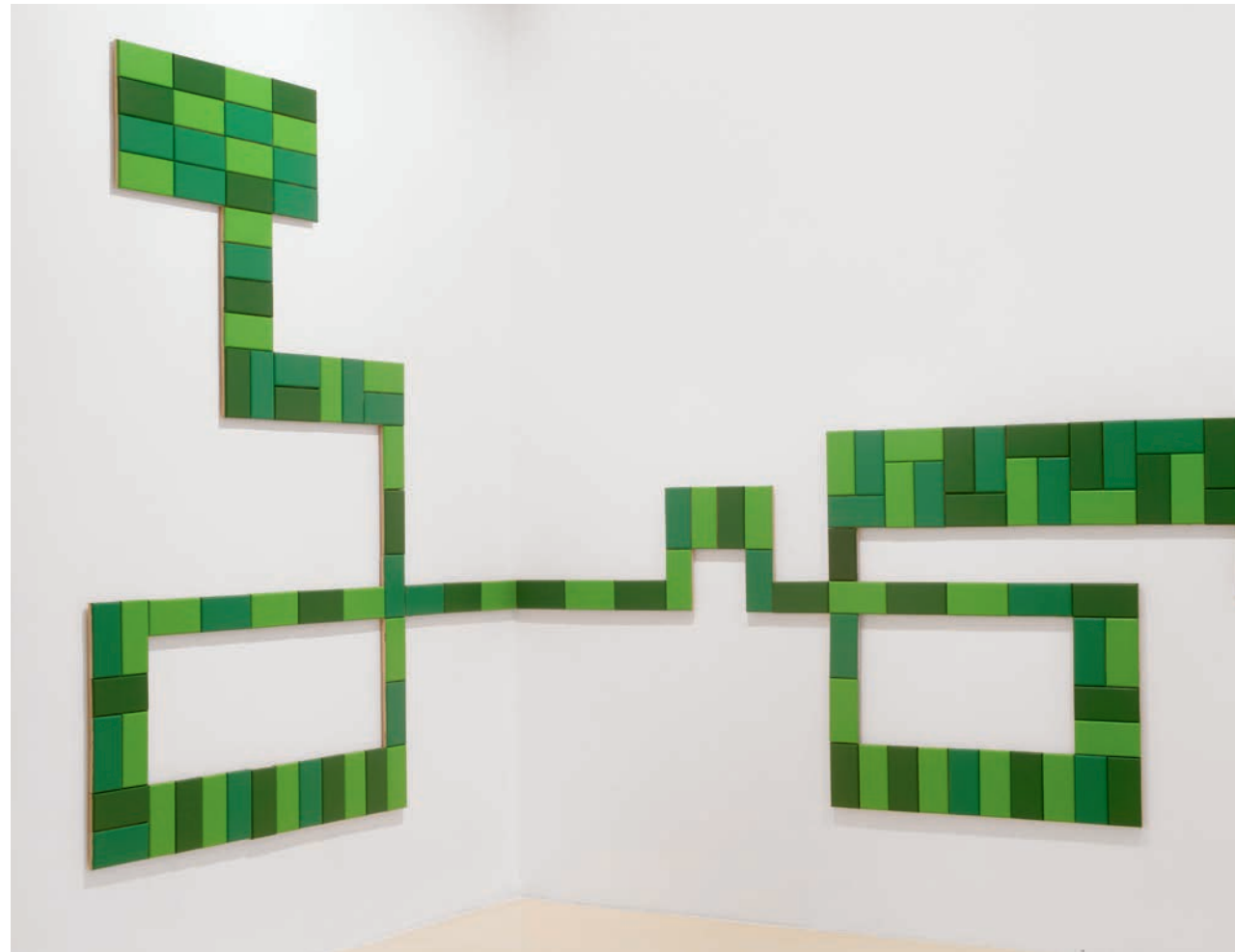
This exhibition was the first under the curatorial leadership of Dieter Roelstraete. It was also the first to focus solely on New York-based Chilean artist and poet Cecilia Vicuña's "Palabrarmas," works on paper made in exile in London and Bogotá after the 1973 Pinochet-led coup. The titular neologism is a contraction of *palabras* (words) and *armas* (weapons), a nod to the militarism infusing so much progressive Latin American art in the early 1970s. Vicuña's Palabrarmas, however, are also eruptions of color and sensuous pleasure—words to live by. A limited-edition catalogue of the works was published on the occasion of the exhibition, and Vicuña delivered a lecture about them in her capacity as the 2018 Sherry Memorial Poet in Residence at the University's Program in Poetry and Poetics.

ANNA DAUCIKOVA AND ASSAF EVRON

June 8 –
September 16, 2018



The immediate occasion for this coupling of Anna Daucikova (born in Czechoslovakia in 1950, currently living in Prague) and Assaf Evron (born in Israel in 1977, currently living in Chicago) is their shared interest in Soviet-trained artists of little renown but substantial visual impact. The show revives the work of Ukrainian native Valery Lamakh, known for his decorative tilework on Kiev's many Stalin-era residential buildings, and Russian-born Shlomo Eliraz, whose name today primarily survives in a handful of public murals scattered around Tel Aviv. In revisiting the legacies of these forgotten heroes, Daucikova's video works and Evron's photo-based practice question the travails of the public art complex.



A LITTLE ISLAND OFF THE COAST OF SOCIETY

It seems a fairly straightforward and self-evident question, but no less worth asking because of it: What does art have to *do* with culture and society? Interrogating art's position and role in a "collegium for culture and society" devoted to "exploring novel approaches to complex human questions" may be a mere matter of hitting upon the right conjunction or preposition. Should we really think art *and* culture, or art *and* society? Should we look at art *as* culture, and find art *in* society? How about opting for art *instead* of culture, or art *contra* society? For a long and venerable tradition exists, naturally, of opposing art *to* culture—and a much longer one still pitting art *against* society. In this view, "true" art is inimical to the very idea of culture as we know it today—of culture as diminished to a mere jumble of cogs in the entertainment industry machine. This is a tradition weighed down by a certain degree of nostalgia and romantic naïveté, perhaps, but one that we nonetheless continue to hold dear. Our vision of art is one that seeks to secure a measure of refuge for the utopian impulses of negation, of contradiction—not so much art as merely *opposed* to culture and society, but rather art as actively opposing what *passes* for culture and society in our fractured here and now. Art as "something else"—a dependable island of otherness in our culture's all-encompassing ocean of sameness from which it so often seems no escaping is possible. Such is our *idea* of art, in "culture and society."

The great Brazilian art critic Mário Pedrosa once defined art as "the experimental exercise of freedom." (Definitions are currently hugely unpopular in art, especially definitions of art as such, but this one remains very dear to us—just like we enjoy asking the most straightforward and self-evident of questions: What is it, and why are we doing it?) In this sense, the idea of art evidently converges rather seamlessly with certain notions of research that, if idealized, undergird the founding philosophy of a research institution such as the Neubauer Collegium, or the University of Chicago as a whole. It is this idea of the "experimental exercise of freedom," with its inevitable implications of *play*, that is perhaps of the greatest value now that a whole cottage industry has sprung up around the

relatively novel conception of art as research, and around the subsequent academicization of the art field. It has become a commonplace to align art with certain research practices, which has resulted, in part, in the annexation of art to the sprawling realm of what is now known as the "knowledge economy"—an economic-industrial complex in which both the museum and the university occupy positions of great symbolic import. The Neubauer Collegium's exhibition program naturally inclines toward such notions of art (or specific examples of art practice) conceived as inquiry—and the more critical, the better, of course. It is hard to think of a more thankful free space, in this regard, for the articulation of such experiments in knowing than the Neubauer Collegium gallery—and how fitting it seems for this gallery to be housed inside a former *theological* seminary. There is more than just a passing resemblance between theories of art and theological inquiry. For all these reasons, however, it seems important to reiterate the emphasis on art's *freedom*—freedom from the aforementioned pressures of the knowledge industry, for instance, or from the demands of increased academicization. If art has any role to play, considered more concretely, within the framework of the Neubauer Collegium's dedication to stimulating interdisciplinary research into "complex human questions" and "culture and society," it is perhaps to be found in art's fundamental *indiscipline*—its eternal irreverence in the face of disciplinary thinking. A corrective, counterbalancing, *critical* role, in short.

The Neubauer Collegium gallery ranks among the youngest members of the expanding UChicago Arts family. As a new arrival lodged inside its somewhat anachronistic neo-Gothic confines, it lacks the history of the Renaissance Society, the institutional gravitas of the Smart Museum, or the wide reach of the Logan Center. It must cultivate focus instead—and, thankfully, the quiet comfort of its seclusion, half a foot outside time, a little island off the coast of culture and society.

—DIETER ROELSTRAETE, CURATOR