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Foreword

This is the ninth edition of the annual Brown Sabbatical Research Newsletter published by the Office of the Dean of the Faculty. Its main focus is on research conducted by Brown faculty during the past academic year that has been made possible by our sabbatical program (also included are some reports on nonsabbatical research).

Brown instituted the sabbatical leave in 1891, 11 years after Harvard had become the first university in the U.S. to introduce a system of paid research leaves (Brown was the fifth institution in the nation to adopt such a program, following Harvard, Cornell, Wellesley, and Columbia). As these dates suggest, the concept of the sabbatical emerged out of the establishment of the modern research university in America during the second half of the 19th century. A 1907 report by a committee of the trustees of Columbia University underlines the fundamental principle on which this innovation was based: “the practice now prevalent in Colleges and Universities of this country of granting periodic leaves of absence to their professors was established not in the interests of the professors themselves but for the good of university education” (cited in Eells, 253). Thus the restorative action of the sabbatical was understood to affect primarily not individual faculty members but the university as an intellectual community and an educational institution. The promulgators of the modern university believed that time for intensive focus on research contributed significantly and directly to the quality of the knowledge and methods transmitted by the university to its students and to the public in general.

For more than 120 years Brown has reaffirmed that belief by granting sabbaticals to its faculty. The following publication of sabbatical research aims to provide some indications of the results of these research leaves over the last year. The entries are lightly edited versions of the reports submitted by the individual faculty members. I hope that they will be found interesting and instructive.

Leah VanWey
Dean of the Faculty


*Special thanks are due to Eva Neczypor and Joel Revill, and also to Rick Smith, Becca Manning Szabo and Angela Medeiros of the Office of University Communications
A sabbatical during a pandemic is very different from a usual sabbatical: one cannot fully focus on renewing one’s own research when one is involved in the careers of young people, as Dan Abramovich has been. He suspects that many sabbatical reports during this pandemic are a bit unusual, and this is no exception: Abramovich spent much of the sabbatical, taken during calendar year 2021, working with undergraduate students, graduate students, and postdoctoral fellows on their projects.

One aspect of Abramovich’s research is about singularities. Raise your eyes and look at the corner of your office, say the southwest corner. Most likely you see two planes — the walls — meeting along a line — the corner of your room. This is an example of a singularity. While the walls are nice and smooth, the corner is different: an ant walking at a steady pace along one wall toward the other would have to turn sharply and suddenly upon meeting the corner.

This corner singularity appears in almost all subjects of mathematics, and in particular in Abramovich’s subject, algebraic geometry, where geometry is determined by algebraic equations. You can put coordinates for points in your room, where one wall is defined by $x = 0$ and the other by $y = 0$. Their union is determined by the algebraic equation $xy = 0$, while the singularity, the corner, is their intersection $x = y = 0$, where only the height $z$ is varying.

This is also a good example for resolving a singularity. A resolution of a singularity is a process where you take a singular object, in this case the boundary of your office described by $xy = 0$, and re-parametrize it by something nice and smooth. Remembering that the boundary of your room was put together by combining two walls, it is resolved by taking the two walls apart and laying them, so to speak, side by side.

Singularities are in general much more complicated than a corner, and their resolution is therefore much more technical. The idea is however the same: take a singular object, and re-parametrize it by something nice and smooth.

During spring 2021, Abramovich participated in the ICERM program Combinatorial Algebraic Geometry. The program was moved online due to the pandemic. Abramovich participated in the program’s seminars, as well as workshops online. As one outcome, he formed a collaboration with Lars Kästner on computer implementation, and together they led a group of undergraduates who implemented algorithms A through D of Bergh’s destackification algorithm (“An OSCAR implementation of Algorithms A-D of Bergh’s destackification,” GITHUB library 2021). One discovery is that Bergh’s algorithm is highly inefficient, and discussions with Rydh seem to lead to a much more efficient algorithm.

In addition, Abramovich organized a focused seminar as part of the program, on the work of Karim Adiprasito, Gaku Liu and Michael Temkin. The seminar went in detail through the central combinatorial arguments of the paper and provided the authors with a long list of comments.
Abramovich also worked with Netanel Friedenberg as his program mentor. They attempted to attack the problem of polystable reduction, where they met obstructions to several approaches they attempted.

During July and November through December 2021, Abramovich visited his collaborator Temkin in Jerusalem, and he spent September and October 2021 at the Mittag-Leffler Institute, interacting in person with many visiting researchers. Temkin and Abramovich explored a number of new directions, while mostly their work focused on revising the manuscript, “Relative desingularization and principalization of ideals,” with a fully functorial log smooth reduction result. A whole lot of progress was made, though the final manuscript is not yet complete.

Two other collaborations in this general direction were largely completed: one with Bernd Schober and one with Ming Hao Quek, one of Abramovich’s Ph.D. students. Schober and Abramovich revisited the resolution of singularities of a configuration of binomial hyper surfaces in affine space (“Desingularization of binomial varieties using toric Artin stacks,” in preparation), providing a highly computable explicit and efficient one-step simultaneous resolution method using toric stacks; a simple normal crossings resolution of the configuration in every non-exceptional characteristic; and a resolution of a binomial ideal in any characteristic. With Ming Hao Quek, they upgraded the weighted resolution algorithm in the logarithmic case to a normal-crossings resolution, using canonical Artin stacks (“Logarithmic resolution via multi-weighted blow-ups”). In particular, they provide such a normal-crossings principalization algorithm, a normal-crossings embedded resolution, and a normal-crossings non-embedded resolution in characteristic 0. A collaboration, largely with Quek and Schober, on positive characteristic resolution of surfaces using weighted resolution, is in progress.

Abramovich continued to advise his Ph.D. student Quek, who embarked on an ambitious project around the monodromy conjecture for motivic zeta functions of Newton-nondegenerate hypersurfaces. During October 2021, he co-organized an Oberwolfach Seminar on new techniques in resolution of singularities, with Anne Frühbis-Krüger, Michael Temkin, and Jarosław Włodarczyk. This will lead to a book publication, including several chapters already written.

The past work of Abramovich, Temkin, and Włodarczyk showed that stack theoretic weighted blowings up should be just as useful as classical blowings up (“Functorial embedded resolution via weighted blowings up” and “Birational geometry using weighted blowings up,” both published in 2019). During the sabbatical, Abramovich spent a considerable effort outlining a plan for the computation of various invariants of weighted blowings up. One aspect where the plan is complete, and being carried out by two of his students — Veronica Arena and Stephen Obinna — is the complete computation of the integral Chow rings of weighted projective stack bundles and of smooth weighted blowings up. The first step is already written in a preprint (“The integral Chow ring of a weighted projective stack bundle,” 2022).

In short, Let $X$ be a smooth variety, $N \to X$ a weighted affine bundle with $\mathbb{G}_m$-equivariant Chern class $P(T)$, and $P \to X$ the resulting weighted projective stack bundle. Then $A'(P) = A'(X[T]/(P(T))$. A similarly nice formula is given for the blowup, but its proof, which is in the writing, is quite a bit more demanding.
During this year, Abramovich also continued to advise his Ph.D. student Tangli Ge. Ge produced a very strong thesis and graduated in 2022. They worked hard together on a project related to Ge’s thesis but have no result to report on that yet. Abramovich continued to meet regularly with Jeremy Usatine, a Tamarkin assistant professor at Brown, who had significant achievements during this period. In addition, Abramovich provided postdoctoral mentorship to Schober, a postdoc in Germany with whom Abramovich developed a project, and Hülya Argüz, a postdoc in France who was planning to come to Brown, meeting regularly with them.

Further, Abramovich gave a number of lectures: “Semistable reduction — a progress report,” given at the conference by the Institute of the Mathematical Sciences of the Americas on Moduli and Hodge Theory in February 2021; “Punctured invariants and gluing,” given at the seminar at Oxford on Geometry and Analysis in February 2021; “Stacks in the service of resolution,” given at the Singularities in Positive Characteristic Conference (International Centre Meetings Mathématiques in Luminy, France) in July 2021; “Stacks, weighted resolution, and logarithmic resolution,” given at the October 2021 Oberwolfach Seminar: New Techniques in Resolution of Singularities; “Logarithmic Geometry and Moduli Spaces,” given in November and December 2021 at the Einstein Institute of Mathematics at Hebrew University in Jerusalem; “Punctured logarithmic map,” given at the Real and Complex Geometry conference by the Tel Aviv in December 2021; “Resolving singularities in families,” given at the Tel Aviv University Math Colloquium in December 2021; and “Resolution of singularities using weighted and logarithmic blowing up,” given at the Technion Algebra Seminar in December 2021.

In addition to these events, Abramovich attended two workshops at the ICERM program and two at the Mittag Leffler program.
Ruth Adler Ben-Yehuda’s Fall 2021 scholarly leave has allowed her to attend conferences, participate in professional development, give two presentations, write an article, and write a book review. All her activities took place in Israel. She attended the National Association of Professors of Hebrew (NAPH) International Conference on Hebrew Language, Literature and Culture on June 20-24, 2021, at York University in Toronto (held virtually), and served as pedagogy chair for the fourth year in a row. She also chaired a session on authentic and multicultural contents.

Adler Ben-Yehuda also organized a roundtable devoted entirely to online teaching and delivered a presentation in the session titled “Teacher’s Preparation for Online Teaching.” Due to the success of the session, Adler Ben-Yehuda was asked to write an article, “Teacher’s Preparation for Online Teaching,” for Hebrew Higher Education: A Journal for Methodology and Pedagogy in the University Teaching of Hebrew Language and Literature, published in Volume 24 (2022).

Professional development is very important for Adler Ben-Yehuda and, therefore, she attended the Continuing Workshop on University Teaching of Hebrew Language at the International Center for University Teaching of Jewish Civilization in Israel on July 11-15, 2021. This year’s workshop was titled “The Common Framework and the Hebrew Language Teaching: Theoretical Approach, Practical Applications, and Distant Learning.” The workshop was conducted in cooperation with the Division of Hebrew Language Instruction at the Rothberg International School for Overseas Students and the Academy of the Hebrew Language at Hebrew University.

Jewish languages and Judeo-Arabic, especially Arabic of the Jews in Yemen, are among Adler Ben-Yehuda’s research interests, and she is always looking for academic opportunities to expand her knowledge on the subject. In summer 2021, she attended the international conference Jewish Languages in Contact, hosted virtually by the University of Haifa and College London, July 26-28. She also attended the conference The Jewish Aramaic of the Assyrians at Yad Izhak Ben Zvi on August 29, 2021. The best scholars on the Aramaic of the East shared the latest research on Aramaic with participants. Adler Ben-Yehuda also attended some of the academic and cultural events organized by the Association for Society and Culture of the Heritage of Yemenite Jews.

She also gave a presentation titled “Strategies in Developing Listening Comprehension Skills” at the Consortium for Language Teaching and Learning 2021 fall workshop Meaning Through Sound: Rediscovering Listening in the Language Classroom, hosted virtually by Brown University on October 22-23.

Jasjit Singh Ahluwalia
BEHAVIORAL AND SOCIAL SCIENCES • SPRING 2021

Jasjit Singh Ahluwalia used his sabbatical to further expand his interdisciplinary approach to tobacco use, nicotine addiction, and smoking cessation in vulnerable populations and African Americans. This included further work in “biological” aspects of tobacco research, specifically with cancer and tobacco biomarkers, and second, exploring the concept of wealth as a powerful predictor of health outcomes. With more time to work on collaborative manuscripts, he ended the 2021 calendar year with 15 manuscripts published. Additionally, as a site principal investigator, he was able to collaborate in the successful submission of three National Institutes of Health R01 grants, all of which are pending: the first, on prolonged use of pharmacotherapy for smoking cessation in African American smokers; the second, on use of pharmacotherapy to assist dual users of e-cigarettes and combustible smokers to quit smoking combustible cigarettes; and, the third, a large noninferiority randomized clinical trial of menthol e-cig vs. tobacco-flavored e-cig to help smokers switch off menthol combustible cigarettes.

Ahluwalia took on two Master of Public Health students as their thesis advisor, and took on two undergraduates for research — one rising senior with an Undergraduate Teaching and Research Award and one Leadership Alliance student, a rising senior at Cornell University. In addition, he actively mentored a first-year postdoc and recruited an additional postdoc who started on July 1, 2021. He has taken on a new mentoring role with three assistant professors: one with whom he successfully secured a multi-PI OVPR grant related to novel nicotine products in smokers with low socioeconomic status (SES); a second with whom, using the MTurk platform for survey research, he recruited over 1,000 participants to better understand racial and SES stigma regarding opioids; and a third with whom he is assisting on manuscripts and securing an additional grant.

In the grants space, Ahluwalia began work on a National Institutes of Health R01 grant to be submitted as principal investigator either in October 2021 or February 2022. Early planning has also begun for work on a National Institutes of Health center grant in minority health and health disparities to be submitted in 2022.
Leticia Alvarado

AMERICAN STUDIES • 2021

Leticia Alvarado spent her post-tenure sabbatical, January 2021 through December 2021, advancing work on her second monograph, “Cut/Hoard/Suture: Aesthetics in Relation,” writing and completing invited contributions to edited books, and preparing a forthcoming article for a special issue of South Atlantic Quarterly edited by Samantha Pinto and Jennifer Nash.

Advanced with the support of an Andy Warhol Foundation Arts Writers Grant received the preceding summer of her sabbatical, “Cut/Hoard/Suture: Aesthetics in Relation” proposes to analyze pairs of contemporary artists of color from distinctly racialized communities whose work shares both formal qualities and strategies for negotiating a hostile present. In the pairing of artists conventionally siloed along identitarian lines in studies of art and race, this project centers theories of affect in its reading of aesthetic gestures to elaborate coalitional possibilities developed in relation across diverse populations. The idea of a relational Black and brown aesthetic is articulated with attentiveness to the ways cultural products move through fields of distinction calcified within systems of capital through which taste is established and mounted. Underscoring the co-consitutiveness of racializing epistemologies to global art markets through what is referred to as racial capitalism, “Cut/Hoard/Suture” examines supranational circuits of art circulation to query the possibilities of contestation within these same circuits while orienting the viewer to artistic maneuvers of informed and resistant engagement. The tripartite narrative begins with a cut from dominant teleological narratives that culminate in the contemporary supremacy of global north cultural production. Shifting from supranational circuits of cultural production to local histories carved by empire, “Cut/Hoard/Suture” ultimately negotiates the tensions of deploying the aesthetic in radical worldmaking within empire’s epistemes.

Sabbatical time generously supported by Brown allowed Alvarado to write a chapter for the above project after virtual studio visits and interviews with the artists centered in the chapter — namely the chapter “Hoard” featuring artists Xandra Ibarra and Doreen Garner. She delivered an invited talk, titled “To Have and to Hoard, Xandra Ibarra’s Object Lessons,” on this material at Stanford’s Humanities Center near the end of her sabbatical and was invited to deliver two additional talks at University of California, Los Angeles and University of California, Riverside early in 2022, just after the end of her sabbatical. This also provided the source material for an article on Ibarra written in its entirety during sabbatical for a special issue of the academic journal South Atlantic Quarterly, “Feminism’s Bad Objects,” edited by Samantha Pinto and Jennifer Nash, with a publication date of July 2023. The article was submitted to editors at the end of the sabbatical and has now been revised with editor feedback and is forthcoming.
Alvarado was further able to advance work on “Cut/Hoard/Suture” through a number of academic and public presentations. It was her pleasure to work with the Department of Visual Art at Brown to host and engage artist Firelei Baez in a staged virtual discussion. Alongside Wangechi Mutu, Báez is the subject of the third section of “Cut/Hoard/Suture.” Further, Alvarado presented research at both the Latin American Studies Association annual congress and at the American Studies Association annual meeting as part of the presidential session, which led to a guest lecture invitation at Syracuse University. Adjacent projects completed during sabbatical that are both an offshoot of her first book and linked to her second include an entry on “Abjection” for “Keywords for Gender and Sexuality Studies” (NYU Press 2021), which includes writing on Ibarra and an entry, also for “Abjection,” for the forthcoming “The Art Institute of Chicago Field Guide to Photography and Media” (Yale University Press 2023), fully completed during her sabbatical year.

As a final note, sabbatical time allowed Alvarado to significantly revise her popular seminar Latina Feminisms (ETHN 1750L) for her return to the undergraduate classroom as well as develop a new graduate seminar, Aesthetics of Relation: Minoritarian Gestures in the Visual Realm.

Scott AnderBois
COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES • 2021-22

Scott AnderBois spent the 2021-22 academic year on sabbatical primarily working on community-engaged language documentation work in collaboration with A’i communities, an Indigenous people in present-day Ecuador and Colombia (also known as Cofán). The National Science Foundation-funded project, known as the A’ingae Language Documentation Project, is co-directed by AnderBois and Wilson Silva (University of Arizona). It aims to collect a diverse annotated multimedia database of recordings in A’ingae and use those recordings to produce practical materials aimed at teachers and other community members as well as to answer scientific questions about the language’s grammar.

Following a COVID-induced delay, AnderBois and Silva were able to travel to Ecuador in Fall 2021 for an intensive two-week community workshop with A’i community members in Lumbaqui, Ecuador. They discussed community language goals, orthographic standardization and best practices for recording, annotation, and informed consent, and began or continued work on several ongoing projects: an alphabet book, a pedagogical manual, and a dictionary. Work on these community-oriented outcomes and on the database itself have continued apace with community members recording and annotating videos and regular virtual meetings ahead of the next series of workshops in summer 2022.
On the grammatical investigations side, AnderBois has used his sabbatical to make substantial progress on several different projects. First, together with Brown undergrad alum Maks Dabkowski ’19, AnderBois completed a series of manuscripts (the most recent is now to appear in Journal of Semantics) examining the grammatical expression of negative prospective emotions like fear. In joint work with Wilson Silva (University of Arizona) and Daniel Altshuler (Oxford), AnderBois has made substantial progress on a major new project examining Switch Reference in A’ingae. Switch reference is a relatively common cross-linguistic phenomenon in which clauses indicate not only information about their subjects but also relative information about whether their subjects are the same or different than those of adjacent clauses. While typically conceived of as a device for ambiguity resolution, in this ongoing work they argue that Switch reference is primarily rooted in signal particular coherence relations between clauses. Parts of this work have been recently presented at the Symposium on Amazonian Languages 4 at Berkeley, Semantics and Linguistic Theory 32 at Colegio de México/UNAM, and in virtual talks at UCSD, Toronto, Wisconsin, and Göttingen.

In addition to the above, AnderBois worked on several other projects in the grammar of Yucatec Maya and A’ingae: a paper on the discourse particle wal in Maya to appear in the International Journal of American Linguistics; a manuscript on headless relative clauses in Yucatec Maya and Ch’ol (with Jessica Coon (McGill) and Carol-Rose Little (Oklahoma)); A’ingae historical phonology (with Chelsea Sanker (Stanford)); and reported speech in A’ingae (with graduate student Jooyoung Lee).
Paul Armstrong’s intention had been to devote his sabbatical to the scholarly edition of E.M. Forster’s novel “Howards End” that he has been commissioned to prepare for the new Cambridge University Press edition of Forster’s collected fiction. As with many other things, the coronavirus pandemic upset those plans. He had hoped to work with the manuscript of this novel in the Forster archive at King’s College in Cambridge. Conditions in England last fall made travel inadvisable, however, and so he put this project on hold and instead used the sabbatical to begin a new book on what he is calling “The Neuroscience of Literary Time-Travel.” Following up suggestions in his most recent book, “Stories and the Brain: The Neuroscience of Narrative” (Baltimore: Johns Hopkins University Press, 2020), this project asks how brain- and body-based cognitive processes unique to our species make it possible for literary works to speak across historical distance.

The dead seem to come alive again when we read a novel or a poem from the past and feel the strange but intimate presence of other subjectivities inhabiting our consciousness and our bodies. The power of literary works to cross historical distance in this way may seem mysterious, even mystical, but it must have a material basis in our neurobiological equipment for making sense of the world. What is often referred to as the “life” of a literary work calls for an explanation that goes beyond formal or historical categories. Elucidating this complex, elusive state of affairs requires a neuro-phenomenological analysis of the relation between aesthetic experiences and their neural correlates, an analysis that integrates phenomenological theories of reading with neuroscientific research on embodied simulation, brain-to-brain coupling, and the anti-entropic organization of “free energy” in predictive processing. Reading is a process of doubling whereby we simulate cognitive processes held ready in a text, awaiting reactivation through our participation as we fill in its absences and make its world present. Because embodied brains can oscillate rhythmically together, we can interact with the activity embedded in a literary work and respond to the opportunities that these afford for reciprocity and collaboration. We speak with the dead by unbinding and binding cognitive energy, and the liveliness of their voices is a consequence of how our interactions with their patterns of meaning-making activate and sensitize our arousal systems.

During his sabbatical Armstrong wrote two essays that begin to lay out the book’s argument — a general exploration of these issues that integrates neuroscientific research with cognitive literary theory and a neuroaesthetic investigation of the specific techniques that the novelist Henry James devised to convey a sense of the past. With international travel now opening up once again, Armstrong tested the first essay in an invited plenary lecture at a symposium on “New Perspectives on Literature and the Brain” at the University of Amsterdam in May, followed by invited lectures at two nearby German universities (Aachen and Bonn). The second essay will be delivered as an invited plenary lecture at the international conference of the Henry James Society in Kyoto (originally scheduled for July 2022 but postponed for a year because of COVID-19 restrictions in Japan).
During Ariella Aïsha Azoulay’s stay at the American Academy in Berlin, she continued to work on her book “Algerian letters — the jewelers of the oummah,” an epistolary engagement with her ancestors and her intellectual companions, living and dead. Azoulay’s writing has been motivated by the assumption that undergirds her forthcoming book, that the Jewish Muslim world, destroyed by two colonial projects, can still be resuscitated and inhabited. She completed two long letters. One of them is addressed to her great-grandmother, Julie Boumendil, an anti-colonial Jewish Muslim mother who, according to the accepted wisdom of historians, could not have existed. But she did. As a single mother and head of her household, she raised Azoulay’s grandfather, Joseph Azoulay, who grew up to become a deserter who refused to be drafted to the French colonial army at the beginning of the first colonial World War. During that war, Jews and Muslims who were spread across empires and colonized lands were drafted to fight their own brothers who were conscripted into the colonial armies of “the other side.” In this letter Azoulay asks why she was deprived of the legacy of anti-colonial resistance, and explores the connection between this deprivation and the French citizenship that was forced upon her ancestors in 1870. Azoulay didn’t plan to write this letter to her great-grandmother Julie during her sabbatical, but perhaps it was unavoidable. Looking every day at the Wannsee Lake, across from that other villa (of the Wannsee Conference), she was haunted by her father’s inability to mourn the murder of his aunt, uncle, and cousins in Auschwitz, in a place where the Holocaust was understood only as the calamity of European Jews — and the Azoulays were Arabs. This letter to Julie is driven by a refusal to accept the Eurocentric model of Holocaust memory, and of historical research more generally, which limits the study of the Nazi extermination practices and separates them from those of the French colonization of North Africa. In light of Julie’s legacy, Azoulay explores the Vichy regime not as an accident that happened to the French imperial state but as the continuation of the French colonial regime.

Ariella Aïsha Azoulay’s “The Natural History of Rape,” on exhibition at the KW Institute for Contemporary Art in Berlin (Photo by Eyal Vexler)
The second letter Azoulay wrote is addressed to Franz Fanon, one of her elected kin. In 1943, despite what he was told by his father and by Aimé Césaire and others in his community in Martinique, Fanon decided to travel to Oran and to volunteer for the colonial French Free Forces. At the very same time, Azoulay’s father was released from the Bedeau concentration camp in Algeria, and — despite the solid warnings he heard from many Algerian Jews — he also volunteered for this same army. Both Azoulay’s father and Fanon soon departed from Oran to Tunis on the way to fight in Italy, Germany, and France. They never met (during the war or after). But both came back to Algeria after the war and could have met in Blida-Joinville, if her father had asked for psychiatric assistance in Fanon’s clinic there, had he complained, for example, about his colonial trauma or the inability to mourn the loss of part of his family in Auschwitz. But he didn’t. Even if he would have done so, Azoulay’s father would have been treated there as a “European,” sent to the European wing, together with French settlers, many of whom never ceased to suspect, harass, and despise Algerian Jews, partly also due to their status as French citizens. In the letter, Azoulay is trying to understand why Fanon, who knew that Jews had lived in Algeria for many centuries, still related to them according to the relatively new status assigned to them by the colonizers. Considering Fanon’s erroneous understanding of the “Jews” of Algeria as a European minority, the letter attempts to understand with him the origins of his blunder and the harmful effect it had, both at the time of his writing and later, well into the present, when Muslim Jews are still being removed from the annals of colonization and the anti-colonial discourse and struggle, and persecuted when they join this struggle.

During her sabbatical, Azoulay also finished the editing of her film “The World Like a Jewel in the Hand,” for the completion of which she received the Salomon Award. She also worked on a revised version of her exhibition project “The Natural History of Rape,” which is currently shown at the Berlin Biennale, at the KW Institute for Contemporary Art in Berlin.
Shahzad Bashir
HISTORY AND RELIGIOUS STUDIES • 2020-21

Shahzad Bashir’s sabbatical year was spent mostly on writing. His original plan had been to finish some writing projects while also starting archival for his next major endeavor. Travel restrictions and library closures in Europe and Asia made the latter ambition impossible. He had received a six-week visiting fellowship at the Einstein Centre Chronoi in Berlin for January 2021. All of the center’s work was transferred online, and he ended up participating in events and discussions via Zoom.


While on leave, Bashir also worked extensively with graduate students. He guided the completion of two dissertations in religious studies, comprehensive exams for one student, and biweekly meetings with four students.
Laura Bass
HISPANIC STUDIES AND HISTORY OF ART AND ARCHITECTURE • SPRING 2022

Laura Bass dedicated a Spring 2022 sabbatical to two main projects: a monograph on literary and artistic articulations of local belonging and civic identity in 17th century Madrid, and, in collaboration with art historian Tanya Tiffany (University of Wisconsin-Milwaukee), a translation and bilingual critical edition of the spiritual autobiography “Vida,” of the 17th century Spanish painter and nun Estefanía de la Encarnación, with support of a National Endowment for the Humanities Scholarly Editions and Scholarly Translations grant.

The fundamental aim of the first project is to complicate prevailing historiography on Madrid as a city whose aspirations and self-conception were entirely determined by the royal court, which first established the city as capital in 1561. There is no question that the arrival of the court spawned unprecedented growth, transforming Madrid from a town of 20,000 in 1560 to a metropolis of 130,000 in 1650. Nor can it be disputed that the major writers and artists of the so-called Spanish “Golden Age” spent at least significant portions of their lives in Madrid, eager to gain favor within its circuits of aristocratic patronage and often taking advantage of a booming market for literature, art, and theatrical entertainment. Like the vast majority of the city’s population, Madrid’s culture-makers (the term they used was ingeniós — literally, “wits”) were children of immigrants or immigrants themselves. However, if their concentration in the city was a function, directly or indirectly, of its establishment as the seat of the court, Madrid’s artists and intellectuals were more than products of Madrid’s capital status. They were its producers as well. Beyond lending their talents to royal pomp and pageantry, Lope de Vega, Calderón de la Barca, Juan de van der Hamen, María de Zayas, and many others endowed the city with a historical memory and cultural eminence that encompassed but also transcended Madrid’s royal status. They did not so much register opposition to the monarch (they couldn’t have) or a will to political self-governance as convey a longing for cultural self-determination beyond the patronage system. Drawing on sources ranging from local chronicles, hagiographies, and art treatises to poems, paintings, and plays, Bass argues that the discourse of local patriotism cultivated by Madrid’s ingeniós offset the power of the court as the main source of symbolic capital for determining both Madrid’s prestige and their own.

Given this research focus, Bass was delighted to spend the bulk of the semester in Madrid itself, taking advantage of the letup in pandemic restrictions to re-immersing herself in the kinds of scholarly exchanges that virtual platforms can barely approximate and in the onsite archival and library research
that digital formats never fully replicate. She structured her efforts around several professional meetings and lectures. These included a symposium held by invitation at the Prado Museum on the legacy of Spanish art historian Julián Gállego (1919-2006), celebrated for his groundbreaking interdisciplinary (literary, legal, sociological) approaches to painting and the status of the artist in the Spain of El Greco and Velázquez. Bass’s contribution centered on the artistic identity, religious devotion, and bicultural allegiances of the Italo-Spanish painter and art theorist Vicente Carducho, a member of Madrid’s cultural elite, as gleaned from his last wills and testaments. For all their formulaic rigidity, Bass found Carducho’s bequests surprisingly poignant in their quotidian immediacy and remarkably useful for mapping the artist’s professional networks and personal connections across Madrid and between Madrid and Florence. A longer version of her Prado talk will appear next year in an edited volume published by the Prado and the Casa de Velázquez, one of the world’s premier research institutions of Iberian studies.

Bass gave another talk directly related to her Madrid book project at a conference held at the University of Barcelona and the Museu Nacional d’Art de Catalunya on the occasion of the fourth centenary of the canonization of four Spanish saints — including Madrid’s patron, San Isidro the Farmer — and one Italian. Bass focused on the poetic competitions organized in honor of Isidro’s beatification (1620) and canonization (1622), exploring how these collective celebrations of the humble plowman’s ascent to heaven’s “excelsa monarquía” (exalted monarchy) negotiated the tensions latent in the consolidation of Madrid’s dual identity as town and court. San Isidro was also the focus of a keynote lecture she gave at the University of Warwick, where she spent two weeks as a visiting fellow sponsored by the Institute of Advanced Study: a highlight of the semester that allowed her to meet as well as reconnect with colleagues from several U.K. institutions.

A particular focus of Bass’s work with Tiffany on the “Vida” of Estefanía de la Encarnación these past months has been a line-by-line comparison of the two extant manuscripts of the text: a polished copy held at the Biblioteca Nacional de España, which was evidently written with an eye toward publication, and a far rougher version at the University of Salamanca. Bass and Tiffany have discovered more significant discrepancies in the two copies than they anticipated, with the Madrid version omitting a number of passages in which Estefanía asserts a degree of religious authority that would have run afoul of ecclesiastical censors.

While tremendously grateful to have this time to focus on her own research largely free of administrative and teaching responsibilities, Bass was also happy to continue working with students as the director of three dissertations and the primary advisor on two oral exam committees and to serve the profession as book review editor of the Bulletin of the Comediantes.
Susan Bernstein  
**COMPARATIVE LITERATURE AND GERMAN STUDIES • SPRING 2021**

Susan Bernstein was on sabbatical during Spring 2021. During that time, her main accomplishment was the completion of her book manuscript, “The Other Synaesthesia,” now under contract with SUNY Press.

“"The Other Synaesthesia" investigates synaesthesia (from the Greek “sun” — together — or with “aisthesis” — perception) in writers ranging from Aristotle to Baudelaire to Jean-Luc Nancy. Bernstein uses the term synaesthesia to refer not only to the combination and crossing of the senses but also to the combination and crossing of the arts. Her central claim is that while synaesthesia is generally read as a figure of transcendence and unity, there is also another effect of synaesthesia that articulates differences and displaces the position of essence. This other synaesthesia opens up within or alongside of the more familiar sense of synaesthesia as synthesis, and points to an alternative understanding of the arts that sees them “interbelonging” in a kind of rhythmic relation rather than as parts of a totalizing aesthetic whole. Bernstein’s project looks at this language of connection that resists unification to understand the workings of synaesthesia and the interarts in philosophy and literature. In doing so, the book contests the suggestion that physiological or neurological synaesthesia is the basis or foundation for the aesthetics of synaesthesia. The other synaesthesia is connected to the discourse of community since Aristotle, for whom it means “shared perception,” and can also be viewed in that context. The opening chapter introduces the notion of another synaesthesia as a non-sublatable collection of differences, modeled like community, in readings of Nancy, Adorno, and Benjamin. For Nancy, community, like synaesthesia, is based on the “avec,” or the “with,” to deontologize Heidegger’s “being-with.” It articulates a rhythmic interruption that allows subject positions to come into being, rather than connecting prior existents. The arts “interbelong” to one another, just as the senses do in synaesthesia. Synaesthesia is compared to constellation and composition and to the structure of writing in Benjamin and Adorno. All three are spatial models that hold open differences and defy sublation. Subsequent chapters take a fresh look at the operation of synaesthesia in a variety of writers. Themes include synaesthesia, correspondence, and community in Baudelaire’s poetics and art criticism; Wagner’s theory of the Gesamtkunstwerk; the question of synaesthesia, decadence, and symbolism; and the correspondence theory of truth as critiqued by Heidegger.

In addition, Bernstein worked on new research and wrote a paper that she delivered at the Modern Language Association Annual Convention in January 2022. The paper, titled “Heinrich Heine and Ludwig Börne Revisited: Romance and Realism of German-Jewish Identity,” grew out of a new course, Germans and Jews, she taught during Fall 2020 in the Department of German Studies.
In the first weeks of his Fall 2021 sabbatical leave, Timothy Bewes put the finishing touches to his book “Free Indirect: The Novel in a Postfictional Age,” writing an introduction and working on the production stages of the book. “Free Indirect” was published by Columbia University Press in July 2022 and is the culmination of several years of theoretical and archival research, much of which was completed during two previous sabbatical semesters. It is the first of a two-book project devoted to certain transformations in the practices of writers of fiction in the last two decades and their implications for critical practice. “Free Indirect” argues that such transformations make possible not only a new conception of literary meaning for the 21st century but a revised account of the history and theory of the novel tout court, focused on the nature of the novel itself as a mode of thought.

For the remainder of his sabbatical, Bewes worked on the second of the two books that form this project. Its working title is “Recent Experiments in American Fiction” (which is also the name of a course that Bewes taught at Brown several years ago), and it is devoted to developing a critical practice that responds to these transformations, taking them seriously as a challenge to the procedural assumptions of literary studies as a discipline — most fundamentally, that the literary work is an object of critical analysis. The book is conceived as having three five-chapter sections. During his sabbatical Bewes completed a draft of one of these sections, titled “What does it mean to write fiction? What does fiction refer to?”

In addition, Bewes wrote an essay engaging a series of works informally known as the “Jesus” novels by the South African-Australian novelist and Nobel laureate J.M. Coetzee. The essay will be published in the “Bloomsbury Companion to J.M. Coetzee” (Bloomsbury Publishing) in 2023.
Christine Breiner
MATHEMATICS • SPRING 2022

Christine Breiner spent her sabbatical semester of Spring 2022 in residence on the Brown campus. She took the opportunity to begin a number of new projects that included a gluing construction for minimal soap films and a rigidity result for harmonic maps to metric spaces. Minimal surfaces and harmonic maps are variational solutions to the area and energy problems, respectively, and any conformal harmonic map is also a minimal surface.

In recent years, Breiner has taken up a study of harmonic maps to metric spaces. These objects were initially developed as a tool to study rigidity problems, but Breiner used them to prove a uniformization theorem for certain types of singular spheres. During her sabbatical semester, she studied harmonic maps with applications to rigidity problems and learned the theory for harmonic maps from singular domains (RCD spaces) to the metric space targets. One project in this area is nearing completion, while a number of others are just beginning. As an added bonus, she determined a few problems that would be appropriate for a graduate student to consider.

Toward the end of the sabbatical, Breiner started work on a gluing construction for minimal soap films. This project, in collaboration with Brown faculty member Nikolaos Kapouleas, combines her expertise in gluing constructions with her love for minimal surfaces and singular objects. The work is at its early stages and the scheme is developing, but all signs point to a successful resolution of the problem. The construction would provide the first example of such an object, even in Euclidean space, and it would demonstrate the necessity of the boundary regularity in hypotheses for many known theorems.

In addition to pursuing research, Breiner organized a Hot Topics Workshop at the Simons Laufer Mathematical Sciences Institute (MSRI) and organized the geometric analysis seminar at Brown — which had been dormant since Spring 2020. She participated in ad hoc initiatives to increase the community support for women and non-binary individuals in the mathematics department and was also an invited speaker at the geometric analysis seminar at Massachusetts Institute of Technology and a colloquium speaker at UniDistance Suisse and the new Gromov, Hanke, Sormani, and Yu's Not Only Scalar Curvature (GNOSC) Seminar.
Constrained by the continuing pandemic to abandon plans to spend Fall 2021 in China or Japan, Cynthia Brokaw remained for most of the semester in Providence, devoting her energies to completing preparations for delivery of the Panizzi Lectures, a three-part series on the history of book sponsored by the British Library. Only the second scholar to speak on Chinese (or East Asian) book history since the inception of the series in 1985 — and aware that the Panizzi audience is composed largely of aficionados of the Western book — she chose to present an overview of the pre-20th century Chinese book publishing, in particular works produced by woodblock printing, the dominant technology of publication from the eighth to the 19th centuries.

After postponing in 2020, the Panizzi board decided to move ahead with the lectures this year, even though it meant they were online only. Fortunately, Brokaw was able to travel to England to give the lectures to a very small in-person audience, but a much larger online audience (thanks to Jonathan Hill Booksellers, which provided funds to support livestreaming). “‘Spreading Culture Throughout the Land’: Woodblock Publishing and Chinese Book Culture in the Early Modern Era” (the series title) attracted a broad audience of viewers from Asia, Europe and the U.S. Lecture 1, “Woodblock Publishing in China’s First Age of Print,” introduced the varied technologies of printing and the works of the first — and, aesthetically speaking, “golden age” — of Chinese print. “The Publishing Boom of Early Modern China and Late-Ming Book Culture” and “Empire of Texts: The Expansion of Woodblock Publishing and the Rise of the Common Reader” (lectures 2 and 3) allowed her to focus more sharply on her own research interests: the role that commercial publishers played in promoting vernacular works designed for “the common reader” and the resulting significant expansion in the social — and, ultimately, the political — reach of Chinese book culture.
While in England Brokaw was supported by a generous Yip Visiting Fellowship at Magdalene College, Cambridge University. Sadly, her time at Magdalene was cut short by COVID-19, but she did have opportunities to present her research ("Field Work in the Social History of the Book in China") to the East Asia Seminar at Cambridge and to interested Magdalene fellows.

As her ongoing research project (on the study of commercial woodblock publishing and the creation of new reading publics in early modern China) depends on her ability to work on site and in county-level archives in China (the sources she relies on have not been digitized), Brokaw was unable to make the progress in 2021. In fact, the restrictions imposed by the pandemic and, even more problematic, the increasing difficulties foreign scholars face in gaining access to sources and fieldwork opportunities in China, have compelled her to rethink her research priorities. Drawing on the Panizzi Lectures, she plans to write a social history of the book in early modern China, a comprehensive study of the unfolding of China’s largest pre-modern publishing boom and its social and political impact. Such a work would supply a synthesis of the wealth of scholarship that has come out on Chinese book history in the last two decades (the last survey of Chinese printing history was published in 1985) — and allow her to contextualize her research within the larger field.

Stephen Buka

Stephen Buka spent the first half of his Spring 2022 sabbatical semester in Israel. His primary affiliation was with the Department of Psychiatry and the Gertner Institute for Epidemiology and Health Policy Research at the Sheba Medical Center. During this time, he collaborated with faculty and delivered talks at the universities of Tel Aviv, Jerusalem, and Haifa.

At the Gertner Institute, he worked on two projects, both anticipated to result in collaborative National Institutes of Health grant submissions. The first concerns the role of maternal infections in utero on the development of autism spectrum disorder, with a novel approach that takes into consideration the high rates of comorbidity between autism spectrum disorder and intellectual disability. New data analyses and a manuscript were completed using data from the U.S., along with initial plans for parallel work in Israel. The second project, with Gertner experts in maternal fetal medicine, advances ongoing work on placental insufficiency, preeclampsia, and early antecedents to adult cardiovascular disease. Along with collaborators in Barcelona, Spain, this has resulted in a large research project planned for National Institutes of Health submission in the upcoming semester.

The second portion of the semester was dedicated to writing and publication. This included several scientific manuscripts, book chapters, and upcoming grant submissions. During this leave Buka also continued to co-direct (remotely) ongoing research projects at Brown.
Kate Carey

BEHAVIORAL AND SOCIAL SCIENCES • 2021-22

Kate Carey spent her Fall 2021 sabbatical in residence at Brown, advancing several active research projects and devoting time to writing and grant submissions. Her research program focuses on developing and evaluating novel brief interventions to reduce risk related to alcohol misuse by young adults. Two of her projects receiving National Institute on Alcohol Abuse and Alcoholism (NIAAA) R01 funding are nearing completion, and their teams have mobilized for data cleaning and analysis. Both projects had been interrupted by the COVID-19 pandemic, which not only slowed data collection but also changed the underlying social contexts of the very behaviors they are trying to study. During the fall, Carey devoted time and attention to overseeing this detail-oriented phase of the research.

Project AIMS (Alcohol Intervention for Mandated Students) is supported by an NIAAA R01 grant. This is a randomized controlled trial, conducted at Binghamton University, which recruited 468 students sanctioned for alcohol violations in order to test a method of optimizing the effect of online alcohol interventions. Specifically, the research team prefaces an online education program (eCHECKUP TO GO) with a values affirmation exercise involving listing key personal values and writing an essay about how they show that value in their daily lives. The team completed recruitment for this trial in December 2020 and completed all planned 12-month follow-ups at the end of 2021. They spent the fall semester preparing datasets and codebooks for the longitudinal efficacy analyses to commence. It has become clear that detecting the effects of brief interventions on college drinking outcomes has become more challenging due to COVID disruptions and resulting social gathering restrictions, requiring new analytic considerations to detect signals from noise.

In addition, the sabbatical allowed Carey to make timely progress on three spinoff studies using Project AIMS data. First, her team also conducted a qualitative analysis of the essays generated by students describing their most important value. The purpose of this study, titled “Qualitative Examination of Values Among College Student Drinkers,” was to identify which values are important to college student drinkers and what underlying principles and motivations support those values. A sample of 198 student essays describing their values was categorized and thematically analyzed by the research team. The majority of values fell under the category of Relationships, followed by Morality, Future Orientation, Wellness, and Benevolence. Most students placed a high value on their commitment to others, which may provide insight into effective and novel ways in which health messages could be communicated to college students. This paper is now under review.

Second, Carey supported graduate students on the Project AIMS team who examined the effect of the COVID-19 pandemic on college student alcohol consumption: “Comparing alcohol use of pre-COVID-era and post-COVID-era cohorts of mandated college student drinkers.” This paper compared alcohol use behaviors and perceived drinking norms among mandated student cohorts enrolled in Project AIMS in Fall 2019 (pre-COVID, n=118) and Fall 2020 (when they return to campus under COVID restrictions on social gatherings, n=110). This study showed that mandated college students during the COVID-19 pandemic consumed less alcohol, engaged in less pregaming, consumed fewer drinks while pregaming, and reported fewer negative alcohol consequences.

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than a cohort from the previous year. In this campus case study, COVID restrictions were associated with reduced overall quantity and risky practices. This paper has been accepted for publication and will be presented at the June 2022 Annual Meeting of the Research Society on Alcoholism.

Third, Carey was the lead author of a paper that has now been accepted for publication in the journal Addictive Behaviors on “Use of protective behavioral strategies and blackout experience among mandated college students.” This study built upon her previous research on the correlates and consequences of blackouts, or alcohol-related memory impairment; blackouts are often associated with other alcohol-related harms. This study demonstrated that greater use of certain types of protective strategies (those designed to slow the speed of drinking or absorption of alcohol) were associated with fewer blackouts. However, utilization of a specific subset of protective strategies (those focusing on harm reduction such as avoiding driving while intoxicated) was not associated with blackouts. The implications of this work include being selective about the strategies recommended for drinkers who wish to avoid blackout experiences. This paper will also be presented at the June 2022 Annual Meeting of the Research Society on Alcoholism.

Project RAVEN is also supported by an R01 grant from NIAAA. This two-site randomized controlled trial is evaluating the efficacy of a brief intervention based on the principle of counter-attitudinal advocacy (CAA) to change alcohol-related attitudes in support of moderate drinking. Specifically, heavy-drinking college students are prompted to advocate for a counter-attitudinal topic (i.e., benefits of avoiding problems), which is designed to create a state of dissonance between their behavior and their written and spoken statements. According to theory, this activity should prompt behavior change in order to resolve the dissonance. The new CAA intervention is compared to an assessment-only control to determine absolute efficacy, and to an empirically-supported personalized feedback intervention to determine relative efficacy. This trial is in its final year of recruitment and, in the fall, Carey oversaw (a) the training and supervision of new interventionists, (b) the review of data documentation and data quality and (c) the drafting of methods for papers using this large dataset (n=589).

In addition to these grant projects, the sabbatical has facilitated Carey’s ability to participate in collaborative writing. She was able to contribute to several additional articles submitted for publication with former and current postdocs and doctoral students, and to help with the re-submission of an R34 grant on which she is a co-investigator (Jennifer Merrill, principal investigator).

Throughout the fall Carey continued to discharge her duties as behavioral and social sciences Ph.D. director of graduate studies, including participating in recruitment and admissions activities. The time afforded by this sabbatical allowed her to initiate a project that was inspired by the career coaching conversations she has had with behavioral and social sciences doctoral students over the years. As a special project, Carey developed and organized professional development materials for doctoral students. Specifically, the product was a professional development resources Google folder for behavioral and social sciences graduate students, to organize resources for applying to academic jobs. Initial documents included: (a) descriptions of the purpose of research statements, teaching statements, and DEI statements; (b) lists of internet resources on the topics; and (c) recent examples of these statements provided by current and former Ph.D. students and faculty. The public launch of these resources led to the implementation of monthly behavioral and social sciences professional development brown bag lunches, which started in Spring 2022.
Prudence Carter
SOCIOMETRY • SPRING 2022

Prudence Carter’s sabbatical spans from January through December 2022, and during this time she has begun a new research project that delves into issues of ensuing cultural and social conflict during heightened demands for social differentiation and inclusion of historically underrepresented and minoritized groups in education and society. Specifically, her new empirical work focuses on the visions, actions, and behaviors of two groups of cultural and power brokers — higher education and philanthropic leaders, as potential levers of progressive social change. Another strand of the work focuses on the meaning-making of both religious and political conservatives, examining differences by race, gender, and educational backgrounds, and taking an in-depth examination into how and why their attitudes and behaviors toward various forms of inequality and social differences persist — begging the question of whether they are mutable or not. Carter’s new study theorizes about imaginative routes for social progress in schools, communities and beyond. Thus far, the preliminary analyses and work have been spotlighted in the distinguished Kinsley Birge Lecture that she gave at Colby College on April 14, 2022, and a talk in the Brown Provost’s Faculty Lecture Series held at the Faculty Club in late April.

During this time, Carter has also published an essay (“Epistemic and Social Diversity as Sociology’s Strengths”) in Critical Sociology about the current epistemic debates in her discipline, sociology, and co-authored a white paper, commissioned by the Spencer Foundation, on race and inequality in schooling and education in the U.S. and abroad, with political philosopher Michael Merry of the University of Amsterdam. In terms of her research, an article published in Socius and co-authored with two colleagues (Andrew Nalani and Hiro Yoshikawa) at New York University won the 2022 Best Paper Award on Social Policy from the Society for Research on Adolescence.

Finally, Carter’s sabbatical also coincides with her service as the 2022 president-elect and president of the American Sociological Association, the nation’s largest society of sociologists in academe and other spheres. In these official capacities, she serves in both an administrative role on the association’s governing council and executive committee and a programmatic one as chair of the program committee, which is planning the 2023 annual meeting of the American Sociological Association, to be held in August in Philadelphia.
Rebecca Carter
ANTHROPOLOGY AND URBAN STUDIES • 2021-22

Rebecca Carter spent most of her sabbatical year at Brown, in residence as a faculty fellow at the Cogut Institute for the Humanities during the fall semester and engaged in the development of new research in the spring. She conducted a short period of fieldwork in the Piedmont region of South Carolina over the summer. The year provided a timely and important space for expanding the aims and methods of anthropological research, particularly in response to the impact of the COVID-19 pandemic and the overlapping social, economic and environmental crisis from which it stems.

Carter’s research thus developed through creative experimentation, which built upon her previous training in the visual arts and continued through external workshops in drawing, animation, and creative writing, the latter as a participant in the Hurston/Wright Foundation’s Writer’s Week Workshop in summer 2021. At the Cogut Institute she used these skills to revisit her first research project in New Orleans (Prayers for the People: Homicide and Humanity in the Crescent City), exploring ways to move alongside and past a dominant scholarly focus on Black death and engaging with recent scholarship on restorative kinship and Black aliveness. Two projects emerged from this study. In the first, “Prayers for the People Revisited: Digital and Experimental Animation in and Beyond the Space of Death,” Carter used animation as a tool for unfixing and then setting in motion the expansive dimensions of Black being and becoming. She created three short animated scenes using imagery and sound from her previous research combined with new drawing, painting, and cut paper puppetry. This work was presented in two invited talks in the spring, at the University of Michigan and at Harvard University as part of a seminar series on Anthropology as a Mode of Black Study. Carter also drafted a related book chapter for a forthcoming edited volume (“The Cambridge Handbook of the Anthropology of Death,” edited by Ruth Toulson and Sarah Wagner, Cambridge University Press).

Two animated still frames from Rebecca Louise Carter’s “I Used to Always Look Up in the Clouds,” 2022.
In the second half of the year Carter worked to extend these ideas into new research, conducting preliminary fieldwork in the Piedmont region of South Carolina on Black aliveness from the late 19th century forward, focused in particular on her own ancestral history in Anderson County. This research will culminate in a book integrating ethnographic and historical data with creative nonfiction writing and artistic work, especially drawing and portraiture.

Finally, Carter used her sabbatical to expand her commitment to engaged, collaborative, and community-based scholarship, developing a partnership with the Pawtucket Public Library to train and support local youth as they observe and document their lives, within the broader context of urban decline, slow economic recovery, and the imagined future of this post-industrial and one day post-pandemic city. Preliminary planning took place alongside volunteer service, including as a member of the Community Advisory Board for Pawtucket Public Schools.
Anthony Cheung
MUSIC • SPRING 2022

The first semester of Anthony Cheung’s post-tenure sabbatical got off to a great start. While remaining in Providence and coming into the office nearly every day, he focused most of his energies on an hour-long song cycle for tenor, violin, piano/keyboard and electronics, titled “the echoing of tenses.” The work consists of a series of reflections and ruminations on memory — made complicated by the circumstances and tensions of cultural and personal identity, family, migration, loss, and reflection — bringing together the texts of seven prominent and multigenerational Asian American poets, from Ocean Vuong and Jenny Xie to Li-Young Lee and Arthur Sze. With settings ranging from traditionally sung to spoken (prerecorded voices and recitations on stage by the musicians, as well as by the poets Victoria Chang and Sze), it encompasses a broad range of text-to-music interpretation. Cheung performed the piano/keyboard part (which included a keyboard in multiple tuning systems), along with violinist Miranda Cuckson and tenor Paul Appleby, and with sound design by David Bird. The piece will be performed as part of American Modern Opera Company’s residency at Brown, as well as at the 92Y in New York, both in Spring 2023.

This semester also saw the premieres of three other works, two of which were written in the early part of the pandemic and postponed several times over. “Bitter Seas,” commissioned for pianist Shai Wosner’s “Variations on a theme by FDR” project, is a short homage to Theresa Hak Kyung Cha (1951-82), the South Korea-born and San Francisco-raised interdisciplinary artist/writer whose work explored themes of...
cultural memory, trauma, and erasure. Wosner premiered it in February as part of a suite of five new works honoring immigrant identities, first in New York, then in Los Angeles and at the Konzerthaus in Vienna. Another piano work, “Holding Patterns,” received a delayed premiere in May by David Kaplan in Los Angeles and Vancouver. In three movements, it continually plays with expanding patterns of cells and loops in multiple layers. Finally, the flute/piano group Duo Axis performed the premiere of “Axis Mundi” at Brown in March as part of a mini-residency, also taking the piece to Boston and University of California, Davis. Several other works received repeat performances, and Cheung was able to attend one of Bagatelles, a piano quintet, performed by musicians of the New York Philharmonic at Jazz at Lincoln Center, on a program celebrating the legacies of Clara and Robert Schumann.

Cheung also spent much time working on the editing and mixing for two upcoming portrait albums. “All Roads” (New Focus Recordings, August 2022) focuses on a multi-movement piano quintet (Gilles Vonsattel and the Escher Quartet) that imagines multiple detours away from Billy Strayhorn’s “Lotus Blossom.” Other works on the album include “Elective Memory” (2016) for violin and piano, written as a response to Beethoven’s final violin sonata, and “Character Studies” (2016), for solo violin; these recordings feature violinist Miranda Cuckson and Cheung on the piano. Finally, “All Thorn, But Cousin to Your Rose” (2017) is an irreverent monodrama for soprano and piano that sets Vladimir Nabakov’s polemical writings on translation in conversation with the examples he cites (sometimes back-translated through Google Translate) as well as his own translations of passages from Eugene Onegin. An additional portrait album slated for the fall, titled “Music for Film, Sculpture, and Captions” (KAIROS) features pieces for large ensemble written between 2019 and 2021, including responses to sculptor Ruth Asawa (“A Line Can Go Anywhere”), filmmaker Guy Maddin (“Null and Void”), and captioned listening (“The Natural Word”) in collaboration with scholar Sean Zdenek and video artist Tristan Cook. These are taken from live and studio recordings by leading new music groups — Frankfurt’s Ensemble Modern, Cologne’s Ensemble Musikfabrik, and Chicago’s Ensemble Dal Niente, respectively.

Other recordings featured short works as part of larger collections: French pianist Bertrand Chamayou’s traversal of Olivier Messiaen’s “Vingt Regards sur l’Enfant-Jésus” (Warner Classics, June 2022) included an early work of Cheung’s from 2001 in tribute to Messiaen. And in April, violinist Jennifer Koh’s double-album “Alone Together” (Cedille), which featured pieces by 39 composers written during lockdown (including Cheung’s “Springs Eternal”), won the Grammy for Best Instrumental Solo. Cheung looks forward to the conclusion of his sabbatical in the fall, and to researching and realizing more creative projects in the months to come.
Michelle Clayton  
**COMPARATIVE LITERATURE AND HISPANIC STUDIES • 2021-22**

With the support of a Cogut Institute for the Humanities Faculty Fellowship, Michelle Clayton was able to take a yearlong sabbatical to work on several ongoing and new projects. First and foremost, revising chapters of her current book project, “Articulations: Scenes of the Modern,” on imbrications between dance, literature, and the visual arts in the early 20th century. Over the course of the year, Clayton presented sections of the project in the Cogut Institute’s weekly seminar, for graduate students and faculty in theatre arts and performance and in a virtual forum for dance scholars she has been convening over the course of the pandemic.

Clayton has also been working on a number of new projects, articles, and activities. In December, Clayton participated virtually in a conference in Buenos Aires dedicated to new readings of the Peruvian sociocultural theorist José Carlos Mariátegui, which she subsequently reworked into an article on Mariátegui’s “radicant comparatism.” In February, she took part in a conference at the Huntington on the centenary of James Joyce’s “Ulysses,” with a paper on Latin American adaptations of “Ulysses.” In March, Clayton wrote an invited article for a Spanish journal revisiting the Peruvian poet César Vallejo, whose centenary is also being celebrated this year, and on whom she will give a keynote address at a conference in London and Oxford this fall.

Further, Clayton has published or has forthcoming several articles she has been developing and revising over this academic year: “The Andes in Common,” on practices of “inter-animation” and “reanimation” clustered around dance and décor in early 20th century Latin American writing (October 2021); “Dancing Returns: Recovering Modernism’s Movements,” on museum exhibitions that feature and highlight interplays between dance, literature, and the visual arts from the 1910s to the present (April 2022); “Transculturating Chaplin,” on readings of Chaplin across a broad western horizon from the 1910s through the ’30s, delving into the notion of critical consumption (May 2022); “Tracking Dance in Latin American Literature,” an investigation of tropes and practices of dance in poetry, prose, and essays across the 20th century (August 2022); “Fictions of the Avant-Gardes,” an exploration of Roberto Bolaño’s rescuing of the historical and neo-avant-gardes in his novel “The Savage Detectives” (September 2022); “The Language of Lines,” an article on the Spanish dancer Antonia Mercé (under review); several shorter encyclopedia and catalog entries on dance and literature (forthcoming); and reviews of three books (on poetry, dance, and pandemic writing) that are forthcoming.

Clayton has also enjoyed the opportunity to return to translation as critical practice. After the Huntington conference, she translated an essay by Argentinean Ricardo Piglia on cross-cultural readings of “Ulysses” (currently under review) and has now begun several larger translation projects: Piglia’s essay collection “El ultimo lector” (The Last Reader); essays on the avant-gardes by José Carlos Mariátegui; and the novel “El año del desierto” (The Year of the Desert), by Argentinean Pedro Mairal.
Joan Copjec was very grateful to receive the standard sabbatical leave for the Fall 2021 semester. Copjec taught a summer course in 2021, and so her break from teaching seemed to fly by very quickly. Yet she thinks she accomplished a number of important tasks and managed to move her research forward as a result of this very welcome break.

Copjec would have liked to extend the sabbatical leave for a full year, but had leisure to apply for only two fellowships: the Graham Foundation and the Cogut Institute for the Humanities. She is pleased to report that she received the maximum award from the Graham Foundation for a book project: a $10,000 grant to edit a collection of essays called “South Side Stories,” which will recount political/urbanist/activist narratives of the relations between the University of Chicago and the Black neighborhood on its South Side. The project has the endorsement of faculty members at the University of Chicago, who have agreed to contribute to the volume, and Copjec spoke briefly with the president of the University about the project. While Copjec regrets the Cogut Institute’s decision not to support this project, she realizes that other extremely worthy projects must have been submitted, which did not have the narrow Chicago focus of hers.

Perforce, her sabbatical semester had to be divided among her urbanist interests (she has become the president of an urbanist think tank, Terreform, with a publishing imprint, Urban Research) while her main intellectual contributions have been to psychoanalysis, philosophy and cinema. During the Fall 2021 semester she oversaw the publication of four books (which were begun, she must note, before she took over): “Open Gaza: Architecture of Hope,” edited by Michael Sorkin and Deen Sharp (published with the American Top: House as Garden. Middle: Aerial view of House as Garden. Bottom: Digitally constructed model of House as Garden from another angle
University in Cairo); “Nanjing Charter: Eric Owen Moss Architects” (which is being translated into Chinese); “Between Catastrophe and Revolution: Essays in Honor of Mike Davis,” edited by Daniel Monk and Michael Sorkin; and “Genealogy of Bassac,” edited by Brian McGrath and Pen Sereypagna.

Unable to find the funds to produce the exquisite images of a fifth Urban Research publication, she contacted MIT Press and gave them the materials on the condition that they acknowledge the years of research Terreform devoted to the project. The MIT book, “Gregory Ain: Notes from Another Los Angeles,” will be published next month.

In the meantime, Terreform held various events surrounding the publishing of “Open Gaza,” in which she has participated.

Beyond this, Copjec participated in weekly Zoom meetings with “Blacks in Green,” a Black advocacy group for environmental justice and green community economic development. Some of their current projects include recently purchasing the Emmett Till House, attempting to build a “sustainable square mile” in West Woodlawn, Chicago, and commissioning an affordable, sustainable housing project, House as Garden. House as Garden was awarded the international Holcim prize for a sustainable environment. Copjec was invited to the Architecture Biennale in Venice in November 2021 to accept the award and participate in three days of discussion on the issues involved in the project.

Copjec has been working closely with the Avery Architectural Archive (at Columbia University), City College of New York, the Architectural Association in London, the Architectural League of New York, and the Urban Design Forum in New York City to establish a number of archives and to launch at the end of the month a program, “New City Critics,” which will grant fellowships to young thinkers from underrepresented groups to write about architecture and urbanism.

Aside from these urbanist pursuits, she has attempted to move forward with her Islamic philosophy/Iranian project, which has been long in the works. Copjec sketched out the final two chapters, (very) tentatively titled “From the Cloud to the Resistance” and “Revolution and Profanation.” She delivered the second of these as a keynote address at a conference, “Adventures in the Imaginal: Henry Corbin and the 21st Century,” held at Harvard’s Center for the Study of World Religions, May 12-14. This summer, Copjec hopes to refine both chapters and give them as keynote lectures at Cornell University and Emory University. Both conferences are focused on psychoanalytic theory; she hopes to expose the connections between Freud and the French philosopher Henry Corbin, who introduced Heidegger into French discourse, before turning to the “illuminationist” philosophers of Islam.

In August 2021 Copjec also participated in a webinar titled — not by her! — “In Honor of Joan Copjec,” in which Copjec spoke to professors in Tehran about Iranian cinema, psychoanalysis and Islamic philosophy. The event was organized by Nadia Maftouni (Yale University) and Mahmoud Nouri (Tehran University).
Lorin Crawford  
BIOSTATISTICS • 2020-22

During the academic years 2020-21 and 2021-22, Lorin Crawford spent his sabbatical splitting his time between Microsoft Research New England and Brown University. During this time, he worked on projects related to statistical genetics, cancer genomics, and biophysics.

As a Packard Fellow of Science and Engineering, Crawford has been attempting to understand how 3D shape variation can be used to explain genotypic or phenotypic variation. To that end, Crawford developed the SINATRA pipeline, a statistical pipeline for identifying physical features that differentiate classes of 3D shapes and images. The SINATRA pipeline implements four key steps. First, SINATRA summarizes the geometry of 3D shapes (represented as triangular meshes) by a collection of vectors (or curves) that encode changes in their topology. Second, a nonlinear Gaussian process model, with the topological summaries as input, classifies the shapes. Third, an effect size analog and corresponding association metric is computed for each topological feature used in the classification model. These quantities provide evidence that a given topological feature is associated with a particular class. Fourth, the pipeline iteratively maps the topological features back onto the original shapes (in rank order according to their association measures) via a reconstruction algorithm. This highlights the physical (spatial) locations that best explain the variation between the two groups. As a case study, the Crawford Lab used SINATRA to analyze mandibular molars from four different suborders of primates. They demonstrated its ability to: (i) further understanding of how shape landmarks vary across evolutionary scales in morphology, and (ii) visually detail how known anatomical aberrations are associated to specific disease classes and/or case-control studies. A manuscript for this method was published for publication in the Annals of Applied Statistics in summer 2021.

As a follow up to that work, the Crawford Lab has begun to explore the idea of mapping shape-to-phenotype in structural biology and molecular dynamics. Structural features of proteins often serve as signatures of their biological function and molecular binding activity. Elucidating these structural features is essential for a full understanding of underlying biophysical mechanisms. While there are existing methods aimed at identifying structural differences between protein variants, such methods do not have the capability to jointly infer both geometric and dynamic changes, simultaneously. Thus, Crawford led the development of SINATRA Pro, an adaption of the SINATRA pipeline for identifying biologically relevant structural differences between two protein structural ensembles without the need for explicit contact maps or atomic correspondences. In collaboration with the Rubenstein Lab at Brown University, Crawford has used SINATRA Pro to identify key structural and dynamical features in a hierarchy of proteins with increasingly challenging features to statistically resolve. The five proteins they have studied include TEM ß-lactamase, tyrosine-protein kinase Abl1, HIV-1 protease, EF-Tu (elongation factor thermo unstable) and Importin-ß, which all undergo structural changes in response to a wide range of well studied biological phenomena, including mutations and small
molecule binding. They found that SINATRA Pro outperforms standard analytic techniques in consistently pinpointing physical locations of biologically relevant conformational changes. Overall, Crawford believes that methods like SINATRA Pro hold great promise for extracting topological differences between two sets of biological structures from meaningless statistical noise. A manuscript for this method was recently published for publication in PLOS Computational Biology in May 2022.

Another key direction that Crawford has been taking is developing flexible deep learning methods that allow analysts to move beyond the characterization of mutation-level effects and instead estimate the contribution of gene-level and signaling pathway enrichment to the broad-sense heritability of complex quantitative traits. As an example, Crawford led the development of biologically annotated neural networks (BANNs): a class of feedforward models with partially connected architectures that are based on biological annotations. This setup yields a fully interpretable neural network where the input layer encodes SNP-level effects, and the hidden layer models the aggregated effects among SNP-sets (e.g., genes or signaling pathways) in genome-wide association studies. Methodologically, Crawford’s method treats the weights and connections of the network as random variables with prior distributions that reflect how genetic effects manifest at different genomic scales. Algorithmically, the BANNs software uses variational inference to provide posterior summaries which allow researchers to simultaneously perform (i) mapping with SNPs and (ii) enrichment analyses with SNP-sets on complex traits. The BANN framework demonstrates increased power and type I error control over state-of-the-art association mapping and enrichment methods, and it shows promise to increase replicability in cross-population studies. A manuscript for this method was published in PLOS Genetics for publication in July 2021.

This work has motivated Crawford to explore other ways to perform variable selection-based tasks using neural networks. Recently, he proposed a new approach for variable selection using a collection of Bayesian neural networks with a focus on quantifying uncertainty over which variables are selected. Motivated by fine-mapping applications in statistical genetics, he referred to his new framework as an “ensemble of single-effect neural networks” (ESNN) which generalizes the “sum of single effects” regression framework by both accounting for nonlinear structure in genotypic data (e.g., dominance effects) and having the capability to model discrete phenotypes (e.g., case-control studies). Through extensive simulations, Crawford has been able to demonstrate his method’s ability to produce calibrated posterior summaries such as credible sets and posterior inclusion probabilities, particularly for traits with genetic architectures that have significant proportions of non-additive variation driven by correlated variants. Lastly, he was able to use real data to demonstrate that the ESNN framework improves upon the state of the art for identifying true effect variables underlying various complex traits. A manuscript for this method was just published in iScience in June 2022.

Lastly, Crawford was given the opportunity to visit other institutions and lead seminars on his research. This included (but was not limited to) being a plenary speaker at the Bayesian Young Statisticians 2022 Meeting, a distinguished speaker in the Yale Center for Biomedical Data Science 2022 seminar series, a keynote speaker at the Great Lakes Bioinformatics Conference in 2021, and a keynote speaker at the Penn State University Institute for Computational and Data Sciences Symposium on the future of digital fairness.
In 2020, for the first time in a decade, Sarah dAngelo’s theater company, Oklahoma Indigenous, paused their annual summer play festival due to the coronavirus pandemic, and theatre companies around the country turned to online performances using digital technology to safely produce creative work. Since then, creative innovations have even furthered virtual productions as a legitimate form of hybrid performance, and this pandemic-inspired type of performance continues to be innovative, popular, and in demand.

dAngelo’s junior sabbatical was spent on several creative performance projects that began in June 2021. She directed a digitally adapted performance from the stage play “Neechie-Itas” by Winnipeg-based Jo MacDonald (Anishinaabe). “Neechie-Itas” was one of 16 curated digital performances premiered during the Vancouver Fringe Festival in September 2021. dAngelo’s theatre company produced the digital performance and featured the actors Maya Torralba, Summer Rae Morgan, Summer Wesley, and Carolyn Dunn, reprising their roles from their 2019 in-person production. Daniel Leeman Smith was the project’s digital designer, virtual creator, and film editor. dAngelo served as the project’s artistic producer and directed the performance.

Once shooting began, the internet/broadband disparities in some of the actor’s rural locations in Oklahoma made for unanticipated technical problems. The problem stemmed from the huge amount of broadband speed needed for the livestreaming service StreamYard and from the size, resolution, and number of digital files the actors needed for their backgrounds. dAngelo soon learned this is the most common challenge of virtual producing and the most difficult to control. One solution was to relocate the actors to better service areas during filming. Some actors were able to temporarily go to another location to film, yet others were not due to work obligations. As producer of the project, dAngelo researched these problems and sent as many solutions as possible to the actors.

dAngelo’s “Neechie-Itas” was featured in the Stories From Home new play series.
Even when directing live, there is always some problem to solve, so none of this was too much of a surprise. Overall, the on-the-job training was valuable, and, to quote theatre and performing arts/Africana studies Professor Elmo Terry Morgan, “the plane was built as we flew.” Fortunately, “Neechie-Itas” is a comedy, and after pausing the annual summer festival in 2020 which was followed by a difficult pandemic year, laughter was a welcome part of the filming process.

With the Delta variant emerging over the summer, festivals and theatre events were quickly turning to virtual presentations. Following the Vancouver Fringe Festival, “Neechie-Itas” was selected from a national call for new work and was one of 12 plays featured during Power Stories Theatre’s inaugural Voices of Women Festival in Tampa, Florida, in October 2021, as well as a number of other domestic and international virtual festivals, including the Stories From Home new play series, held by Little Lion Theatre in London, which went hybrid due to Delta and screened “Neechie-Itas” to a limited live audience in November 2021.

Most digital theater creators agree that producing online is an imperfect venue and with challenges beyond our control. Nonetheless, the benefits and innovations that d’Angelo learned in this project will not be left behind. It was a cost-effective way of producing that allowed the company to collaborate with artists safely and in different locations. The virtual online festivals and curated events have created greater access to the performance, making it more inclusive to a wider audience, and it situated both the theatre company and Indigenous storytelling on a global scale.

In early August through mid-September 2021, d’Angelo served as the voice and dialects designer for the New York City premiere of “Repulsing the Monkey” by Los Angeles playwright Michael Eichler and directed by Daniel Leeman Smith. Smith staged the production site-specific on the third floor of White Horse Tavern. The tavern was established in 1880 and is located off Wall Street in New York City’s Financial District. Smith’s directorial choice underscored the major themes of gentrification and the price of greed explored in the play while creating an immersive experience for the setting: a South Slope Pittsburgh bar. Eichler’s satire opens with two siblings, the newest owners of their parents’ bar, after they suddenly passed away. The siblings, uninterested in taking on the liability of the unprofitable bar, quickly decide to sell. But as the story unfolds, tensions build the realities of gentrification and the competing high bids from the “bougie” Los Angeles and New York City buyers. The siblings are torn between honoring the legacy of their working class parents and selling the bar, which would make a life-changing profit but forever change the neighborhood where they grew up.
As a secondary expertise in voice and dialects design, this project offered new creative opportunities and challenges, and d'Angelo's task was twofold: design and assist the actors learning three different regional dialects (South Slope, Pittsburgh; Los Angeles (“Valley”); and New York) and prepare the cast and their voices for working in this unique and acoustically challenging space of an actual barroom on the third floor of the Whitehorse Tavern. The drifting ambient sounds from the main bar downstairs were not easily muted. The long narrow configuration of the bar room, with oak wainscoting and box beam ceiling, were the perfect ambiance for the setting, but the hard surfaces made for sound reflections, so echoes in the space were inevitable.

In late September, plans for a developmental workshop and an in-person publicly staged reading performance of Carolyn Dunn's new play was underway. “Chasing Tailfeathers” is a comedic Indigenous adaptation of Shakespeare’s “Macbeth” and takes place “somewhere in Native America.” The story follows two rival blood-feuding families along the pow wow trail competing against each other in singing contests. The project was an inter-institutional collaboration between University of California, Riverside (UCR); California State University, Los Angeles; and Oklahoma Indigenous Theater Company. d'Angelo served as the project co-producer and the play’s director. The Center for Ideas and Society, Reclamation and Native American Communities Faculty Commons, the Performing Difference Working Group, and the California Center for Native Nations presented the reading on November 18, 2021. It was the first in-person event since the pandemic had begun, and it was held in celebration of Native American Heritage Month.

As part of community outreach, the group hoped to perform a staged reading at Sherman Indian School, but due to COVID safety policies, a reading could not be arranged at the school or at UCR. Instead, the company decided to livestream the reading from UCR (with limited in-person seating as well), and the livestream had the benefit of creating greater access to the performance. After the performance, a talkback was held to learn how the story resonated with the community and to gain storytelling suggestions.
Jerome Darbon spent his sabbatical year conducting research in a number of scientific computing areas as well as delivering invited talks at Imperial College London, University of Massachusetts Amherst, Rensselaer Polytechnic Institute, and the Institute for Pure and Applied Mathematics (IPAM).

He co-organized a two-week workshop at IPAM in Los Angeles in January 2022 following a semester-long IPAM program on “High Dimensional Hamilton-Jacobi PDEs” that he co-organized in Spring 2020. Travel restrictions arising from the spread of COVID-19 prevented him from attending this workshop. However, the online component allowed him to maintain interactions with participants.

Darbon’s sabbatical leave allowed him to start a novel collaboration on deep brain stimulation therapies with the Carney Institute for Brain Science, Baylor College of Medicine, his colleague Matt Harrison, and two graduate students he supervised. Deep brain stimulation therapies consist of developing closed-loop and adaptive systems that can sense biomarkers associated with particular symptoms and, in response, adjust stimulation parameters in real time. However, deep brain stimulation creates high amplitude, high frequency stimulation artifacts that prevent the underlying neural signals and thus the biological mechanisms underlying deep brain stimulation from being analyzed. Therefore it is mandatory to be able to remove periodic artifacts for deep brain stimulation applications. Darbon and his team proposed a novel algorithm that can accurately remove stimulation artifacts in the presence of missing data. A paper describing the research has been submitted to an international journal. Also, a patent on this proposed novel technology is currently in progress.

He continued to foster his international research collaboration with P. Dower (University of Melbourne, Australia) on optimal control and neural network architectures (one preprint submitted) and Elena Resmerita (Alpen-Adria University, Klagenfurt, Austria) on creating novel imaging models for image restoration (one paper published in an international journal).

Darbon continued to conduct research with graduate student Paula Chen on creating a novel algorithm for solving a certain class of high-dimensional Hamilton-Jacobi partial differential equations; Gabriel P. Langlois on creating a novel, state-of-the-art optimization algorithm; Taewoo Kim on creating novel algorithms for solving certain optimal control problems arising from practical engineering applications; and Tingwei Meng on leveraging neural network architectures to compute solutions to high-dimensional Hamilton-Jacobi partial differential equations arising from optimal control theory. Langlois, Kim, and Meng did successfully defend their Ph.D.s in Spring 2022.

Additionally, during his sabbatical leave, Darbon submitted seven journal papers for publication in peer-reviewed international journals.
Bathsheba Demuth is halfway through a 2022 calendar year leave, supported by a junior faculty sabbatical and the Andrew Carnegie Foundation. She is spending most of this year in Alaska and northern Canada, researching her second book. An environmental history of the Yukon River watershed, this project follows the nearly 2,000-mile-long river from its origins in British Columbia, through the Yukon Territory and Alaska, over the past two centuries. Demuth is examining how ideas of rights — human rights, property rights, rights to animals and waters — have layered and contested with each other in this transnational watershed, which hosts legal orders from multiple Indigenous nations, the British and Russian Empires, and the U.S. and Canadian nation-states. Through them, Demuth is exploring how rights concepts changed the region and its inhabitants, and how the ecological space itself influenced, or did not, people’s ideas. Doing so brings environmental, legal, and Indigenous histories into dialogue, asking if rights are a useful way to frame the human/nonhuman boundary and ethical relations.

Demuth mushing sections of the Yukon during her sabbatical.
Demuth’s research on this project mixes archival work, community visits, and time spent on the Yukon River itself. In February, March, and April of this year in Alaska, she completed archival trips across Alaska and mushed sections of the Yukon River, before turning to national collections in Ottawa and Washington, D.C. This summer, also supported by her Carnegie Fellowship, she will float most of the river by boat, to assess changes in the landscape and connect with local historians and community members. With a National Park Service Artist Residency, Demuth will also be writing along the Dalton Highway’s protected lands in Alaska in August, working on essays for Harpers and the BBC. While on leave, she is planning a new course on environmental writing co-taught with Elizabeth Rush in Spring 2023 and preparing to launch the Environmental Storytelling Salon, a workshop for academics interested in reaching a broader audience, set for late May 2023. More information will be up at brdemuth.com soon.
Leo Depuydt’s sabbatical has allowed progress in a number of regards, but above all in relation to three lines of research: (1) Chinese language and culture; (2) infinity; and (3) the brain’s operating system.

The first topic of Chinese language and culture started in Depuydt’s previous sabbatical in 2017, where he began the daily study of Chinese in order to significantly expand his intellectual horizons. Four years later, he has begun producing research. Topics for 10 to 15 papers have been identified. It also became apparent that there is much work to be done in classical Chinese (Laozi, Confucius, etc.). Depuydt read his first paper on Chinese — the first half in Chinese — in early October at the 10th New England Chinese Language Teachers Association Annual International Conference, organized by Tufts University, held online this year due to COVID-19. The title is: “努力准确发音普通话: 西方初学者的一些观察 Struggling to Pronounce Mandarin Accurately: Observations by a Beginner from the West.”

Depuydt proposed a systematic approach to dealing with the difficulty. As a result of research conducted over the past half year and before, he has submitted abstracts to — and will present papers at — conferences organized by what are perhaps the two most significant academic societies studying the East in the West: the next annual meeting of the American Oriental Society (founded 1842) in Boston in March 2022 and the next meeting of the German Oriental Society (founded 1845) in Berlin in September 2022. The titles of the two papers are: “The Nature of the Neutral Tone in Mandarin” and “The Essence and Genius of Chinese Syntax: Building on S. Julien’s Seminal Syntaxe nouvelle (1869-1870).” Academically, the comparison between China and ancient Egypt has always attracted curiosity in relation to a limited number of topics, foremost among them the writing systems of both. Depuydt should finally be equipped to provide his own spin on these topics after having been curious about them for four decades.

The second line of research Depuydt explored during his sabbatical was the geography of infinity. Mathematicians have a holy fear of infinity — for example, preferring to leave \(1/0\) undefined. He believes that the definition is no doubt infinity, as L. Euler did. In a long 2017 article, Depuydt believes that he proved the existence of the number cycle or circle mathematically, the fact that beyond the largest positive numbers lie the smallest negative numbers separated by infinity, which is itself neither positive nor negative, and vice versa. It was therefore gratifying to learn that researchers in Munich led by Ulrich Schneider have recently delivered physical experimental evidence of the mathematical number circle with regard to temperature. The inverted Boltzmann distribution is key. One description of this evidence is as follows: “The resulting thermometer is mind-bending, with a scale that starts at zero, ramps up to plus...
infinity, then jumps to minus infinity before increasing through the negative numbers until it reaches negative absolute zero.” Paradoxically, beyond the hottest temperatures across infinity lie the coldest. What Depuydt proved mathematically can be confirmed physically. Hence, inspired and encouraged by a call to action by Oliver Heaviside of electromagnetic fame to unite convergent infinite series and divide infinite series into a “harmonious whole,” he has been working on a mathematical article with the title “Journey around the Number Circle, across Infinity and Back: Convergent, Divergent, Oscillating, and ‘Grandi’ Infinite Sums as a Harmonious Whole.” It will provide a detailed geography of the dimension of infinity in terms of numbers. Everything about numbers makes more sense when one incorporates infinity. There is no need to be afraid of infinity. Still, J.B.S. Haldane’s oft-quoted suspicion does apply: “The universe is not only queerer than we suppose, but queerer than we can suppose.” There are three epochs in number theory. There was a time when negative numbers were shunned. How can one have two negative cows or talk about a distance of negative two meters? There was a time when imaginary numbers were shunned. It is possible that there will be resistance to the number circle. Yet, the number circle has been proven to be true. Better get with, rather sooner than later.

The third line of research dealt with the physical and mathematical theory of the brain’s operating system (OS). In a 2015 book, Deupuydt proposed what he believes to be a complete blueprint of rational human intelligence, the brain’s OS. It is the blueprint of what may be called Boole’s cathedral. The blueprint was believed to be complete, containing five flavors of digitality. However, it appears necessary to define a sixth flavor and also to come to terms with the so-called fundamental laws of thought of philosophy and logic, about which thousands and thousands of pages have been written over the course of more than 2,000 years, all the way back to Aristotle and before. The result is an extensive article written mostly during the sabbatical and titled “The Physical Laws and Mathematical Axioms of the Brain’s OS and the Traditional Fundamental Laws of Thought of Logic and Philosophy.” The galley proofs have been corrected and it should appear soon.
Hongjie Dong
APPLIED MATHEMATICS • 2021-22

Hongjie Dong spent his academic year 2021-22 at the Institute for Advanced Study in Princeton, supported in part by a Simons Fellowship. The sabbatical enabled him to focus on his research and complete several projects.

Together with Timur Yastrzhembskiy (Brown), Dong studied ultra-parabolic type Kolmogorov equations (also called kinetic Fokker-Planck equations) with rough coefficients. Under the condition that the leading coefficients are measurable in $t$ and VMO in $(x,v)$ with respect to the natural quasimetric, they derived the existence and uniqueness of solutions to non-divergence form equations in the $S_p$ spaces (the kinetic counterpart of parabolic Sobolev spaces). The paper was recently published in the Archive for Rational Mechanics and Analysis. This result was crucially used in two subsequent papers. In the paper with Yan Guo and Timur Yastrzhembskiy, by a method of reflection and the $S_p$ estimate, Dong proved regularity in the kinetic Sobolev spaces and anisotropic Hölder spaces for weak solutions to the kinetic Fokker-Planck equation and the linear Landau equation near Maxwellian, in the presence of specular reflection boundary condition for general domains. Such $S_p$ regularity leads to the uniqueness of weak solutions. The paper was published in Kinetic and Related Models. In another paper with Yan Guo and Zhimeng Ouyang, Dong considered the Vlasov-Poisson-Landau system, a classical model for a dilute collisional plasma interacting through Coulombic collisions and with its self-consistent electrostatic field. They established global stability and well-posedness near the Maxwellian equilibrium state with decay in time and some regularity results for small initial perturbations, in any general bounded domain.

With Jongkeun Choi (Pusan National University) and Dong’s former student Zongyuan Li (currently a postdoc at Rutgers University), Dong established the regularity of solutions in Sobolev spaces for the mixed Dirichlet-conormal problem for parabolic operators with homogeneous boundary conditions in cylindrical domains with time-dependent separations. The resulting paper was recently published in SIAM Journal on Mathematical Analysis. In another paper with Li, Dong further studied the mixed Dirichlet-conormal problem for the heat equation on cylindrical domains with a bounded and Lipschitz base and a time-dependent separation, with inhomogeneous boundary conditions. Under certain mild conditions on the boundary of the base domain and the separation, they derived the nontangential maximal function estimates for the gradient of the solutions.

In a series of papers with Tuoc Phan (University of Tennessee) and Hung Tran (University of Wisconsin), Dong also studied elliptic and parabolic equations with coefficients degenerate (or singular) near the boundary of the domain. They considered both divergence and nondivergence form equations with Dirichlet or Neumann (conormal) boundary conditions, and found suitable weighted Sobolev spaces for the solutions to these equations. Two of the resulting papers have been published and a few others are under review.
With Yanyan Li (Rutgers University) and Zhuolun Yang (ICERM), Dong investigated the insulated conductivity problem with inclusions embedded in a bounded domain in $\mathbb{R}^n$. The gradient of solutions may blow up as $\epsilon$, the distance between inclusions, approaches to 0. It was known that the optimal blow up rate in dimension $n = 2$ is of order $\epsilon^{-1/2}$. It has recently been proved that in dimensions $n \geq 3$, an upper bound of the gradient is of order $\epsilon^{-1/2 + \beta}$ for some $\beta > 0$. Unlike the perfect conductivity problem, the estimates depend on the principal curvatures of the inclusions. In the first joint paper, they proved that when the inclusions are balls, the optimal value of $\beta$ is $[-(n - 1) + \sqrt{(n - 1)^2 + 4(n - 2)}]/4 \in (0, 1/2)$ in dimensions $n \geq 3$. In the second paper, they showed that in the general non-umbilical case, the estimates are characterized by the first non-zero eigenvalue of a certain divergence form elliptic operator on the $n - 2$ dimensional unit sphere. Both papers are currently under review. In a related project jointly with Longjuan Xu (National University of Singapore), the group considered parabolic systems in divergence form with piecewise smooth coefficients and data in a bounded domain consisting of a finite number of cylindrical subdomains. They established piecewise smoothness estimates for weak solutions to such parabolic systems and the estimates are independent of the distance between the interfaces. In the elliptic setting, their results answer an open problem (c) in Li and Vogelius (Archive for Rational Mechanics and Analysis 153 (2000), 91-151).

With Dong’s current student Yanze Liu (Brown), he established Sobolev type estimates in weighted mixed-norm spaces for fractional wave equations with vanishing mean oscillation (VMO) coefficients. Such equations are considered in the whole space, on the half space, and on a bounded smooth domain. They also studied evolutionary equations with nonlocal derivatives in both time and spatial variables, where the kernel $K(t, x, y)$ is assumed to be Hölder continuous in $x$ and merely measurable in $(t, y)$. Two resulting papers are now under review.

During his sabbatical year, Dong also had the opportunity to give invited talks at Purdue University; Johns Hopkins University; the Chinese Academy of Sciences; University of California, Riverside; Rutgers University; and the Institute for Advanced Study; as well as in a few national and international conferences. He continued to advise three graduate students and mentor two postdocs at Brown.
Akilah Dulin
BEHAVIORAL AND SOCIAL SCIENCES • 2020-21

Although this was an unusual year to take a sabbatical, for the Fall 2020 sabbatical term, Akilah Dulin presented her research, forged new collaborations and nurtured existing ones, developed grant submissions, and strengthened her community-engaged research locally.

Dulin gave three presentations, two of which were for the Brown University community. First, at the invitation of Tricia Rose, Dulin participated on a panel to discuss “Race & Public Health.” Second, at the invitation of Rochelle Rosen, Dulin led a methodological workshop on concept mapping methodology. Third, at the invitation of Sarah Szanton (Johns Hopkins University), Dulin presented findings from her and Chanelle Howe’s National Institutes of Health R01 grant about multilevel resilience resources that African American adults in the southeast use to favorably manage HIV outcomes.

Dulin forged several new collaborations that resulted in grant submissions. Specifically, Dulin and Howe forged a collaboration with Kali Thomas (Brown University, Health Services, Practice, and Policy). This collaboration led to working on a grant submission (summer 2021) to understand multilevel resilience and Alzheimer’s and related dementias. Additionally, Dulin strengthened her ties with local community members. Dulin and Kobi Dennis received an award from United Way of Rhode Island to create reports on the “State of Black Rhode Island.” This project involves compiling existing data on structural indicators and creating policy recommendations to improve the wellbeing of Black Rhode Islanders, semi-structured interviews with Black Rhode Islanders, and a photovoice project with Black adolescents. Dulin and Kim Gans (multiple principal investigators) worked with other research faculty and the Center for Southeast Asians in Rhode Island to resubmit an R01 to implement a multilevel, multicomponent, and multigenerational dietary intervention with Southeast Asian families in Rhode Island.

Also, in her role as chair of the Society of Behavioral Medicine’s Health Policy Committee, Dulin engaged in service to the profession and larger community to further understanding and policy recommendations on COVID-19 and health inequality. Under her leadership, she created a COVID-19 strategic initiative to rapidly disseminate time-sensitive health policy position statements. She mentored authorship teams in the development of position statements on COVID-19 and Health Equity, COVID-19 and Rural Health, COVID-19 and Heat Deaths, and Increasing Federal Food Assistance During COVID-19. Many others (e.g., Policing Reform and Anti-Racist Research, Stigmatizing Language and Substance Use, SNAP and Small Food Stores, Public Charge Rule and Food Security, and the Promotion of Vaccination Adherence) were completed during her sabbatical.

In addition to the above-mentioned activities, Dulin continued to publish as well as mentor students.
During her junior research leave, Sasha-Mae Eccleston conducted significant research on several projects, big and small.

She spent the 2020-21 academic year as a Ford Foundation Postdoctoral Fellow. That year she completed multiple articles and a book chapter, all of which are now forthcoming. After a spate of state-sanctioned murders of Black Americans in 2020, Eccleston helped organize a discipline-wide anti-racist event with Eos, the scholarly society she co-founded and co-presided over in its first three years. She also wrote a thinkpiece for the Eos website titled “The Fall after the Summer of Solidarity” about the Classics’ reckoning with its history of racist exclusionism in light of those murders and the COVID-19 pandemic.

She dedicated the bulk of the year to completing her first monograph, “Epic Events.” Now under contract with Yale University Press, “Epic Events” explains how various artists, politicians, and authors have engaged the Classics to negotiate the temporalities of American citizenship post-9/11. The book scrutinizes a heterogenous archive of material from the last two decades, putting contemporary films, novels, poetry, plays, speeches, articles, events, and spaces in dialogue with ancient texts. In addition to offering innovative readings of individual texts, “Epic Events” seeks to challenge the discipline of Classics’ understanding of its temporal stakes beyond that of timelessness and immortality.

Eccleston declined the 2020 Rome Prize in Ancient Studies in light of the ongoing COVID-19 pandemic. However, after successfully applying to the competition again in 2021, she spent Fall 2021 in residence at the American Academy as the recipient of the National Endowment for the Humanities/Andrew W. Mellon Foundation Rome prize. At the Academy, she continued working on “Epic Events” and presented a talk in November, “Catalogs, Flows, and Synchrony’s Politics,” based on the book’s first chapter as part of the Shoptalks series. From her fellow fellows, she learned even more about spatial analysis and the history of architecture as well as innovative techniques in and approaches to contemporary art. With them, she
developed a more nuanced understanding of the complexities of racialization, immigration, and environmental politics in contemporary Italy. She was also fortunate enough to contribute her likeness and some concepts to a few of their projects on the Black diaspora and to deliver a talk as part of NYU Florence’s course, Black Italia.

As working on “Epic End” quickly comes to its end, Eccleston has taken up a co-editorship of a special issue of Transactions of TAPA, one of the oldest and most respected journals in the field of Classics, and an associate editor position with Classical Receptions Journal. She will also return to delivering invited lectures and conference keynotes and rejoin the leadership team of Eos this fall. She was notified that her 2020 Modern Drama article, “Medals and Metals,” received an honorable mention for the most outstanding article of the year from its jury. She missed the classroom while on research leave and looks forward to offering several new courses in the next few years.
Fabrizio Fenghi

SLAVIC STUDIES • SPRING 2021

Fabrizio Fenghi spent his one-semester sabbatical in Spring 2021 working on the following research and writing projects: (1) the promotion of his first book, “It Will Be Fun and Terrifying: Nationalism and Protest in Post-Soviet Russia” (University of Wisconsin Press, 2020) and the editing for the paperback edition, which came out in Fall 2021; (2) the research for his second book, tentatively entitled “The Revolution Will Be Fictionalized: Postmodern Politics and Radical Literature in Putin’s Russia,” and for an article related to the book’s topic, “The Absolute Elsewhere: Pavel Krusanov and the Countercultural Sources of Russian Imperialism,” forthcoming in The Russian Review; (3) work for the collaborative National Endowment for the Humanities Digital Humanities project that he is co-curating, “The Post-Soviet Public Sphere: Multimedia Sourcebook of the 1990s.”

Fenghi’s first book, “It Will Be Fun and Terrifying,” studies the ways in which the aesthetics and culture of Eduard Limonov’s National Bolshevik Party, a radical countercultural movement, has influenced the development of Russian protest culture and the formation of state ideology during the Putin era. The book was shortlisted for the 2021 Best First Book Award from the American Association of Teachers of Slavic and East European Languages and received wide coverage in both academic journals and the general press, including, among others, reviews in The LA Review of Books, Foreign Affairs, The Russian Review, Slavic Review, and the Journal of the Royal Anthropological Institute; a number of invited lectures, seminars, and podcast and radio interviews; and interviews to British, Italian, and Polish journals (links to reviews, lectures, and interviews are available here).

Fenghi’s second book focuses on the emergence of a specific form of “literary public sphere” in Putin’s Russia. In sharp contrast with an otherwise widespread and pervasive political passivity, the Putin era in Russia has witnessed a fundamental “ politicization of literature.” Radical ideologies, both left- and right-wing, have become the subject matter of novels, poems, and literary debates. Reactionary phantasmagorias have been celebrated as “contemporary art,” and major highbrow publishers have come out with entire series about theories and practices of anarchism, terrorism, and revolution. Critics have debated political correctness, called each other fascists, and come out as “black-hundredists” (a reference to the reactionary ultra-nationalist movement of the late 19th century). Fenghi’s book investigates the meaning and significance of this politicization of literature by looking at the history of cultural institutions — publishing houses, literary cafés, and literary prizes — in post-Soviet Russia. It will focus on a number of case studies representative of different literary circles and ideological positions, and it
will draw on the analysis of different media — novels, print and online periodicals, radio, and video recordings — as well as ethnographic material — participant observation and interviews with writers, critics, editors, publishers, and organizers — although because of travel restrictions research for the projects so far has mostly drawn on primary sources that could be accessed online or through digital and/or internet archives. The immediate outcome of this research was an article on the work of postmodern imperialist writer Pavel Krusanov and the public performances of the group he led, the Petersburg Fundamentalists, forthcoming in The Russian Review. Krusanov and his circle, who among other things had an important role in shaping the editorial line of Saint Petersburg publisher Amfora, were involved in public debates surrounding "political correctness," and in the broader politicization of literature and literary debates that occurred in the early 2000s.

In addition to researching his second book and working on said article manuscript, Fenghi also worked on the ongoing National Endowment for the Humanities Digital Humanities project that he is co-curating, “The Post-Soviet Public Sphere: Multimedia Sourcebook of the 1990s.” The project, which is based at NYU, involves the preparation of an edited collection of bilingual scholarly essays and an open access website with 500 Russian-language multimedia artifacts created just before and after the collapse of the Soviet Union, between 1986 and 2000. During Spring 2021, Fenghi collected and prepared preliminary commentaries for several of the 30 print, audio, and video media artifacts of which he is in charge and wrote a preliminary outline for the scholarly article that he is writing as part of the project.
Alison Field  
EPIDEMIOLOGY • SPRING 2022

During a Spring 2022 sabbatical, Alison E. Field divided her time between service, mentoring students, and research. Her service commitments were serving on the Ph.D. admissions committee in December 2021 to January 2022; serving on a search committee for a tenure track assistant professor in health services, policy, and practice; and chairing a search for a tenure track associate or full professor of epidemiology.

Field continued to work closely with three students during her sabbatical. She is the independent concentration advisor for one student. In addition, she was the advisor for an undergraduate honors thesis student and a Master of Public Health student. Both of the latter students were working on their theses, so she had meetings with them regularly and read drafts of the pieces of their theses, as well as provided feedback. Both students graduated in May 2022.

The majority of Field’s time was devoted to research. She mentored a trainee working in orthopedics on a project in which they examined predictors of developing an anterior cruciate ligament tear. The resulting manuscript is currently under review.

In terms of her own research, Field worked on several projects, one of which focused on understanding differences between people who do and do not receive treatment for their eating disorder. Even in high income countries, the majority of people with a mental health disorder do not receive treatment for their disorder. It is unlikely that the people who receive treatment are a random sample of all people with a disorder, which would make generalizability of findings from research conducted using treatment-seeking populations limited. During her sabbatical, Field led a group investigating predictors of receiving treatment among women with symptoms of an eating disorder. The research group used the Growing Up Today Study, a prospective cohort study of more than 16,000 people who were recruited in 1996 when they were 9-14 years of age. They have been followed since then with questionnaires sent every 12-36 months. The results showed that despite having the highest prevalence of eating disorders, women with obesity were 85% less likely to receive treatment. Field submitted these results as an abstract to the Eating Disorder Research Society and as a paper to the Journal of Adolescent Health.

In addition, Field worked with colleagues on an analysis of data from the National Growth and Health Study (NGHS) focused on the association between blood pressure and body satisfaction. They found that regardless of body mass index, body dissatisfaction was associated with systolic blood pressure, suggesting that body dissatisfaction is another form of chronic stress. The abstract containing the results was submitted to the annual conference of the Obesity Society. The NGHS dataset is one of the three being used in Field’s current R01, which is focused on identifying phenotypes of children and adolescents with overweight or obesity. Because Field’s postdoctoral associate did not start until June, which is more than a year after the start of the grant, she spent numerous hours during her sabbatical cleaning datasets and creating variables for the analysis so that her postdoc could begin the analysis soon after arriving at Brown. The data management investment was well worth the time. Field’s postdoc has been incredibly productive during her first month in the position.
In addition to participating in the last two meetings of the Kidney, Nutrition, Obesity, and Diabetes study section at the National Institutes of Health, Field wrote two R01 applications and participated in the revision of a Faculty Institutional Recruitment for Sustainable Transformation application. One R01 is focused on the long-term health consequences of binge eating and purging and would use three different datasets to ensure that results were robust. The other R01 is focused on improving the understanding of the nature and health consequences of binge eating and body dissatisfaction within populations that have been understudied (people who identify as Black/African American, Hispanic, and/or male).

Andrea Flores
EDUCATION • SPRING 2022

Andrea Flores was on research leave, supported by the Wriston Fellowship, for Spring 2022. She divided her time between writing projects based on past research and starting fieldwork for two new projects.

With respect to writing, she submitted two article manuscripts based on prior work with a college access program for Latinx youth in Nashville, Tennessee. One, under review at Political and Legal Anthropology Review, explores how state and non-state actors’ control of time, primarily through the pace of procedures and moralizations around age, produces immigrant il/legality in law and practice. Her attention to non-state actors includes undocumented immigrants — demonstrating how temporal control is not only a practice of governance by the state but also a counterhegemonic practice of individual resistance. The other article, under review at Harvard Educational Review, explores both the socially reproductive and transformative dimensions of Latinx youth’s volunteering and its linkages to racialized stigma. Based on her findings, she also provides recommendations regarding how community-based organizations can scaffold youth’s volunteerism toward critical civic praxis.

In terms of new research, Flores began preliminary data collection for her single-author book project, “Scientific Americans: Knowledge Migration in the Biological Century.” She investigates how foreign-born life science Ph.D.s make migration and professional decisions following their graduate or postdoctoral training in elite U.S. higher educational institutions. Despite the challenges of conducting in-person ethnographic fieldwork during the pandemic, Flores conducted interviews with both student support staff at four major research universities as well as with scientists who are working in the academic, industry, and business sectors in the Boston-New York area. In the fall, she will pursue in-person participant observation in workplaces and student spaces. She will continue data collection through the 2022-23 academic year, with plans to apply for external funding for further field research.

Additionally, alongside Kate Mason (Brown, Department of Anthropology) and Sarah Willen (University of Connecticut), Flores serves as a co-primary investigator on the project “The Impact of COVID-19 on the Educational and Career Outcomes of First-Generation College Students and their Families.” The project was
awarded a three-year National Science Foundation senior research award in January 2022. Focused on first-generation college students and their parents, the project examines how these families weigh long-term educational goals with the immediate caretaking burdens facing them as a result of the pandemic. Preliminary data collection — occurring entirely online — began this spring. Flores is co-authoring an article with Mason based on this preliminary data for a special issue of Culture, Medicine and Psychiatry focused on student experiences of COVID-19 from across the globe.

Scott Frickel  
SOCIOLOGY AND ENVIRONMENT AND SOCIETY • 2021-22

Scott Frickel’s sabbatical leave, originally scheduled for 2020-21 but delayed a year due to the COVID-19 pandemic, was supported by a Faculty Fellowship from the Cogut Institute for the Humanities (Fall 2021) and by the University (Spring 2022).

His main goal for leave was to advance three related research projects that will shape his research and publication agenda and inform his teaching for the next five years. “Ground Truth: A Historical Sociology of Urban Soils,” aims to reconstruct a history of soil contamination science and policy and its relationship to broader socio-ecological processes of environmental inequality and urbanization in Rhode Island since the 1960s. The study will be anchored in a close analysis of site investigation reports managed by the Rhode Island Department of Environmental Management (RIDEM) that reveal agency scientists’ evolving interactions, over decades, with a revolving set of public and private actors. These include lawyers and engineers, toxicologists and chemists, realtors, planners, and officials from various state, federal, and municipal agencies. Their individual and collective decisions (and non-decisions) generate shared understandings of soil contamination that are described in each report and guide subsequent actions (and inactions) lubricating development and land use-decisions and consequent social and environmental disparities across the state. This study will unpack the largely hidden, epistemic, and organizational processes unfolding in law firms, private testing laboratories, planning offices, and real estate markets that inscribe the science and policy of soil contamination onto urban landscapes, invisibly structuring the entwined social geographies of environmental injustice and environmental privilege.

He plans to use traditional qualitative methods and computational techniques to analyze the corpus of reports. First though, the estimated 5 million pages contained in the RIDEM site report library have to be digitized. Frickel worked closely this year with RIDEM staff and the Brown University Library Digital Technologies department to run a pilot digitization effort and secured a commitment from the agency to support the larger project financially (through a grant from the Environmental Protection Agency) and organizationally. He is working this summer with Brown’s Office of Research Strategy and...
Development to raise additional funding for the digitization project. The larger plan is to digitize and perform optical character recognition on the entire set of reports, create metadata, and deposit the files in Brown’s digital archive, the Brown Digital Repository. This will create an online accessible and searchable public resource and constitute a significant societal benefit for Rhode Island and an invaluable source of historical information for academic researchers and regulatory scientists. Through his participation in the Cogut Humanities Seminar last fall, he wrote and workshopped a paper using information from his archival research and the pilot study data. He is currently revising the paper for journal submission.

A second project, developed in collaboration with Professor Chris Rea (Ohio State University), is titled “The Environmental State: A Historical-Sociological Study, 1870-2022.” As envisioned, the study will identify the ways that the diverse elements of the environmental state strengthen and weaken through time depending on their continuously evolving and contested roles in organizing and regulating human relationships with the natural environment. They adopt a mixed methods approach, combining longitudinal statistical analysis of administrative data (1973-2020) to characterize patterns and correlates of change in the environmental state over the past 50 years, archival research (1870-1970) to identify the historical origin points of those patterns, and key informant interviews to identify mechanisms behind the patterns of change we discover. To date, they submitted a research proposal to the National Science Foundation last February and are in process of revising it for August resubmission. They also have one theoretical paper under review and a second empirical paper in process.

A third project, undertaken in collaboration with David Demortain, professor of sociology and political science and director of the Interdisciplinary Laboratory on Science Innovation and Society in Paris, involves the creation of a new working group on Computational Environmental Science and Technology Studies. The heart of environmental science and technology studies are theories and explanations of controversy and conflict shaping environmental knowledge, expertise, and regulation — a central nexus of academic and policy science in the current context of ecological, political, and economic instability. In developing these theories and explanations, researchers rely heavily on qualitative research tools and methods, often imported from anthropology and history, while quantitative data and statistical methods seldom appear in science studies conferences and core journals, and newer data science and computational approaches are virtually nonexistent. These methodological lacunae place unnecessary limits on the scale, scope, and content of environmental science and technology studies’ intellectual project and impedes the field’s broader impact on environmental policy and education on both sides of the Atlantic.

The overarching goal for the working group is to leverage diverse expertise from data, policy, and social sciences to open a new sphere of study by integrating computational data sciences into environmental science and technology studies. The first workshop, supported by funding from the Institut Francilien Recherche Innovation Société, convened in Paris in July. Two future workshops, funded through an Institute at Brown for Environment and Society faculty seed grant, are planned for 2023 and 2024, at least
one of which will be held at Brown University. Demortain and Frickel have prepared a framing paper for the first workshop that they will revise based on discussion among the workshop participants and submit for publication in fall.

A secondary goal for this leave was to move several extant writing projects through the review pipeline and into publication. Toward that end, Frickel finalized a multi-authored monograph titled “Residues: Thinking through Chemical Environments,” published this past spring by Rutgers University Press. He also co-edited a special issue on “disaster, infrastructure, and participatory knowledge” published in Citizen Science: Theory and Practice in May 2022; a co-authored introductory essay accompanies the issue. In all, Frickel and co-authors published four research articles in peer-reviewed journals and three chapters in academic handbooks. He also published one book review and one invited comment. Two manuscripts are resubmitted and two manuscripts are under initial review. Four manuscripts are in process with submission planned for later this summer or early fall. Frickel has also revised or drafted three chapters of a new co-authored manuscript examining the relationship between science and inequality.
During Fall 2021, Theresa Ganz worked on a body of work titled “Ambiguous loss,” based on photographs of trompe l’oeil architectural fantasies from Pompeii. She shot the source material for the project on location just prior to the pandemic in 2019 with the support of a grant from the Brown Arts Institute. In this series, the delicacy of the paper, the empty interstitial spaces, and in the insubstantiality of the architectural forms give a sense of fragile and crumbling infrastructure and institutions. “Ambiguous loss” is a term for a loss that is not complete, such as an unexplained disappearance or the fraying of a loved one’s personality due to Alzheimer’s. The changes wrought by climate change and the fraying of our democratic institutions have created a sense of ambiguous loss on a societal level. Because the sense of loss has no closure, we are unable to properly grieve. As the series has progressed, organic forms have become entwined in the ruins, and the colors have run to green. These works make up a subseries titled “Emerald City.” Here are hints of hope, that in ruins, there is always life.

During this period, Ganz also completed work on her upcoming monograph “Grand Illusion,” to be published by Mousse Publishing in spring 2023 with the support of the Brown Arts Institute, the Faculty Development Fund and the Rhode Island State Council on the Arts. “Grand Illusion” is a photographic series of screenshots from Google Cultural Institute’s “museum view” of Baroque European palaces — objects of beauty and manifestations of power whose gold-encrusted ornamentation points to the colonial activities abroad that made this kind of wealth possible. While the monarchies and empires of the past used beauty as an expression of their authority, technology, in its mediation of the world, often operates without an aesthetic agenda. Throughout this series, the covert power of technology makes itself visible only through accidents such as glitches, a glimpse of the machine in the mirror, the artificial intelligence blurring the faces of statuary.

Since 2015, Ganz has wandered virtually through the halls of Versailles, the Château de Fontainebleau, the Schönbrunn Palace, and the Palazzo Madama, among others. As she moved from room to room, the software would glitch, forming accidental collages. It’s impossible to reproduce the same glitch, and so these screenshots
are chance encounters. The software has since been updated to fix the glitching issue and she can no longer make more, so the glitching is now a record of the past. This series also embraces other oddities that occur as the digital platform transposes physical locations: the Google camera taking self-portraits in ornate mirrors and landscaped palace grounds with statuary faces blurred by artificial intelligence, which mistook them for real people. Rather than a comprehensive scholarly exploration of the Baroque style, the series is a loose meditation on an aesthetic deeply aligned with power. As such, there are some images that come from later Baroque pastiche.

The expectation that the physical presence of art can be transformative has been challenged ever since the birth of photography. For those who have been touched by the digital revolution, the actuality of places and objects seem to have reduced importance. The series overlays this sense of digital dislocation with some of the world’s most ornately crafted spaces, spaces built to overwhelm a human presence with beauty, wealth, and power.
Constantine Gatsonis
BIOSTATISTICS • 2020-21

Constantine Gatsonis was formally on sabbatical leave in the Fall 2020 semester. This was an eventful period at Brown and at the Center for Statistical Sciences (CSS) and the Department of Biostatistics. As a consequence, Gatsonis spent substantial effort on ensuring continuity and smooth operations at CSS and, secondarily, on contributing to the stability of departmental life and work. Due to the pandemic, he did not make any trips within the U.S. or overseas.

Gatsonis intended to divide his activities in roughly equal parts to (a) completion of a textbook on receiver operating characteristic (ROC) analysis and (b) developing his research in machine learning for imaging analysis. He can report progress in both areas: (a) Gatsonis and his co-authors continued the development of their textbook. In particular, they expanded the scope of the book to include ROC methods for machine learning and reworked the entire book. A majority of the chapters were scheduled to be sent to the publisher in August 2021. (b) Gatsonis and his team made good progress in their methodologic research on machine learning for imaging analysis. This work involves collaboration with faculty colleagues and several doctoral students. Papers from this research were submitted to conferences and journals, and a doctoral thesis was completed.

Gatsonis continued his interdisciplinary research in diagnosis and prediction primarily in cancer and secondarily in Alzheimer’s disease. His cancer research is conducted in the context of the ECOG-ACRIN Cancer Research Group, and his Alzheimer’s research is conducted in the context of the Imaging Dementia — Evidence for Amyloid Scanning (IDEAS) Study.
Receiving a fellowship to spend a semester at the American Academy in Berlin in the midst of the growing COVID-19 crisis and an unforeseen broken leg from a bicycle accident at the beginning of the sabbatical proved to be tremendously frustrating and surprisingly fruitful. Unable to travel abroad due to Germany’s prohibitions on the entry of scholars into the country, James Green, nevertheless, participated in an online seminar with other fellows in which they presented their research. He also gave an online public lecture sponsored by the Academy titled “Sarah Bernhardt, the First Global Star, in Rio de Janeiro,” which was a piece of his larger research project for the American Academy, “The Crossroads of Sin and the Collision of Cultures: Entertainment, Commerce, and Pleasure in Rio de Janeiro (1860-1930).” Although Green was not able to pursue the research in Berlin that he had planned, the American Academy generously postponed the fellowship, so he will be able to travel there in the future for a semester.

With a broken leg and locked down in New York City, Green was obliged to change his research and writing agenda. Throughout summer 2020, he co-organized an international online conference sponsored by Brown University’s Brazil Initiative and the Casa de Rui Barbosa Federal Research Center in Rio de Janeiro. Over the course of 10 weeks, 45 scholars from Brazil, Europe, and the U.S. presented their research on Brazilian history and culture. The weekly sessions were well attended, with several thousand participants over the course of the conference. Green’s paper presentation, “Lesbian Voices and Radical Feminism with the Brazilian ‘Homosexual Movement’ of the 1970s and Early 1980s,” was published as an article in Brésil(s) Sciences humaines et sociales (Paris, France), “Hommage à la Casa de Rui Barbosa,” no. 3 (2020). He also completed the final editing, copy editing, and proofreading for “Brazil: Five Centuries of Change, third edition” (Oxford University Press), which came out in June 2021. In addition, Green wrote a seventh chapter and a new epilogue for the third Portuguese edition of his first book, “Beyond Carnival: Male Homosexuality in 20th century Brazil” which was published in June 2022, and is considered a classic in that country.

Finally, the pandemic produced a new trend in Brazil of inviting scholars to participate in “lives,” sponsored by universities, nongovernmental organizations, and individually generated initiatives. Green participated in 35 such programs over the term of his sabbatical semester, which included keynote talks on his research at nine major universities in Brazil, 17 interview programs, and 11 roundtable discussions on his research and analysis of the current political situation in Brazil. Having little else to do in Fall 2020, other than physical therapy twice a week, Green turned misfortune into a profitable semester.
Roee Gutman
BIOSTATISTICS • SPRING 2021

Roee Gutman’s sabbatical leave in Spring 2021 was spent primarily on submitting grants and mentoring students, as well as developing new statistical methods for causal inference in randomized and non-randomized studies as well as analysis of linked files in the absence of unique identifiers. He has also applied these methods to health services research, and in particular to examine the effectiveness of the SARS-CoV-2 vaccine in nursing homes. The sabbatical also involved service to the profession.

A large part of the sabbatical was spent on a paper titled “A Bayesian Multi-Layered Record Linkage Procedure to Analyze Functional Status of Medicare Patients with Traumatic Brain Injury.” This paper proposes a new algorithm to link datasets that include the same individuals, but there is an absence of unique identifiers to identify these individuals across the datasets. Gutman and his co-authors show that using health providers’ information can improve the identification of individuals across the datasets. Specifically, if in one dataset two individuals receive care from the same provider, they should also receive care from the same provider in the other dataset. In some applications, providers cannot be identified uniquely across datasets, which complicates the linking process. Their algorithm jointly links providers and individuals when both cannot be uniquely identified. This algorithm improves the identification of providers and individuals across the two datasets. This method was used to examine clinical and demographic characteristics that are associated with successful discharge to the community of older adults who suffered traumatic brain injuries. Based on the linked datasets, Gutman and his co-authors found that the functional and cognitive abilities of individuals at nursing home admission are important predictors of their probability of being released to the community. Similar findings were observed for individuals that were released to inpatient rehabilitation facilities.

Gutman also spent the sabbatical working on implementing causal inference methods to estimate the effects of the SARS-CoV-2 vaccine on mortality, hospitalization, and cases of SARS-CoV-2 in nursing homes. This analysis was based on comparing nursing homes that had vaccination clinics earlier compared to later in the calendar year. Gutman identified that the mRNA SARS-CoV-2 vaccine was effective in reducing the number of cases as well as hospitalization among this vulnerable population. In addition, he did not identify any significant adverse events of the mRNA vaccine. Gutman has continued to expand his work on analysis and design of pragmatic cluster randomized trials by publishing a paper on computational methods for estimating sample size in clustered randomized trials. In addition, together with current students, he has been developing methods to analyze such trials, especially methods that address non-compliance with the assigned treatment at the provider and the individual levels. Lastly, he has continued to develop methods for causal analysis from observational studies and methods to impute missing data in observational and non-observational studies.

Gutman submitted multiple grants to the National Institutes of Health and Patient-Centered Outcomes Research Institute (PCORI) for methodological and applied research. The methodological grants include handling methods to address proxy responses in patient reported outcomes and linking of cancer trials to
Medicare claims to enable long-term follow-up of cancer treatments. The applied research included multiple studies to examine the effects of daily meal delivery for older homebound adults, as well as behavioral interventions for patients with Alzheimer’s and related dementias.

In terms of service to the community, Gutman served on two review panels (PCORI, the National Institutes of Health) and reviewed papers for statistical and clinical journals. He also served on a National Academies of Sciences Engineering and Medicine committee on developing a behavioral and social science research agenda on Alzheimer’s and Alzheimer’s-related dementias. Gutman presented at Virtual ISPOR 2021, which is the professional society for Health Economics and Outcomes Research. He was also a guest speaker at a Matched Sampling for Causal Inference course at the Yau Mathematical Sciences Center in Tsinghua University, China.

Overall, the sabbatical was a huge boost for his research. It allowed him to finish existing projects, develop new ones, and start new collaborations.

Paul Guyer

PHILOSOPHY • SPRING 2021

Paul Guyer’s primary project during his sabbatical in Spring 2021 was to complete a book provisionally titled “The Legacy of Kant’s Moral Philosophy.” The project goes back to a seminar he gave in his last year at the University of Pennsylvania and first year at Brown (2012-13). During his first leave at Brown (2014), Guyer drafted about half of it, from the immediate reception of Kant’s moral philosophy (1785-1795) through Schopenhauer, Nietzsche, and Anglophone Idealism; during the sabbatical semester he drafted the rest, covering the period from the turn of the 20th century to the turn of the 21st; and, during the summer following his sabbatical (summer 2021), Guyer revised all of it and went back to the beginning to write a sketch of Kant’s moral philosophy to set the stage for the rest. He planned to send the manuscript off to the publisher at the beginning of August; no doubt there will be some further revisions after referees look at it.

The project is not a history of Kant scholarship, which would be boring for everyone involved. It is instead a study of how subsequent moral philosophers, most of them significant in their own right, have responded to Kant’s work, either rejecting it in some way significant for the formation of their own views or building upon but revising it in some way as part of their own views. Guyer argues that most of the major problems with Kant’s moral philosophy that have animated discussion and response for more than two

Immanuel Kant, German philosopher, 1724-1804 (public domain)
centuries were already identified in the first decade of reception, from the first reviews of his “Groundwork for the Metaphysics of Morals” in 1785 through Friedrich Schiller’s essay “On Grace and Dignity” in 1793. These issues include whether Kant’s categorical imperative is informative or an “empty formalism”; whether he succeeded in establishing it or, in his terms, providing it with a “deduction”; whether he excluded feeling from a proper role in moral motivation, or recognized a role for it; whether his conjunction of morality and happiness in his conception of the “highest good” is consistent with or undermines his basic premise that the fundamental principle of morality is not concerned with the promotion of happiness (his critique of utilitarianism); and whether his doctrine of “practical” but not “theoretical” belief in the existence of God and personal immortality as conditions of the possibility of the highest good has anything to recommend it. How later philosophers responded to one or more of these issues is one of the main themes of the book. But a larger issue also running through the book is whether Kant insists upon the lawfulness of moral principles (“maxims”) as necessary for its own sake, or because adhering to universally valid principles is the only way to ensure equal freedom of choice for all affected by anyone’s actions. Guyer argues that the latter is Kant’s deepest insight and that the deepest of his later readers have recognized this. Nietzsche affirmed the value of freedom rather than lawfulness as such, but thought he was criticizing rather than appropriating Kant. Idealists like T.H. Green and Josiah Royce were inspired by Kant’s celebration of freedom as the fundamental value in morality. Among recent philosophers significant in their own right but also responding to Kant, John Rawls would be the best example of this.

After the early reception of Kant, mostly by German philosophers whose names are now largely forgotten, Guyer covers the main figures of German idealism, including Fichte, Schelling, Hegel, and Schopenhauer, then Schopenhauer’s wayward disciple Nietzsche; then a group Guyer calls Anglophone idealists, because in addition to the British philosophers F.H. Bradley, T.H. Green, Edward Caird, and H.J. Paton, Guyer discusses the American philosopher Royce, whose “Philosophy of Loyalty” (1908) is deeply Kantian. He then discusses the leading German Neo-Kantian to write on and appropriate Kant’s moral philosophy, the Marburg philosopher Herman Cohen, and his phenomenological critic Max Scheler, before turning to Cambridge and Oxford philosophers from the end of the 19th century to the present, beginning with Henry Sidgwick and G.E. Moore, stopping at Bernard Williams and Derek Parfit, among others, and concluding with Rawls and a number of his foremost students. In spite of touching on all these figures, the book does not pretend to be encyclopedic — there are many others whom Guyer could have discussed if only he hadn’t wanted to finish this book in his present — and, as far as he knows, only — lifetime.

With any luck, Guyer expects the book will be in print in 2023, or early 2024 at the latest.
Yannis Hamilakis
CLASSICS AND ARCHAEOLOGY AND THE ANCIENT WORLD • 2020-21

In the 2020-21 academic year, Yannis Hamilakis was awarded sabbatical leave, with the first semester funded by Brown and the second semester funded with the visiting fellowship from Bard Graduate Center in New York City. Despite the enormous difficulties caused by the pandemic, the year proved extremely productive. Hamilakis ended up spending the whole academic year in Greece, based in Athens but with research trips to other parts of the country. The Bard Fellowship was taken remotely, as happened with all other fellows.

During the year, Hamilakis worked on three main projects: the first was a book project on the comparative exploration of the link between archaeology, race, and nationhood in Greece and Israel, which was published in March 2022 by Cambridge University Press with the title, “Archaeology, Nation, and Race: Confronting the Past, Decolonizing the Future in Greece and Israel.” The Greek and the Hebrew translations of the book will appear in fall 2022. It is co-authored with Raphael Greenberg from Tel Aviv University, and it is the concrete outcome of a happy collaboration that started in the classroom at Brown. Greenberg was a visiting professor at Brown in the academic year 2019-20, and the purpose of his visit was to work on the politics of archaeology in Israel and discuss the broader issues that Hamilakis had previously explored — for the case of Greece — in a series of publications, and mostly notably in the book “The Nation and its Ruins: Antiquity, Archaeology, and National Imagination in Greece” (Oxford University Press, 2007). They decided that the best way to advance their collaboration and learn from each other would be to teach an upper-level undergraduate seminar bringing the two national projects, that of Greece and Israel, together. The course turned out to be a semester-long debate around certain themes such as the intersection between nationalism and colonialism, matters of national purification, conceptions of race, and efforts at decolonization involving not only archaeology but also society more broadly. The exciting insights that developed in the class (partly due to the contributions by the students) and the realization that more work going beyond the tired schemes on nationalization was needed prompted them to publish a comparative account in a dialogic format. In the following months and throughout the next academic year, they expanded on certain themes and carried out further research on the topic. The work, initially designed to be a long article or a small pamphlet, grew out to become a book. At the invitation of the British School at Athens they presented an online seminar in March 2021, where they tried out some of the main ideas, and they were encouraged by the warm response by many hundreds of participants.
In this book, they probed each other to explore the convergences but also the differences between two national-colonial projects that, despite their chronological differences (one being a 19th century and the other a mid 20th century one), showed remarkable similarities. After interrogating the colonial origins of national archaeologies in the shared background of the decline of the Ottoman Empire, Greenberg and Hamilakis explored the applicability of the concept of the crypto-colony in both cases, especially with regards to the buffer roles that both nations held and continue to hold in global geopolitics. They continued with a discussion on how ideas of purification structure public understandings of archaeology and material heritage, and how such ideas are linked homologically to matters of language, public hygiene, and the body. Finally, they explored the intersection between nation and race and claimed that both countries were racialized and deemed “white,” despite the ambivalence that was at times expressed in western discourses. They ended the book with a call for the decolonization of the archaeological imagination that can contribute to the decolonization of the two societies more broadly.

The second project advanced during this year has to do with the archaeology of contemporary migration. Since 2016, Hamilakis has been conducting fieldwork on the island of Lesvos, recording and studying the material traces and remnants of contemporary border crossing and undocumented migration. Some of this work was presented in the exhibition “Transient Matter: Assemblages of Migration in the Mediterranean” at the Haffenreffer Museum of Anthropology. One of the key sites of this project has been the migrant registration center and refugee camp of Moria, which was burned down completely in September 2020. In two research visits, Hamilakis was able to record photographically the remnants of the camp and start the process of writing the material history of this facility and the ways in which it helps us understand global migrant movements and border regimes today. As part of this, he compiled and edited a portfolio of short responses to the Moria camp, which was published — open access — in the journal American Anthropologist. He also published an article in the journal World Archaeology, focusing on food practices amongst migration communities and advancing the concept of eating as an expression of affirmative biopolitics. In these publications, Hamilakis approaches the refugee camp as a complex reality, as a border assemblage embodying many and diverse roles, from detention to bodily pedagogy, to surveillance combined with spectacle. The agency of people on the move in reshaping the conditions of the camp is also foregrounded. This published work is the prelude to a longer study on this camp which will appear as a digital-born monograph in the Brown Digital Monographs Initiative, a collaboration between Brown and The Mellon Foundation.

Finally, the third project he devoted time to during his sabbatical year was the Koutroulou Magoula Archaeology and Archaeological Ethnography Project, centered around the excavation of a primarily Neolithic habitation settlement in central Greece (c. 6000 B.C.E.). Although the pandemic meant that they were not able to carry out excavation or extensive study seasons, they were able to continue some of the analysis and study of the material, focusing especially on the pottery kiln complex associated with an unusual Neolithic burial. This work sheds light on the early history pottery technology, while further analysis and
study of features such as perimeter ditches that surrounded the settlement speak of the spirit of communality and collective effort and argue against narratives that foreground hierarchy and cultural-evolutionist, teleological narratives.

In addition to these research and publication projects, Hamilakis was able to speak in several online events (Harvard, Bard College, University of Gottingen, et al.) and participated in the foundation of a new initiative called “Decolonize Hellas,” which explores the place of modern Greece (and of Hellenism) in the genealogies and histories of European colonialism. Finally, he was interviewed by several media outlets and wrote many pieces for newspapers and magazines. Some of them were linked to his migration work, and several were related to the controversial governmental interventions on the Acropolis of Athens, and their associated scholarly and social-political implications. His statements in the Guardian on this matter were republished in a number of media outlets around the world, and further interviews included on National Public Radio and in the French magazine Marianne.

Jae Hee Han
JUDAIC STUDIES AND RELIGIOUS STUDIES • FALL 2021

Jae Hee Han spent most of his sabbatical leave finalizing his first book project, “Prophets and Prophecy in the Late Antique Near East,” now under contract with Cambridge University Press. This book explores emerging notions of prophethood and prophecy among various communities in the late antique Near East, especially Jews, Christians (including “heretical” Christians), and Neo-Platonists. It rejects the search for a single true definition of “prophecy” and instead shows how these neighboring communities developed notions of revelation, writ large, in conversation with one another and the broader world in which they lived. Its chapters focus on notions that are sometimes thought to be unique to a particular community, e.g., the “chain of prophets” among Manichaeans, “Oral Revelation” among the rabbis, and “Theurgic Divination” among the Neo-Platonists. Rather than taking such notions as transparent expressions of belief or accurate descriptions of practice, the book argues that one can understand them better as crafted rhetorical strategies that emerged from and entered into particular contexts.

Han also continued his research on his second major project, which focuses on reading the Coptic Manichaean corpus as literature embedded within the Roman and Sasanian Persian contexts. While the tendency among scholars has been to read this fourth century corpus retrospectively as a window into earlier third century developments within the Manichaean Church, this project aims to show the utility of situating this corpus as fourth century texts or even as harbingers to later developments. Along these lines, he submitted an article titled “‘Hail Bema of Victory, Great Sign of our City!’: Towards a Comparative
Liturgical Approach to the Manichaean Bema Psalms,” which he had workshopped earlier at Brown with CRAM (Culture and Religion in the Ancient Mediterranean). This article is now forthcoming in Studies in Late Antiquity.

He also delivered two presentations during his semester sabbatical. The first was on the short-lived online phenomenon of “Modern Manichaeans” at the annual American Academy of Religion conference. These modern Manichaeans produced a substantial amount of literature during the five years (2012-2017) that they were active. Most interesting was the ways in which they “updated” the ancient texts in order to meet the religious expectations of contemporary worshippers and converts. The leaders of this online community have since largely left Manichaeism and now champion the book “Oahspe” (published in 1882) as their defining scripture.

In his second talk, Han presented on a different section of his second project at the Katz Center for Advanced Judaic Studies. This presentation focused on the “East” as the site of superior wisdom in both Manichaean literature and the Babylonian Talmud. It sought to read the figure of Goundesh (an “Indian sage”) in the “Kephalaia of the Wisdom of my Lord Mani” and that of Rav Kahana from the Babylonian Talmud together as bearers of superior “Eastern” wisdom. This presentation characterizes the experimental nature of the second project, which aims to read Manichaean literature alongside and through other corpora, thereby re-embedding the Manichean corpus back into the textual landscape of the late antique Near Eastern world.

Maurice Herlihy

Maurice Herlihy was on leave for 2019 and part of 2020, serving as visiting scientist at Algorand, a cryptocurrency startup founded by researchers from MIT. A blockchain is essentially a public ledger, a table that records a history of transactions. The term “blockchain” has its roots in early use of a specific technology (literally, a chain of blocks), but today many ledgers that call themselves blockchains use other techniques. Nevertheless, blockchains have certain essential properties. Like a conventional accounting ledger, parties are not allowed to erase or modify prior entries, only to append new entries to the end of the ledger. An erroneous entry that finds its way onto the ledger can never be erased, but it might be corrected by a later entry. Ledger state is highly replicated: there are many copies, ensuring that the ledger itself is highly available, and cannot easily be censored or suppressed by governments, corporations, or malicious hackers.
From Herlihy’s perspective, the most critical part of the ledger is the consensus protocol that keeps all the ledger copies in agreement. The consensus protocol ensures the security of the blockchain, and the performance of the consensus protocol dictates the performance of the blockchain overall. Algorand, the company for which he was working, provides a blockchain with significantly better performance than its competitors.

His role during his leave was to help develop what is called a “smart contract architecture.” A smart contract is a kind of program that executes on the blockchain. A simple transaction might take the form “Alice sends 1 coin to Bob,” while a smart contract might take the form of “at the end of each month Alice pays Bob 10 percent interest on his account balance.” Algorand was concerned that computationally intensive contracts might slow down the processing of simple transactions. To address this concern, they decided, roughly, that “it is better to apologize than to ask permission.” That is, their project allows some smart contracts to be executed in a speculative way that does not impede ongoing simple transactions, and checks that the computation remains valid before carrying out its effects. This approach is like writing a check without checking your account balance: it is very efficient in the common case when speculation is successful but incurs a high cost in the rare case it fails.

They expect this architecture will be ready for production by the end of 2022. Developing this mechanism requires a mixture of engineering and theoretical research, and as this is written, Herlihy and his colleagues are preparing a paper for an academic research conference.

During his leave, he continued to advise and work with his Ph.D. students. They published several papers on how distinct blockchains can interact securely as well as on novel ways of composing blockchain-based financial instruments. Herlihy, with Iris Bahar, also continued to co-advise two students who are working on hardware-software codesign of concurrent data structures. Herlihy’s Ph.D. student Jiwon Choe defended in January 2022; his Ph.D. student Yingjie Xue proposed in March 2021; and his Ph.D. student Daniel Engel will defend in September 2022.


Herlihy also served on program committees for research conferences including Tokenomics, ACM Symposium on Advances in Financial Technology, Symposium on Reliable Distributed Computing, and International Conference on Networked Systems.
Christopher Hill

Christopher Hill devoted most of his sabbatical to completing a near-final draft of a book with the title “Perceptual Experience.” The book begins with an attempt to clarify a key concept in the contemporary perception science literature, the concept of a perceptual representation. This initial chapter argues for a position that Hill calls representational pluralism — the view that perception science is committed to recognizing several different types of representation. For example, one type is a relation between perceptual experiences and low-level properties such as shapes, sizes, and colors, while another type is a relation between perceptual experiences and higher-level properties such as “smiling face” and “animate.” The chapter also proposes analyses of these forms of representation. Later chapters are principally concerned to advance the discussions of several historically important topics in the philosophy of perception by applying lessons from perception science, including especially the lesson that perceptual experience constitutively involves representations. One major topic is the distinction between appearance and reality. Another is the nature of perceptual phenomenology. A third is the nature of perceptual consciousness. A fourth is the relationships between the representational codes used respectively in perception and cognition. And a fifth is the epistemic role of perception — the contributions it makes to knowledge and rational belief. To illustrate, in the discussion of appearance and reality, Hill argues that at the most fundamental level, perception represents relational, viewpoint-dependent properties of external objects rather than objective physical properties. One of the challenges of the book is to explain how, if this is the case, human agents are able to adjust their behavior to objective conditions as they act to fulfill their needs. Hill maintains that access to objective properties of external objects depends on cognition and motor skills as well as perceptual experience.

Hill also worked on a book that is concerned with the nature of concepts. Though this project is still in the very early stages, the outline is basically fixed. There will be chapters on the individuation of concepts, the criteria that guide us in attributing concepts and confirming such attributions, the relationship between concepts and linguistic meaning, the question of whether we possess knowledge that is principally grounded in concepts (as opposed to being principally grounded in experience), and the role of concepts in achieving knowledge of necessity and possibility.

A third project was an extended review of Anil Gupta’s book “Conscious Experience” (Harvard 2019). This review has been accepted for publication in Mind.
Jeff Huang
COMPUTER SCIENCE • 2021-22

Jeff Huang spent his sabbatical working on projects that served the public. He wrote articles and curated data to start Computer Science Open Data, making the first resource to comprehensively catalog the profiles of over 5,000 computer science professors, assemble multiple ranking sources for computer science departments, collect about a thousand award-winning papers in computer science, and document the actual stipends of computer science Ph.D. programs. This resource has been used by the entire computer science community, leading to hundreds of retweets and nearly one million visitors, for example, as shared on Twitter.

Simultaneously, Huang documented the stories behind his publications in a series called “Behind the scenes: the struggle for each paper,” which has been shared by computer science faculty to their students as they start their journey.

Huang has also been writing computer programs himself, releasing new versions of software that are publicly available. He released version 3 of WebGazer, the most popular online eye tracker used by thousands of people for psychology research, usability studies and for developing accessible websites. He built from scratch a tool called Irchiver for people to build their own personal web archives and search their full browsing history. Finally, he rewrote his research group’s app Self-E for guided self-experimentation, using a framework called Flutter, and released the app on both the Apple App Store and the Google Play Store and iPhone and Android devices.

Besides these public projects, Huang continued advising seven Ph.D. students, one of whom defended his dissertation recently, and he involved about 25 undergraduate and master’s students in his research, many of whom have come from underrepresented backgrounds through summer diversity programs.

Yongsong Huang
EARTH, ENVIRONMENTAL, AND PLANETARY SCIENCES • FALL 2021

Yongsong Huang spent the fall semester at Swiss Federal Institute of Technology (ETH), Zürich, Switzerland, on sabbatical. It was an extremely enjoyable and productive semester.

During the sabbatical, he organized an online mini-workshop, together with his ETH host, Heather Stoll. It was an interdisciplinary discussion forum on topics related to long chain alkenones. They successfully organized an online conference (about four hours long) on October 26, 2021, with speakers from Europe and the U.S. on this topic. A total of nine speakers gave talks, and all talks focus on different aspects of
alkenones. The speakers include: Yige Zhang (Texas A&M University), Marcel Van de Merle (NIOZ, Netherlands), Sam Phelps (Harvard University), Linda Amaral-Zettler (NIOZ, Netherlands), Simon Brassell (Indiana University), Christopher Reddy (Woods Hole Oceanographic Institution), Heather Stoll (ETH), and Joan Grimalt (Institute of Environmental Assessment and Water Research, CSIC, Barcelona, Spain). Grimalt attended the meeting in person. The topics discussed during the meeting cut across multiple disciplines of alkenone research, including, chemistry, biology, ecology, paleoceanography, and paleoclimatology (reconstructing past CO2 concentrations in the atmosphere).

Huang also served on a National Science Foundation Division of Earth Sciences panel.

During Huang's visit, he gave a series of six oral presentations at the ETH Earth Science department on various topics related to long chain alkenones. He also gave two invited talks, one at Eawag, Swiss Federal Institute of Aquatic Science and Technology ("Beyond temperature: alkenones as paleosalinity and paleohydrology proxies"), and another at Magellan-Plus Workshop (Keynote talk title: "Reconstructing Black Sea salinity in the past 16,000 using novel alkenone-based proxies"), at Senckenberg Research Institute and Natural History Museum, Frankfurt, Germany, from September 22-24, 2021. He also gave an introductory talk on similar topics, and attended several presentations by other fellows at the Collegium Helveticum at Swiss ETH. In addition, Huang had numerous lunch discussions with postdocs and students during lunch meetings, and he attended many talks and learned many new things.

Huang also spent a large amount of his time writing various publications. He has initiated a collaborative project with Heather Stoll's group (postdoc Hongrui Zhang) to investigate the unusual alkenone distributions in marine sediment cores from Iberian Margin. In several horizons, alkenones in the sediments display unusually high, 37:4%, which was previously interpreted as lower salinity. They have carried out new analyses on microfossil assemblages and more in-depth examination of longer chain alkenones. Their latest results suggest that an arctic strain of Emiliania huxleyi may be the producer of the high 37:4% alkenone profiles. This strain may have been a naked strain and bloomed in early spring and produced high 37:4 alkenones. There is another bloom of Gephyrocapsa Oceanica in fall, producing alkenones with no 37:4. Therefore, alkenones may have been produced by both species of Isochrysidales and the inferred temperatures from sediment alkenones would show a cold bias when the naked strain of E. huxleyi produces relatively large amounts of alkenones. The project is continuing and they expect a joint publication from this study.

Additional collaborative work with ETH colleagues including radiocarbon analysis of sediment samples from White Fish Lake Alaska (Tim Eglinton's group). Negar Haghipour analyzed ~60 radiocarbon analyses on sediment organic matter from a sediment core from White Fish lake sediments that span the past 60 years, using the MICADAS system at ETH. The data reveal major changes in the ages of organic carbon, with most recent samples of the past decade showing very old sources. The results suggest increasing permafrost thaw in recent years have caused Pleistocene Yedoma organic material to
decompose and release CO2 and methane to the aquatic systems. They are still working on completing the research at White Fish Lake and writing up publications jointly with ETH colleagues. However, the results so far are extremely exciting.

Huang is still yet to finish an invited review on long chain alkenones. He had originally hoped to finish the review during his time at ETH. He has made a lot of progress, but his research team has made further progress in the past year and students are still publishing lead-author papers. When that paper is published, Huang plans to acknowledge the senior fellowship at the Collegium as well.

In addition to his research activities, Huang directly supervised his graduate students and his lab from Switzerland during his sabbatical. All students made excellent progress, and his group has generated many exciting scientific results. To date, they have published 23 peer-reviewed publications, and two of his Ph.D. students successfully defended their thesis in April 2022. Both students were immediately offered lucrative industry jobs in Boston that they wanted.

José Itzigsohn
SOCILOGY • SPRING 2022

José Itzigsohn was on sabbatical during the Spring 2022 semester. During his sabbatical, he completed and submitted two articles for publication and started working on a new book.

The first article is titled “Colonial Modernity in Historical Sociology,” and it is co-authored with Ricarda Hammer, who got her Ph.D. from Brown’s Department of Sociology and is now a postdoc at the University of Michigan. The article examines the colonial and racial structures of sociological thought in the field of historical sociology and charts the guidelines for a possible anti-colonial sociology. This article was submitted to the journal Theory and Society.

The second article is titled “Asian-Americans in American Racial Capitalism.” This article was co-authored with Marcelo Bohrt, who also received his Ph.D. from Brown’s sociology department and now teaches at American University, and Michelle Liu, who just graduated from Brown this year. This article analyzes the position of Asian Americans in the class structure of the U.S. through the lens of racial capitalism. This article was submitted to the journal Sociology of Race and Ethnicity.

In addition, Itzigsohn started working on a new book. He got a book contract from New York University Press to write a book on decolonizing sociology (the book will be co-authored with two colleagues: Ricarda Hammer and Zophia Edwards). During his sabbatical he focused on analyzing the debates on decolonizing the social sciences and gathering materials for the book and started drafting two of its chapters.
Nancy Khalek  
**RELIGIOUS STUDIES • SPRING 2022**

During a semester sabbatical in Spring 2022, Nancy Khalek was a guest researcher at the Max Planck Institute for Human Development, within the Institute’s Center for the Study of Emotion, in Berlin, Germany. In addition to participating in the life of the center, she presented a chapter of her current book project at the internal colloquium within the center in May and continued her research and writing while in Berlin.

Stephen Kidd  
**CLASSICS • 2020-21**

Stephen Kidd spent his sabbatical year 2020-21 in Providence locked down with an author from the second century C.E., Lucian of Samosata. A self-identifying Syrian from the banks of the Euphrates river, Lucian wrote primarily satirical dialogues and essays that skewered the beliefs, customs, and philosophies of his day. He was enormously influential: championed by writers such as Erasmus, Thomas More, Voltaire, and Zhuo Zuoren, and considered by many to be the first author of science fiction, he is enjoyed for his style, his humor, and his bite. But as many later readers have felt over the centuries, if there is one thing missing in Lucian, it is that he himself never expresses or defends his own commitments, although he mercilessly derides the commitments and beliefs of others. It leads to the question that Kidd has been pursuing in regard to Lucian: what does it mean to live a life without committing to beliefs?

The question is one that Lucian returns to over and over again. In his dialogue “Hermotimus,” we watch a lifelong student of Stoicism come to realize that there is no basis for any of his most deeply held convictions. In Lucian’s travel narrative “True Stories” (the alleged first science fiction novel), he challenges his readers not to believe any of the absurdities he narrates. Repeatedly he sends characters to moons or mountaintops to observe human life from the outside, as if the viewer were not actually part of that viewed world. This watching the world from the outside — and being unable to affect that world — is what unites the reader of fiction and this particular mode of living where belief seems to be irrelevant.

Kidd’s book is called “Living Life as Fiction: Lucian, his beliefs, and his thoughts about reading,” and each chapter thinks through a question about belief via Lucian’s own explorations and fantasies. Is it possible to read (in real time) without believing what we’re reading? What do we mean when we say we “don’t believe” the voice of an author? If we suspend our beliefs in regard to our own lives have we lost a fundamental part of our “selves”? If we are unable to affect the world we view, are we able to hold beliefs in the same way? These are some of the questions Kidd thinks through in the book, and he drafted a number of these chapters over the course of his sabbatical. In Fall 2020, he was lucky to receive a Cogut fellowship, and he spent a stimulating semester throwing around ideas with the Cogut fellows. In the semester that followed, Kidd continued to revisit those insightful conversations.
During his sabbatical leave in Fall 2021, Thomas Kniesche devoted most of his time to working on his book project on historical crime fiction. He wrote a 30-page chapter on the German crime fiction author Christian von Ditfurth, analyzing his novel "Mann ohne Makel" (2001). The English translation of this novel, titled "A Paragon of Virtue," was welcomed by David B. Green in a longer review in the English edition of Haaretz as "a pleasant surprise" and as "thoughtful and funny — and even, occasionally, profound." Kniesche read "A Paragon of Virtue" as a prime example of what has been called "transhistorical crime fiction." In this subgenre of historical crime fiction, a present-day detective investigates a crime that has occurred in the more or less distant past. In von Ditfurth’s case, the crime that was committed in the past, and that is being remembered, happened when a group of Nazis exploited the desperate situation of Jews in Germany in the late 1930s to swindle them out of their real estate property. By linking this kind of corruption to crimes that are committed in the present, the novel shows how fascist mentalities have survived in contemporary Germany.

Kniesche also worked on the introduction for this book project, although this part of the manuscript can only be completed after all the chapters have been written.

In addition, he produced a shorter German version of the chapter on "A Paragon of Virtue" for an edited volume that is scheduled for publication in 2022. Since he had to leave out substantial parts of the longer chapter (which was written in English), this required almost a complete rewrite.

In the middle of working on these projects, he was asked by a Brown alumna, who is now an assistant editor for the journal Foreign Policy, whether he could contribute an article on why Germans are so fascinated with crime fiction. This was a new experience: instead of having several months to complete an assignment for a scholarly article or a book chapter, he was told: "you have a week to write [the article]." He enjoyed this much more than first anticipated, although it did interrupt work on his other projects (but not for long — see above!).
J. Michael Kosterlitz

PHYSICS • SPRING 2022

J. Michael Kosterlitz's sabbatical leave from January to June 2022 was a bit of a disappointing disaster because of the COVID-19 pandemic. All his elaborate arrangements to visit universities in Asia and Europe had to be canceled, and he spent the six months stuck in his rather boring study at home in Providence.

However, Kosterlitz did manage to accomplish a few projects, nonetheless. First, he wrote part of a chapter for a book on progress in “Spin Glasses,” edited by Patrick Charbonneau. The chapter is called “Beyond Simple Ising SK,” which is the first model for a mean field theory of spin glasses. The work he did with his graduate student Nobuhiko Alino concerned a more realistic model of an XY spin to determine whether a distinct low temperature ordered phase exists or not. Remarkably, this elementary question had never been answered, and Akino and Kosterlitz found a way of answering this numerically for a spin glass with short range interactions in two and three dimensions. A short version of this was included in the article and also a description of work he did on the spherical model version of the infinite range mean field Sherrington Kirkpatrick spin glass model. This was one of the few situations where the averaging over the disorder can be done without the use of the replica trick and an exact solution for the average free energy obtained.

Kosterlitz also spent a lot of time working on a project with his collaborators at Shanghai University in China on the dynamics of an apparently simple test model known as the Stabilized Kuramoto Sivashinsky equation. This model displays most of the patterns observed in real physical processes such as directional solidification, Rayleigh Benard convection and others. It shows many of the time independent stationary patterns of these physical systems. This work is in the process of being submitted to Proceedings of the National Academy of Sciences (PNAS) for publication, which is an amazingly tedious and time-consuming procedure that Kosterlitz hopes will be completed before September 2022. This new article, “Topology, Vorticity and Limit Cycle in a Stabilized Kuramoto-Sivashinsky Equation” (PNAS, to be submitted), is a sequel to their earlier work on the subject published in PNAS in 2021: “Global potential, topology and pattern selection in a noisy stabilized Kuramoto-Sivashinsky equation” (PNAS, 2021).

During his sabbatical, he gave several lectures on various aspects of his research remotely by Zoom. One notable talk was to the Naval Academy in Washington, D.C., and another was a sequence of three lectures over Zoom to physics students in China sponsored by Suzhou University. According to reports Kosterlitz got back, these lectures were attended by many students throughout China and were well received in general. Kosterlitz gave a talk to Southeast University, China.

Kosterlitz was also invited to the first Symposium of the European Physical Society in Paris, France, where he gave an in-person talk on his Nobel prize work. On this visit, he also gave a colloquium at the Laboratoire des Solides, Saclay, invited by an ex-graduate student, Anu Jagannathan. He seems to have survived this trip without getting COVID-19. Kosterlitz was also invited as a token Nobel laureate to a MARS (Machine learning, Automation, Robotics, and Space) conference sponsored by Jeff Bezos of
Amazon, where he gave his standard talk. However, for Kosterlitz, the most interesting aspect was learning about real space flight and meeting several astronauts. He also had a long conversation with Stephen Wolfram, who also spoke at this conference. A fun fact is that Kosterlitz experienced flying a live falcon one afternoon (which was much more interesting than physics or space flight). He also gave talks by Zoom to Imperial College, London and UAM, Mexico City.

Kosterlitz is also on advisory boards for the Institute for Basic Science in Korea and for the Max Planck Institute, Munich. He attended a series of these meetings by Zoom — which was rather exhausting, as the Korea meetings took place from 2-6 a.m. EST due to the 14-hour time difference. While the Munich meetings were also late at night, there is only a six-hour time difference, so these ended by 11 p.m.

Overall, his sabbatical leave was not particularly restful but instead extremely busy and tiring.

Andrea Laird
CLASSICS, HISPANIC STUDIES, AND THE COGUT INSTITUTE • 2021-22

Andrew Laird’s sabbatical leave for 2021-22 was generously supported by a Loeb Classical Library Foundation Fellowship and a Faculty Fellowship at the Cogut Institute for the Humanities for a project titled “Humanism and experience in 16th-century Mexico: The early Latin writing of Fray Cristóbal Cabrera (1530-1545).”

In December 2021, he was able to finalize a 195,000-word monograph for publication by Oxford University Press: “Aztec Latin: Renaissance learning and Nahuatl traditions in early colonial Mexico.” This book examines the far-reaching role of Renaissance humanism in shaping knowledge of the Nahuatl language and Indigenous legacies in the Valley of Mexico during the 1500s, and shows how grammar, rhetoric, pedagogy, antiquarianism, and scholarly translation were transformed in New Spain to serve the interests of Indian elites as well as those of the Spanish authorities and religious orders. Copy editing and proofing should be completed over summer 2022 and the book is expected to appear in spring 2023.

Between September 2021 and March 2022, Laird submitted two articles on themes related to that project for publication: “Latin letters and an Amerindian vernacular: The creation of Nahuatl literature in early colonial Mexico,” Nordic Journal of Renaissance Studies 18 (2022), and “Aztecas latinos: el conocimiento de los clásicos y las tradiciones indígenas en el México del siglo XVI,” in: Ordia Prima: Revista de Estudios Clásicos, Córdoba, Argentina (forthcoming). He further submitted two chapters on similar topics, which will be called “Aristote, Tartaret et Siliceus à Tlatelolco: L’enseignement de la logique à une élite indigène au Mexique après la conquête espagnole,” in L’Europe de la Logique: Les traditions aristotéliciennes médiévales et modernes en contextes, edited by Julie Brumberg-Chaumont (Turnhout: Brepols, 2023 in press) and “Cicero, Quintilian and Rudolph Agricola in Tlatelolco: Mastery of European

This period of leave has also enabled Laird to finish a project initiated in 2016, elaborating on an earlier overview (Classical Philology 109 (2014): 152-3) of the “Verba sociorum D'omi'ni Petri Tlacauepantzi” (1541) (see image), the earliest known Latin text by an indigenous Mexican author. A detailed elucidation and analysis of the document’s contents, highlighting linguistic and scribal evidence that the manuscript was written by a Nahuatl speaker and confirming the author’s identity as Juan de Tlaxcala, was presented on April 23, 2022, to the meeting of the Association of Nahuatl Scholars at the Peabody Museum in Harvard. A full version of that survey, along with a diplomatic transcription and the first translation of the document into English is now under review for Ethnohistory. As well as constituting a self-standing publication, this study will be incorporated in a volume of Latin writings by native Mexican authors to be edited and translated by Laird, proposed in May 2022 to the new Harvard University Press-Dumbarton Oaks series, “Texts from the Early Americas.”

Meanwhile there have been steady advances on the project on Cabrera for which this period of research leave was primarily designated, and which was the subject of a talk and a paper shared at the Cogut Fellows’ seminar in September 2021. Completion of a monograph, provisionally titled “Fray Cristóbal Cabrera in Mexico: Humanism and experience in a colonial world,” is planned for 2024.

In addition, Laird gave an online lecture (“Dictitat Antiquitas: Classical learning as a blueprint for action and interpretation”) to the London Institute of Classical Studies Classical Futures seminar on January 24, 2022, and contributed to the in-person Classical Futures workshop in May 23, 2022. He spoke on “Humanist Latin as a Language of Literature” to the Greek and Beyond colloquium for M.S. Silk at the University of Oxford on March 18, 2022, and he presented an invited paper (“Panegyrical epic as historiography: Andrés Diego de la Fuente, Guadalupana Beatae Mariae Virginis Imago,” 1773) to the biennial meeting of the Society for Renaissance and Baroque Hispanic Poetry at Clare College, Cambridge on March 24, 2022.
He offered another invited talk (“Nematcanemiliztli: Significances of the earliest Nahuatl translation of Aesop”) to the Narraciones indígenas/Indigenous Storytelling conference at the University of Notre Dame Medieval Institute, April 28-29, 2022, and he will be giving a further paper by invitation, “‘Latinamericana’: Reconsidering the role of Latin in a colonial world,” at the Fédération Internationale des associations des Études Classiques (FIEC) conference on August 3, 2022.

Laird has been elected to serve as a director of the Association of Nahuatl Scholars (with effect from April 2020) and was invited to join the editorial board of the London-based Bulletin of the Institute of Classical Studies in May 2020. He will also serve as a project adviser and reviewer of a new project based at the Instituto de Investigaciones Históricas in National Autonomous University of Mexico (UNAM) led by Berenice Alcántara Rojas and Mario Aguilar Sánchez, who are publishing a three-volume translation and study of a 16th century manuscript miscellany of seminal compositions and translations in Nahuatl (Biblioteca Nacional de México Ms 1477).

**Jennifer Lambe**

**HISTORY • 2020-21**

With the support of a Cogut Fellowship (Spring 2021), Jennifer Lambe dedicated her leave to advancing her new book project, “The Subject of Revolution: Between Political and Popular Culture in Cuba.” This year, an article based on that research was published as “The Revolution’s Fourth Face: Feuding over Cuba on U.S. Public Television, 1959-1970” in the Journal of American History. She also finished researching and drafting chapters on mobility, the written press, and radio. During her sabbatical, Lambe also began work on a new book project tracing the relationship between science and twins. Drawing on that research, she is currently working on an article titled “Irresponsible Gestations: The Scientific and Social Language of Multiple Pregnancies.”

In 2020-21, Lambe also completed work on several other publications, including “The Politics of Psychiatric Institutions in Cuba and Beyond” (Journal of Social History of Medicine and Health, Shanghai), “Mazorra, Cuba’s Bedlam: From the Casa General de Dementes to the Hospital Psiquiátrico de La Habana, 1857-1980,” (“Manicomios al sur. Historias de instituciones psiquiátricas en Iberoamérica,” ed. Andrés Ríos Molina and Mariano Rupertzuz Honorato), and “Christine Jorgensen in Cuba: On Dormant Leads and Archival Deads” (forthcoming in the American Historical Review).” She enjoyed speaking (over Zoom) about different facets of her research at the Weill Cornell School of Medicine Richardson Seminar in the History of Psychiatry and at the University of Miami.
Brian Lander received an Early Career Fellowship from the Henry Luce Foundation and American Council of Learned Societies Program in China Studies to spend the year in Taiwan, but there was a pandemic so he stayed home. He submitted his book manuscript to Yale University Press in the fall and has spent much of the year working on its publication. Titled “The King’s Harvest: A Political Ecology of China From the First Farmers to the First Empire,” it is the first English language monograph on the environmental history of early China. The book uses recently discovered archaeological data to show how the growth of states in ancient China was based on people’s ability to harness the energy produced by photosynthesis in domesticated plants and animals. It argues that the formation of political organizations was a key event in environmental history because states and empires vastly increased the ability of human societies to transform the earth’s ecosystems. It was published in fall 2021.

He spent the rest of the year beginning research on his second book project, on the environmental transformation of the wetlands of the Yangzi River system. In particular, he used this year to study the ecology of rivers and the historical sources available on Yangzi River fisheries in order to reconstruct the ecology of the Yangzi River and its associated wetlands before they were thoroughly transformed by human activity. It turns out that there’s a lot going on under the water.

Along with co-authors Mindi Schneider and Katherin Brunson he published an article titled “A History of Pigs in China: From Curious Omnivores to Industrial Pork” in the November issue of the Journal of Asian Studies. This article uses the example of pigs to show how human societies are composed of multiple species, and to analyze how these relationships have changed from the origins of domestication to the age of global capitalism. This relationship has global consequences now that there are 700 million pigs in China.

Along with co-authors Ling Wenchao and Wen Xin he also completed a rough draft of a book tentatively titled “The State and Local Society in Third Century South China: Administrative Documents from Zoumalou, Hunan.” This book will introduce the English language scholarly world to the largest cache of excavated documents ever discovered in China, and explain how to use them for research. It will also begin the process of using these documents to rewrite the history of south China.

“Fish and Aquatic Plants,” an 18th century painting on hanging scroll (ink and colors on silk), National Palace Museum collection, Taipei, China
During Charles Larmore’s sabbatical leave in Fall 2020, he finished two books on which he had been working for some time. The first is “Morality and Metaphysics,” which appeared with Cambridge University Press in July 2021. It is a collection of his essays published over the past 10 years, though much revised and expanded, and all centered around a single theme. That theme is an account of morality, freedom, and reason that rejects the naturalistic metaphysics that has shaped so much of modern thought. Reason, the book argues, is responsiveness to reasons, and reasons themselves are essentially normative in character, consisting in the way that physical and psychological facts — facts about the world of nature — count in favor of possibilities of thought and action that we can take up. Moral judgments are true or false in virtue of the moral reasons there are. We need therefore, so it is further argued, a more comprehensive metaphysics that recognizes a normative dimension to reality as well. Though it takes its point of departure in the analysis of moral judgment, the book branches widely into related topics such as freedom and the causal order of the world, textual interpretation, the nature of the self, self-knowledge, and the concept of duties to ourselves.

The second book, also completed during the leave, is in French and provisionally entitled “De raisonnables désaccords” (“reasonable disagreements”). It is a philosophical autobiography and will be published in the series Les petits Platons (Paris) in 2022. The book begins with an account of Larmore’s youth and philosophical education and then proceeds to a discussion of some of the central topics he has written about: the demands of clarity, the self, reason, political liberalism, modernity, identity, self-knowledge, and the prospects for philosophy.

Finally, Larmore continued work on a third book, yet to be completed. Also in French, its title is “Comment vivre sa vie” (“How to live one’s life”) and it will be published by éditions Odile Jacob (Paris). It covers a number of central questions in ethics such as the nature of good and bad, the fear of death, individuality, self-knowledge, and so on.
Leila Lehnen
PORTUGUESE AND BRAZILIAN STUDIES • 2021-22

Leila Lehnen spent her sabbatical working on her book “Brazilian Literature between Democracy and Its Discontents.” The book reflects on the relationship between Brazilian democracy and its literary output since 2013 when mass protests shook the country. For some scholars, these marches represent full-fledged participatory democracy. For others, the Jornadas de Junho became the breaking point of Brazil’s new democracy. Not surprisingly, since 2013, democracy has become an overt theme in numerous Brazilian novels, short story volumes, and poetry collections. Lehnen argues that the upsurge in texts that deal with issues such as human, Indigenous, Afro-Brazilian, and environmental rights closely relate to Brazil’s expansion, and the more recent contraction, of democratic culture. “Brazilian Literature between Democracy and Its Discontents” highlights the importance of democratic values in the nation’s literary imagination. The book advocates that, though literature generally is removed from immediate political engagement, it can spawn new understandings of the political. Thinking about democracy via literary works allows for a distinct understanding of this concept that goes beyond defining it as part of a set of formal political constructs. In sum, the book contributes to existing debates about the interface between Brazilian literature and society and opens new avenues of investigation into this relationship. The sabbatical allowed Lehnen to engage with a new set of materials for the book, which will now have a chapter dedicated to how Indigenous writers and visual artists from Brazil perceive and engage democracy.

During her sabbatical, Lehnen also wrote two articles, one on Brazilian ecocritical zombie fiction and another on contemporary Brazilian Indigenous writing and art. Additionally, she gave several invited talks (University of Massachusetts Dartmouth, University of Brasília, University of São Paulo, Federal University of Rio de Janeiro), a keynote address, and two conference presentations. She also taught invited classes at Tulane University, the University of Massachusetts Amherst, and ARCIS/UCM Universities (Santiago, Chile).

Besides her research, Lehnen participated in the Brazilian Studies Association’s book prize jury and continued her editorial work at the Revista Estudos de Literatura Brasileira Contemporânea. Finally, she also continued working with doctoral students at Brown and other institutions (the University of Brasilia, Fluminese Federal University (UFF), and Vanderbilt University) and hosted a postdoctoral fellow from the University of Brasilia during Spring 2022.
Myles Lennon
ANTHROPOLOGY AND ENVIRONMENT AND SOCIETY • 2021-22

Thanks to an external grant from a private foundation, Wend Collective, and Brown's generous junior faculty sabbatical policy, Myles Lennon had the great privilege of taking a productive writing and research sabbatical during the 2021-22 academic year. In Fall 2021, Lennon completed the manuscript for his first book, “Subjects of the Sun: Sensing Solar in the Shadows of Racial Capitalism,” which is currently in peer review at Duke University Press.

Lennon contends that both activists and corporations employ a rational, technocratic gaze that narrowly views solar as a means of reduction: a way of reducing greenhouse gas emissions, energy bills, and unemployment. These optics overlook solar’s extractive and exploitative means of production — the toxic supply chains that produce solar infrastructure — and its radical potential to democratize the power that we all depend upon to survive. He argues that the means of reduction has effectively cross-pollinated the climate justice movement’s intersectional politics with the technoscientific ideology of “cleantech” corporations to give form to a performance of selfhood he calls “the equicrat”: an equity-minded technocrat. More specifically, the equicrat is a liberal subject who reflexively mobilizes their technocratic training and expertise in service of social equity. The book first introduces readers to the corporate equicrat: the traditional white-collar energy technocrat who has embraced an intersectional politics and social justice ethos at-odds with their corporate habitus. Lennon then introduces readers to the grassroots equicrat: the traditional community-based activist who has adopted the technocratic values and practices of the electricity generation sector — ideologies at-odds with their social justice habitus. Taken together, the book explores how both white male executives and Black activist women conjoin competing political values, troubling the ideological contours that delineate different raced and classed positionalities. Solar infrastructure is at the core of this political transformation, giving form to an equicratic energy transition that at times betrays the social justice principles it is supposed to uphold.

As an alternative to the equicratic graze, “Subjects of the Sun” conceptualizes the power of solar infrastructure in terms of five physical properties: (1) the sunshine that solar infrastructure harnesses; (2) the decentralized spatiality of solar panels in dense urban landscapes; (3) the modularity of solar technologies; (4) the

Above: (left) Workers install a giant solar electricity system in a low-income Black community in Queens, N.Y.; (right) An environmental justice activist inspects the electrical room of a low-income, predominantly Black housing development powered by a solar microgrid in Brooklyn (Photos by Myles Lennon)
quantifiability of electrical currents; and (5) the corporeality of solar installation labor. These five properties affect how a range of New Yorkers across race and class lines relate to not only their electricity but also one another and the nonhuman world they dwell in, opening up possibilities for nontraditional environmental care. Lennon contends that we have long overlooked these possibilities by privileging how renewable energy appears as disembodied data over how it affects us in our everyday environments. Along these lines, he suggests that greater attunement to the shine, spatiality, modularity, quantifiability, and corporeality of solar infrastructure can generate a radical environmental politics that foregrounds the lived experiences of communities of color in urban spaces often imagined as the antithesis of nature.

In February, Lennon started 10 months of ethnographic fieldwork with Shelterwood, a 900-acre Indigenous-, Black-, and Queer-led community forest, retreat center, and collective of land protectors in the wildfire-prone forests of unceded Kashaya and Southern Pomo territory (present-day Sonoma County, California). This work is part of his second long-term research project, which explores how young Black land stewards in the U.S. negotiate an ongoing history of plantation labor, settler colonialism, and food apartheid to cultivate body-centered approaches to climate resilience on the land. This project has three interconnected objectives. First, through applied research, it aims to equip young Black stewards with pragmatic strategies for expanding their land-based practices in ways that redress their environmental and epidemiological precarity. Second, through engaged pedagogy, it aims to pioneer an interdisciplinary approach to land-based learning that connects college students with on-the-ground opportunities to support Black stewardship. Third, through social theory, it aims to chart new directions in scholarship on environmental justice and Black farming by theorizing: (1) climate resilience as an embodied, antiracist practice; and (2) how this practice reconfigures the relationship between life and livelihood within the constraints of an extractive political economy.

An emerging cohort of young Black Americans are leaving their urban homes to start farms, steward forests, and cultivate body-centered relations with land they never knew before, drawing from Black agricultural traditions to confront environmental injustices — problems exacerbated by COVID-19 and the unprecedented West Coast wildfires. By reinvigorating the communal agriculture of their enslaved ancestors to adapt to a changing climate, these Black stewards link historic bodily knowledge with new visions of climate resilient futures. Yet their ownership of private land, their modern infrastructure, and their monetized labor are paradoxically rooted in the extractive political economy that their stewardship aims to subvert. Aware of these contradictions, they face the challenge of working the land toward
transformative futures while also eschewing utopianism. Lennon’s present research at Shelterwood is exploring this challenge. With roots in land justice and “just transition” frameworks, Shelterwood is cultivating a nontraditional approach to land conservation, weaving traditional Indigenous knowledge with Western science to address climate change and environmental injustices. In addition to harboring plant and animal biodiversity, Shelterwood is a refuge for marginalized human communities, in particular those who have been forcibly removed and alienated from “nature.” Specifically, Shelterwood fashions itself as a safe space for BIPOC and Queer communities to “reconnect” with the natural world, each other, and themselves. Toward this end, the collective is developing a healing retreat center primarily serving these communities. Finally, as a Queer-, Indigenous- and Black-led land alliance, the collective is experimenting with horizontal community governance structures that aim to move beyond hierarchical systems of domination over land and each other.

Through this work, Lennon is identifying and theorizing connections between land-based labor and climate resilience, as well as exploring how the embodied practice of working the land is reconfiguring the relationship between life and livelihood among novice stewards. Many young Black stewards attribute climate change to an extractive industrial paradigm that emerged from plantation slavery, and they therefore view the reclamation and rejuvenation of African and Indigenous cultivation practices as central to both displacing that extractive paradigm and ensuring their resilience in the face of environmental changes that disproportionately impact their communities. In documenting, partaking in, and theorizing such embodied practice, Lennon aims to move beyond the uncritical utopianism of recent scholarship on Black environmentalism and environmental justice. Toward this end, Lennon is illuminating his interlocutors’ challenges in confronting the structures that their practice theoretically opposes, exploring the role of private property, waged labor, and modern infrastructure in the bodily process of enacting their visions of climate resilience. Indeed, while Shelterwood’s stewards are aware of the transgressive potential of their work, they continually struggle to reconcile it with structures of settler colonialism and private property that have paradoxically made their work possible. In calling attention to this challenge, he is working with his interlocutors to develop a praxis of Black survival in the face of climate collapse.

As part of Lennon’s research with Shelterwood, he also created a paid summer fellowship program for five Brown University undergraduate students. After a rigorous selection process with 26 applicants, the program was officially launched on June 1, and the five selected students moved to Shelterwood for the summer. The program offers these students the opportunity to fuse Black/Indigenous land stewardship/forestry, land-based community-building, and ethnographic research, primarily through 9.5 weeks of immersive, applied learning at Shelterwood’s 900-acre community center and forest in Cazadero, California. The fellowship program has three overarching objectives: (1) prepare the next generation of BIPOC stewards to cultivate land-based, climate justice practice and theory; (2) generate qualitative knowledge to support decolonial BIPOC stewardship as part of his overarching research project; and (3) support the organizational development of Shelterwood. Further, the fellowship program is helping Shelterwood develop an applied approach to intergenerational land stewardship training.
Jia Leo Li

PHYSICS • FALL 2020

During the junior sabbatical, Jia Leo Li focused his efforts on pushing forward a few research projects, which culminated in a series of publications in high impact journals, such as Nature, Science, and Nature Physics. The first of these projects considered double-layer geometry. Double-layer geometry provides a unique and powerful experimental tool for studying emergent quantum phenomena in 2D materials. Using this geometry, Li and his collaborators: studied the stability of the superconducting phase in twisted bilayer graphene (“Tuning electron correlation in magic-angle twisted bilayer graphene using Coulomb screening” by Xiaoxue Liu, et.al., published in Science, 2021), examined an entropically driven phase transition and the associated Pomeranchuk effect (“Isospin Pomeranchuk effect and the entropy of collective excitations in twisted bilayer graphene” by Yu Saito, et.al., published in Nature, 2021), and demonstrated a unique BEC-BCS crossover phenomena (“Crossover between Strongly-coupled and Weakly-coupled Exciton Superfluids” by Xiaomeng Liu, et.al., published in Science, 2022). These findings have wide impact, representing significant advancement in our understanding of quantum science. Li and his collaborators expect these new experimental techniques to be widely adopted in the quantum material community.

They also managed to control and engineer band structures of 2D material using proximity effect. This technique offers a novel experimental knob to control a material’s properties without changing its chemical composition. Most remarkably, they showed that proximity effect gives rise to novel quantum phenomena such as ferromagnetic phase in the 2D limit (“Proximity-induced spin-orbit coupling and ferromagnetism in magic-angle twisted bilayer graphene” by Jiang-Xiazi Lin, et.al., published in Science, 2022). Not only is this finding highly impactful in the quantum material community, it provides a new conceptual approach to electronic and spin-tronic devices based on nanometer scale 2D material, which has the potential of revolutionizing the computational industry. Li’s work also resulted in the article “Isospin order in superconducting magic-angle twisted trilayer graphene” (Xiaoxue Liu, et.al., published Nature Physics, 2022).
Jin Li
EDUCATION • SPRING 2021

Jin Li took a semester sabbatical for Spring 2021 to work on her book project titled “To Be or to Become: Philosophical Origins and Psychological Expressions of Self in the West and East Asia.” Thanks to the sabbatical, Li completed four of the 10 chapters. By the end of the spring semester, she had only two chapters left. She is happy to report that the full manuscript is under review with one of the top university presses.

This book resulted from Li’s two-year fellowship from 2015-2017 at the Center for Advanced Study in the Behavioral Sciences (CASBS), Stanford University, for the first year and at Schwarzman College, Tsinghua University, China, for the second year. The fellowship was supported by the newly established Berggruen Institute, an intellectual think tank focusing on promoting understanding of Western and Asian philosophy. One of the institute’s initial core themes was the autonomous self and the relational self in the West and East Asia.

Berggruen Institute approached Li to write a new book on the theme because of her 2012 book “Cultural Foundations of Learning: East and West.” In this book, Li discussed significantly different philosophical outlooks between these two sets of cultures since ancient times. She synthesized empirical research over the past decades to make the case that the two cultures’ philosophies have their respective enduring influence on the intellectual development, learning, and education among current children. Subsequently, Li became one of the institute’s six inaugural fellows. Li was honored to be asked to work on their theme.

The task was to integrate philosophy with psychological research on the self in these cultures to discover new insights. Since Li’s general research has been on how children develop learning beliefs that reflect their respective cultural values, the topic of the self required a systematic review and synthesis of the vast empirical research on the self. Yet, it was not as daunting as studying both Western and East Asian philosophies from antiquity to the present, given that this field is not Li’s scholarly training. Even more challenging was to write a book that sheds new light on the topic. Thus, she went to CASBS with only a tentative title and a list of philosophical books.

The two-year leave resulted in an extensive book outline (130 single-space pages). By the time Li returned to Brown, she had written only the introductory chapter. While continuing to read and synthesize both philosophy and psychological research as well as to refine her book outline, she completed three more chapters in the next two years. The sabbatical semester in 2021 was instrumental for four more chapters, and she wrote the final two chapters afterwards.

Regarding the content of the book, Li sought to highlight major themes by answering three basic questions (instead of touching on all aspects exhaustively): what are the key differences in these two different kinds of self, why are they so different, and how do these two types of self function in life?
Despite much scholarship on this topic, in Li’s judgment, still many important aspects of the two types of self have not been well articulated and understood. This is especially true with the portrayal of the East Asian self. Without a better articulation, research findings tend to render a skeletal image of the self, leaving important details out.

In the introductory chapter, Li describes her first personal encounter of the West via studying German in college at the end of China’s Cultural Revolution (1966-1976). The German verb sein (the English equivalent of “to be”) and their noun morphemes of “das Sein” (“being”) gave the Chinese students who were freshly out of Mao Zedong’s youth reeducation a real intellectual stumbling block. They had no understanding of the abstract notions associated with these barren words. From there, the mundane becomes philosophical, that is, from everyday speech all the way to ontology, a profound Western philosophical idea. Li then introduces the phrase “to be or not to be: that is the question” to problematize its strangeness. As a college student, she had wondered about what kind of question it is without a trace of a human (for whom, from whence to where, doing what, with whom…). To try to make sense of that question, she compares several Chinese translations of Hamlet’s question to show that the Chinese translators used very concrete words to bring the abstractness down to earth in order to unpack the expression for Chinese readers. Next, Li poses a parallel question based on Confucian philosophy: “to become, or not to become a full human, that is the question” to juxtapose the two longstanding but very different philosophical outlooks of the human self. Li outlines the book’s central theme, structure, and content.

Chapter 2 reviews philosophical writing and empirical research to make the case that any culture’s self is a product of theorizing either formally, informally, or both. However, from the very beginning, the West has had a particular penchant for theorizing the world so much so that their world, individual or collective, would be unrecognizable without theorizing. The Western self is a mental product of that theory-making tradition. As a result, the West has built a complex edifice of the self. By contrast, East Asian philosophical tradition elaborates less on the notion of self. Still, in order to advance her goals for this book, Li acknowledges that what she writes regarding both types of selves is likewise theory-making.

In Chapters 3 through 9, Li elaborates on seven pairs of features of the two types of self: the Western essential self and East Asian particular self (Chapter 3); the Western bounded self and East Asian flexible self (Chapter 4); the Western fixed self and East Asian malleable self (Chapter 5); the Western linear self and the East Asian inter-relational self (Chapter 6); the Western rights-bearing self and East Asian role-embodieing self (Chapter 7); the Western impersonalizing self and East Asian personalizing self (Chapter 8); and, finally, the Western promotional self and East Asian effacing self (Chapter 9). For each chapter, Li first explains how each of the cultural self’s seven facets is conceptualized in their respective philosophical tradition. Next, she presents available psychological research on Westerners and East Asians to support the idea that the philosophical notions have not vanished into the past but are still deeply influencing present-day people’s selves. In the final section, lived experiences serve to exemplify the philosophical notions and psychological research.
Chapter 10 is the concluding chapter in which Li posits relational self in the West and autonomous self in East Asia. But she argues that these tendencies are not to supplant the predominant Western and Asian selves. Next, she considers vulnerability and drawbacks when each type of self is taken to the extreme. Finally, she discusses the possible integration of the two selves in the globalized world. She first presents successful efforts to integrate the two kinds of self, and she further illustrates with bilinguals and bicultural how the two selves actually co-exist in a growing population as globalization intensifies. Finally, borrowing core ideas of a way of life from another culture, such as turning the Western Sein/being into the contextually oriented and relationally intertwined self or vice versa, may prove to be quite challenging if not wholly impossible. Li explores what may or may not be possible to integrate culturally.

During Spring 2021, Li also presented one symposium paper and provided comments on a symposium as an invited discussant at two conferences remotely: the 50th Annual Meeting of the Jean Piaget Society and Biannual Meetings of Society for Research in Child Development. In addition, Li supervised one student for an independent study.
Steven Lubar

Steven Lubar spent his pandemic sabbatical semester (Fall 2021) finishing off an eclectic group of old projects and getting started on a new book. The old projects, mostly about museums and memorials, include an essay on Cold War memorials for a National Park Service handbook; an article on the design and construction of exhibits for History News which appeared earlier this year; and “Representing the Pain of Others: Telling stories of violence, suffering and death in museum exhibits,” for the fall issue of the journal Human Remains and Violence. One old project, an autoethnography of lamp repair, “Fixing as Learning,” for an edited volume, “Repair: Sustainable Design Future,” that will be published later this year, is the first publication in a new focus for Lubar’s research.

This new research focuses on skills and tools, making, and fixing. The major work of the sabbatical semester was beginning to read the literature in fields from human evolution and cognitive science to phenomenology and history on the topic, and to wrangle it into a book outline and proposal. That proposal for a book tentatively titled “Tools: A Cultural History” has gone through several versions and is now under review by a potential publisher. The current version includes chapters on: the ways in which Western philosophers from Erasmus Darwin to Hannah Arendt used tools to define humanity and to rank humanity by race and gender; changing ideas about the invention of tools, from the myth of Prometheus to the ideology of the American patent system; the history of theories of cognition and tool use: both Polanyi and Heidegger use the hammer as the prototypical tool to describe things and doing; the ways that tools shape community, with a focus on machine skeptics from John Ruskin to Ivan Illich; and the ways that tools connect mind and environment, reflecting on the ways that we use tools to extend ourselves into the world.

It’s still an unwieldy mass of material: books on the bookshelf and PDFs on the computer, notes and outlines and many “read this” notes, more or less organized. In addition to the chapter descriptions, there’s also a grant proposal and one completed chapter to show for the sabbatical, on the role of tools defining humanity. The topic has proven surprisingly generative, with many more sources than it first appeared, and a big and interesting story to tell. There’s several more years of reading and writing to turn it into a book.
Mark Lurie  
EPIDEMIOLOGY • SPRING 2021

Mark Lurie's sabbatical plans were severely curtailed by COVID-19, making it impossible to spend time at his research sites and with his South African collaborators. With research almost completely shut down in South Africa, and severe COVID restrictions back in place as South Africa tried to address their third wave, developing new projects there was all but impossible.

As a result, Lurie immersed himself in COVID-19 work, publishing one of the earliest papers on the impact of mitigation efforts in the U.S. and forming a COVID working group with faculty members and Ph.D. students from the departments of Epidemiology, Biostatistics and Behavioral and Social Sciences. In addition, Lurie led a National Science Foundation application with colleagues from across the University, including faculty in Engineering, Computer Science, and Applied Mathematics. In October 2021, they submitted a proposal to develop a Center for Pandemic Preparedness focused on measuring and understanding all levels of human mobility and social interactions, from cross-border migration to dyadic-level social interactions. Lurie also contributed to a revised National Institute of Mental Health HIV/Mental Health Center Grant, which was resubmitted in September 2021, and a R34 that used a short video to encourage men in South Africa who have recently tested positive for HIV to access treatment.

Anna Lysyanskaya  
COMPUTER SCIENCE • 2020-21

Although Anna Lysyanskaya's COVID-19 sabbatical felt somewhat unexciting at the time, in hindsight it was actually very good. Her main goal for her sabbatical was to explore how her research in privacy-preserving cryptographic protocols applies in the real world. She was on the lookout for new cryptographic problems to solve and was hoping to find them by talking to industry folks. On the other hand, Lysyanskaya also wanted to talk to them in order to educate them about privacy-preserving authentication.

Originally, she intended to accomplish this by visiting various centers of activity, such as Silicon Valley; New York City; Washington, D.C.; Zurich; and Paris — thinking about it now seems like she would have exhausted herself before getting anything done. But as the world settled to life conducted over Zoom, getting a sense of where industry is moving became more straightforward. It turned out that Lysyanskaya didn't have to criss-cross the world in order to find out how her cryptographic protocols are used and by whom and what she and her graduate students can do to improve them.
One of the things that Lysyanskaya learned is that suddenly blind signatures have found a new practical application. In a regular digital signature scheme, a user obtains a signature from a signer on some message M. In a blind signing protocol, even though the user obtains the signature on M, the signer learns nothing about either M or the resulting signature, and seeing them later will not allow the signer to link them to a particular instance of the signing protocol. A blind signature scheme is a signature scheme that has such a blind signing protocol and is still unforgeable — i.e., an adversary cannot produce more signed messages than the number of times it invoked the signing protocol. In spite of having a relatively long history (they were introduced almost 40 years ago), blind signatures are a subject of excitement in the cryptography research community at the moment because they can be used as privacy-preserving authentication tokens that can replace browser cookies in certain applications.

Thus, Lysyanskaya started looking at the kinds of blind signatures that can be used in practice. One paper that’s the result of this inquiry is about to appear in the upcoming Crypto conference; it’s joint work with Brown undergraduate student (now alumnus) Champ Chairattana-Apirom. It gives tools for obtaining blind signatures that are secure even as many signatures are issued concurrently. She also has some work-in-progress in this direction.

During her sabbatical, Lysyanskaya also gave a (virtual) invited talk at the annual Real-World Cryptography conference, which is a venue that bridges cryptography researchers and industry practitioners. Her talk was about another flavor of privacy-preserving signatures: mercurial signatures. Based on the work that went into preparing this talk, as well as on the feedback she received from it, she submitted a National Science Foundation proposal that was recently recommended for funding.

Lysyanskaya also delved deeper into a few other research directions, such as anonymous channels via onion routing, anonymous credentials, and privacy-preserving contact tracing, and she published papers in these areas.

During her sabbatical, she conceived and started developing a new course, CSCI 1040, which teaches cryptography without prerequisites, so any Brown student can learn the basics of encryption, authentication, and privacy-preserving protocols. Lysyanskaya taught this course for the first time in Spring 2022.

Finally, in Fall 2021, she successfully ran for her fourth consecutive term as a director of the International Association for Cryptologic Research, the primary research organization in her field. She has served as a director of the association since 2013.
Brandon Marshall

EPIDEMIOLOGY • SPRING 2022

Brandon D.L. Marshall dedicated his sabbatical leave to his research program, the People, Place, and Health Collective at Brown University. Notably, he was able to submit a significant $4.7 million National Institutes of Health grant to study the individual and community impacts of harm reduction centers in New York City and Rhode Island. These centers are community-based clinics, which permit the consumption of per-obtained controlled substances under supervision. Rhode Island is the first state in the nation to authorize harm reduction centers through legislation, and the first two publicly sanctioned sites have recently opened in New York City. If this grant is funded, it will represent the first research of its kind in the U.S. Through a combination of epidemiological, ethnographic, and spatial analytic methods, Marshall and his team have designed a robust evaluation to study the full public health and community impacts of these programs.

The Spring 2022 sabbatical also allowed Marshall to contribute to the national conversation on — and federal strategies focusing toward — addressing the overdose crisis. He presented his research on harm reduction and overdose prevention at Rutgers University, the New York Society of Addiction Medicine, the American Psychiatric Association annual meeting in New Orleans, and the 2022 National Institute on Drug Abuse International Forum. He was also appointed to the state of Rhode Island’s opioid settlement advisory committee, in which he will play a key role advising the Executive Office of Health and Human Services on how to allocate nearly $200 million in funds to abate the opioid and overdose crisis in Rhode Island.

As part of Marshall's program of research, a total of 25 articles were published during his sabbatical. Reflecting the public health impact and national importance of this research, he or his work continued to be widely cited, including articles in Nature and the Boston Globe and on CNN.
Brian Meeks
AFRICANA STUDIES • 2021-22

Brian Meeks had two major goals and one minor one to accomplish over this past year. The first was to complete and submit for publication a manuscript that he has been working intermittently on over the past decade, on the history and politics of the postcolonial Caribbean. This took up much of the first half of the year, but the book, “After the Postcolonial Caribbean: Memory, Imagination, Hope,” is complete and to be published by Pluto Books, London, in their Black Critique Series in December 2022. The short blurb as it will appear on the back cover gives a good synopsis of its purposes and direction:

Across the Anglophone Caribbean, the great expectations of independence were never met. From Black Power and Jamaican Democratic Socialism to the Grenada Revolution, the radical currents that once animated the region recede into memory. More than half a century later, the likelihood of radical change appears vanishingly small on the horizon. But what were the twists and turns in the postcolonial journey that brought us here? And is there hope yet for the Caribbean to advance towards more just, democratic, and empowering futures?

“After the Postcolonial Caribbean” is structured in two parts. In “Remembering,” Brian Meeks employs an autobiographical form, drawing on his own memories and experiences of the radical politics and culture of the Caribbean in the decades following the end of colonialism. In “Imagining” he takes inspiration from the likes of Edna Manley, George Lamming, and Stuart Hall in reaching towards a new theoretical framework that might help forge new currents of intellectual and political resistance.

Meeks concludes by making the case for reestablishing optimism as a necessary cornerstone for any reemergent progressive movement.

Further promotional information about the book is also available.

The second project was to begin archival research and make significant advances on Meeks’s proposed study, the working title of which is: “Tito Princilliano Achong: Race and Radicalism in the Ebb of Empire.” Achong, an important but largely forgotten figure in the late anti-colonial movement in Trinidad, needed to be rescued from historical obscurity. Meeks received a Richard B. Salomon Faculty Research Award to facilitate visits to archives in Trinidad and Tobago, London, Knoxville, Boston, and Cambridge. Due to COVID restrictions, much of this work had to be repeatedly postponed. Meeks was eventually able to travel to Trinidad in May 2022 and visited both the West Indiana collection at the University of the West Indies and the National Archives in Port of Spain. And in June, he visited the British National Archives in London. Both visits turned out to be fruitful, and he has managed to find rare and surprising documents that will certainly help to better understand Achong’s signal contribution to late anti-colonial praxis, as well as the shifting attitudes and responses of Britain to both Empire, writ
large, and her many dissenters. The Salomon grant has fortunately been extended for a year, so his plan is to use any remaining resources to do visits postponed by COVID-19 to Knoxville College where Achong did his A.B. and to Boston where he studied medicine at Boston University and completed a diploma in tropical medicine at Harvard. However, based on the archival material so far collected, he feels he is in a better position to give preliminary reflections on the shape of the study and hopes to do so at various internal as well as discipline-wide seminars and conferences over the coming year.

The third and minor goal was to begin work on a long-delayed book project on the Jamaican/American jazz pianist Monty Alexander. Alexander visited Brown and Africana Studies back in 2017, and Meeks recorded a long and fascinating interview with him over two days. His plan is to work on this and eventually produce a multimedia book on his life and music, tracing his connections with the origins of postcolonial Jamaican music, particularly Ska, serendipitous links with Frank Sinatra and the “Rat Pack,” and eventual relocation to New York City where he collaborated with Duke Ellington, Miles Davis, and many of the mid-century jazz giants. This one is close to Meeks’s heart, but based on the delays caused by COVID, he is more cautious as to a timeline for completion.

Meeks was also an invited speaker at the CUNY Graduate Center conference on “The Life and Work of Charles Mills,” in which his presentation was entitled "Letter to a Friend"; invited speaker at the Johns Hopkins “Symposium on Franklin W. Knight,” in which he spoke on “Young Franklin and his Times”; and an invited panelist at the Association for the Study of the Worldwide African Diaspora (ASWAD) plenary panel “The Legacy of Andaiye: The Point is to Change the World: Selected Writings of Andaiye,” in which his presentation was entitled “Bringing Guyana Back In.”

Meeks also sat on the Task Force on Doctoral Education, which met over most of the academic year. This, while consuming a lot of sabbatical time, was very useful in learning more about the strengths and weaknesses of the University’s doctoral programs and in affording him the privilege to make modest contributions to their improvement.
Kristina Mendicino
GERMAN STUDIES • SPRING 2021

During Kristina Mendicino’s sabbatical semester, she completed her book manuscript, “Passive Voices (On the Subject of Phenomenology, and Other Figures of Speech),” which is under contract and under review with SUNY Press. She also began the production process for a collection of essays that she is co-editing with Dominik Zechner titled “Frontiers, Encounters: Paul Celan and the Claim of Philology,” which was accepted by the board of SUNY Press in April 2021. (An essay of Mendicino’s on Celan and Parmenides is also included in this volume.)

Beyond these larger projects, Mendicino completed a book chapter for a collection of essays on Hegel and post-structuralism, titled “Forewords: Reading Hegel,” which she presented over Zoom at an international workshop in March 2021 hosted by the North American Society for the Study of Romanticism. She organized a seminar on literary incipits for the annual meeting of the American Comparative Literature Association in April, where she presented a paper on Hölderlin. Mendicino subsequently revised the talk into an article titled “Lapses: History and Poetry in Hölderlin,” which she submitted to the Hölderlin-Jahrbuch. Finally, she presented an invited lecture over Zoom on Robert Musil’s engagement with Edmund Husserl’s phenomenology at the annual meeting of the Robert Musil Gesellschaft, which she is currently revising into an article, upon the invitation of the organizers of the convention.
Kiri Miller

AMERICAN STUDIES • 2021-22

Kiri Miller spent this sabbatical developing a new research project on wellness apps and the attention economy. Her initial case study focuses on the Headspace meditation app and its “sleepcasts” — audio content designed to put listeners to sleep (see screenshot). Headspace’s sleepcasts are part of a burgeoning genre of audiocentric self-care products that present mindful listening as a pathway to managing anxiety, depression, insomnia, and the distractions of other digital media. Headspace, which claims over 70 million users of its app, has effectively used sleepcasts to extend media engagement and the productive labor of self-care beyond waking hours and past the threshold of consciousness. In glowing testimonials, reviewers note that they never know how a sleepcast ends, because they fall asleep before it’s over.

This project extends Miller’s previous theorization of “intimate media” (in her book “Playable Bodies”) to encompass wellness apps. Like the motion-sensing video game interfaces that were the subject of Miller’s previous research, meditation apps are designed to configure intimate relationships among bodies and technologies through repetitive practice and experimental trial and error. Where dance videogames present this process as interactive play, meditation apps frame it in terms of contemporary wellness-industry discourse: self-care, self-knowledge, and self-control. Miller collected and analyzed 850 user reviews of Headspace and tracked discussion of Headspace sleepcasts on social media platforms to assess how users engage with this discourse in accounting for their own experience with the app.

In addition to building on her previous work in digital media ethnography and sound studies, Miller’s research this year entailed literature reviews of the sociology of sleep, the history of sleep medicine, and recent work on theories of listening and mobile media. She also investigated how Silicon Valley self-optimization discourse came to incorporate ideas from mindfulness meditation practices. These threads converge in the development of apps that promise to help users sleep-train themselves out of anxious insomnia via a bedtime ritual of focused listening to proprietary media content. Miller will present initial findings from this research at the American Studies Association annual meeting this fall, with a paper titled “Insomniac Listening: Sleepcasts and Sonic Self-Care.”
Jeffrey Moser
HISTORY OF ART AND ARCHITECTURE • 2021-22

Jeffrey Moser spent the 2021–22 academic year as Paul Mellon Senior Fellow at the National Gallery of Art’s Center for Advanced Study in the Visual Arts (CASVA) in Washington, D.C. He devoted the majority of his time there to working on his book “Moral Depths: Making Antiquity in a Medieval Chinese Cemetery.”

In 2006, archaeologists at the Shaanxi Provincial Institute of Archaeology in Xian, China, were approached by police investigators with news of a tomb robbery in their jurisdiction. The police led the archaeologists to what several subsequent years of excavation would reveal to be the most extensive medieval family cemetery ever discovered in China. Even more extraordinary than the scale of the cemetery is the fact that one of its 29 tombs held the final remains of the Neo-Confucian thinker and antiquarian Lü Dalin (d. 1093).

Widely recognized as a major moral philosopher in his own time, Lü is best remembered today as the author of the “Kaogutu” (“Illustrated Investigations of Antiquity”), from which the modern Chinese term for “archaeology” (kaogu) partially derives. Featuring drawings and written descriptions of bronze vessels and jade artifacts that were already more than 1,000 years old when Lü studied them in the 11th century, “Illustrated Investigations” is an essential touchstone for understanding the development of Chinese archaeological thought. The excavation of the cemetery demonstrated that Lü’s antiquarian scholarship extended across a whole spectrum of his family’s material practices. Among hundreds of museum-quality artifacts, the excavation uncovered several ancient bronzes dating to the first millennium B.C.E. that the family had collected, inscribed with new elegies and laments, and then reburied with their deceased kin. It also demonstrated that the family knowingly engaged in what we would now call the “looting” of ancient tombs, and that they anticipated that their own tombs would one day be looted. Ultimately, it is this prophetic quality — the fact that the family anticipated the archaeologists who are now revealing their treasures to the world — that makes the cemetery so significant today. To excavate the buried traces of a medieval family that was itself engaged in the excavation of buried traces is to see oneself in a broken mirror and to spy unfamiliar visages amid its fractures.

“Moral Depths” focuses on this extraordinary site and the opportunities it affords for rethinking funerary art as a domain of art historical practice. The past 20 years have witnessed a shift in the field away from a formalist mode that “disinterred” grave goods into discrete, media-specific histories, toward a more integrated endeavor to excavate the symbolic program embedded in the design of the tomb space. The burials in the Lü cemetery resist both of these approaches. Sparing in design and execution, intensely private, and filled with inscribed objects that convey a degree of intimacy far exceeding that of the normative conventions of medieval Chinese funerary inscriptions, they offer less an outwardly directed social act of symbolic communication than a textured archive of the idiosyncratic ways in which one family attended to the emotional consequences of death. Interpreting the grave goods recovered from the
cemetery as traces of personal, individualized responses to moral imperatives, “Moral Depths” aims to resuscitate the humanity of the individuals buried there, and to think through the ethical implications of this humanity for our own efforts to make them knowable by dispossessing them of their buried things.

During Moser’s time at CASVA, he focused on completing two of the book’s four chapters, each of which focuses on a single tomb. In “The Brother Who Never Came Home,” he examines the non-burial of Lü Dafang, who died in exile. Despite his physical absence from the cemetery, the emptiness of the tomb space that was constructed for him emblematizes the spatial logic of the cemetery as whole, demonstrating how the arrangement of the tombs operated as a mechanism to encourage the future reproduction of the family. In “The Scholar Who Robbed the Sages,” Moser explores another mode of future-making in the tomb of Lü Dalin, who at once despoiled the ancient tombs and anticipated the despoilment of his own. Conjoining multiple pasts and potential futures, the tomb of Lü Dalin presages the self-reflexive conundrums of modern archaeology, bringing into focus the wider ethical reflections of the book.

Moser’s work benefited immensely from conversations with the diverse community of art historians who gathered at CASVA this past year. While their research interests were extremely varied, they came together to discuss the state of the discipline, the inclusions and exclusions of their archives, and their ethical obligations to the subjects they study and the wider communities they serve, among many other topics. Moser read much during his time in Washington, and he ended the year there, happily, with a reading list much longer than the one with which he began.
During Andriy Norets’s sabbatical, he did not travel due to the pandemic and family constraints. He used this time to finalize several existing research projects and to make a substantial progress on a new one.

First, jointly with his former advisee, Kenichi Shimizu, Norets prepared for publication and submitted a paper titled, “Semiparametric Bayesian Estimation of Dynamic Discrete Choice Models.” In that paper, they model the distribution of additive utility shocks by location-scale mixtures of extreme value distributions with varying numbers of mixture components. Their approach exploits the analytical tractability of extreme value distributions and the flexibility of the location-scale mixtures. They implement the Bayesian approach to inference using Hamiltonian Monte Carlo and an approximately optimal reversible jump algorithm that Norets previously proposed. They develop theoretical results on approximations by location-scale mixtures in an appropriate distance and posterior concentration of the set identified utility parameters and the distribution of shocks in the model.

Second, Norets finalized the revisions for the following paper that is now published: “Adaptive Bayesian Estimation of Discrete-Continuous Distributions Under Smoothness and Sparsity,” jointly with Justinas Pelenis, in Econometrica, May 2022. In the paper, they consider nonparametric estimation of a mixed discrete-continuous distribution under anisotropic smoothness conditions and a possibly increasing number of support points for the discrete part of the distribution. For these settings, they derive lower bounds on the estimation rates. Next, they consider a nonparametric mixture of normals model that uses continuous latent variables for the discrete part of the observations. They show that the posterior in this model contracts at rates that are equal to the derived lower bounds up to a log factor. Thus, Bayesian mixture of normals models can be used for optimal adaptive estimation of mixed discrete-continuous distributions.

Finally, Norets made substantial progress on a project, jointly with Ulrich Mueller, that develops a robust approach to Bayesian estimation of parametric models. In their framework, a parametric model is embedded into a more general model such that the resulting parameter estimators are semi-parametrically efficient in the classical settings even when the parametric model is (locally) misspecified. The more general model is easy to estimate; it has a Bayesian interpretation, and attractive classical frequentist properties.
Marion Orr

POLITICAL SCIENCE AND URBAN STUDIES • FALL 2021


Orr’s book documents that Charles Diggs was arguably the most consequential Black legislator to ever serve in the U.S. Congress. In addition, his book reveals for the first time the identity of the informant who notified the Justice Department about Diggs’s illegal kick-back scheme and ended his political career and sent him to prison.

From 1955 to 1980, Diggs assisted a young Martin Luther King Jr., witnessed the trial of Emmett Till’s killers (they were acquitted), founded the Congressional Black Caucus, was the chief architect of the legislation that brought home-rule to Washington, D.C., and in the 1960s ignited, virtually alone, what little congressional interest there was in Africa. Diggs was the visionary and leader in the formation of Trans Africa, the powerful Black-led American advocacy organization that helped to end apartheid in South Africa.

Orr is also pleased to be the recipient of the Biographers International Organization (BIO) 2022 Frances “Frank” Rollin Fellowship. The award is given to an author working on a biographical work about an African American figure or figures whose story provides a significant contribution to our understanding of the Black experience.

Orr is writing the concluding chapters and working with consultants to bring journalistic sensibility to complement his heavy academic style. A first draft should be completed in fall 2022. If all goes well, the book should be published in fall 2023. The manuscript is under contract with the University of North Carolina Press.

Also during his sabbatical semester, Orr worked on a book-length project on municipal pension reform. Millions of Americans depend on public pensions for retirement security. Estimates show state and local unfunded pension liabilities between $3 trillion and $4 trillion. At the municipal level, officials are increasingly voicing concerns over the long-term impacts of pension costs. During the sabbatical semester, Orr and his co-authors identified cities they plan to examine and started data collection.

He also met with, read materials for, and provided advice to his Ph.D. graduate students during the sabbatical semester.
Eric Patashnik had a productive year working on a book manuscript tentatively entitled “Policy Backlash: Sparking Adverse Reactions in American Government.” He finished the research for the project and drafted the complete manuscript (about 95,000 words) during his sabbatical. The manuscript is now under contract at University of Chicago Press.

Here is a brief synopsis of the manuscript:

A large body of political science scholarship focuses on how programs such as Social Security and Medicare have built supportive constituencies and become embedded in the social fabric. But policies do not always mobilize political support. Sometimes citizens and interest groups perceive policies to be damaging to their economic interests or threatening to their values. When this happens, favorable conditions are present for voter blowbacks, elite-led countermobilizations, and other types of backlash politics.

The U.S. has been experiencing a wave of backlash politics over the past several decades. A selective list of issues that have triggered adverse reactions includes: the Affordable Care Act, the cap-and-trade bill, the Medicare Catastrophic Coverage Act, the No Child Left Behind Act, the North American Free Trade Agreement, Wall Street bailouts, the expansion of transgender rights, President Trump’s policy of separating migrant children from their parents, and stay-at-home orders issued by governors and public health agencies during the pandemic.

What policy attributes tend to provoke backlashes? Which actors have participated in major backlash episodes in American politics, and what have been their goals and motivations? What happens after backlashes and countermobilizations occur, and what are the consequences for the struggle between liberalism and conservatism in the modern policy state? Why do loss-bearing constituencies sometimes fail to countermobilize? Finally, how can strategic policymakers manage the risk and potency of backlashes in order to promote the political sustainability of their accomplishments? These are the central questions Patashnik’s book addresses.

“Policy Backlash” provides the first systematic examination of backlash politics in the modern U.S. policy state. Drawing on an empirical analysis of almost 2,000 New York Times articles about backlash episodes since the 1960s, as well as detailed case studies of backlash politics in key domestic arenas from health care to gun control, the book explores the conditions under which policies spark counterreactions among the public and organized groups. The book demonstrates that the intensity of backlash politics today has been fueled by hyperpolarization, changes in American culture and society, and the negative feedback from activist government itself. “Policy Backlash” debunks the argument that backlash is exclusively a right-wing phenomenon, and shows that businesses, labor unions, consumers, immigration rights
activists, senior citizens, and many other groups have mobilized against policy changes. Representing both an analysis of policy development and a contribution to the study of the American state, Patashnik’s research reveals how backlash politics has refracted partisan conflict, reinforced the power of vested interests and reconfigured the relationship between citizens and government.

The book makes several contributions to political science literature. First, it develops a policy-centered theory of backlash politics that advances research on how policies create a new politics. Patashnik links policy feedback theory to an examination of the participatory capacities of affected constituencies to explain the circumstances under which perceived losses and threats stimulate countermobilization. He develops new concepts, models, and typologies for classifying backlash dynamics that should be useful to scholars working in many fields.

Second, Patashnik presents and analyzes an original dataset of articles about backlash politics in the New York Times since 1960. Patashnik and his research assistants coded each backlash episode along multiple dimensions, including the policy domain (e.g., health, criminal justice, immigration), the participants (e.g., business firms, labor unions, evangelicals, civil rights advocates), the ideological direction of the backlash (liberal or conservative), the form(s) the backlash took (e.g., electoral, organizational, public protests), and whether the backlash had already materialized or was anticipated. Using this dataset, he identifies, displays, and analyzes key trends in backlash politics over time. He uses statistical analysis to investigate the predictors of the yearly count of articles about backlash and finds a strong association between backlash and partisan polarization. He is also able to demonstrate that different types of backlash have different organizing dynamics. For example, conservative backlash rises with increases in the number of liberal laws passed by Congress, and liberal backlash increases when the GOP becomes more conservative.

Finally, Patashnik offers practical suggestions for how policymakers can recognize backlash risks and take steps to design against them. The takeaway lesson is not that backlash risks should be avoided at all costs. There are always trade-offs in politics. Making good policy decisions may require politically difficult actions, such as imposing losses on powerful interest groups or not catering to the preferences of some voters. Nonetheless, strategic policymakers are more likely to retain power, and to preserve their policy legacies, if they confront the adverse political consequences of their projects without illusions, rather than simply hope they will not happen. The book should be of broad interest to scholars of American politics and public policy.
Adam Pautz

PHILOSOPHY • 2021-22

Adam Pautz was on leave for the 2021-22 academic year. During this time, he worked on two research projects.

The first of these research projects was focused on the traditional issue of appearance and reality. In experience, it appears that we are directly acquainted with colored objects in a familiar three-dimensional space. But science teaches us that reality may be very different from the way it appears. How, then, can perception be what it intuitively seems to be: a direct and immediate access to reality? And how can it afford us with knowledge of mind-independent reality? This has been an ongoing research interest of Pautz’s. In 2021, Pautz published a book on this issue, “Perception” (Routledge, 2021). Much of what Pautz did during his sabbatical was follow-up work related to the publication of his book.

First, during his sabbatical, Pautz took part in three events related to “Perception.” He participated in an “Author Meets Critics” symposium on the book at Eastern Meeting of the American Philosophical Association. He took part in a Q&A session on the book with philosophers of perception at Washington University in St. Louis. He was also a guest speaker at a seminar at MIT, in which his book was used as a primary reading.

In addition, Pautz’s “Perception” was selected to be the subject of two published book symposia. One will be published in the journal Inquiry and the other will appear on Brains Blog, a popular blog for philosophy and cognitive science. The symposia will consist of several critical essays on Pautz’s book by leading philosophers of perception along with substantive response essays by Pautz. Pautz spent much of Fall 2021 composing his response essays.

Finally, Pautz wrote three new essays further developing some themes of Perception: “Naïve Realism v Representationalism: An Argument from Science” (forthcoming in Blackwell’s Contemporary Debates in the Philosophy of Mind); “Naïve Realism and the Science of Sensory Consciousness” (forthcoming in the journal Analytic Philosophy); and “An Argument Against Papineau’s Qualitative View of Experience” (forthcoming in Oxford Studies in the Philosophy of Mind). The first two of these essays argue that, because our sensory experiences are significantly shaped by our internal neural states, “naïve realism” about perception must be rejected. The third essay argues that, although our experiences depend on our internal neural states, they cannot simply be identified with them. Accepting that internal neural goings-on participate in the determination of experiences is not the same thing as conceding that experiences are nothing but internal neural goings-on.

During his sabbatical, Pautz also worked on a second research project: “the place of consciousness in the physical world.” Pautz’s main idea here is what he calls “the singularity thesis”: consciousness is irreducible and its emergence from the brain is like nothing else in nature. This thesis is accepted by
traditional “dualists” (such as René Descartes and David Chalmers). One of Pautz’s contributions is to argue that even contemporary “materialists” or “physicalists” must accept it, so that their view ends up resembling the kind of dualism they wish to avoid. Pautz’s arguments for this claim are off the beaten path. They do not concern the much-discussed “explanatory gap” between our technicolor conscious experiences and neural activity in our soggy gray matter. Rather, they concern the “intentionality” of our conscious experiences, as well as the special nature of our epistemic access to them.

While on sabbatical, Pautz did several things in connection with his second research project. First, he gave talks at Oxford (over Zoom) and Rutgers (in person). Second, he wrote a new essay, “How to Achieve the Physicalist Dream” (forthcoming in “Grounding and Consciousness,” Oxford University Press). Third, with Geoffrey Lee (University of California, Berkeley), he wrote a proposal for a new edited collection, “The Importance of Being Consciousness.” This collection will be devoted to investigating all of the different ways in which consciousness might be significant and how they might be interrelated: for example, descriptive significance, epistemic significance and ethical and normative significance. This volume will be the first of its kind; there is presently no volume exploring the plethora of issues concerning the significance of consciousness. Pautz and Lee were able to get many seminal figures in the field to agree to contribute essays. The volume is now under contract with Oxford University Press. Finally, Pautz began work on a new book, “The Singularity of Consciousness: How the Emergence of Mind Is Like Nothing Else in Nature.” He has completed two chapters. His aim is to have a complete first draft by the end of summer 2022.

Pautz continued to work with students while on sabbatical. He supervised two dissertation prospectus defenses at Brown, and served as an external examiner (or “opponent”) for a doctoral dissertation at the University of Oslo, Norway.
During his sabbatical leave in the 2020-21 academic year (supported, in part, by a Henry Merritt Wriston Fellowship from Brown), Jonathan Pober focused on his research with the Murchison Widefield Array (MWA) and Hydrogen Epoch of Reionization Array (HERA) experiments to detect the signature of the first stars and galaxies that formed in the universe. He also continued his work to prepare for a future radio astronomy experiment on the far side of the moon, while also expanding his research portfolio to include investigations in Machine Learning as a data analysis technique for these experiments. Although the COVID-19 pandemic prevented any travel to the experiments themselves, this year saw significant progress on these fronts, as detailed below.

Pober’s continuing work with HERA and the MWA focused on the analysis of data collected by these instruments. The field of “21 cm cosmology” seeks to detect a signature of neutral hydrogen (known as the “21 cm line”) emitted during the early universe. This signature appears in the low-frequency radio band (50-250 MHz) and therefore requires dedicated radio telescopes to detect. At the moment, the two largest challenges faced by all experiments are: (1) the need to identify data contaminated by human-generated radio interference (e.g., FM radio and digital television), and (2) the need to model the radio telescopes with unprecedented precision. In collaboration with his students and postdocs, Pober developed multiple new algorithms for both identifying contaminated data and building accurate telescope models directly from the observed data. Progress with both experiments during the last year has been significant: HERA’s first limits on the 21 cm signal were published along with several new MWA analyses. With colleagues at the University of Washington and Arizona State University, Pober also led a successful grant proposal that will bring over $1.2 million of funding to support MWA research over the next three years.

The future of 21 cm cosmology lies in an experiment on the far side of the moon, where frequencies too low to be observed through Earth’s atmosphere can be observed. Such an ambitious experiment requires careful planning, and Pober’s research focuses on developing new tools to simulate the data that would be produced by such a telescope. In January 2020, Pober worked with NASA program officers to hold a very successful splinter session during the (virtual) annual meeting of the American Astronomical Society on “Low Frequency Radio Astronomy for Cosmic Origins.” Pober has successfully applied for a new grant from NASA for continued support of this work.

Machine learning (ML) techniques have received significant attention as a tool for advancing data analysis in the physical sciences, and 21 cm cosmology is no exception. Together with collaborators at the University of Pennsylvania, University of California, Berkeley, and Brown’s Center for the Fundamental Physics of the Universe and Department of Computer Science, Pober has begun to explore several avenues for applying ML techniques to his research. The sabbatical period was particularly valuable in enabling this expansion of Pober’s research program and support from OVPR via a seed grant has further increased the time he spends on this project.
While COVID-19 led to a reduction on conference and seminar travel, Pober was able to give several significant talks via Zoom, including a colloquium at Stanford’s Kavli Institute for Particle Astrophysics and Cosmology, as well as an invited conference contribution at the 16th Marcel Grossmann Meeting (hosted by the International Center for Relativistic Astrophysics in Rome), and a high-profile invited review of 21 cm cosmology at the Science at Low Frequencies VII conference (hosted by the University of Amsterdam), which has become the premiere conference in the field of low-frequency radio astronomy. Pober also served on a National Science Foundation review panel in April and continued in his role as a member of the executive board of the Murchison Widefield Array, where he represents all U.S.-based users of the telescope.

During the sabbatical period, Pober also advised a significant number of students, including three Ph.D. students and four undergraduate honors thesis students. He is also hosting three virtual undergraduate summer students as part of the CHAMP program aimed at diversifying the student body of STEM Ph.D. programs, as well as two post-baccalaureate summer researchers who will be starting their Ph.D. in Brown Physics in the fall. He also served on two preliminary exam committees and two thesis defense committees.

Overall, it has been a productive and busy year, which produced a number of key papers and two successful grant submissions.
Jason Protass

RELIGIOUS STUDIES • SPRING 2022

Jason Protass, a specialist of medieval Chinese religions, with the support of the Henry Merritt Wriston Fellowship, took leave during Spring 2022. During this time, he completed and shepherded through peer review essays related to Buddhism and literature, in addition to new research for an emerging book-length project about laypersons’ practices in China. Although travel to East Asia for research was not feasible due to public health restrictions, he was also able to return to workshops and lectures within North America.

Protass completed two essays this year based on photographs he obtained in 2021 of a Chinese woodblock-printed book created in 1142 CE. Long thought to be lost, the only surviving copy of this rare Buddhist book was gifted to National Palace Museum, Taiwan; however, its broader significance escaped scholarly notice. Because of his expertise in Buddhist literature and medieval Buddhist sects, Protass recognized the potential significance of the rare book based on its title, mentioned in passing in the footnote of a Japanese publication. After obtaining the photographs, he became the first modern scholar to transcribe the text — a collection of 180 poems by the eminent Buddhist monk Miaozhan Sihui (1071-1145). His punctuated edition with a scholarly introduction was accepted for publication and is forthcoming in a joint-Japanese/Chinese peer-reviewed journal. Additionally, Protass completed an essay-length analysis (in English) of this lost text’s significance. He argues that Miaozhan’s poetry was used in fundraising. An understanding of the interactions between symbolic and financial economies better enable scholars to make sense of the world behind this book of Buddhist poetry. After minor revisions completed during leave, his peer-reviewed essay was accepted for publication by History of Religions, one of the flagship journals in the field of religious studies.

Protass’s concomitant research into the history of Buddhist fundraising and religious economies will carry forward to his second book project. During leave, Protass read widely about the history of lay religious practices in China. He had the opportunity to synthesize this material in a long, essay-length entry covering the history of Buddhism during China’s Song Dynasty (960-1279) for a distinguished encyclopedia.
Protass co-authored an entry on “Chinese Buddhist Poetry” for a well-known university press online bibliography, currently in peer review. The entry contains approximately 150 annotated entries and short encyclopedic overviews for each of 32 subcategories.

Protass completed revisions for a book chapter about historical translingual encounters between Chinese and Japanese monks, who did not share a spoken language. Their reliance on either bilingual interpreters or the exchange of notes written in mutually intelligible Sinitic characters often resulted in miscommunication. A close examination of such translingual exchanges raises difficult questions about what was gained or lost in the “translation” of Chan/Zen Buddhism from China to Japan. The revised book chapter is now in press.

Protass also completed new research into the overly romantic poetry of Buddhist monk Juefan Huihong (1071-1128) and the scandal it caused. Huihong’s all-too-human poems pose questions about lust, literature, and the possibility of liberation. A portion of the paper was delivered to a workshop at University of California, Berkeley in February, and the full paper was delivered to a public audience at Yale University in March. This new paper builds on Protass’s recent publications, especially his first book, “The Poetry Demon: Song Dynasty Monks on Verse and The Way,” published in 2021. His book illustrates how medieval Buddhist monks described themselves as being obsessed with a “poetry demon,” an intense creative urge that distracted from monastic discipline. They delighted in writing poems about creativity as an obstacle on the path to Buddhist liberation. The book challenges received notions about Buddhism and poetry. It introduces previously unstudied texts and manuscripts and analyzes the literary norms, religious proscriptions, and textual cultures of Chinese monks’ poetry from the 11th to 13th centuries. A paperback edition of “The Poetry Demon” was published in April 2022.

During leave, Protass together with his Brown colleague Jeffrey Moser (History of Art and Architecture) completed revisions to a co-edited volume of essays about Buddhists and their environments and submitted the volume for peer review. The volume includes his own chapter titled “Riparian Buddhism at Changlu Monastery amid Floods, Fires, and Factories.” This chapter, based in part on fieldwork done in 2019, offers an environmental history of one Buddhist monastery located near Nanjing as seen through its complex relationship with the nourishing-yet-dangerous capacities of the Yangzi River across 1,000 years. A portion of the materials for Protass’s research into medieval Buddhists and their environments contributes to his next book project. That monograph will bring together a diverse set of medieval primary sources to understand a critical but overlooked moment in the history of laypersons’ Buddhism — a moment that appears to have anticipated many aspects commonly associated with modern Chinese Buddhism.
Kevin Quashie
ENGLISH • 2021-22

During Kevin Quashie’s sabbatical year, he worked on four scholarly projects — a book manuscript and three essays. The book, tentatively titled “Black Sentences, Black Consolation,” explores aesthetics and the practice of Black literary criticism, thinking especially about the way that aesthetics can intervene in the urgency of criticism’s necessary turn to the disastrous political scene of life-right-now. “Black Sentences” tries to tarry with the ideas present in and of the scale of the sentence, to conceptualize sentence-level thinking as something of an aesthetic techne. In many ways, this work is in conversation with his last book, “Black Aliveness, or A Poetics of Being” (2021), and Quashie was able to use the occasion of 19 scholarly lectures (including three as resident faculty for a National Endowment for the Humanities Institute) and one conference presentation over the year to explore various dimensions of this new project.

He completed two essays, the first a piece titled “In Praise of Mere Beauty” on the painter Amy Sherald. This essay is a commission from Sherald’s gallery and is forthcoming (2022) in the first scholarly exhibition catalog of her work. The second completed essay, “A Queer Reckoning for Black Masculinity,” is forthcoming (2023) in the Cambridge title “African American Literature in Transition, 1980-1990.” Finally, Quashie started work on an article on Black poetics, a piece that was solicited for “The Cambridge History of African American Poetry” (forthcoming 2024).

Quashie read and wrote reviews of four book manuscripts for university presses and four articles for journals; he also completed three external tenure or promotion reviews, among other service to the profession.

He currently advises more than a dozen graduate students, and during the sabbatical he proctored six field exams and three colloquies on their chapters. In Quashie’s department, he served on a promotion committee and as a reader for an undergraduate honors thesis, among other services. In terms of the University, he served on the search committee for the Dean of the Faculty and was a respondent to seven papers at the Cogut Institute for the Humanities Collaborative Public Workshop.
Emily Rauscher  
SOCIOLOGY • 2021-22

During sabbatical, Emily Rauscher published six peer-reviewed articles, secured external funding for two studies, conducted interviews with 40 school superintendents, and developed a preliminary database for a new research project. These achievements all advance Rauscher’s research on education funding identifying ways to make school investments more effective, particularly for marginalized students.

For example, in one new article (published in 2022 in the American Journal of Sociology and co-authored with a graduate student), Rauscher finds that the benefits of spending on public education are higher in counties with fewer resources — counties that also have a high concentration of Black students. This evidence of larger returns in disadvantaged communities documents another way that schools can increase equality and establishes another argument for progressive school funding: efficiency. This research can inform state and local decision makers, allowing them to improve equality and efficiency by distributing funds differently.

To expand her efforts to improve the equalizing potential of school funding, Rauscher received support for a multi-year, mixed methods project from the Gilead Foundation. This project builds on Rauscher’s previous work to learn why spending benefits vary and how to target funds to improve student outcomes, particularly in Black and Latinx communities.

To learn how school funding policy could be implemented more effectively, Rauscher secured funding from the William T. Grant Foundation to compare the effects of capital funds and operating funds on student achievement and attainment. Recent interviews with district administrators reveal a desire for evidence about how to invest federal stimulus funds and whether it is better to invest in operations or facilities. By comparing school districts that narrowly pass or fail a local election to raise funds for either operating or capital expenses, Rauscher’s project will provide comparable cost effectiveness estimates and useful information for policymakers and practitioners.

To advance understanding of current school funding concerns, Rauscher continued interviewing superintendents in four states about school district finances and how district resources changed during the pandemic. Based on nearly 60 interviews (many collected during sabbatical), Rauscher wrote a paper with a former graduate student that is currently under peer review. These interviews are part of a mixed methods project supported by a grant from the Spencer Foundation to learn how school districts weathered the rapid resource changes during the pandemic.
In addition to the accomplishments above, Rauscher developed a preliminary database from IRS tax data on school-supporting nonprofits, including parent-teacher associations (PTAs), booster clubs, and alumni associations. Existing work underestimates the degree of school funding inequality because it excludes funds from PTAs and other nonprofit agencies. Rauscher has identified school-supporting nonprofits from millions of nonprofit tax records from 1995 to 2020 using Python, geocoded each nonprofit using ArcGIS, and linked these records to school district data on finances, student composition, and educational achievement and attainment. Rauscher will use this novel database in both research and teaching.

Rauscher is working with several graduate and undergraduate students at Brown University on various aspects of each of these projects. In addition to conducting research, she therefore invested a substantial portion of her time during sabbatical to training and mentoring students.
Steven Reiss
COMPUTER SCIENCE • 2021-22

The main goal of Steven Reiss’s 2021-22 academic year sabbatical was to explore the possibility of making automatic program repair practical. He spent his time developing a prototype tool that he and his research group integrated into their program development environment that is a good first step in this direction. In addition, he began exploring other possible future research directions.

Reiss’s research explorations drew him to automatic program repair, which has been around for over a decade. The basic approach started with a program that had an extensive test suite where at least one of the tests failed. Automatic program repair was then supposed to find a patch to the program that would cause the failing test to pass without causing any of the previously passing tests to fail. The early systems were slow, often taking hours to generate repairs, and when they did generate proposed repairs most of these repairs were overfitted to the given test cases; that is, the repaired program did pass the test cases, but it did not do the correct thing. Since then, there has been much research on improving this situation. A variety of techniques have been proposed for generating patches, work has been done on sorting the patches so that correct (non-overfitting) patches are found and reported first, and efforts have been made to improve the performance of the systems. The current state of the art is that modern systems will find correct repairs for about 50% of the simple (one-line fix) problems in the bug repositories that are used and do so with a median time of over four minutes.

While this represented substantial progress, Reiss and his collaborators did not see it as practical. They wanted a tool that could be included in an integrated development environment so that developers would use it in their day-to-day programming. The current approaches will not suffice for this purpose for several reasons. First, they require an extensive test suite. The projects they are generally tested on have large numbers of tests, with at least one test for every 10 functions. Looking through open-source repositories, they found that over 50% of the projects have no tests at all, and only about 13% of the projects have that level of testing. Thus, they wanted to find an approach to automatic program repair that did not require a test suite, much less an extensive one. Second, four minutes is a long time to try to repair a bug that the developer might be able to fix themselves in a minute or two. (Since the bugs that can be repaired are simple, this is often the case.) Third, the systems are designed to run in a batch environment so that the whole test suite can be used in validation. Reiss wanted to develop an approach that avoided all these problems.

After much thought, Reiss and his research group decided on incorporating automatic program repair into the debugging process. They start by assuming the developer has stopped at a breakpoint and notes that something is wrong. The developers bring up the tool that Reiss and collaborators developed, ROSE (Repairing Overt Semantic Errors), and briefly describe the symptoms of the problem. This can be that the program should not have thrown an exception, that an assertion should not have been violated, that a variable has the wrong value, or that execution should not have reached this point. Then they ask ROSE to
find repairs. ROSE responds in under one minute with a prioritized list of potential repairs. These repairs are guaranteed to fix the described symptom and are prioritized so that the most likely ones are presented first. The developer can then preview the repairs or just ask ROSE to make a selected repair. ROSE can also provide a list of potential buggy locations in the program based on the symptom if the developer wants to make the repair themselves. (Reiss and others are currently working on extending ROSE so that another option is to generate a test case that duplicates the symptoms as much as possible.)

ROSE is designed along the same lines as most automatic program repair facilities, using a generate and validate approach. It first finds a set of potentially buggy locations in the program. Traditional tools use the test suite and compare the executions of passing and failing tests to accomplish this. ROSE does this without a test suite by doing a dynamic backward slice of the execution based on the described symptoms. This slice is based on Reiss’s previous work that maintains a complete program flow analysis as the user types. ROSE limits the slice by assuming the problem is close to the stopping point in terms of execution distance.

Next, ROSE generates potential patches for each of the potentially buggy locations. ROSE uses a combination of approaches from previous work, relying on methods that tend to be accurate and that generate potential patches quickly. It uses pattern-based generation, code search-based generation using Reiss’s previous work with sharpFix, and learning-based generation using the sequenceR system. Each potential patch includes the patch, a description for the developer, and an estimate of the likelihood of the patch being correct.

Next, ROSE attempts to validate the proposed patches. Traditional tools do this by running the test suite on the patched program. ROSE does it by simply running a portion of the current execution in a simulation environment and comparing the repaired execution with the original execution. The execution traces are obtained from Reiss’s previous work on live programming. Each potential patch is given a score based on the execution comparison, whether the repair seems to fix the symptom, and whether the repair seems to make the execution after the stopping point work.

Finally, ROSE presents the repairs that are likely to be correct to the user in priority order. The repair priority is computed from the original likelihood of the patch being correct and the validation score. Repairs are presented as they are found so the developer can start looking at them as ROSE does further validation. (Repair generation is also prioritized, so that likely repairs are typically found early.)

Reiss and his research group did a preliminary evaluation of ROSE on two bug repositories: QuixBugs, a set of 40 buggy student programs, and a subset of Defects4J containing 32 programs representing typical developer errors and single line repairs. These repositories have been used for evaluating other automatic repair tools. For each of the programs, they discarded all the tests and created a single driver program that duplicated one of the failing tests. They then described the bug symptom and asked ROSE to try to fix the problem. ROSE found correct repairs for 17 of the QuixBugs programs and 16 of the Defect4J programs,
with a median time of about seven seconds for QuixBugs and 30 seconds for Defects4J. The number of bugs repaired was significantly better than previous systems for QuixBugs and comparable to the best previous systems for Defects4J. The time was significantly better for both.

They are currently putting together a user study that will be done over the summer that will test the usability of ROSE by real developers and whether developers think it helps or hinders them in program development. They have submitted a tool demonstration paper about ROSE and will use the user study to create a full paper describing the system over the summer.

The original plan for Reiss’s sabbatical was to use the time to visit other researchers and to find new research directions to pursue in the future. While he and his collaborators have established connections with researchers at University of Virginia and Georgia Tech, they did not do any of the proposed visits due to COVID-19 and health concerns. They expect to try to pursue these in the future.

They did do some work on developing potential new research directions on their own. They looked at their previous work on generating code based on code search. Here they decided that the first problem is to develop a specification of what should be generated that is easier to write than the actual program and that can be used for automatic code generation. They looked at how this might be done by using code search to find similar systems, abstracting those system so that they can be presented to the developer, letting the developer select, merge and edit the abstractions to create the structure of what they are looking for, and then use code search again to find test cases that can describe what the resultant classes and methods can do. They have a preliminary system that takes this approach. To pursue this work further, however, they need to come up with a convincing and robust set of test cases. This is where the group is currently.

A second effort looks at creating an intuitive interface for Internet of things (IoT) devices. Current interfaces are either manual (turn device on or off by clicking a button on your phone), or event-based (if X occurs, then turn the device on; turn the device off at 11:00). Intuitively, one wants to set conditions under which the device should be on or off (or other states), and not worry about determining the triggers that set this up. For example, Reiss wants the sign outside his office to show that he is available if he is in the office, if he is not on Zoom, if he doesn’t have a visitor, and if he is not on the phone. Creating a set of triggers that accomplishes this is difficult because one needs to account for all possible transitions and states. He and his research group want an interface that just lets them set the condition and takes care of the underlying events.

Previously they did preliminary work and developed such a system. It included four different user interfaces, each of which had its pros and cons. Moreover, all these interfaces were large and difficult to use. Their future research is looking at creating a single, simple user interface that can be used on a phone that accomplishes the same end. They also wanted to automate some of the sensors assuming the user is carrying the phone with them, and to make the approach practical. They are looking into creating an appropriate application for Samsung’s Smart Things that would demonstrate all this.
Amy Remensnyder

During her year of leave, Amy Remensnyder dove deep into her current research on piracy, slavery, deserted islands, and maritime religion in the medieval and early modern Mediterranean, which she is exploring by writing a longue durée micro-history of the Mediterranean island of Lampedusa between 1200 and 1700. She had been looking forward to doing some of this work within the exceptional community of medievalists at the University of Toronto, where she had been invited to spend the spring semester as the Bennett Distinguished Visiting Professor. But that plan was scotched by Omicron, whose spread prompted the University of Toronto to move all academic operations online for an extended period of time. Remensnyder consoled herself by making her third visit to Lampedusa. She spent two weeks there in April in order to better understand aspects of the island’s geography crucial to her book as well as to consult a local historian, Antonino Taranto, who generously shared with her his extensive personal archival holdings about Lampedusa. While in Europe, Remensnyder also visited maritime sites in western Sicily that figure prominently in her research, including the old port city of Trapani and the former pirates’ chapel of San Vito Lo Capo.

Lovely as it was to be in the Mediterranean with the wildflowers in bloom and the archives finally open again, Remensnyder spent the bulk of this year at her desk in Providence. There, she wrote the introduction and one chapter of her book about Lampedusa, as well as an article that will form the basis for several other chapters. She has become particularly interested in how, during the long centuries in which Lampedusa was uninhabited, this island shaped an unexpected meeting of the currents of early modern Mediterranean piracy and slavery that suggests the emotional complexity of European and North African pirates — both the potential that some of them felt compassion for the people whose capture was their business, and the reality of their fear that they themselves could become fodder in the Mediterranean system of slavery. This dyad marked Lampedusa’s unusual sacred shrine that was shared by Muslim and Christian mariners. There, pirates made offerings of practical items intended to help any seafarer in need, including fugitives from slavery. Though this island was a site of captive-taking, it offered runaways a chance at liberty. Lampedusa and its shrine thus also illuminate enslaved people’s strategies of sea-borne self-liberation. She was pleased to be invited to present some of this research at the University of Lincoln in the U.K., where she gave the Annual Medieval Studies Lecture (virtually, alas, due to COVID-19).

While her book about Lampedusa has been her primary focus this year, Remensnyder also wrote an article about how medieval and early modern mariners, whether Muslim, Christian, or Jewish, experienced the Mediterranean as a seascape of risk, where certain stretches of water anchored memories of past disasters and harbored configurations of current, coast, wind, wave, and sea-bottom, warning of potential dangers in the present. She examined storm and shipwreck as complex manifestations of the Mediterranean as an other-than-human natural force in history and its ability to delay, reorient, or thwart human maritime movement and thus change destinies. Storm and shipwreck, she argues, plunge...
the sea into the history of emotions and of disaster communities, and highlight the marine environment as a hitherto unrecognized participant in the politics of religious difference so significant to the history of the high medieval and early modern Mediterranean. She intends this essay to contribute to restoring to its rightful place in history the sea — a force that is literally reshaping the world today, as rising ocean waters and ever more ferocious marine storms shipwreck coastal communities and create migrants, millions of whom then entrust their lives to the same sea that commanded the fate of so many pre-modern mobile people.

Timmons Roberts
ENVIRONMENT AND SOCIETY AND SOCIOLOGY • 2020-21

For 10 years, Timmons Roberts has traveled and brought Brown students to the U.N. climate negotiations around the world, focusing on international climate justice. When Donald Trump pulled the U.S. out of the Paris Agreement in 2017, he decided to bring his Climate and Development Lab group home, to understand the societal structures driving climate denial, obstruction, and delay in the U.S.

The start of his 2020-21 sabbatical corresponded to the startup of a major one-year grant from the High Tide Foundation, funded by Brown University alum Richard Lawrence and his wife Dee. The funding was to create the Climate Social Science Network (CSSN) of researchers seeking to understand climate obstruction organizations — their makeup, their strategies, their interconnections, and their influence. CSSN’s theory of change is that we know the science of climate change and we have the technology and policy to address it, but there is a major obstruction in the way of our doing so. That obstruction is the fossil fuel industry and other special interests that have for three decades successfully blocked any meaningful reforms at the level that science says we need. The situation is simple and dire: we must identify and bring to light those who are driving our society to self-destruction.

When Visiting Research Professor Robert Brulle and Roberts began inviting people to join CSSN in late summer 2020, they expected about 30 or 35 scholars from about 10 countries would join — those were all the people they knew out there. In September 2020, Roberts organized a virtual launch event with speeches from Senator Sheldon Whitehouse and founder of this field of inquiry Riley Dunlap. Through the year over 175 scholars joined from over 23 countries; by April 2022 the network stands at 275 scholars from over 32 countries. CSSN now has 10 self-organized and self-governing working groups focused on everything from a global census of climate denial organizations to groups focused on greenwashing, geoengineering, the Global South, and U.S. state-level climate obstruction. In addition to building a sense of community, the groups are producing policy briefing documents and literature reviews, developing new joint research projects, and applying for external funding.
While not resulting in a book manuscript, Roberts’s sabbatical did result in a new and viable field of academic inquiry and policy engagement. CSSN launched a research grant competition and scholar-in-residence and journalist-in-residence fellowships. The Institute at Brown for Environment and Society and Brown University are emerging as the world’s hub of social science research on organizations obstructing climate change action.

Roberts also continues to lead three team-based research projects in his Climate and Development Lab. The Barr Foundation from Boston funded studies of actors and discourses in the Massachusetts and Connecticut state legislatures on climate change and clean energy, which have been presented to expert and advocate groups in each state and resulted in a scholarly article published in Energy Research and Social Science. Roberts led another team in the lab on a letter published in Nature and a commentary piece in Nature Climate Change. Over the sabbatical, seven articles were published: in Global Sustainability (two), Sustainability, Climate Policy, and Energy Research & Social Science. Two chapters were published in pretty high-level handbooks of environmental sociology — from Springer and from Cambridge University Press.
Patricia Rubertone
ANTHROPOLOGY • FALL 2020

Patricia Rubertone’s Fall 2020 sabbatical was supposed to be a time to tie up loose ends and delve into a new research project. Despite the COVID-19 pandemic, she was able to accomplish the first of these goals — the final proofing and cross-checking of the index and appendix for her book, “Native Providence: Memory, Community, and Survivance in the Northeast,” published by the University of Nebraska Press in December 2020. In “Native Providence,” she challenges the myths that modern cities do not have Indigenous histories and that the Native people whose ancestral homelands New England cities were built upon have disappeared. A little-known fact is that Providence, a city of modest size, had the third-largest Native American population in the U.S. by the first decade of the 20th century. Referencing research she conducted in major and less comprehensive archives, conversations with contemporary Native interlocutors, and place-visits, Rubertone re-envisions this historic city through the experiences of its Native residents during the late 19th and early 20th centuries. At the heart of the book are their stories of survivance that went unnoticed, not only because of myths about modern cities and vanishing Indians, but also because their lives did not seem to matter to white record-keepers, history-writers, and other citizens. Yet they mattered and still do today to their descendants, and they should also matter to everyone who lives, works, and studies in this city.

Rubertone’s plans for new research, an exploration of the intersections of art, Indigenous dispossession, and spatial and environmental justice through the lens of Cyrus Dallin’s iconic “Indian” statues miniaturized and marketed by Providence’s Gorham Manufacturing Company, a metal-working firm responsible for polluting a nearby pond and displacing Native people from its surrounding homeland, was curtailed because of institutional closures and restrictions on domestic travel. Rubertone felt fortunate that she could shift to another project, a study of William Wood’s “New England Prospect,” an often-cited and little scrutinized 17th century book on the Massachusetts Bay Colony, begun pre-COVID with visits to archives, including the John Carter Brown Library (JCB), and to locations in the Boston area described in the text and shown on the accompanying map. The research builds on conversations about the cultural biographies of material objects as they move through space and time and applies them to books and maps whose post-publication afterlives are entangled in larger social and historical contexts. Marginalia, bindings, trimmings, crease lines, and other physical traces observed in editions of Wood

The cover of Rubertone’s book “Native Providence: Memory, Community, and Survivance in the Northeast” (Nebraska, 2020). The art is a mural, “Still Here” by Gaia, in downtown Providence created in partnership with The Avenue Concept and Tomaquag Museum honoring the Indigenous heritage and peoples of the city.
in the JCB’s collections and analyzed from the interpretive frameworks of anthropology, history, and Indigenous and Native studies suggest that each copy of both the book and map had accrued its own distinctive layers of meaning. Rubertone could not have done this research without remote access to resources at the JCB and other repositories and assistance from librarians working at home and in-person on much reduced schedules. Admittedly, she missed the tactile engagement of mulling over actual records firsthand. But she is grateful for the generosity of these research enablers and for the availability of digital surrogates in helping to propel this project forward. She looks forward to visiting reopened archives and once again moving around freely to conduct site visits as travel bans are lifted to the degree that is safe so that she can put the finishing touches on this project and resume work on research paused because of the pandemic. Compared to the human suffering of the pandemic, these minor inconveniences have been a small price to pay.

Thanks to Zoom, Rubertone had the opportunity to travel virtually to the University of Edinburgh at the close of her sabbatical to comment on the social and political meanings of Indigenous monuments in relation to racial and social justice movements in an invited panel discussion on “History in Crisis: Monuments.” It was a timely event and a much-needed moment to reflect on 2020.
During a semester-long sabbatical in Spring 2022, Neil Safier advanced two book-length projects as he returned to full-time research and teaching following his service as director and librarian of the John Carter Brown Library. Throughout this period, Safier was hosted as a visiting researcher at the Centre Alexandre Koyré, a research institute of the École des Hautes Études en Sciences Sociales (in their new “Campus Condorcet” in Aubervilliers, north of Paris).

The first project, a monograph provisionally titled “The Plantation’s Library,” follows the circuits of a late 18th century Luso-Brazilian attempt to recast planters’ knowledge of Caribbean commodities — including sugar, indigo, coffee, and cotton — into the Portuguese vernacular. Drawing on sources from France, England, Spain, Portugal, and their respective colonial archives, the book traces the human and non-human circuits that composed the living and paper worlds of agro-industrial production in the late 18th century Caribbean. Through a series of translated texts, the Brazilian-born Franciscan friar named José Mariano da Conceição Velozo sought to create a practical library for the use of plantation managers in Brazil, teaching them how to organize, maintain, and improve agro-industrial production across a range of landscapes and commodities. The project emphasizes connections between the world of Brazilian planters and the search for productivity and efficiency in the colonial “plantationocene” — drawing on a term that science and technology studies scholar Donna Haraway has coined at the intersection of capitalism, colonialism, environmental studies, and racialized thinking about agricultural production.
A significant portion of the sabbatical was spent reconceptualizing the monograph based on recent French scholarship on the history of race, slavery, and the slave trade. The presence of enslaved bodies and practices of coerced labor within translated instruction manuals demonstrates that translation participated in the perpetuation and expansion of systems of coercion and oppression, constituting an ideologically and economically charged practice within and across colonial settings. An engagement with manuscript materials from French and Portuguese archives provided models for understanding how editors and translators interpreted and expanded new forms of industrial agriculture in the Americas. Another vein of recent scholarly literature on the economic thought of 18th century imperial administrators helped to contextualize what was at stake as Portuguese ministers and their economic policymakers sought out new forms of revenue for the flagging colonial economy. A thorough re-reading of late 18th century texts in libraries from Lisbon to Bordeaux also revealed the extent to which publishers silenced or ignored controversial topics — such as the slave revolts in Saint-Domingue (modern-day Haiti) or the treatment of enslaved peoples — even while slave societies in the Caribbean, like those of colonial Brazil, depended upon the maintenance and expansion of systems of coerced labor and the regular importation of enslaved Africans. Archival research related to these and other questions was carried out in a variety of Parisian libraries and archives (including the Archives Nationales, the Bibliothèque du Muséum d’Histoire Naturelle, the Bibliothèque Mazarine, and the Bibliothèque Nationale de France) as well as libraries and archives in Lisbon (the Instituto Nacional do Torre do Tombo, the Biblioteca Nacional de Portugal, and the Instituto Nacional-Casa da Moeda, in particular).

During this period, Safier was invited to participate in workshops and seminars at the École des Hautes Études en Sciences Sociales, Université Paris Cité, Sorbonne Université, the Université de Bordeaux-Michel de Montaigne, and the Museo de las Américas (Madrid). He also gave a keynote lecture as part of a history of science workshop held in Rome at the Reale Istituto Neerlandese di Roma (KNIR) in June 2022.

A second book project, an edited volume titled “Cosmopolitanism and the Enlightenment,” is now under contract with Cambridge University Press. Although the bulk of the editorial work was completed prior to the beginning of the sabbatical period, some of the editing, final arrangements, and contract negotiations were carried out during the spring sabbatical. The volume, co-edited with Joan-Pau Rubiés (Universitat Pompeu Fabra), is slated for publication in 2023.

In the spring, Safier was also awarded a short-term fellowship at the Newberry Library (Chicago) for a new environmental history research project related to the early modern Amazon, focusing on technologies of registration and historical ecology in equatorial South America as a way of understanding anthropogenic environmental change in the Americas more broadly. This fellowship will be taken up in summer 2023.
Michael Satlow
JUDAIC STUDIES AND RELIGIOUS STUDIES • 2020-21

Michael Satlow spent his sabbatical working on four projects.

His primary research project, supported by a fellowship at the Cogut Institute and a National Endowment for the Humanities Public Scholars Fellowship, was writing a book on the shared spiritual world of ordinary Jews, Christians, Greeks, and Romans in antiquity. At the same time that some of the self-styled intellectual elite (e.g., rabbis and bishops) were emphasizing and promoting differences between these groups, on the ground more ordinary people had more similar views of how the invisible beings that populated their world functioned, and how to communicate with them. Satlow has been working on this topic for some time, and he wanted to emerge with a draft of a synthetic book accessible to a broad audience that described this world, one that is usually hidden behind the “official” written texts of the elite. COVID-19, with its personal and professional disruptions, as well as unexpected developments in Satlow’s thinking changed (and expanded) the book. By September, Satlow expects to have completed a draft of about three-quarters of it, and he looks forward to revising it over the coming year or two as he regains access to libraries and other resources.

Satlow has also been working on three digital humanities projects. One, which charts the network of rabbis who quote each other in the Babylonian Talmud, generated a co-authored paper that will appear in the AJS Review. This project, for which Satlow collaborated with Michael Sperling, involved creating programs that could comb and extract the relevant relationships from a large and sprawling Aramaic text; mapping and analyzing those relationships; and then interpreting the results. A presentation of this work can be found here, and Satlow published a shorter, accessible account of it here.

His second digital humanities project was to continue and expand a project that he founded and has long directed, Inscriptions of Israel/Palestine. This database seeks to collect and make publicly (and freely) accessible all inscriptions from the region of Israel/Palestine that date from between the sixth century B.C.E. and the early seventh century C.E. Satlow and his collaborators have been planning all year for an overhaul of the interface, which they expected to be implemented by September 2021. They have also been working on linguistic parsing of the content of these inscriptions, which has exposed Satlow to the world of linguistic computing. This is a joint project being run with the help of the Center for Digital Scholarship.

Finally, Satlow worked on a more marginal and experimental project with a former student, Alexander Berry. It grew out of a class he taught for the first time in Spring 2020, “Introduction to Digital Humanities.” The point of this project was to see if they could get a sense of how the field of Jewish studies as an academic discipline has changed through various digital analyses of journals. Their work can be seen here. Satlow would like to expand it to include more journals and continue to explore the utility of “topic modeling” specifically, but this is now not a high priority for him.
David Savitz’s goal for the sabbatical was to obtain insight to share with the epidemiologic research community on how to select topics for research, design studies, and analyze and present results in a manner that is most helpful and therefore influential in the evaluation of evidence for application to policy. The consensus committee process at the National Academy of Medicine and other organizations that examine a body of research findings to provide guidance in applications (e.g., U.S. Preventive Services Task Force, the Environmental Protection Agency, and the Food and Drug Administration) makes extensive use of epidemiologic research. However, in many instances, one or a small subset of studies is seen as critical to their deliberations whereas others are relegated to a minor role. Epidemiologists aspire to do research that will be consequential in the real world; a key pathway for realizing that goal is to influence the integrated assessment of expert committees. There is limited feedback from those who evaluate evidence to the community of researchers, despite the frequent notation of research recommendations in committee reports. Furthermore, there has been little effort to more systematically examine what distinguishes the highly influential studies that have been done in a generalizable manner that can be applied to future studies. By assessing the needs of the groups that integrate evidence to look for commonalities, and conveying what is learned to the epidemiology community, Savitz hopes to help researchers achieve their goals of shaping policy and ultimately strengthen the evidence base upon which evaluation committees are able to draw.

During the period of his sabbatical, Savitz reviewed a range of consensus committee reports to determine patterns that distinguish the most influential epidemiologic studies. In addition to working with these documents, he interviewed staff at the National Academy of Medicine who have led a number of projects to learn from their experiences and perceptions. In addition, he interviewed some past and current committee chairs to learn from their observations about what epidemiologic studies seem to have been most influential and why.

Savitz has developed a seminar based on his findings and recommendations, which was first presented at the Colorado School of Public Health and was presented in a briefer form at the Society for Epidemiologic Research Annual Meeting in Chicago in June 2022. He plans to develop a commentary for publication. He offers specific recommendations for how the epidemiology community can be more contributory to informing health policy:

- Add policy-driven research to the menu of motivations for epidemiologic studies;
- Enhance training in the identification and pursuit of policy-relevant research;
- Encourage peer recognition for pursuit of research on societal priorities even when compelling scientific foundation or major public health impact is lacking;
- Enhance appreciation for preliminary, methodologically flawed studies on important understudied topics;
- Expand the menu of health outcomes beyond clinical diseases to include mental health, quality of life, behavioral health, and social well-being;
- Consider relevance, not just rigor.
Andrew Scherer spent much of his sabbatical year working on two book projects. The first, “By the Hand of God: Violence and the Morality of Killing in Ancient Maya Society,” is a sole-authored book that considers the evidence for war and violence among the precolonial Maya through the lens of morality. The book is based on two decades of field and laboratory research in Chiapas, Mexico and Peten, Guatemala. The second semester of Scherer’s sabbatical was supported by a Cogut Institute Faculty Fellowship to work on this book.

Scherer’s second book, “Substance of the Ancient Maya: Kingdoms and Communities, Objects and Beings,” is a co-edited volume with Thomas Garrison that stems from a conference session held in honor of colleague Stephen Houston. The volume consists of a series of essays written by Houston’s current colleagues and former students that honor some of his most significant contributions to the study of the ancient Maya, including papers on epigraphy, materiality, the nature of being, and the archaeology of rulership. This volume was recently accepted for publication by the University of New Mexico Press.

In addition to progressing on these two books, eight of Scherer’s authored or coauthored journal articles were published during his sabbatical. Most directly tied to his authored book project was his paper “Recent Research on the Archaeology of War and Violence,” published in the Annual Review of Anthropology. Also relevant was the paper “Chronology and the Evidence for War in the Classic Maya Kingdom of Piedras Negras,” coauthored with colleagues and current and former Brown Ph.D. students for the Journal of Anthropological Archaeology. Scherer coauthored with his current Ph.D. student, Joshua Schnell, “Classic Maya Dental Interventions: Evidence for Tooth Extractions at Piedras Negras, Guatemala” for Bioarchaeology International. Two other of

Tikal Temple I is one of the major structures at Tikal, a large, ancient Mayan city. It is located in the department of El Petén in Guatemala and is part of Guatemala's Tikal National Park. (Photo by Andrew Scherer)
Scherer’s articles report on his research team’s ongoing analysis of remote sensing lidar survey of the western Maya lowlands, as covered in the Brown News article “Were the ancient Maya an agricultural cautionary tale?” These articles can be found here and here.

Scherer also co-authored two chapters for Stephen Houston’s edited volume “A Maya Universe in Stone,” which was published during the fall of his sabbatical year. During his sabbatical, Scherer also submitted a book chapter for publication in an edited volume and had two other book chapters accepted for publication.

As a break from his various writing projects, Scherer traveled for a week in October 2021 to begin a new collaboration with the Guatemalan-led Proyecto Arqueológico del Sur de Tikal (PAST). The focus of this work is the documentation of human remains associated with the great Central Mexican city of Teotihuacan’s presence in the Maya lowlands during the fourth century A.D. Scherer’s own research project, the Proyecto Arqueológico Busilja-Chocolja (co-directed with Charles Golden, Brandeis University), returned to the field in June 2022 for the first season of excavations since the COVID-19 pandemic.

The other three journal articles noted above can be found here:

- “Sculptural Traditionalism and Innovation in the Classic Maya Kingdom of Sak Tz’i’, Mexico”
- “Health Care in the Marketplace: Exploring Maya Medicinal Plants and Practices at Piedras Negras, Guatemala”
- “Organic compositional analysis of ancient maya tooth sealants and fillings.”
Thomas Schestag’s sabbatical semester was spent finishing a book on poetic license and furthering work on a new book dealing with Martin Heidegger’s writings on poetry. Both books are part of a series of investigations into poetry’s relation to language. They both challenge the common place notion of a language of poetry. Instead, what is called poetry marks (even embodies) a certain relation to language indicated by the Greek verb poieîn, which does not so much insist on the linguistic character of poetry as on the paralinguistic outline of the poem: poetry never simply speaks (without ever simply not speaking) but does something to language. This doing — or poieîn — implies, more often than not, a certain undoing of linguistic patterns, compositional habits, and rules.

The title of the book Schestag finished is “erlaubt, entlaubt.” A tentative English equivalent could be “allowed, disallowed.” The book explores the relation between poetic laws and poetic license, or libero arbitrio. It also asks for what in the relation to language (understood as expression regimented by a set of grammatical rules and the dictionary) is neither forbidden nor required but escapes the perception of language as a juridical phenomenon or as being framed by juridical considerations, and thus touches upon a certain lawlessness in the relation to language as well as in the layout of language “itself.”

The book is composed of a series of chapters on poetic and prosaic license in Kafka, Horace, Dante, Hölderlin, and Nietzsche. Because of the question whether or not the use of language presupposes language as possession, it also includes a detailed discussion of Kant’s recourse to the paradoxical notion of a law of permission (lex permissiva, Erlaubnisgesetz) in order to explain and justify the arbitrary taking of a piece of land, and its declaration as “private property” in the opening paragraphs of his “Rechtslehre” (“Doctrine of law”), composing the first part of his “Metaphysik der Sitten” (“Metaphysics of Morals”). It turns out that the free use of language precedes and undoes any claim for language as possession or property.

The other book, in progress (and still without a title), is composed of seven parts (four of which have been completed). It follows Heidegger’s convoluted and shifting explanation with poieîn and poíesis since his earliest writings (especially on Aristotle); through a discussion of the poem (in the strict sense) in “Der Ursprung des Kunstwerkes” (“The Origin of the Work of Art”) as embodying the essence of the work of art; and into Heidegger’s late interpretations of Georg Trakl’s poetry, collected in “Unterwegs zur Sprache” (On the Way to Language).
Christopher Schmid

BIOSTATISTICS ● 2021-22

On his sabbatical, Christopher Schmid had two major aims. The first was to advance research in methods he has developed to synthesize N-of-1 trials, which are personalized multi-crossover designs in which individuals compare two or more treatments to see if they improve their own condition. Models of the data collected permit improved estimation of treatment efficacy on both individual and population levels. In addition to applications of these methods described below, Schmid worked with his lab to develop software for fitting Bayesian linear and nonlinear models that incorporate features of data such as time trends and correlated measurements that can be incorporated into mobile applications so that participants can learn and be informed of their own progress. His lab also worked on studies of the performance of these models under a variety of conditions in order to study their robustness to different assumptions. The lab also developed software for determining the number of individuals and the number of measurements per individual needed to be able to estimate effects to required levels of accuracy. They presented this work at several different conferences.

Schmid also collaborated with two different national expert groups to promote the use of N-of-1 trials in healthcare. In work in press at Clinical Pharmacology and Therapeutics, they advocated for the use of these trials as part of the healthcare ecosystem including various stakeholders such as clinicians, healthcare organizations, pharmaceutical manufacturers, insurers, regulators, and policymakers. A second group wrote about the use of N-of-1 trials to promote personalized data science, which aims to collect, analyze, and interpret personal data to inform personal decisions. Schmid also established an intra-Brown collaboration to apply N-of-1 trials to personal experiments seeking to change individual behavior on initiatives that would promote climate-friendly activities (e.g., reducing one’s meat consumption or water usage). This work continues and will seek to establish some campus activities around this goal.

Schmid’s second major aim was to create a course exploring the statistical basis of the design of experiments to be offered in the biostatistics curriculum in the School of Public Health. Experimental design is critical not just in health-related areas such as clinical medicine, public health, and psychology, but it is also increasingly becoming common in technology, personalized experiments, and simulation studies. Long ago, statisticians developed theory and methods for designing experimental studies and introduced concepts such as randomization, replication, and blocking or stratification, as well as designs for a variety of data structures such as factorial, fractional factorial, and incomplete block designs. Over the past few decades, the growth of data and new technologies has led to many innovations such as adaptive designs, SMART designs, and sequential designs. Understanding these principles clarifies the purposes behind different designs and allows one to construct studies efficiently. It is crucial for students to be well-grounded in this theory in order to both apply it and to understand the need for remedies to
draw causal inferences when randomization is not possible. This course was taught in the Spring 2022 semester to 10 graduate students (master’s and Ph.D. from biostatistics and computational biology). It will be offered again next year and hopefully will become a regular feature in the University curriculum.

In addition, Schmid continued several ongoing research projects. With Dr. Adam Levine, he has been building models to predict the severity of dehydration among individuals presenting for care with diarrheal disease in Bangladesh, working with several of their pre- and post-doctoral fellows. This has resulted in nine publications. During the sabbatical, Schmid worked closely with two members of his lab to develop new methods for modeling ordinal outcomes: Kexin Qu developed a paper now submitted comparing realistic test performance of various machine learning methods for modeling ordinal outcomes, and Allison Quintana developed a method for extending decision curves to ordinal outcomes.

With Drs. Heather Kaplan and Greg Marcus, Schmid has been leading his team in running two different N-of-1 studies. Kaplan has been studying two diets for treating children with inflammatory bowel disease. Fifty-four children undertook 34-week trials in which they received each diet for 16 weeks in two different eight-week stretches following a two-week baseline. The researchers found in work recently published in the American Journal of Gastroenterology that both diets reduced inflammation and symptoms in some individuals, but that others did not benefit. Marcus studied the effect of potential triggers (e.g., caffeine, alcohol, exercise) for adults with atrial fibrillation (AF) by having each adult try one or more N-of-1 trials in which they alternated weeks during which they permitted the trigger and repressed the trigger. In work published in JAMA Cardiology, the researchers found that those who did N-of-1 studies had a reduced number of AF events but did not significantly improve quality of life compared to those who did not do them. Among the triggers tested, alcohol was the only one found to increase AF risk.

Working with a biostatistics master’s student, Fandi Chang, Schmid analyzed a series of 257 N-of-trials in which members of the public recruited over the internet tried out four different interventions over one month in order to test their effects on personal well-being as measured by happiness, stress, and focus. They found small improvements on all outcomes with several of the interventions.

Schmid also continued to direct the Biostatistics, Epidemiology, and Research Design Core of the Advance-CTR Clinical Translational Research program based at Brown, University of Rhode Island, Lifespan, and Care New England. In this role, he works with junior clinical and public health faculty designing research proposals and connecting them with other methodologists around campus. This has led to Schmid being a mentor on many training grants and training K awards as well as coordinating many different pilot awards that CTR gives out to jumpstart research. It also led to another project with a master’s student, Jasmine Wang, developing models to predict the risk of poor outcomes for premature neonates given baseline characteristics soon after birth.
In spite of the pandemic, Richard Schwartz had a fruitful sabbatical. He spent the year at the Institute for Advanced Study (IAS) in Princeton. He also held a Simons Sabbatical Fellowship while at IAS. He came away from the year with many new ideas for projects.

In terms of professional development, Schwartz was invited to give a sectional talk at the 2022 International Congress of Mathematicians (ICM) in St. Petersburg. Giving an invited talk at an ICM is one of the highest honors in mathematics. This was his second ICM sectional talk, the first being in 2002. Schwartz also was able to renew his National Science Foundation grant through 2024.

Schwartz became a Mercator Fellow — this is a fellowship by German universities to support international collaboration. In practice, this gives Schwartz a chance to visit the University of Heidelberg for the next four years whenever he is able.

Further, Schwartz gave a number of lectures via Zoom, such as the Kemeny Lectures at Dartmouth and the Britten Lectures (the named lecture series for the Dartmouth and McMaster University departments of mathematics, respectively), as well as a number of Zoom lectures at the Institute of Advanced Study and one at the Cornell Topology Festival.

In addition to this professional development, Schwartz carried out a number of research activities. First, during the fall semester of his sabbatical, he worked hard on the Optimal Moebius Band problem, which goes back several decades and asks for the rectangular strip of paper minimal aspect ratio which you can twist into a Moebius band in space. Schwartz had written one paper ("On The Optimal Paper Moebius Band") about this just before coming to IAS, and then he wrote two more ("Paper Moebius bands with T Patterns" and "An improved bound for the optimal paper Moebius band") while there. In the first two papers, he improved the lower bound for the question and in the last paper he reduced the conjecture to a finite dimensional calculation. Schwartz spent a long time unsuccessfully trying to do this calculation, partially in collaboration with Steve Miller of Rutgers.

Second, Schwartz worked on area growth in Sol. A classical result in differential geometry is that a geodesic segment on the unit sphere is a length minimizing segment if and only if it has length less than \( \pi \). Before coming to IAS, Schwartz had (jointly with Matei Coiculescu) written a paper which proves the same kind of classification result for Sol, the three-dimensional solvable Lie group which is one of the eight Thurston geometries. (This paper, called "The Spheres of Sol," was accepted modulo revisions to Geometry & Topology while Schwartz was at IAS.) Also while at IAS, he finished a sequel paper ("On Area Growth in Sol"), which shows that any sufficiently large sphere in Sol has area between two and 20 times the area of the hyperbolic disk of the same radius.
Third, Schwartz worked on the farthest point map on the regular dodecahedron. On any compact metric space X one can play the following game. Given a point x, let $F_x$ denote the set of points farthest away from X. In most situations, $F_x$ is a generically single point, and so one can look at the dynamics of the map F when restricted to these generic points. During the spring semester, Schwartz completely analyzed this dynamical system in case X is the regular dodecahedron equipped with its intrinsic metric. He proved among other things that the regular dodecahedron has a tiling into 180 convex quadrilaterals such that every orbit of the F accumulates on the boundary of the tiling. This paper (“The Farthest Point Map on the Regular Dodecahedron”) required a rigorous computer-assisted proof.

Schwartz spent a lot of the spring semester studying billiards in orthoschemes, with a view toward answering the longstanding open question: is there a polytope with no periodic billiard paths? Based on his experiments, he thinks that there should be certain or thoschemes quite near the (1, 1, 1) orthoscheme without any periodic billiard paths. The (1, 1, 1) orthoscheme is the convex hull of the points (0, 0, 0), (1, 0, 0), (1, 1, 0), (1, 1, 1). It is one of the very few tetrahedra that tiles space by reflections. In order to study billiards near the (1, 1, 1) orthoscheme, he looked at the cocycle one gets by deforming the reflection group associated to the tiling. In the end, one gets a map from the set of paths in the tiling which avoid the edges to the Lie algebra of the Euclidean group. This map has beautiful and mysterious properties that he is still studying.

Together with Matei Coiculescu, Schwartz has been thinking about taking a solution for the curve shortening flow on a balanced figure-8 (a smooth, immersed curve with one intersection point and lobes bounding equal areas) and affinely renormalizing the asymptotic limit so that it has ellipse of inertia, which is the unit disk. This is not a natural operation for the flow itself, but nothing stops one from doing this post hoc on the solution set. They noticed experimentally that the solutions appear to converge to a certain quadrilateral called a bowtie. Proving this result involves going back to the basic theory of the curve shortening flow, developed by Hamilton, Gage, Grayson, and Angenent, and trying to develop it in a new setting. Coiculescu and Schwartz have essentially completed the paper, and now they are preparing it for public release.
Part of Lewis Seifert’s Spring 2022 sabbatical was devoted to a new project on gardens and plants in early modern France. His initial point of entry was the observation that curiosity was at the core of the explosion of interest in plants and gardens during the 17th century. Treatises by the likes of Olivier de Serres (1600), Guy de la Brosse (1628), Nicolas de Bonnefons (1651), Antoine Legendre (1652), Denis Dodart (1675), Jean-Baptiste de La Quintinie (1690), and François Gentil (1704), among others, repeatedly identify curiosity as the defining motivation for knowledge about plant life and gardening practices. In the sense of a “passion, desire, impulse to see, learn, possess rare, singular, and new things” (“Dictionnaire de l’Académie Française,” 1694), curiosity marks a shift in the relationship between humans and vegetal life that becomes particularly pronounced over the course of the century. Marginalizing the long tradition of understanding gardening as a devotional practice, the curiosity about plants and their cultivation that comes to dominate in this period makes them less intermediaries between humans and the divine, and more so among humans. More precisely, this curiosity acquires a status of respectability and refinement. Collecting and cultivating plants become sociable activities, with gardens as open-air cabinets de curiosité.

Upon further reflection, Seifert came to realize that curiosity has a deeper function in 17th century writing about plants and gardens. Building on scholarship that has emphasized the aesthetic and political dimensions of early modern botany and gardening, he saw that these theoretical and practical discourses incorporate key elements of honnêteté, a sociable ethos central to the period. Over and beyond a pursuit of knowledge about plants and their cultivation as a pleasing pastime for oneself and others, the curiosity emanating from honnêteté accentuates a new relation of humans to vegetal life. Analogous to the drive to ascertain the hidden desires and inclinations of others, curiosity about plants and gardening seeks to uncover elusive botanical principles. In both cases, the objective is pleasure — that of sociable interaction on the one hand and that of bountiful vegetal growth on the other. But such pleasures can only be attained by understanding one’s own responsibility toward others or toward plants, as the case may be. Hence, what Seifert calls botanical curiosity is not only a desire to possess a body of knowledge but also a recognition of the responsibility that desire entails. At a time when ecological concerns have prompted a fresh look at the connection humans entertain with the natural world, the history of the multiple ways that connection has been framed is all the more crucial.
Thomas Serre
COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES • 2019

Thomas Serre spent much of his sabbatical leave making progress on his research in computational neuroscience and artificial intelligence (AI). His primary research aims to identify the neural computations underlying visual perception. Research in machine vision has been rapidly accelerating in the last decade, prompting many vision scientists to rethink how to measure progress in vision sciences. Serre used some of his sabbatical time to complete an authoritative review titled “Deep Learning: The Good, The Bad, and the Ugly,” published in September 2019 in the Annual Review of Vision Science. Serre also had the opportunity to publish several additional manuscripts and to give multiple lectures at MIT, University of Rhode Island, Dartmouth, Johns Hopkins, York University, and University of Massachusetts in addition to other scientific meetings, workshops, and summer schools. Finally, he continued his involvement with graduate students and postdocs, and with conference and workshop organization.

Serre developed a unique collaboration with Rufin VanRullen at CNRS in France, titled “Oscillatory processes for visual reasoning in deep neural networks,” which led to a National Science Foundation Collaborative Research in Computational Neuroscience research award. Beyond these activities, his sabbatical allowed Serre to invest in the applications of his research in AI such that he could expand it to other fields including paleobotany (via a National Science Foundation collaborative research grant in Frontier Research in Earth Sciences for a project titled “Origins of southeast Asian rainforests from paleobotany and machine learning” with Peter Wilf at Penn State and Maria Gandolfo at Columbia) as well as to medicine (via the development of an “Intelligent Spinal Interface” toward restoring movement in patients with spinal cord injury, which was led by David Borton in engineering and in collaboration with clinicians at the Rhode Island Hospital as well as engineers at Intel). Serre also initiated a collaboration with professors Cardini and Valla from Rhode Island School of Design to introduce their students to AI and its application to art and design. Serre was also able to spend time in Toulouse (France) to visit the Artificial and Natural Intelligence Toulouse Institute, where he was awarded a prestigious international chair. The time off enabled Serre to continue his role as faculty director of the Center for Computation and Visualization, promoting research computing at Brown. Serre kicked off a new lunch series called Data Science, Computation and Visualization, promoting research computing at Brown. Serre kicked off a new lunch series called Data Science, Computation and Visualization, co-sponsored by the Data Science Initiative, the Center for Computation and Visualization, and the Carney Institute for Brain Science, which has gathered 30-50 attendants across departments every week. Together with Michael Frank, they finalized a proposal for the Carney Center for Computational Brain Science, officially launched on July 1, 2020, which they will direct jointly.
Eleni Sikelianos
LITERARY ARTS • FALL 2021

During Eleni Sikelianos’s Fall 2021 sabbatical, she finished the manuscript “Your Kingdom,” a book of poems that traces the feats of more-than-human animal evolution that we carry around inside our human bodies every day. The manuscript went into book publication preparation in late fall and is due out in January 2023. She continued work on a manuscript in progress, “The Human Performance” (provisional title), a hybrid book approaching the history of her great-grandparents’ attempts to revive the Delphic Festivals in Greece in the early 20th century. This work was undertaken while in residence in Athens.

Additionally, Sikelianos curated and participated in a peripatetic poetry and music event devoted to insects, Το Βούισμα (The Buzzing), with 10 participants and approximately 50 audience members at Filopappou Hill, Athens, Greece, as a sister event to Insectageddon, curated by Cecilia Vicuña at the High Line in New York City.

She participated in the Athens International Poetry Festival, giving several readings in venues around the city (Athens, Greece), and was an invited translated poet for Les Assises de la Traduction Littéraire, “Et pourtant, elle tourne,” Arles, France; for which a workshop was organized around her work, and for which Sikelianos gave a reading and was interviewed publicly.

Finally, she completed a collaborative short poetry-video, “Tree Book (leaf through),” with filmmaker Courtney Stephens.
Kerry Smith
HISTORY AND EAST ASIAN STUDIES • 2021-22

Kerry Smith spent his sabbatical year finishing a book manuscript, researching the history of panic as a social problem in postwar Japan, and, like everyone else, frustrated by the lack of access to the archives and other resources that form the basis of his work.

“Predicting Disasters: Earthquakes, Scientists and Uncertainty in Modern Japan” is the first English-language monograph to focus on disaster as an ongoing condition in modern Japan, and the first to consider the role of scientists as mediators of the public’s understanding of the hazards and risks the nation faced. Built on extensive archival work conducted in Japan and the U.S., the book draws on an unusual variety of sources in the popular press, broadcasting, film, scientific journals, scientists’ memoirs and personal papers, and conversations with key figures in the post-1970s debates over earthquake prediction in Japan. “Predicting Disasters” argues that catastrophes — and earthquake disasters in particular — shaped the trajectory of modern Japanese history in ways that we are only just beginning to recognize. The book shows how attention to disaster as a process, and not just as a series of discrete, disruptive episodes, brings to light ideas, anxieties, and plans for the future that manifest themselves in the spaces between major catastrophic events.

Smith also began work on a project that explores the emergence of panic as a subject of study for social scientists, psychologists, and other researchers in Japan in the 1960s and 1970s. It looks at multiple instances of what were widely described in the media (and later by researchers) as significant incidents of social panic, and examines the qualities attributed to each and to the people who participated in them. He is interested in how panic was constructed as both a modern social phenomenon and as a problematic psychological state in Japan, and in the solutions different experts proposed to address each.
John Steele
EGYPTOLOGY AND ASSYRIOLOGY • FALL 2020

John Steele’s sabbatical was spent as a fellow at the Einstein Center Chronoi in Berlin. Due to the COVID-19 pandemic, Steele was unable to travel to Berlin but was fortunately able to hold the fellowship remotely from home in Rhode Island, still benefiting from regular interactions with the center’s directors, staff, and other fellows by virtual means.

Steele’s sabbatical research focused on the interaction between time, astronomy, and ritual practice in first millennium B.C. Babylonia. This research included two main strands: the role of astronomy in the operation of the cultic calendar and the use of observable astronomical phenomena as triggers for the performance of (parts of) rituals. In particular, he examined a group of administrative texts dating to the later sixth century B.C. that contain records of the number of animals sacrificed each day at the Eanna temple in the city of Uruk. From these records, Steele was able to detect two separate calendrical rhythms underlying the cultic calendar. He also undertook a detailed study of data on the Babylonian calendar in the first millennium B.C. from which he proposed a new reconstruction for its operation. Finally, he studied several texts describing how rituals should be performed and was able distinguish three types of time found in those texts: sequential time, where actions are to take place occur one after another; astronomical time, where actions are to take place at specific astronomically defined moments; and ritual time, where the moment at which actions are performed and their duration are fluid, depending upon the behavior of individuals in response to the ritual context.

His sabbatical research formed the basis for a chapter of his current book project and for a forthcoming journal article. In addition, he has presented some results of his sabbatical research at Chronoi’s internal meeting, at a public lecture hosted by Chronoi, and at a conference on Ritual Time.
Tracy Steffes
EDUCATION • 2021-22

Tracy Steffes spent her sabbatical working on her book manuscript “Shifting Fortunes: Schools, Metropolitan Development, and Inequality in Chicagoland.” The book explores the mutual constitution of metropolitan and educational inequality in metropolitan Chicago in the second half of the 20th century. It explores how public policy, especially at the state government level, structured unequal public schooling and considers how this educational inequality shaped and deepened other forms of spatial and social inequality in the city and suburbs over time. It analyzes how reformers tried to challenge these inequalities in movements for school desegregation, fair and affordable housing, and school finance and property tax reform in the 1960s and 1970s, and how inequality was defended and legitimated. It argues that a new era of neoliberal policy reframed education and social policy away from equity while building on and compounding inequality. During her sabbatical, Steffes completed the final two chapters of the manuscript, held a book manuscript workshop, and incorporated revisions based on feedback. It is under contract with University of Chicago Press.

Michael Steinberg
HISTORY AND MUSIC • 2020-21

Michael Steinberg was able to spend two months of Fall 2020 as a returning fellow of the Wissenschaftskolleg zu Berlin (Institute for Advanced Study in Berlin), despite the continuing COVID-19 pandemic and the displacement of most of its seminars to Zoom. At the same time, the residency in Berlin enabled him to work on one of the three major projects of his sabbatical year: his assignment as guest curator of the exhibition Richard Wagner und das deutsche Gefühl/Richard Wagner and the Nationalization of Feeling at the Deutsches Historisches Museum (German Historical Museum) in Berlin. The exhibition dates are April 8 to September 11, 2022.

The exhibition received broad press coverage throughout Europe, including a review from the Süddeutsche Zeitung, as well as a profile in the New York Times. The museum website includes video introductions to the exhibition.

Additional related museum publications include the exhibition catalog (“Richard Wagner und das deutsche Gefühl/Richard Wagner and the Nationalization of Feeling”), which Steinberg co-edited and for which he wrote the introduction, and an issue of the museum journal called “Richard Wagner als Ideologe.”
During the remainder of 2020-21, Steinberg completed a number of articles and other publications, including the draft manuscript, the review process, and manuscript revisions and preparations on a book project, “The Afterlife of Moses: Exile, Democracy, Renewal” (Stanford University Press, 2022). He also completed the article “The Narcissism of Major Differences: Richard Wagner and the Peculiarities of German Antisemitism,” published in Spring 2022 in Social Research, and wrote the introduction to the English translation of Walter Kappacher’s “Palace of Flies,” translated by G. Bauer, to be published in 2022 as well.


Steinberg also gave a “dessert” talk at Brown-RISD Hillel in October 2021 called “Judaism and Democracy” and the keynote address for the “Paris, a New Rome” conference organized by the University of Chicago and the Ludwig Maximilians Universität Munich, Paris in June 2022, called “Myths of Origin and the Politics of Renewal, or, The Cry of Laocoön.”
Jon Steingrimsson spent the sabbatical leave at Brown and, due to COVID-19, travel was limited and all conferences he attended were online. Steingrimsson used the sabbatical to continue or complete ongoing projects and start new projects.

A major part of Steingrimsson’s research focuses on developing statistical techniques for evaluating how statistical estimators perform in a different setting (target population) than the data used for original estimation comes from. This involves the effects of a treatment in a target population, how to tailor a prediction model to a target population, and how to estimate model performance in a target population. During the sabbatical, in collaboration with Issa Dahabreh (Harvard Department of Epidemiology) and other collaborators, Steingrimsson submitted and published several manuscripts related to transportability/generalizability of statistical estimators.

A second part of Steingrimsson’s research focuses on developing machine learning algorithms for health-related problems. During the sabbatical, Steingrimsson worked on developing machine learning algorithms for time-to-event outcomes that can account for censoring. In collaboration with Ph.D. student Jiabei Yang, he developed tree-based machine learning algorithms for identification of subgroups that have treatment effects that differ from the average treatment effect in the whole population being studied.

Steingrimsson was also involved in several collaborative projects including a clinical trial comparing two surveillance strategies for pancreatic cyst surveillance (EA2185), a prospective study estimating the diagnostic accuracy of multiparametric MRI for detection of clinically significant prostate cancer (EA8171), a cluster randomized trial evaluating the effect of integrated community-based care incorporated into microfinance groups for HIV patients in Western Kenya, and a prospective study evaluating the yield of incorporating phylogenetics into routine contact tracing for HIV patients in Rhode Island.

Steingrimsson continued to mentor students and served as an advisor or a co-advisor of four Ph.D. students during the sabbatical.
During his sabbatical leave, Roberto Tamassia pursued research projects on computer security and spatial computing. His anticipated travel plans were substantially reduced due to the pandemic.

In collaboration with graduate and undergraduate students, and with colleagues at George Mason and Yale, Tamassia further explored the problem of performing computations on encrypted data stored at a cloud server without providing the decryption key to the server. This challenging problem has important applications to secure cloud computing and has been the primary subject of his scholarly efforts in past years. The sabbatical provided the opportunity to make major progress in this area. Tamassia investigated computation on encrypted data from two complementary perspectives: (i) building efficient and secure schemes for storing and searching encrypted data; and (2) analyzing security vulnerabilities that may be present in previously proposed schemes. Advances stemming from this line of work include the development of a broad framework for supporting range queries over multiple attributes on encrypted databases and the assessment of the capability of an adversary to reconstruct plaintext attributes of an encrypted database from information leaked by a sequence of range queries and their responses.

Working with collaborators at Iowa State University and University of Illinois Chicago, as well as at University of California, Riverside, Tamassia investigated building a scientific foundation for addressing the challenges that arise in integrating and querying heterogeneous spatial datasets, with the objective of providing enabling technologies for analytics and planning in multiple domains of societal relevance: from urban development to public health response and infrastructure repair. In particular, he studied indexing techniques that efficiently incorporate aggregations of semantic attributes in the hierarchy of nodes of the search structure, thus enabling efficient and accurate processing of advanced geospatial queries. Also, he envisioned methods for the treatment of uncertainty and privacy in the indexing of integrated geospatial datasets.

Throughout his sabbatical, Tamassia continued to contribute to visioning and planning for the Master of Science in Cybersecurity by providing advice on strategic positioning of the program and on best practices for online and hybrid teaching.
Katherine Tate
POLITICAL SCIENCE • 2021-22

Katherine Tate spent her sabbatical revising her co-authored manuscript, “Gendered Pluralism.” It will appear in print in January 2023 and is published by the University of Michigan Press. “Gendered Pluralism” asks to what extent women are organized as a voting bloc in elections. Do women base their politics on their identities as women? Pluralists contend that groups such as women are often divided internally as they have multiple cross-cutting identities based on race, ideology, marital status, class, and so on. Based on an analysis of a 2012 data set, we find a consistent gender gap with women to the left of men. Although women are also influenced by their group identities, we still find that their politics are diverse. Thus, the pluralists are partially correct, but women still are clustered on the political left more than men and their identities as women shape their politics. In addition to getting the book into production, Tate published a co-authored article for American Politics Research that examines whether women legislators have become more liberal as their numbers have increased in the U.S. House of Representatives (they have not).

Part of Tate’s sabbatical was spent working on a National Science Foundation grant. While the proposal was not awarded by the foundation, Tate later that spring served as a National Science Foundation panelist for a different award division. Tate won a small grant ($11,000) from American University with a Ph.D. student to study the politics of progressive and Black House legislators. Tate is currently involved in a task force committee on American political parties for the American Political Science Association. Tate also served as an outside reviewer for several promotion/hiring cases. She supervised three doctoral students at Brown. She also supervised in the spring the research activities of a Brown undergraduate. Because she was on campus, Tate attended two job talks and met with the candidates.
During the spring semester, Kurt Teichert traveled with his wife Karen through 30 states in the continental U.S., traveling along and/or crossing most of the major river basins and mountain ranges, and visiting dozens of cities. His professional objectives were to observe innovations in the management of integrated urban infrastructure systems in cities and exurban areas, and to note similarities and differences in region-specific measures to improve the environmental performance of aging infrastructure systems, while adapting systems to be more resilient to long-term impacts of climate change. The goal was to return better equipped to support students with independent project and capstone project interests related to these fields in other regions and to be better prepared to relate course concepts and support student research based on first-hand observation and analysis.

He will briefly summarize his observations in the areas of regional variations in climate change impacts, the prevalence of renewable energy infrastructure, transportation infrastructure with a particular emphasis on bicycle trails and networks, and urban planning for resilience and equitable housing.

Regional climate perturbations such as irregular temperature patterns, extreme drought and rain, and wildfires influenced the trip’s route and timing. In late January, Teichert traveled south through Virginia, North Carolina, and South Carolina, and conditions were relatively normal for the time of year. But, as he and his wife traveled along the Gulf Coast, the so-called “Third Coast” of the U.S., they had to accelerate their trip to Hill Country, Texas due to an ice storm. They spoke with residents in the area who had gone through the power outages at the same time last year due to the extreme low temperatures. In Teichert’s class “Environmental Stewardship and Resilience in Urban Systems,” students investigated and discussed some of the weaknesses in the Texas grid system (mainly a lack of interconnection with the U.S. national grid, and a lack of preparation for extreme events), and he plans to take up this issue in more detail in the class in 2023.

As they traveled west, their route was influenced by temperatures lower than normal through New Mexico and Arizona. That area is also where the extreme impacts of drought are clearly evident. For example, they crossed and navigated adjacent to the dry riverbed of the Rio Grande River. Teichert’s previous travels in this region took place primarily in the 1980s and ’90s. The lack of snowpack and reduced rainfall are dramatically evident in this region, something he will examine in greater detail in lectures and class projects on the impacts of drought. The trip was planned to avoid wildfire season, though evidence of recent fires was present throughout the west. They did experience an active fire in Colorado and witnessed the severe impact on ecosystems in the region.
In contrast to the drought conditions in the west, when Teichert and his wife returned through Kansas and Arkansas, they experienced the extremes of rainfall and severe storms. The energy from the warming of the Gulf of Mexico is dramatically displayed in the intensity and frequency of severe precipitation events. He will be much better equipped to support the comparative analysis of climate impacts in different regions that is a core part of the case study process in the “Stewardship” course.

Teichert also traveled through many of the major wind energy installations in the U.S. in West Texas; Palm Springs, California; Mojave Pass, California; and Kansas. Teichert has used the curious case of West Texas wind in lectures in his courses for years. The installation of turbines in the region outpaced the capacity of the wires and had to be delayed for a period. While Teichert was traveling through the Permian Basin, the contrast between aging oil drilling infrastructure and clean new wind turbines was striking. Midland, Texas is the geographic and emblematic center of the recent changes in the region. In late 2019, Midland was a boomtown. What Teichert observed was more like a ghost town, as reduced demand during the pandemic shutdown resulted in the flight of many workers from the region. The extreme gas prices they would soon experience throughout 75% of the trip are tied to many complexities in the global markets with the Russian invasion of Ukraine and the inability of the U.S. to manage demand relative to supply. The price signals of petroleum have been a core topic early in the semester in the “Transcending Transportation Impacts” First-Year Seminar, and Teichert and his class will be investigating the potential impacts and responses in the transportation sector in detail this fall.

While Teichert was aware of the scale of wind farms in Texas and California, it was very interesting to experience these installations in succession over the course of a month. The wind farms in Palm Springs are some of the oldest, and it was evident that older turbines are being replaced by newer, larger machines. At its peak, the region had over 6,000 turbines. When the transition is complete, there will be approximately 2,000 turbines, but output will be significantly increased due to greater size and efficiency. Teichert plans to update his lecture and discussion materials to cover equipment replacement of wind and solar technology in addition to new developments that have been the primary focus in the past.

Kansas wind installations were very eye-opening for Teichert as well, as he was not aware how extensively the industry has matured in areas that have very high wind potential but much lower population density than the coasts. Kansas is the fourth largest producer and has farms that are over 20 years old. As the diversity of the student population at Brown continues to expand, it is interesting to have more students from Midwest and other rural regions, making it important to be more knowledgeable about challenges and trends in those regions.

While there were some interesting and positive surprises in the wind industry, Teichert was disappointed in the level of development and geographic distribution of solar farms. In the northeast, the focus is on the development of off-shore wind, and the political and environmental challenges of expanding solar in forested areas and agricultural land. Teichert will be further investigating the regional distribution of solar installations where sunshine and open land are abundant but the industry is underdeveloped.
Teichert’s awareness of the impacts of internal combustion (ICE) fossil fuel consumption was also sharpened by the rising fuel prices. As discussed above, the volatile nature of the oil economy was quite apparent in the Permian Basin, and particularly in Midland. While driving an ICE vehicle to pull a camper trailer, Teichert’s relatively low fuel economy led to much research and discussion on the potential for taking a similar trip with an electric vehicle. The cruising range of their ICE tow vehicle was in the range of 300 to 400 miles, compared to 500-plus miles under normal conditions without towing. A fully electric truck with the capability of towing has a range of 300 to 400 miles between charges, but that drops to 100 to 150 miles when towing. Though they experienced a fully solar-powered vehicle charging station in the California Central Valley and saw a site outside Bakersfield that will be the first electric truck recharging facility in the country, the infrastructure does not currently exist to be able to take the same type of trip with a fully electric tow vehicle. It was a pleasant surprise to see electric passenger vehicles throughout the country. Teichert traveled regularly to the Palo Alto area in California 10 to 15 years ago, when that was the only region in the county that had significant penetration of electric vehicles. While the percentages are still low, Teichert looks forward to more class discussions and projects on the rapidly expanding elective vehicle infrastructure.

The cities of Charleston, South Carolina; San Angelo, Texas; Tucson, Arizona; Colorado Springs, Colorado; Greensburg, Kansas; and Boulder, Colorado provided interesting comparisons on urban planning initiatives. Charleston was the first extended stay of the trip. As Teichert’s building science course “Sustainable Design in the Built Environment” focuses on preservation and adaptive reuse of existing buildings, it was very interesting to observe the success of historic preservation in Charleston. But, like Boulder’s zoning and growth boundaries, Charleston’s preservation of the core residential and central business district puts greater strain on the availability of housing for a growing urban population. Much of the new housing development Teichert observed in Charleston is occurring in historically Black communities and putting gentrification and property value improvement pressures on those neighborhoods that already have the legacy of impacts of the federal highway system and “urban renewal.”

In San Angelo, Texas, Teichert observed a city undergoing a renaissance, with the inclusion of public arts projects, riverside placemaking, and rehabilitation and reuse of vacant downtown buildings. In Tucson, Arizona, some of the most impressive bicycle infrastructure Teichert has seen was being developed around the city, with a 131-mile bike/shared-use loop around the city with connections to extensive off-road trail networks. This bicycling network rivaled the older more established infrastructure in Boulder and the more recently developed on-road/off-road infrastructure in Bentonville, Arkansas. Colorado Springs, Colorado offered contrast in that there was extensive off-road bike infrastructure, but a clear lack of alternative transportation options that was manifest in constant traffic congestion in and around the city.
Two notable examples of advanced design and construction practices were found in Greensburg, Kansas and Memphis, Tennessee. The city of Greensburg was completely rebuilt 10 years after a devastating tornado essentially erased the town. All municipal buildings were built to LEED Platinum standards and a walkable downtown was planned and executed. It is an inspiring example that Teichert will be detailing in future classes on building and urban design. In Memphis, a former sprawling Sears building went through an extensive adaptive reuse project to take an abandoned eyesore and create a 1.5-million-square-foot mixed-use property incubating the arts and food startups. There are many other developments and buildings that will be included in future case study examples in classes.

During these travels, Teichert also read books on the English colonization of Virginia, the German colonization of Texas, and the Lewis and Clark Corps of Discovery expedition (to announce Jefferson’s “ownership” of tribal lands) while traveling through those regions. He observed and researched many of the lands along the Arkansas River known as the Trail of Tears during the forced removal of southeastern indigenous tribes. He has for years included lectures and readings on the history of the Narragansett and Wampanoag tribes in his discussions of the environment and transportation in the southern New England region in classes, but, after this trip, Teichert aims to expand discussions on colonization and forced removal to as many regions and indigenous tribes as possible.

While personal aims and pandemic-related limitations resulted in less interpersonal interaction than Teichert would normally prefer on a trip like this, it was possible to speak with people in casual outdoor settings and learn of climate-related migration and hear the hopes and fears of people from other regions. The goal of disconnection to reset and refresh was definitely achieved. He looks forward to the coming semesters and the ability to bring new insights and energy to his work with students from a wide range of regions. It was a good break and it will be good to be back.
Adam Teller

JUDAIC STUDIES AND HISTORY • SPRING 2022

During the first semester of his year’s sabbatical, Adam Teller has been engaged in a number of writing projects. First, he completed his article first presented at the Brown University-Charles University of Prague partnership joint workshop on early modern Jewish transregionalism. Titled “Crossing the Border? Jewish Transregional Trade in Late 17th Century Northern Europe and its Cultural Significance,” it has been submitted for publication in the journal Gal-Ed: On the History and Culture of Polish Jewry. He also began reviewing the first chapters of the Hebrew translation of his recent book, “Rescue the Surviving Souls: The Great Jewish Refugee Crisis of the 17th Century.” Though an excellent translation on the whole, there are inevitable mistranslations and stylistic errors that must be caught and corrected. He has continued researching and writing a book chapter for a new history of the Holocaust. It is titled, “Interim Genocide: The Jews in the Ghettos of Poland until 1943.”

Adam also presented his work on a couple of occasions. In March, he spoke at the Israel Inter-University Graduate Seminar in Russian and Eastern European Studies, giving a Hebrew-language talk titled (in translation) “After the Violence: Jewish Refugees in Eastern Europe following the Khmelnytsky Uprising of 1648.” In June, he participated by Zoom in the annual conference of Polish Institute of Arts and Sciences of America, held in Bialystok, Poland, speaking at a roundtable in his honor, “Jewish Refugee and Refugees from Different Eras: A Conversation with Rachel Feldhay Brenner Award Recipients Adam Teller and Eliyana Adler.” In the same month, he also chaired a roundtable on “Religion and Society” at the international conference, On the Edge of the Empire: The Cultural and Historical Legacy of Galicia and Bukovina, held in Tel Aviv, Israel.

In addition, Adam served as chair of the Baron Book Prize Committee. This is an annual prize awarded by the American Academy of Jewish Research (of which he is a permanent fellow) for the best first book in Jewish Studies.

Finally, he began work as the chair of the search committee for a new appointment at Brown in Jewish history with a primary focus on the Islamic World before 1914. The search, which is at the assistant professor level, is being held jointly by the Department of History and the Program in Judaic Studies.
Paul Testa  
**POLITICAL SCIENCE • SPRING 2021**

Paul Testa spent his sabbatical working on his book project, “Policing Beliefs,” which offers a theory of political experience to understand how Americans of different racial, economic, social, and political backgrounds have come to hold dramatical divergent views of justice in America. The project draws on a variety of datasets from surveys, government records, and media content to explore how personal, vicarious, and mediated interactions with criminal justice shape Americans’ political attitudes and behavior. In doing so, the book offers a horizontal model of opinion formation in which lived experiences mediate the effects of top-down elite cues and bottom-up social identities.

Additionally, during his sabbatical, Testa collaborated with colleagues at Brown, American, and Barnard on two articles published in *Publius* and the *Journal of Health Politics, Policy and Law* examining the sources and consequences of variation in subnational policy responses to COVID-19, in Brazil, Mexico, and the U.S. Drawing on previous published work exploring how the messengers of social movements’ arguments determine who these arguments reach and to what effect, Testa and colleagues contributed to a symposium in *PS: Political Science & Politics* on strategies for how men can advance gender equity in political science.

Matthew Turner  
**ECONOMICS • 2020-21**

Matthew Turner was awarded a Kenen Fellowship to visit the Economics Department at Princeton University during his 2020-21 sabbatical. While on sabbatical at Princeton, he worked primarily on four projects.

First, together with Jacques Thisse and Phillip Ushchev, Turner worked to develop a theoretical model of cities that can explain how people and firms form cities when the benefits to firms from being close to each other are large. This is a foundational problem for urban economics and had not been solved in the 60 years since it was first posed. The working paper is called “A Unified Theory of Cities.”

Second, together with Allison Shertzer, Michael Coury, and Toru Kitagawa, Turner started a project to estimate the effect of water and sewer access on land values in late 19th century Chicago. This study makes two important advances. First, the benefits of water and sewer access in cities are little studied, and up until now all studies of water infrastructure have focussed on health outcomes. By studying land prices, they cast a wider net and study a measure that summarizes the value of all of the benefits of water and sewer access to the people who benefit from it. This includes the value of reductions in mortality and morbidity, but also inconvenience. This leads to estimates suggesting that the value of water and sewer
The value of water and sewer access from observational data is that water and sewer access are probably not assigned at random. This makes it difficult to distinguish the effect of water and sewer access from those of non-random assignment. This econometric problem has been a roadblock to research on this important class of urban infrastructure. The group developed a novel statistical approach to this problem that they hope will find wide application and lead to research that improves the ability to allocate scarce resources across infrastructure projects in developing world cities. A working paper on their findings is available and is titled “The Value of Piped Water and Sewers: Evidence from 19th Century Chicago.”

Third, Turner finished a project with Nicolas Gendron-Carrier, Marco Gonzalez-Navarro, and Stefano Polloni to estimate the effect of subway construction on ambient particulate exposure. Economists have long argued that most large public transit systems do not provide sufficient benefits to justify the large subsidies they receive from the public purse. The estimates from Turner et al indicate that, for particularly polluted cities, this conventional wisdom is wrong. For particularly polluted cities, the opening of a subway leads to a measurable decrease in particulates. They attempt to value the resulting averted mortality and find that substantial construction subsidies are justified. This paper (“Subways and Urban Air Pollution”) was published in The American Economics Journal: Applied in January 2022.

Finally, Turner finished a survey article with Vernon Henderson. Remarkably, despite often difficult conditions in developing world cities, rates of morbidity and mortality are not higher in developing world cities than in the surrounding countryside. In contrast, at the comparable stage of economic development, rich world cities were so dangerous that they could not sustain their populations without migration. This difference has led to speculation that the economic processes governing the growth of cities in the developing and developed world are different. In Turner and Henderson’s article, they survey the recent literature and make the case that, when carefully applied, conventional, economic logic can explain the growth of both types of cities. This article is called “Urbanization in the Developing World: Too Early or Too Slow?” and was published in the Journal of Economic Perspectives in summer 2020.
Peter van Dommelen had planned to start work on a new monograph over a year-long sabbatical to be spent in Europe on residential fellowships in Berlin, Rome, and Barcelona, but the pandemic forced him to adapt his plans to a single semester (Spring 2021) in Providence under pandemic restrictions. The COVID-19 crisis had also halted all archaeological fieldwork, and this cancellation unexpectedly proposed a new goal for the reduced sabbatical. Instead of excavating in Sardinia, van Dommelen had organized a month-long virtual “study and writing season” with a team of 10 Italian and Spanish archaeologists in July 2020, and this joint virtual effort had resulted by the end of that summer in an extensive, if multilingual, set of drafts that formed the basis of a book. Editing these texts and translating, editing, and writing yet more chapters thus became the new goal of van Dommelen’s sabbatical throughout the winter and spring of 2021.

van Dommelen has been excavating with an international team at the site of S’Urachi in west central Sardinia (Italy) since 2013, which is a prehistoric nuraghe or monumental multi-towered complex. A key objective of the project is to explore how the local community at S’Urachi coped with the Phoenician colonization and subsequent Carthaginian occupation of Sardinia in the first millennium B.C.E. One of the three excavation trenches at the site has led to the discovery of a stone-lined defensive ditch surrounding the monumental complex — effectively a moat. This is not only a unique construction in Sardinia but also one evidently inspired by Phoenician defensive architecture. It was later backfilled with domestic trash, which has resulted in a treasure trove of evidence for everyday life, work, and diet in Sardinia under Carthaginian rule, i.e. between the sixth and third centuries B.C.E. Excavation of this trench had finished in 2018, and study of the finds had largely been completed in 2019, and as all these data had been digitized, these contexts constituted the ideal topic for the first book-length study and publication of the S’Urachi project.
Titled “Scambi Culturali e Tradizioni Locali a S’Urachi nel Primo Millennio a.C. Scavi ed analisi archeologiche nell’area del fossato (2013-2020) di nuraghe S’Urachi” (San Vero Milis, OR), this book reports on the excavation of the ditch and backfill as well as the study and analysis of the mostly ceramic and archaeozoological finds — just under 100,000 items in all. It is made up of three major data chapters reporting on, respectively, the stratigraphy and architecture, ceramic finds, and environmental evidence. These are preceded by an opening chapter outlining previous research and the project aims; they are followed by two interpretive and concluding chapters. Much of van Dommelen’s spring was thus given over to writing introductory and concluding texts to the data chapters, editing existing and translated ones, overseeing the creation and editing of hundreds of images and tables, and coordinating revisions with the 16 contributors. The concluding chapters are on track for completion by fall 2022 in order to submit the entire volume to Edizioni Quasar (Rome) in winter 2023.

In addition to this work, van Dommelen wrote a chapter and edited multiple chapters for another book on “The Production of Locality and Empowerment in the Iron Age and Archaic Western Mediterranean,” which he is co-editing with Erich Kistler and other colleagues from the University of Innsbruck (Austria). This volume is to be submitted to CUP in summer 2022. He also co-authored, with A.B. Knapp and A. Russell, a paper titled “Cyprus, Sardinia and Sicily: a maritime perspective on interaction, connectivity and imagination in Mediterranean prehistory” that has since appeared in the Cambridge Archaeological Journal (32.1: 79-97).

He finally also virtually delivered the inaugural lecture of the new “Research Dialogues” series at the Royal Dutch Institute at Rome on the topic of “Colonialism and rural exploitation at S’Urachi, Sardinia” (March 3, 2021) and gave the keynote lecture “Beyond borders” to the conference Border Zones: Concepts, Strategies, Transformations, virtually convened at Charles University, Prague (May 31, 2021).

The project website can be found here.
Margaret Weir spent the first part of her leave in Providence working on several writing projects. Beginning in January 2020, she moved to the University of Oxford, where she was the John G. Winant Visiting Professor of Government at the Rothermere American Institute and a visiting member of Balliol College.

In fall of 2020, Weir completed the final revisions for her co-edited book “Who Gets What: The New Politics of Insecurity,” published in July 2021 by Cambridge University Press. The book is the final product of a working group that she co-directed (with Frances Rosenbluth, Yale University) as part of the Social Science Research Council’s program on Anxieties of Democracy. It brings together scholars from across the social sciences to show how growing inequality and social dislocation are fracturing the stable political identities and alliances of the postwar era in advanced democracies. Her introduction to the volume, co-authored with Rosenbluth, highlights how the new divisions fragment political parties and hinder a fairer distribution of resources. It examines the forces enhancing fragmentation among people, places, and policies, showing that populist politics have addressed emerging insecurities by deepening social and political divisions, rather than promoting broad and inclusive policies. Her chapter for the volume, co-authored with Desmond King (Nuffield College, Oxford), “Redistribution and the Politics of Spatial Inequality in America” argues that place of residence represents an economic risk distinctive to the U.S. It shows that legally sanctioned racial segregation created a template for a particularly vicious form of inequality that has endured long after formal residential segregation was outlawed. Growing economic inequality has magnified spatial differences turning place of residence into a coveted prize — or deep disadvantage.

Weir also used the fall to continue work on her book manuscript “The New Metropolis: The Politics of Spatial Inequality in America.” The book shows how spatial inequalities have deepened in metropolitan America as inequality has grown and the federal government has drastically reduced place-based assistance. Drawing on census data, interviews, and a range of primary and secondary sources, the book demonstrates how segmented localism, zero-sum conflicts, and bottom-up institution building have locked resources into affluent political jurisdictions while stripping institutions and resources from poorer places.

During the fall, Weir had the opportunity to participate in a symposium on the work of William Julius Wilson at Harvard University and to present her work in a keynote address to the Toronto Political Development Workshop.

In January 2021, Weir took up her position as Winant Visiting Professor at the University of Oxford. There, she delivered the Winant lecture, titled “The Problem of the Public in Postwar America.” Although public opinion surveys routinely show that racism has declined among white Americans, Weir argued that the politics of spatial autonomy and conflicts over local resources remain deeply racialized in the
U.S. These conflicts have fragmented the public and stymied the development of the metropolitan infrastructure. Ultimately, they have distorted ideals of democracy held by higher income white Americans who define local democracy as a right to be free from the burden of redistribution. Other lectures planned for the spring, including a lecture in the Social Policy Seminar at Oxford and at Sciences Po in Paris, France, were canceled due to the pandemic.

While sheltering at home due to the pandemic, Weir continued to make progress on her book manuscript, focusing on the chapter analyzing suburban segmentation. She also participated in the Rothermere Institute’s podcast series “The Last Best Hope? Understanding America from the Outside In.” The discussion considered the resistance to the COVID-19 stay-at-home orders, asking whether a country that has had a successful revolution is doomed to endlessly re-enact it. In addition, she wrote a short piece for the Social Science Research Council’s Items titled “The Pandemic and the Production of Solidarity,” comparing the response to the pandemic in the U.K. and the U.S.

Esther Whitfield
COMPARATIVE LITERATURE AND HISPANIC STUDIES • 2020-21

Esther Whitfield’s sabbatical coincided entirely with the COVID-19 pandemic, and she spent it writing rather than conducting planned research in Cuba. She worked on the manuscript of “A New No Man’s Land: Writing and Art at Guantánamo (2002-2022),” which is now complete. In contrast to entrenched associations of the Guantánamo Naval Base with the extrajudicial violence of the “war on terror,” and with the anti-imperialist rhetoric of the Cuban Revolution, the book tells a story of unexpected sympathies, solidarities, and care. Reading across a multilingual archive of little-known materials as well as others that have circulated more widely, produced both at the base and in neighboring communities in Cuba, it proposes mapping Guantánamo as a coherent borderland region, where experiences of isolation are opportunities to find common ground.

In Fall 2020, Whitfield was a Faculty Fellow at Brown University’s Cogut Institute for the Humanities, and in Spring 2021 she was Wilbur Marvin Visiting Scholar of the David Rockefeller Center for Latin American Studies at Harvard University. Both positions involved a research presentation and participation in a weekly online seminar. In addition to these presentations, Whitfield presented her research at the online meeting of the Modern Language Association in January 2021 and wrote an article for the journal Humanity.
Patricia Ybarra
THEATRE ARTS AND PERFORMANCE STUDIES • 2021-22

Patricia Ybarra used her sabbatical for three projects, at various stages of completion. In the fall, she completed an essay titled, “For Whom is Apocalypse a New Idea?: Thoughts on Staging the End?” which will appear in an anthology edited by Steve Wilmer, “Life in the Posthuman Condition” (Edinburgh University Press). This essay focuses on the drama of First Nations playwright Yvette Nolan and Japanese American dramatist Aya Ogawa so as to explore ecocritical approaches to the Anthropocene that center the concerns of people of color for whom apocalypse is a long term reality.

The rest of the year was spent researching and conducting interviews on a digital humanities project on “Father Was a Peculiar Man” (1990), queer Iranian artist Reza Abdoh’s site-specific adaptation of “The Brothers Karamazov.” Ybarra is working with a team that is reconstructing the performance for a digital platform complete with artist and scholar interviews, historical materials, and dramaturgical interpretation. This project is funded by a Brown Seed Award. Her research team will be applying for a larger scale digital humanities grant in a forthcoming cycle. (Ybarra is extending her seed grant for another year due to some COVID-related delays.)

Her other long term project is co-editing a key theatre and performance studies textbook, “Theatre Histories” (Routledge). Ybarra completed editing three of her four lead chapters, significantly revising the book to include African American, Latin American, and Native artists, while revising the historiography of 19th and 20th century performance. Discussion of this revision was part of her contribution to the panel on Performance and Race in April 2022.

Tongzhang Zheng
EPIDEMIOLOGY • 2021-22

Tongzhang Zheng had three major goals for his sabbatical: (1) to develop new research projects through national and international collaboration; (2) to expand ongoing research activities; and (3) to devote time to write and submit peer-reviewed publications.

One of the first new research projects Zheng has developed is one on per- and polyfluorinated substances (PFAS) and liver cancer risk in the U.S. This nested case control study (R01CA259208-01A1) is funded by the U.S. National Cancer Institute and started June 1, 2022. As a co-investigator, Zheng is collaborating with Professor Hong Zhang at Harvard University for the first time to evaluate the role of exposure to PFAS on the risk of liver cancer overall, by racial/ethnic groups, and by hepatitis B virus (HBV) and C virus infection.
(HCV) status. This research will generate new insights into the etiology of liver cancer and advance the field of liver cancer prevention and health disparities, thereby ultimately reducing morbidity and mortality from this deadly disease.

Zheng and his collaborators are also studying chromosome instability in metal-induced lung cancer. They started a National Institutes of Health-funded eight-year R35 grant (ES032876, John Wise (PI), 08/01/21-07/31/29) to study how natural human lung cells become neoplastic and how to prevent the change from occurring. As co-investigator, he is working with scientists at Louisville University and Lanzhou University. The results from the study could lead to major scientific breakthroughs in preventing environment-related lung cancer.

Zheng and others have previously reported that kidney cancer has been increasing in the U.S. during the past decades and proposed that environmental exposure to PFAS are potentially responsible for the observed increase. During the sabbatical period, Zheng worked, as principal investigator, with five large and well-characterized prospective cohorts of men and women in the U.S. to prepare a proposal to conduct an epidemiologic study to investigate the relationship between PFAS and kidney cancer risk by utilizing the extensive resources from The Southern Community Cohort Study, Hispanic Community Health Study/Study of Latinos Cohort, Nurses’ Health Study, Health Professionals Follow-Up Study, and Physicians’ Health Study. The proposed study was reviewed in June 2022 and, if funded, will fill a critical knowledge gap, representing the first large prospective cohort study to investigate the alleged association between PFAS exposure and kidney cancer risk in the U.S. among non-occupationally exposed individuals. The results can help regulators make sound, science-based decisions and inform the medical and public health communities about the potential health effects of PFAS exposure.

During the past year, Zheng has also been working with Dr. Howard Safran at Lifespan and the Cancer Center at Brown University to start a case control study of bladder cancer in Rhode Island. Rhode Island has one of the highest bladder cancer rates in the U.S. with unknown reasons for decades. They have now secured Institutional Review Board (IRB) approval from Lifespan, and are currently in the final stage of approval by the Brown IRB. The study will be funded by Lifespan and the School of Public Health and will be started upon receipt of Brown IRB approval. This study will provide a platform and critical mass for a comprehensive study of bladder cancer etiology and biology.

Zheng and his study team have also made efforts to advance the fetal origin hypothesis of breast cancer. Both epidemiologic studies and experimental data suggest that breast cancer, the world’s most prevalent cancer and the leading cause of cancer death among women worldwide, may originate in utero. Zheng and his study team have made three efforts with the purpose to advance the fetal origin hypothesis of breast cancer: (1) In a recent review in the journal Women’s Health Research, “The Hypothesis of Fetal Origin of Breast Cancer: An Update,” they comprehensively summarized the direct and indirect evidence supporting that in utero exposures lead to increased risk of breast cancer in the offspring; (2) to understand the current status of research in this area, Zheng is collaborating with the International Journal of Environmental Research and Public Health, as a guest editor, to have a special issue focusing on the current state of knowledge on the links between prenatal exposures and impaired fetal growth.
adverse birth outcomes, postnatal and early childhood growth, and children’s health since these factors have been linked to breast cancer risk. It is anticipated that the special issue will be published by the end of this year; and (3) to start their own epidemiology research into prenatal exposure and breast cancer risk, Zheng and his team have conducted a pilot study using the blood samples collected between 1959 and 1965 by the New England Cohort. The pilot was conducted by Dr. Kurt Pennell at Brown University and the results from the pilot study show significant high levels of PFAS in the blood serum sample. Based on the pilot study results, they are now preparing a R01 grant to be submitted to the National Cancer Institute in October 2022 to further advance the fetal origin hypothesis, and thus lead to refined strategies of identifying new opportunities to prevent and control this deadly disease.

Finally, Zheng has devoted time to write and submit peer-reviewed publications as both first author and co-author. Since 2021, he has a total of 19 publications either published or in press, and also six submitted manuscripts under review.

Samuel Zipp

AMERICAN STUDIES AND URBAN STUDIES • SPRING 2022

During Samuel Zipp’s research sabbatical this past semester, Spring 2022, he has been working on laying out the terms of a new research project. He calls the overall project “The City and the Self,” because it concerns the intellectual, cultural, and political economic history of the relationship between urban form and conceptions of subjectivity in the U.S. since the late 19th century. This is a potentially vast topic — much work remains to be done to craft a more precise body of research — but this semester Zipp has been focusing on a small portion of the various histories that might go into this inquiry. In the last year or so, he has been working with a group of scholars based in Berlin who are putting together a volume on new histories of urban ownership.

For a conference and workshop over the last year, and now for the volume, Zipp has been writing a piece about the way that homeownership in the U.S. was institutionalized. Looking at the years before homeownership was given explicit federal support during the New Deal — the 1880s through the 1920s — the piece investigates the work of the philosopher John Dewey, the economist Richard T. Ely, and U.S. President Herbert Hoover, whose administration looked to organize and promote homeownership in the years immediately preceding New Deal federal support. The essay aims to show how an ideal long imagined in American political culture as a font of individualism and landed independence was socialized while still preserving the ideology of self-possession it had long epitomized. This was accomplished, Zipp shows, in part by institutionalizing what he calls the “managed mutual hierarchy” theorized by Ely for the real estate industry.
The essay is particularly interested in understanding how Ely sits at the heart of this development. He was at once a Progressive-era critic of laissez-faire economics and a proponent of the ideal of “social property,” a committed eugenicist and theorist of civilizational hierarchy (like many of his Progressive-era reform-minded peers), and, later in his career, the leading theorist of real estate who played a key role in Hoover’s 1931 national housing conferences and their enshrinement of the male breadwinner-led, single-family house for white Americans as the model for the U.S. housing industry. How did all these roles work together? And how can this be seen as a lens into the complex evolution of homeownership ideals? Those are some of the questions this piece poses and attempts to answer.

Zipp also traveled to Berlin to present work on another related, emerging aspect of this work. He presented a seminar on the role of social science, particularly German social science, in W.E.B. Du Bois’s early urban research in “The Philadelphia Negro” (1906). Here Zipp is continuing to think about the relationship between emerging ideas of interdependence and hierarchy, and the way they structure how thinkers, writers and other urban actors saw, understood, and shaped city life. At the end of his sabbatical, he also worked on a significant public humanities project: a two-part essay for the website of Lincoln Center for the Performing Arts in New York City. The organization is developing public programming on its urban history, and particularly its impact on the neighborhoods of Lincoln Square and San Juan Hill. Drawing on, and expanding, really, the research on the urban renewal programs and policies that created Lincoln Center (from Zipp’s 2010 book “Manhattan Projects: The Rise and Fall of Urban Renewal in Cold War New York”), he wrote two pieces that examined the neighborhood that the performing arts center displaced in the 1950s. New census data from 1950, as well as census data from 1930 and 1940 recently organized and mapped by their colleague John Logan, helped Zipp to make some new observations about these neighborhoods.

All of this work is informed by Zipp’s evolving interest — developed through work on the political culture of urban renewal and community life; the dynamics of race, empire, and internationalism at mid-century; and now on the city and the self — in the impact conditions of interdependence have had on a U.S. political culture and political economy organized around a dichotomy between ideas of independence and dependence.