

Brown Sabbatical Research Newsletter



Foreword

This is the third edition of the annual Brown Sabbatical Research Newsletter published by the Office of the Dean of the Faculty. Its main focus is on the research by Brown faculty that has been made possible during the past academic year by our sabbatical program (also included are some reports on non-sabbatical research). The word *sabbatical* derives from the Hebrew verb *shabath* meaning “to rest.” In keeping with the ancient Judeo-Christian concept the academic sabbatical designates a time, not of simple inactivity, but of the restorative intellectual activity of scholarship and research.

Brown instituted the sabbatical leave in 1891, eleven years after Harvard had become the first university in the United States 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 nineteenth 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 over one hundred and twenty 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 themselves. I hope that they will be found interesting and instructive.

Kevin McLaughlin
Dean of the Faculty

Further reading:

Walter Crosby Eells, “The Origin and Early History of Sabbatical Leave,” *AAUP Bulletin* 48.3 (September 1962): 253-256 (<http://www.jstor.org/stable/40222893>).

**Special thanks are due to Associate Dean of the Faculty Joel Revill and Michelle Turcotte of Brown Graphic Services.*

Leticia Alvarado

AMERICAN STUDIES • 2014-2015

With the help of a Ford Foundation Postdoctoral Fellowship, Leticia Alvarado spent the 2014-15 academic year completing a draft of her book, *Abject Performances: Aesthetic Strategies in Latino Cultural Production*. This project is built around a number of cultural producers who embrace and grapple with abjection as an aesthetic strategy. They are often active and informed, if marginal/ized, participants in political movements—Chicano nationalist, liberal feminist, and immigration rights. Collectively, they prioritize strategies and affects distinct from those recognized as effective in the field of Latino studies. In place of identity affirmation and cultural edification they cohere around negative affects—shame, disgust, and unbelonging—capturing the structures of feeling that demarcate a complex periphery of sustained Latino-centered social justice struggles. With them, *Abject Performances*, illuminates modes of community formation and social critique through the performative revelation of the workings of social abjection. This community formation is characterized by a refusal of identitarian coherence that nonetheless coalesces into Latino affiliation and possibility. While the political contours of aesthetics have long been suggested, *Abject Performances* stresses the centrality of aesthetics and a critical engagement with aesthetic theory for our political imaginings in Latino studies, centering aesthetics beyond the representational in style, composition, and politics.

Abject Performances draws from a diverse archive ranging from the early performances of Cuban exile Ana Mendieta and the East Los Angeles collective Asco, to the popular culture interventions of Chicana artist Nao Bustamante, as well as from the mass cultural production of ugliness on prime time television's *Ugly Betty* to the performative testimonies of personal subjection of Latino Mormon converts. Temporally, it covers a period from the late 1960s and early 70s, a decade immersed in movement politics, to our contemporary world where cultural producers negotiate the legacies of older movements and reckon with their successes and failures. Geographically the study not only moves across the nation from California to the Midwest and New York but also recognizes the need for transnational inquiry in Latino studies with the inclusion of the Caribbean and Mexico.

Alvarado conducted research in archives across the nation including the Smithsonian Institution Archives, the Fales Library and Special Collections archives, and the archives at UCLA's Chicano Studies Research Center. She presented excerpts from the book at a number of national conferences including the inaugural Latino Studies Association conference, the Hemispheric Institute's 2014 Convergence, the American Studies Association Annual Meeting, and the annual Congress of the Latin American Studies Association. Dedicated time for research and writing allowed her to complete and publish "...Toward A Personal Will To Continue Being Other': Ana Mendieta's Abject Performances" in *Journal of Latin American Cultural Studies*; "What Comes after Loss?': Ana Mendieta after José," forthcoming this July in *Small Axe: A Caribbean Journal of Cultural Criticism*; and "Asco's asco and the Queer Affective Resonance of Abjection," forthcoming in *Aztlán: A Journal of Chicano Studies* this fall.



Dima Amso

COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES • FALL 2014

Professor Dima Amso dedicated her sabbatical leave to her research and mentorship at Brown University. Amso directs the Developmental Cognitive Neuroscience Lab (DCNL), at Brown. The DCNL is dedicated to understanding human brain and cognitive development. By the end of the first year of life, infants can categorize species of animals, discriminate facial emotion expressions, and follow caregivers' instructions. By adolescence, humans have mastered reading, mathematical calculation, and decision-making about peer interactions. DCNL research examines the involvement of visual attention, memory, and executive functions in guiding the development of these complex thought and action systems. Amso worked on two projects in particular during her sabbatical. The first is geared toward understanding the typical development of visual attention and its disruption in autism spectrum disorders. The second addresses the role of poverty in human brain development, with the idea that material wealth and emotional stress have a differential impact on the brain. Sabbatical time was dedicated to this research program, the mentorship of the brilliant team of undergraduate, graduate, and postdoctoral lab members, and to disseminating research in paper and presentation format nationally and internationally. In the fall of 2014, Amso's team presented data in a talk at the Society for Neuroscience, the International Society for Developmental Psychobiology, and Amso gave a keynote address at the FLUX International Society for Integrative Developmental Neuroscience. The dedicated research time has resulted in multiple published articles and the completion of a large theory piece by Amso (and co-author Gaia Scerif of Oxford University) for *Nature Reviews Neuroscience* on the insights offered to the neuroscience community by the study of developmental process. Finally, Amso dedicated sabbatical time to developing ideas about how best to use progress in the developmental neurosciences to inform best practices in mental healthcare on the ground in crisis situations, including in refugee camps and during war time. This *Principles of Healthy Brain Development Curriculum* is in progress and was a journey begun with special thanks to the dedicated research time offered the faculty at Brown University.

James Anderson

COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES • FALL 2014

Professor James Anderson spent the entire leave period on a single project: finishing a book on brain-like computation. Anderson currently has the book under contract from Oxford University Press. The book was largely completed during the sabbatical and the final manuscript was submitted to Oxford at the end of March, 2015. Having an entire free semester was a tremendous boost to productivity.

This book grew out of courses taught at Brown over the past decade. The most direct influence was a freshman seminar called "Computing in Brains and Machines" that Anderson has taught for several years.

The approach taken in the book is to discuss two familiar models for computation and to suggest that brains don't work like either of them but that they have their own advantages.

The first model is the digital computer, where simple binary hardware is combined with explicit instructions of the most extreme complexity that tells the simple hardware what to do. The second model is the analog computer, which older folks will remember, and which was considered to be an economically viable competitor to digital computers as recently as three decades ago. Analog computers use specialized hardware designed to realize a specific complex computation or class of computations based on applicable laws of physics.

Digital computers show extreme flexibility in application and are amazingly cheap and getting cheaper. They also have the potential for hard-to-find errors in coding and have high vulnerability to malign outside influences.

Analog computers are not flexible but can be made reliable and rugged for specific tasks. Analog computers lost the competition with digital because they were hard to make and required specialized expertise to make them perform a useful function. They were not economically competitive with digital devices. They also had limited precision and had difficulty dealing with systems with discrete states.

Recently, it has become clear that Moore's Law – that computer hardware doubles in power every two years – is reaching its end. Alternate computer architectures are starting to be investigated in the computer industry.

One such alternate is the human brain, which is faster and better for a few classes of important problems than a digital computer and manages with very slow hardware and the power consumption of a small light bulb. One obvious way to replicate this performance is through parallelism, that is, multiple computing devices working on the same problem at the same time. However, it has proved hard in practice to make parallel digital computers as fast as expected outside of a small class of problems, most notably from physics, engineering and computer graphics. Clearly, brains are doing some kinds of parallelism right.

Therefore it is of commercial interest to see if some ideas for computation could be stolen from brain biology and architecture and from its software division, otherwise known as cognitive science. It is also of great human interest to understand the brain as a computing device, with its strengths and limitations based on its hardware, that is, the mammalian cerebral cortex. Cortical hardware constraints are extremely limiting and largely determine the broad computational approach taken by cognitive software.

Overall, brain-like computation is a hybrid, partly discrete and digital and partly continuous and analog. Such a hybrid has proved to be very effective for *Homo sapiens* and an artificial piece of brain-like hardware would be instructive for understanding both neuroscience and cognitive science.

Peter Andreas

POLITICAL SCIENCE AND INTERNATIONAL AND PUBLIC AFFAIRS • FALL 2014

During his fall 2014 sabbatical semester Professor Andreas worked on his new book project, tentatively titled, *A History of War in Six Drugs*. Professor Andreas wrote a book proposal during the sabbatical semester, and based on this proposal (and external reviews) has now signed a book contract with Oxford University Press. The book traces the remarkably symbiotic relationship between mind-altering substances and armed conflict, from ancient times to the present. The book tells the story of this addictive relationship and its transformation across time and place; it shows how drugs made war and war made drugs. Put differently, the book is both a history of war through the lens of drugs and a history of drugs through the lens of war. Six drugs have proven to be particularly important war ingredients: alcohol, nicotine, caffeine, amphetamines, opium, and cocaine. In various ways and in various forms, the drugs-war relationship has fueled imperial expansion, fomented rebellion and revolution, built up and subverted states, and helped to create not only addicted armies but also nations of addicts.


During his fall sabbatical Professor Andreas also wrote a review article for the journal, *Perspectives on Politics* (forthcoming 2015), and published chapters in several edited volumes. Finally, Professor Andreas finished a draft of a political memoir, *Chasing Revolutions: A Childhood on the Run with my Radical Mother*, which is now under contract with Simon & Schuster. The book tells the story of growing up with a Mennonite-turned-Marxist mother from the late 60s to the early 80s, moving from the comfortably bland suburbs of Detroit to a hippie commune in Berkeley to a socialist collective farm in pre-military coup Chile to highland villages and coastal shantytowns in Peru.

Paul Armstrong

ENGLISH • FALL 2014

Professor Paul Armstrong devoted his sabbatical to two editorial projects. He completed a scholarly edition of Henry James's posthumously published novel *The Ivory Tower* that will be published by Cambridge University Press in its new collection of James's fictional works. He then began preparing a new Norton Critical Edition of Joseph Conrad's novella *Heart of Darkness*.

The Ivory Tower is one of two novels that James left unfinished when he died in 1916 and that were then prepared for posthumous publication by his disciple Percy Lubbock. Set in Newport where James spent his teen-age years, the novel dramatizes the moral crisis experienced by a young aesthete who suddenly finds himself the heir of a fortune accumulated by an uncle who was one of the "robber barons" during the Gilded Age. Is this windfall tainted, he worries, by the unscrupulous means through which it was acquired? James completed three of the ten books that he envisioned and also left extensive notes outlining his plans



for the entire novel. After completing a novel, James typically destroyed his manuscript and notes. They survive in this case, however, and are preserved with James's papers at the Houghton Library at Harvard. Comparing the manuscript and notes to the published version, Armstrong's scholarly edition includes a comprehensive list of the revisions that James made during the process of composition as well as emendations to the published text where the manuscript was inaccurately transcribed. Appendices also include previously unpublished working notes and discarded pages. Armstrong also wrote separate historical and textual introductions that analyze the biographical origins and social backgrounds of the novel as well as the process of composition and initial publication.

Conrad's modernist classic *Heart of Darkness* is so widely analyzed, debated, and taught that it has already been the subject of four different Norton Critical Editions over the last five decades, more than any other text in this distinguished series. Armstrong prepared the fourth Norton edition of this novella, and his edition has sold more than 188,000 copies worldwide since it was published in 2006. The fourth edition included new supplementary materials on "Imperialism and the Congo" and "Nineteenth Century Attitudes Toward Race" that provide backgrounds and contexts related to the novel's dramatization of the abuses of colonialism and its controversial depiction of European attitudes toward Africans. For the fifth edition, scheduled for publication in 2016, Armstrong has added new materials reflecting the extensive scholarship on race, imperialism, and post-colonialism over the last decade. He has also prepared an entirely new text in response to recent scholarly research that called into question the authority of widely circulated versions of the novella. Armstrong's edition takes as its copy-text the first English book publication and emends it in light of recent debates among Conrad's many editors about variants from the surviving partial manuscript, incomplete typescript, and serial versions. He also prepared a new textual appendix that explains his editorial decisions, gives lists of variants and emendations, and uses the conflicts about Conrad's text as an opportunity to introduce readers to important contemporary controversies in textual scholarship.

Ariella Azoulay

MODERN CULTURE AND MEDIA AND COMPARATIVE LITERATURE • FALL 2014

In August 2014 Professor Azoulay completed and submitted for publication a monograph on the photographer Miki Kratsman, the winner of the Gardener's Prize. Azoulay's manuscript is entitled *The Resolution of the Suspect, on the photographic archive of the photographer Miki Kratsman*, and it will be published by The Peabody Museum Press.

Between September and December Azoulay worked intensely a book manuscript that she started seven years ago: *Potential political history - Archives, Revolutions, Sovereignty and Human Rights*. The concept of potential political history gives coherence to a series of revisions of these four key political concepts, with far-reaching implications for the fields of visual culture, mainly photography, and political theory. Azoulay plans to continue to work on this manuscript this summer, hoping to finish a first full draft.




“The Body Politic”, visual essay in Really Useful Knowledge (curated by What, How & for Whom / WHW), Museo Nacional Centro de Arte Reina Sofía, Madrid (photo of the installation: Joaquín Cortés & Román Lores).

Timothy Bewes

ENGLISH • FALL 2014

Professor Timothy Bewes spent his semester of sabbatical leave writing the opening section of a book-length project on contemporary literature provisionally titled *Postfiction*. The term postfiction refers not simply to a new literary form, or a way of reading literature, but to the collapse of a certain ideological structure that has until recently organized the production and reception of literature (and many other activities besides). Bewes refers to this ideological structure using a term from the philosophy of metaphysics: “instantiation relation.” An instantiation relation presupposes a distinction between universal qualities and the particular entities that can be said to instantiate them. Instantiation, according to Bewes, is a “degree zero” order of connection that underpins, explains and legitimates the activities of authors, critics and readers. As such, instantiation is intrinsic to the category of fiction as a material and ideological apparatus.

In many quarters of the culture industry – certainly the most economically powerful – the logic of instantiation operates as strongly as ever. Indeed, one of the central claims of Bewes’s project is that, since the collapse of more traditional logics of connection, instantiation is the dominant aesthetic ideology of the late twentieth and early twenty-first centuries. It is especially powerful and entrenched in readings and analyses of literature, including every attempt to locate ethical or political directives in the work.



Bewes's aim is not merely to analyze the historical and political logic of the instantiation relation, but to show how a certain strain of contemporary writing identifies its own capacity for thought with the collapse of that relation. Such writing does not accept instantiation as a given but situates its thought in moments of disconnection, especially in the discrepancy between the work's formal particularity and the values, experiences or qualities that inform our sense of a world. The work that makes most vivid the terms of the postfictional hypothesis is J. M. Coetzee's *Elizabeth Costello* (2003), a novel of ideas whose condition of thought appears to be an infinite distance between the ideas of the protagonist and their transmissibility. As both a critical and an artistic practice, postfiction sustains a thinking that cannot be reduced to ideas instantiated in the work, nor to a sphere of "unrepresentable" thoughts that the work cannot accommodate. Postfictional works make possible a non-anchored, non-subjective thought, a thought without perspective, which is also to say, without a communicative function. Postfictional thought is located not positively, in any formal element of the work, but at its interstices.

During his sabbatical Bewes completed two chapters entitled "The Instantiation Relation" and "The Postfictional Hypothesis." He also made pre-publication revisions on two journal articles closely related to this project, "A Sensorimotor Collapse? Deleuze and the Practice of Cinema" and "Ultimate Dialogicality." Finally, he participated in a public roundtable discussion on the contemporary novel at Duke University hosted by the journal *Novel: A Forum on Fiction* (of which he is Associate Editor).

Kim Boekelheide

PATHOLOGY AND LABORATORY MEDICINE • FALL 2014

One of the major activities performed by Professor Boekelheide during his sabbatical leave in fall 2015 was planning and organizing an international workshop to be held at Brown in 2015. Titled "Determining Adverse Responses Using In Vitro Assays," this workshop is supported by the Human Toxome Project, the John Hopkins Center for Alternatives to Animal Testing (CAAT), and the Brown University Center to Advance Predictive Biology.

In the context of biology/toxicology and risk assessment, the in vitro determination of adverse responses serves two related but distinct purposes. On one hand, an in vitro adverse response identifies a cell autonomous mechanism of injury indicative of an irreversible alteration in cellular homeostasis. Computational systems biology approaches are used to identify the molecular and cellular perturbations associated with such irreversible alterations in cellular homeostasis, distinguishing between adaptive and adverse responses to identify points of departure. On the other hand, an adverse response in an in vitro assay can be used to satisfy information requirements for hazard and safety/risk assessment purposes by being predictive of a toxicological endpoint or health effect of regulatory importance (for example, cancer or reproductive toxicity). One goal of the workshop is to grapple with the relationship between adverse responses identified as a taxonomy of upstream impairments of fundamental biological function (many of which are common

across anatomical/physiological sites/systems) and the use of this information in a regulatory framework defined by apical pathological alterations and disease endpoints.

The workshop discussion is guided by these key questions:

- How do toxicity pathway and adverse outcome pathway responses inform the determination of in vitro points of departure?
- How are adaptive versus adverse responses distinguished?
- How does the relative non-selectivity/promiscuity of many industrial and environmental chemicals impact the determination of in vitro points of departure?
- What is the relationship between in vitro points of departure and adverse responses?
- How do in vitro networking approaches that identify alterations in cellular homeostasis facilitate the determination of adverse effects for the purpose of safety/risk assessment?


Significant effort was devoted to identifying and persuading the world's recognized leaders in this area of science to participate in the workshop.

Allan Bower

ENGINEERING • 2014-2015

Professor Bower serves as director of the Brown/General Motors Collaborative Research Laboratory for Computational Materials Research (the CRL). The CRL is one of several research laboratories established by General Motors in 2001 to accelerate the pace of innovation in strategic technology areas. It has two principal focus areas: developing battery electrode materials with improved charge capacity and life for electric and hybrid vehicles, and computational design of advanced high-strength steels and aluminum alloys for lightweight vehicles. Professor Bower also represents Brown in a multi-institutional consortium entitled “Integrated Computational Approach to Development of Lightweight 3rd Generation Advanced High Strength Steel Vehicle Sub-Assemblies” funded by the U.S. Department of Energy and managed by the U.S. Advanced Manufacturing Partnership. He is also a participant in Brown’s DOE EPSCOR Implementation grant “Fundamental Investigations of Mechanical and Chemical Degradation Mechanisms in Li-ion Battery Materials”

Professor Bower’s work in Li-ion battery materials focuses on understanding how repeated charging and discharging leads to damage in battery electrodes. Li-ion batteries store energy through chemical reactions that remove lithium from the cathode and store it in the anode. When the battery is discharged, the process



is reversed. The removal or addition of Li to a battery electrode causes it to change its shape: some materials, such as silicon, can nearly triple their volume as they absorb lithium. Most materials also change their crystal structure upon insertion or removal of Li. The interfaces that form between different crystalline phases play a critical role controlling both the rates at which the material can be charged and discharged and the stress induced in the particle during lithiation. With this in mind, Professor Bower's group has been using theoretical calculations and computer simulations to clarify the roles of solution thermodynamics, mechanical stress, and kinetics, on the behavior of electrode particles containing propagating phase boundaries. An intriguing prediction of these calculations is that the stress state in a battery electrode particle can be influenced by its chemical composition, suggesting that doping could in principle be used to reduce stresses and so improve reliability.

A second study has focused on the mechanical and electrochemical behavior of silicon when used as a Li-ion battery anode. There are indications from both experiments and atomistic simulations that existing models of Li-Si are incomplete. For example, the low flow stress of Li-Si compared to pure amorphous Si is somewhat mysterious. In addition, recent measurements of volume changes in Si electrodes during lithiation suggest that the change in volume is irreversible, which is not consistent with the predictions of classical models of transport in solids. With this in mind, Professor Bower's group has extended the classical models to account for irreversible changes in the atomic structure that occur concurrently with diffusion. The predictions of this extended model agree qualitatively with available experimental data, and experimental work is in progress to test its predictions further.

The goal of Professor Bower's work on high-strength steels is to use computer simulations to design steels with improved strength and formability. The fuel efficiency of automobiles increases by 6-8% for each 10% reduction in weight. One of the primary approaches to reducing vehicle weight is through increased use of Advanced High Strength Steels (AHSS), which have superior strength and crash worthiness compared to conventional steel grades. It has been estimated that AHSS have the potential to reduce vehicle weight by as much as 25%. There is consequently great interest in developing novel steels with a suitable combination of high strength; good resistance to necking instability and fracture; and competitive cost. Advanced high-strength steels derive their superior properties from a complex multiphase microstructure, which usually contains a soft ferritic phase together with a harder martensitic phase, among others. The properties of the phases and the microstructural features can in principle be tuned and optimized to achieve particular performance metrics. The ability to predict their influence on the flow behavior and formability of the steel underlies the development of next generation steels with improved performance. Recent work by Professor Bower's group has shown that if the properties of the phases and microstructure of a candidate steel are known, it is possible to predict the forming limit diagram for the steel by means of computer simulations. Simulations have also determined how changes in the volume fractions of the phases influence the flow strength and formability of the steel, and have predicted changes in the properties of the phases and microstructure in existing steels that will lead to improved formability without degrading strength.

Elizabeth Bryan

ENGLISH • FALL 2014

Professor Bryan wrote two articles and worked on a book-in-progress during her sabbatical in Chapel Hill, North Carolina.

The first article, “Matthew Parker and the Middle English prose *Brut*,” will appear in a volume of essays from York Medieval Press in memory of Lister L. Matheson, and it is a piece of medieval manuscript detective work. An unknown early reader of a fifteenth-century manuscript in the British Library, MS Harley 24, underlined nearly one hundred words with red crayon in one five-page section, and this article points out this phenomenon (an observation Bryan made previously during an archival research trip to London) and posits a theory of who made these marks and why. The text in the manuscript is the lengthy English chronicle called the “Middle English Prose *Brut*,” the underliner was reading the manuscript in sixteenth-century Tudor England, and the underlinings look either random or obscurely codified, as the following sample of underlined words from folios 81v-82r will illustrate:

goon frelyche, tho, accordede, holiche, alle, scomefite, henemyes, a yen, here, peple, rok, drenchede, saue, kyngs, chesse, thinges, I nogh, hire, tho, agoo, werre, annoyede.

The red crayon medium is the clue that identifies Matthew Parker, Archbishop of Canterbury from 1559 to 1575 under Queen Elizabeth I, as the person who read these five pages and underlined these words (or possibly a member of his celebrated Circle). Parker is well known as a collector, scholar, and publisher of chronicles and histories of England, but this particular history, the prose *Brut*, had a popular status, something like the Wikipedia of its day. This article shows that Parker was comparing other manuscripts of the Middle English prose *Brut* to this manuscript (MS Harley 24), and his collations reveal some of his linguistic and historic interests. He was particularly attentive to sorting out which of Henry I's daughters named “Matilda” had legitimate birth, an interest with obvious application in the Tudor successions.

The second article, “Ursula in the British History Tradition,” will appear in a book from University of Wales Press on the medieval history of the Christian cult of St. Ursula. Hagiographic texts of the legendary 11,000 virgin martyrs of Cologne, who were allegedly martyred during the Roman persecutions of early Christianity, began to be written in Cologne in the tenth century and proliferated with twelfth-century excavations of relics and mystical visions, until by the fifteenth and sixteenth centuries, saint's legends of Ursula were as prolific as the Flemish and Italian artworks inspired by that subject. But there was a second literary genre that from the early twelfth century told a different narrative of Ursula, a colonial and imperial narrative that had her perish in the attempt to lead 11,000 daughters of Britain across the sea to marry the British conquerors of Armorica, or Brittany. This article begins with Geoffrey of Monmouth's *Historia regum Britanniae* (1136-38), examines the historical and hagiographical sources for Geoffrey's “colonial” Ursula, and then tracks 350 years of textual transmissions and rewritings, in Anglo-Norman and Middle English histories of ancient Britain, of the narrative of Ursula and the colonist-brides. The article argues that after the thirteenth century, the saint's legend pressured the British history version, until the early sixteenth century when the devotional cult of St. Ursula became infiltrated by colonialist propaganda in the context

of American colonization by European nations. Ironically, England's turn to Protestantism and consequent suppression of saints' cults meant that it did not benefit from its own historical discourse of the "colonial Ursula."


In Chapel Hill, Bryan also worked on chapter two of her book project "Historiated *Bruts*," which examines how textual narrative interacts with visual images in ten illustrated medieval manuscripts of the Middle English prose *Brut*. One of the manuscripts Bryan is writing about is owned by Robert Heyneman, an Emeritus UNC mathematics professor in Chapel Hill, who gave generous permission for her to study and photograph the manuscript in his home. Also helpful was the UNC Library's specialized microfilm collection of most of the 181 medieval manuscripts of the Middle English prose *Brut* (manuscripts that are scattered in libraries in Europe, the UK, the US, and Australia). "Historiated *Bruts*" is in part interested in the question of how the genre of history accommodated visual images (or not), for medieval English students of national history. Bryan's article "Ursula in the British History Tradition" established the textual history of the "*Brut* Ursula" narrative that was necessary background to the fifteenth-century interaction of art and story that introduces her chapter on "Saints in British History."

Stephen Bush

RELIGIOUS STUDIES • FALL 2014

In the fall of 2014, Professor Stephen S. Bush was awarded a semester's leave as a Wriston Fellow. During the semester, he wrote two chapters of his book manuscript, *William James on Religion and Democracy*, which is under contract with Cambridge University Press. James (1842-1910) enjoys renown as a founder of modern psychology, as a founder of the American philosophical school called pragmatism, and as one of the greatest figures in American religious thought. But not as a political philosopher. Indeed, most of his interpreters over the past hundred years have either ignored his political thought or asserted that he had none. No one disputes, though, that individuality is a central theme throughout James's corpus. Bush's book manuscript makes a sustained case that the individualism that pervades James's philosophy is in fact a political ideal. This means that political philosophy sits at the heart of James's work.

The chapters that Bush wrote during the sabbatical semester pertained to James's views on social change. The sort of democratic individuality that James promotes is one in which individuals take responsibility for the betterment of their society. One of the chapters responds to criticisms of individualism by radical democrats, feminists, and communitarians who charge that individualism misconstrues human subjectivity by conceiving of the self as independent and unencumbered. Failing to recognize the way in which we are dependent on and are responsible for one another undermines efforts for social change. The chapter shows that James's individualism is very much embedded in sociality and it acknowledges the extent to which we are dependent on others.



The other chapter concerns James's views on leadership. It highlights the role of education and of public intellectuals in James's account of social change. It situates James's views on leadership in relation both to nineteenth-century debates (among Thomas Carlyle, Ralph Waldo Emerson, and Herbert Spencer) about the role of "great men" in history and to contemporary concerns about over-reliance on charismatic leaders (voiced by Eddie Glaude and Erica Edwards). This chapter argues that despite James's endorsement of the necessity of leadership and despite his use of the seemingly anti-democratic language of "hero worship," James ultimately locates political authority in the citizens.

In addition to work on the book manuscript, Bush wrote two essays. One compares the views of Danish filmmaker Lars von Trier and cultural theorist Georges Bataille on violence and media spectatorship. The essay argues that von Trier and Bataille both present spectacles of violence in order to elicit in the spectators compassion for suffering people, but they do so in a such a way to bring spectators to acknowledge their own fascination with violence. The essay, "Sharing in What Death Reveals, *Breaking the Waves with Bataille*," was published in *Theory & Event* 18/2 (2015). The other essay, "Shock and Humdrum: Georges Bataille and William James on Moral Perception," links Bush's work on William James with a future book project on the moral perception of human value. The essay argues that both James and Bataille argue for a certain sort of mystical experience that takes, not divinity, but human beings, as its object. Both think this sort of experience has important ethical implications. For both, these ecstatic experiences engender an appreciation of the value of our fellow humans that cannot be obtained in more conventional manners. This essay is currently under revision.

Bush presented his work on Bataille and von Trier at a conference at Brown University in November, and he presented work from his James project at the annual conference of the American Academy of Religion.


Russell M. Church

COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES • SPRING 2015

The spring 2015 sabbatical made it possible for Professor Russell Church to focus on a single project – a book designed to be a fresh analysis of conditioning. The title is *Temporal Conditioning: How Rats Learn*.

Research on classical and instrumental conditioning has a history of more than a century. It consists of many procedures that affect learning, and that result in observable and replicable behavior. The major concern is that current theories of learning do not provide a quantitative, simple, and general theory of behavior. The goal of this book is to provide tools to evaluate and improve the theory.

Many procedures have been used to train rats in lever boxes. These procedures specify the sequence and times of events (stimuli, responses, outcomes, and contexts). They have been categorized, but not been systematically organized. The procedures have usually been described in prose, but this book primarily uses procedural notation (for precision) and ideographs (for rapid understanding).



Results of the procedures have usually been described by summary statistics, but this book typically uses primary data. The primary data refers to the time of the onset and termination of events. The primary data can be used to generate any summary statistic, but when the primary data is not available, estimates of summary statistics can usually be obtained from tables and graphs of published research

A procedure given to a rat produces empirical results; the same procedure given to a theory produces theoretical results. The more similar the two results are, the better the theory explains the behavior of the rat. A modular theory will be used to explain this behavior. The evaluation of the theory will be based on measures of simplicity, goodness-of-fit and generality, and also with Turing tests. The Turing tests provide measures of the difficulty of distinguishing the empirical results of the rat from the results of the modular theory.

The book will be available as a cyberbook with a searchable glossary, some dynamic figures and, most importantly, the opportunity to compare behavioral data with theories. These evaluative tests can be made by the readers as well as the authors. The Comparative Cognition Society has supported the book and made it possible to be available without cost to readers. The co-author of the book is David M. Freestone.

Mark Cladis

RELIGIOUS STUDIES • SPRING 2015

Most of Mark Cladis' sabbatical efforts were directed at his new book project, *Religion, Democracy, and the Environment*. This book is an investigation of the central democratic, religious, and environmental perspectives that informed one another in 18th and 19th century British Romantic literature and their subsequent and sustained legacies in America. This investigation employs a *triscopic* approach: a methodology that involves careful attention to the three-way intersection of democracy, religion, and the environment. Cladis aims to show how a multifarious Romantic legacy, which has already contributed much to American intellectual and cultural sensibilities, can assist in the development of democratic and environmental theory and practice.

During the sabbatical, Cladis wrote a chapter in which he argued that secularized accounts of British Romanticism belittle the salient role that religion, tradition, and practice played in the work of such authors as William and Dorothy Wordsworth and Coleridge. This belittlement exacts a heavy toll. If we neglect religion, we fail to see the close, material connections between Romantic religious and political radicalism. We also fail to see the connection between religion and progressive environment perspectives. And if we discount tradition and practice, we fail to see the matter and manner—the *culture*, including memory, custom, and more generally, second nature—by which many Romantic authors conceived of and pursued their socio-political and environmental goals. We fail to grasp the fundamental moral psychology that animated Romantic thinking about such matters as the formation of the self, sources of moral authority,

and the human relation to the natural world. There is much loss, then, when we adopt narrow, secularized narratives. In contrast, when our narratives become more subtle, when we become aware of the salient role played by religion and by practice in British Romanticism, we find ourselves in a better position to grasp radical Romantic efforts to establish a democratic and environmental culture: an environmentally responsive democracy embodied by its citizens and embedded in its lands.


Additionally, Cladis completed the research for a second chapter and wrote a portion of it. In this chapter, Cladis provides the substantive arguments to support his claim that a triscopic approach enhances our interpretations of British Romantic authors. His overall contention is that religious, political, and ecological aspects of the Romantics are implicitly, if not explicitly, interconnected and that meaningful interpretations of one aspect often require attention to the other two aspects as well. The chapter begins by briefly identifying the relevant background traditions and contexts for triscopic explorations of British Romanticism. Next, the chapter addresses under separate headings the political, religious, and then environmental aspects of Wordsworth's work, among others. Although the chapter progressively advances through these three aspects of Romanticism and identifies each as a separate category, the cumulative effect is to demonstrate their inseparability, that is, how they are mutually constitutive. Finally, the chapter concludes with poems that plainly contain all three aspects.

James Egan

ENGLISH • 2014-2015

Professor Egan spent his sabbatical working on two interrelated projects. Egan focused his attention primarily on researching and drafting various chapters for a history of American literature before 1783. He is under contract with Blackwell-Wiley to have a draft of the manuscript to them by July of 2016. The book will be part of a new series of histories of American literature designed for use in courses as well as to appeal to a general audience.

Egan's second project involved continuing to work on an online project begun several years ago, *Mapping Colonial Americas Publishing Project*. The *Mapping Colonial Americas Publishing Project* aims to visualize New World printing over geographic space and across literary genres from European contact to 1800. Since his previous collaborator, Jean Bauer, moved to Princeton, Egan began a new collaboration this year with Patrick Rashleigh, Data Visualization Coordinator at Brown's Center for Digital Scholarship. Egan spent the year working with Patrick to develop a multimedia page to accompany the website that would focus on a single story taken from their database regarding material printed in the Americas before 1800. They are developing a presentation that will demonstrate to potential site users the kinds of information available in the database and the various ways in which visualization tools can be used to present the data. In order to accomplish these goals, Egan spent a good deal of time learning a number of different visualization programs as well as learning the rudiments of some programming languages.



The two projects were intricately linked in that Egan learned a great deal about a body of knowledge, colonial American publishing, in which he thought he had been thoroughly well-versed. Egan then put this new knowledge to good use—or so he hopes—in drafting the history of American literature that he has been writing this year.

David Estlund

PHILOSOPHY • FALL 2014

During his sabbatical in fall of 2014, Professor Estlund was a Faculty Fellow in the Cogut Center for Humanities. Estlund participated in the weekly Cogut Seminar with the other faculty and student fellows, which he found deeply rewarding despite (but also because of) the challenges of engaging across disciplinary cultures. Being freed of most teaching and administrative duties for the term (except that he fully continued his supervision of several graduate students' dissertation work, and served on the department graduate admissions committee), Estlund concentrated on his scholarly projects, especially on revising a draft of his book manuscript, *Utopophobia: On the Limits (If Any) of Political Philosophy*. Estlund produced a substantially revised second draft that was then intensively discussed at a workshop here at Brown in early February, 2015. Estlund is revising once more, planning to finish in the fall of 2015. Estlund also finished a book review, as well as two papers scheduled for scholarly volumes, both of which are closely related to the book. In addition to his presentation on his own work in the Cogut Seminar, Estlund gave two invited talks at University of Toronto in November, one at MIT in December, and one at National University of Singapore before the start of the spring semester in January.

Linford Fisher

HISTORY • 2014-2015

Professor Fisher's leave was made possible by two long-term fellowships from the National Endowment for the Humanities in conjunction with two separate research libraries: the Newberry Library in Chicago, Illinois, and the American Antiquarian Society in Worcester, Massachusetts. Additional funding was provided by the Henry Merritt Wriston Fellowship as well as the support given by the Dean of the Faculty.

During the past academic year, Fisher spent the fall semester in residence at the Newberry Library and the spring semester at the American Antiquarian Society (AAS). While at both places, he was able to make substantial progress on several research projects, large and small. Everything about both the Newberry and

AAS was wonderful – the archival resources, staff, other fellows, weekly colloquium, monthly fellows luncheons, and many other seminars, events, and public lectures. These libraries proved to be amazing intellectual communities that helped to spur on Fisher’s research and thinking in productive ways.

The main project that occupied Fisher’s time as a fellow in both places was research for his next book, *Land of the Unfree: Natives, Africans, and the World of Colonial Slavery* (under contract with Oxford University Press). Essentially, it is a study of American Indian and African slavery and servitude in New England and a few select English Caribbean/Atlantic islands, including Bermuda, Barbados, and Jamaica. Although Fisher had done on-site research at archives in Bermuda, Barbados, Jamaica, and England, these libraries provided the opportunity to access important manuscript and rare printed materials directly relevant to this book project. At the Newberry, Fisher was able to access the capacious Edward E. Ayer Collection, which contained dozens and dozens of printed rare books relevant to this project. Of special interest to him were the many printed travel accounts and descriptions of these Caribbean islands, printed in the seventeenth and eighteenth centuries. These rare printed volumes contain fascinating descriptions of plantation life, societal structure, the beliefs and actions of enslaved people, and arguments for and against slavery.

At the AAS Fisher eagerly spent time with their impressive Caribbean newspapers collection and their newly-acquired collection of printed Jamaican laws dating back to the seventeenth century. He also made good use of several manuscript collections there, including the Curwen Family Papers the Slavery in North America collection. Additionally, they have an incredible wealth of rare printed books related to colonial America and the Caribbean that he utilized.

These and other print and manuscript sources from the Newberry and AAS collections enabled Fisher to make measurable progress on this book project. He has drafted portions of three different chapters (out of seven or eight), and has many pages of notes and photos that he will rely upon for other chapters as well.

While on leave, Fisher was grateful for several opportunities to share his research with broader academic audiences. In October 2014 he presented two papers related to this book project at the annual meeting of the American Society for Ethnohistory. One of those papers, “‘Why shall wee have peace to bee made slaves?’ Indian Surrenderers During and After King Philip’s War,” was selected for inclusion in a forthcoming special volume on Indian slavery in the journal *Ethnohistory* (pending peer review). On other occasions Fisher was able to share his research at the English Atlantic Writing Group at Loyola University, the Karla Scherer Center for the Study of American Culture at the University of Chicago, the Massachusetts Historical Society, the John Carter Brown Library, and the Association of Caribbean Historians annual conference in the Bahamas.

In addition to substantial progress on *Land of the Unfree*, Fisher was able utilize archival holdings to write two additional essays. The first, “America’s First Bible: Native Uses, Abuses, and Reuses of the Indian Bible of 1663,” was first presented in August 2014 at a conference at Indiana University Perdue University Indianapolis, titled *The Bible in American Life*. It is currently under review for inclusion in an edited volume, *The Bible in American Life: Then and Now*. The second essay, “‘Not in our Neighborhood’: American Indians, the Founding of the SPGNA, and Foreign Missions in the Early Republic,” is a solicited essay that was just published in *Common-place: The Interactive Journal of Early American Life*, in June 2015.

In addition to its amazing collections, the Newberry Library and the American Antiquarian Society also successfully fostered wonderful intellectual and collegial environments. The long term fellows, the short term fellows, the graduate scholars in residence, the local faculty who use these two places as a place to study and do their own research; all of this made for a unique but incredibly enriching experience. The cohort of fellows at both places was also friendly and grew close, and Fisher especially enjoyed the informal outings that took place a few times during the year.

In short, Fisher's time at the Newberry and the American Antiquarian Society was pleasingly productive, wonderfully collegial, and a nicely immersive intellectual experience that he would highly recommend to everyone. Fisher was pleased with the progress he was able to make on his book project along with the completion of several other writing projects as well. Fisher looks forward to returning to the classroom in the fall, full of new research and ideas to share with his students.

James Fitzgerald

CLASSICS AND RELIGIOUS STUDIES • 2014-2015

During his 2014-15 sabbatical leave Professor Fitzgerald's major focus was to move forward his annotated translation from Sanskrit to English of a very large collection of 63 religious, philosophical, and ethical texts (comprising 186 chapters in 14,915 lines of verse and prose) entitled the "The Book (*parvan*) of the Norms (*dharma-s*) for Release (*mokṣa*) from Suffering" (the *Mokṣadharmaparvan*), which forms part of the ancient Indian epic, *Mahābhārata*. This "*Mokṣa* collection" is an important work of ancient Brahmin intellectual history, and all resources to study it that are available to modern readers and scholars are seriously inadequate. The translation will be published by the University of Chicago Press, as Volume 8 of its ongoing, complete English translation of the critical edition of the *Mahābhārata*, of which Fitzgerald is the general editor. When finished, his translation of this collection will present and make fully accessible this highly important primary source of ancient South Asian civilization to general readers and specialized and comparativist scholars of the literature, philosophy, and religion of South Asia. While on leave this past year Fitzgerald completed the translation and annotation of almost 4,300 lines (in 17 particular texts making up 43 chapters) of this often challenging material. (Fitzgerald is nearing the end of this project: there remain 26 chapters in 4 separate texts, with about 2,050 lines of text.) Fitzgerald added a new feature to the ongoing translation during this year—marking the translation up for the indexing of concepts as well as names. Lamentably, the previous volumes of the Chicago *Mahābhārata* have all lacked a concept index—this lacuna could not be allowed to persist for the varied intellectual-historical material of the *Mokṣa* collection. The indexing process slowed Fitzgerald's progress some this year, but it promises to pay rich dividends for users of the work when published. (He published an annotated translation of a representative sample of the *Mokṣa* collection a decade ago in a piece entitled "Nun Befuddles King, Shows *karmayoga* Does Not Work: Sulabhā's Refutation of King Janaka at *MBh* 12.308."

Fitzgerald also worked on other projects during the leave. A draft of Volume 10 of the Chicago *Mahābhārata* was submitted and required careful reading and feedback to the author (the manuscript was turned back for reworking). Fitzgerald has also recruited a new scholar to the translation team for Volume 9 of the series and issued detailed updates to co-translators on policies and procedures for the work as a whole.

Over the past year, Fitzgerald took out of mothballs the publication of the papers from his 2010 Brown Conference on Philosophy in the *Mahābhārata*. Fitzgerald edited the eight papers that have been submitted and they will be published, with a substantive introduction and afterword by himself, as a special issue of the *Journal of Indian Philosophy*, in late 2016, entitled “Pursuing the tattvas: ‘Philosophy’ and ‘Discourse’ in the *Great Bhārata*.”

During the past two years, including a substantial part of his leave year, Fitzgerald has spent considerable amounts of time re-examining various primary texts from across the millennium prior to the appearance of the *Mahābhārata* (beginning with the Vedas), researching one of the principal ‘old chestnuts’ of Sanskrit: the semantic development of the word *dharma* (perhaps the most frequently occurring word of the *Mahābhārata*). This resulted in his finishing, during the first months of his leave, a long review article of five recently edited and translated primary dharma texts of the Brahmin tradition (“Old, Older, and Oldest *Dharmaśāstra*,” *Journal of the American Oriental Society* (134.3): 481-503) and developing a revisionist argument about the history of the idea of *dharma* (“Who Put the *dharma* in *Dharmaśāstra*?”) presented by invitation in the Indologisches Seminar in Zürich in February, and then reformulated and presented at the American Oriental Society meeting in March (soon to be rewritten for the journal *History of Religions*). This research has also yielded another argument regarding an unnoticed semantic continuum in the word *dharma* that can be uncovered running from the Vedas through the *Mahābhārata* and Buddhist Abhidharma philosophy into classical Indian philosophy (“The Unknown Thread of *dhārman-dharma* in Ancient Indian Thought”).

On a lighter side, Fitzgerald also researched and then wrote up an identification of a Sanskrit word (*khukhuṇḍa*) that had not been previously incorporated into Sanskrit lexicography. Fitzgerald’s paper, “The Blood of Vṛtra May Be Closer to Hand Than We Realize,” argues that the word refers to the plants “crested Celosia,” “burning cockscomb,” and other, similar varieties of Celosia. Plants of the Celosia cockscomb variety are edible, but forbidden to brahmins by the *Mahābhārata*, because a myth in it describes these brilliant, often crimson-colored plants as arising from the blood of the cosmic demon-dragon Vṛtra when the king of the Gods, Indra, slew him. (This piece will appear in a felicitation volume for Stephanie Jamison, edited by Dieter Gunkel, Joshua Katz, and Brent Vine.)

The year also included detailed feedback on the work of and various mentoring tasks for two graduate students (Elizabeth Cecil of Religious Studies and Justin Byrd of Classics) and the occasional review of manuscripts for journals.

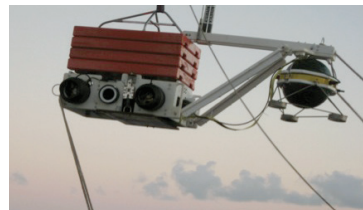
Donald Forsyth

EARTH, ENVIRONMENTAL, AND PLANETARY SCIENCES • FALL 2014

During his sabbatical, Professor Forsyth worked on two projects studying the formation and evolution of oceanic lithospheric plates using data from deployments of ocean bottom seismometers. New seafloor is created at mid-ocean ridge spreading centers and added to the separating plates. As the plates move away from the ridge and cool with time, they thicken and small-scale convection may begin in the underlying, low-viscosity asthenosphere. Although the general characteristics of this process are well known, there is much debate about the form of the convective flow beneath the plates and how this flow affects the formation and evolving structure of the plates.

Forsyth and his colleagues deployed an array of ocean-bottom seismometers in the western Pacific on the oldest seafloor that has not been disturbed by subsequent volcanic activity. For one year, these instruments recorded seismic signals generated by earthquakes all around the world. Variations in the frequency dependent arrival time of the signals at various stations and associated variations in amplitude of the signals provide the information needed to deduce the seismic velocity and attenuation within the lithosphere and asthenosphere, in this case in the oldest endmember of the process of lithosphere evolution. Seismic velocity and attenuation are both sensitive to temperature, the presence of melt, and the pattern of deformation accompanying flow in the mantle, thus making it possible to estimate plate thickness and the pattern of underlying convection. During his sabbatical, Forsyth completed the analysis of data from this experiment and prepared papers reporting the results, including the observation that the asthenosphere is just as attenuating here beneath 150 million-year-old seafloor as it is beneath volcanic arcs at subduction zones.

The second project was a large-scale, “community” seismic experiment involving many investigators from around the country. In this experiment, approximately seventy ocean-bottom seismometers were deployed four times, for periods of close to one year each time. The fourth deployment is still on the seafloor as of April, 2015. This deployment is designed to study the structure of the entire Juan de Fuca plate from its “birth” at the Juan de Fuca ridge to its “death” as it is subducted beneath the North American plate just seaward of Washington, Oregon and northern California. During his sabbatical, Forsyth worked on analysis of the first 3 years of data and developed new methods for improving the signal-to-noise ratio of long-period signals and for measuring shear velocities in the sediments overlying the basaltic crust created at the ridge axis.



Ocean bottom seismograph being deployed over the side of the ship in the western Pacific. The spherical package at the right contains the seismometer sensor itself in a titanium pressure vessel. The orange slabs provide flotation to return the instrument to the surface after releasing a flat iron anchor weight. The other parts include recording devices, precise clocks, and batteries.

Michael Frank

COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES • SPRING 2015

Professor Frank studies the neural mechanisms of action selection, reinforcement learning, and cognitive control – and how component processes of these functions go awry in neurological and psychiatric patient populations. Frank develops computational models motivated by anatomical, physiological, and functional constraints across species and test model predictions via multi-modal experimental techniques, including indices of neural function (electrophysiology, imaging, genetics), and causal manipulations (pharmacology, brain stimulation) in patient populations, healthy subjects, and animal models.


The coherency and consistency of this framework contributes to the burgeoning field of computational psychiatry. The time is ripe to apply these methods to a principled development of therapeutic efforts to counteract component processes of mental illness. These career objectives involve a mechanistic approach that will require the combination of multi-disciplinary techniques in tandem with multiple levels of computational modeling to characterize and quantify phenotypes. Frank's ultimate goal is to capitalize on these advances to develop computational and statistical clustering tools that can identify disease subtypes less reliant on traditional psychiatric classification and can be used to stratify therapeutic efforts.

The challenge of characterizing complex behavioral phenotypes with mechanistic descriptions is that our understanding of neural systems does not yet facilitate a complete account of human behaviors. By focusing on converging theoretical and cognitive neuroscience evidence, Frank's approach offers a quantitative and computational interpretation of previously qualitative diagnostic features, investigating how simple alterations to the corticostriatal system can underlie complex behavioral phenotypes. During his sabbatical Frank collaborated with researchers at the Donder's Institute with complementary expertise and methods, allowing them to quantify and predict phenotypes in individual subjects that are relevant for diagnostics and treatment, using imaging, computational modeling, and machine learning methods.

For theory development, Frank and his colleagues leveraged a combination of two distinct levels of computation. First, Frank's lab and others have established foundational theoretical work enabling functional depictions of corticostriatal circuits via dynamical neural systems models. Second, they adopt and refine higher level mathematical models to analyze the functional properties of the neurocognitive systems, affording a principled computational interpretation and allowing for tractable quantitative fits to brain-behavior relationships.

For empirical testing, Frank characterized neural mechanisms of human behavior, including aberrations and individual differences thereof. He designs computerized tasks sensitive to the hypothesized neural computations that probe reinforcement learning, cognitive control, and reward-based decision making under conditions of uncertainty. He provides quantitative estimates of individual performance parameters using mathematical models.

The key objective of Frank's research at the Donders is to contribute to isolating factors that determine whether dopaminergic drugs improve or impair cognition. Many neuropsychiatric disorders are accompanied



by cognitive deficits, which can be treated with dopaminergic drugs (e.g., Ritalin). However, the direction and extent of drug effects vary greatly across different individuals and tasks. Apparently paradoxical effects are often observed, where the same medication causes both cognitive enhancement as well as cognitive side effects. Using computational approaches, Frank's research contributes to elucidating the nature of these contrasting effects and the factors underlying the large variability across individuals and behaviors. The work will have considerable implications for the understanding of and development of treatments tailored to individuals.

Isolation of dopamine's effects on cognition requires first and foremost taking into account individual differences in baseline levels of dopamine. In preliminary collaborative work, Frank's team has shown that there is an 'inverted-U'-shaped relationship between dopamine and cognitive performance using the only technique available for measuring brain dopamine in humans: positron emission tomography (PET). That is, the direction and extent of dopaminergic drug effects on cognition depend on the individual's baseline dopamine state.

PET is expensive and often infeasible. Therefore, proxy-measures are needed that have been shown to correlate with baseline dopamine, including precise cognitive and motivational measures, physiological measures such as eye-blink rate, and common polymorphisms in dopamine genes. The interdependencies between these variables are currently unclear and the amount of variance explained by each variable separately is limited. Frank's work at the Donders has been to develop machine learning methods that estimate an optimal combination of proxy-variables to capture much of the variance of dopamine levels measured in a large sample of participants (n~100) for which PET data is available. The ensuing proxy-model of dopamine will provide behavioral predictors of dopamine that maximally generalize to new participants, offering a pragmatic handle on baseline-dependency and a tool that can be beneficial to the international research community more generally for both its theoretical value and practical utility to be able to predict in advance who will benefit from dopaminergic drug administration, and/or to tailor drug dose to the individual.

Mary Louise Gill

PHILOSOPHY AND CLASSICS • 2014-2015

During her sabbatical leave for the academic year 2014-15, Mary Louise Gill worked on two main projects: Plato's later metaphysics and Aristotle's hylomorphism, both involving an international component, the first strengthening current ties between Brown and Université Paris 1, Panthéon-Sorbonne, the second developing ties with Chinese scholars and students in ancient Greek, medieval, and classical Arabic philosophy especially at Peking University in Beijing.

In collaboration with Dimitri el Murr at Paris 1, Gill wrote a proposal to sponsor two conferences centering on Plato's *Timaeus*, the first at Brown in 2016, the second at Paris 1 in 2017, and secured partial funding from

the Charles K. Colver Lectureship fund for the Brown workshop. This project will reinforce the existing alliance between Brown and Paris 1 in ancient Greek philosophy: Gill gave five seminars on Plato at Paris 1 in May 2010, and Dimitri El Murr gave four seminars on Plato on Political Science at Brown in April 2015.




Plato's *Timaeus* is a natural next project after Gill's work on four late Platonic dialogues in her recent book *Philosophos: Plato's Missing Dialogue* (Oxford paperback 2014), because the *Timaeus*—widely regarded as a late dialogue—treats forms as separate from the things they explain, as in the middle dialogues, and this appears to be a reversion after Plato's critique of separate forms in the *Parmenides* and treatment of them in other late dialogues. Gill's graduate student, Lain Laidley, plans to address the question in his dissertation and will take part in both the Brown and Paris 1 conferences. In connection with the *Timaeus* project, Gill wrote a paper on the metaphysical section of another late dialogue, "The Fourfold Division in the *Philebus*," for an upcoming conference in Spetsis, Greece. Her paper, "Plato's Unfinished Trilogy: *Timaeus*—*Critias*—*Hermocrates*," takes up a related theme in her recent book—why is the final dialogue in that series missing?—and is forthcoming in a collection, edited by G. Cornelli, to be published by de Gruyter.

Gill gave "The Plato Lecture" at St. Michael's College, Colchester, Vermont, the same talk, "True Rhetoric and Philosophy in Plato's *Phaedrus*" at MIT, and finally presented the work as a seminar at Northern Arizona University during her sabbatical. A three-day workshop on Gill's views on Plato's method of division took place at NAU, and these discussions contributed to the substantive update of Gill's entry, "Method and Metaphysics in Plato's *Sophist and Statesman*," in the *Stanford Encyclopedia of Philosophy*. Her paper, "Design of the Exercise in Plato's *Parmenides*," appeared in *Dialogue* 53 (2014).

The most exhilarating part of Gill's sabbatical was a five-week visit to China in April-May, 2015, to give an intensive seminar (13 sessions) on Aristotle's *Metaphysics* at Peking University. She also led three Greek reading groups and gave five talks on Aristotle and one on Plato at other Chinese Universities. Chinese scholars and students are keenly interested in western philosophy, literature, and culture, and are undertaking a massive translation project of ancient Greek texts (and modern scholarship) into Chinese. Numerous Chinese and western scholars are also engaged in comparative studies. In December Gill participated in a conference titled "Images, Analogies, and Paradigms in Ancient Greece and China" at the University of Bern, Switzerland, where she gave a paper "Paradigms in Plato's *Statesman*," and had the opportunity to learn about some exciting comparative work. She looks forward to teaching in China again and to establishing lasting ties between Brown and Chinese institutions, especially Peking University.

In connection with her work on Aristotle, Gill gave a paper, "Virtue and Reason in Aristotle's *Nicomachean Ethics*," at the University of Arizona in October, and this paper was published in D. Henry and K. Nielson (eds.), *Bridging the Gap between Aristotle's Science and Ethics* (Cambridge, 2015). Another paper, "The



Problem of Aristotelian Substance,” was published in C. Cerami (ed.), *Nature et Sagesse* (Peeters, 2014). She also gave a lecture on Aristotle’s Hylomorphism at Northern Arizona University in October, and the same paper, plus a seminar on Aristotle’s Teleology, at the University of Bern in December. The latter paper was published as “The Limits of Aristotle’s Teleology in *Meteorology* IV.12,” in *HOPOS* 4 (2014), and is part of an ongoing collaborative book project on *Meteorology* IV (Aristotle’s chemical treatise) under contract with Oxford University Press.

Mary Gluck

HISTORY AND JUDAIC STUDIES • FALL 2014


Professor Mary Gluck spent the fall semester of 2014 on sabbatical leave. She was able to complete her manuscript on *The Invisible Jewish Budapest*, which will be published by the University of Wisconsin Press in 2015.

The Invisible Jewish Budapest explores such characteristic expressions of urban modernity as the coffee house, the humor magazine, the music hall and the mid-cult literary magazine, which became markers of a specifically Jewish-identified modernity in *fin-de-siècle* Budapest. The book argues that these institutions did more than invent new forms of sociability and popular amusement for the city’s Jewish and non-Jewish population. They also created narratives of everyday life, social satire and cultural stereotypes, which eroded ingrained prejudices and blunted the accelerating ideological conflicts of the official public realm. While this modern urban culture was not explicitly political, it challenged the cultural vision of both the Hungarian political elite and the Jewish religious establishment. Hence the world of Budapest commercial entertainment was rendered symbolically, if not physically, invisible in canonical narratives of Hungarian and Jewish life. *The Invisible Jewish Budapest* attempts to reverse this trend by making this creative, and mostly forgotten, modernist culture once more visible and legible.

Dana Gooley

MUSIC • 2014-2015

Professor Dana Gooley devoted his sabbatical, supported by a grant from the Howard Foundation, to the completion of a book manuscript entitled *Sounding Side-Ways: Improvisational Aesthetics in Nineteenth Century Music*. This book documents the persistence of free improvisation among keyboardists and other instrumentalists during a period normally considered devoid of improvisation. Its central chapters



reconstruct the improvisational techniques and strategies of figures such as Robert Schumann, Carl Loewe, Franz Liszt, Johann Nepomuk Hummel, Felix Mendelssohn, and Frederic Chopin. Each case study considers the motivations for improvising and the ambivalences that musicians felt as free improvisational practices went into decline. The book further shows the gradual emergence of a positively-charged idea of musical improvisation in criticism, novels, essays, and operas. Such idealized representations of improvisation evidently compensated for a loss of the pleasures of actual improvisation.

“Classical” musicians and their audiences, in other words, were never fully content with the loss of improvisation, though it has been revived only in recent times. During his sabbatical Professor Gooley was invited to speak on this topic at University of Cardiff (Wales), Cornell University, University of Rochester, Case Western Reserve University, and at the annual meeting of the American Musicological Society in Minneapolis. He carried out further archival research in the libraries of Vienna and Berlin, and his article “Liszt, Improvisation, and the Idea of Italy” was published in the essay collection *Liszt’s Legacies* (Pendragon Press, 2014).

During his sabbatical Professor Gooley also launched a new scholarly project on music and cosmopolitanism that will become an edited essay collection. The topic of cosmopolitanism—as a philosophical stance, an ethical critique, or a practice of transnational interconnection—has been discussed extensively in recent cultural studies, sociology, anthropology and the humanities, but it has yet to impact the work of music historians in a significant way. This is especially surprising given music’s exceptional relation to transnational networks, and one ambition of this project is to challenge the dominance of national frameworks in music historiography. Gooley gave talks on this topic at conference in Pistoia, Italy and King’s College London. He was invited to organize a follow-up conference at King’s College London that took place in May 2015, and at which several contributors to the essay collection met for the first time. His own chapter is about Giacomo Meyerbeer, arguably the most famous opera composer of the nineteenth century, and widely considered to be the most cosmopolitan musician of his time. At the height of Meyerbeer’s fame the epithet “cosmopolitan” had a strongly derogatory and anti-semitic tinge, and this negative view of cosmopolitanism lodged itself deeply in the perspective of music historians. Gooley’s essay thus focuses on lesser-known, positive valuations of cosmopolitan music from the nineteenth century and calls into question the supposed dominance of national values.

Tim Harris

HISTORY • 2014-2015


Professor Tim Harris spent the summer of 2014 in the UK, doing research in the archives in London and in Cambridge. During this time he also gave keynote addresses at two major international conferences in London: one at the Institute for Historical Research, the other at Birkbeck, University of London.

Harris spent the academic year as the Fletcher Jones Foundation Distinguished Fellow at the Huntington Library, San Marino, California – in residence from the beginning of September through the end of May.

He was working on three book projects during his time there:

- 1) a study of Britain's century of revolutions, 1603-c.1691, which Oxford University Press has expressed an interest in publishing. This will be a c. 500-page book looking at the revolutionary upheavals in England, Scotland, and Ireland across the century, dealing with the interaction of high and low politics, politics from below as well as above, and the revolutionary dynamics both within and between the three kingdoms, as various political and religious interests sought to reform/revolutionize existing power structures in church and state in their own realm and to renegotiate the nature of the imperial relationship between England, Scotland, and Ireland;
- 2) an in-depth re-examination of the revolutionary upheavals in Britain and Ireland in the 1640s, provisionally titled *Regicide: The Monarchy on Trial, 1642-49*. This will complement his existing trilogy of studies *Rebellion: Britain's First Stuart Kings, 1567-1642* (2014), *Restoration: Charles II and His Kingdoms 1660-1685* (2005), and *Revolution: The Great Crisis of the British Monarchy, 1685-1720* (2006);
- 3) a study of national stereotyping and religious prejudice in early modern England, from the late Reformation through to the early Enlightenment. In particular, this will examine English attitudes towards religious minorities within their own country (Catholics, Puritans, nonconformists); towards the non-English peoples who inhabited the British Isles (the Welsh, the Scots, and the Irish); and towards foreigners (Catholic and Protestant Europeans, and also Jews and Turks, amongst others).

During the tenure of his fellowship Harris focused on doing research in the Huntington's manuscript and rare books collections. The Huntington houses an enormous amount of archival material relevant to his research interests – particularly in the Ellesmere, Hastings, Huntington, and Temple-Stowe collections. He also did some writing and oversaw the publication of a number of items. He worked on the proofs for the paperback edition of *Rebellion*, which will be published by Oxford University Press later this year (October 2015), and on the paperback version of his *The Final Crisis of the Stuart Monarchy: The Revolutions of 1688-91 in their British, Atlantic and European Contexts* (2013), co-edited with Stephen Taylor. Essays he worked on or saw through to publication include: 'The Restoration in Britain and Ireland', in Michael Braddick, ed., *The Oxford Handbook of the English Revolution* (Oxford University Press, 2015), 204-19; 'Sexual and Religious Libertinism in Restoration England', in Matthew C. Augustine and Steven N. Zwicker, eds., *Lord Rochester in the Restoration World* (Cambridge University Press, 2015), 162-183; 'The Dissolute Court and Retribution', *National Maritime Museum Pepys Exhibition Catalogue* (Thames and Hudson, 2015), 62-68; 'Did the English have a Script for Revolution in the Seventeenth Century', in Keith Baker and Dan Edelstein, eds., *Scripting Revolution* (Stanford University Press, forthcoming), 25-40; 'Francophobia in Late-Seventeenth-Century England', in Tony Claydon and Charles-Edouard Levillain, eds., *The World of Louis XIV* (Ashgate, forthcoming); and 'Revisiting the Causes of the English Civil War', *Huntington Library Quarterly* (forthcoming). He is also working on an article on 'Religious and National Stereotyping in Seventeenth-Century England' for a book entitled *Stereotyping in Early Modern Britain: An Interdisciplinary and Comparative Approach*, edited by Koji Yamamoto.



Harris gave various presentations at the Huntington over the year: a paper on ‘Religious and National Stereotyping in Seventeenth-Century England’ to the long-term fellows lunchtime workshop; another about ‘Political communication and popular political engagement in the three kingdoms: Was there such a thing as “British public opinion”?’ at the Huntington Library/USC Early Modern Studies Institute seminar; and a public lecture on ‘Britain’s Century of Revolutions Re-Considered’ (<https://itunes.apple.com/us/itunes-u/early-modern-history/id474264362?mt=10>). He also spoke about his work at graduate seminars at USC, UCLA, and UC Riverside, and at conferences at USC, Las Vegas, and Minneapolis. In addition, he appeared on The Colin McEnroe show on WNPR, Hartford, Connecticut, discussing with Charles Spencer, 9th Earl Spencer, the Earl’s recent *Killers of the King: The Men Who Dared Kill Charles I*. McEnroe and the Earl were in Hartford, but Harris broadcast live from the Keck Conference Room in the Huntington (<http://wnpr.org/post/who-killed-king>). In addition, he did a brief blog for the Huntington Library’s exhibition on the 800th anniversary of the signing of the Magna Carta (<http://huntingtonblogs.org/2015/06/running-at-runnymede>).

Richard Heck

PHILOSOPHY • FALL 2015

It has long been known that there are important connections between truth and logical consistency, perhaps the simplest of which is that, if a theory is true, then that looks to guarantee that it is consistent. But getting a really rigorous characterization of this relationship is not easy. Several years ago, though, Professor Richard Heck was able to prove a result that did precisely that. It shows that, in a certain well-defined sense, adding an axiomatic theory of truth to some mathematical theory *T* has the same logical strength as adding the statement that *T* is consistent. Getting all the details right, in the very abstract setting in which Heck wants to work, has taken a long time, but these results are now finally being published in “Consistency and the Theory of Truth”, which is forthcoming in *Review of Symbolic Logic*.

In fact, through the wonder of the World Wide Web, the results themselves are already well-known, and other researchers, including Martin Fischer, Volker Halbach, Graham Leigh, and Carlo Nicolai, have already started building upon them.

Originally, though, Heck’s interest in these topics was driven less by mathematical concerns than by a set of philosophical questions about the notion of truth. Many philosophers – so-called deflationists – hold that, in some sense, the notion of truth is really quite trivial. Heck’s goal, building on the work of Jeffrey Ketland and Stewart Shapiro, was to show that truth can’t be trivial, because axiomatic theories of truth have non-trivial logical strength: the same strength as if we’d added a consistency statement, which, as Gödel showed us, adds logical power. A second paper, “The Logical Strength of Compositional Principles”, which is forthcoming in *Notre Dame Journal of Formal Logic*, tries to make that argument, and to defend it from certain clever objections that have been put to Heck as he has discussed it with friends and colleagues.

Other papers in this same vicinity are in the works, too. “Disquotationism and the Compositional Principles”, which should be finished soon, attempts to refute the most extreme form of deflationism by arguing that it is incompatible with a proper appreciation of the insights that semantic theory makes available to us. And “What Is Essential Richness?” uses some of the technical results established in “Consistency and the Theory of Truth” to try to explain some gnomic pronouncements about truth made by the originator of the mathematical investigation of truth, Alfred Tarski.

Peter Heywood

MOLECULAR BIOLOGY, CELL BIOLOGY, AND BIOCHEMISTRY • SPRING 2015

Professor Peter Heywood spent his sabbatical leave writing about the life and restoration (re-breeding) of quaggas, which went extinct in the nineteenth century. Heywood brings a scientist’s eye to historical evidence about these animals. His presentation of their existence and extinction highlights their biological characteristics and their status in scientific research.

Quaggas, partially striped zebras living in South Africa, had a distinctive appearance: instead of black stripes against a white background, their faces, necks and fore-bodies had dark reddish-brown stripes against a lighter reddish-brown background. Posterior to the shoulders, the contrast between the stripes and the background coloration lessened progressively until at the hind-bodies the upper part of the bodies lacked stripes and had a uniform reddish-brown coloration, which at its lower extremities graded into the white of the legs and belly.



During his sabbatical, Heywood authored a manuscript, “The micro-politics of macromolecules in the taxonomy and restoration of quaggas,” which is being revised for publication in the historical research journal *Kronos*. He wrote several chapters of a book tentatively titled, *The Life and Afterlife of Quaggas*, which details the biology and environmental history of these zebras.

In Europe, quaggas lived in menageries, were portrayed by renowned painters such as Nicolas Marechal and Jacques-Laurent Agasse, and even pulled Lord Rothschild’s carriages. Since quaggas and horses were closely related, they were mated together, and the outcome of this breeding influenced the thinking of scientists, including Charles Darwin, about a mechanism of inheritance termed telegony. Heywood’s writing traces

how telegony was accepted for much of the nineteenth century, how it influenced the work of such authors as August Strindberg, and how it came to be disproved.

On some South Africa farms quaggas were kept with livestock because they could detect carnivores from afar and alert farmers with their warning cries, and they could bite and kick predators that came close. If obtained young and properly trained, some quaggas could be used to pull wagons and might even have been preferable to horses, which were more susceptible to African horse sickness and trypanosomes. Unfortunately, quaggas were not widely used for protection or traction. Instead, they were shot for their hides and were excluded from water sources and grazing land that was increasingly being used to support farm livestock. They became extinct in the wild in the 1870s and the last of their kind died at Amsterdam Zoo in 1883.

Heywood's writing describes how in extinction quaggas inspired stories, poems, and illustrations, and shared their name with a mussel, software, and a Star Wars character. He notes that they have become, too, a powerful symbol of anthropogenic extinction.

Fortunately, the story does not end here. Proteins extracted in the 1980s from quagga tissues left attached to skins of taxidermy specimens demonstrated that they were not a separate species. Rather, they were the least striped subspecies of the plains zebras, which was then given the binomial name *Equus quagga* to reflect this taxonomic revision. Sequencing of mitochondrial DNA from these tissues confirmed that quaggas were conspecific with plains zebras. Equally importantly, this analysis was the first occasion that DNA from an extinct organism had been sequenced, an innovation that marked the inception of the science of paleogenomics.

The demonstration that quaggas were a subspecies of plains zebras suggested that genes for their distinctive coat coloration might still exist within populations of plains zebra. This reasoning led the Quagga Project in South Africa to select in 1987 a founder population of plains zebras that most closely resembled quaggas in their reduced striping and coat coloration. Careful selection of the least striped descendants of these animals has been carried out over five generations, yielding animals with reduced striping. Some of these restored quaggas have been returned to former habitats of quaggas, where their grazing of invasive species might help to improve the vegetation of degraded environments.

The Quagga Project has brought together, among others, lovers of nature and equines, conservation and commercial organizations, scientists and hunters. Moral duty, prestige, and making amends are among the various and overlapping reasons for giving support in cash and kind, and media attention throughout has served to keep this restoration in people's minds. Although the concerns and goals of these various stakeholders differ, all overlap in the restoration of quaggas. In describing the organization and history of the Quagga Project, Heywood's writing makes the case that its approach of bringing together a heterogeneous group of people to achieve a common goal could be applied successfully to conservation projects.

Bonnie Honig

MODERN CULTURE AND MEDIA AND POLITICAL SCIENCE • SPRING 2015

Professor Bonnie Honig spent most of her sabbatical working on a book project called *Public Things* in which she argues for the centrality of public things to democratic forms of life. In essence, the argument of the book is this:

The attention of a great deal of political theory has been fastened for a while now on the necessary conditions of democratic life such as just procedures, free and fair elections, mechanisms of deliberation, the constitution of the demos, the security of territorial boundaries, or the need to rethink democracy in transnational terms. Most recently, Wendy Brown (in *Undoing the Demos*) has called attention to the stealthy work of neo-liberal rationality, which infects but does not obviously overturn such democratic commitments to process. People who are now trained to think of themselves as a resource to be invested in for future profits lack the orientations needed by democratic forms of life. Citizenship itself is undone by neo-liberalism's unrelenting and commanding calculations of worth.

Thirty years ago, Michael Walzer, too, noticed the tendency of certain kinds of calculation to bleed into other domains of life to which they were ill-suited. His response, in *Spheres of Justice*, was to propose that the conceptual boundaries that distinguish them be strengthened. We should, Walzer argued, think of justice in terms of spheres. In different spheres of life, different values reign. Efficiency need not be a vice or a threat. It has its place. Now, Brown argues, the genie is out of the bottle. Efficiency is no longer one value among others. It has become rationality itself and everything is assessed through its filter.

In such a context it may seem downright nostalgic to suggest we think about public things and their role in democratic life. The horse has gone out of the barn and there is no getting it back, some may well object. But the idea that motivates *Public Things* is that it might be useful to think about public things now because they are a necessary if not sufficient condition of democratic life. The best way to understand that claim is by way of the work of D.W. Winnicott, who makes the case in object relations psychology for the centrality of objects to the developing infant's capacity to relate to the world as an external reality. What if the same is true – analogously – for democratic citizens? That is, just as the baby, on Winnicott's account, needs its transitional object (e.g. the blanket) to supply it with a kind of object-ivity, or realness, so too democratic forms of life depend partly upon public things to help collect diverse citizens into publics that can be self-governing. In Winnicott, dispersion is always a psychological possibility and the therapeutic aim is to be (self-)collected. In political theory, where collectivity is the basic unit of analysis, we can see by analogy how collectivity (just like personality, in Winnicott) postulates successful acts of collection and re-collection and that these acts or experiences occur in relation to objects: hence Winnicott's initial term – object relations.

Honig wrote or rewrote two of the book's chapters during her sabbatical. One, given as the Maxwell Lecture at the University of Utah in 2014, is now an essay called: "Public Things: Jonathan Lear's *Radical Hope*, Lars von Trier's *Melancholia*, and the Democratic Need." It will appear shortly in *Political Research Quarterly*, with replies by Jason Frank and James Martel.

Another public thing is the practice of Sabbath. In the nineteenth century, the Sabbatarian movement in the US protested the violation of Sabbath by postal workers who worked on the day of rest. In the Sabbatarians' view, it was important to resist the privatization of Sabbath into mere (and optional) leisure. They worked to maintain it as a public thing. Honig devotes a chapter to this topic in *Public Things*, from which she drew another paper this year, forthcoming as "The Laws of the Sabbath (Poetry): Arendt, Heine, and the Politics of Debt," UC Irvine Law Review, special issue *Law As...III, Glossolalia*, ed. Christopher Tomlins (2015).

Honig also began work on a new project, *The King's Three Bodies: essays on the animality of sovereignty*, which will have chapters on *The Bacchae*, *Moby-Dick*, and *Leviathan*. Honig presented a paper from that project – "The King's Three Bodies: Lion, Leviathan, and the Democratic Imagination Gone Wild" – at Northwestern's annual "Law in Motion" lecture, and at the Western Political Science Association Meetings.

In addition, Honig co-edited a collection on political theory and the films of Lars von Trier, a special issue of *Theory & Event* (a project supported by numerous sources at Brown). This edited collection was put together by Honig and her co-editor Lori Marso based on a Brown conference hosted by Honig and her MCM colleague Tony Cokes in November 2014. Honig spent much of her leave time editing the sixteen papers that appear in the collection and writing her own contribution – "Out Like a Lion: Melancholia with Euripides and Winnicott," – as well as the introduction, co-authored with Lori Marso: "Lars von Trier and the 'Clichés of Our Times,'" (in *Theory & Event*, special issue on the films of Lars von Trier: *Breaking the Rules: Gender, Power and Politics in the Films of Lars von Trier*, ed. Bonnie Honig and Lori Marso (April 2015)). They have been offered a contract by Oxford University Press to republish the collection as a volume for their list.

Elizabeth Hoover

AMERICAN STUDIES • 2014-2015

Professor Elizabeth Hoover received a Ford Foundation Postdoctoral Fellowship to work on her current book project "*The River is In Us*," *Fighting Toxins in a Mohawk Community*. In addition she made progress on her second book project From "*Garden Warriors*" to "*Good Seeds*," *Indigenizing the Local Food Movement*.

During the summer of 2014, with the assistance of a Salomon Faculty Research Grant, Hoover took a 20,000 mile road trip around the country, visiting forty-one different Native American community farming, gardening, and seed saving projects. During her travels, she interviewed sixty-three participants about the motivations behind their work, their successes and failures, and the different ways they define "food sovereignty." During the fall these interviews were all transcribed and information and photos about each organization featured in the blog www.gardenwarriorsgoodseeds.com. Video gathered during the trip by Angelo Baca (visiting lecturer in Ethnic Studies at Brown) will eventually become a feature-length documentary. Material from this project was presented at scholarly conferences (the Ford Foundation conference, the American Studies Association Annual Meeting, and the Native American and Indigenous Studies Association

Annual Meeting), as well as on a panel about traditional seeds at the Terra Madre/Slow Food International conference in Turin Italy, in a keynote speech to Native food producers at the Great Lakes Indigenous Farming Conference in White Earth Minnesota, in an Earth Day keynote speech at the Hamburg Museum of Ethnology in Hamburg Germany, and in a talk to the Smithsonian Museum of Natural History as part of assembling an introductory volume to the *Smithsonian Handbook of the North American Indian*.

During this sabbatical, Hoover also worked on her first book manuscript “*The River is In Us; Fighting Toxins in a Mohawk Community*,” which details the experiences of an American Indian community contending with the cultural, health, and economic impacts of environmental contamination. Akwesasne is a Mohawk community located on the New York/Canadian border, downwind and downstream from one federal and two state Superfund sites. Upon the discovery that the river that bisects her community had been contaminated with PCBs, Mohawk midwife Katsi Cook began to connect the contamination to the miscarriages and birth defects she had been witnessing among the women she worked with. Employing what she calls “barefoot epidemiology,” Cook took her concerns to New York State, requesting their help in quantifying levels of contaminants in local food, as well as Mohawk bodies. Their collaborative preliminary research led to the nation’s first large-scale community based participatory research (CBPR) project, in which the Akwesasne Mohawks partnered with the State University of New York at Albany, and for which Mohawk women were trained to collect breast milk, blood, and psychological assessments. For her project, Hoover interviewed scientists, Mohawk field workers, and study participants in order critically to examine how environmental health research is conducted and the impact it has had on participants. Hoover’s book also examines the impact of a changing diet and food culture on the health and culture of this community, and the links between environmental contamination and rising rates of diabetes. The book concludes by exploring the concept of environmental reproductive justice, and what expanding notions of biological and cultural reproduction mean in this community.

During the sabbatical year, Hoover and co-authors published “Social Science Collaborations with Environmental Health” in *Environmental Health Perspectives* and submitted an article titled “We’re not going to be guinea pigs,” Citizen Science and Environmental Health in a Native American Community” to the *Journal of Science Communication*’s special issue on Citizen Science. Hoover was also grateful this year to receive the Dean’s Award for Excellence in Teaching in the Humanities/Social Sciences, the *Oshkiigitiged* award – issued by the White Earth Land Recovery Project for her work with indigenous food producers, and an appointment as the Manning Assistant Professor of American Studies.

Captions for photos on next page.

Photo A: Professor Hoover braiding traditional white corn with Anne Marie Cross in Akwesasne as part of the Kanenhi:io lonkwaienthon; hakié project

Photo B: In order to learn more about traditional food advocates who are fighting extractive industries, Professor Hoover joined a horseback ride across northern Minnesota sponsored by Honor the Earth, which is currently fighting to prevent the Sandpiper pipeline from crossing their wild rice beds

Photo C: Young Mohawk gardener Ionawaienhawi holding Darwin John Calico Corn, a Haudenosaunee heritage seed variety. Ionawaienhawi and her family are part of the Kanenhi:io lonkwaienthon; hakié project at Akwesasne. (photo by Elizabeth Hoover)

Photo D: Cochiti Pueblo farmer Jayson Romero holding his family’s blue corn. Photo by Angelo Baca

Photo E: The Romero family’s corn (Cochiti Pueblo). Photo by Angelo Baca

Photo F: Hoover planting tomatoes with the Hopi Tutskwa Permaculture Project (Photo by Angelo Baca)



Stephen Houston

ANTHROPOLOGY, ARCHAEOLOGY AND THE ANCIENT WORLD, AND HISTORY OF ART
AND ARCHITECTURE • 2014-2015

Professor Houston's sabbatical year was busy with writing and travel. Housed at the Center for Advanced Study in the Visual Arts, at the National Gallery of Art, he gave talks in Chicago, Mexico City, Lima, San Francisco (the national archaeology meetings), New Orleans, and twice at CASVA. With colleagues, Houston planned for, and sought funding from the National Geographic Society, to explore the possible tomb of a Maya queen at El Zotz, Guatemala – that excavation will take place in late May and continue into early June. Houston prepared two articles for volumes on the nature of writing systems (to be published at the Oriental Institute, with Professor Felipe Rojas of Brown), a chapter for an exhibit to be held at the Getty Museum and the Metropolitan Museum of Art, an article in *Arqueologia Mexicana*, and another piece commissioned by *Antiquity*. Despite being on sabbatical, Houston served on three committees at Brown, chairing two of them, and continued to advise graduate students, including one who has just received the Joukowsky dissertation prize for the social sciences. Finally, Houston participated in a multi-stage research project with an international group of colleagues. This was convened by the Getty Research Institute to study the concept of “luxury” in ancient America.

Two book projects took up most of Houston's leave. The first was a definitive edition, with colleagues, of the Grolier Codex, one of four known ancient Maya books and highly controversial to some scholars. This volume aims to demonstrate its clear authenticity and restore it to the canon of indigenous, Pre-Columbian literature of the New World. A lengthy commentary, figures, and drawings will accompany a new facsimile edition, prepared from large-scale negatives of the original.

The other book project occupied the majority of Houston's leave, however. This was *A Splendid Predicament: Young Men in Maya Imagery and Text*. Houston proposed that a central concern in Maya imagery and texts was the task of “growing men.” Boys and teenagers, always elites in surviving evidence, were conceived as vegetal sprouts (*ch'ok*), a decipherment made some decades ago but left partly in fallow. For Classic rulers, the hope was that youths would grow to become kings and nobles, ready to govern, maraud, game, feast, and reproduce. The resemblance to plants was more than simile. Ancient Maya consumed kernels as cobs or ground into dough for tamales and porridge. But they also understood human flesh to be maize-like, the intended food of deities. Use of the *ch'ok* title spanned the Classic period. As a title of young lords, however, it first came into use as a martial title linked to the central Mexican empire of Teotihuacan. Teenage years carried another feature: although profoundly personally, they often concentrated on joint residence and group activity.

A rich vocabulary of Maya glyphs, often serving to caption images, moored several themes in Houston's book. One was of “liquid passage,” in which painters identified the finest ceramics as the possessions of young men. Made to hold chocolate drinks, a large percentage of such vases belonged to particular youths, their names recorded in rim-band texts; others, pertaining to generic youths, had more elastic, even impersonal use. In either case, the pots likely celebrated rites of passage. Production of such ceramics was

episodic but copious, with some princes receiving large numbers of pots for further distribution to other nobles. Through acts of spirit possession, gods, too, might own vessels or “drink” from them. Scenes painted or engraved on the ceramics probably served a didactic or hortatory purpose. They did not so much detail specific lives, the biographies of owners, as extol gods and praiseworthy courts.

A second theme of the book paired the act of “setting apart,” a physical and social segregation, with the assembling of young lords. Key images illustrated—and buildings housed—sundry acts of virile initiation, some with homoerotic properties. Younger males endured painful ordeals that introduced them to the duties of fasting and bloodletting. Under older supervision, older youths gathered for raucous feasts, as depicted in tableaux of excess and abandon. Or, arriving as pilgrims and working as painters, they stepped with care into caves for journeys of self-discovery in the company of older males. Mythic images modeled homoerotic couplings, including liaisons between youths and men of more advanced age. The cave of Naj Tunich, Guatemala, and an edifice at Rancho San Diego, Yucatan, appear to have operated largely as single-sex places. After emergence, youths would reenter a world of two genders and expected marriage.

A third and final theme addressed the tale of a “good prince,” an interpretation, secured by infrared imaging, of the celebrated murals at Bonampak, Mexico. According to glyphic texts, these paintings offer an elaborate, chaptered narrative of an heir to a kingdom just before the Maya Collapse in the ninth-century AD. One of three probable brothers, a prince known as “Puma” (*Kooj*), was highlighted throughout. In two of the three chambers, he performed as a ritual dancer, embodying dynastic tribute and solar sacrifice. The central room, where *Kooj* fought with his father and grandfather, featured his prowess in battle and reinforced the youth’s qualifications for rule. A final section of the book raised a (chocolate) cup to the old men that young men would become; works were created for them, tagged with glyphs for *mam*, “grandfather,” a term referring equally to “grandson.” Withered by age, bony and gap-toothed, older males mirrored some of the ambivalence directed at young men. When shown as gods, some were over-sexed or materially acquisitive, warning of masculine life that ended, not in honored wisdom, but cuckoldry and ridicule. Most of the volume is now complete, and will be submitted to an interested press by early fall.



The image is of young men, Xultun, Guatemala, c. AD 650, copyright John Taylor

Yongsong Huang

EARTH, ENVIRONMENTAL, AND PLANETARY SCIENCES • SPRING 2015


Professor Huang's sabbatical in spring 2015 was been highly productive and highly rewarding. First, it allowed Huang to participate for two months in the international ocean drilling project (IODP) called Indian Monsoon. Huang had not previously participated in IODP expeditions: the new experience will broaden his research programs and allow him to submit proposals to new NSF programs. Secondly, the sabbatical leave allowed Huang to develop and test a new research idea and direction on using fossil bones to reconstruct paleoclimate change. With the preliminary results generated in his lab, Huang initiated a collaborative project with colleagues at Brown's Archaeology and Anthropology departments: a 2015 university seed grant is awarded by Brown University during this semester. Thirdly, Huang was awarded two new NSF grants on proposals reviewed during the sabbatical time, and wrote a completely new grant proposal that is current in review. Huang is especially excited with the new grant proposal developed during his sabbatical since it represents fundamental progress in his study field (organic geochemistry), and he anticipated it will be funded (even if not on the first submission).

Huang also used his sabbatical time to ramp up the publications of his research group. A first authored paper entitled "Hydrogen and Carbon Isotopic Ratios of Polycyclic Aromatic Compounds in two CM2 Carbonaceous Chondrites and Implications for Prebiotic Organic Synthesis" is now in press in *Earth and Planetary Science Letters*, a leading journal in Earth Science. Huang would probably not have enough time to get this paper done without a sabbatical break. Other areas of progress during the sabbatical include a successful field expedition to Qinghai Tibetan Plateau and the arid northwestern region of China to collect samples, and initiation of new collaborative projects with colleagues in Chinese Academy of Sciences and Lanzhou University. Huang's graduate students have also made very fast progress in their research projects with more attention from him in the past semester: a series of papers representing major breakthroughs are either submitted for review or currently in preparation. Overall, the sabbatical has been an enormous boost to Huang's research programs and he thoroughly enjoyed the experience.

José Itzigsohn

SOCIOLOGY • FALL 2014

José Itzigsohn spent the fall semester of 2014 on sabbatical in Buenos Aires. He spent his sabbatical there because an important part of his current research focuses on Argentina and he has active collaborations with scholars there. During his time in Buenos Aires he had an informal affiliation with CEIL (Centro de Estudios e Investigaciones Laborales – Center for the Study and Research of Labor), one of the main social science research centers in Argentina.



Professor Itzigsohn's main activity during the sabbatical was research on the Argentine recuperated factories. These are enterprises that were taken over and are managed by their workers as workers' owned cooperatives. Itzigsohn is writing a book on how industrial democracy works in these cooperatives, focusing on how they organize decision making, how they organize the labor process, and how they operate as enterprises in their markets. He spent his sabbatical time analyzing materials that he had already collected, reading recent works and reports on the recuperated factories, and writing drafts of the book chapters. He advanced considerably with the writing of the book.

In addition, he worked with colleagues in Argentina on two different projects. He worked with Julian Rebón, a sociology professor at the Universidad de Buenos Aires (Buenos Aires University) and one of the most important young sociologists in Argentina on an article on the construction of solidarity in cooperatives. They presented the paper at the Sociology of Development conference that took place at Brown in March 2015 and they are now working on the paper to submit it for publication. He also worked together with Luis Donatello, a young Argentine sociologist based at CEIL, on a research proposal comparing the relationship between economic elites and the state in Argentina and the United States. They intend to submit the proposal for funding to the National Science Foundation (NSF).

Finally, Itzigsohn also participated in academic activities in Argentina. He presented a paper on the forms of nationalism in Latin America in conference on Nationalism, Religion, and Globalization organized by CEIL. This was an international event that brought together scholars of nationalism from Latin America, Europe, and the United States organized by CEIL. In addition, he gave two talks at the Centro de Estudios Avanzados (CEA – Center for Advanced Studies), a research center in the city of Cordoba. These talks focused on his U.S. based research. One of the talks was on his research on migration and class stratification in the United States and the second talk was on his current work on the sociology of W.E.B Du Bois.

Daniel Kim

ENGLISH • FALL 2014

Professor Daniel Kim spent his sabbatical working on his monograph, which is provisionally titled *The Intimacies of Conflict: A Cultural History of the Korean War*. He also delivered the final manuscript for an anthology that he is co-editing, *The Cambridge Companion to Asian American Literature*, which is due to be published by Cambridge University Press in the summer of 2015.

A primary aim of Kim's book is to open a window onto a conflict that is known to most Americans simply as "the forgotten war." While the conflict was a watershed event in the US history of race and empire, it has largely receded from view. This study seeks to remedy this, not by offering a comprehensive or totalizing historical account of it; rather Kim engages in a critical reading of significant literary, cinematic and journalistic works that illuminate how two histories that can easily be thought of as discrete came into

intimate convergence during this war—the first pertaining to the dramatic changes in American race relations that were catalyzed by the passing of Jim Crow and the second concerning the transformation of colonialism that emerged through the global struggle between capitalism and communism.

Part I of this study examines a body of cultural works from the 1950s that provide a portrait of what “the forgotten war” looked like to ordinary Americans before it was forgotten: Hollywood films, the mainstream press as well as black and Japanese American newspapers. These depictions make clear that the first war that the United States fought with an integrated military provided a particularly hospitable backdrop for staging a good number of compelling domestic dramas of race. All of these were, in a sense, family dramas, testifying to the great potential that America had for drawing blacks, whites and Asians together into a peaceable coexistence: not only as fellow anticommunists, democrats, and capitalists, but also as brothers and sisters, wives and husbands, parents and children. What these works illuminate are the “tense and tender ties” (to use Ann Laura Stoler’s phrase) that Korean War culture imagined between white, black, Asian and Asian American subjects

The works analyzed in Part II of this book—primarily novels by US writers of color that have appeared in the past fifteen years or so but also a selection of South Korean texts—comprise an exemplary archive of cultural memory that collectively helps to illuminate the interlocking imperial and domestic racial histories that shaped the Korean War and its long afterlife. In the past quarter century, a number of significant novels have been published in the United States that take the Korean War as a central topic of concern, written by a notably diverse group authors: Susan Choi, Rolando Hinojosa, Hwang Sok Yong, Chang-rae Lee, Ha Jin, Toni Morrison, Jayne Anne Phillips, and Paul Yoon. These works engender a critical awareness of how this conflict and its aftermath are embedded in a complex history of race and empire—one that involves not only the United States, but also China, Japan, and even Mexico. While this study examines works by Korean American and South Korean writers that suggest how the war’s trauma shaped the psyches of the many Koreans who emigrated from their homeland as well as for those who stayed, its aim is flesh out a collective relation to past suffering that moves away from mono-racial or nationalist conceptions of political identity and toward ones that are more ethically and ethnically supple. As such it addresses works that are written from a broad range of ethnic, racial and national perspectives, and it draws not only from the fields of Asian and Asian American Studies, but also American, African American, and Chicana/o Studies.

In October, 2014 Daniel Kim and his co-editor (Crystal Parikh, New York University) delivered to Cambridge University Press the final manuscript for *The Cambridge Companion to Asian American Literature*. The Companion series overall is aimed at a wide, non-specialist audience. The publication of this installment of the *Companion* makes clear that Asian American literary studies has developed into a substantial and vibrant field within English and American Studies since its inception in the 1980s. It provides readers with productive points of entry to the field, familiarizing them with the historical, social, and political contexts of Asian American literature, its traditional and emergent genres, as well as its theoretical traditions. It is due to be published in the summer of 2015.

Thomas Kniesche

GERMAN STUDIES • FALL 2014

Professor Kniesche devoted his sabbatical leave to writing the bulk of a book manuscript that he is preparing for publication in 2015. The title of the monograph is *Einführung in den Kriminalroman* (Introduction to the Crime Novel). The book will appear as part of the series *Einführungen Germanistik* with Wissenschaftliche Buchgesellschaft Darmstadt in Germany. In the summer and fall of 2014 Kniesche completed about two thirds of the manuscript, with chapters on the definition of the crime novel, the history of the genre, the various scholarly approaches to crime fiction, and a series of chapters on readings of individual texts, from Georges Simenon's *Pietr-le-Letton* to contemporary novels by Henning Mankell, Heinrich Steinfest, and Andrea Maria Schenkel.


Kniesche also worked on a second book project, entitled *A Companion to Contemporary German Crime Fiction*. This volume will be published by de Gruyter Verlag as part of their series *Companions to Contemporary German Culture*. He is serving as editor for this volume and, in addition to writing the introduction, he will also contribute a number of chapters on "German and International Crime Fiction" (with Jochen Vogt), "Modernity and Melancholia: Austrian Crime Fiction," and "History and/as Crime in Germany."

Brian Knight

ECONOMICS • 2014-15

Professor Brian Knight spent the academic year as a Visiting Professor of Economics at Harvard University, where he was hosted by the Lab for Economic Applications and Policy (LEAP). In addition to giving a series of guest lectures for Ph.D. students in the Harvard economics department, he presented his research at the Central Bank of Colombia, the University of Rosario, the European Economic Association conference, the Massachusetts Institute of Technology, the National Tax Association conference, Rice University, Carnegie Mellon University, and the National Bureau of Economic Research.

Most importantly, he continued his research in the areas of political economy and public economics and used the time to complete two research papers and to begin two new research projects. "Homophily, Group Size, and the Diffusion of Political Information in Social Networks: Evidence from Twitter" investigates the diffusion of political information in social networks characterized by homophily—a tendency to interact with similar individuals. This paper develops a model predicting disproportionate exposure to like-minded information and that larger groups have more connections and are exposed to more information. To test these hypotheses, data on links and communications between politically-engaged Twitter users are studied. The key finding is that users affiliated with majority political groups have more connections and are exposed to more information than the minority group. Likewise, users are disproportionately exposed to like-minded information and information reaches like-minded users more quickly.



“An Econometric Evaluation of Competing Explanations for The Midterm Gap” provides a unified theoretical and empirical analysis of three longstanding explanations for the consistent loss of support for the President’s party in midterm Congressional elections: (1) a Presidential penalty, defined as a preference for supporting the opposition during midterm years, (2) a surge and decline in voter turnout, and (3) a reversion to the mean in voter ideology. To quantify the contribution of each of these factors, the paper builds an econometric model in which voters jointly choose whether or not to participate and which party to support in both House and Presidential elections. Estimated using ANES data from both Presidential and midterm years, the model can fully explain the observed midterm gaps, and counterfactual simulations demonstrate that each factor makes a sizable contribution towards the midterm gap, with the Presidential penalty playing the largest role.

The first new project is titled “The Limits of Propaganda: Evidence from Chavez’s Venezuela” and investigates viewership responses to changes in the ideological content of television programming using variation induced by cadenas, unannounced takeovers of the public television airwaves by the government in Venezuela. Using high-frequency ratings data, the analysis documents that, consistent with the predictions of the model, the drop off in ratings when cadenas are aired is concentrated among viewers of news programming on opposition private channels, as opposed to viewers of news on pro-government public channels. Also consistent with the predictions of the model, the drop off in ratings for moderate private channels takes an intermediate value and is also stronger for viewers with access to cable channels, which are not required to air cadenas. Consistent with the latter result, viewership of an opposition cable channel rises during cadenas. To the extent that discounting of biased information by viewers is incomplete, these results suggest that these responses may lead to increased polarization along ideological lines and according to income.

Finally, “The Out-of-State Tuition Distortion” examines economic inefficiencies associated with non-residents paying higher tuition, when compared to residents, at public universities in the United States. While distinguishing between residents and non-residents is justifiable from the perspective of state governments, it may lead to economic inefficiencies from a national perspective. That is, distinguishing between residents and non-residents may lead to inefficiencies, with students matching to universities that may not be the best fit for them. This research aims to identify the responsiveness of college enrollment to tuition and to quantify the size of any welfare gains associated with reducing the gap between in-state and out-of-state tuition.

James Kuzner

ENGLISH • FALL 2014

Professor James Kuzner spent his research leave completing *Shakespeare as a Way of Life: Skeptical Practice and the Politics of Weakness*, to be published by Fordham University Press in 2016. The book shows how reading Shakespeare helps us to live with epistemological weakness and even to practice this weakness, to

make it a way of life. In readings of *Hamlet*, *Lucrece*, *Othello*, *The Winter's Tale*, *The Tempest*, and *Timon of Athens*, the book details how Shakespeare's works offer a means for coming to terms with basic uncertainties: about how we can be free, about whether the world is abundant, about whether we have met the demands of love and social life.

Though there exist many accounts of Shakespeare's skepticism, none approach it as does this book. Some accounts portray that skepticism as enabling—whether by fostering Keats' heroic, ultimately positive “Negativity Capability” or by serving as a subjective foundation for the tolerant, liberal state—while others portray it as a corrosive disease, in need of cure. While not denying these possibilities, *Shakespeare as a Way of Life* presents an alternative, attending to varieties of skepticism that keep negative capability negative but that make skepticism livable—that ask for a lasting disorientation, for practicing the impractical, for a drastic reshaping of the frames by which readers view and negotiate the world.

The value that the book finds in reading Shakespeare thus cannot be counted among the values that cognitive scientists and literary critics often attribute to Shakespeare: that his work clarifies our sense of ourselves, of others, and of the world; heartens us about human capacity for insight and invention; and sharpens our ability to appreciate and adjudicate complex problems of ethics and politics. This book shows how Shakespeare's plays yield cognitive discomforts, and how it is just these discomforts that make the plays worthwhile.

Stephen Lichtenbaum

MATHEMATICS • 2014-2015

Professor Lichtenbaum spent most of the year finishing a major paper giving a conjectural formula for values of zeta functions at integer points in terms of cohomological Euler characteristics. The detailed description of this formula is probably out of place in a volume such as this, but he would like to emphasize the esthetic considerations that arise. Previously, other conjectural formulas have been given for such values, but only in a very ad hoc fashion. What Lichtenbaum has done is to give a coherent account of what such formulas should look like, which should eventually lead to insights into how to prove such things. Because the formula is beautiful, it is likely to be true, because that is the way mathematics works.

Brad Marston


PHYSICS • FALL 2014

Professor Brad Marston spent his fall 2014 sabbatical in Europe as a visiting professor at the Laboratoire de Physique of the École Normale Supérieure in Lyon, France (ENS-Lyon), and the Centre National de la Recherche Scientifique (CNRS). Marston and his family rented a home in the town of Saint-Genis-Laval to the south of Lyon. Marston's 10-year old daughter enrolled in French public school while his wife analyzed genomic data that she had collected in her lab during the prior year.

Marston concentrated on the use of non-equilibrium statistical physics to describe components of the climate system (atmosphere, oceans, and clouds), an effort called Direct Statistical Simulation (DSS). DSS uses ideas drawn from theoretical physics and mathematics dramatically to improve our understanding of how different climate processes interact over short and long time scales and small and large spatial scales. The essence of DSS is to treat fast dynamical processes statistically. The approach refocuses attention on the evaluation and understanding of the low-frequency modes that dominate climate variability. It offers the prospect of eliminating long-standing deficiencies in climate models and improving our understanding of climate change. In Lyon Marston completed a co-authored book chapter that explores DSS in depth entitled "Direct Statistical Simulation of a Jet."



Glaciers such as Mer de Glace (pictured) are melting rapidly in the French Alps



Marston worked most closely at ENS / CNRS with Professor Freddy Bouchet who has been exploring alternate approaches to DSS based on large-deviation theory (the “instantons” known to physicists are an example of large-deviation theory). With Bouchet’s student Tomás Tangarife, they applied the approach to a stochastic model of an atmospheric or oceanic jet, and found a surprisingly simple form for the probability distribution function that in turn had a simple and clear theoretical explanation. The results are being written up in a paper entitled “Large deviations of the Reynolds stress in zonal jets dynamics.”

Marston completed work with other co-authors on a manuscript “On the Late-Time Behaviour of a Bounded, Inviscid Two-Dimensional Flow.” He also initiated a new project to investigate the so-called “ribbon phase” of geophysical jets with another member of the Laboratoire de Physique, Professor Antoine Venaille. Marston visited a collaborator, Professor Tapio Schneider, who recently moved from Caltech to ETH Zurich. Together with Schneider’s students and postdocs, Marston is applying non-equilibrium statistical mechanics to the subgrid statistical modeling of boundary layer clouds. A new paper, “Cumulant expansions for atmospheric flows,” is the starting point for this effort.

In addition to presenting invited talks at ENS-Lyon, École Central de Lyon, and at a geophysical fluid dynamics meeting in Paris, Marston also gave a keynote talk at the CliMathNet meeting in Dartington Hall, UK and also at the Rotating Fluids meeting at University College London.

Four graduate students, Altan Allawala, Manfred Steiner, Joe Skitka, and Lei Wang in Marston’s research group at Brown, as well as senior undergraduate Abby Plummer, were supervised remotely via weekly reports and dialogue over Skype and email. Ms. Plummer has since graduated with an Sc.B. degree in physics with honors and is heading off to Harvard for graduate school. Her senior thesis “Numerical and Statistical Simulations of an Idealized Model Tachocline” has been selected to receive a Brown University Distinguished Senior Thesis Award.

Susan Moffitt

POLITICAL SCIENCE AND INTERNATIONAL AND PUBLIC AFFAIRS • 2014-2015

Professor Moffitt spent her sabbatical year at Harvard University’s Radcliffe Institute for Advanced Study. As a Fellow at Radcliffe, Moffitt was selected as “one of 50 leading artists and scholars who have exceptional promise and demonstrated accomplishments.” While on sabbatical, Professor Moffitt completed several articles and gathered data for her new book project. She completed her article “The State of Title I: Developing the Capability to Support Instructional Improvement” (co-authored with David K. Cohen), which is forthcoming in the *Journal of the Social Sciences*. This article analyzes how the largest federal education program in the US, Title I of the Elementary and Secondary Education Act, did little to enable state and local school agencies to develop the instructional capability – the knowledge, norms, and communities of practice – to respond constructively to the goal of eliminating educational achievement

gaps that appear along socio-economic and racial lines. It concludes by assessing the potential for interventions like several of the Comprehensive School Reform Designs to manage the problems confronting Title I and its implementation.

A second article “The Bad News Paradox: The Effects of State Sponsored Information on the Development of Public Education, 1965-2012” (co-authored with David K. Cohen and now in the revise and resubmit stage at *Studies in American Political Development*) examines how state building through information presents a potential paradox when state-sponsored information exposes weak performance among service providers, but fails to provide an infrastructure that connects information with changes in practice, leaving service providers unable to improve or change in ways policy prescribes. In this case, increasingly visible state weakness can accompany the growth in the welfare state when the state reports information about service provider performance that fails to deliver the outcomes that policy promised. Using comparative cases in public education from 1965-2012, this article specifies key conditions for state-sponsored information to contribute to state development.

A third article, “The Political Logic of Policy Implementation” (co-authored with Paul Manna and currently under review), assesses the politics that abet and discourage illusive implementation – implementing the letter of the law but not its spirit. The article develops a political model of policy implementation to predict the kinds of politics – electoral, group, administrative – that different policy designs activate during implementation. Using original state-level data on landmark US federal education policy, the article assesses whether and how these political forces render illusive implementation more or less likely for specific policy tasks. Consistent with the model, the authors find political control through elections renders illusive implementation less likely for only a narrow set of policy characteristics. Group-based politics bear on illusive implementation for a broader set of policy characteristics. Administrative politics affect illusive implementation across policy characteristics. While policy does indeed create politics, both are mediated by implementation contexts: the ways in which policy creates politics depend on the features of the policy lever, where it is being put into practice, and who is doing the implementing.

While on sabbatical, Moffitt also completed a chapter entitled, “The Drug Efficacy Study and Its Manifold Legacies” for the edited volume *New and Enduring Challenges for FDA: Selected Essays on the Future of the Agency and its Regulation of Drugs and New Technologies* (edited by Holly Fernandez Lynch and I. Glenn Cohen and forthcoming from Columbia University Press). In this chapter, Moffitt and her coauthors (Daniel Carpenter and Jeremy Greene) examine the development and implications of the National Academy of Sciences panels convened to help the FDA review drugs on the basis of efficacy. They demonstrate that the scope and significance of these technical panels were unprecedented in FDA history, and lay the historical foundation for related empirical work that tests the panels’ effects on subsequent drug safety and innovation.

While on sabbatical, Moffitt also conducted archival research in support of her new book project, *Building State Capacity through Grassroots Practice*. This project examines how links between state administrative capacity and the professions of teaching and nursing bear on the delivery of public services to support maternal and child health and the education of students with special needs. Examining the time periods of 1890–1920 and 1980–2010, her project combines historical, statistical, and ethnographic research to assess

the relationship between government administration, grassroots practice, and the mediating effects of professions on public education and public health.

Professor Moffitt also gave a number of talks while on sabbatical, including presentations of research at Harvard University and at the London School of Economics.


Rebecca Nedostup

HISTORY • 2014-2015

During this academic year Rebecca Nedostup was primarily engaged in the research and writing of *Living and Dying in the Long War: Tales of Displacement in China and Taiwan, 1937-1959*, a monograph describing the experience of displacement under total warfare in mid-twentieth century China and Taiwan. Displacement occurs in its geographic sense of the disruption of physical home, i.e. the making of refugees, the official and unofficial negotiation of their status, the lives of displaced persons who fall outside such categories, and the dislocation of “receiving” populations (for instance, the residents of Sichuan and Taiwan who made room for waves of migrants in the Second Sino-Japanese and Civil and Cold Wars, respectively.) The temporal qualities of displacement, however, are also critical. One example is the contrast of the supposed stability and surety of returning the body for burial in one’s home place versus the continued emergency, delayed demobilization, and eventually partitioned states and divided families that constituted the nature of politicized warfare during this period. In the experience of the people in the communities under focus – in eastern and southwestern China and in Taiwan – the Second Sino-Japanese War (a.k.a. World War II), the Civil War (a.k.a. the Communist Revolution or Liberation), and the hottest part of the subsequent Cold War (including the First and Second Taiwan Strait Crises) was a time of recurring state strategies, deferred promises, elongated emergencies, and sublimated moral narratives. Thus, the “long war.”

Nedostup’s conceptualization of the book was shaped considerably by her time as a visiting fellow at the Davis Center for Historical Studies at Princeton (enabled by a Brown sabbatical supplemented by a Davis Center fellowship.) Gathered by the center’s theme, “In the Aftermath of Catastrophe,” all of the seven fellows – and the director and faculty executive secretary – were engaged with displacements caused by disaster in one form or another. For some, catastrophe was war; for others, it was epidemic disease, slavery, or colonization. Their twice-weekly meetings (one, a research seminar with the Princeton History Department, the other a fellows’ reading group) substantially advanced the comparative basis of Nedostup’s work. In addition, she benefited from Princeton’s deep East Asian library collection and wide community of colleagues in East Asian studies.

During the sabbatical year Nedostup drafted several chapters of the book in part or in full, and delivered versions of these or overviews of the argument in more than ten conference, seminar, or invited lecture settings. She also spoke about her research with graduate students at Columbia, Princeton, University of



Michigan, UCLA, UC San Diego, and UC Irvine. She continued to conduct archival and special collections research for the book, visiting the following repositories: Princeton Mudd Library Special Collections; United Nations Archives; Academia Historica; Archives of the Institute of Modern History, Academia Sinica; National Archives; Nationalist Party Archives (Taipei, Taiwan); Jiangsu Provincial Archives; Nanjing Municipal Archives; Nanjing Library; Second Historical Archives, (Nanjing, China); Zhenjiang Municipal Archives (Zhenjiang, Jiangsu, China); Shanghai Library (Shanghai, China).

Finally, Nedostup used part of her sabbatical time to continue one collaborative project and embark on two new ones. First, to further comparative and collaborative research around the topic of death in the modern age, she organized a successful interdisciplinary roundtable at the annual meeting of the American Historical Association, “Networks of the Dead: Politics, Ethics, Technologies, Method.” Then, she and recent UCLA Ph.D. Maura Dykstra began work on “The Field of the State in Modern China,” a project meant to promote critical, historically informed analysis of the Chinese state by developing tools and language for academics of across disciplines and geographic areas. The project’s first steps – for which Nedostup received a China Initiative Collaboration Grant from the Watson Institute – are to assess and publicize new research on the evolution of the modern Chinese political system and explore enhanced digital access to historical source material. Third, Nedostup worked together with Caroline Frank, Evelyn Hu-DeHart, and Robert Lee to design and win funding for a three-year pilot project for scholarly and teaching activity at Brown around the topic of Taiwan as global nexus.

Professor Nedostup will conclude the sabbatical year by joining in some of the global academic activity in commemoration of the 70th anniversary of the end of the Second World War. In July, she will join a historical materials workshop on War and Society at the Institute of Modern History, Chinese Academy of Social Sciences; and, in September, present at an international conference on the war held by CASS in Beijing.

Karen Newman

COMPARATIVE LITERATURE • FALL 2014

Professor Karen Newman spent her fall sabbatical leave partly in France and partly in Italy. She spent several weeks as a visiting scholar at The American Academy in Rome where she went to work on materials at the Venerable English College for her book project, *Continental Shakespeare*, a section of which was presented at the annual Shakespeare Association of America conference this past spring. She also continued work on two edited volumes, both scheduled to appear in 2015, a collection of essays on early modern translation, co-edited with Jane Tylus (NYU) with a substantive introduction (to appear from University of Pennsylvania Press in the fall) entitled *Early Modern Cultures of Translation*, and *World-Making in Early Modern Literature*, co-edited with Jonathan Goldberg and Marcie Frank, to appear from Fordham University Press, also in the fall. While in Paris Newman began work for a paper for an invited conference sponsored

by Paris 13 – Sorbonne Paris Cité which was held in May, “Jeux, sports et loisirs à l’époque moderne (16e-19e siècles).” The proceedings from that conference will appear next spring and will include her essay, “Les loisirs de la galanterie.”

Stratis Papaioannou

ECONOMICS • 2014-2015

During his sabbatical leave, Stratis Papaioannou spent the academic year at the American School of Classical Studies at Athens (ASCSA) as Whitehead Visiting Professor. During the first months of his stay, he completed work on a book, titled *Michael Psellos on Literature and Art*, which he co-edited with Charles Barber (Princeton University); the book offers translations with substantial introductions and commentary of a series of essays on literary criticism in the tradition of Plato and Aristotle as well as on visual aesthetics. The book is now with University of Notre Dame Press and is to appear by the beginning of 2016.

By the end of spring, work was also completed on a second book titled *Christian Novels from the Menologion of Symeon Metaphrastes*, which presents critical editions (based on medieval manuscripts) and English translations with introductions of six medieval Greek saints’ Lives for the series *Dumbarton Oaks Medieval Library* and that is also now with Harvard University Press and will appear in 2016.

In the meantime, further work continued on the critical edition of Psellos’ 520 private letters as well as a larger project a *Handbook of Byzantine Literature*, under contract with Oxford University Press. For the purposes of these projects, Papaioannou visited regularly the National Library of Greece and examined several Byzantine manuscripts. He was also able to present his research in lectures at the ASCSA, the Hellenic National Research Foundation, the Universities of Athens, Thessalonike, and Ioannina as well as the University of Vienna (Austria).

During the winter term, Papaioannou had the opportunity to interact with ASCSA fellows, students, and colleagues and also to offer a graduate seminar on *Byzantine Book Culture, Greek Palaeography, and the Transmission of Texts*. For the purposes of that seminar, a group of twelve participants surveyed the Roman, late antique, medieval, and renaissance Greek book culture (1st – 16th c. CE) and the manuscript transmission of ancient and medieval Greek texts.

Wolfgang Peti

CHEMISTRY AND MOLECULAR PHARMACOLOGY, PHYSIOLOGY, AND BIOTECHNOLOGY
SPRING 2015

During his sabbatical Professor Peti worked full time at Brown University and focused on his administrative and research tasks. Much time was spend on his work as the director of the structural biology core facility; as the university decreases support for core facilities, much of his time was spent ensuring the facility was viable in the near future and that its users can rely on access to perform publicly and privately funded research.


Peti delivered an invited lecture at Albert Einstein Medical School (Department of Biochemistry). He was able to publish four papers during the spring semester, one invited review article, one invited prospective on novel strategies for drug design, and two original research papers, of which one will appear in the journal *Cell Reports* and the other in the *Journal of Clinical Investigation*. He also received two new additional National Institutes of Health (NIH) grants – one Ro1 as principal investigator and one Ro1 as a collaborator – that focus on the role of phosphatases in neuronal and muscular diseases, respectively. Lastly he fulfilled his reviewer tasks as a member of the *Journal of Biological Chemistry* editorial board, as a permanent panel member of the American Diabetes Association grant review panel, and as a member of an NIH study section.

Kavita Ramanan

APPLIED MATHEMATICS • 2014-2015

Professor Kavita Ramanan's research lies in the general area of probability theory, stochastic processes, and their applications. She used her sabbatical leave in fall 2014 and spring 2015 to complete several longstanding research projects, make progress on other ongoing projects and initiate new research directions. She spent two months of the fall 2015 semester at Microsoft Research Labs, New England, where she had the opportunity to interact with mathematicians, theoretical computer scientists, and engineers. For the rest of the sabbatical year she was based in Providence, while also making several trips to work with collaborators and give invited talks at conferences in Sydney, Munich (plenary), Seoul (plenary), Paris, Danbury, CT (keynote), University of Maryland, Rutgers University, and seminar lectures at the ISI (Indian Statistical Institute), Kolkata, Chennai Mathematical Institute, MIT, UCSD and Princeton. She also conducted independent study research projects with two undergraduate students in spring 2015.

One of her research projects involved the study of stochastic networks. Stochastic networks are comprised of “jobs” in the form of packets or customers, that arrive to a network and wait in buffers at different nodes of the network till their processing requirements are fulfilled. Stochastic variability arises from randomness in arrival and processing times and routing and scheduling decisions. Such networks are ubiquitous and



arise as models in diverse fields ranging from telecommunications and service systems to biological systems. A better understanding of these networks has the potential to lead to new algorithms that dramatically improve performance and enable the support of novel applications. During her sabbatical, Ramanan, together with her Ph.D. student, Reza Aghajani, developed a general mathematical framework to analyze a broad class of network load-balancing algorithms under fairly general assumptions and applied it to address a longstanding open problem in the field. Postdoctoral fellow Xingjie (Helen) Li collaborated on numerical aspects of the problem. The theory developed is of broader interest, and can also be used to study a variety of models arising in seemingly unrelated fields such as materials science, biology and finance. Interest in this work has already led to invitations for Ramanan and Aghajani, respectively, to give, keynote and invited lectures at a conference in the Netherlands. Undergraduate student Eric Hu studied a specific question in this area for his independent study project in spring 2015, under the mentorship of both Ramanan and Aghajani. Eric will continue this work in fall 2015 as part of his Senior Honor's thesis.

Another project that Ramanan worked on during her sabbatical was the study of so-called reflected stochastic processes. Besides being of intrinsic mathematical interest, such “reflected” processes arise in a variety of areas, including as so-called “Atlas” models of market capitalization in finance, as approximations of stochastic networks, and in the study of random matrices. She was invited to contribute a paper on this topic to a special volume of the *Annals of Probability*. A specific project in this area was carried out in collaboration with postdoctoral fellow David Lipshutz, who is supported by an NSF RTG (research training grant). This work also led to a research project for undergraduate student Wonho Rhee, who was mentored by both Lipshutz and Ramanan. Rhee received a UTRA grant to continue to work on this in the summer of 2015.

Other areas of research that Ramanan pursued during her sabbatical include several projects related to the study of large deviations, which is a theory that attempts to provide insight into probabilities of rare events. One of these projects involved graduate student Steven Kim, who presented his results at a meeting in Delaware in March, 2015. Ramanan also initiated collaborations with Wilson Truccolo and Felipe Gerhard, both computational neuroscientists from Brown University.

On the whole, Ramanan had a very productive and intellectually stimulating sabbatical year. She made two successful NSF grant applications during this time. In the summer of 2014, she was chosen to receive a Medallion from the IMS (Institute of Mathematical Statistics) and to deliver the associated Medallion lecture at the Applied Probability Society meeting to be held in July 2015.

Sherief Reda

ENGINEERING • SPRING 2015

During his sabbatical semester in the spring, Professor Reda spent his time at the School of Applied Sciences and Engineering (SEAS), Harvard University, where he focused on investigating new techniques for improving the energy efficiency of large-scale computing clusters, such as data centers used for cloud computing and supercomputers used for scientific computing. Reda initiated two collaborations with SEAS faculty: Professor David Brooks and Professor Li Na. The collaboration with Brooks seeks to improve the tail delays of latency critical transactional workloads in data centers. These transactional workloads have critical timing requirements that often conflict with power saving requirements. The research aims to reconcile these seemingly conflicting requirements through scheduling techniques that seek to improve both the latency and power consumption, leading to an overall improvement in energy efficiency. The second collaboration, with Na, seeks to devise a new class of distributed algorithms for power management systems of computing clusters. In contrast to existing centralized methods, distributed methods offer better scalability for large-scale computing facilities. Reda is planning article submissions based on these two collaborative works in the near future. In addition to his work at Harvard, Reda used the afforded additional time to help advancing the research of his Ph.D. students and to finish some existing projects at his Brown laboratory.

Joan Richards

HISTORY • 2014-15

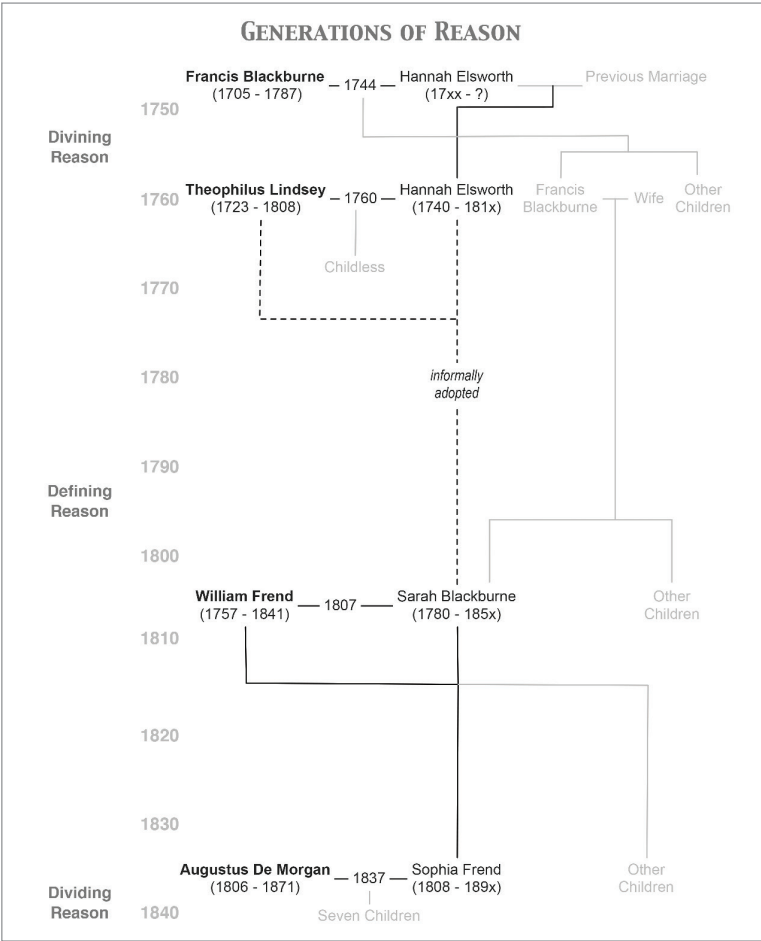
Professor Joan Richards chose to spread her one-semester sabbatical over the 2014-2015 school year, with the hope of writing a book that she has been researching for over a decade. Teaching one class each term seemed like a good way to maintain structure while engaged in a project that otherwise kept her alone in her office.

Richard's book, *Generations of Reason*, is the culmination of more than ten years of research. It tells the story of three generations of a family whose members were at the forefront of English religious, political, and intellectual development from the middle of the eighteenth century to the end of the nineteenth. The founder of English Unitarianism, Theophilus Lindsey (1723-1808), led the first generation of this family; the political and mathematical radical, William Frend (1757-1841), was the leader of the second generation; the Victorian mathematician, Augustus De Morgan (1806-1871), and his wife, the Victorian spiritualist, Sophia Frend De Morgan (1809-1892) constitute the third generation. All of these people were united in their commitment to an enlightenment view that recognized the power of reason as central to the definition of the human. They were also activists who tirelessly defended the freedom of the individual to arrive at truth through the exercise of that reason.



None of the members of this family had any difficulty recognizing its central importance for their lives, or of their places within it, but as their last names attest, it was not a traditional, patriarchal family. Instead, each new generation began in a friendship between an older man and a younger one that was rooted in their agreement about the central importance of the ideal of reason. Several years later, these friendships became family ties when the younger man married the older man's daughter. Since their understanding of reason was broad, all of the wives across the three generations of this story had been brought up to be strong and independent thinkers, who in turn insured that their children would be as well. The non-conventional family structure is displayed in Table 1 where the male friendships run down the left column from Blackburne to Lindsey to Frend to De Morgan.

Richards' year spent writing about this family has resulted in a clearly drafted manuscript that she will be submitting to the Chicago University Press in July.



Patricia Rubertone

ANTHROPOLOGY • FALL 2014

During her fall 2014 sabbatical, Professor Rubertone worked on a book manuscript about Native Americans in Providence during the nineteenth and early-twentieth centuries, a time when, for all intents and purposes, they had been virtually extinguished from New England history. The research associated with book manuscript, to be called *Urban Homelands*, challenges claims about Native disappearance, and the mutual exclusivity of cities, modernity, and Indians. It also rethinks recent approaches to the “urban Indian experience” that focus mostly on the coerced assimilation programs of the mid-twentieth century and problems of homelessness, alcohol and drug abuse, and violent crime. She wanted to write about the historicity of Native peoples in Providence and counter the ways that their lives as city dwellers have generally been portrayed. The task, as she indicated, was not to write a prehistory of Providence or about vestiges of Indian life persisting after the 17th century, but to explore the experiences of Native peoples in the city during the recent past.

The research has been daunting and painstaking. The documentary record pertaining to Indians in Providence in later centuries is sparse. Statistical records notoriously mislabel and under-represent Native people, and urban narratives largely ignore them. Their home sites, as Professor Rubertone learned, were targets of urban renewal projects in the 1960s and earlier, and built upon by new construction, which severely limited the possibilities of archaeological excavations. She had to draw on multiple strands of evidence combed from firsthand work with censuses, vital records, probates, wills, city directories, maps, military records, and other documents; newspapers; ethnographies; archaeological site reports; epidemiological studies; botanical collections; and Native oral histories to piece together details about Native Providence. This research is as much about Indian places becoming urban, as it is about urban spaces remaining or becoming Indian.

Cobbling diverse materials, and informed by her publications calling for studies of Native Americans after early colonial encounters and in unexpected places, and for decolonizing research practices, Rubertone experimented with a place-based, people-centered approach to interpret evidence concerning the city’s neighborhoods and people. Although the term enclave may more accurately describe the locales where Native people clustered among people of different ethnic backgrounds, these locations, several near the Brown University campus and others in South Providence and the west side, were home to Indians. A GIS mapping project revealed that house sites near former ponds continued to be occupied after the ponds were filled, which suggested durability of residence and attachments to place. In tracing the experiences of both individuals and families, Rubertone explored their diverse pathways to the city, how they became rooted in the urban landscape, and their ties to each other and to their ancestral communities. Although the details could be frustratingly elusive, if not, inaccessible, the exploration of the possibilities as well as the challenges of everyday urban living for Native people was preferable to ignoring them.

By connecting urban and Indian histories, her aim is to showcase Native peoples’ unseen grounding in Providence – and how it was sustained despite the ruptures to social life that sometimes brought them to

the city and the reconfiguration of neighborhoods by industrialization, urbanization, and redevelopment programs. Although the effects of these processes on parts of the city that were home to Indians and other marginalized peoples cannot be undone – and indeed, highlight the need for critical approaches to understanding urban archaeological landscapes – linking multiple sources of knowledge can compensate for gaps in the evidence. Along with writing, Rubertone's sabbatical was a journey of discovery in which family photo albums, the records of the Providence Housing Authority and at Smith College, and the collections of the Brown University Herbarium offered illuminating and unanticipated links to archival holdings, archaeological reports, and memories about the changing articulations of indigeneity within an increasingly urban colonial milieu.



Mohawk Street, between Arnold and Transit Streets in the Fox Point urban homeland, is one of many street names in Providence that recall the presence of Native peoples.


James Russell

EARTH, ENVIRONMENTAL, AND PLANETARY SCIENCES • SPRING, 2015

Professor Russell reports from South Sulawesi, Indonesia, where he is leading a team of thirty-five scientists to drill long sediment cores from the bottom of Lake Towuti. This project, the Towuti Drilling Project, will use these cores to investigate the history of rainfall and temperature in central Indonesia, long-term changes in the composition of the region's rainforests and diverse aquatic ecosystems, and the micro-organisms living in Towuti's exotic, metal-rich sediments. Through this work, Russell and his team will improve our understanding of the processes controlling long-term climate change in the tropical western Pacific, gain insight into the sensitivity and resilience of the region's unique ecosystems to climatic change, and investigate the microbial and biogeochemical processes that control carbon and metal cycling in metal-rich sediments.



Lake Towuti is one of the largest lakes in Indonesia, located at downstream end of the Malili lake system, a set of five, ancient (one- to two-million-year old) lakes in central Sulawesi, Indonesia. Lake Towuti's location in central Indonesia provides an important opportunity to reconstruct long-term terrestrial paleoclimate change in a crucially important yet understudied region – the Western Pacific warm pool, heart of the El Niño - Southern Oscillation. Lake Towuti has extremely high rates of floral and faunal endemism and is surrounded by one of the most diverse tropical forests on earth making it a hotspot of Southeast Asian biodiversity. The ultramafic rocks and soils surrounding Lake Towuti provide high concentrations of metals to the lake and its sediments that feed a diverse, exotic microbial community in the lake, potentially analogous to the microbial ecosystems that operated in ancient oceans on Earth and possibly on other planets. The Towuti Drilling Program will provide valuable new information to understand the climate, biological, and geomicrobiological evolution of this unique system.



Russell spent the spring semester at Brown University with frequent travel to Jakarta, Bandung, and Sorowako, Indonesia to organize the logistics for this drilling project and to coordinate research between research team members. He is now in the field at the shore of Lake Towuti, running ongoing drilling operations. Members of the Brown community can follow the action at the project's website: www.facebook.com/Towutidrilling

John Savage

COMPUTER SCIENCE • FALL 2014

Professor Savage's sabbatical leave in the fall semester of the 2014-2015 academic year was spent primarily lecturing on, studying, and writing on cyberspace policy. It also involved service to the profession.

On July 10 Savage gave an invited talk in the U.S. State Department under the auspices of the Bureau of Intelligence and Research and the National Intelligence Council entitled *Exploring the Limits of Multi-Stakeholder Governance*. On July 15 he served on the *Changes on Campus!* panel at the Jefferson Science Fellows Program ten year event in which he spoke about his course *CSCI 1800 Cybersecurity and International Relations* which he developed based on his time in the State Department as a Jefferson Science Fellow.

In the fall the EastWest Institute appointed Savage a Professorial Fellow. He also served as a presenter, discussant, and chief editor at the EastWest Institute's Fifth Cyberspace Cooperation Summit jointly sponsored by the German Foreign Ministry and held in Berlin on December 3-6, 2014.

Savage spent most of the summer doing research for and writing a paper entitled "Exploring Multi-Stakeholder Internet Governance" with Bruce McConnell, Senior Vice President at the EastWest Institute. The paper has been published by the EastWest Institute on their website and was used as a working paper for the Breakthrough Group on Governing and Managing the Internet at their December 2014 summit. Savage presented the paper at the summit.

In addition to this work, Savage served on an NSF Engineering Research Centers site visit review committee on nanotechnology at Stanford University in October, and on the New England Association of Schools and Colleges Accreditation Committee for the University of Bridgeport in November.

Janine Sawada


RELIGIOUS STUDIES • SPRING 2015

Under the auspices of the Cogut Center Fellowship, Professor Janine Sawada drafted and edited an ongoing book project about popular religion in early-modern Japan. The topic of the book is the early development of Fujikō, a movement devoted to the worship of Mt. Fuji that spread widely in Japan during the Tokugawa period (1603-1868). The group originated in the activities of an informal network of middle- to lower-class villagers and townspeople in eastern Japan who were inspired by the teachings of Kakugyō Tōbutsu (1541-1646), an ascetic practitioner who carried out rigorous austerities on the slopes of Mt. Fuji during the last decades of the war-torn medieval period and the early years of the new Tokugawa shogunate.

Early modern popular movements were the subject of numerous studies in Japan during the 1960s and '70s, reflecting the growing interest at the time in *minshūshi* – “people’s history” or “popular history.” The *minshūshi* historians were dissatisfied with prevailing Marxist interpretations of Japanese history as well as with postwar modernization theory; some looked to Tokugawa religious movements to demonstrate their view that ordinary people of the time produced forms of thought that were politically conscious, even if ultimately ineffective in implementing social change. These scholars, drawing on European conceptual oppositions between medieval magic and modern religion, singled out Fujikō as a relatively enlightened “seedling” of modern Japan in the nineteenth century—a “people’s religion” in contrast to the “folk religion” of the time. In the first chapter of her book, which she drafted during the sabbatical and presented to the Cogut seminar, Sawada argues that this interpretation of Fujikō and other late Tokugawa movements (especially the so-called new religions) obscured continuities with these groups’ earlier religious heritage, which in some cases may be traced to the late-medieval period.



Sanzon kusun zu is a talismanic image of Mt. Fuji that dates from the early Tokugawa period, before Fujikō became an organized movement.



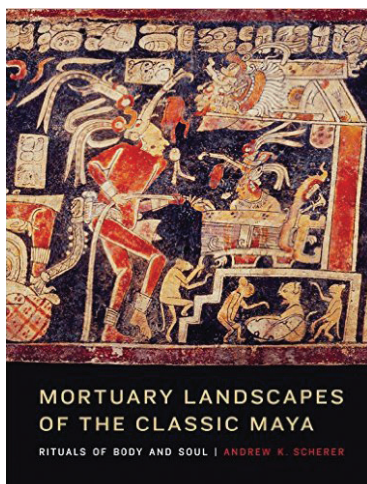
During the leave Sawada also revised the second chapter of her book, in which she traces the evolution of Fuji religion by analyzing its talismanic images and comparing them with late medieval depictions of the mountain that belong to the well-known genre of pilgrimage maps or “mandalas.” She suggests that the changing appearance of these religious images of Mt. Fuji documents a broader shift from priestly to popular control of ritual during the transition from medieval to early modern Japan. Sawada also completed revisions of her third chapter, which concentrates on how Fujikō devotees came to employ representations of the mountain in prayer rituals during the seventeenth century. The characters and syllabic marks that appear in these “image-texts” were believed to activate the therapeutic and apotropaic powers of the god of Mt. Fuji when the associated sounds were vocalized in defined ritual contexts. Sawada believes that popularized Buddhist understandings of the ritual efficacy of words, mediated through Shugendō and other channels of practical religious knowledge, helped shape the liturgical use of these works from the earliest stages of Fujikō. She interprets the mantric use of talismanic Chinese characters in these writings as a challenge to the meaningfulness of the dominant linguistic system of the time and in this sense an implicit form of dissent from the emerging Tokugawa socio-religious order.

Toward the end of the sabbatical period Sawada began revising the fourth chapter of her book, which treats the religious, ethical, and political views of Jikigyō Miroku, a Fujikō ascetic and reformer of the early eighteenth century who famously committed suicide on Mt. Fuji in 1733. Jikigyō was sharply critical of the proliferation during his time of prayer rituals aimed at the acquisition of “worldly benefits.” Sawada argues in this chapter that a driving force in Jikigyō’s critique was his intense concern with frugality, conceived not as a means to wealth but as an efficacious form of social welfare and compassion. His denunciation of the shogunate’s fiscal policies, which had caused destitution and famine in the less-privileged sectors of Edo, and his death-fast on Mt. Fuji – an ultimate act of frugality – were driven by the vision of social equity and mutual assistance that the god of Mt. Fuji had purportedly revealed to him.

Andrew Scherer

ANTHROPOLOGY • FALL 2014

Professor Andrew Scherer was on sabbatical leave for the fall of 2014 to begin work on his next book project, tentatively titled *From Beneath the Trees and Bushes: Order, Tribute, and Kingdom in the Western Maya Lowlands* (with Charles Golden, Brandeis University). This book will serve as a synthesis of Scherer and Golden’s twelve years of archaeological fieldwork along the Usumacinta River of Guatemala and Mexico where they have been studying the Classic period Maya (AD 350 – 900) kingdoms of Piedras Negras and Yaxchilan. Scherer and Golden’s archaeological efforts seek to highlight Classic Maya political practice in comparative perspective through the study of not only the political capitals but also the smaller communities they governed. Their work has especially focused on issues of war and violence, borders, trust, and intersubjectivity. In their analysis they combine comparative social theory with a deep reading of Maya social and political practice as evident in the epigraphic, ethnohistoric, and ethnographic records. Building on prior



publications by Scherer and Golden, *From Beneath the Trees and Bushes* illuminates what is distinct about Classic Maya socio-political practice and highlights especially the importance of order, tribute and reciprocity, and the covenants that bound Maya kings, nobility, commoners, and the supernatural.

While working on this new book project, Scherer also completed edits on his forthcoming book *Mortuary Landscapes of the Classic Maya: Rituals of Body and Soul*, which will be published by the University of Texas Press in November, 2015. This book explores Classic Maya concepts of body and soul based on bioarchaeological and mortuary archaeological research.

Scherer collaborated with Vera Tiesler (Universidad Autónoma de Yucatán) to organize their forthcoming symposium to be hosted at Dumbarton Oaks Research Library and Collection in October 2015. *Smoke, Flames, and the Human Body in Mesoamerican Ritual*

Practice will bring together an international group of archaeologists, bioarchaeologists, art historians, ethnohistorians, and ethnographers to explore the ritual use of fire among indigenous Mesoamericans. Scholars will use this two day conference to consider Pre-Columbian understandings of heat and flame as applied to the human body and examine how such notions relate to broader understandings of time, crisis, and human-supernatural relations in the ancient Americas.

While on leave Scherer submitted the manuscript “Local Water Resource Variability and Oxygen Isotopic Reconstructions of Mobility: A Case Study from the Maya Area” to the *Journal of Archaeological Sciences: Reports*. This piece was co-authored with two Brown University doctoral students (Alyce de Carteret and Sarah Newman) and will be published sometime in 2015. Finally, Scherer completed revisions to his contribution, “Osteology of the El Diablo Complex: Burial 9 and Associated Caches,” for the forthcoming volume *Temple of the Night Sun: A Royal Tomb at El Diablo, Guatemala*, to be published sometime in 2015 by Precolumbia Mesoweb Press (by Stephen Houston, Sarah Newman, Edwin Román, and Thomas Garrison, with contributions by Nicholas Carter, Alyce de Carteret, Andrew Scherer, and Karl Taube).

Gretchen Schultz

FRENCH STUDIES • SPRING 2015

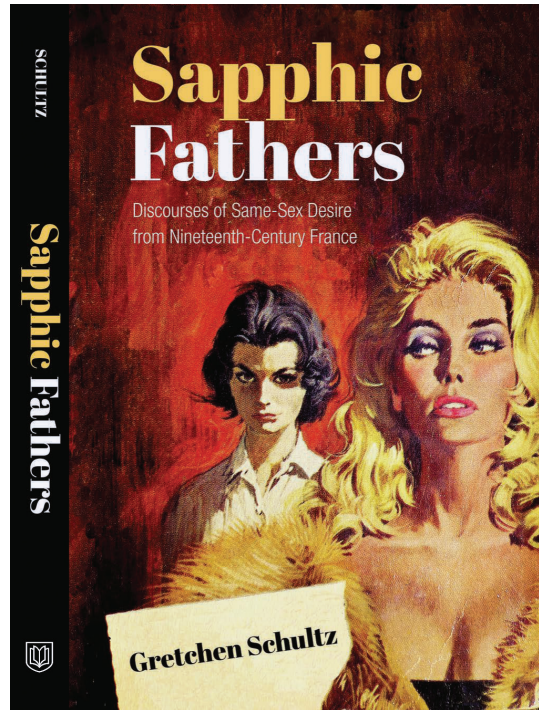
Professor Gretchen Schultz’s latest book, *Sapphic Fathers: Discourses of Same-Sex Desire from Nineteenth-Century France* (University of Toronto Press, 2015), was published at the beginning of her sabbatical semester. During this semester, Schultz focused on two projects, completing one already in progress and


researching a second just getting under way. Like *Sapphic Fathers*, these projects examine the cultural conflicts of fin-de-siècle France through different literary lenses, read in the context of social, political, and technological change.

With co-editor and co-translator Lewis Seifert, Schultz finished the manuscript for *The Decadent Fairy Tale*, to be published by Princeton University Press. This volume explores, through translations of fairy tales written during the Belle Époque, how decadent authors reimagined the genre in what Jean de Palacio has called “perversions of the marvelous.” The decadent fairy tale upsets expectations for the genre found in such classics as Charles Perrault’s *Stories or Tales of Yesteryear*, turning what is often considered a naïve genre intended for children into a vehicle for skeptical reaction to a wide variety of political and cultural influences—republican government, positivist thought, naturalist fiction, and industrialization among them—perceived as anathema to the traditionalism upon which the decadent aesthetic relied. The decadent tale is suffused with

contradiction. Its fairies are frequently seen to be the victims of modern cynicism and technological advancement, but they are just as often represented as dangerous creatures corrupted by contemporary society, thus transforming the traditional evil fairy into the decadent femme fatale and using her to highlight modern perversity. Ironically, the mechanized and modernizing world was more than once blamed by contemporaries for the death of fairies and of enchantment, at the same time as new technologies were themselves described in magical terms: the 1881 Exposition internationale d’électricité in Paris featured, among other things, Edison’s incandescent light and Bell’s telephone, prompting common references to electric current as “la fée [fairy] électricité.” The decadent fairy tale effectively killed off the good fairies of yesteryear and replaced her with a new, corrupt breed, borne of technological advancement and social upheaval.

Schultz also spent time reading extensively on alcohol and nineteenth-century French culture, the topic of her new project, whose working title is “Inebriations.” The culture of drinking during this period was multifaceted and reactions to it inconsistent; as such, its analysis affords a window onto the social conflicts of the period. Poets celebrated intoxicants for their creative value, just as politicians and scientists aligned with the hygiene movement identified alcohol as a social scourge that needed to be eradicated. But different alcoholic beverages signified in different ways: wine was eminently French, while the new industrial alcohols were identified as agents of corruption that weakened the nation. Through her readings of a variety of





sources – fictional, political, scientific, agricultural, demographic, and commercial among them – Schultz is in the process of teasing out the outlines of a book that examines the cultural values assigned to alcoholic beverages during a period in which modifications in their production and consumption patterns solicited commentary rife with social import.

Brian Sheldon

ENGINEERING • 2014-2015

Professor Sheldon spent a two semester sabbatical leave at MIT, during the fall of 2013 and the fall 2014 (he was at Brown during the spring of 2014). He pursued collaborative research on chemomechanics phenomena in energy storage materials, with several MIT faculty in the Department of Materials Science and Engineering (Professors Craig Carter, Yet-Ming Chiang, Harry Tuller, and Krystyn Van Vliet). One research effort focused on ceria, which is an important electrolyte material for solid oxide fuel cells (SOFC's). By combining unique capabilities at Brown with more extensive ongoing work on ceria at MIT, Sheldon and his colleagues have obtained several new insights into these materials. In particular, new experiments provide direct evidence that space charge effects can induce large stresses at grain boundaries in ionic solids. (Sheldon previously predicted this effect.) Another research direction that evolved directly from collaborations at MIT is a new project on Li-S batteries. The development of these materials for rechargeable batteries has been seriously limited by large volume changes and complex surface reactions that lead to significant inefficiency during lithiation / delithiation cycling. The new work initiated during this sabbatical is directed at providing fundamental information about these processes, using controlled carbon-based materials that are being synthesized at Brown.

The research efforts that were initiated during Sheldon's sabbatical led directly to five joint presentations with MIT collaborators over the past year (at the Materials Research Society and Electrochemical Society meetings). Three journal papers with joint authorship will also be submitted in the near future. Professor Sheldon's research group at Brown is also currently pursuing several additional collaborations with MIT researchers, that are a direct outgrowth of the work conducted during his sabbatical.

During the fall of 2014, Sheldon also contributed to teaching "Introduction to Solid State Chemistry" (3.091) at MIT. This is a large freshman chemistry course, taught from a Materials Science perspective. The possibility of developing this type of course at Brown has been discussed in the School of Engineering, and Sheldon's experience at MIT provided a wealth of relevant information. In addition to traditional lectures, this course employed the online MITx platform, using online assessments instead of traditional problem sets and exams. Sheldon was able to obtain first-hand experience with this novel approach.

David Sobel

COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES • FALL 2014

Professor David Sobel spent his sabbatical co-editing (with Jennifer Jipson at Cal Poly) a book called *Relating research and practice: Cognitive development in museum settings*. Traditionally, pursuits in research and practice typically unfold independently with different goals and methods. The disconnect between these endeavors can make it difficult to identify meaningful intersections between laboratory research in cognitive development and educational practice in informal settings. In this book (due out in November, 2015 from Psychology Press), the contributors document and discuss a diverse set of partnerships between university researchers and museum practitioners that have resulted in innovative strategies for linking investigations of children's cognitive development with goals critical to museum educators, such as evaluation and design.

One of the partnerships featured in this book is Sobel's collaboration with the Providence Children's Museum, most notably in the form of *Mind Lab*. Mind Lab is now a permanent exhibit, facilitated by NSF funding awarded to Sobel. The exhibit is designed to promote research in child development and offer parents an opportunity to learn about how their children learn. Researchers from Sobel's lab recruit children and families to participate in ongoing studies, and answer questions about the purpose and implications of the work.

One of the critical studies that took place in Mind Lab during his sabbatical was an investigation of children's developing metacognition and its relation to children's reasoning. Specifically, this work showed that five- to eight-year-olds' understanding of what science is relates to their own scientific reasoning abilities, with children who defined science as a process of inquiry as more likely to make the kinds of diagnostic inferences necessary for reasoning about the results of unconfounded experiments. This work is currently submitted for publication at a journal.

Some aspects of this work were related to studies developed by Sobel's research partners at the Museum to examine children's learning and behavior at the exhibit face, and caregivers' understandings of how children think and learn through play at the Museum. The ultimate goal of this research is to developing tools and techniques to support children and caregivers in reflecting on the learning that occurs at the Museum.

Upon his return to Brown, Sobel started a new NSF-funded project with his museum partners in Providence, but also with research-practitioner partners in Austin (at UT-Austin and The Thinkery) and San Jose (at UCSC and Children's Discovery Center), to study the role of exploration and explanation in children's learning at museums. This project examines how three- to six-year-olds and their parents explore and explain events to each other by recording natural behavior at various exhibits at the three museums, and then considers those children's causal reasoning abilities and their understanding of the nature of science in laboratory-based procedures. This summer, he is leading an I-Team UTRA of four undergraduates on this project.

Meredith Steinbach

LITERARY ARTS • SPRING 2015

During the spring semester of 2015, Professor Meredith Steinbach devoted her sabbatical to bringing her novel-in-progress, *Village with Blue Doors* to completion. Eight drafts were written and revised during the semester, the novel completely restructured and finished.

Village with Blue Doors precedes Steinbach's novel, *The Charmed Life of Flowers: Field Notes from Provence*, which won first prize in the Paris Book Festival in the international General Fiction Category. *Village with Blue Doors* represents an earlier time in village life. Each novel assumes the voice of a folk tale adapted to a post-modern structure based on fragmentation and an overarching self-referential allusion. While *Charmed Life* presents French flora and fauna with metaphorical intent in an encyclopedic form, *Village with Blue Doors* presents the same family and village twenty years earlier as painterly landscape, repeatedly destroyed by bad weather, and rebuilt. Conversations and structure allude to Plato's *Symposium*. Both novels concentrate on themes of inclusion and exclusion with many characters having extreme differences of size and color and ability in vision, hearing, eye sight, superstition, and temperament. At present the book is being proofread for publication, the book and cover designed by New York book designer Mary Tiegreen.

Further research was made into new materials for Steinbach's Fiction into Film course.


Steinbach's novel *To Be Sung on the Water* continues to be a finalist under consideration at a literary press. In addition, Steinbach began revisions on her ongoing collection of short stories, *French Tales*.

Roberto Tamassia

COMPUTER SCIENCE • 2014-2015

During his sabbatical leave, Professor Roberto Tamassia pursued research projects on computer security and spatial computing.

Tamassia's latest work on his cloud computing security project addressed the verification of answers to text searches on documents stored in the cloud, developed a new cloud security framework that deals comprehensively with data integrity and data privacy, and built a tool for visualizing the flow of Bitcoins over time. Travel to project meetings and conferences in Irvine, Rome, San Jose, Scottsdale, and Sunnyvale facilitated collaborations on this project with several colleagues from the US and Europe. One of his papers, coauthored with Ph.D. student Esha Ghosh and Ph.D. alumna Olga Ohrimenko (now at Microsoft Research, Cambridge, UK), was recognized with an award for best paper coauthored with a student at the International Conference on Applied Cryptography and Network Security.



While visiting the University of Roma Tre, Tamassia gave a series of lectures on Bitcoin, an online currency built on cryptographic foundation. Maintained by an open network of computers worldwide, Bitcoin is independent from any government or financial institution and aims at achieving the seemingly incompatible goals of anonymity and transparency. Originally intended for an audience of computer scientists, the announcement of Tamassia's lectures attracted the attention of faculty and students from several other disciplines. Tamassia redesigned his first lecture to be accessible to a broader audience and taught it in a large auditorium.

Working in Chicago with collaborators at Northwestern University and the University of Illinois at Chicago and attending a conference in Dallas, Tamassia further advanced his project on spatial computing. His sabbatical research on this project focused on novel data management systems for 2D and 3D trajectories of moving objects that take into account uncertainty in modeling movement in between observations and errors that may be introduced by the limited precision of GPS and sensor location devices.

The sabbatical gave Tamassia the opportunity to make progress on the second edition of his book "Introduction to Computer Security" (Addison-Wesley), coauthored with Michael Goodrich (University of California, Irvine). The first edition of the book, which appeared in 2011, has been adopted in courses worldwide. Since computer security is a fast moving field, it is important to update the book with the latest developments. New content being introduced in the second edition includes Bitcoin, mobile operating systems, and app security.

Throughout his sabbatical Tamassia served as the faculty leader in a proposal to the University to establish an executive master's program in cybersecurity. In the fall semester, Tamassia focused on the development of the vision, curriculum, and administrative arrangements for the program. In the spring semester, Tamassia gave brief presentations about the program and answered questions at meetings of the Graduate Council, Academic Priorities Committees, Faculty Executive Committee, and Brown faculty. Having received favorable endorsements by the above groups, the proposal was finally approved by the Corporation. Cybersecurity is one of the major challenges facing individuals, corporations, organizations, and governments today. Leveraging Brown's research leadership in the field of cybersecurity, this executive program will broaden Brown's educational impact.

Gabriel Taubin

ENGINEERING AND COMPUTER SCIENCE • FALL 2014

In 2014 Professor Gabriel Taubin was included in the Fulbright Specialist Roaster and was awarded a Fulbright Specialist Grant to visit Universidad Nacional del Sur. Universidad Nacional del Sur is located in the city of Bahia Blanca, province of Buenos Aires, Argentina. Taubin's visit was hosted by Professor Claudio Delrieux, Director of the Laboratory of Imaging Sciences (Laboratorio de Ciencias de Las Imagenes, <http://imaglabs.org>), which is part of the Department of Electrical and Computer Engineering of Universidad

Nacional del Sur. The visit lasted three weeks, as allowed by the Fulbright Specialist Grant. Taubin also spent four additional weeks in the city of Buenos Aires, visiting colleagues at other academic institutions and government agencies, as well as family, for a total of seven weeks in Argentina. Taubin spent the rest of his sabbatical leave, both before and after this trip to Argentina, at Brown.

During Taubin's stay in Bahia Blanca, the Conference on Scientific Applications of the Python Language (SciPy 2014 Argentina, <http://scipycon.com.ar>) took place, co-organized by Professor Delrieux. This was a local cross-disciplinary gathering focused on the use and development of the Python language in scientific research, academic, and industrial topics. Taubin attended the conference and delivered one of three keynote lectures. During his visit to Universidad Nacional del Sur Taubin also taught a short course on 3D Photography, attended by advanced undergraduate and graduate students. Most of these students were members of Delrieux' group. In addition, Delrieux and Taubin explored areas of common interest for future collaboration and funding opportunities. In particular, since Delrieux is very active in the use of unmanned aerial vehicles (UAVs) of various sizes to gather and analyze image data, they explored potential projects related to Big Data in Precision Agriculture, and reconstruction of 3D structures from multi-view aerial imagery.

In addition to the course on 3D Photography mentioned above, Taubin taught a Siggraph 2014 Course titled "3D Scanning for Personal 3D Printing: Build Your Own 3D Scanner," jointly with his student D. Moreno, in Vancouver, Canada. Siggraph is the most important annual conference in Computer Graphics and Interactive Techniques.

During his stay at Brown, and in coordination with the Technology Ventures Office, Taubin continued working on a commercialization plan for the 3D scanning technology developed within his group at Brown. Through the Fall 2014 and Spring 2015, Taubin also worked with a team of PRIME students on developing marketing and commercialization plans for 3D scanning. In March 2014 a provisional patent application titled Method And System For Unsynchronized Structured Lighting was filed. The corresponding utility patent application was filed in 2015. Back in October 2013 Taubin had filed a provisional patent application titled Non-Convex Hull Surfaces. The corresponding utility patent application was filed in October 2014. Also in October 2014, Taubin filed a new utility patent titled: Virtual Reality Method And Systems, jointly with Professor William Warren.

Jointly with Professor Luis Gustavo Nonato, from the University of Sao Paulo, Sao Carlos campus, Brazil, Taubin submitted a proposal for the Brazilian Ciência sem Fronteiras Program, Bolsa de Pesquisador Visitante Especial, which was awarded in September 2014. This grant will provide funds for Taubin to visit Prof. Nonato and other collaborators in Brazil, for a total of three months during the period October 2014 – September 2017, and to support a postdoctoral fellow based at the University of Sao Paulo, Sao Carlos campus. In November 2014 Taubin submitted a proposal to the Brown University Brazil Initiative, to complement the Brazilian Ciência sem Fronteiras grant, which was awarded in December 2014. The Brazil Initiative grant will allow Taubin to send some of his students to visit collaborators in Brazil, and to invite some of his collaborators from Brazil to visit Brown during 2015

Arnold Weinstein

COMPARATIVE LITERATURE • SPRING 2014

Professor Weinstein is working on a book, titled *Working For Your Bread: The Value of the Humanities*. The six months of leave in spring 2014 were instrumental for him to work through the nature and implications of his argument, and the hundred or so pages written in draft during the sabbatical enabled him to move from an inchoate thesis to a fuller argument with momentum. In some important ways, this projected book is not a research project in the traditional sense; rather, it is something of a late-career set of reflections and textual analyses – melding his work as scholar/critic with his extensive experiences in teaching, not only at Brown but outside the academy itself, via The Teaching Company as well as the creation of two MOOC ventures with Coursera – yielding a book that addresses what is often called “the crisis in the Humanities.”

The adage “Working for your bread” is enlisted by Kierkegaard in a striking passage in *Fear and Trembling*, where the philosopher acknowledges that the relation between effort and reward has little meaning in the ‘exterior’ world (where some work and receive no bread, whether others receive bread without working), but that it holds absolutely in the realm of the soul. This severe principle is taken up by Professor Weinstein as a statement less about faith than about *understanding*: an epistemological proposition. Kierkegaard is intent on showing that one understands events *only* when one places oneself on the front-side of them, rather than assessing them in terms of their outcome; using the story of God’s command to Abraham to sacrifice his son Isaac, Kierkegaard brilliantly argues that it can be understood *only* if you imagine Abraham’s trip to Mount Moriah, if you can feel “the fear and trembling” that precedes the miraculous outcome. There is something quasi-scandalous in the ramifications of this view: the great bulk of our own store of ‘information’ is outcome-dependent, not front-side oriented. Our archives themselves are usually devoid of the *drama* that went into the making of Events but disappeared in their telling.

The thesis of Weinstein’s book is: the Humanities might be defined as the field where knowledge hallows – often tragically – the experiential and subjective reaches that undergird human doing, that precede all outcomes, that map our genuine trajectory towards truth. And this is why so much great literature records wreckage: wreckage of prior labels and tags, wreckage of complacent and facile models of understanding. Reversals experienced by Oedipus, Lear, protagonists of Melville, Twain, Proust, Faulkner, O’Connor and so many other writers writ large the upending drama of understanding; they reveal the cognitive bankruptcy of prior schemes. This model is close to what has been termed “personal knowledge,” but it needs to be invoked as a central *modus operandi* of the Humanities themselves: a field keyed to human feeling and experience, a field that both depicts and demands a sinuous path towards knowing. Here would lie the crucial boundary separating the Humanities from both the Sciences (social and otherwise), inasmuch as “humanistic knowing” is in a principled way suspicious of prior metrics, and largely incompatible with what we might term ‘data’ or ‘information.’ The arduousness of this scheme – one cannot log on to the truth of a poem, or of a human experience – is the badge of integrity of our field. Its chief virtue is that it honors the reaches of human sentience as it marshals and makes its truths.



Patricia Ybarra

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Professor Patricia Ybarra spent her leave completing a draft of her manuscript, *Latino/a Theatre in the Times of Neoliberalism*, which is now being reviewed by Northwestern University Press, with whom she has an advanced contract. She expects this book to be in press in 2015-2016.

She also published a book chapter “Latino/a Dramaturgy as Historiography,” in *Time Space Matter: Theatre Historiography*, edited by Rosemarie Bank and Michal Kobińska (Palgrave Macmillan, 2015) and a peer reviewed article during this period: “Young Jean Lee’s Cruel Dramaturgy,” *Modern Drama* 57.4 (Winter 2014). This is in addition to publishing four book reviews and short pieces. In fall 2014, she drafted an encyclopedia article “Theatricality and the Public Enacting of the Mexican Colonial” for the Cambridge History of Mexican Literature (Cambridge University Press), which is edited by Anna Nogar.

Other research included co-curating a conference called the Essay in Public at the Granoff Center in April 2014, which seeded a public humanities initiative with co-researchers Martha Rojas (Associate Professor of English, URI) and Wendy S. Walters (Eugene Lang, Associate Professor of English). This initiative is dedicated to fomenting long form heavily researched essays outside of academic outlets. This leave was incredibly productive for her overall, and realized a series of important publications.