

Board Meeting  
March 13, 2007

## APPOINT FELLOWS TO THE CENTER FOR ADVANCED STUDY, URBANA

**Action:** Approve Appointment of Fellows in the Center for Advanced Study for the Academic Year 2007-2008

**Funding:** Private Gift Funds from the Beckman Endowment and State Appropriated Funds

Each year the Center for Advanced Study awards appointments as Fellows to the Center, providing one semester of release time for creative work. Fellows are selected in an annual competition from the faculty of all departments and colleges to carry out self-initiated programs of scholarly research or professional activity.

The double asterisks (\*\*) denote faculty members have been recommended for appointment as Beckman Fellows in the Center for Advanced Study, named for the donor of a gift that permits additional recognition for outstanding younger Fellow candidates who have already made distinctive scholarly contributions.

The Chancellor at Urbana recommends the following list of Fellows selected for the 2007-2008 academic year, and offers a brief description of their projects:

**\*\*Eyal Amir, Assistant Professor, Computer Science, *Hard Problems for Artificial Intelligence, Easy Problems for Humans***

The proposed research will develop a theory of Artificial Intelligence (AI) that relates seemingly far fundamental AI problems with each other. A consequence of this research will be a foundational theory for artificial intelligence and computer algorithms that distinguish between humans and machines.

**Lynne M. Dearborn, Assistant Professor, Architecture, Culture, Space and Globalization: A Comparative Analysis of the Hmong**

This project focuses on the international flows of people and culture, forces of globalization that impact the Hmong both in their homeland in Southeast Asia and in the Diaspora. With attention to these forces of globalization, this project investigates Hmong culture, cultural change and the spatial characteristics of Hmong residential environments, components of the Hmong environment/culture nexus.

**John C. Dencker, Assistant Professor, Labor and Industrial Relations, Generational Dynamics in the Workforce and Society**

Generational dynamics are transforming and being transformed by modern societies as aging workforces, increasing longevity, and declining fertility rates which place strains on organizational and social institutions. The focus of this project is to develop and test a multilevel, interdisciplinary comparative-historical account of two critical outcomes of generational dynamics—life-course transitions and intergenerational conflict.

**Frances Gateward, Assistant Professor, African-American Studies and Research Program and Unit for Cinema Studies, Blacks and Jews: Cinematic Relations**

This study is an examination of the history of Black/Jewish relations in Hollywood Cinema. By using film as a site for the interrogation of social relations, this project seeks to reveal and understand fissures in the Black/Jewish alliance, with close textual analysis and production histories used to indicate how Black and Jewish directors are trying to repair inter-community relations.

**Judith Gebauer, Assistant Professor, Business Administration, What is the Economic Value of Flexibility?**

The purpose of this project is to conduct an interdisciplinary study of the economic value of flexibility. The specific focus is on the flexibility of computerized information systems to support business processes in organizations.

**Stephan Heilen, Assistant Professor, Classics, Golden Age or Cosmic Disaster? Early Modern Predictions for 1504**

All preserved Renaissance predictions for the “Great Conjunction” of 1504 will be collected, edited, translated, and evaluated. This is the first complete case study of a heated astrological debate on the future course of world history among European intellectuals.

**Lilya Kaganovsky, Assistant Professor, Comparative and World Literature and Slavic Languages and Literature, The Voice of Technology and the End of Soviet Silent Film: 1928-1932**

Looking at the intersection of art and technology, of politics and policy, and art and the state, this project uses Soviet cinema's conversion to sound as the starting point for thinking about the moment of historical transition (1928-1932) from avant-

garde theory to socialist realist practice. The project combines historiographic and theoretical research to consider how the “voice” of Soviet power is transmitted via the new technology of sound cinema.

**Brett Ashley Kaplan, Assistant Professor, Comparative and World Literature,**

*Landscapes of Holocaust Postmemory*

Landscapes of Holocaust Postmemory explores traumatic landscapes that encourage us not only to reflect on what happened in places associated with the Nazi regime and its atrocities, but also to analyze the political and cultural status of the Holocaust in the early twenty-first century. By examining the intersections of landscape, postmemory, and trauma, this project may offer new insights into the effects and uses of the Nazi genocide today.

**Marcus Keller, Assistant Professor, French, *Literary Nation Building in Times of***

*Crisis: Imagining Early Modern France*

The nation as an imaginary community relies heavily on the fictive creation of a collective identity. This project is part of a book-length study which explores the contributions of early modern writers to the literary formation of French nationhood during a period of protracted political crises, civil wars, religious conflicts, and colonial expansion, and provides a case study of the intricate relationships between literature and nation.

**\*\*Paul J.A. Kenis, Assistant Professor, Chemical and Biomolecular Engineering, A Photocatalytic Fuel Cell**

The feasibility of a novel photocatalytic fuel cell that uses a photocatalytic process with a cheap catalyst for the oxidation of fuel as opposed to electrocatalysis on a precious metal catalyst is explored. In addition, the implementation of such a fuel cell in a novel power source is analyzed with respect to size, cost, and performance in comparison to competing power generating technologies.

**Michael Kral, Assistant Professor, Psychology, *Community Action Toward Suicide***

*Prevention among Inuit in Nunavut, Canada*

This project is the fourth of a research program examining the suicide epidemic among Inuit youth in Arctic Canada, where suicide rates are among the highest in the world. It is a participatory, collaborative study with Inuit communities and organizations, documenting successful community-based strategies and is designed to help create collaborative community networks across the Arctic, whereby successful suicide prevention programs and activities can be shared.

**Dimitrios C. Kyritsis, Assistant Professor, Mechanical Science and Engineering,**

*Clean and Efficient Micro-combustion for Power Generation*

This project investigates the fundamental physical processes that will provide compact, clean, and efficient power sources based on combustion. This will put to work the huge energy density of liquid hydrocarbons in small-scale devices, which will

be combustion-based “batteries” with significantly higher power and lifetime compared to the conventional ones.

**\*\*Christopher J. Leininger, Assistant Professor, Math, *Mapping Class Groups and Kleinian Groups at MSRI***

The purpose of this project is to explore the analogy between two fundamental objects in low-dimensional geometry and topology. These are the mapping class groups equipped with their actions on Teichmuller space and Kleinian groups with their actions on hyperbolic space.

**\*\*Benjamin John McCall, Assistant Professor, Chemistry, *Spectroscopy of Carbocations in the Laboratory and the Interstellar Medium***

A new laboratory technique will be developed that will permit the detailed spectroscopic study of molecular ions, with a special emphasis on complex carbocations that challenge our traditional notions of molecular structure. The results of our experimental studies will be complemented by astronomical observations of these ions in interstellar space.

**\*\*Thomas Nevins, Assistant Professor, Math, *Harmonic Analysis in Algebraic Geometry***

A fundamental new algebraic structure, the double affine Hecke algebra, lies at the heart of important phenomena in mathematics and mathematical physics. This project applies a central mathematical technique known as “harmonic analysis” to the most important open problems concerning the double affine Hecke algebra.

**\*\*Michelle Shumate, Assistant Professor, Speech Communications, *The Coevolution of Non-profit, Nongovernmental Organizing***

Non-profit nongovernmental organizations present possible solutions to many of the world’s problems that are both local and global in nature. This project explores a coevolutionary model of networks of non-profit nongovernmental organizing, the messages produced by these organizations, policy environments, and media coverage.

**Carol Symes, Assistant Professor, History, *A Modern War and the Medieval Past: The Middle Ages of World War I***

This book will explore how memories and monuments of the Middle Ages were depicted, contested, targeted, destroyed, and sentimentalized before, during, and after “the war to end all wars.” Although World War I is usually described as a quintessentially modern phenomenon, “A Modern War and the Medieval Past” will demonstrate that the heritage of this war, and the way it was understood by the people who waged, observed, and survived it, was shaped in myriad ways by competing visions of the Middle Ages and their importance to the development of modern identities.

The board action recommended in this item complies in all material respects with applicable State and federal laws, University of Illinois *Statutes*, *The General Rules Concerning University Organization and Procedure*, and Board of Trustees policies and directives.

The President of the University concurs.