



# Graduate School of Arts and Sciences

*Commencement Convocation*

Yale University  
Sunday, May 24, 2009



# Order of Exercises

## COMMENCEMENT CONVOCATION

Sunday, May 24, 2009

### **Welcome**

Jon Butler

*The Howard R. Lamar Professor of  
American Studies, History and Religious Studies  
Nineteenth Dean of the Graduate School*

### **Music by Yale School of Music Brass Ensemble**

### **Student Prizes**

Presented by Dean Jon Butler

### **Departmental Awards**

Francis J. Anscombe Award for  
Academic Excellence  
Henry Prentiss Becton Prize  
Frederick W. Beinecke Prize  
Frances Blanshard Fellowship Fund Prize  
Harding Bliss Prize  
Sylvia Ardyn Boone Prize  
Dirk Brouwer Prize  
Anthony DiGuida Delta Mu Research Prize  
George Washington Egleston Historical Prize  
Estwing Hammer Prize  
Harry Burr Ferris Prize  
William Ebenezer Ford Prize  
Hans Gatzke Prize  
James B. Grossman Dissertation Prize  
Academic Excellence in  
International Relations Award  
Mary Ellen Jones Prize  
Elias Loomis Prize  
John Spangler Nicholas Prize  
Philip M. Orville Prize  
Marguerite A. Peyre Prize  
Leonard J. Savage Writing Prize  
George Gaylord Simpson Prize  
Edwin W. Small Prize  
George Trimis Prize  
Henry Turner Prize  
Richard Wolfgang Prize  
Arthur and Mary Wright Prize

### **University Prizes**

Theron Rockwell Field Prize

John Addison Porter Prize

### **Graduating Prize Teaching Fellows**

### **Graduate Mentor Awards**

IN THE HUMANITIES

Elliott Visconsi

*Assistant Professor of English*

IN THE NATURAL SCIENCES

Patrick Vaccaro

*Professor of Chemistry*

IN THE SOCIAL SCIENCES

Scott Boorman

*Professor of Sociology*

### **Convocation Address**

Provost Peter Salovey

*The Chris Argyris Professor of Psychology*

A reception will follow immediately  
after Convocation.

***Piano music performed by James O'Leary.***

# Graduate School Student Prizes

## *Departmental Awards*

The **Francis J. Anscombe Award for Academic Excellence** is awarded for outstanding achievement in the Department of Statistics.

ANTONY JOSEPH  
*Statistics*

The **Henry Prentiss Becton Prize** for exceptional achievement in research is awarded to a graduate student within the Council of Engineering.

STEVEN JAY  
*Engineering*

“Engineering Drug Delivery into Regenerative Medicine: Enhancing Therapeutic Vascularization Through a Combined Molecular and Cellular Approach”

This study explores the bioengineering of complex materials that may be used to treat vascular deficiencies. Jay used micro-particles that slowly release vascular endothelial growth factor, which, when blended with cells and proteins, build a tissue-engineered construct that provides rapid vessel regrowth, when implanted into a tissue that is deprived of vessels.

The **Frederick W. Beinecke Prize** is awarded upon the recommendation of the History Department for an outstanding doctoral dissertation in the field of Western American History.

BENJAMIN MADLEY  
*History*

“American Genocide: The California Indian Catastrophe, 1846-1873”

This extraordinarily thorough research and documentation of the ways in which Californian settlers, the U.S. Army, the territorial and state governments, and the federal government killed thousands of California Indians between 1846

and 1873 provides an unprecedented account of a topic usually glossed over in even the most detailed accounts of California’s history.

The **Frances Blanshard Fellowship Prize** is awarded annually for the outstanding doctoral dissertations submitted to the History of Art Department.

PHILIPP EKARDT  
*History of Art*

“Splitting the Picture: Studies in Walter Benjamin’s Image-Theory and in Alexander Kluge’s Image-Practice”

Focusing on two German thinkers – the critic Walter Benjamin (d. 1940) and the filmmaker, television producer, and writer Alexander Kluge (b. 1932) – Ekardt examines their kindred fascination with the temporalization of the image. From the analysis of Benjamin’s texts to discussion of the rayogram, the architectural drawing, the iron-frame building, and Kluge’s TV work (among other topics), Ekardt has written a dissertation with broad implications for the entire discipline of art history.

IRENE SMALL  
*History of Art*

“Hélio Oiticica and the Morphology of Things ”

This study of the Brazilian artist Hélio Oiticica (1937-1980) establishes highly convincing and inventive links between Oiticica’s uncompromisingly modernist aesthetic forms and the larger social world of modernizing Brazil. Small gives the first truly comprehensive interpretive and theoretical reading of an artist who is now widely regarded as a major figure of 20th-century art.

The **Harding Bliss Prize for Excellence in Engineering and Applied Science** is awarded annually to the outstanding student who has completed his or her PhD thesis during the current

academic year and who has done the most to further the intellectual life of the department.

DEEPTI BATHULA

*Engineering*

“Functional MRI Analysis Using Training-Based Prior Models of Activation Patterns”

Deepti Bathula’s research developed improved techniques to analyze functional Magnetic Resonance Images (fMRI) in populations that can be difficult to study, such as children with autism. She used brain activation patterns from previously-conducted multi-subject fMRI studies to define models that could be used in a Bayesian framework to better detect activations in new subjects. Her approach reduces the time the subject needs to be in the imager without compromising accuracy.

*The Sylvia Ardyn Boone Prize* is awarded annually in memory of Sylvia Boone, a noted scholar of African art, who was the first tenured African-American woman on the Yale faculty. In her memory, Vera Wells, Yale ’71, has established a prize to honor Sylvia Boone’s life and work.

URI GERVASE MCMILLAN

*African American Studies, American Studies*

“Subversive Objecthood: Black Female Performance”

This meticulously documented study examines two 19th-century figures, Ellen Craft and Joice Heth, and two 20th-century ones, Adrian Piper and Howardena Pindell. The result is an exceptionally innovative dissertation that shows how different black women at different times – whether avowed artists or not – have performed identities as a way of resisting racist practices and re-imagining the social spaces in which they live.

*The Dirk Brouwer Memorial Prize* was established in 1966 by friends of Professor Dirk

Brouwer, Chairman of the Department of Astronomy and Director of the Yale Observatory from 1941 to 1966. It is awarded to a student in the department for a contribution of unusual merit to any branch of astronomy.

BETHANY E. COBB

*Astronomy*

“Long-term Observations of Gamma-ray Bursts: The Complex Connection Between Gamma-ray Bursts and Supernovae”

Using Yale’s telescopes in Chile, Cobb created a program of rapid optical follow-up of the enormous explosions known as gamma-ray bursts. Her identification of a class of low luminosity bursts and her statistical analysis of the burst population have greatly improved our understanding of the demographics of these enigmatic objects.

*The Anthony DiGuida Delta Mu Research Prize* was established in memory of a doctoral student from the School of Nursing. It is given to a graduating student whose love of clinical scholarship has resulted in a dissertation that advances nursing knowledge and demonstrates creative conceptualization of a complex clinical problem, methodologic and analytic excellence, and superb writing.

JULIE WOMACK

*Nursing*

“Obesity and Hormonal Contraception: Risk Factors for Metabolic Dysfunction in HIV-Positive and At-risk Women”

This dissertation examines the relationships among hormonal contraception, antiretroviral therapy, and metabolic dysfunction in order to improve the care of woman living with HIV. Womack’s complex and sophisticated study contributes key building blocks to the investigation and treatment of HIV/AIDS.

The *George Washington Egleston Historical Prize*, established in 1901, is awarded annually to a research student who discovers new facts of importance for American history or gathers information or reaches conclusions which are useful from a historical, literary, and critical point of view.

JULIE WEISE

*History*

“Fighting for Their Place: Mexicans and Mexican Americans in the U.S. South, 1910-2008”

Relying on energetic research in both Mexico and the United States, Weise has crafted the first sustained social history of ethnic Mexicans throughout the South, and the most important history linking African American and Mexican American history across the 20th century. This is a magisterial dissertation.

The *Estwing Hammer Prize* is awarded by the Estwing Manufacturing company to outstanding geology or geophysics graduate students.

DEVIN MCPHILLIPS

*Geology and Geophysics*

“The Creation of Topographic Relief and Deformation in Two-sided Accretionary Wedges”

This research explores the physical processes that build relief at the mountain scale by examining both surface erosion and rock uplift at convergent margins.

THOMAS HEGNA

*Geology and Geophysics*

“Evolution of the Branchiopoda (Crustacea): Fossils, Phylogeny, and the Invasion of Freshwater”

Branchiopod crustaceans (sea monkeys, tadpole shrimp) are often referred to as living fossils, but little work has been done on their fossil record. This project aims to integrate the fossil

record with what is known from molecular phylogenetics to gain a better understanding of the evolution of this clade.

The *Harry Burr Ferris Prize* was established by Harry Burr Ferris (BA 1887, MD 1890), who was the E. K. Hunt Professor of Anatomy in the Department of Anatomy, the predecessor to the current Department of Cell Biology. The Prize is awarded to a Cell Biology student for a doctoral dissertation demonstrating exceptional research and scholarship.

JOHN GOSS

*Cell Biology*

“Investigating the Spatial and Temporal Regulation of Mammalian Constitutive Exocytosis”

John Goss used state-of-the-art live cell microscopy and molecular manipulation to address how the final steps of membrane delivery to the cell surface is controlled in space and time. This provided new understanding of the process of cell division and responsiveness to extracellular stimuli.

The *William Ebenezer Ford Prize* was established in 1963 by gift from Mary Ford in memory of her husband, Professor William E. Ford, PHB 1899, PHD 1903. It is awarded to students who have distinguished themselves in study or research in mineralogy.

KAZUHIKO OTSUKA

*Geology and Geophysics*

ERIK SPERLING

*Geology and Geophysics*

The *Hans Gatzke Prize* is awarded upon the recommendation of the History Department for the outstanding dissertation or dissertations in a field of European history.

ADAM FRANKLIN-LYONS

*History*

“Famine – Preparation and Response in Catalonia after the Black Death”

This dissertation is a splendid piece of historical scholarship. It is based on careful and sophisticated empirical work in the voluminous archives of Barcelona, at the same time as it is soundly rooted in modern theoretical work on famine.

CAMILLA SCHOFIELD

*History*

“Enoch Powell and the Making of Post-colonial Britain”

This dissertation is an exhaustively researched, masterfully conceived, and elegantly argued study of the place of war – and World War II in particular – in the political thought of Enoch Powell and in the phenomenon of Powellism that his thought and speeches inspired.

The **James B. Grossman Dissertation Prize** was established in memory of a doctoral student in Psychology. It is given to the author of an outstanding PHD dissertation in Psychology, with preference for research embodying some of the characteristics of James Grossman’s scholarship, such as creativity, use of other disciplines, and clinical work with children.

NICHOLAS BENJAMIN TURK-BROWNE

*Psychology*

“The Nature of Visual Statistical Learning”

How do people learn which syllables make up a word, which objects belong in a kitchen, or whether people are friends? Using behavioral tests and brain imaging, Turk-Browne’s research demonstrates that the mind is constantly extracting and storing statistics of co-occurrence from the world, often without our conscious awareness.

The **Award for Academic Excellence in International Relations** is given to the MA student in International Relations with the highest academic achievement.

TBA

*International Relations*

The **Mary Ellen Jones** (PHD 1951, Biochemistry) **Prize** is awarded to the most distinguished dissertation in Molecular Biophysics & Biochemistry submitted during the academic year. Dr. Jones’s was a leading scientist and a pioneer in the advancement of women in academia.

MATTHEW CALABRESE

*Molecular Biophysics & Biochemistry*

“Cu<sup>2+</sup> - Dependent Amyloid Formation by Beta 2-Microglobulin”

This study explores the structure of an intermediate in the self-aggregation of a protein to produce amyloid, the form of defective proteins in diseases such as Alzheimer’s, Parkinson’s, and Bovine Spongiform Encephalopathies. Calabrese revealed how the binding of copper affected the folding and self-association of the protein.

The **Elias Loomis Prize** is awarded for excellence in studies of physics of the earth. Elias Loomis was a professor of natural philosophy and astronomy in Yale College.

YANPING LI

*Geology and Geophysics*

“Diurnal Thermal Circulation on Two Scales: Valley and Continental”

This thesis investigates weather in two geographical scales. In deep western valleys, the diurnal valley circulation causes surface pressure minimum three hours behind the temperature maximum. Over the Continental US, an eastward-propagating wave exists in addition to

the continentally-enhanced diurnal atmospheric tide and causes eastward-moving thunderstorms in the summertime.

TATIANA LYUBETSKAYA

*Geology and Geophysics*

“New Models of Crustal Fluid Flow  
Incorporating Magmatism and Porosity  
Evolution During Orogenesis”

This dissertation constructs computer models simulating temperature evolution and the flow of fluid in continental crust during mountain building. The models attempt to reconstruct various geologic processes that take place in the mountain regions, such as surface erosion, emplacement of magmatic intrusions, and chemical changes in rock minerals.

The *John Spangler Nicholas* (PHD 1921) *Prize* was established in 1972 by bequest of Helen Brown Nicholas in memory of her husband. The prize is awarded annually to outstanding doctoral candidates in experimental zoology.

IVAN ACOSTA

*Molecular, Cellular & Developmental Biology*

“Investigating the Role of *Tasselseed1*  
and *Silkleless1* in the Sex Determination  
Process of Maize”

This research explores the molecular mechanisms of sex determination in maize through the characterization of the *tasselseed1* gene. Acosta found that this gene encodes an enzyme in the biosynthesis of the plant hormone jasmonic acid, which acts as a signal to prevent development of female sexual organs in male flowers and, therefore, is essential for establishing unisexuality in maize.

LENA CHIN

*Molecular, Cellular & Developmental Biology*

“A Study of microRNA Complementary  
Sites in the 3' UTRs of Lung Cancer-  
associated Oncogenes”

Chin identified an inherited, genetic variant in a regulatory region of a commonly over-active lung cancer-associated gene. This change is associated with an increased risk of developing lung cancer in moderate smokers.

JEREMY DRAGHI

*Ecology and Evolutionary Biology*

“Computational Explorations of  
Evolvability, its Evolution, and its  
Relationship to Robustness”

This research uses computational models of development and evolution to understand how evolutionary forces shape the ability of organisms to adapt.

STEPHEN SMITH

*Ecology and Evolutionary Biology*

“Evolving Biogeography: New Methods and  
their Application in the Plant Clade *Lonicera*”

This dissertation explores why species live where they live. In particular, Smith asked how the honeysuckle spread across the Northern Hemisphere over the last 30 million years. He not only addressed how honeysuckle physically moved, but also described the evolution of climate tolerance in this context.

ANDREA TICHY

*Molecular, Cellular and Developmental Biology*

“A Novel *Drosophila* POU gene, *pdm3*, Acts  
in Olfactory Receptor Neuron Development”

Essential to an animal's ability to detect food and mates, the olfactory system of an animal is a precisely organized assembly of neurons through which environmental odor cues are communicated to the brain. A transcription factor, *Pdm3*, has a role in the development of the *Drosophila* olfactory system. It affects both neuronal responses to odors and neuronal connections in the brain.

The *Philip M. Orville Prize* was established in 1981 in memory of Philip M. Orville. The prize is awarded to graduate students in geology and geophysics in recognition of outstanding research and scholarship in the earth sciences.

FAYSAL BIBI

*Geology and Geophysics*

“Evolution, Systematics, and Paleocology of Bovinae (Mammalia: Artiodactyla) from the Late Miocene to the Recent”

Bibi studies fossils of antelopes from the last 10 million years, focusing on the fossil records of Africa, the Mediterranean, and southern Asia. He coordinates an annual fieldwork expedition to collect fossils from the deserts of Abu Dhabi.

The *Marguerite A. Peyre Prize* was established in 1964 and is awarded at the discretion of the Chairman of the French Department to a graduate student in that department.

ALEXANDRA GUEYDAN

*French*

“ImaginNation (post) Nationale de l’Algérie: Politique et Pratique Identitaires de la Littérature Francophone”

This dissertation is a bold and sensitive examination of French-language literature in the turbulent context of post-independence Algeria. Calling into question the myth of national unity, reading a wide variety of texts with meticulous attention, Gueydan makes a significant contribution to literary criticism.

The *Leonard J. Savage Writing Prize* is named for Department of Statistics Emeritus Professor Leonard J. (Jimmie) Savage. This prize is awarded annually to a student who has submitted the best-written work.

JOHN FERGUSON

*Statistics*

“Loss Functions and Approximation in Selecting and Ranking Populations”

The *George Gaylord Simpson Prize* was established in 1984 in honor of Professor Simpson and is awarded to a graduate students and recent PHD recipients for an exceptional paper concerning evolution and the fossil record.

FAYSAL BIBI

*Geology and Geophysics*

“Dietary Niche Partitioning Among Fossil Bovids in the Late Miocene C<sub>3</sub> Habitats: Consilience of Functional Morphology and Stable Isotope Analysis”

This study of the evolutionary history of mammals over the last 10 million years focuses on the fossil record of bovids (antelopes, sheep, and oxen), particularly the way in which these animals evolved adaptations to survive in grassland environments in what is now Ethiopia, Kenya, Pakistan, and the United Arab Emirates.

The *Edwin W. Small Prize* was established in memory of Edwin W. Small (BA 1930, MA 1934) and is awarded in recognition and furtherance of outstanding work in the field of American history.

HELEN VEIT

*History*

“Victory Over Ourselves: American Food and Progressivism in the Era of the Great War”

This dissertation is outstanding in its research, conception, and execution, ably combining the high-policy story of food administration during World War I with on-the-ground social and cultural history of attitudes and practices concerning food. Veit’s work will make a major contribution to U.S. history, women’s history, and the history of Progressivism.

WENDY ANNE WARREN

*History*

“Enslaved Africans in New England,  
1638-1700”

This dissertation is a *tour de force* of research, argumentation, and prose-writing. It makes a very significant addendum to scholarship – both on slavery and on early New England. Warren tackles a weighty, consequential topic – slavery in 17th-century New England – in a deft, succinct, and subtle dissertation.

The **George Trimis Prize** was established in May 2003 in memory of George Trimis, a doctoral student in Economics who succumbed to cancer. In recognition of the extraordinary example that Trimis set, the prize is awarded to students whose dissertation demonstrates exceptional and distinguished achievement.

ALESSANDRO BONATTI

*Economics*

“Essays on Learning, Price Discrimination,  
and Competition”

This dissertation contributes to the dynamic theory of cooperation and competition. One application is to models of discriminatory pricing of newly introduced goods. Another is to the design of contract arrangements to achieve efficient cooperation in business partnerships.

RAFAEL LOPES DE MELO

*Economics*

“Sorting in the Labor Market: Theory  
and Measurement”

This dissertation finds strong evidence that more efficient firms tend to hire more productive workers. The main evidence is found in Brazilian data on firms and their employees. The matching of productive workers and firms bears on economic efficiency and is an important source of economic inequality.

MAHER RIYAD SAID

*Economics*

“Essays on Sequential Auctions and Dynamic  
Mechanism Design”

This dissertation develops a model of a sequence of auctions in which identical and perishable items are sold to a stream of arriving buyers. It characterizes efficient, revenue maximizing auctions, which turn out to be highest bidder auctions with reserve prices.

The **Henry Turner Prize** was established by Professor Turner’s colleagues in 2002 on the occasion of his retirement and is awarded in recognition of outstanding work in the field of European history.

CHARLES KEITH

*History*

“Catholic Vietnam: Church, Colonialism and  
Revolution, 1887-1945”

This brilliant dissertation, superbly and exhaustively researched, achieves several path-breaking goals. Keith has written Vietnam’s important Catholic minority, comprising about ten percent of its population, back into modern Vietnamese history. What makes this dissertation unusually strong is the author’s balance between cultural history and political history.

The **Richard Wolfgang Prize** was established in 1971 in memory of Richard Leopold Wolfgang, MA HON 1962, and member of the faculty from 1956 to 1971. It is awarded each year for the best doctoral theses of graduating chemistry students.

ADELINA VOUTCHKOVA

*Chemistry*

“Novel Synthetic Method for N-Heterocyclic  
Carbene Transition Metal Complexes and  
New Green Catalytic Applications”

Adelina Voutchkova’s research is distinguished for innovative concepts of her own devising that

provide environmentally sound solutions to challenging problems in chemical synthesis.

JOSEPH ROSCIOLI

*Chemistry*

“Spectroscopic Characterization of Charge Localization and Delocalization in Ionic Clusters”

Using infrared and photoelectron spectroscopy, this project investigates the properties of gas-phase species which are relevant to fuel cells, biochemistry, and radiation damage in biological systems. Roscioli’s research provides insight into the chemical consequences of charge delocalization and serves as a benchmark for future theoretical studies.

The *Arthur and Mary Wright Prize* is awarded upon the recommendation of the History Department for the outstanding dissertation or dissertations in the field of history outside the United States or Europe.

HENRY BRANDS

*History*

“Latin American’s Cold War: An International History from Guevara to Reagan”

Brands offers the single best study of how Latin American societies, from ruling *juntas* to radical revolutionaries, regarded U.S. policies in their continent from the 1960s to the 1980s — and how Washington sought to develop workable strategies for this region in the face of many other problems generated during the Cold War.

LAURA ROBSON

*History*

“The Making of Sectarianism: Arab Christians in Mandate Palestine”

Anyone interested in learning more about Christians in Palestine during the Mandate should read this dissertation before anything else. The tragedy is brilliantly described. Robson has told the tale extremely well and uses an impressive number of sources.

## *University Prizes*

The *Theron Rockwell Field Prize* was established in 1957 by Emilia R. Field in memory of her husband, Theron Rockwell Field, PHB 1889. It is awarded for poetic, literary, or religious works by any students enrolled in the University for a degree. This prize is awarded by the Office of the Secretary of Yale University.

SUSANNAH L. HOLLISTER

*English Language and Literature*

“Poetries of Geography in Postwar America”

MICHAEL NOVICK

*Religious Studies*

“Duties and Ends: On the Structure of Normativity in Tannaitic Judaism”

The *John Addison Porter Prize*, named in honor of Professor John Addison Porter, BA 1842, is awarded for a work of scholarship in any field where it is possible, through original effort, to gather and relate facts or principles, or both, and to present the results in such a literary form as to make the project of general human interest. This prize is awarded by the Office of the Secretary of Yale University.

HENRY BRANDS

*History*

“Latin America’s Cold War: An International History from Guevara to Reagan”

(See the *Arthur and Mary Wright Prize*)

WENDY ANNE WARREN

*History*

“Enslaved Africans in New England, 1638-1700”

(See the *Edwin Small Prize*)

## Graduating Winners of Prize Teaching Fellowships

ANDREA BECKSVOORT

*American Studies, 2004–05*

JANE ERICKSON

*Psychology, 2005–06*

ROBERT GILPIN

*History, 2009–10*

JOHN GOSS

*Cell Biology, 2008–09*

HEIDI LOCKWOOD

*Philosophy, 2006–07*

MARY WILLARD

*Philosophy, 2007–08*

## Graduate Mentor Awards

This year, for the eleventh time, the Graduate School honors faculty members at Convocation for their exemplary qualities as mentors. Many dissertation advisors were nominated, and the honorees were chosen by a committee of students and faculty, in coordination with the Graduate Teaching Center. All letters of nomination were anonymous.

ELLIOTT VISCONSI

*Assistant Professor of English*

Professor Visconsi (PHD University of California, Los Angeles, 2001) specializes in the literature, law, and political thought of 17th-century England, with special emphasis on the Restoration period. He is concerned broadly with the nexus of literary and legal thinking, including the manner in which literary texts work as constitutional commentary, and public political education in early modern England and the Americas. He is author of *Lines of Equity: Literature and the Origins of Law in Later Stuart England* (Cornell University Press, 2008).

### Student comments:

*“While his skill as a teacher and discussion leader is unparalleled, it is Professor Visconsi’s continual willingness to go beyond his formal duties that is most remarkable. There are innumerable instances of this intellectual generosity: he encouraged me to develop my first conference paper out of the essay I wrote for his course and was a supportive guide throughout the whole unfamiliar process, from writing the abstract to delivering the paper.”*

*“Instead of limiting his toil to the classroom, Professor Visconsi goes out of his way to integrate his graduate students into the broader intellectual community. But whatever setting he finds himself in, his interest in, attention to, and respect for his graduate students is omnipresent.”*

*“Professor Visconsi treats his graduate students as colleagues.... He understands that his role as an advisor is to help us find our place in the academic world, both at Yale and beyond. He has personally helped*

*me forge connections with influential scholars in the wider academic community and introduced me to many new, exciting literary approaches.”*

PATRICK VACCARO

*Professor of Chemistry*

Professor Vaccaro (PHD Massachusetts Institute of Technology, 1986) was a postdoctoral associate at Stanford University, 1986–90, where he was the IBM Postdoctoral Fellow, 1988–89. His research focuses on the fundamental properties of molecular systems as revealed through detailed interpretation of spectroscopic measurements and related optical phenomena. He studies the structure and dynamics of polyatomic reagents that contain chemically-significant quantities of internal (rovibronic) energy. Aside from their practical importance in atmospheric, combustion, and plasma processes, these transitory species provide a unique opportunity to assess present-day understanding of molecules and their interactions.

**Student comments:**

*“Professor Vaccaro has shown me time and again that his primary concern is the education and betterment of his students. He recognizes that certain lessons need to be stringent to be effective and that some subjects are simply difficult and require hard work to be mastered.”*

*“As my program comes to an end, he has been committed to helping me find a placement for after graduation. As a member of my committee, he is in no way obligated to provide this service. I am not a member of his lab and he stands to gain little from the effort. Yet he does it simply because he cares what happens to me after I leave Yale. That, more than anything, speaks to his character and commitment to his students.”*

*“Pat’s enthusiasm for research is infectious and the depth and breadth of his scientific knowledge are both humbling and inspiring. As a new student in his group, I found his patience in teaching me the skills*

*I needed to perform challenging experiments and his confidence in my abilities highly encouraging.”*

SCOTT BOORMAN

*Professor of Sociology*

Professor Boorman (PHD Harvard University, 1973) was a Junior Fellow, Society of Fellows, Harvard University, 1970–73, and Professor of Public Policy and Economics at the University of Pennsylvania, 1974–76. He is a graduate of the Yale Law School and a member of the bars of New York and Massachusetts. His academic interest involves developing new mathematical phenomenology for complex social structures and processes. In recent years, his research has been in models for evolutionary biosociology, blockmodel algorithms for the empirical description of social networks, the theory of complex statutory evolution, and analysis of social processes that involve alternatives to rational choice.

**Student comments:**

*“Professor Boorman has provided his expertise and help on all my research projects during my time as a graduate student at Yale, applying the same time, detail, patience, and pragmatic advice to all of them, whether in his own field of specialization or in other fields.”*

*Professor Boorman combines all the aspects of an excellent mentor: giving students the freedom to develop as independent researchers, providing his expertise as a scholar in his substantive field, giving pragmatic advice for career development, and being a motivator and supporter in difficult phases.”*

*“Scott Boorman has a unique way of applying complex and rigorous sociological concepts to real-life situations that has been inspiring for me. After conversations with him, I always feel extremely motivated and confident about my work and have a new and productive angle on problems I felt stuck with before.”*

# Convocation Address

PROVOST PETER SALOVEY

*The Chris Argyris Professor of Psychology*

Peter Salovey (PHD Yale, 1986) joined the Yale faculty in 1986 after earning his AB and MA from Stanford University and PHD from Yale. As a student, he was president of the Graduate and Professional Student Senate.

Professor Salovey was appointed Dean of the Graduate School of Arts and Sciences in January 2003, Dean of Yale College in July 2004, and Provost in October 2008. In addition to teaching and mentoring scores of graduate students, Salovey has won both the William Clyde DeVane Medal for Distinguished Scholarship and Teaching in Yale College and the Lex Hixon '63 Prize for Teaching Excellence in the Social Sciences.

Salovey's 13 books and over 300 journal articles are focused primarily on human emotions and health behavior. With John D. Mayer, he developed the theory of "Emotional Intelligence," which proposes that people have a wide range of measurable emotional skills that profoundly affect their thinking and action. In his research on health behavior, Salovey investigates the effectiveness of health promotion messages in persuading people to change risky behaviors relevant to cancer and HIV/AIDS.

He was the founding editor of the *Review of General Psychology* and an associate editor of *Emotion and Psychological Bulletin*.



## THE SHIELD OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES



The design for the Graduate School shield was drawn by Yale art professor Theodore Sizer and approved by the University. Four themes are symbolized in the arms of the School. The background of the “chief” (the place of honor) is Yale blue, with Roman numerals in white representing 1847, the year of the founding of the Department of Philosophy and the Arts, the earliest formal organization for graduate study at Yale and, in fact, in the entire United States. Below, on a white background, is a black Y-shaped device representing the “pallium,” a garment worn by philosophers in ancient Rome, and frequently used as a symbol for Yale. The three red crosses are derived from the arms of Bishop George Berkeley, who established in 1732 an endowment for Yale College graduates “reading for the second degree.” These were the first scholarships exclusively for graduate study at Yale.

## THE MACE OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES



The mace is carried at the head of ceremonial processions by the School’s marshal and displayed at such events as the annual Matriculation ceremony, awards Convocation, and Commencement.

The shaft of the mace is turned red mahogany. Inset near the top of the shaft on two sides is the shield of the Graduate School, rendered in cloisonné-enameled metal. For description of the shield, see above. The shaft is topped by a disk of grained red and black macassar ebony, on which sits a large, faceted crystal orb, the chief design element of the mace. The orb symbolizes several characteristics of advanced study in the arts and sciences. The global shape suggests the ambition of advanced study to be comprehensive in its inquiry. The transparent clarity of the fine Austrian lead crystal of which the orb is made alludes to the motto of Yale University, *Lux et Veritas*, and to the enlightenment that scholars seek in their research and teaching. Finally, the many facets of the orb symbolize the complexity of advanced learning in the arts and sciences and the importance of approaching its subjects from many intellectual directions.

In addition to the large ceremonial school mace described above, there are four smaller maces that are carried by faculty and staff marshals. These marshals’ batons each have a similarly turned shaft of mahogany. At their tops is a single enameled shield.