

THE INSTITUTE LETTER

INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY · SPRING 2005

INSTITUTE FOR ADVANCED STUDY CELEBRATES 75TH ANNIVERSARY OF ITS FOUNDING

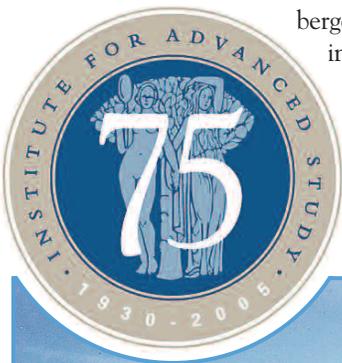
"I was working quietly one day when the telephone rang and I was asked to see two gentlemen who wished to discuss with me the possible uses to which a considerable sum of money might be placed. At our interview I informed them that my competency was limited to the education field and that in this field it seemed to me that the time was ripe for the creation in America of an institute in the field of general scholarship and science ... not a graduate school, training men in the known and to some extent in methods of research, but an institute where everyone—Faculty and Members—took for granted what was known and published, and in their individual ways endeavored to advance the frontiers of knowledge."

Thus the Institute for Advanced Study's founding Director, Abraham Flexner, later recalled the 1929 meeting that would result in the creation of a unique institution, designed solely to encourage and support fundamental scholarship.

Samuel D. Leidesdorf and Herbert H. Maass, the gentlemen who sought Flexner's advice, represented two elderly clients from Newark, New Jersey: Louis Bamberger and his sister, Caroline Bamberger Fuld. Deeply committed to community service, Bamberger and Fuld were in search of a worthy philanthropic use for part of the money they had realized from the sale of their department store business, L. Bamberger and Co., just weeks before the stock market crash in October 1929.

Louis Bamberger (1855–1944), his sister Caroline (Carrie) Bamberger Fuld (1864–1944) were born in Baltimore, Maryland, into an extended German Jewish family of eight children. Louis left school at 14 and worked in his uncle's store. When he had accumulated enough capital to set up in business for himself, he opened L. Bamberger & Co, in partnership with his sister Carrie's husband Louis M. Frank and fellow businessman Felix Fuld (who would

(Continued on page 4)



The Institute for Advanced Study photographed in 1950 on the occasion of the dedication of Founders Walk, a footpath leading from the Institute's South side to the edge of the Institute Woods and beyond to the Stony Brook river.

YVE-ALAIN BOIS APPOINTED FACULTY MEMBER IN THE SCHOOL OF HISTORICAL STUDIES

The Institute for Advanced Study has announced the appointment of art historian Yve-Alain Bois as professor in the School of Historical Studies. Bois joins the Faculty of the Institute on July 1, 2005. Professor Bois comes to the Institute from his position as chair of the Department of the History of Art and Architecture at Harvard University, a position he has held since 2002.

A specialist in 20th-century European and American art, Bois is recognized as an expert on a wide range of artists, including Henri Matisse, Pablo Picasso, Piet Mondrian, El Lissitzky, Ellsworth Kelly, Barnett Newman, Ad Reinhardt, Robert Ryman, Ed Ruscha, and Richard Serra. He is also a distinguished curator who has organized exhibitions to national and international acclaim; is the author of six books that have been widely translated; and has written more than 100 essays for exhibition catalogs, scholarly journals, and other publications.

"Yve-Alain Bois' distinguished scholarly record is notable for its range, for its consistent willingness to rethink fundamental issues, and for its conceptual and methodological innovativeness. The history of art has been represented at the Institute since 1935, and the appointment of Yve-Alain Bois reaffirms our long-standing leadership in and commitment to the discipline," commented Peter Goddard, Director of the Institute.

At the Institute, Bois will continue to work on and complete the first book devoted solely to Barnett Newman's paintings, which will feature an in-depth study of each of the American artist's 120 canvases.

Bois has curated and co-curated several influential exhibitions in the past decade, including *Piet Mondrian, A Retrospective* (National Gallery of Art, Washington, D.C.; Museum of Modern Art, New York City; Gemeentemuseum, The Hague, 1994–95); *L'informe, mode d'emploi* (Centre Georges Pompidou, Paris, 1996); and *Matisse and Picasso: A Gentle Rivalry* (Kimbell Art Museum, 1999).

The latter two exhibitions were each conceived in tandem with books: *L'informe, mode d'emploi* (*Formless: A User's Guide*, with Rosalind Krauss), 1996; and *Matisse and Picasso* (1998). *Formless* (published in English in 1997) introduced concepts that transformed the understanding of avant-garde and modernist art practices, while *Matisse and Picasso* traced the relationships not only between the two artists, but also between their works, their words, and their views of art. Other books include *Francis Picabia* (1975); *Arthur Lehning en Mondrian—Hun Vriendschap en correspondentie* (*Lehning and Mondrian—Their Friendship and Correspondence*), 1984; *Painting as Model* (1990); and *Martin Barré* (1993). With Benjamin Buchloh, Rosalind Krauss, and Hal Foster, he wrote *Art since 1900*, a major textbook on 20th-century art that was published in December 2004.

Bois holds a Doctorat de IIIeme cycle (Ph.D.) from the École des Hautes Études en Sciences Sociales (1977). Currently co-editor of the journal *October*, Bois also co-founded the journal *Macula*, and remains an advisor to the publication's book series.

(Continued on page 6)



Yve-Alain Bois

NEWS OF THE INSTITUTE COMMUNITY

JOHAN BAHCALL, Richard Black Professor in the School of Natural Sciences, has received the 2004 Laurels for Team Achievement award from the International Academy of Astronautics. Presented annually in recognition of teamwork on a specific project, the award honored a team of scientists, engineers, and managers for their pioneering work on the Hubble Space Telescope. The award citation noted: "From its spectacular launch and dramatic repair and upgrades to its regular revelations about our Universe, Hubble has captured the public imagination and provided the scientific community with a tool of unprecedented discovery." Professor Bahcall has also been named President-elect of the American Physical Society for 2005, and will serve as President of the APS in 2006.

Green's Function Estimates for Lattice Schrödinger Operators and Applications by JEAN BOURGAIN, Professor in the School of Mathematics, was published by Princeton University Press in January.

CAROLINE WALKER BYNUM, Professor in the School of Historical Studies, was presented with a Distinguished Career Award from the American Society of Church History at the Society's joint meeting with the American Historical Association in January. The award is given annually in recognition of outstanding contributions to the field of church history.

PIERRE DELIGNE, Professor in the School of Mathematics, has been elected an Honorary Member of the London Mathematical Society "in recognition of his monumental contributions to algebraic geometry."

In December 2004, a main-belt asteroid was named in honor of PIET HUT, Director of the Program for Interdisciplinary Studies. The asteroid was given the name, "17031 Piethut," by the Planetary Data System at the National Aeronautics and Space Administration (NASA).

The American Mathematical Society has awarded the 2005 Leroy P. Steele Prize for Seminal Contribution to Research to ROBERT P. LANGLANDS, the Hermann Weyl Professor in the School of Mathematics for his paper, "Problems in the theory of automorphic forms," (*Springer Lecture Notes in Mathematics* 170 (1970), 18–86), introducing what are now known as the Langlands conjectures. Past recipients include Phillip A. Griffiths in 1971, Robert MacPherson, jointly with Institute Member Mark Goresky, in 2002.

NEW IAS PUBLICATION: BOXED SET OF SCHOOLS BROCHURES



The Office of the Director is pleased to announce the publication of a boxed set of four brochures that provide information on each of the Institute's Schools. The brochures feature photographs and brief biographies of each member of the Institute Faculty and Faculty Emeriti, along with information regarding the work of each

School. In addition, a general brochure providing an overview of the Institute is available.

ROBERT MACPHERSON, Professor in the School of Mathematics, was the honored guest at a three-day conference (October 7–9, 2004) titled, "Geometry, Combinatorics and Algebraic Groups: A Conference on the Occasion of the Sixtieth Birthday of Robert MacPherson."

In October 2004, ERIC MASKIN, Albert O. Hirschman Professor in the School of Social Science, was elected an Honorary Fellow of St. John's College, Cambridge.

Politics and Passion by MICHAEL WALZER, UPS Foundation Professor in the School of Social Science, was published by Yale University Press in January.

In March, OLEG GRABAR, Professor Emeritus in the School of Historical Studies, received the College Art Association's Distinguished Lifetime Achievement Award for Writing on Art. "For half a century," the citation noted, "Grabar has been the embodiment of the discipline of Islamic art history; in fact, this award could easily have been a teaching award for training a host of future scholars in the field ... Perhaps the greatest testimonial to Grabar's lasting influence is the firmly established rigor and status of the field of Islamic art in major American art history programs."

In May, ALBERT O. HIRSCHMAN, Professor Emeritus in the School of Social Science, was awarded the Bernardo O'Higgins medal by the Chilean government. The award, established in 1956, is the highest honor that Chile can confer on a foreign citizen, and is given in recognition of significant contributions in the arts, sciences, education, industry or humanitarian and social cooperation.

IRVING LAVIN, Professor Emeritus in the School of Historical Studies has been chosen as the 2005 recipient of the distinguished Italian *Premio Internazionale Galileo Galilei* award, given each year to a foreign scholar in any field of Italian history. Lavin is the fifth art historian to receive the award since its inception in 1962. Professor Lavin will receive the award at an honorific

ceremony at the University of Pisa in October. Marshall Claggett, Professor Emeritus in the School of Historical Studies, received the award in 1996.

From a Philosophical Point of View: Selected Studies by MORTON WHITE, Professor Emeritus in the School of Historical Studies, was published in December 2004 by Princeton University Press. The volume consists of essays in philosophy and the history of ideas written by Professor White over a period of sixty years.

Witchcraft, Violence and Democracy in South Africa by ADAM ASHFORTH, Visiting Associate Professor in the School of Social Science, was published in January by The University of Chicago Press.

Institute Trustee VARTAN GREGORIAN, President of the Carnegie Corporation of New York, has been elected "an extraordinary member" of the European Academy of Sciences and Arts in Salzburg, Austria, for his "lifetime contribution to the arts and humanities and his pursuit of goals as head of Carnegie Corporation, including promoting the dissemination of knowledge, understanding and tolerance as a means to bridge perceived differences among people, and building a global community."

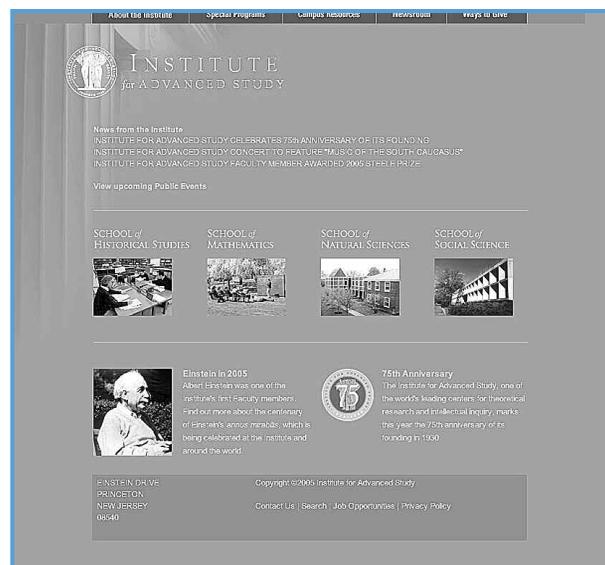
CAROLINE ARNI, Member in the School of Social Science (2004–05), received the University of Bern's *Preis für Geschlechterforschung der Universität Bern* for her doctoral thesis "Entzweiungen: Die Krise der Ehe um 1900" (*Asunder: The Crisis of Marriage Around 1900*). Her book of the same title was published in June 2004 by Böhlau Verlag, Köln.

CURTIS G. CALLAN, Member in the School of Natural Sciences (1969–72; 1983; 1993–94; 2002–04), shared the 2004 Dirac Medal of the Abdus Salam International Centre for Theoretical Physics with James D. Bjorken for work in the use of deep inelastic scattering for shedding light on the nature of strong interactions. The medal, given in honor of P.A.M. Dirac, is awarded annually on Dirac's birthday, August 8, to scientists who have made significant contributions to physics. Previous Dirac Medal winners include Professor Stephen L. Adler in 1998, current Director Peter Goddard in 1997, and Professor Edward Witten in 1985.

In January, the American Philological Association awarded RAFFAELLA CRIBIORE, (Member in the School of Historical Studies, 2004–05) the Charles Goodwin Award of Merit for her book *Gymnastics of the Mind: Greek Education in Hellenistic and Roman Egypt*. The award is presented annually for an outstanding contribution to classical scholarship published by a member of the Association within the preceding three years. Heinrich von Staden, Professor in the School of Historical Studies, received the award in 1992 for his book *Herophilus: The Art of Medicine in Early Alexandria*.

The American Mathematical Society has awarded the 2004 Oswald Veblen Prize in Geometry to DAVID GABAI (Member in the School of Mathematics, 1982–83, 1989–90, 2003–04) in recognition of his work in geometric topology, in particular, the topology of 3-dimensional manifolds. ■

NEW LOOK FOR INSTITUTE WEBSITE



In March, the Institute officially launched a new website design with a fresh, dynamic look and updated content. Added features include an online Faculty photo gallery with links to individual Faculty biographies, new links to information on Einstein and the 75th Anniversary of the Institute, and headlines of current IAS news that link to press releases in the redesigned Newsroom. Visit www.ias.edu and see what's new!

THE INSTITUTE LETTER

Christine Ferrara, *Managing Editor* Linda Arntzenius, *Editor*
Alison Carver, *Design*

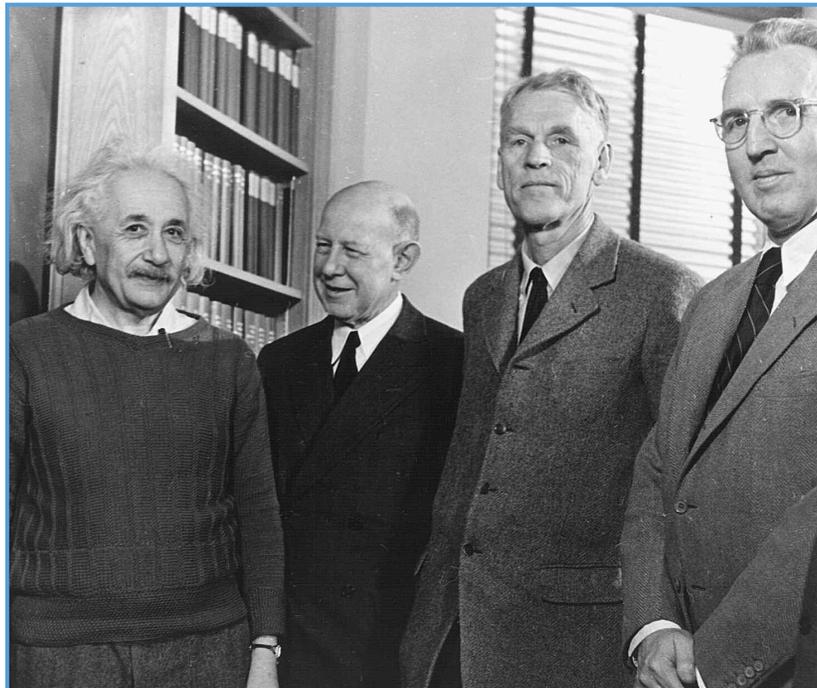
*Institute for Advanced Study, Einstein Drive
Princeton, NJ 08540-0631*

ALBERT EINSTEIN 1905: *Annus Mirabilis*

When the Institute for Advanced Study's founding Director, Abraham Flexner, described his vision of the new Institute to Albert Einstein, Einstein's response was "*Ich bin Feuer und Flamme dafür*" (I am fire and flame for this), and in 1933, he came to the United States to become one of the Institute's first Faculty members. Einstein remained on the Institute's Faculty until his death in 1955, and played a significant role in the Institute's early development.

This year marks the centenary of Einstein's *annus mirabilis* of 1905, the year in which Einstein, then a 26-year-old patent clerk, completed his Ph.D. thesis and published his celebrated papers on the structure of light, on Brownian motion, and on electromagnetism and motion (which would later be called the Special Theory of Relativity). That year, he wrote to his friend, the mathematician, Conrad Habicht, "I promise you four papers, the first of which I could send you soon ... The paper deals with radiation and the energetic properties of light and is very revolutionary as you will see ... The second paper is a determination of the true sizes of atoms from the diffusion and viscosity of dilute solutions of neutral substances ... The third proves, on the assumption of the kinetic theory of heat, that microscopic particles about 1/1000mm in size must perform an observable random movement that is produced by thermal motion ... The fourth paper is only a rough draft at this point, and is an electrodynamics of moving bodies, which employs a modification of the theory of space and time."

These four papers concerning, respectively, the photoelectric effect, the sizes of atoms and molecule (the subject of his Ph.D. thesis), Brownian motion, and Special Relativity, revolutionized physics. At the beginning of 1905, our understanding of the basic laws of nature was based on Isaac Newton's discoveries in the 17th century. By the end of 1905—the year which Einstein later recalled as one in which "a storm broke loose in my mind"—his insights had changed our understanding of the universe.



Albert Einstein with Institute Director (1939–47) Frank Aydelotte, Professor Oswald Veblen and Professor Marston Morse.

standing of the universe.

In his March paper on the photoelectric effect, Einstein solved the mystery of the exact nature of light by advancing a radical new idea of its structure, suggesting that it has a dual nature, with properties of both waves and particles. Einstein himself considered this to be the most revolutionary of his ideas, and in 1921 he won a Nobel Prize for it. In May, a second Einstein paper explained the mystery of "Brownian motion," the ceaseless random dance of microscopic particles. Although scientists had observed this motion and had an idea—kinetic energy theory—as to why it occurred, Einstein's paper proposed a new and crucial way to test the theory. Einstein's test explained the motion in detail, reinforced the kinetic theory, and created a powerful new tool for studying the movement of atoms, whose existence was still debated at the time. In his June paper, Einstein introduced his "Special Theory of Relativity,"

using a completely new view of space and time to show that measurements about time and space are not absolute.

The following September, he reported a remarkable consequence of this Special Theory of Relativity: mass can be converted into energy. Einstein wrote again to Conrad Habicht: "One more consequence of the paper on electrodynamics has occurred to me. The principle of relativity, in conjunction with Maxwell's equations, requires that mass be a direct measure of the energy contained in a body ..." This relationship found expression as the famous equation: $E=mc^2$.

Einstein's theories dramatically changed our ideas of space and time, which seem to be completely different, but which Einstein unified into a new concept that would come to be called space-time. "His ideas have held up well," commented Institute Faculty member Edward Witten: "Almost everything else in our fundamental description of physics has changed since Einstein's day, but we still describe space-time using the concepts he introduced ... After Einstein, further discoveries changed almost everything else

in our understanding of physics. Scientists discovered new building blocks of matter and the surprising laws that govern their behavior. But all the new phenomena occurred, and all the new particles were found, in the space-time arena that Einstein had set forth."

During his years at the Institute for Advanced Study, Einstein continued to work on speculative ideas towards a unified field theory, although the majority of working physicists had set aside the goal of unifying the four fundamental forces of nature: gravity, electromagnetism, the strong nuclear force, and the weak nuclear force. With the growth of string theory in recent years as a strong candidate for providing a fundamental theory that would unite the very large and the very small, this goal has become, once again, a major focus for physicists. Some of the foremost string theorists in the world are Institute faculty, and in that regard and others, Einstein's legacy is strongly felt at the Institute. ■

UPCOMING PROGRAMS

Program for Women in Mathematics

The Program for Women in Mathematics brings together research mathematicians with women undergraduate and graduate students for an intensive 11-day workshop on the campus of the Institute for Advanced Study. Founded in 1994, the program encourages women to pursue careers in mathematics by emphasizing learning and research, mentoring, and peer relations.

"The Geometry of Groups" is the topic for the 2005 program, which will be held from May 16–27. Program organizers are Sun-Yung Alice Chang of Princeton University; Ruth Charney of Brandeis University; Antonella Grassi of the University of Pennsylvania; Chuu-Lian Terng of the University of California, Irvine; Karen Uhlenbeck of The University of Texas at Austin; and Karen Vogtmann of Cornell University.

The Program for Women in Mathematics is organized under the auspices of the Institute for Advanced Study and Princeton University. Funding has been provided by the National Science Foundation and The Starr Foundation.

For further information, contact Diane DePiano, (609) 734-8118, e-mail: depiano@ias.edu; or visit <http://www.math.ias.edu/womensprogram/>

Prospects in Theoretical Physics

Prospects in Theoretical Physics (PiTP), an intensive two-week summer program designed for graduate students considering a career in theoretical physics, provides lecture courses and informal sessions on the latest advances and open questions in various areas of theoretical physics. One of the program's goals is to help the physics community train the next generation of scholars in theoretical physics. A special effort is made to reach out to women and minorities, as well as to graduate students in small universities who typically do not have the same opportunities and access to leaders in the field as graduate students in large research institutions.

The topic for 2005 is "Introduction to Collider Physics," and the program will take place July 18–29. The program will be an introduction to Large Hadron Collider (LHC) Physics, intended for graduate students and postdoctoral fellows in theoretical particle physics. This year's local organizers are: Chiara Nappi and Igor Klebanov of Princeton University and Nathan Seiberg of the Institute's School of Natural Sciences. PiTP is funded by The Concordia Foundation and the National Science Foundation. For further information, contact Susan Higgins, (609) 734-8389; e-mail: shiggins@ias.edu; or visit <http://www.admin.ias.edu/pitp/>

IAS/Park City Mathematics Institute

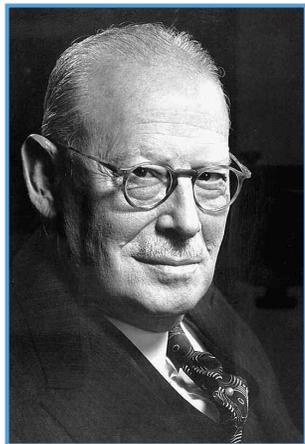
The Institute for Advanced Study/Park City Mathematics Institute (PCMI) is designed for mathematics educators at the secondary and post-secondary level, as well as mathematics researchers and students at the post-secondary level. The program fosters interaction among the participating groups so that each benefits from the others' experiences and professional areas of expertise.

PCMI consists of its flagship three-week residential summer session (June 26–July 16); a year-round program of Professional Development and Outreach groups for Secondary school teachers; and a Lecture Publication Series. At the annual summer session all six of PCMI's groups—secondary school teachers, mathematics education researchers, undergraduate college faculty, undergraduate students, graduate students, and mathematics researchers—meet simultaneously, pursuing both individual courses of study and a meaningful amount of interaction.

The Research topic for 2005 is "Mathematical Biology," and program organizers are Mark Chaplain of the University of Dundee; James Keener of the University of Utah; Mark Lewis of the University of Alberta; and Philip Maini of Oxford University. Clay Senior Scholars

(Continued on page 6)

INSTITUTE FOR ADVANCED STUDY ARCHIVES



Samuel D. Leidesdorf played a leading role in the development of the Institute, as Treasurer 1930–57, and Chairman of the Board of Trustees 1957–68.

become Carrie's second husband in 1913, after Louis Frank's death in 1910).

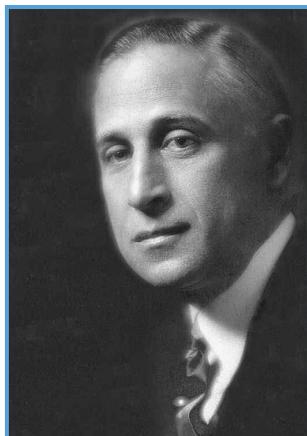
By 1912, L. Bamberger & Co. occupied an entire city block. It introduced innovations such as money-back guarantees, price tags, and trained salespeople who earned a commission on sales in addition to their regular salary. By 1924, "Bams" had 2,800 employees and boasted an in-store extension of Rutgers as well as a pioneering radio station (WOR) atop its Newark building. When it was sold to rival R. H. Macy in 1929, Louis distributed one million dollars to 236 of his employees for long and faithful service. Bamberger remained as President of the store until his death at age 88 in March 1944. The store retained the Bamberger name into the 1980s.

Louis Bamberger and his sister Caroline Fuld were extremely active with philanthropic causes, Jewish charities in particular. They supported the Jewish Theological Seminary of America, Young Men's Hebrew Association, Young Women's Hebrew Association, the Boy and Girl Scouts of Newark, and others, and considered endowing a

medical school in Newark or nearby.

When Herbert Maass and Samuel Leidesdorf were approached by Louis Bamberger and Caroline Fuld for advice regarding their fortune, one name sprang to mind, that of Abraham Flexner, then the most influential figure in American medical education. As Maass recorded: "At their request, we made a survey of medical education in the United States and were frequently referred to Dr. Abraham Flexner, under whose supervision a survey of medical education in the United States was conducted and under whose supervision millions of dollars were devoted by the General Education Board to improving the methods pursued in sundry medical schools."

Abraham Flexner (1866–1959), who later became known as "The man who brought Einstein to America," was born in Louisville, Kentucky, into a closely-knit family of German Jewish immigrants. He was the sixth of nine children, seven boys and two girls. The Flexners valued education highly. But when the family suffered financially from the panic of 1873, there seemed little hope of a college education for Abraham or his five older brothers: they left school and went to work to support the family.



PIERRE MACDONALD

Herbert H. Maass played a leading role in the development of the Institute, as Vice Chairman and Vice President of the Board of Trustees 1933–42, President 1942–49, and Chairman 1946–57.

Through the efforts of his oldest brother Jacob, who had opened up a drugstore in Louisville, Flexner attended the Johns Hopkins University.

He spent two years there and earned a BA in Classics in 1886. Johns Hopkins stressed postgraduate education, then very rare in the United States. Flexner hoped to continue his education but the fellowship he sought eluded him. He returned to Louisville to teach Latin and Greek at the Louisville High School from which he had graduated two years earlier.

In 1890, Flexner founded his own experimental school in Louisville, some four years before John Dewey would set up Dewey's Laboratory School at the University of Chicago. The school implemented Flexner's innovative and progressive ideas about how an individual learns. It had no formal curriculum, exams, or grades, but it was very successful in preparing students for prestigious colleges.

In 1898, Flexner married Anne Crawford, who had been a pupil in his school and then a graduate of Vassar. Anne was a playwright, who experienced great success on Broadway—her play, *Mrs. Wiggs of the Cabbage Patch*, based on a best selling novel of the same name by her friend, Alice Rice, ran for seven years on Broadway; W.C. Fields starred in one of the four film versions; and Mae West was in one of the touring companies. This financial success allowed Flexner to pursue a Masters degree in Psychology from Harvard, and subsequently spend a year at the universities of Berlin and Heidelberg where he wrote a critical commentary on the deficiencies of higher education in the United States in 1908.

Published as the *American College*, it was a caustic commentary on the deficiencies of American higher education, and it caught the attention of Henry Smith Pritchett, president of the Carnegie Foundation for the Advancement of Teaching. Pritchett engaged Flexner to research and write a report on medical schools in the United States and Canada. The result became known as the Flexner Report and it launched Flexner's reputation as an educational reformer. Flexner began work with the Rockefeller philanthropies in 1910 and was eventually appointed as assistant secretary to the Rockefeller funded General Education Board in 1913.

By the late 1920s, Flexner was a prominent figure in higher education, had made an extensive study of universities in the U.S. and Europe and was extremely critical of



INSTITUTE FOR ADVANCED STUDY ARCHIVES

Louis Bamberger (right) with his business partner, friend and brother-in-law Felix Fuld. Fuld's death in 1929 was the deciding factor that prompted his widow, Caroline Bamberger Fuld, and her brother Louis Bamberger, to sell their department store to rival Macy's later that year.

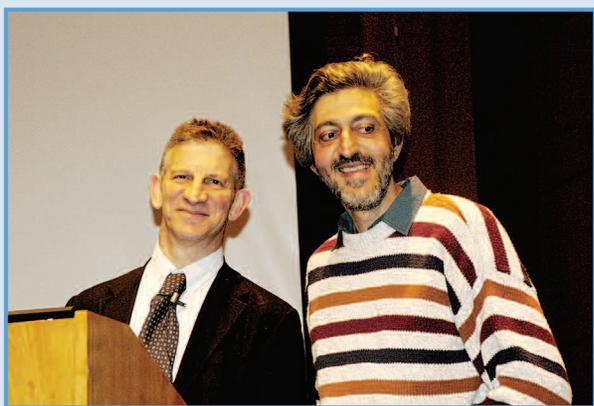
SCHOOL OF MATHEMATICS Celebratory Events

In celebration of the 75th anniversary of the founding of the Institute, the School of Mathematics—the Institute's first School—organized a series of lectures on March 11 and 12 that featured some of the world's leading mathematicians, all of whom have been Members or Visitors of the Institute. Speakers on March 11 were: Peter Sarnak, Princeton University and the Courant Institute of Mathematical Sciences, on "Number Theory, Symmetry and Zeta Functions," and Avi Wigderson, Institute for Advanced Study, on "Randomness, Games and Computers." Former Director's Visitor George Dyson presented "Veblen's Circle: Early Years of Mathematics at the Institute for Advanced Study."

On Saturday, March 12, Sir Michael Atiyah of the University of Edinburgh, spoke on "Solitons and Symmetry," Raoul Bott, Professor Emeritus, Harvard University, spoke on "Topology, Marston Morse and Hermann Weyl," Weinan E of Princeton University presented "A Mathematical Theory of Solids—from Atomic to Macroscopic Scales," Friedrich Hirzebruch of Bonn University presented "My Joint Work with Armand Borel from 1952 to 1954," and Peter Ozsváth of Columbia University and the University of California at Berkeley, discussed "Heegaard Diagrams and Holomorphic Disks." ■



Peter Goddard (left) with Institute Trustee Jim Simons



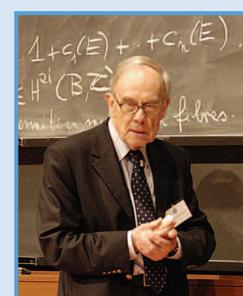
Peter Sarnak (left) with Avi Wigderson



Weinan E



Sir Michael Atiyah



Friedrich Hirzebruch



Peter Ozsváth



Raoul Bott

ALL PHOTOS BY CLIFF MOORE

many features of American universities. In particular, he deplored the lack of favorable conditions for carrying out research.

He had dreamed for many years of establishing in America an institution devoted to learning and research rather than undergraduate teaching. He envisioned a true society of scholars, and he convincingly conveyed to Louis Bamberger and Caroline Fuld his vision of a research institution that:

“... will be neither a current university, struggling with diverse tasks and many students, nor a research institute, devoted solely to the solution of problems. It may be pictured as a wedge between the two ... I should think of a circle, called the Institute for Advanced Study. Within this, I should, one by one, as men and funds are available, and only then, create a series of schools or groups: a school of mathematics, a school of economics, a school of history, a school of philosophy, etc. The schools may change from time to time; in any event, the designations are so broad that they may readily cover one group of activities today, quite another group as time goes on. Each School should conduct its affairs in its own way, for neither the subjects nor the scholars will all fit into one mold.”

It was a great experiment, born of idealism, generosity, and belief in the importance of scholarship, and it moved rapidly from idea to reality. On May 20, 1930, a certificate of incorporation was signed, and later that month, *The New York Times* announced the creation of an Institute for Advanced Study, with a gift of \$5 million from Louis Bamberger and his sister, Mrs. Felix Fuld.

In October 1932, Flexner announced publicly the creation of the Institute for Advanced Study's first school, the School of Mathematics, and its first Faculty appointments, Oswald Veblen and Albert Einstein. The School began activities in the autumn of 1933, and as it had no building of its own, was housed temporarily in rented space in Fine Hall, Princeton University's new mathematics building. By the start of the 1933–34 academic year, the new Institute had a Faculty of five leading mathematicians and theoretical physicists, as well as over twenty visiting scholars. Although founded as the School of Mathematics, the Institute's first School included physicists and mathematicians; at this time, there was no separation between mathematics and theoretical physics and there would be no separate School of Natural Sciences at the Institute until 1966.

The rapidly-expanding new institution—a second and a third School were founded in 1935: the School of Economics and Politics and the School of Humanistic Studies—quickly outgrew its borrowed quarters, and in the autumn of 1939, the Institute moved into its new building, Fuld Hall. The School of Economics and Politics and the School of Humanistic Studies were merged in 1949 to form the School of Historical Studies. In 1966, the School of Natural Sciences was founded and in 1973 the School of Social Science was formed.

Though the Institute has grown and changed in significant ways over the years, its fidelity to its original mission is a tribute to the ongoing relevance and value of that mission. Today, the Institute for Advanced Study could be described accurately in the same words its Founders used in 1930, in their original letter to the first Trustees:



In 1950, Institute Director (1947–66) J. Robert Oppenheimer (seen here with his back to the camera) held a dedication ceremony at Founders Rock (in foreground) where a plaque was installed commemorating the Institute's founders Louis Bamberger and Caroline Bamberger Fuld. This year, to mark the 75th anniversary of the Institute's founding in 1930, a new bench was installed next to Founders Rock.

“... the institution will consist exclusively of men and women of the highest standing in their respective fields of learning, attracted to this institution through its appeal as an opportunity for the serious pursuit of advanced study and because of the detachment it is hoped to secure from outside distractions ... The primary purpose is the pursuit of advanced learning and exploration in fields of pure science and high scholarship to the utmost degree that the facilities of the institution and the ability of the faculty and students will permit.”

“The Institute has remained committed to the farsighted and abiding vision of its founders to establish an academic institution dedicated to the disinterested pursuit of knowledge,” states Dr. Peter Goddard, Director of the Institute. “The 75th anniversary year provides the opportunity to celebrate and reflect upon the remarkable achievements of those who have worked here and the unique and vital contribution that the Institute makes to the world of scholarship today.”

In March and April, respectively, the School of Mathematics and the School of Historical Studies hosted celebratory events (see below). Later this year, in September and November, the School of Natural Sciences and the School of Social Science, respectively, will mark the Institute's 75th Anniversary. For further information about the 75th Anniversary, visit www.ias.edu. ■

SCHOOL OF HISTORICAL STUDIES Celebratory Events

The School of Historical Studies celebrated the Institute's 75th anniversary on Friday and Saturday, April 8 and 9, with a symposium on “The Matter of History” that featured a special multimedia presentation on April 8, entitled *Text, Space & Object*, chaired by Sir John Elliott, Regius Professor Emeritus of Modern History at Oxford University, and former Professor, Institute for Advanced Study. The presentation explored the diversity of materials from which history is recovered and interpreted.

On Saturday, April 9, the School organized a series of interactive seminars. Professor Heinrich von Staden and former Member Fritz Stern, University Professor Emeritus and former Provost at Columbia University, led a discussion on the misuse and corruption of historical evidence, titled *The Vulnerability of History*. In *Fraud & Forgery*, led by Professor Glen Bowersock and Professor Patricia Crone, special attention was paid to the ban on tomb-robbing in Palestine at the time of the Resurrection of Christ, and to the Protocols of the Elders of Zion. Professor Jonathan Israel and current Member Kinch Hoekstra, Fellow of Balliol College, Oxford University, presented *Intellectual Rebels*. Professor Caroline Bynum and former Member Robert Darnton, Professor of History at Princeton University, discussed *Hidden People*, issues of gender, class, and sex in European History. Professor Emeritus Oleg Grabar and former Member Henri Zerner, Professor at Harvard University and Curator in the Fogg Art Museum, led a discussion on the ideological and nationalist motivation for the creation of *Museums & Great Collections*. Professor Nicola Di Cosmo and former Member Bernard Haykel, Professor of Near Eastern Studies at New York University, focused on *National History*, with particular emphasis on East Asia and the Middle East. ■



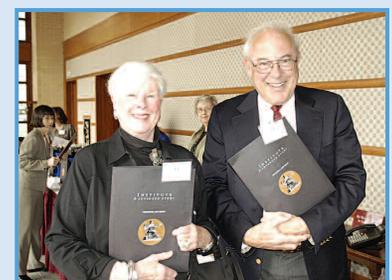
Sir John Elliott (left), Peter Goddard and Glen Bowersock (right)



Heinrich von Staden (right) with Fritz Stern



Jonathan Israel (left) with Kinch Hoekstra



Friends of the Institute Ginny and Bob Loughlin



Robert Darnton (left) with Caroline Walker Bynum



Multimedia presentation by Sir John Elliott

INSTITUTE FOR ADVANCED STUDY ARCHIVES

ALL PHOTOS BY CLIFF MOORE

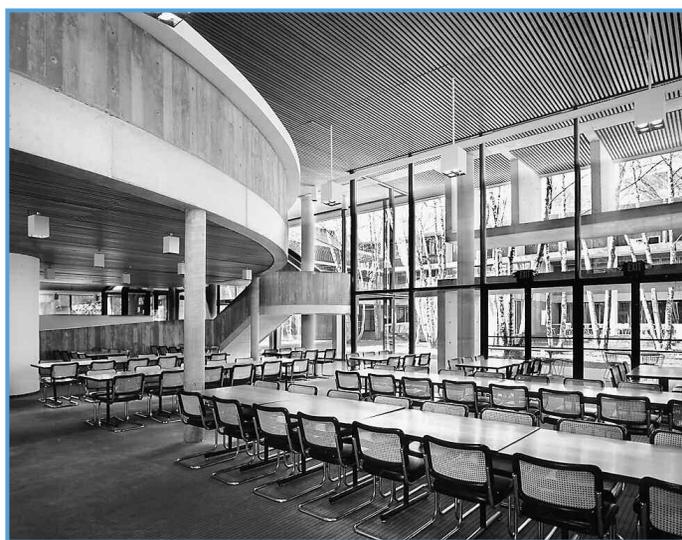
25TH ANNIVERSARY OF THE FRIENDS OF THE INSTITUTE FOR ADVANCED STUDY

This year marks the 25th anniversary of the Friends of the Institute for Advanced Study. In 1980, on the occasion of the 50th anniversary of the Institute's founding, a small circle of supporters—Mary Keating, Edward Cone and Anne Martindell—came together with then Director Harry Woolf to create an organization that would further the interests of the Institute. The organization grew steadily in its first decade and, in 1990, an Executive Committee was established. The first Chair was the late Frank Taplin, followed by Mary Keating, Judith Thomson, Robert Johnston, William Bardel and current Chair Tina Greenberg.

Friends Fireside Chat Focuses on the Institute's Architecture

For a Friends Fireside Chat on April 1, architect Robert Geddes presented a subject he is uniquely qualified to discuss: the architecture of the Institute for Advanced Study. Dean Emeritus of the School of Architecture at Princeton University as well as the Luce Professor Emeritus of Architecture, Urbanism and History at New York University, Geddes brought his perspective of more than 50 years as an architect, urban designer and teacher to his reflections on the Institute's buildings and landscapes. An additional qualification was his "insider" perspective: he is the architect for both the Institute's Dining Hall and West Building (1970–71), and Bloomberg Hall (2002), the home of the School of Natural Sciences.

In her September 27, 1972 *New York Times* article, "Architecture at the Head of Its Class," Ada Louise Huxtable wrote an enthusiastic appraisal of the Institute's Dining Hall and West Building (Geddes, Brecher, Qualls, Cunningham), observing that "the level of the building's design suggests immediately the level of the



The Institute's Dining Hall was designed by architects Geddes, Brecher, Qualls and Cunningham, and completed in 1971.

work being done, and the appropriateness of an environment that matches intellectual and artistic excellence ... these buildings teach humane and artful lessons in the built environment. They are lessons of quality, as well."

Uniting all of the School of Natural Sciences Faculty and Members in one building had been a goal for a very long time. A plan was developed to connect two neo-Georgian buildings that had been added to the South side of Fuld Hall in 1948 and 1953 with another that would, as the School's Faculty charged the architect, "encourage people who are doing research in neighboring offices and in overlapping scientific fields to talk with each other about their common interests. Moreover, we want to encourage researchers to commu-

nicate with each other even though their offices may be in different parts of the School, and their primary focus of research activities may be in seemingly unrelated areas ... We would like the building to communicate a sense of collaboration, warmth, and friendliness while facilitating quiet, individual study." Robert Geddes' plan for the new building, Bloomberg Hall, was to combine the existing two buildings through a center axis, making a forecourt and a second courtyard. "Buildings have enormous symbolic as well as functional power," he has said.

From 1933 to 1939, the Institute operated from an assortment of rented quarters in various Princeton locations, including space in Fine Hall (now Jones Hall), which was Princeton University's new mathematics building at that time. In the fall of 1939, the Institute moved into Fuld Hall, its own four-story building designed by Jens Frederick Larsen, of Hanover, N.H., and named in honor of Felix Fuld, Louis Bamberger's business partner and Caroline Bamberger Fuld's husband. In 1965, a new library, designed by Wallace K. Harrison, was completed. With both Simonyi Hall and Wolfensohn Hall, designed by Cesar Pelli and completed in 1993, the Institute gained a new building for its mathematicians, and an auditorium (Wolfensohn Hall) that could accommodate, for the first time, the entire Institute community for lectures, symposiums, and concerts.

Looking at the Institute buildings today, sited carefully on a beautiful, 800-acre campus that includes nearly 600 acres of woods and fields permanently preserved from development, Ada Louise Huxtable's comment, with respect to the design of the Dining Hall and West Building, of more than a quarter-century ago, still applies: "The Institute is producing more than cosmic equations. It offers an important cultural and environmental lesson, as well." ■

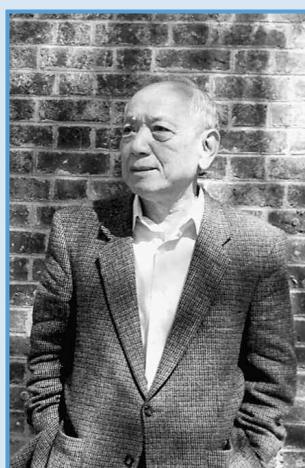
INSTITUTE RECEIVES GIFT FROM CHERN FOUNDATION

The Institute for Advanced Study is the recipient of a \$100,000 gift from the S. S. Chern Foundation for Mathematical Research in Houston, Texas.

Shiing-Shen Chern, a mathematician who redefined the subject of geometry and was internationally recognized as the foremost differential geometer of our time, maintained close ties with the Institute throughout his life, and with its former Director, fellow mathematician and current Institute Faculty member Phillip A. Griffiths. Professor Chern was a Member in the School of Mathematics on three occasions: from 1943–46; from 1954–55; and from 1964–65. While at the Institute, Chern developed his work on the Gauss-Bonnet formula, about which he commented in 1992: "I still consider this my best piece of work." Professor Chern died on December 3, 2004, at the age of 93.

The Chern Foundation was established in 1997 to further mathematics research and study by Chinese mathematicians, mathematicians of Chinese descent and others who desire to help Chinese mathematics.

For a recent article on Shiing-Shen Chern, who was the first recipient of the Shaw Prize in Mathematical Sciences, see the *Institute Letter*, Fall 2004 (on the Institute's website at <http://www.ias.edu/the-institute-letter/04Fall/04Fall.php>) ■



Shiing-Shen Chern

BOIS (Continued from page 1)

He began his career at the Centre National de la Recherche Scientifique in Paris in 1977, and was subsequently on the faculty of the Johns Hopkins University from 1983 to 1991, at which time he accepted the Joseph Pulitzer, Jr., Professorship of Modern Art in the Department of the History of Art and Architecture at Harvard University. Bois was acting chair of the department in 1999–2000, before assuming the position of chair in 2002.

The history of art has been represented at the Institute since 1935, when Erwin Panofsky (Professor, 1935–62, Emeritus, 1962–68) was appointed to the Faculty of what was then the School of Humanistic Studies. Formalized as the School of Historical Studies in 1949, the School has been home to some of the world's leading art historians, including Millard Meiss (Professor, 1958–1974, Emeritus, 1974–75), Irving Lavin (Professor, 1974–2001, Emeritus, 2001–present) and Kirk Varnedoe (Professor, 2002–2003). Publications by Faculty in the School of Historical Studies have become key references for generations of art historians, and each year the School hosts scholars from around the world, who come to pursue their studies in a range of areas within art history. These scholars work alongside fellow Members specializing in Greek and Roman civilization; the history of Europe (medieval, early modern, and modern); the Islamic world; East and Central Asia, India, and Africa; and modern international relations, among other areas. Such interaction promotes interdisciplinary research and cross-fertilization of ideas, thereby encouraging the creation of new historical enterprises. ■

UPCOMING PROGRAMS (Continued from page 3)

in Residence will be Simon A. Levin of Princeton University and Charles S. Peskin, of the Courant Institute. The Education topic for 2005 is "The Mathematics Education of Mathematics Teachers." Program coordinators are Gail Burrill of Michigan State University; Carol Hattan of Skyview High School, Vancouver, WA; and James King of the University of Washington.

The Institute for Advanced Study and the IAS/Park City Mathematics Institute (PCMI) are grateful to the

following contributors: The National Science Foundation; The Starr Foundation; The State of New Jersey; The National Security Agency; The George S. and Delores Doré Eccles Foundation; The Wolfensohn Family Foundation; Mr. and Mrs. Charles Jaffin; The Spencer Foundation; The Clay Mathematics Institute; and the Chautauqua Workshop Programs.

For further information, visit <http://www.admin.ias.edu/ma/> ■

GEORGE FROST KENNAN February 16, 1904 – March 17, 2005

George Frost Kennan, Professor Emeritus in the School of Historical Studies, died at his home in Princeton, New Jersey, on March 17 at the age of 101.

Professor Kennan, an expert on the diplomatic history of Russia, the Soviet Union and U.S.-Soviet relations, is perhaps best known as the author of the “Long Telegram,” dispatched in 1946 to Secretary of State James Byrnes. The historic 8,000-word message proposed a new approach to U.S.-Soviet relations and defined the terms of the Cold War.

“George Kennan’s long and distinguished professional life has been one of uncommon achievement in both statecraft and scholarship, and his record of accomplishment is remarkable in its breadth and depth,” said Peter Goddard, Director of the Institute for Advanced Study. “He wrote perceptively about American foreign policy; did much to increase understanding of Russia and the Soviet Union, and provided intelligent, principled and courageous criticisms on other important issues.”

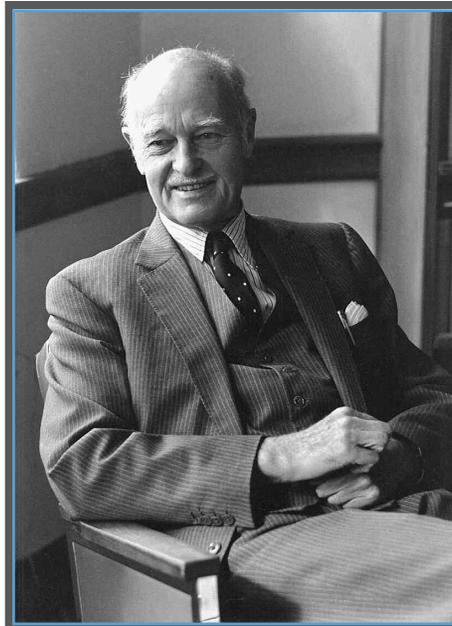
James D. Wolfensohn, President of The World Bank and Chairman of the Institute’s Board of Trustees, stated: “George Kennan was one of the great treasures of the Institute, in his own field ranking alongside other former Institute colleagues, Albert Einstein and John von Neumann. We cherish his memory and his friendship.”

Professor Kennan, who came to the Institute as a visiting scholar in 1953, joined the Faculty of the School of Historical Studies in 1956. While the Institute was Professor Kennan’s academic home, he moved between the diplomatic and academic worlds, serving as Ambassador to the Soviet Union in 1952 and to Yugoslavia in 1960–63. He was George Eastman Visiting Professor at Oxford (1957–58), and a University Fellow at Harvard (1965–69). In 1975, he co-founded the Kennan Institute for Advanced Russian Studies (as part of the Woodrow Wilson International Center for Scholars), Washington, D.C. The Kennan Institute works to provide both the American public and policy-makers with a better understanding of the Soviet Union by improving Russian studies.

Professor Kennan had a distinguished career in the United States Foreign Service from 1926 to 1953, and received special training as a Soviet expert during his service in Germany in the 1930s. During the remainder of the 1930s, he served in Moscow, Vienna, and Prague at the time of the Nazi occupation of Czechoslovakia. He served in Berlin at the outbreak of World War II and in Moscow at the end of the war.

It was during this period of expanding Soviet influence in Europe that he dispatched the “Long Telegram.” In it, he argued that the Soviet Union was “a political force committed fanatically to the belief that with the U.S. there can be no permanent *modus vivendi*,” but that the problem could be met “without recourse to any general military conflict.”

In 1946, he left Moscow to become the first Deputy for Foreign Affairs of the newly-formed National War College. It was there that he wrote the original draft of “The Sources of Soviet Conduct.” Subsequently published anonymously in the July 1947



George F. Kennan

issue of *Foreign Affairs* and famously signed by “X,” it proposed maintenance of a balance of power with the Soviet Union, an approach that came to be known as “containment.” In 1947, Kennan became Director of the Policy Planning Staff of the Department of State, and, in 1949, Counselor of the Department.

Glen W. Bowersock, Professor in the School of Historical Studies, recalls that when the Soviet Union fell, Kennan remarked that “he had never imagined that in his own lifetime he would see both the birth and the death of communism in Russia.” Professor Bowersock commented that Kennan “was a deeply respected figure, whose conversation was eagerly sought and always appreciated. His memories of his diplomatic career evoked persons and epochs that were long since past.”

In 1950, J. Robert Oppenheimer, then the Director of the Institute, invited Kennan, on leave from the Foreign Service, to come to the Institute as a Visitor. So began the long connection with an institution that permitted him the time for study, reflection, and the academic contacts that led to concomitant careers as scholar of American and European history, and both analyst of and actor upon the contemporary scene.

During his tenure at the Institute, Professor Kennan was twice the recipient of both the Pulitzer Prize and the National Book Award for his books *Russia Leaves the War*, Vol. I of *Soviet-American Relations*

1917–1920 (1956) and *Memoirs, 1925–1950* (1967). He was the author of more than 20 books as well as many articles on the diplomatic history of Russia and the Soviet Union. Professor Kennan, who became Professor Emeritus in 1974, attributed his accomplishments in part to the Institute. “I can find no adequate words,” he wrote, “in which to acknowledge the debt I owe to this institution.”

Kennan’s awards were numerous: the Order of the *Pour le Mérite* for Arts and Sciences of the German Federal Republic, the Testimonial of Loyal and Meritorious Service from the Department of State (1953), Princeton University’s Woodrow Wilson Award for Distinguished Achievement in the Nation’s Service (1976), the Albert Einstein Peace Prize (1981), the German Peace Prize (1982), the Franklin D. Roosevelt Foundation Freedom from Fear Medal (1987), the Presidential Medal of Freedom (1989), and the Distinguished Service Award from the Department of State (1994), to name a few. He received 29 honorary degrees and was a former President of the American Academy of Arts and Letters. Among honors in his name are the George F. Kennan Chair in National Security Strategy at the National War College, and the George F. Kennan Professorship and Memberships established at the Institute for Advanced Study.

Professor Kennan is survived by his wife, Annelise Sorenson Kennan; his four children, Grace Kennan Warnecke, Joan Kennan, Christopher Kennan, and Wendy Kennan; eight grandchildren; and two great-grandchildren. A memorial service was held on April 6, 2005, at the Washington National Cathedral in Washington, D.C. ■

REMEMBERING GEORGE F. KENNAN

George Kennan was a towering figure not only in American public life and in the life of his community but in the life of the world. In a climate that consistently devalues words like “patriot” he was always able to distinguish—and to point out to others—the genuine article. To his consternation, this least doctrinaire of men was saddled with the putative paternity of what came to be labeled a doctrine of U.S. foreign policy, “containment.” In similar fashion he watched the West re-arm itself in order to confront a threat that was primarily political rather than, as less supple minds would have it, military. The Soviet regime would fail under the weight of its own excesses. So ran much of the accepted wisdom in Washington. Kennan’s response might be described as “yes, but.” Yes, the Soviet armed forces remained formidable, but no, we would be foolish if we allowed Moscow to set the terms of the domestic American debate.

The same was even more true regarding the issue that probably caused Kennan more grief than any other—the role of nuclear weapons in U.S. policy. So far as Kennan was concerned, the questions had a simple answer: There was no role for weapons that were, as he put it in his memoirs, “indiscriminately destructive and suicidal in their implications.” The debate over nuclear weapons started for Kennan when he was still in the government. It grew more heated after he had left for the Institute for Advanced Study. At the Institute, moreover, there was the constant presence of its Director, J. Robert Oppenheimer, who led the effort to develop the first atomic bombs. The terms of debate regarding what we now call “weapons of mass destruction” reflected the influence of Kennan and Oppenheimer.

At the Institute Kennan flourished, producing books and articles at a prodigious rate. He made important contributions to three scholarly fields. One was history, characterized by his writing on US policy-making and on the maintenance of a bal-

ance of power in Europe. In this category were his major books, those on European and American statecraft preceding and during World War I. A second field was issues of contemporary European policy and the maintenance of the Alliance. Third was the set of issues surrounding nuclear weapons. A fourth field encompassed U.S. domestic politics and what was characterized by a book he called *Democracy and the Student Left*, where he argued, less successfully, for what he termed a greater degree of self-discipline within the movement opposed to the Vietnam War. He was also a contributor to environmental policy. A major article in *Foreign Affairs* was that journal’s first foray into the numerous issues surrounding what we now call “environmentalism.”

Those of us who knew George Kennan well will retain many happy reasons for remembering him. Let me suggest three such reasons. One was his sense of humor, which was even more effective because it so often took the form of self-deprecation. He was a serious man who did not take himself too seriously. I can hear his voice now, no matter what the arena. He never used his wit at the expense of others. A second characteristic was the brilliance of his analytical writing, both within the U.S. government and as a scholar. There his output took many forms, from newspaper op-ed articles to the Long Telegram or the famous “X” article, “The Sources of Soviet Conduct.” Finally, there is the extraordinarily insightful man that comes through his memoirs, certainly a work unique in that genre. His sketches of others, and in particular his descriptions of places and events, resonate today as freshly as they did the day he wrote them. How lucky we all are that we had him with us for so many years. ■

—Richard Ullman is the David K.E. Bruce Professor of International Affairs, Emeritus, in the Woodrow Wilson School of Public and International Affairs, Princeton University and was a Visitor in the School of Social Science at the Institute for Advanced Study in 1982–83.

INSTITUTE FOR ADVANCED STUDY
 EINSTEIN DRIVE
 PRINCETON, NEW JERSEY 08540
 www.ias.edu

Board of Trustees
 James D. Wolfensohn,
Chairman
 James G. Arthur
 Jeffrey P. Bezos
 Richard B. Black
 Fernando Henrique Cardoso
 Martin A. Choojian
 W. Robert Connor
 Mario Draghi
 Roger W. Ferguson, Jr.
 Peter L. Galison
 Peter Goddard
 Vartan Gregorian
 Peter R. Kamn
 Immanuel Kohn
 Martje-Josée Kravis
 Martin L. Leibowitz
 Martin K. P. Li
 Nancy S. MacMillan
 David F. Marquardt
 Robert B. Menschel
 Nancy B. Peretsman

Faculty Emeriti
 Thomas Spencer
 Vladimir Voevodsky
 Heinrich von Staden
 Michael Walzer
 Glen W. Bowersock
 Caroline Walker Bynum
 Patricia Crone
 Pierre Deligne
 Nicola Di Cosmo
 Peter Goldreich
 Phillip A. Griffiths
 Piet Hut
 Jonathan Israel
 Robert P. Langlands
 Arnold J. Levine
 Robert MacPherson
 Juan Maldacena
 Eric S. Maskin
 Joan Wallach Scott
 Nathan Seiberg

Trustees Emeriti
 Martin Rees
 James J. Schiro
 Ronald H. Schmitz
 James H. Simons
 Charles Simonyi
 Andrew Strominger
 Peter Svennilson
 Shelby White
 Marina v.N. Whitman
 Brian F. Wruble

Faculty Emeriti
 Edward Witten
 Avi Wigderson
 Michael Walzer
 Heinrich von Staden
 Vladimir Voevodsky
 Thomas Spencer

STRIP IN HALF-TONE ARTWORK HERE

*Have you moved? Please notify us of your change of address.
 Send changes to Office of Public Affairs, Institute for Advanced Study,
 Einstein Drive, Princeton, NJ 08540-0631 or email llg@ias.edu*

Non-Profit Org.
 U.S. Postage PAID
 Permit #49
 Princeton, NJ



THE INSTITUTE LETTER



ALL PHOTOS INSTITUTE FOR ADVANCED STUDY ARCHIVES



Top: The Institute's first Board of Trustees. Front row from left: Alanson Houghton, Caroline Fuld, Louis Bamberger, Florence Sabin, Abraham Flexner. Back row from left: Edgar Bamberger, Herbert Maass, Samuel Ledesdorf, Lewis Weed, John Hardin, Percy Straus, Julius Friedenwald, Frank Aydellotte, Alexis Carnel.
Below: Louis Bamberger, Felix Fuld, Caroline Bamberger Fuld, and Abraham Flexner.

"The founding and early history of the Institute for Advanced Study are inextricably bound up with the lives of three persons—Louis Bamberger, his sister, Mrs. Fuld, and her husband, Felix H. Fuld—three persons so selfless, so generous, so eager to help any worthy enterprise or charitable endeavor that would benefit the community, that they were signally outstanding in these respects."

—Herbert H. Maass, *Institute Board of Trustees, 1933–1957*

