INSTITUTE
for ADVANCED STUDY
Einstein Drive
Princeton, NJ 08540-0631
Telephone 609.734.8330
Fax 609.683.7605
Email <donne@ias.edu>

2001 – ISSUE ONE

Attributions

A NEWSLETTER FROM THE DEVELOPMENT OFFICE
INSTITUTE *for* ADVANCED STUDY

"This issue of *Attributions* pays tribute to three people involved with the Institute in very different ways: as a Member (Anna Stafford Henriques), as a Trustee (Charles Simonyi), and as a Friend (Robert Loughlin).

On behalf of the entire Institute community, I am immensely grateful for the generosity of these individuals, who exemplify the commitment that many others also demonstrate to this remarkable institution. Their ongoing support is critical to the health and vitality of the Institute. Every contribution, in whatever form or amount, is important to us, and for each and every one, I would like to express my deepest appreciation."

—James D. Wolfensohn,
Chairman of the Board of Trustees

What Makes Computers So Sticky?

CLIFF MOORE

Institute Trustee Charles Simonyi, (right) with Institute Director Phillip A. Griffiths, at the dedication of Simonyi Hall on May 5, 2000.

Institute Trustee Charles Simonyi, currently Distinguished Engineer at Microsoft Research, has demonstrated over the course of his career that he understands both what it means to work in the world of concept and theory and what it means to work in the world of market realities. Remarkably successful in both domains, he has now ventured into the world of philanthropy to provide opportunities for the next generation to experience the excitement of science, to learn in a free and creative environment, and to benefit from the mentoring of accomplished scholars. His involvement with the Institute for Advanced Study, where he has chosen to support work in two Schools – Mathematics and Natural Sciences – demonstrates Simonyi's belief in the importance of an "incubator of excellence" environment in which the most promising young scientists and mathematicians can develop.

Charles Simonyi, born in Hungary in 1948, wrote his first computer program at the age of 16. He gained access to a computer – a very difficult thing to do in Hungary in 1964 – thanks to his father, Karoly Simonyi, then a professor of electrical engineering (and more recently, the author of a highly-acclaimed book on the culture and history of physics). Professor Simonyi knew an engineer working on the Ural II computer, a first-generation Russian vacuum-tube machine with a 4K memory, and one of the very few computers in Hungary at that time. "This was not a place for kids," Charles Simonyi told interviewer Susan Lammers (*Programmers At Work*, Tempus Books, 1989). "It was one of maybe five computers in all of Hungary and was considered a great asset. I was kind of a groupie, just being underfoot and offering free services in exchange for being tolerated in a place where I wasn't supposed to be. I made myself useful. First I brought him [the engineer] lunch, then I held the probes, and finally I offered to be a night watchman." This gave Simonyi time on the computer for his own experiments, and he and the engineer became good friends. "He was a mathematical genius," Simonyi recalled. "He taught me many tricks about how to think arithmetically about symbolic problems."

When asked what attracted him to computers at such an early age, Simonyi replied, "why is a fly attracted to fly paper? Flies land on all kinds of objects. They just stick to fly paper. Really, the question should be, 'What makes computers so sticky?' For a young person, computers give the only opportunity to express himself in a serious way. I can count on the fingers of one hand the professions a 17 year old can have where he is doing something serious. When I was young, computers gave me a way I could do something serious."

After writing his first program on the Ural II, Simonyi next wrote a professional program, which he sold to a state organization. During this time, while attending a trade fair in Budapest, he approached Danish computer people who worked in Copenhagen. "I got a lot of information about their new machine," Simonyi recalled. "At the next trade fair, I came prepared with a small demonstration program I had written … I asked one of the guys to take the program back to Denmark and show it to somebody in charge. They must have liked it because they gave me a job. That's how I got out of Hungary, in 1966."

After eighteen months at his programming job in Denmark, Simonyi had saved enough money to go to the University of California at

(Continued on page 2)

Sticky Computers *(Continued from page 1)*

Edward Witten
Charles Simonyi Professor

RANDALL HAGADORN

Edward Witten, the Charles Simonyi Professor in the School of Natural Sciences at the Institute for Advanced Study, is one of the world's leading experts in string theory, which aims to provide a unified theory for the forces of physics. String theory suggests that tiny, high-dimensional strings vibrate to produce the various components of matter.

In the field of mathematics, Witten's ideas have also been extremely fruitful, leading mathematicians to see connections between seemingly unrelated topics and produce profound results. In 1986, for his work in mathematics, he received the Fields Medal, which in mathematics is the equivalent of a Nobel Prize.

Edward Witten was born in 1951 and received his Ph.D. from Princeton University in 1976. He was a fellow at Harvard University (1976-1980) and a professor at Princeton University (1980–1987) before becoming a member of the Faculty at the Institute for Advanced Study in 1987.

Professor Witten is the recipient of many honors and awards, including a MacArthur Fellowship (1982); the Einstein Medal of the Einstein Society of Berne, Switzerland (1985); the Dirac Medal of the International Center for Theoretical Physics (1985); the Alan T. Waterman Award of the National Science Foundation (1986); and the Madison Medal of Princeton University (1992). A fellow of the American Academy of Arts and Sciences and the American Physical Society, he is also a member of the National Academy of Sciences. He is the author of more than two hundred scientific papers.

Berkeley. He paid his tuition by working as a programmer at Berkeley's computer center, and received his BS degree in engineering mathematics in 1972. That same year, he began work at the renowned Xerox Palo Alto Research Center (PARC), where he remained until 1980, receiving his Ph.D. in computer science from Stanford University in 1977.

PARC at that time was a mecca for young, talented computer scientists, to whom it offered extraordinary opportunities. Bob Taylor, manager of PARC's Computer Sciences Laboratory, believed that the organization should be more a fertile medium than an institution. Simonyi himself credits PARC's contribution not just to how unique the scientists were but to the special circumstances they were given. "Other people have held the same dream," Simonyi has commented, "but didn't have the freedom to develop it in a laboratory."

Those familiar with the founding principles of the Institute for Advanced Study will recognize the similarities: belief in giving qualified individuals the freedom to pursue their own research interests; lack of pressure to produce a product. "Eminent scholars know their own minds; they have their own ways," wrote the Institute's Founding Director, Abraham Flexner. "The scholars who have, throughout human history, meant most to themselves and to human progress have usually followed their own inner light; no organizer, no administrator, no institution can do more than furnish conditions favorable to the restless prowling of an enlightened and informed human spirit."

At PARC, Simonyi did most of the design and the critical implementation work on Bravo, the first WYSIWYG (what-you-see-is-what-you-get) editor, and led the team that built it. According to Simonyi, "the dream that was realized at PARC was that humans would be able to communicate with computers through graphics rather than through text, simply by pointing."

In 1981 Simonyi left PARC to become employee number 43 at Microsoft. He joined Microsoft to start the development of microcomputer application programs, and has been responsible for hiring and managing the teams who developed such well-known programs as Multiplan, Microsoft Excel, and Microsoft Word, among others.

In 1991 Simonyi moved to Microsoft Research, where he is responsible for new approaches in programming technology, and focuses on Intentional Programming.

Long-term Microsoft employees have both created and benefitted greatly from the company's success, and recently the media has focused on the prosperity of this group of relatively young people, many in a position to become actively involved in philanthropy.

Once again Charles Simonyi has led the way. In 1995, he endowed the Charles Simonyi Chair for Public Understanding of Science at Oxford University. Simonyi commented at the time, "I have faith that if the beauty and excitement of science can be better explained and understood, a great deal of good will follow. 'Understanding' in this instance should be taken a little poetically as well as literally. The goal is for the public to share the excitement and awe scientists feel when confronting the greatest of riddles."

In 1996, the year in which he endowed the Chair in Theoretical Physics (currently held by Edward Witten) in the School of Natural Sciences at the Institute, Simonyi wrote to Phillip Griffiths with thoughts about the focus of the chair, and quoted Albert Einstein, who had written: "It appears that

Charles Simonyi with his father, Karoly Simonyi.

human reason must first construct the abstract forms standing by themselves, before we can recognize them in things around us."

"It is important," Simonyi wrote to Griffiths, "that the obviousness of the historical observation does not distract us from appreciating how far the creators of new abstractions had to go out on a limb in the early phase of the development of a new idea … this lonely phase is when abstract ideas need the most support. The motto should motivate us to support the abstractions when they are 'standing by themselves' so that they can be there later on to be 'recognized in things around us.'"

Since 1997, Simonyi has supported the Professorship for Innovation in Teaching at the School of Engineering at his alma mater, Stanford. That same year he became a member of the Institute's Board of Trustees, where he serves as Chair of the Academic Affairs Committee and on the

(Continued on page 6)

Ways to Give

In Memory of William D. Loughlin

Robert W. Loughlin had long sought a fitting way to honor the memory of his father, William D. Loughlin, a prominent radio engineer and founder of Boonton Radio Corporation. A pioneer in the development of radio, William Loughlin pursued his love of the new medium and rode the wave of research and development in that emerging industry through the first half of the 20th century. In establishing a charitable remainder unitrust to benefit the Schools of Natural Sciences and Historical Studies at the Institute for Advanced Study, Bob and Ginny Loughlin hope to encourage William Loughlin's spirit of devotion to learning and experimentation at the edges of knowledge in future generations of scientists and scholars.

Born in Philadelphia in 1893, William Loughlin was one of the early experimenters in radio. He built his first set at the age of fifteen, and continued his hobby while a student at St. Joseph's College, where he designed, built and installed a 5 kilowatt wireless station in 1911. Because of his work, the college was granted one of the first experimental licenses by the U.S. Government, authorizing transmission of wireless telegraphy.

The outbreak of World War I galvanized the government's interest in the new concept of using radio for communication and navigation. The sinking of the Titanic was the first major event to demonstrate the impact of radio, which made possible the summoning of the White Star ship, Carpathia, 58 miles away but also equipped with a Marconi radio. Within three hours of the sinking, the Carpathia arrived to rescue those survivors in lifeboats. Nearer ships, without radios and thus ignorant of the disaster, did nothing to help.

The U.S. Navy was at the forefront of the development of radio, and William Loughlin was tapped by his friend, Stuart Ballantine, at the Philadelphia Navy Yard's Laboratory, to join sensitive work in progress on a critical navigational device, the radio compass. In addition to its navigational role, this device proved crucial in intercepting radio signals between German ships and establishing their location. "This work," noted Bob Loughlin, "was the beginning of what is today known as 'elit' – electronic intelligence gathering."

With the departure of Stuart Ballantine after the war, William Loughlin stepped up to lead the Lab's work, and oversaw the continuing development of radio communication and navigation equipment for ships, aircraft and dirigibles, as well as special tasks such as the Navy's NC series of seaplanes that attempted the first trans-Atlantic crossing in 1919. The NC-4 was the sole aircraft to succeed.

Meanwhile, a series of inventions and developments in the area of plastics in the early 1900s combined to provide the materials needed for the expanding electrical and radio industries. Several key figures joined together to form the Radio Frequency Laboratories (RFL) to focus on using these new materials in solving the problems associated with the development of practical radio receivers. RFL's inventions in the field of broadcast receivers for the consumer market included single knob tuning, automatic volume control, and the ability of radios to utilize AC power rather than batteries. The company licensed its many patents to the various manufacturers of radios for the home.

William Loughlin, who joined RFL as a radio engineer in 1923, rose to become president in 1931. The company was dissolved in 1934 when the patents were sold to RCA, and the key personnel dispersed to follow their various interests, providing William the opportunity to turn his attention to the industry's pressing need for precision measuring and test instruments.

Up until this time, circuit development and testing had required radio engineers to employ many individual meters and involved complex calculations. In 1934, William Loughlin presented his newly-formed Boonton Radio Corporation's "Q-Meter" to the meeting of the Institute of Radio Engineers. The Q-Meter, which consolidated and simplified the testing process, was immediately adopted as an industry standard. With the advent of FM (frequency modulation) the Boonton Radio Corporation, in close cooperation with Major Edwin H. Armstrong, the inventor of FM, designed and produced the basic instruments needed by the radio and television industries.

The Second World War called for the development of many new electronic instruments. Boonton Radio worked closely with Bell Telephone Laboratories and the MIT Radiation Laboratories in developing the micro-wave signal generators needed for the development and maintenance of various kinds of radar equipment. For these and other outstanding contributions to the war effort, the Boonton Radio Corporation was awarded an Army-Navy "E" (for excellence) with four stars.

William Loughlin died in 1950, and the Boonton Radio Corporation was subsequently sold to the Hewlett-Packard Corporation, a young, upstart company heralding the "new new thing" on the electronics horizon. Today, radio has been eclipsed as a medium, but Bob Loughlin sees a fascinating parallel between the early, heady days of radio and today's ferment of creative endeavor surrounding the internet. "The analogy is incredibly strong. It all happened in a fairly short time, and then became the great, international rage. Radio had a sweeping influence – economic, philosophic, social – very much like the internet. And it was driven by a few visionary personalities who really made it happen."

Friends of the Institute, Bob and Ginny Loughlin take a serious, hands-on approach to philanthropy. Acknowledging that it was largely his father's hard work and vision that generated the resources that were passed on to him, Bob commented, "It is somewhat humbling to have the resources that we have because of my father. We feel a duty to share these in ways of which he would be proud." They have also encouraged the involvement of their five sons in this effort by setting up a family foundation to support interests identified by their sons and their families.

While there is obviously a natural connection between William Loughlin's career and support for physics at the Institute, Bob explained that his father was also a scholar in Greek and Latin, with a deep, personal love of history. For this reason, he structured the gift to honor his father to benefit the School of Historical Studies as well as the School of Natural Sciences. This tribute to the life and work of William D. Loughlin will serve to further the kind of in-depth scholarship and cutting-edge research that was so meaningful in his own life.

"My father had been involved in a field of exciting growth at an exciting time," said Bob. "I have a great respect for his being able to make meaningful technical contributions in a field that he loved, and the vision and courage to succeed." ■

CLIFF MOORE

PICTURED LEFT *at the October 27, 2000, groundbreaking ceremony for Bloomberg Hall are (from left to right) Institute Director Phillip A. Griffiths, Institute Trustee Michael Bloomberg and James Wolfensohn, Chairman of the Institute's Board of Trustees. Bloomberg Hall was named in honor of Michael Bloomberg's leadership and generous support of the Institute. A complex of new and existing buildings, Bloomberg Hall will link two buildings constructed in 1948 and 1953. When completed in the fall of 2001, the total square footage of the structure, including the 17,000 square feet of new construction, will be 30,000 square feet.*

Bloomberg Hall will mark a new era in the School of Natural Sciences, currently housed in three separate buildings, and will provide offices for faculty and visiting scholars, meeting rooms, and two library reading rooms. An important goal in housing the entire School in one building is to encourage the informal interactions which are a central part of both scientific research and post-doctoral education in the sciences.

DID YOU KNOW that Albert Einstein, a Faculty member at the Institute for Advanced Study from 1933-1955, made an important bequest of property when he left his home to the Institute in his will?

Director's and Chairman's Circle Dinners

The Director's Circle Dinner, hosted by Phillip and Marian Griffiths, was held at the New York Yacht Club on March 29. Sylvia Nasar, a Director's Visitor at the Institute in 1995-96, spoke on "The Story of John Nash: Genius, Madness, and Reawakening." The talk was based on *A Beautiful Mind*, Nasar's award-winning biography of economics Nobel Laureate John Nash. Nasar is currently Knight Professor of Journalism at Columbia University.

The Chairman's Circle Dinner, hosted by Institute Trustee and Chair of the Development Committee Michael Bloomberg, took place on April 18 at Bloomberg's home in Manhattan. The event honored members of the Chairman's Circle and other major donors to the Institute. Director Phillip Griffiths, Chairman of the Board James Wolfensohn, and Bloomberg expressed their appreciation to the guests for generous support of the Institute. ■

THE SCHOOL OF NATURAL SCIENCES *recently presented Richard Black, (left) shown here with Institute Director Phillip A. Griffiths, with framed photographs of "The Richard Black Centre for Astrophysics," temporary quarters for the astrophysicists while their new home, Bloomberg Hall, nears completion across campus. Black, a trustee of the Institute since 1990, has supported its work in many ways over the years, including providing support for the Institute's improvement of its computer technology, and for its participation in the Sloan Digital Sky Survey. In 1996 he endowed the Richard Black Professorship in the School of Natural Sciences. The chair is held by John N. Bahcall.*

Anna Stafford Henriques

A Member at the Institute in 1933

In October 1933, Anna Stafford came to the Institute for Advanced Study as a Member – or Worker, as Members were called then – in the School of Mathematics, whose work she has generously supported over the years.

Albert Einstein also arrived in Princeton that same month and year to join the Faculty of the newly-formed Institute, which had been founded in 1930 and three years later opened its doors in borrowed quarters in Princeton University's Fine Hall. Stafford was one of two young women in that first small group of mathematicians who came to the new Institute to work with its outstanding faculty: James Alexander, Albert Einstein, John von Neumann, Oswald Veblen, and Hermann Weyl. In 1934 this group was joined by visiting professor P.A.M. Dirac.

To earn her living during these Depression years and also manage to be at the Institute, young Stafford arranged to teach mornings at a private secondary school in Mendham, N.J., and to come to the Institute every afternoon. "By strange good luck," Stafford, now aged 95, recalled in a recent interview at her home in Washington, D.C., "the Institute always had lectures at 3:00, and then we had tea, and then we met again at 4:30. So I got to the lectures just fine. If you wanted to give a talk, you put a notice on the secretary's door, and that's the way 'classes' were held. And of course nobody told where Einstein's office was. There was a boarding house where a lot of the mathematicians lived. I would also come down on weekends and we would all talk and argue. It wasn't a bit elegant – but that didn't matter."

Anna Stafford was born in Chicago on August 20, 1905. Anna shared her mother's love of mathematics, and knew by the time she was fourteen that her future would include a career either in the field itself or in something closely related to it. Perhaps, she thought then, she might become an astronomer.

Without regarding it as anything out of the ordinary, Stafford double-majored in mathematics and Greek at Western College for Women [started in Oxford, Ohio in 1855 as the "western" sister school of Mount Holyoke]. After graduation in 1926, she began a pattern of working during the year teaching mathematics at a secondary school in New Jersey, and spending summers in graduate school at the University of Chicago, where she worked with the mathematician Mayme Logsdon. She earned an S.M. degree in 1931 from Chicago, and received one of six Ph.D.s the University awarded in 1933 in mathematics, two of them to women.

A turning point for Stafford while she was at Chicago came when she heard a lecture on topology given by University of Michigan mathematician Raymond Wilder (also a Member in the School of Mathematics in 1933-34). "I thought, aha – that's what I like," Stafford recalled. "But there was very little to find on the subject, and what little there was to find was done by a man named Oswald Veblen, who had written a book called *Analysis Situs* (1922), and by James Alexander. And that [Princeton] was the only place I knew that you could study topology. So I wrote to Princeton and said I wanted to study topology, and they sent me a postal card saying, 'We don't take girls.'

Anna Stafford in 1934.

"Then," Stafford continued, "I read about the Institute in *The New York Times* ("Einstein Institute Has 20 Students," January 20, 1933). The article said that Veblen and Alexander were there, at the Institute. And I said, 'that's where I'm going.'"

Stafford wrote to Professor Veblen on March 6, 1933. "I feel," she wrote, "that my mathematical career is still too near its beginnings for me to begin work that is not done under competent direction such as I hope to find at the Institute for Advanced Study ... I think I have laid good foundations for the sort of work which in Combinatorial Topology can scarcely be carried out anywhere so well as at Princeton, and which I believe is just the sort of training the Institute plans to furnish. I hope that by some means I shall be able to continue my work there in the not too distant future. I am eagerly anticipating your visit to Chicago in April, when I hope plans for next year will be more complete."

Stafford did meet with Veblen when he visited Chicago. "I told him what I wanted to do," she recalled. "He said if I could get my [Ph.D.] degree in August, I could come to the Institute – never dreaming that I could possibly do it! Mrs. Logsdon agreed to teach a course in topology. In order to do that we had to learn Italian and we had a handwritten text on topology reproduced. And we studied at the University of Chicago, and of course nobody there knew anything about it. Except – I was going to learn." On May 4, Stafford wrote to thank Veblen for his recommendations, and to let him know that as far as her plans to come to Princeton, she had arranged to work in the mornings and come to the Institute in the afternoons. But the condition, of course, was that she must obtain her Ph.D. in the meantime.

On August 31, 1933, Stafford wrote to inform Veblen that "the University of Chicago conferred the degree of Doctor of Philosophy upon me last Friday, so I hasten to remind you that I am most eager to come to the Institute." "Out of scores of applicants," Institute Founding Director Abraham Flexner reported to his Board of Trustees on October 9, 1933, "seventeen were accepted by Professor Veblen, who passed on their qualifications ... The creative faculty, the possession of ideas, the ability to work more or less alone under the stimulus and guidance of real masters in a given field: these are the criteria which have been applied to those who have asked to be admitted to the Institute. Their success and influence will not depend upon numbers but upon quality, as has been emphasized from the outset ... They [the applicants] have all given evidence of ability to do original work. They need, however, at this moment in their respective careers contact with older and wiser persons, to whom they may bring their problems for informal discussion and whose lectures or seminars they may attend in order that they may broaden and deepen their knowledge of mathematics and kindred subjects."

Anna Stafford enjoyed her years at the Institute – not only the mathematics, but also the social life. Abraham Flexner commented on this aspect of Institute life in his report to the Board on January 29, 1934. "Fine Hall has offered abundant opportunity to cultivate delightful social relations in this highly varied group," Flexner observed. "Every afternoon tea is served, and there is an attendance of 60 to 75 mathematicians, who discuss with one another the subjects upon which they are working and sometimes fortunately subjects which have no direct relation to their work."

Anna Stafford remembers other social events at the Institute, and one dance in particular. "Every year Mrs. Alexander and Mrs. von Neumann threw a party," she recalled, "an absolutely fantastic party, at the Alexander's house, which had a ballroom. There were hardly any women guests, maybe six women to twenty men – you should go to a ball like that! A great big tall thin man asked me to dance, and we waltzed all over the room. Shamelessly. Just had the best waltz you ever had in your life. It was abso-

(Continued on page 6)

Sticky Computers

(Continued from page 2)

Development Committee.

Recently Simonyi again stepped forward, this time with generous support for Members in the Institute's School of Mathematics. In May 2000, the Institute's mathematics building was named Simonyi Hall in recognition of Simonyi's participation in the life of the Institute community and his commitment to the work that takes place here. At the naming ceremony, Director Phillip Griffiths stated, "We are delighted to have the Simonyi name permanently attached to the Institute. Charles truly understands the need to support theoretical science in its purest form."

Many years ago, the Italian physicist Enrico Fermi and the Hungarian physicist Leo Szilard were engaged in a conversation about the possibility of superior, highly intelligent life other than on the planet Earth. Fermi tried to point out the absurdity of the favorable estimates of intelligent life elsewhere by asking, "If they [beings of superior intelligence] are so probable, then where are they? They should be here already, we should have seen them by now. After all, there are stars far older than ours: life elsewhere could have had a ten-billion-year head start." After a pregnant pause, Leo Szilard answered, "Perhaps they are already here. But you call them Hungarians." ■

On the Web: www.ias.edu

THE INSTITUTE FOR ADVANCED STUDY has expanded its development website to keep our friends and donors informed about ways to contribute to the work of the Institute, and to help new friends more easily learn about the Institute. From the Institute's main page – www.ias.edu – just click on "Ways to Give." Or you may access the pages directly, at www.admin.ias.edu/giving/

Whether you wish to make an outright gift, to pledge to a particular program or School, to investigate planned giving options, or just to browse for ideas, the website introduces ways to contribute to the Institute's goals that will not only be of greatest value to the Institute, but also to you.

Another source for comprehensive background information on the Institute for Advanced Study is GuideStar, www.guidestar.org, a searchable database designed as a resource for donors.

www.admin.ias.edu/giving/ also contains pages devoted to the Friends of the Institute and to the members of the Association of Members of the Institute for Advanced Study (AMIAS).

Henriques *(Continued from page 5)*

lute motion. He didn't talk. During an intermission, friends asked if I knew who that was. And I said no – I guess I'd been introduced, but all I knew was he had a lot of initials. It was a most fantastic dance – I still have those shoes!" The man with whom Anna Stafford danced the night away was P.A.M. Dirac.

Stafford found that she loved to teach. In 1935 she accepted a position at the University of Nebraska as Instructor in mathematics, and after two years there she moved to the University of Utah, where she taught mathematics for the next nineteen years, leaving in 1956 to go to the College of Santa Fe as Professor of Mathematics. In 1971 she retired from Santa Fe, after teaching mathematics at the college level for 36 years, and at the secondary level for seven.

Her tenure at the University of Utah was notable not only for the fact that while there she started a mathematics club and served as the president of the National Council of Teachers of Mathematics in Utah, but also, in 1942, met and married her husband, Douglas, whose work as an administrative law judge eventually lead the Henriques family to Washington, D.C., where Dr. Henriques and her son, Vico, now live.

Asked whether those two early years spent at the Institute lived up to her expectations, Dr. Henriques responded, "Oh my, yes. It was two years in Heaven." ■

INSTITUTE *for* ADVANCED STUDY
Einstein Drive
Princeton, NJ 08540-0631

DEVELOPMENT OFFICE
Telephone 609.734.8330
Fax 609.683.7605
E-mail <donne@ias.edu>

Non-Profit Org.
US POSTAGE
PAID
Permit # 49
Princeton, NJ