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The Blue Chair, by Joel Meyerowitz, is one of 22 photographs on display in the Washington University Gallery of Art in an exhibit, "Recent Photographic Acquisitions," that runs until December 28.
Frontrunners
The latest in research, achievements and other adventures, from around the campus and beyond.

The Lure of the Dig
Armed with a careful reading of *The Odyssey*, professor of art history and archaeology Sarantis Symeonoglou has returned each summer for the past three years to the small island of Ithaca looking for the home of Odysseus, the wandering hero of Greek legend.

Washington University Annual Report
University administrators deliver a State of the University report celebrating a banner year.

Sonny’s Last Stand
Sonny Stitt was a jazzman with a golden horn—pursued all his life by the ghost of Charlie “Yardbird” Parker.

Women of the New Right
The political body of conservative women is made up of two separate parts, says sociologist Rebecca Klatch, each with its own set of values.

Unraveling What is Unseen
World-class chemist, numismatist, music lover and teacher, Peter Gaspar this year received the Kipping Award, an international accolade, for work with molecules that exist only on a second or a fraction of a second.

Living in the Garden of Eden
Campus visitor Bill Moyers talks about the importance of remembering what has gone before.
Lawyer, Classicist Turns an Editorial Eye to Toynbee


The senior partner of Peper, Martin, Jensen, Matchel and Hedgic is surrounded by the accoutrements of lawyerly success: name on the door, office on the 24th floor overlooking the rapidly changing skyline of downtown St. Louis, a banker's pinstripe suit. But certain details don't fit: the playful wit, the unpretentious manner, the bust of Lord Byron on his desk.

Christian Peper is, in fact, a man with two professional loves.

The first is his vocation, the law, at which he has earned his living for 50 years. The second is the classics and the world of scholarly inquiry. His commitment to the first has been well established—the firm that bears his name now occupies three large floors of a downtown office building; junior partners informally, but respectfully, call him Chris on encountering the still-kinetic attorney in the elevator.

But his commitment to the second, more private, love will be just as firmly established this fall when Beacon Press in this country and Oxford Press in England jointly publish a work edited by Peper: An Historian's Conscience: The Correspondence of Arnold J. Toynbee and Columbia Cary-Eludes, Monk of Ampleforth. Composed of more than 600 letters that passed between the eminent British historian and the Benedictine monk, An Historian's Conscience chronicles Toynbee's activities from 1937 through his death in 1975, covering the development of his thought, as well as such signal events in his life as the breakup of his first marriage and the suicide of his eldest son.

A brief section of six letters to Toynbee's lifelong friend, Robert Shelby Darbishire, written between 1910 and 1919, foreshadows many of the events covered in later letters and includes an eloquent avowal of love to Toynbee's first wife—creating a kind of prologue, or, as Peper prefers it, prolegomena. Throughout are copious annotations and footnotes filling in biographical gaps and placing the letters within their historical and theological context.

A 1932 graduate of Harvard, Peper majored in Greek and Latin and "seriously considered continuing the classics," he admits. Instead, he enrolled in the Washington University Law School, from which he graduated in 1935.

"I enjoy being active in the world," Peper insists. "Studying law, I learned a discipline I could apply to the arena of worldly affairs. It's turned out to be a delightful combination of practical and scholarly interests."

Nonetheless, Peper has always devoted time to interests other than his legal practice. For 18 years, until the early 1960s, he customarily taught one semester a year at the Law School, meeting his morning class before boarding a trolley car for his office downtown. Today he sits on the acquisition committee of the St. Louis Art Museum and is a fellow of the Fogg Art Museum in Boston.

An Historian's Conscience is the result of both Peper's intellectual and his personal involvement in the life of Arnold Toynbee. Each man espouses a commitment to
If this book is well received, Peper says, he is contemplating a second volume devoted to Toynbee, translating the historian's occasional poetry, written in Greek and Latin. Meanwhile, Peper does not lack activities to divert his attention. In addition to his position at the law firm, he is chairman of the board of two local businesses, St. Louis Steel Casting Co. and Hydraulic Press Brick Co. The second position, Peper is proud to point out, was held shortly after the turn of the century by the father of T. S. Eliot.

**Procedure Predicts Birth Abnormalities More Quickly**

Currently, many high risk mothers-to-be wait anxiously until disorders in their unborn children can be detected with amniocentesis. This prenatal diagnostic test analyzes cells from the fluid surrounding the fetus. The test can identify many birth defects but cannot be performed until enough amniotic fluid has formed—at least the fifteenth week. Results may take two more weeks while the siphoned cells multiply into a sample large enough to study.

The delay means that amniocentesis results often are not known until after the 20th week of pregnancy, well into the second trimester. When a life-threatening genetic disorder is detected, this can mean serious psychological trauma for the family. An abortion that late in pregnancy is more risky for the mother. And ending pregnancy at this point, experts say, can cause her persistent emotional and social problems.

But with an experimental screening procedure called CVS—chorionic villus sampling—being tested at Washington University School of Medicine, results of fetal cell analysis can be obtained as early as the ninth week of pregnancy. That's at least six weeks earlier than amniocentesis.

CVS usually takes only 30 minutes, can be done in a doctor's office without anesthesia, and costs about $750, roughly the same as amniocentesis. "Like amnio, CVS is relatively painless," explains Heidi Beaver, an associate with the genetics division in Washington University's obstetrics and gynecology department. "In terms of discomfort, I'd compare amnio to a blood test and CVS to a Pap smear."

Amniocentesis can identify about 200 abnormalities; CVS currently can detect about 100 disorders, but the procedure's diagnostic range could increase. Even so, CVS will never completely replace amniocentesis because it can't detect neural tube defects—spina bifida and other spinal column disorders which are indicated by high levels of alpha fetal protein in the amniotic fluid.

"The overwhelming advantage of CVS over amnio is early diagnosis," says James P. Crane, M.D., director of the genetics division in Washington University's obstetrics and gynecology department. "If no birth defect is found, CVS provides earlier reassurance to frightened parents who might have considered ending the pregnancy."

Fourteen other U.S. medical centers are examining CVS's safety and reliability under a Food and Drug Administration protocol. In March 1986, Washington University made the first national presentation of preliminary CVS evaluation results. While that recent study did not compare amnio and CVS head-to-head, data available worldwide show that CVS seems safe. Crane cautions that no definitive comparisons can be made until many more CVS procedures—perhaps 30,000 to 40,000—are completed.

Statistics are being collected at the 15 U.S. centers and others abroad as the CVS evaluation continues. "So far, our diagnoses have been 100 percent accurate, and there's every indication that CVS will eventually prove to be as reliable as amniocentesis," says Beaver. "We're just waiting for more patients to be referred so more diagnoses can be attempted."
Chair in Jewish History
to Focus on Holocaust Studies

When visited just before classes for the fall semester began, Marc Eli Saperstein had in his eyes the dazed look of someone who recently unpacked one box of books too many.

"I don't think of myself as actually buying books," the 41-year-old, bearded professor observed, glancing at the floor to ceiling bookshelves in his office nearly filled to capacity. "But over the years, they do accumulate. Books are wonderful to have, and wonderful to use, but they're not wonderful to move."

Graduating from Harvard College summa cum laude in 1966, Saperstein then undertook a year-long independent study of seventeenth-century intellectual history at Pembroke College, Cambridge University, before entering the rabbinical program at Hebrew Union College in New York City. He was ordained in 1972. Interrupting his rabbinical studies in 1969, he enrolled at Hebrew University, Jerusalem, where he earned an M.A. with distinction in 1971, concentrating in the Talmudic and Medieval periods of Jewish history. He was awarded his Ph.D. from Harvard in 1977, and a book based on his dissertation, Decoding the Rabbis: A Thirteenth-Century Commentary on the Aggadah, was published by Harvard University Press in 1980.

In addition to his academic career, Saperstein had maintained his rabbinical role until his move here; for thirteen years, he was rabbi to a small congregation in Canton, Massachusetts. "I expect to be involved with the Jewish community in St. Louis, and to visit various congregations," Saperstein said. "I'll make whatever contribution I can, but not to one congregation exclusively."

Of particular interest in this new appointment is a significant emphasis on Holocaust studies. Among the legions of books he had uncrated were whole battalions dedicated to studies of the Holocaust. While not an unexplored area of interest for Saperstein, this new, sustained attention is expected to supply fresh material for his intellectual pursuit.

Seated before a wall of books, and eyeing the wall of books before him, the genial scholar noted, a bit gravely, "There has been a tremendous amount of literature produced on the Holocaust, especially in the last five or ten years. Even for a specialist, it's hard to keep up. But consideration of the Holocaust continues to raise questions that are still the most fundamental, questions that continue to puzzle us. "I have always been interested in the Holocaust and intend now to probe its implications for non-Jews as well as Jews, I expect the experience will be not only demanding but emotionally draining. Still, it's a challenge I certainly look forward to."

Marc Eli Saperstein
Interactive Videodisc Delivers Earth-shaking Lessons

Aiming to re-educate architects about the need to consider earthquake resistance from the earliest stages of building design, W. Davis van Bakergem, director of the Urban Research and Design Center at Washington University, has designed an interactive videodisc that captures the sights and sounds of an earthquake in progress. With just a touch to the video screen, solid earth rumbles, and tall buildings crack at their edges, collapsing in a cloud of dust while the voice of a frightened radio broadcaster describes the frightening scene with barely concealed hysteria.

"Most architects think seismic resistance is something the engineer will take care of," says the assistant professor of architecture. "Few consciously consider that early design decisions bear on the damage a building will sustain in an earthquake."

Van Bakergem's program, developed with a National Science Foundation grant, offers a series of interactive "quiz" frames that use a touch-screen to test the viewer's earthquake knowledge and correct common misconceptions.

Architects "design" a building by making a series of decisions that simulate the process. The videodisc then identifies problems and gives mini-lessons explaining how that building might respond to ground motion, and explains potential remedies to the problem.

In so doing, the videodisc not only covers causes and effects of earthquakes, but also explains consequences of basic design decisions like building size, shape, and structure.

A higher first-floor ceiling designed to accommodate an extensive entrance lobby, for example, can make a multi-story building more vulnerable to earthquake damage. So can weight-bearing walls that do not extend from the foundation to the top floor, columns of varying height that support a building on a hillside; asymmetrically located elevators and stairwells, which increase structural stiffness; and abrupt, vertical reduction in floor size ("vertical setback" in the architect's lingo), a common element in contemporary building design.

To help educate architects in the ways of the sudden and unpredictable shifting of masses below the earth's surface, a screen showing a U.S. map, for example, asks the viewer to touch the area that has suffered the most severe earthquake.

If the viewer touches the West Coast, the next screen chides, "Too bad! You picked the wrong answer." If he touches the central United States, along the Arkansas-Tennessee border, the next screen says, "You are correct!" and explains that an 1811 earthquake along the New Madrid fault in the central Mississippi Valley probably measured 8.6 on the Richter scale. (Many experts predict a major earthquake along this Midwestern fault by the year 2000 that could devastate several major population centers, including Louisville, Ky., St. Louis, and Memphis, Tenn.)

Another quiz on the disc shows that all 50 United States have had some seismic ground-shaking. Videodisc teaching does have its problems. For one, it requires expensive, sophisticated equipment. Van Bakergem hopes to make his display more portable in the near future and also to make discs on other relevant topics.

Meanwhile, he hauls his gear to meetings of architects in all parts of the country, convinced of both the need and practicality of this method of teaching.

"I think the videodisc is the way to get this information across to students. The medium is the message here," he says, borrowing a phrase from communications wizard Marshall McLuhan. "Novel packaging of the information will attract the attention of students who otherwise may not be concerned about these crucial engineering issues."

Summer Internship Provides Experience Veddy, Veddy British

"What I'll miss most is tea everyday at three, tea and scones. That and riding the tube to work every morning. The tube is much more interesting, more egalitarian, than our subway."

Thus muses James T. Madore (J.T., to his friends), a senior this year, who seems to have had no problem adapting to another culture during his summer-long internship working for a member of the British Parliament.

As one of eighteen participants in a program sponsored by the Catholic University of America, Madore spent his summer vacation as a research assistant in the House of Commons for Sir Antony Buck, a Conservative Member of Parliament.

In addition to researching policy questions, answering constituent mail, and helping
Rowing in the Midwest? Crew Club Takes to the Water

I began innocently enough. Andy Laine, a doctoral candidate in computer science, missed his rowing shell. Laine had been a member of the varsity crew at Cornell, owned a single shell, and stored it in a garage in Connecticut when he left the preppy environs of the Northeast for the Midwest.

After all, they couldn't know much about that traditionally upper-crust sport of team rowing—often referred to simply as "crew"—out there, could they?

Well, guess again.

Eventually Laine, who arrived here in 1980, had his shell shipped out and one day decided to try something audacious. Having an urge to enter national competition, Laine went looking for a place to row. He settled on nearby Creve Coeur Lake. Placing his vessel in the water, Laine prepared himself for a lonely and awkward experience. Surprise! No sooner had Laine's ear touched the water than he was passed by another single rower skimming the other way.

Now, several years later, Laine, who is head coach of the Washington University Crew Club, and captain and head coach of the St. Louis Rowing Club, has more rowing activity than he knows what to do with. And he's not alone.

Peggy O'Neill, a spokesperson for the U.S. Rowing Association, reports that interest in crew nationally is growing faster than you can pull an oar through water. And much of it is based in the Midwest. Last year, in fact, the USRA moved its national headquarters from Philadelphia to Indianapolis, where it hopes to set up the first internationally certified rowing course in the country.

In the past two years, O'Neill said, membership in the USRA has grown from 10,000 to 16,000 individuals, and from 300 to 400 rowing clubs. While the greatest number of clubs remains in the Northeast, O'Neill noted that the largest percentage of growth is in other areas of the country, especially the Midwest. O'Neill also pointed out that the image of crew being associated primarily with the Ivy and the better British universities is somewhat erroneous. The Detroit Boat Club is the oldest rowing association in this country.

Andy Laine also discovered that rowing was nothing new in St. Louis. Helping revive the already chartered St. Louis Rowing Club, Laine learned that it had been in existence since 1877 and had hosted international rowing competition in the 1904 Olympics, on Creve Coeur Lake. At one time, there were eight rowing clubs in the St. Louis area.

The Washington University Crew Club had its inception last spring, when more than 250 people expressed interest in the club, and 55 signed up as dues-paying members. Colgate helped the fledgling club along by allowing it to acquire inexpensively a 45-foot rowing shell that accommodates four persons (a plus four in the rower's argot), whose claim to fame is that it once sank a Harvard crew boat. (Club members wanted to rename the shell, already called Apocalypse, Crimson Killer.)

This year the club expects to have at least 100 dues-paying members and hopes to compete in the Head of the Charles Regatta, a fall classic held yearly in Boston. It has purchased a state-of-the-art ergometer (a practice rowing machine club members affectionately call "The Erg") and in September christened an eight-person shell manufactured by Schoenbord Racing Shells in Maine. By spring, club members hope to have arranged a full schedule of six meets.

The Washington University Crew Club is a co-ed club open to graduate students and alumni as well as undergraduates. Dues are $50 a year (crew is not an inexpensive sport—one car alone costs $180) and entitle each member to lessons, a club T-shirt, the opportunity of intramural competition as well as travel to regional regattas. For more information, write Washington University Crew Club, in care of the Student Union.
Morrow Retires, University Chair Named in His Honor

Washington University established this past summer the Ralph E. Morrow Distinguished University Professorship to honor its retiring provost and 30-year veteran of the University. The first professor named to the position is Larry A. Haskin, chairman and professor of the University's Department of Earth and Planetary Sciences, professor of chemistry, and a fellow in the McDonnell Center for the Space Sciences.

"The selection of Larry Haskin to be the first Ralph E. Morrow Distinguished University Professor is most appropriate," Chancellor William H. Danforth observed. "Both represent in their own lives and standards the highest of academic aspirations."

Morrow joined the faculty in 1955 as an assistant professor of history and was promoted to associate professor and professor in 1957 and 1963, respectively. He served as chairman of the history department for seven years in the 1960s. He also served as dean of the Graduate School of Arts and Sciences and dean of the Faculty of Arts and Sciences. He was promoted to the highest academic position at the University, provost, in 1984.

Morrow was a John Simon Guggenheim Memorial Fellow during 1959-60, an American Philosophical Society Summer Fellow in 1957 and 1962, and won a Baruch Award in Southern History in 1954.

Morrow's degrees are in history: a bachelor's from Manchester College, 1943, and a master's and doctorate from Indiana University, 1948 and 1954.

Like Morrow, Haskin held a Guggenheim Fellowship, which he spent at the Max Planck Institute for Nuclear Physics in Heidelberg, West Germany, in 1966-67. He won NASA's Exceptional Scientific Achievement Award in October 1971.

Haskin was chief of the Planetary and Earth Sciences Division of NASA's Johnson Space Center from 1973 to 1976, when he joined the University's faculty in his current capacity. He is a member of NASA's Space and Earth Science Advisory Committee, Lunar Base Project Steering Committee, and Solar System Exploration Committee and serves on the National Research Council's Committee on Planetary and Lunar Exploration. His current research is in the development of space manufacturing methods.

Haskin holds a bachelor's degree from Baker University, Baldwin, Kan., 1955, and a doctorate in physical chemistry from the University of Kansas, 1960.

"I would not have survived in administration without a lot of good advice—from faculty, administrators, staff, and, on occasion, students," Morrow reflected, on the occasion of his retirement.

"In some respects, I wish I were a decade or two younger because this university is in the midst of exciting times," Morrow said. He describes the current period in the University's history as "a second renaissance"—the first being the move from downtown St. Louis to the Hilltop campus in the early 1900s.

But retirement from administration will not mean a cessation of activity for this invertebrate historian. Morrow plans to undertake a project that has been attempted by others but never accomplished: a history of Washington University. Without missing a professional beat this summer, Morrow moved from his administrative quarters in North Brookings to space provided him in Simon Hall, new home of the business school, where he will begin work on the historical account of the University.

The Young and the Restless: Athletes between the ages of eight and eighteen spent a week on campus this summer running, jumping, tossing, vaulting, lifting, batting, and even paddling, as the 20th annual AAU (Amateur Athletic Union) National Junior Olympics came to St. Louis, with Washington University as its headquarters.

A record number 4,848 participants descended on Francis Field (site of the 1904 International Olympic Games), the University's new Athletic Complex, and other sites around the city from August 3 to 10 to compete in fifteen sports ranging from track and field events through weightlifting, swimming, basketball, baseball, and table tennis.

Ralph E. Morrow
Armed with a careful reading of The Odyssey, professor of art history and archaeology Sarantis Symeonoglou has returned each summer for the past three years to the small island of Ithaca looking for the home of Odysseus, the wandering hero of Greek legend.

by Trudi Spigel—photographs by Douglas Gaubatz

From the top of Mount Aetos, every approach to the south end of Ithaca is visible. The glittering sea offers no hiding place. Whatever comes must come in plain view out of the shining distances. If one strategy of security is foreknowledge, then a mountainside is a safe and sensible place to build a city, and that is just what happened again and again in the ancient world, especially in mountainous Greece and Italy. It’s not surprising that Washington University archaeologist Sarantis Symeonoglou is convinced that he has found the most likely place to dig for the city of Homer’s warrior-king Odysseus on the flank of this mountain.

Ithaca lies off the southwest coast of Greece, on the eastern edge of the Ionian Sea. To the west across a narrow strait looms Cephalonia, while the long shadow of the mainland binds the eastern horizon. Now, as in ancient times, sailors between Corfu and Levkas to the north and the main bulk of the Peleponnesus to the south—those who cling to coastlines and plan their routes for safe harbors—find Ithaca an inevitable landfall and the deep harbor of Vathy, its main town, a dependable haven. It looks to Symeonoglou to be just the island Odysseus described to Alkinoos, king of the Phaiakians, in book IX of The Odyssey (translation, Richmond Lattimore):

“I am at home in sunny Ithaka. There is a mountain there that stands tall, leaf-trembling Neritos, and there are islands settled around it, lying very close to another. There is Doulichion and Same, wooded Zakynthos, but my island lies low and away, last of all on the water, toward the dark, with the rest below facing east and sunshine, a rugged place, but a good nurse of men...”
Ithaca is small, just under eighteen miles long and less than five miles wide at its greatest width, two stubby peninsulas joined by a narrow isthmus. Here and there spare sand beaches ease the shoreline. Farmers cultivate olives and fruit and raise sheep and goats in the shallow valleys that relieve the rocky hills characteristic of these Ionian landscapes.

At Vathy, the capital, pink and yellow and white houses cluster at the head of the long bay. Sailing yachts and fishing boats tie up here and the daily ferries from Patras and Cephalonia wait at the quai. There are a few shops and cafes, a scattering of hotels, and a square, fronting the harbor where villagers and visitors gather daily for the easygoing Mediterranean rituals of cafe time. The other villages scattered around the island, hanging above quiet coves or perched on hills near gatherings of farmland, are tiny, mere hamlets, the remains of older communities and times when the population of the island was as much as four times what it is now.

For more than two centuries the topographical specificity of *The Odyssey* has set archaeologists searching for Odysseus’ palace. Most, though not all, of the searchers have agreed that present day Ithaca is indeed the Ithaca of the poem and have sought to tie the sites in the poem to sites on the island, taking their clues from the text and searching for evidence all over the island. Since 1805, when the first systematic excavation was undertaken by the British archaeologist William Gell, there have been seven further expeditions, each guided by a reading of the poem. Each has found some evidence of early civilizations and their settlements, but nothing that finally has settled the question, nothing that has identified, to everyone’s satisfaction, a particular location as Odysseus’ city, and placed his palace. Frustration has been so deep, and disagreement so entrenched, that no excavation or original research had taken place on Ithaca since the last team of British archaeologists worked on the island from 1930 to 1938.

For the past three summers, Sarantis Symeonoglou, professor of art history and archaeology at Washington University, has attempted to solve this vexing archaeological problem, to find conclusive evidence that the city of the poem did in fact exist and that it existed here, on this island. Homer, he is convinced, visited the island so that the specifics of the poem reflect first-hand knowledge of the place. “Homer is not hiding history. When he says there is a town, I start looking,” Symeonoglou asserts. Other scholars agree. “Homer’s Ithaka is Ithaka, not a wonderland,” writes Richmond Lattimore, a translator of *The Odyssey*.

Symeonoglou’s conviction rests on a detailed study of the Homeric text. His project is rooted in informed readings and re-readings of *The Odyssey*. He knows the history of the search for the city of the
If Symeonoglou's judgment is correct, Odysseus' fortified dwelling was on a steep mountainside some seven kilometers southwest of Vathy, just above the isthmus linking the northern and southern parts of the island.

poem. He knows what was found or, in most cases, not found. He knows the text for each excavation, the documentation of the dig and the web of decisions that kept the work going forward at a particular site. He knows all the arguments for and against history and fiction in the poem. And he is convinced that the landmarks of the poem are actual places on the island.

To unveil those places, he says, the poem must be read with an archaeologist's eye. As he sees it, the archaeologist reads the poem as a document that to some extent has preserved historical reality. The text thus becomes a bridge for him, or a set of signs, that can help him uncover a social and cultural reality. For Symeonoglou, *The Odyssey* is more than a story about a legendary king. It presents a moral society with models of virtue and histories of wickedness. He believes he can demonstrate that the world of Odysseus, as transmitted by Homer, did indeed exist in time and place. Finding evidence for a historical context will enhance the meaning and reliability of the poem. "We should think of *The Odyssey* as history," he insists, "distorted through centuries and centuries of oral tradition, but history nevertheless that archaeology can document."

When he visited Ithaca for the first time, in the summer of 1983, the geography in the poem and the geography of the place fitted together. He was convinced by what he saw, the configurations of bay and mountain, that his predecessors in the search for a city and a palace had either looked in the wrong places or had not persisted long enough in the most likely place. This conviction, that his reading of the text, which was different in key ways from other readings, would direct him to the right location, brought him with a team of experts and volunteers to the east slope of Mount Aetos in the summer of 1984. Ithaca and the search became the center of his professional life.

Choice is the crucial element. With nothing to go on but what some call a hunch—part scholar's conviction, put together from accumulations of scientific data, and part intuition, which is yet another reading of that detail—Symeonoglou first staked out what he judged to be the full territory of the city and then out of those 16 hectares of mountainside and field chose the spots to test his hunch with preliminary shafts or trenches.

If his judgment is correct, based on his reading of the landscape as well as the text, Odysseus' fortified dwelling was on a steep mountainside some seven kilometers southwest of Vathy, just above the isthmus linking the northern and southern parts of the island. He is not looking for it at the top, as earlier excavators did. Up there, he says, there is no room for a city, only the remains of walls and cisterns for a last-ditch fortification.

To the uneducated eye it is just a hillside, thistles, scrub thorn oak, tumbles of rock, nothing to distinguish it from other mountainsides on this Greek island or any other. But to this archaeologist the difficult terrain shrouds the remains of not one city, but several. With hard work, patience, and luck he expects to find evidence of the city Homer may have visited in the eighth century B.C. and, five centuries further back in time, a Mycenaean city, Odysseus' city.

He knows, he says, every rock on the mountain. He has climbed like a goat over every square inch of it. He has read the signs of the landscape. "When I go there, I confront a mountain, and I'm only going to dig a small shaft. So I'd better know certainly where I want to dig. If you know what you are doing you can do a lot in eight weeks. If all goes well, we will dig for the next ten years. The continuing riddle of archaeology is that you don't know what you'll find and you don't know where you'll find it."

The initial phase of the Odyssey Project, which projected two years of research,
Top: Island laborers are hired each summer to do much of the heavy digging.
Above: Site supervisor Nancy Wanner, a Washington U. junior, records find of pottery shard by volunteer Gary Singer. Right: Three volunteers make a depth measurement for an architectural plan of the trench. In three years, the Odyssey Project has dug approximately 40 trenches.

surface surveys, and exploratory excavations at Actos, was funded by the National Geographic Society, the Center of Homeric Studies on Ithaca, the E. E. Steinberg Fund of the Department of Art and Archaeology at Washington University, the Archaeological Society of Athens, and contributions from individual supporters. The findings of those years were significant enough to maintain the support from foundations and individuals essential to the project.

Each year since, Professor Symeonoglou has recruited a team of professionals and volunteers to join him in Greece for six weeks' work in the field. Professionals have included experienced excavators, specialists in ancient pottery or Mycenaean fortifications, a paleobotanist, a topographer to map the mountainside, and an archaeologist/computer expert to design and supervise recording procedures. They come because they're interested in Mycenaean or prehistoric Greek archaeology and because, they say, "It's a wonderful project in a wonderful place." But they hope, as profoundly as Symeonoglou, to turn up convincing evidence.

Some of the volunteers are students or faculty from Washington University or other schools. Others are drawn from the community. Some catch the fever in a lecture hall. Others hear about the project at a dinner party or from friends. All must apply to Professor Symeonoglou and most must participate in a seminar, Topics in Prehistoric Archaeology (Art and Archaeology 422), during the spring semester. From this pool of applicants Symeonoglou draws a solid group of committed workers.

He looks for character. An excavation is an extremely disciplined activity, he explains. It teaches younger people to be systematic, to develop stamina, patience, perseverance, and to work closely with other people in achieving
a common goal. For every glorious moment of discovery there may be weeks of unrewarded work.

"We all work very closely together, and everybody has to hold his ground and perform the assigned duties," explains the archaeologist. "Without absolutely dependable meticulous attention, evidence, which we have worked hard to uncover, may be destroyed. It's not really unlike the tedious work done by the scientist in the lab. Miracles do happen, but you can't count on that. You can't wait for miracles. You have to accumulate a lot of factual information before you can come to a conclusion."

Volunteers do the backup work for the professionals. They must watch every shovelful of earth the Greek laborers turn over in the trenches. They tag finds. They sort and wash a great drift of potsherds and unprepossessing bits of wood and rock. They enter details of the site's activities in a daily log. Though they live in a picture-postcard fishing village, most of their time is spent on the rocky hillside. They must care enough about the project to endure the blistering hours, the long intermissions between discoveries. Not everyone is suited for the tedium, the heat, the discipline.

The Washington University Greek connection is not a new story. More than 50 years ago, the Department of Art and Archaeology was two crowded rooms in Givens Hall, a slide library in a shoe box, and one inspired teacher. But that teacher was George Mylonas, who, during the 35 years he remained on the faculty, brought the University and St. Louis patrons into the circle of his passion for discovery. Steinberg Hall
is one evidence of his success; the Department of Art History and Archaeology another; and still another a local chapter of the Archaeological Institute of America that is today one of the most active in the country.

Mylonas was, everyone remembers, truly charismatic; the only lecturer he ever knew, recalls Mark Weil, now chair of art history and archaeology, who could show slides of an excavation and talk so forcefully that you would simply see the site in all its glories. His power to move people to share his vision left a legacy of support in St. Louis and laid the foundation for a continuing interest in the archaeology of ancient Greece. Through Mylonas many learned the joy of laying a hand on the past.

After retiring from Washington University, Mylonas returned to Greece. As a member of the Academy of Athens and secretary general of the Archaeological Society of Athens, he remains, in his 80s, a powerful figure in national archaeological affairs. It is as a member of the Archaeological Society of Athens, which has its own program of excavations in Greece, all approved by the Ministry of Culture, that Symeonoglou excavates on Ithaca. Every proposal for archaeological exploration in Greece must come to the Greek archaeological service which, upon recommendation from the Society, issues the permits to dig. The Odyssey Project moves on its own merits, as it must, but it is a happy coincidence that the mandated Project Report, presented to the annual meeting of the Archaeological Society in April, is read by Mylonas.

In early June each year, project members gather in Ithaca, making their way from Athens by bus or car to the port of Patras and then by ferry to the island. As the ferry rounds the headlands to cut into Vathy’s harbor, they can experience for themselves the fit of Homer’s words (The Odyssey, Chapter VIII):

_There is a barbor of the Old Man of the Sea, Phorkys, in the countryside of Ithaka. There two precipitous promontories opposed jut out, to close in the harbor and shelter it from the big waves made by the winds blowing so hard on the outside; inside, the well-banked vessels can lie without being tied up, once they have found their anchorage._

With that first glimpse the imaginary world of Ithaca takes on the substance of geography:

_Their days begin very early. By 6:15 they’re at breakfast, a spartan meal of toast and tea or instant coffee. The Director (on site, Symeonoglou is always the Director), draws the day’s work into focus. By 7:30 they are on the mountainside, where the Greek laborers are already waiting._

_The site spreads over the east slope of Mt. Aetos, about 40 acres of rock-strewn hillside. Over the centuries earthquakes have shattered the succession of settlements built there and tumbled the rubble down the mountainside. Each activity of every member of the team is designed to decode that jumble, to sort through the layers of debris. In concert they will work the area systematically, collecting artifacts, noting the presence of walls, pinpointing elements that may be archaeological rather than natural remains._

_One group maps the terrain, toiling along the hillside with sextant and rod to develop a detailed topographical map. Another systematically traverses the site, everything counts: the size and number of pottery finds, a smudge of charcoal, a change in the color of the soil._
searching for unusual juxtapositions of rocks or other surface clues to ancient human activity. Up on the hillside, knots of workers cluster at the summer’s exploratory trenches — two long gashes, one just below the crest, the other farther down. At the bottom of the mountainside, a flotation team processes soil samples. The Director seems to be everywhere at once.

Each trench has a trench master, the professional in charge, a complement of laborers, and at least one volunteer to keep the all-important field book. Once the surface has been cleared of rock and brush, the laborers work their way gingerly into the hard-packed earth, with pick axe, pronged hoe, and finally hands or a brush and dustpan. The trenches, some as long as 40 meters, deepen and widen as the work progresses.

Each object — rock, bone, or pottery — of any possible significance, anything that could conceivably be something besides a lump of mountainside, is gently dusted off and handed to the trench master, who makes a preliminary judgment to toss it or keep it. Pottery is stored in plastic bags, and special finds in boxes, numbered, dated and recorded on a plan of the site to show precisely where they were found. Everything counts: a change in the color of the soil, a smudge of charcoal, the size and number of pottery finds. The field books are rich in detail. Drawings of the site, noting trees, shrubs, particularities of the topography, as well as the trench at each stage of its excavation, detail significant finds. Size, shape, location, exactly where the object lay and how it lay are all specified.

Tension mounts as the openings deepen and evidence of early habitation begins to turn up. Early in the summer of 1985, before the first week of digging was out, there was a spectacular find, a very badly damaged fourth century house, and a rich hoard of fourth century silver coins in mint condition, and at another trench, a fifteenth century house. What was emerging was not yet Odysseus’ city but a trail of settlement, leading back into the past.

Since modern archaeology is interested in the entire way of life of the people it is examining, the team at each trench preserves every seed, every piece of charcoal, every shred of evidence that there was food or fire or pottery. Sample bags of soil from each level of the excavation are tagged, with the exact location noted, and delivered to the flotation team, mercifully settled under olive trees at the foot of the mountain. Here the soil is diluted in buckets of water and worked through a series of fine meshed sieves to retrieve carbonized plant remains that might reveal the nature and quality of life in the ancient society — what they grew, what they ate. Eventually, back in the States, this material will be sorted and identified.

Flotation is a technique of the new archaeology, that reconstructs, not just buildings, but the economy, the diet, and the physical appearance of the environment. It’s a luxury to have an expert in flotation and very important, according to Symeonoglou. Flotation is not common in Greece, and those finds, unlike others, can be brought back to the States for further study.

All morning the Director moves from place to place, questioning, consulting, interpreting, watching, always watching, as the telltale fragments emerge from the protecting earth. Down below, peasants
tend their vines. Stones rattle down the mountainside as the excavation goes on. Toward noon the work breaks and team members gather under the olive trees for a lunch of bread, cheese, sausage, tomatoes, olives, and cold water. The small talk is all snakes and centipedes, occupational hazards of the dig, the light chatter of a tiny, tight community whose present universe is an excavation and an island. Then it’s back to work until two, when everyone returns to town for the siesta.

The whole town sleeps. Along the waterfront yachts doze in the sun, cafes and shops yawn. It’s brilliant, and hot, and empty. The archaeologists don’t stir until five when team members gather again, this time at the local museum that is the scientific headquarters of the excavation. Here the finds of the day are washed, sorted, re-examined. In a back room the notations from the field books, all the details of item and location, are entered into a computer. The rich detail of the notebooks— minutiae of topography, size and shape of finds and their precise position in the trench—is ordered for recall.

As they work their way through the bags of specimens, dipping, scrubbing, sorting, team members talk about the artifacts, sharing the excitement of a significant find when there is one, shouldering disappointment and discouragement when the day in the trench or on the mountainside, all those hours in the hot Greek sun, has yielded nothing of importance. Every single artifact has been recorded at every stage and now is logged into the computer, translating the day’s work into records that will eventually deliver a profile of the summer and all its data as evidence, the all-important evidence that is the foundation of tomorrow’s work, and next year’s.

Archaeology is a special kind of adventure story. Part luck, part scientific work, an infinitude of patience, thoroughness, daring, and a mind to work—all enter the equation. The harbor holes in, just, some say, as Homer described it. Around it, the town begins to stir as the light fades. The museum stirs over, team members gather at the Cafe Odysseus. They know the

regulars and are by now themselves regulars. Here they put the day off. Here it’s all fun and friendship. The Director, as he’s been called all day, softens into Sarantis. From cafe they go to dinner, to The Grill, Grigori’s, or Trechantiri, moving evenhandedly night by night around the circuit of taverna possibilities.

Then it’s back to the square again to a cafe for a final ice cream or coffee. They watch the promenade, the bustle and stir of visiting from table to table, and are themselves part of the ritual of see and be seen. The routines of the dig and the rhythms of the town merge. One by one they drift off to hotel and bed. Just inside the night, tomorrow’s 6 a.m. alarms are waiting to ring.

Trudi Spigel is director of project development in public relations at Washington University. She and her husband Peter Riesenberg, professor of history at Washington U., visited the site of the Odyssey Project last summer.
Remarks of the Chairman

As we in the Washington University community review the year just past, our spirits and our feelings of pride are high. The diagnosis for Washington University is outstanding; the prognosis, exhilarating!

Our on-campus family of faculty, students, administrators, and staff is splendidly supported and reinforced by our off-campus family. This alliance is working. Through the mighty efforts of Washington University's alumni, parents, trustees, and other individuals—enthusiastically endorsed and supported by foundations, corporations, and private agencies and groups—our ambitious fund-raising program for the 1980s has surpassed its overall financial goal.

In June, gifts and pledges to the Alliance for Washington University reached $301.2 million, exceeding its announced goal of $300 million 18 months ahead of schedule. George H. Capps, former chairman of the Board of Trustees, who has ably served the Alliance as chairman, announced that the total in June included 183,818 gifts from 50,627 donors.

Clearly, the efforts of more than 2,000 volunteers in this campaign have been fruitful. On behalf of the Board, I want to thank George for his inspiring and tireless leadership. I also congratulate Richard F. Ford and the members of the Capital Resources Executive Committee; Zane E. Barnes and his Annual Programs Executive Committee, including: Stanley L. Lopata, chairman of the Alumni, Parents, and Friends Committee; David C. Farrell, chairman of the Business, Industry, and Foundations Committee; the nine annual programs chairmen for the schools; and all of the committee members throughout the University who have devoted time and hard work to this worthy cause.

To the volunteers and to the donors who have given so generously of themselves and of their resources, I extend my deep appreciation. But we cannot rest now. We have achieved the overall goal, but we have a number of specific objectives remaining to be met. These include funds for certain physical plant and endowment needs and gifts for ongoing operations. We will therefore continue our fund-raising drive through 1987 as originally planned with strong emphasis on the importance of annual gifts.

As the year closed, an announcement of great importance to Washington University was made. To help the University continue its progress in future years, the Danforth Foundation made a special $100 million grant to the University. This grant—to be placed in the University's endowment—is unusual in that it will provide for future rather than current needs.

While the income from most endowment funds is restricted to specific purposes, this new endowment will provide income estimated at $5 million per year, to be allocated annually by the Board for capital needs, which may include endowment for academic, faculty, and scholarship programs, construction, or the purchase of major equipment. This gift will provide our University, already one of the nation's best-managed, with the flexibility to meet the opportunities and challenges of the years to come.

Moreover, it is an expression of confidence that the alliance of individuals and organizations that has built Washington University—and moved it to the forefront of higher education's most respected institutions—will continue to press forward together. I share this confidence. I am convinced that the alliance will continue to increase in numbers and in commitment to the University's important mission of service to our region, the nation, and the world.

The Board of Trustees has provided a remarkable impetus for the advances the University has made. Credit must be given to this diverse group of dedicated individuals who fully understand the responsibilities entrusted to them. They are working Trustees with vision, flexibility, and commitment to the University's contributions and its important role in the future.

Four new members bring added perspectives to the Board. Katherine White Drescher and Michael N. Newmark joined the Board last fall. Mrs. Drescher is the coordinator of the Spencer T. and Ann W. Olin Fellowships for Women and a former assistant to the Chancellor; she is active in many civic organizations. Newmark, a graduate of the College of Arts and Sciences and the School of Law, is a partner in the St. Louis law firm of Lewis and Rice and a former attorney/adviser to the U.S. Tax Court in Washington, D.C. Elected at the winter meeting were Richard A. Roloff and Alvin J. Siteman. Roloff, a graduate of the School of Engineering, is president of the Capital Land Company and has been a major force in the Washington University Medical Center Redevelopment Corporation. Siteman is president and treasurer of the Siteman Organization, Inc., and serves on the board of the St. Louis Art Museum and Jewish Hospital. All of them come to the Board with an already impressive involvement in University affairs.

From the boardroom to the classroom to the pathways that cross our beautiful campus, the feeling of excitement runs high. Our University is achieving its goals and being accorded well-deserved recognition. Our expectations for the future continue to rise. But there is a price for our success: sustained, increased commitment to our lofty ideals. It is a price we will gladly pay.

W. L. Hadley Griffin
Chairman
Board of Trustees
On June 24, it was announced that the ALLIANCE FOR WASHINGTON UNIVERSITY had reached its overall financial goal of $300 million 18 months ahead of schedule. None of us involved at the start could have anticipated this early success. The decision to launch such a large campaign at a time when the economy was slack required enormous faith in the vision and generosity of the Washington University family. That faith has been more than justified. The magnitude of the generosity has surprised even this Chancellor, whose faith in the Washington University community is boundless.

I am deeply grateful to the more than 50,000 donors who joined to make our success possible. Trustees, alumni, friends in and out of St. Louis, parents, students, faculty, staff, corporations, foundations, and agencies were allied in this grand effort. The accomplishment belongs to all of these individuals and organizations. They are the heroes of the ALLIANCE.

They are not the only heroes, however. The campaign would never have succeeded without superb leadership. More than 2,000 individuals donated time, energy, imagination, and hard work. The leader was, of course, George H. Capps, chairman of the ALLIANCE, without whose energy and dedication nothing memorable would have happened. W. L. Hadley Griffin, current chairman of the Board of Trustees and past chairman of the Commission on the Future of Washington University, was instrumental in outlining the needs and goals indispensable to the achievement of them. Herbert F. Hitzeman, Jr., senior vice chancellor for University Relations, conceived and planned the campaign. In addition, he oversaw every detail. Without his foresight, wisdom, and dedicated work, the ALLIANCE would never have taken place.

The success of the ALLIANCE has provided for many urgent needs. In addition, the recent Danforth Foundation grant has increased the capital base of the University and provided flexibility for the future. What does all this mean for Washington University? In a real sense the question will be answered not by what is said or done in 1986, but by how Washington University develops in the next decades. Thinking hard about the future, however, may help to guide today's actions. Let me share with you a few of my thoughts.

Our great progress does not mean that we have reached the millennium. In 1960, a report by a committee chaired by the former dean of the School of Architecture, Joseph Passonneau, stated that Washington University was "undercapitalized" in the light of its program and aspirations. A major step has been made in correcting that imbalance, but we are still on the undercapitalized side.

Moreover, the problems facing institutions of higher education have not gone away. The litany of items is imposing. There are declining numbers of young people in the usual age ranges for undergraduate and graduate education. The faculty is, in some disciplines, aging and the average age will continue to increase for possibly another decade. Bright young people are not entering Ph.D. programs in sufficient numbers to replace those to retire in the coming decades. Inflation in the cost of higher education has been outpacing the increase in the consumer price index. At the same time, a very tight federal budget adversely affects funding for student aid and for research and makes the federal government reluctant to pay the full costs of the research it is supporting. The patterns of financing health care and health education are changing rapidly. The educational goals of young people shift swiftly and not always in predictable ways.

Simultaneously, the educational and research challenges facing the University have never been more exciting or more promising. The hopes for the future success of the United States rest on liberally educated citizens with the technical and cultural understandings necessary for the modern global society. The promise of expanded horizons and greater benefit from research grows with each new discovery.

While the magnificent new funding will neither solve the problems nor ensure that the challenges will be met with imagination or vigor, it does allow Washington University to be well positioned to deal effectively with both challenges and problems.

We have marvelous resources: first and foremost in people, but also in buildings, endowment, and equipment. We have the dedicated support of our alumni and friends. The possession of these assets gives us a special responsibility to orchestrate them wisely and carefully for the benefit of our students and the larger society. I believe, moreover, that we have an important additional responsibility, namely to aspire nobly.

We cannot realize noble aspirations by standing still. The completion of the ALLIANCE, therefore, is not a time to rest but, instead, a challenge to work harder for grander goals. Those of us within the University can use this opportunity to set personal, departmental, and institutional goals that are realistic and achievable. I hope that the members of the wider Washington University family will respond by continuing to support Washington University energetically and generously as has been done so magnificently in the past. In this spirit, the ALLIANCE FOR WASHINGTON UNIVERSITY will continue until we have finished contacting those who have not yet been asked to contribute. The hope is to achieve the goals of the planning groups that have not yet been funded.

I see all of our great efforts bringing us closer to the realization of the dream of the greatest possible Washington
University in teaching, in research, and in service.

The success of the Alliance for Washington University could have happened in no other country. Only in the United States is it possible to conceive of this kind of outpouring from private sources of support for an independent university—an independent university dedicated to the highest practice of the triad of academic ideals: teaching, research, and service. Our nation has a tradition of independent groups organizing themselves to further the common good. This tradition, supported by the federal government by the tax deductibility of charitable giving, provides a diversity and vitality to American life and culture that is unmatched elsewhere in the world.

The records of success, not just of Washington University, but of other institutions as well, demonstrate again that free people will respond to a worthy goal in an optimistic and generous fashion. I feel fortunate to be part of an institution that evokes such a response.

I believe also that such a response is wise and proper, for I believe our great universities have today unparalleled opportunity to contribute understanding and new leadership for the improvement of life on earth.

As you read the summary of the year's accomplishments and the reports of the deans that follow, I believe that you will be pleased with the progress that has been made in the last year. Not mentioned because it does not fit into any single school is the work of Dean Harry Kisker and his staff in the Student Affairs area. A decade ago it was evident that a high priority for Washington University was to provide opportunities for a more well-rounded and interesting extracurricular life. Thanks to Dean Kisker, his staff, and many, many students we now have these opportunities. This academic year saw Washington University inaugurate the University Athletic Association along with Carnegie Mellon University, Case Western Reserve University, Emory University, Johns Hopkins University, New York University, the University of Chicago, and the University of Rochester. All of these institutions have similar beliefs that athletic programs exist for student recreation and growth and not as ends in themselves.

Ralph E. Morrow's retirement as Provost after 31 years at Washington University marks the end of an important era. His intelligence, wisdom, courage, and dedication to the University will be missed. He should leave with the satisfaction of knowing that he has changed Washington University for the better. Provost Morrow is being succeeded as chief academic officer by W. Maxwell Cowan, who returns to Washington University after eight years at the Salk Institute. Cowan will bring to us great talent and experience as scientist, educator, and academic leader.

Vice Chancellor James W. Davis is taking a leave of absence to serve on the editorial staff of the St. Louis Globe-Democrat. When I learned of his opportunity, I was pleased for Vice Chancellor Davis but sad for Washington University. He will be missed.

In summary, I believe that we at Washington University are engaged in a great adventure. The academic year 1985-86 was a good one. The next years will demand the best from us all.

William H. Danforth
Chancellor

1985-86
at Washington University:
A Year of Advancement

The 1985-86 academic year at Washington University was characterized by nationwide attention to stories that originated within our community—about University-industry cooperation, about pioneering research and a chance discovery, about individual achievements and the recognition of excellence. The participants in these stories were teachers and scholars, students, trustees and administrators, alumni, and friends in a community that now reaches around the world.

The University's pioneering biomedical research agreement with the Monsanto Company was extended from its original five-year period to eight and one-half years, and its value increased from $23.5 million to nearly $52 million in 1980 dollars (estimated real funding of $62 million by the end of 1990). It is the largest single collaborative research agreement between an American company and an American university.

At year-end, the University unveiled another precedent-setting example of university-industry cooperation and perhaps opened a new avenue for the commercial development and marketing of new technologies evolving out of research taking place in the University's biomedical and biotechnological laboratories.

Washington University and Alafi Capital Company, a California venture capital firm, signed a 10-year agreement to identify promising technologies and create companies around them through a jointly owned partnership called A/M Company. Alafi will manage and finance the partnership.

Roger Beachy, professor of biology, traveled to Chicago to announce the results of research that may lead to development of virus-resistant agricultural crops, another weapon in the war on world hunger.

Larysa Beyer, a student doing research in the University Library for Michelangelo scholar William Wallace, assistant professor of art history, came across a declaration of foodstuffs on hand in a Florence, Italy, household during a time of siege and famine. Professor Wallace recognized the signature on the previously unknown document as that of Michelangelo.

William Gass, David May Distinguished University Professor in the Humanities, won the National Book Critics Circle Award for his work of criticism, Habitations of the Word. Our School of Medicine, long respected for its contributions to biomedical science, was recognized as a center of excellence in neuroscience and Alzheimer's disease research.

Faculty Distinctions

William H. Daughaday, Irene E. and Michael M. Karl Professor of Endocrinology and Metabolism; and Philip W. Majerus, professor of medicine and biological chemistry, were among 59 new members elected to the National Academy of Sciences.

Daughaday was also one of four faculty scholars who were elected Fellows of the American Association for the Advancement of Science. The others were: C. David Gutsche, professor of chemistry; Paul E. Lacy, Robert L. Kroc Professor of Diabetes and Endocrine Diseases; and Patty J. Watson, professor of anthropology.

Harold Burton, professor of
neurobiology and associate professor of physiology and biophysics, and David I. Gottlieb, associate professor of neurobiology and biochemistry, joined six other colleagues at the University as recipients of Javits Neuroscience Investigator Awards, established by the U.S. Congress in honor of the late U.S. Senator Jacob Javits of New York.

Five scientists at the McDonnell Center for the Space Sciences were named to important advisory panels of the National Aeronautics and Space Administration (NASA): Larry A. Haskin, professor and chairman of earth and planetary sciences; Martin H. Israel, professor of physics and associate director of the McDonnell Center; William B. McKinnon, assistant professor of earth and planetary sciences; W. Robert Binns, senior research scientist at the McDonnell Center; and Marilyn L. Lindstrom, senior research scientist in earth and planetary sciences.

Raymond E. Arvidson, professor of earth and planetary sciences, who is chairman of the National Academy of Science Committee on Data Management and Computation and a member of several other groups advising NASA, received a NASA Public Service Medal for his exceptional contributions.

A number of other faculty received prestigious research awards or fellowships.

**Student Achievements**

In the second year of the Competition in Mathematical Modeling, a team of undergraduates again took top honors. This year's first-place team included Jonathan P. Caulkins, Robert C. Barrett, and Andrew J. Yates. Another team, made up of Mark J. Schachtman, Marc W. Jedel, and Howard J. Demskey, placed in the second, or "Meritorious," category.

Teams from the School of Law dominated national competitions in trial and client counseling skills. In the National Mock Trial Competition, Mark A. Lynch and Harry M. Haytayan comprised the team that took top honors; Lynch received the George A. Spiegelberg Award as best student trial advocate. This was the second time in four years that WU has won the national competition and the outstanding individual award; the school's representatives have advanced to the national finals for six straight years. The school's client counseling team, consisting of Lee W. Baron, Grace Blaich, and Ellen A. Blau, won both the National Client Counseling Competition, sponsored by the American Bar Association, and the first International Client Counseling Competition, which featured teams from Canada and Great Britain.

Individual students and student organizations also fared well in competitions with their peers. George Chave, a doctoral candidate in music, won the Oriana Trio International Composition Competition's first prize out of a field of more than 40 pieces representing eight countries. Two dental students won prizes in national competitions: Richard I. Goldberg took first place in basic science research at the National Student Table Clinic Competition, cosponsored by the American Dental Association; Nicholas C. Salvati won third prize in the National Student Competition for Public Health Community Service Projects.

Several students were among those receiving national and international fellowships for graduate study.

**Administrative and Academic Changes**

Upon the retirement of Provost Ralph Morrow and the appointment of W. Maxwell Cowan as his successor, additional changes were made in the organization of academic and student areas. Richard N. Rosset, dean of the Faculty of Arts and Sciences, was given the additional title of vice chancellor with responsibility for the schools of Architecture and Fine Arts, for Library Services, and for the Washington University Gallery of Art. Harry Kisker, dean of student affairs, was also named vice provost with added responsibility for placement, student educational services, and the health service.

A new academic division, the School of Technology and Information Management, was formed, consolidating programs previously offered through other divisions. Robert J. Benson, associate vice chancellor and director of computing services, was named dean of the new school, which is affiliated with the School of Engineering.

With the departure from University College of Dean Robert C. Williams to become academic vice president at Davidson College, Edward N. Wilson, dean of the Graduate School of Arts and Sciences, was also named dean of University College, which has developed a stronger focus on graduate programs in recent years.

**Campus Visitors and Events**

From a freshman/parents orientation week that featured a Mississippi riverboat cruise to a combined Commencement and Alumni Weekend celebration, the year on campus featured events both traditional and unusual, and visitors from across the country and around the globe.

Edison Theatre, the Gallery of Art, the Performing Arts Area, the Department of Music, and a number of other University and student organizations presented a wide range of performances, exhibits, lectures, and special programs. Edison's season included a performance by Anna Russell, the first lady of musical parody, on her farewell tour.

The University's Assembly Series featured distinguished authors, journalists, educators, theologians, economists, and political figures.

Finally, in the realm of athletics, two Washington University Bears teams advanced to NCAA Division III national championship competition in 1985-86. The soccer team advanced to the national finals, losing in postseason competition only to eventual champion University of North Carolina at Greensboro. The men's tennis team finished eighth in the national championships after compiling a 19-3 regular-season record. Virtually all intercollegiate sports teams enjoyed improved records in the first full season of the new Athletic Complex. The Basketball Bears won their own Lopata Men's Basketball Classic invitational tournament for the second year in a row; the event features teams from other top institutions that are better known for emphasizing academics than athletics.

What seemed a novel concept two years ago will become the norm when regular conference play begins in September 1987 between Washington University and the other member schools of the University Athletic Association, all independent, research-oriented universities with strong undergraduate programs, located in major metropolitan areas in the Northeast, Middle Atlantic, Southeast, and Midwest.

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Quoting Chancellor Danforth, a recent article in The Christian Science Monitor credits Washington University's remarkable rise to its decentralized decision-making. In an important sense, decentralization in almost all universities is carried to its limit, since the principal work of a university, teaching and research, is entirely in the hands of individual faculty members who enjoy a degree of autonomy unsurpassed in institutions of any other sort. In crediting the University's success to decentralization, the Chancellor modestly neglected to mention the other indispensable ingredient, leadership that creates the necessary conditions for wise decisions. The exceptional quality of our faculty and the enormous success of the Alliance for Washington University combine to provide the intellectual and financial resources we need for success.

Faculty Appointments

Almost as decentralized as teaching and research is the process that most profoundly affects a university's long-range future—the selection of new faculty. These decisions are made in the individual academic departments, which are responsible for recruiting new faculty, advising young faculty as their careers develop, evaluating their teaching and research, and deciding whether to recommend them for promotion and tenure. Most new faculty are hired at the junior level, but occasionally a department, in the unceasing search for top quality academic talent, turns up an opportunity to appoint a truly exceptional senior scholar. As a university grows in stature and reputation, these opportunities occur with increasing frequency. The 1985-86 academic year brought the Faculty of Arts and Sciences nine such opportunities, four in the humanities, three in the natural sciences, and two in the social sciences, an exceptionally large crop:

Mark S. Conradi, associate professor of physics. Returning to Washington University where he received his Ph.D. in 1977, his innovative work in nuclear magnetic resonance (NMR) has already earned him the widespread admiration and respect of leading scholars in both chemistry and physics.

Steven G. Krantz, professor of mathematics. One of the world's half-dozen leading mathematicians working in the field of several complex variables, a scholar whose work will exert strong influence over the rising generation of mathematicians, and winner of the Distinguished Teaching Award at U.C.L.A.

Jeffrey G. Kurtzman, professor of music. An outstanding musicologist whose publications of Monteverdi are basic to the subject, winner of numerous awards, including a Guggenheim Fellowship, a Martha Baird Rockefeller Grant, an award from the National Endowment for the Humanities, and one from the Deutscher Akademischer Austauschdienst.

Mario Vargas Llosa, distinguished professor of romance languages and literatures. Internationally acclaimed Peruvian novelist whose most recent book, The Real Life of Alejandro Mayta, won last year's Hemingway Prize for the best work of fiction published in English. This appointment complements the appointment last year of Alain Robbe-Grillet, greatly enhancing the department's strength in both Spanish and French literatures.

Charles H. Newman, professor of English. Founder and, for ten years, editor of TriQuarterly, one of the most prestigious journals in modern American letters, author of six books and editor of six more, his most recent book of literary and cultural criticism, The Post-Modern Aura, received immediate and wide recognition.

Jeffrey S. Rusten, associate professor of classics. Hellenist whose book on Dionysius Scytobrachion has made obsolete all previous studies of that author, including the standard text. One referee, himself a scholar of the first rank, rates Rusten as one of the most promising scholars of his generation anywhere in the world. At Harvard, he has been an outstanding teacher.

Marc E. Saperstein, Gloria M. Goldstein Professor of Jewish History and Thought. A Harvard summa cum laude, whose first book, Decoding the Rabbis: a Thirteenth-Century Commentary on the Aggadah, immediately established him in the front rank of Jewish intellectual historians. His teaching and research at Washington University will place special emphasis on the Holocaust.

Jacob F. Schoefer, Charles Allen Thomas Professor of Chemistry. A pioneer in the application of NMR techniques to the study of polymers, his path-breaking work opened up the modern era of high resolution NMR spectroscopy of solids.

Norman T. Schofield, professor of economics. Author of more than 50 scientific papers and author or editor of nine books; five in print, three forthcoming, and one in manuscript, his work lies chiefly in the area of games theory as applied to social choice, but ranges from formal theorizing about statistical methods and the most fundamental problems of democratic voting to the analysis of markets for aluminum and copper.
The consequences of these appointments go far beyond the filling of particular faculty positions. Conradi’s appointment strengthens the intellectual ties that link the departments of Chemistry and Physics with the School of Medicine. Krantz’s specialty interacts importantly with fully half the mathematics faculty; Kurtzman, in addition to his scholarly accomplishments, will bring administrative skills to the Department of Music; Vargas Llosa and Robbe-Grillet bring a new international dimension to Washington University’s creative writing group; Newman provides a strong new link between our academic and creative programs in literature; Rusten brings his powerful and imaginative use of computers to classics and comparative literature; Saperstein’s work cuts across the boundaries that separate history, literature, and philosophy; Schaefer already has a substantial history of collaboration with our faculty in chemistry, biology, and the School of Medicine, and Schofield’s influence will extend beyond economics to political science, philosophy, and the School of Business. They all bring us new intellectual strength and greatly enhance the strengths we already have.

**Faculty Awards**

These eight new professors join a distinguished faculty, fully worthy to welcome them to Washington University. Each year brings our faculty a flood of awards too numerous to catalogue in a brief annual report. Six examples must serve to illustrate the range of these honors:

- **William H. Gass**, David May Distinguished University Professor in the Humanities, won the National Book Critics Circle award for the most distinguished work of criticism in 1985 for his book, *Habitations of the Word*.
- **Lee G. Sobotka**, assistant professor of chemistry, was named a Presidential Young Investigator, an award that brings support of up to $100,000 each year for five years for research that dovetails nicely with Schaefer’s.
- **C. David Gutsche**, professor of chemistry, and Patty Jo Watson, professor of anthropology, for distinguished achievement, were elected fellows of the National Association for the Advancement of Science.
- **Larry A. Haskin**, Ralph E. Morrow Distinguished University Professor, and chairperson of earth and planetary sciences, and **Martin H. Israel**, professor of physics, were named to NASA’s Space and Earth Science Advisory Committee, a top-level standing committee that advises NASA on science policy.

With people like these making the important decisions that determine the future of Washington University, decentralization is bound to be an extraordinarily good idea.

**Richard N. Rosett**
Dean
Faculty of Arts and Sciences


School of Architecture

During the fall of 1985 the School of Architecture celebrated 75 years as an independent academic unit of Washington University. More than 200 alumni, including Harry D. Payne of Houston, Texas, the School's oldest living alumnus from the class of 1915, joined in the events. The 75th Anniversary celebration focused on social events, as well as intellectual exchange and enlightenment. We are proud of the leadership role that our School has exercised at the national architectural education level during the last three-quarter century. We are looking forward to the next 75 years!

Faculty Distinctions

We are very pleased that Professor Udo Kultermann was honored by Washington University in October at its Founders Day celebration for outstanding commitment to teaching and dedication to the intellectual and personal growth of our students. Professor Kultermann was one of four Washington University faculty honored by the Washington University Alumni Association.

In March, Professor Leslie J. Laskey received a Distinguished Professor Award for 1986 at the annual meeting of the Association of Collegiate Schools of Architecture (ACSA) in New Orleans. One of five architectural educators in the nation to receive this honor, Professor Laskey was cited for sustained creative achievement and a positive, stimulating, and nurturing influence upon students.

Both Professor Kultermann and Professor Laskey epitomize the dedication and effectiveness of our faculty in inspiring and teaching future architects.

The long, dedicated, and intensive work of the faculty search committee during the year resulted in the appointment of two new faculty for the fall of 1986—Assistant Professor Lorenz Holm and Assistant Professor Brian McLaren. The search committee, which received helpful nominations and recommendations from our alumni, reviewed nearly 70 applications, and interviewed six finalists on campus. We are looking forward to welcoming our new faculty.

Student Activities

Although the previous three annual reports indicated lower enrollments, the total number of undergraduate applicants to the School reached a record high this year. Through dedication and effort, the Admissions Office and the faculty increased the numbers of young people seeking to study architecture at Washington University. The fall 1986 freshman class, which has an excellent academic profile, will be the largest freshman class in three years.

Last fall we announced the James W. Fitzgibbon Honorary Scholarship for entering freshmen to be awarded in recognition of academic achievement and promise in architecture. We received 75 applications for this Scholarship, which provides for full tuition plus a $1,000 stipend annually for the four-year duration of undergraduate studies. Thirty-five semi-finalists were selected and six finalists were interviewed on campus. David Asofsky of Bethesda, Maryland, was the recipient of the Fitzgibbon Scholarship for 1986-87 and will join the freshman class in the fall.

During the summer of 1986, 36 high school juniors participated in the Architectural Discovery Program, under the direction of Associate Professor Iain Fraser for the second year in a row. A lively group of young people from California and Washington, Florida and Vermont, as well as St. Louis, spent two weeks in Givens Hall exploring the challenges and rewards of an architectural education and career. Having completed the program, these young students are good ambassadors for the School of Architecture as they return to their high schools to complete their senior year.

The State of Missouri approved legislation which provides for an agreement between the Coordinating Board of Higher Education and the School of Architecture. This agreement will allow Missourians who qualify to study architecture at Washington University under a State Architectural Fellowship. A specific contract between the Missouri Coordinating Board of Higher Education and Washington University still remains to be negotiated by the legislature. We are hoping to have Missouri Fellows in the School as early as the fall of 1987.

The Architecture Student Council, as well as students on an individual basis, contributed actively in giving 1985-86 its particular flavor. Their contributions varied and included responsibility for the Monday Night Lecture Series, the design and publication for the fourth time of Approach, an annual documentation of student work in the School. The Bauhaus Ball was held again this year at the St. Louis City Hall with the participation of our colleagues of the St. Louis Chapter of the American Institute of Architects.

Alumni Recognition

Eight alumni of the School of Architecture were among 21 young architects recognized by Inland Architect magazine in its November/December 1985 issue. Those included in the article, "The Next Generation: Work by Young Architects," were Paul Henderson, William Gantz, Walter Eckenhoff, W. Stephen Saunders, Andrew Metter, Michael Kennedy, Terry Brown, and Gregory Palermo. Carlos Ott, a graduate of the Master of Architecture and Urban Design Program, won an international design competition for the new Paris Opera House. Ott is now supervising the construction of the building, which will

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commemorate the 200th anniversary of the French Revolution as the Eiffel Tower commemorated its 100th anniversary.

A faculty committee reviewed the Steedman Memorial Fellowship and has recommended the resumption of the fellowship competition for 1986-87 in conjunction with the American Academy in Rome, offering an $11,000 award. The competition jury will be held as part of "Steedman Week" in February of each year. The committee also recommended the establishment of an additional Steedman Prize for a summer program in association with the Fontainebleau, Ecoles D'Art Americaines in France, specifically addressed to upper-class level graduate students in the School. A new governing committee, composed of Fred Guyton as chairman and Lou Saur and Associate Professor Edward Baum as members, will guide the fellowship in its future endeavors.

Alumni Gifts
Alumni participation in the Annual Fund continues to grow and a corresponding increase in the size of the Fund has resulted. Under the direction of King Graf, B.Arch 53, the average Annual Fund gift has exceeded $100 for the second year in a row. Total gifts to the Alumni Annual Fund have increased by 8.8 percent. The number of donors recognized through the William Greenleaf Eliot Society has also increased this year by 11 percent, thanks to the Eliot Society Membership Committee headed by Jerome Sincoff, B.Arch 56.

1986-1987 promises to be an exciting year as well. A new effort to increase support for annual scholarships will be undertaken, with benefits to both students and alumni. Additional events are planned for School of Architecture alumni in the Council Cities as well. This will provide an opportunity for me to meet with more alumni and update you on the exciting things that are happening at Givens Hall.

I am grateful to all who have contributed in making the academic year 1985-86 an exciting and rewarding one for the School of Architecture.

Constantine E. Michaelides, FAIA
Dean
School of Architecture

Architecture graduate student Amy Munsat and Visiting Associate Professor R. Todd Hamilton critique work at intermediate project review in Givens Hall.
The opening of John E. Simon Hall, the School's new home, was the highlight of this important year. Our accomplishments were substantial in faculty recruiting, student admissions, facilities, and resources, areas identified by the Business Task Force as essential to our development. Our volunteer friends and supporters deserve our gratitude for these important results.

Special Events
On April 4, 1986, hundreds of alumni and friends of the School witnessed the dedication of John E. Simon Hall. Simon Hall provides everything needed by the modern business school: an expansive library, a variety of classrooms, study and relaxation space, centers for executive education and placement, modern computing facilities, and so on.

Simon Hall gives us the opportunity to develop high quality education. It is within Simon Hall that we will be able to initiate and excel at those tasks that will establish our reputation for excellence in business education.

Close on the heels of Simon Hall's dedication was a major address in our development of the faculty. We will go into the 1986-87 academic year with 43 full-time faculty, six of whom will be on leave or full-time in administration, so we will have 37 full-time faculty engaged in teaching and research.

Of these 43 faculty, 17 have tenure at Washington University. Fourteen of the 43 have been added the past two years, including five who will be visiting next year. Our faculty is a relatively young group.

Our new assistant professors recruited in the past two years are very promising. They come from the best Ph.D. programs—Chicago, Pennsylvania, Yale, Northwestern, Carnegie-Mellon, Minnesota, and Arizona.

Attracting and retaining senior faculty in the key spots remains a major task. We now have five endowed professorships: the Hubert C. and Dorothy R. Moog Professor of Accounting, occupied by Nicholas Dopuch; the John E. Simon Professor of Finance, occupied by Jess B. Yawitz, who is on leave; the Philip L. Siteman Professor of Marketing, the Reuben C., Jr. and Anne Carpenter Taylor Professor of Marketing; and one professorship still unnamed, from an anonymous donor. The search to fill our endowed professorships is actively under way.

As the 1986-87 academic year begins, we have been strengthened at the senior level in several places. Gary J. Miller from Michigan State University joins the faculty as professor of political economy with tenure. Dean Kropp, on the faculty of the Amos Tuck School of Dartmouth, will be visiting professor of production and operations management. Don Coursey from the University of Wyoming will be visiting associate professor of management. Robert S. Weinberg will continue on a two-year visit as distinguished visiting professor of marketing management.

Accounting gains five new faculty: Joyce Berg, Ph.D., University of Minnesota; Ronald King, Ph.D., University of Arizona; and Walter Teets, Ph.D., University of Chicago, join the faculty as assistant professors. Dan Simunic, on faculty leave from the University of British Columbia, will be visiting associate professor. John W. Dickhaut, on the faculty of the University of Minnesota, will be visiting professor. In managerial economics, Krishna Ladha, completing the Ph.D. at Carnegie-Mellon University, joins us as assistant professor.

Morton Pincus, assistant professor of accounting, and Barry Weingast, associate professor of political economics, will both be on leave next academic year at Stanford University's Business School. More of our faculty are being sought for visits elsewhere, a fact of life with a good faculty and an indication of our faculty's growing recognition.

Professor William J. Marshall has resigned his position on our faculty to remain at Goldman Sachs as associate director of the financial strategies division. Jess Yawitz, John E. Simon Professor of Finance, has extended his leave of absence for a second year to serve as Goldman Sachs' financial strategies division director.

Faculty Distinctions
Timothy L. Smunt was promoted to the rank of associate professor of production and operations management, and Gregory Waymire was promoted to the rank of associate professor of accounting.
professor of accounting in recognition of their accomplishments in research and teaching since joining our faculty a few years ago. Seth Norton, assistant professor of marketing, was awarded the John M. Olin Faculty Fellowship, allowing him to take leave from his normal academic duties to devote his energies to research and writing on the economics of franchising for one academic year. Senior research scholar, Louis H. Ederington, was named director of the Institute of Banking and Financial Markets in recognition of his leadership as acting director. Assistant Professor C.M. Sashi’s doctoral dissertation was selected for honorable mention in the annual competition of the American Marketing Association. Assistant Professor Prashant Vankudre successfully defended his doctoral dissertation at the Wharton School of the University of Pennsylvania, an important milestone in his academic career.

J. George Robinson, a member of the School’s faculty since 1954, was granted the permanent title of Professor Emeritus of Marketing, effective upon his retirement on July 1, 1986.

In previous reports, I have stressed the importance of the faculty, knowing that a school is no better or worse than its faculty. I am pleased to say that while much remains to be done, especially in key senior slots, we are progressing. Today, we are recognized by the very best faculty sources, and we are tapping the best.

Admissions Excitement

The heart of our enterprise, our students, has had a substantial year. In the undergraduate B.S.B.A. program, we expect a total enrollment of 520 freshmen through seniors for the 1986-87 academic year. Our target for the incoming freshman class is 125.

Completed applications for the B.S.B.A. were up about 15 percent to 580. All the quality indicators of the applicants are up also—the national admissions test scores, with the mean at the 76th percentile; undergraduate records and the amount of meaningful work experience, with 55 percent having one or more years’ experience. One year does not imply a trend, but we hope we are beginning one. Simon Hall is already having an effect. We are reaping the benefits of the School’s growing reputation outside of the St. Louis community.

During the year, we saw the continued revitalization of our Ph.D. program. We will have 15 candidates in the 1986-87 academic year and again should begin to graduate students after an enrollment freeze a few years ago. The Ph.D. program is important because it helps alleviate the severe shortage of qualified faculty in the major fields of business. It also provides important support for the scholarly activities of the faculty, and over time, as the business school places its Ph.D.s, its own ability to attract faculty is enhanced.

The second Executive M.B.A. class graduated in June. One of our greatest accomplishments in recent years is the successful launching of our E.M.B.A. program. This two-year program for managers, who have at least eight years of significant experience, meets one full day a week. At the beginning and end of each year, a week-long intensive session is held: in Washington the first year, studying government and business interrelationships; and in Japan the second year, observing international business first-hand. Students continue to work while enrolled. The commitment is substantial. The employing organization explicitly endorses the person in the program. Thus, the E.M.B.A.s are persons who are tapped for key roles in the future. E.M.B.A. IV will enroll approximately 40 students in the fall of 1986.

Impact of the Alliance

The Business School has exceeded by nearly $4 million its minimum goal of $31 million in the Alliance campaign. Nearly 34 percent of alumni, together with non-alumni friends, corporations, and foundations, set a record for the second consecutive year by providing more than $1 million in annual operating support. Reunion class gifts were a highlight of our fund raising efforts this year, raising a record $817,000. Oliver Goralnik, B.S.B.A. 30, chairman of the Eliot Society membership committee, reports that 329 of our 1,785 giving club members are at the Eliot level, 69 of them new Eliots. One hundred fifty persons are providing named scholarships through our Scholars in Business Program. The new Corporate Partners program, inaugurated just last October and led by Edward J. Schnuck, reports more than 60 founding members at levels ranging from $1,000 to more than $100,000 annually.

In this historic year of Simon Hall, we enter a new era for the Business School. Our success in the Alliance campaign symbolizes what we can do if we persevere, hold to the highest standards, and dedicate ourselves to being the best. By the hard work and commitment of our faculty, staff, students, alumni, friends, and corporate partners, we have made remarkable progress. I am deeply grateful for the continued confidence of these friends.

Robert L. Virgil
Dean
School of Business
The most acute problem now facing all American dental schools is a shortage of qualified students. There are several causes: a diminished population group, a downswing in interest in dental careers, and the high cost of a dental education combined with the ever-diminishing student financial support from the federal government. State-supported dental schools, which for years had largely limited admissions to their own residents, are now aggressively recruiting students throughout the nation. Private dental schools such as ours must compete effectively for such students, yet we compete under a staggering handicap—the considerably higher cost of a private dental education.

We anticipate a 1986 entering class of about 48 students. This is the result of a program reduction over the last five years and will be a 45 percent reduction from the size of our first-year class five years ago. This reduction will mean a shortfall in tuition income for the 1986-87 academic year, and the same shortfall will continue for the remaining three-year tenure of these students. It would not be realistic to expect a significant improvement in the size of our entering classes in the next few years. Demographic and other projections indicate that the numbers will increase again in the future, but the interim period will be one of low enrollments.

The School must adjust to the reality of several years of sharply-reduced income. A balanced budget is essential and will be attained. Since much of our budget is premised upon income from student tuition, the severe drop in such income necessitates drastic budgetary cuts. The cuts are painful for they involve the reduction of part-time faculty and staff and adjustments in school programs. A number of valued individuals, some with lengthy service to the School, have departed or will depart.

In short, this is a difficult time for the School of Dental Medicine. Hard decisions must be and are being made. The result will be a lean school, properly and adequately staffed to provide an excellent education to a reduced student body. The School must and will operate with a balanced budget. All avenues have been considered in the reduction of expenses, and I feel certain that the School will remain solvent.

**Expansion of Facilities Completed**

Construction was completed on the five-story, 8,000-square-foot expansion of the School's facilities. The Learning Resources Center has moved into its new quarters adjacent to the Library and other spaces have been occupied. Some of the new space has been left in a rough state, pending the identification of additional research, teaching, and administrative needs.

**Student Achievements**

Two of our students brought the School national recognition by winning major awards. Richard I. Goldberg of Phoenix, Ariz., won first prize in basic science and research in the National Student Table Clinic Competition. Competing against students from all other U.S. dental schools, Richard won for his research and presentation on "Protection of Irradiated Parotid Glands by Prostaglandins Synthesis Inhibitors."

Nicholas Salvati of Bell, Calif., president of the graduating class of 1986, took third prize in the American Association of Public Health Dentists' National Student Competition for Public Health Community Service Projects. Nick won the award for his research on caries and periodontal problems in handicapped and medically-compromised patients.

**New Faculty**

A major addition to our faculty was that of Richard E. Coy, D.D.S., M.S., as professor of restorative dentistry. Dr. Coy had been professor and assistant dean for clinical affairs at the Southern Illinois University Dental School and previously taught at the University of Pittsburgh. A leader in his specialty, he is president of the American Equilibration Society and past president of the Midwest Academy of Prosthodontics.

Richard J. Smith, D.M.D., Ph.D., professor of orthodontics and chairperson of the Department of Orthodontics, has taken on the additional responsibility of assistant dean for advanced education and research. He is also coordinating a School task force that is addressing critical issues related to class size, faculty size, mix, and distribution, support staffing and services, clinical operations, and curriculum hours and content. The task force's reports will assist us in making the necessary decisions related to the School's reduced enrollment.

**Faculty Honors**

Four members of our faculty have become board-certified in their specialties during this year, and we congratulate them. Samir K. El-Mofty, P.N.S., B.D.S., M.Sc., Ph.D., associate professor of pathology, is a diplomate of the American Board of Oral Pathology. Gregory Hoeltzel, D.D.S., M.S., associate professor of orthodontics, and Michael Matlof, D.D.S., M.S., associate professor of orthodontics, are diplomates of the American Board of Orthodontics. Thomas Schiff, D.M.D., associate professor in diagnostic services and pathology, is a diplomate of the American Board of Oral Medicine.

Jeffrey Snitzer, D.M.D., M.S., assistant professor of periodontics, was the winner this year of the Pritchard Award of the Southwest Society of Periodontology. The award is given for the best original research by a graduate student in periodontology and was given to Dr. Snitzer for research completed during his post-doctoral
training at Louisiana State University. I have recently appointed Dr. Brian Clevinger as chairperson for biomedical sciences and assistant dean for research. The School is extremely fortunate that Dr. Clevinger has accepted these additional administrative responsibilities.

Two members of our faculty have been deservedly nominated for national heroism awards as a result of their dramatic rescue of an auto accident victim last February. William Donald Gay, D.D.S., associate professor and director of maxillofacial prosthetics, and Thomas J. Veraldi, D.M.D., assistant professor of pediatric dentistry (and now a graduate student in our Department of Orthodontics), were separately en route to the School when they saw a one-car auto accident. They raced to the scene and joined efforts to pull the dazed driver, an elderly man, from the smoking vehicle. Just after Gay and Veraldi extricated the driver, the wrecked car burst into flames and was destroyed.

Two faculty members of our Department of Biomedical Sciences have received major research grants. Rebecca German, Ph.D., assistant professor of anatomy, received a three-year, $105,000 New Investigator Award from the National Institute for Dental Research for her studies of the coordination of the jaws, tongue, hyoid bone, and muscles of mastication in feeding behavior.

Philip Osdoby, Ph.D., assistant professor of anatomy, received a five-year, $255,000 Research Career Development Award from the National Institutes of Health for his study of "Osteoclast Development and Musculoskeletal Diseases" and also a three-year, $250,000 grant from the National Institute for Dental Research for his work on "The Cellular Basis of Cranio-Facial Bone Disorders."

**School News**

Eric L. Mustain, Ph.D., an addition to the staff of the Department of Biomedical Sciences, was named postdoctoral research assistant and is doing research in Immunology.

The School has received approval from the Washington University Board of Trustees to inaugurate a new graduate program in craniofacial biology. This program will lead to an M.A. or Ph.D. degree in craniofacial biology and can also be pursued in combination with work toward the degree of Doctor of Dental Medicine or post-doctoral specialty training in dentistry.

I have been appointed by Missouri Governor John Ashcroft to the state's Health Coordinating Council, which oversees health care policies on a statewide level.

The School inaugurated two new dental services to the community during the year. An Oncology Dental Support Clinic was established under the supervision of Michael K. Shreut, D.M.D., assistant professor of diagnostic dentistry, to provide treatment to patients receiving or anticipating radiation treatment to the head and neck area. The service primarily aids patients who do not have a private dentist or who are in St. Louis for medical treatment and whose own dentists are not available to them. The School's Department of Diagnostic Services has also established a new radiographic consultation service for the dental community of Missouri and Illinois. The radiology section will provide panoramic, periapical, and special-view x-rays for dentists upon request. In addition, faculty members will offer diagnostic consultation on x-ray films.

Memory Elvin-Lewis, Ph.D., professor of microbiology in biomedical sciences, continues to range widely as a scholar and speaker on the use of medical plants in dentistry. Her travels this year as a speaker took her to conferences in Lima, Peru, and Lucknow, India, and as a scholar took her into the Peruvian jungle for field work.

The alertness of a student and the initiative and physical energy of faculty members produced a bonanza in donated equipment for the School. Konrad Spirk of our Class of '86 was advised several months ago by a clinic patient that the Monsanto Company might have surplus laboratory equipment available for donation. Faculty members led by Brian Clevinger, Ph.D., acting chairperson of biomedical sciences and pathology, quickly followed up the tip and discovered that the equipment included cabinets and tabletops that could save the School purchase costs estimated at $150,000. Monsanto agreed to donate the equipment. Clevinger and faculty colleagues in his department, aided by many students, took vehicles to the Monsanto facility and personally carried and loaded the donated equipment, which required several trips to the School.

The ingenuity and devotion of these faculty members and students typify, I believe, the attitude of the entire school family during this period of financial stringency. We are all united in the effort to conserve our funds and make the most of our resources as we move through these difficult years. With this spirit, there is no way we can fail.

**George D. Selfridge**

Dean
School of Dental Medicine

*Annual Report 13*
During the 1985-86 academic year the School of Engineering granted 274 bachelor of science degrees. These degrees were earned by 251 individuals who came from 35 states and 19 foreign countries. Students from the St. Louis area constituted 18 percent of the graduating class, women made up 19 percent, while 12 percent were minorities, that is Asian Americans, Black Americans, and Spanish surnamed Americans. More than one degree was earned by 39 of the graduates. The most popular degree combination, which was elected by 24 students, was the computer engineering option, which requires a B.S. degree in both electrical engineering and computer science. Combined bachelor's and master's degree programs were also popular, with seven students receiving the B.S. and M.S. degrees and three receiving the B.S. and M.B.A. degrees.

The undergraduate enrollment of 964 for 1985-86 was down slightly from the average of 991 the previous year. However, the School of Engineering is operating essentially at its capacity for undergraduate instruction, and some departments, notably electrical engineering, have experienced an increase in students.

During the 1985-86 academic year the School of Engineering granted 119 master's degrees and 15 doctoral degrees. These numbers are essentially unchanged from the previous several years. Of the 15 doctoral degrees, eight were earned by foreign students, which is consistent with the national average of more than 50 percent of engineering doctorates being granted to foreign students. Many of these students will remain in the United States, entering both academic and industrial positions, and will make a major contribution to the advancement of American technology.

Graduates of the class of 1986 found the job market to be reasonably good. Most graduates seeking industrial employment were placed by the time of commencement. It is interesting to note that of the 169 students who registered with the Engineering Placement Office, 46 were St. Louis area residents, and 72 percent of them were placed in positions in the St. Louis area. Of the non-St. Louis area residents, 34 percent were placed with St. Louis-based companies. The greatest demand was for electrical engineers and computer engineers. Demand for chemical engineers, reflecting the depressed conditions in the petroleum industry, was relatively weak.

The recruitment of students for the freshman class of 1986, under the direction of Assistant Dean William Marsden, was quite successful. A record 1,166 applications were received. The target for the class was approximately 200 students, and deposits were received from 219 students, compared to 208 deposits at the same time last year. The academic ability-level of the class will be very strong. The average SAT math score is 698 with 102 students scoring better than 700.

The Three-Two Program

The Three-Two Program directed by Assistant Dean Robert Ridgway continued to flourish, receiving 123 applications during the 1985-86 academic year and generating an expected entering class of 63 students for fall 1986. Both of these numbers are record highs. The 63 students are from 31 colleges and have an average grade point of 3.30, making them a diverse and highly qualified group. The class includes 11 women, five minorities, and 10 students from other countries. During the year, Dean Ridgway visited 91 liberal arts colleges, including 64 of the 72 Associated Colleges and 18 of the 71 Corresponding Colleges currently affiliated with the Program. The Program has received national attention, and there is growing interest in this route to obtain degrees in both engineering and liberal arts.

There were three resignations and one retirement from the engineering faculty during the past year. These losses were nearly balanced by three new appointments. The faculty now numbers 72 with 52 having tenure appointments. Additional faculty will be added in the coming years, particularly in Electrical Engineering, where the surge of student enrollments during the past several years has made the student-faculty ratio higher than desirable.

Professor Donald Snyder, who for the past 10 years has served as chairman of the Department of Electrical Engineering, will be relieved of his administrative duties in order to devote his full attention to research and teaching. Professor Harold Shipton has accepted the responsibility of acting chairman and will serve in this capacity until a new chairperson is found. A search committee under the leadership of Professor Fred Rosenbaum has been formed to find a new chairperson.

The Department of Engineering and Policy announced the establishment of a new academic degree, the Master of Science in Management of Technology. Courses in this 34-unit degree program will be scheduled to accommodate students who have full-time employment. The program integrates a
significant component of course work from the Washington University Graduate School of Business Administration with graduate engineering courses that specifically address the management of technological programs and people, technology policy issues, and research and development.

**School of Technology and Information Management**

In the spring, the establishment of a new division, the School of Technology and Information Management (STIM), of the School of Engineering and Applied Science was announced. Under Dean Robert Benson, a 1965 graduate of the Washington University School of Engineering and formerly associate vice chancellor for financial systems, the new school offers academic programs and professional and leadership development programs. It draws together the Center for the Study of Data Processing with its 35 Corporate Affiliate members, the Construction Management Center, which has grown to include many civil engineering corporate members, the Engineering Technology Programs, Engineering's summer school, and the Engineering Co-op Program.

On May 14, 167 students were honored at STIM's first Recognition Ceremony for graduating students. Director of Administration Sharon Clark called the roll of students completing Engineering Technology, Systems and Data Processing, and Industrial Production Management programs.

The School of Technology and Information Management announced a new degree, the Master of Engineering Management, which will be inaugurated in fall 1986. This new program, developed under the leadership of Assistant Dean Ray Mohrman and Professor William Darby and the Department of Engineering and Policy, is intended for experienced engineers preparing for management roles in their companies.

The School's activities have been consolidated in Prince Hall. Together with the Center for the Study of Data Processing, the School's staff have splendid new quarters and classroom facilities.

The Center for the Study of Data Processing welcomed two new Corporate Affiliates, Edison Brothers Stores, Inc. and United Van Lines. These additions bring the roster of Corporate Affiliates to 35. Under the vigorous leadership of Robert A. Rouse, associate director of the Center, its programs provided 8,000 days of professional courses to its affiliates. The Center's joint program in artificial intelligence with the computer science department, featured five projects cooperatively with Corporate Affiliate staff. These pilot applications of computer technology are intended to advance the understanding of expert systems in the Corporate Affiliate community.

**James McKelvey**  
Dean  
School of Engineering and Applied Science
School of Fine Arts

This year, the School of Fine Arts witnessed outstanding results from faculty and students. Perhaps we are developing another School of Fine Arts tradition—making each year better than the one before.

The profile of the 1986 entering freshman class reflects our success: Applications increased from 193 in 1985 to 281 for 1986, resulting in 146 and 145 offers and 54 and 56 final fall enrollees respectively. On a scale of one to six, 25 of the 56 incoming students rank at the top of the scale—five and above—in academic achievement, and 16 rank five and six for artistic potential. All six of the finalists from our annual Conway Scholarship Competition have accepted our offer of admission.

The moderate increase in financial aid resources for graduate students and a decision to hold the line on graduate tuition for the M.F.A degree, combined with our success in the recruitment and retention of key faculty, helped create an enlivened graduate program.

Two M.F.A. students, Greg Edmondson, M.F.A. '85, and Linda Ruffner-Russell, M.F.A. '86, were awarded Fulbright Fellowships. Edmondson will be working in Bavaria, West Germany, and Ruffner-Russell will be working in Finland during 1986-87.

Faculty Recognition

Faculty topics form the basis of the highlights for the School of Fine Arts. The all-important one-person exhibition listings during 1985-86 are long and impressive. For example, commercial gallery showings by Professors William Kohn and James McGarrell in Seville, Spain, and New York City respectively, and of Professor Peter Marcus' Narrangansett Bay Series at the Saint Louis Art Museum, were significant faculty accomplishments.

Prentice-Hall released Professor Robert Smith's Basic Graphic Design, and the National Endowment for the Arts recognized four faculty as fellowship recipients. Professor James McGarrell was one of seven artists nationally to receive a senior fellowship award of $25,000 (Peter A. Saul, B.F.A. '56, was also named one of seven senior fellows). Professor Peter Marcus, Professor William Quinn, and Assistant Professor Dawn Guernsey were recipients of NEA fellowships as well.

Professor Ed Boccia was honored with a retrospective exhibition of Boccia: The Triptychs at Washington University Gallery of Art, St. Louis University, and Fontbonne College Gallery to commemorate a distinguished 35-year artistic and teaching career at Washington University.

Professor Stanley Tasker also retired this year after an equally long and impressive career and will exhibit his newer work during the spring 1987, which was executed during his research leave last year. Widely respected for his leadership with the freshman drawing program, Professor Tasker bears the test of decades by providing the solid educational foundation required for all other studio instruction for the B.F.A degree. The Saturday and Summer High School Programs, which Professor Tasker founded, are continuing under the able leadership of Associate Professor Jeffrey Pike.

Recruiting faculty to fill the large gap created by Professors Boccia and Tasker is a difficult task. We are genuinely excited with the full-time appointments that are effective with the beginning of the 1986-87 school year: Assistant Professors Sarah Alem Spurr (Graphic Design) and Edwin Andrews (Sculpture/3D Core), Visiting Associate Professor Ellen Feinberg (Painting) and Lecturer Ronald Leax (Sculpture/3D Core). Each is a highly experienced mid-career professional. We have high expectations for their contribution to our educational and artistic mission.

Bixby Exhibits

Three exhibits formed the core of this year's Bixby Gallery schedule. The first exhibition, a touring exhibit titled Winners, featured photography, printmaking, and drawing by winners of the 1984 Mid-America Arts Alliance/ National Endowment for the Arts Fellowships. The exhibition included works by exhibiting artists Professor Peter Marcus, part-time lecturer Joan Hall, and alumnae Meredith Dean, B.F.A. '68, and Bethany Kriegsman, M.F.A. '85. Two other exhibitions, originated by faculty and alumni respectively, were Three Dimensions in Mid-America, an invitational sculpture exhibition, and Circa 1945, an exhibit of work by six artists who contributed to the artistic life of the St. Louis community beginning in the 1940s. All of these exhibits showed our students and the public the vital and resolute commitment of mid-American artists.
Freshman and sophomore fine art students work together to construct a design using pieces of lumber for a project in 3-D design class.

**Fine Arts Institute**

Another area of growth for the School is the continuing education division, Fine Arts Institute. Its fashion certificate program attracts an increasing number of students and has increased participation from the St. Louis area fashion industry. The graphic certificate program offers courses for design professionals. An example of these professional enrichment courses is "Design for Advertising," taught by three local alumni who are successful art directors in the advertising field.

Currently, no other continuing education courses offered in St. Louis emphasize the creative aspects of fashion and graphic design. This fact, coupled with the quality of instruction we have been offering through the use of full-time professionals, promises active growth for this division.

**Annual Fund Gifts**

Highlights of this year's fund-raising effort include the first time the $100,000 mark for the Annual Fund has been bridged, and the first time the average gift has exceeded $150. This is an increase in participation by alumni of nearly three percent, with 17 new Eliot Society members and a commitment for $500,000 from the Henry and Natalie Freund Charitable Trust. The Freund funds will establish a program in conjunction with the St. Louis Art Museum to provide for a visiting professor whose works will be exhibited at the St. Louis Art Museum through the "Currents" program.

Much of the success of this year's fund-raising efforts are directly attributable to the Sidney Cohen Challenge. His generous challenge grant helped us achieve a record year.

**Dedicated Faculty**

As we look to the future, our School's key strengths continue to be the gifted and dedicated faculty members, who attract better and better students each year. The recruitment of sufficient numbers of students, considering the tuition-dependent nature of our school, is critical to attaining the goals of a viable reserve-school status.

The process of constant re-evaluation and long-range planning and goal-setting is an essential responsibility of faculty and administration. A faculty team led by Professor James McGarrell began a self-study process in preparation for a professional re-accreditation visit scheduled for late spring 1987. Student opinion remains an intrinsic part of the self-study process required by the National Association of Schools of Art and Design (of which we are a charter member). In addition, the establishment of a National Advisory Committee consisting of distinguished people will work with the dean to advise and consult on the long-range plans for the School of Fine Arts.

**Roger I. DesRosiers**

Dean
School of Fine Arts

Annual Report 17
The School of Law has had a very good year, and we are well-situated to enter our 120th year of continuous operation in 1986-87. The accomplishments and contributions of our students, faculty, and alumni have been, as we have come to expect, many and stellar.

**Student Honors**

The School received considerable recognition when our student teams won the National Trial Competition and the ABA's National and International Client Counseling Competition on the same weekend in San Antonio last March. Mark Lynch, recipient of the George A. Spiegelberg Award as outstanding oral advocate, and Harry Haytayan, Jr., made us all proud of them for their achievement in the mock trial competition, as did Lee Barron, Grace Blaich, and Ellen Blau for their exemplary performance as the first Washington University team to reach the national competition in client counseling. The Moot Court program produced outstanding teams as well, with Rick Firestone and Steve Stone representing the School in the national finals held at the annual ABA meeting in New York.

These achievements were the high point in a growing chain of successes by Washington University law students in a variety of applied skills competitions.

The School of Law's lawyering skills training program has evolved tremendously in the past several years, and in 1985-86 more than two-thirds of our senior students took at least one course in the applied skills curriculum. This emphasis on applied skills does not mean a shift away from our traditional emphasis on legal thinking and legal theory. Rather, these achievements demonstrate that a school devoted to the highest standards of academic legal training can also help students apply their classroom learning to the practical aspects of the art of lawyering.

Special recognition is due the advances made by the Washington University Law Quarterly and the Journal of Urban and Contemporary Law this year. Congratulations are in order to JoAnn Levy, editor-in-chief of the Quarterly, Peter Carlson, editor-in-chief of the Journal, and their boards for a superb job. The Quarterly received several unusual compliments from contributing authors this year. Professor James B. Cox of Duke University School of Law wrote: "This is among the most favorable editorial experiences I have had in my 15 years of publishing. Yours is no small achievement. Witness the current tensions at a number of schools, this one included, between faculty and their student-edited journals." Comments like this are worth noting, as is the improving quality and reputation of our student-edited journals.

The class entering last fall closely followed the pattern that has existed for several years. Forty-four percent of the 220 entering were women, and the class came from 112 colleges and universities and 32 states plus the District of Columbia and Canada. The graduating class reported a very successful employment record to date, and we assume their experience will parallel their 1985 predecessors who reported 98 percent fully employed within a few months after graduation. The number of graduates pursuing clerkships continues to increase as more 1986 graduates accepted clerkships with the federal judiciary and state supreme court judges than ever in our history. On-campus interviewers increased by 30 percent last fall, and we expect that trend to continue.

**Faculty**

For the first time in many years, the faculty remained constant, with no new permanent additions or departures. Professors Stanley L. Paulson and Stephen H. Legomsky were promoted to full professors with tenure, and Professors Karen L. Tokarz, Stanton D. Krauss, and Roy D. Simon were promoted from assistant to associate professors. Several faculty were on leave, including Professor Paulson, who was a visiting Fulbright Scholar at the University of Vienna, and F. Hodge O'Neal, who worked as hard as ever during a well-deserved sabbatical following his tenure as dean. O'Neal will return to the classroom this fall.

The faculty, very active in outside activities, produced six books, four new supplements, and 18 law review articles. The Missouri Bar Foundation awarded Gray Dorsey the Spurgeon Smithson Award for public service. One of the highest honors the Missouri Bar can bestow. Professor Peter Mutharika was selected to serve on a delegation of approximately 20 distinguished jurists, lawyers, and law teachers to perform a comparative study of the Chinese legal system and develop a bilateral legal exchange with the Peoples Republic of China. Professor Ronald Levin was elected to the Council of the ABA's Administrative Law Section for a three-year term. Professor Levin recently completed work on the Council's "Restatement on Judicial Review," a substantial project, which the Section's Committee on Judicial Review has been pursuing for a number of years.

Four of our faculty were invited to testify before Congressional Committees in recent months. Professor Daniel R. Mandelker testified before the Subcommittee on Transportation of the Senate Committee on Environment and Public Works; Professor Jules B. Gerard testified before the Subcommittee on the Constitution of the Senate Judiciary Committee; Professor Kathleen F. Brickey testified before the full Judiciary Committee of the Senate on pending legislation regarding access to...
funds for defendant's attorney's fees under the RICO statute; and Professor Simon testified before the Subcommittee on Criminal Justice of the Judiciary Committee for the House of Representatives.

**Administration**

Professor E. Thomas Sullivan did a superb job as associate dean in 1985-86. Having proven himself an able administrator, he returns to his teaching duties in 1986-87, and Professor John N. Drobak will serve as associate dean. Professor Drobak has been on the faculty since 1979 and will bring his abundant exuberance and positive attitude to the task of making the law school work.

Assistant Dean Susan Sullivan was elected president-elect of the National Association for Law Placement, an organization of law school placement officers and legal employers with nearly 1,000 members. We are delighted that she has been recognized by her peers as one of the finest career services directors in American legal education.

**Tyrrell Williams Lecture**

Albert M. Sacks, dean emeritus and Dane Professor of Law at Harvard University, visited our campus in February as scholar-in-residence and Tyrrell Williams lecturer. In addition to delivering an interesting and vibrant lecture, Professor Sacks met with students, conducted a faculty seminar, addressed a Century Club breakfast that included Harvard Law School Alumni, and genuinely touched the institution with his enthusiasm, energy, and wisdom.

**Alumni**

The Alumni Association, under the most able leadership of Thomas C. Hullverson, LW59, honored Professor Harry W. Jones, LW34, and Judge John F. Nangle, LW48, with the Distinguished Law Alumni Award. Harry W. Jones, Cardozo Professor Emeritus of Jurisprudence at Columbia University, left Washington University to become one of the finest law teachers and scholars in the United States. Judge Nangle has gained national attention and respect for his performance as Chief Judge of the Eastern District of Missouri.

The School’s alumni and friends set new records in all categories in our annual fund campaign. We received more unrestricted funds from more donors than ever before. All giving levels from Eliot Society to Century Club recorded the most new members and total members ever. The School’s need for steadily increasing alumni support will continue. The University’s success in the ALLIANCE FOR WASHINGTON UNIVERSITY and the subsequent gift from the Danforth Foundation will allow the University to focus attention in its fund-raising effort on schools and divisions which have specific needs remaining. The law school must devote its attention to our physical environment and support for specific programs. With a strong and consistently growing annual fund as a base, we will need the help of alumni and friends to meet well-defined and important goals if the law school, like the University, is to fulfill its destiny as one of the finest in the country.

**Scholarships**

Gerhard J. Petzall, LW58, and his partner James Shoemake established the Thomas J. Guilfoil Scholarship Fund in recognition of the distinguished career of their partner, Tom Guilfoil, LW41. In September they pledged to raise and/or contribute $100,000 by 1989. The original goal was met this year, and almost entirely by contributions from persons who have no relationship with the law school. Our thanks and congratulations go to Petzall and Shoemake for their successful hard work, and to Tom Guilfoil for earning so many close friends during his illustrious career.

In addition to the Thomas J. Guilfoil Scholarship, endowed scholarships were established by Jerome A. Gross, LW31, David Baron, LW16, and in memory of Frederick W. Lehmann, LW07, and Frederick A. Eppenberger, LW28. We also added several Scholars-in-Law Awards, a program that provides direct support to outstanding students by pledging $2,500 to $10,000 per year for three years. Tuition for students entering this fall is $10,100 for the year, and the addition of these badly needed scholarship funds makes a real difference in the School’s ability to attract good students and our students’ ability to choose the high quality legal education Washington University provides.

**Philip D. Shelton**

Acting Dean
School of Law
University Libraries

Improvements in library services for students, faculty, and the Washington University community highlighted an active year for the Olin Library System. Support for the Libraries continued to increase, which helped to expand many traditional services, as well as develop new electronic ones to serve our patrons.

Expansion of Bibliographic Access
Through the generous support of a $4 million endowment provided by a gift during the Alliance for Washington University, the Libraries have been able to press forward to achieve the long-range goal of activating an integrated online information system for the Hilltop campus. Public access terminals were installed in all but one of the departmental and school libraries. Library users can now obtain faster and better access to the bibliographic data contained in the computer catalog known as LUIS (Library Users Information Service) from several different locations on campus simultaneously, saving faculty, students, and friends valuable time, which can be devoted to their teaching, learning, and research.

Not surprisingly, increased use of technology in the Libraries has been accompanied by new requests from library users for more system enhancements. The goal of having a totally integrated system is one that the Libraries are striving to attain, and an increase of enhancements to the present system will continue to be a priority consideration for many years.

Modern Literary Manuscripts
The publication this year of the Guide to Washington University's Modern Literary Manuscripts Collection was a significant achievement and the culmination of a two-year project funded by the United States Department of Education. This handsome Guide makes available for the first time an informative description of the University's rich and unique library manuscripts, which are a very important part of our nationally and internationally respected Modern Literature Collection.

We are especially pleased with the recognition the University Libraries received from this grant and the opportunity it has provided for us to improve access to these valuable manuscripts and further support the literary research of students and scholars here and throughout the world.

Improved Facilities
The problem of space shortages for library personnel throughout the Olin Library System was temporarily relieved by a series of physical renovations. The project included the creation of larger and more efficient work space for General Reference Services, Interlibrary Loan, and Circulation—three of Olin's most heavily-used areas—and the reorganization and expansion of several operating units.

While these stop-gap measures have produced better arrangements of systems to serve library users and streamline some operations, the broader issue of the Olin Library System's space problem remains critical. We are optimistic, however, that by implementing several short-term measures, such as adding compact shelving in the Chemistry Library and improving off-campus storage facilities, we will manage to contain the problem until a new library building is available.

Science/Engineering Services
To improve access to and consolidate the holdings of the science/engineering collection, a new reference unit was opened to library users in January. It is located on the fourth level of Olin in proximity to the large collection of books, serials, and reference volumes devoted to mathematics, sciences, engineering, and related studies.

Patrons have benefited greatly from this new service unit, which offers reference assistance and personalized library service of science/engineering librarians, as well as making it easier to locate needed materials.

Charles D. Churchwell

The Bookmark Society
The Bookmark Society has completed its third successful year of operations. In programming, support to the Olin Library System, and growth in membership, it has greatly surpassed our initial expectations. During the year, the organization sponsored four imaginative and well-attended programs, two of which focused on significant holdings in the University's Special Collections. Howard Nemerov, Edward Mallinckrodt Distinguished University Professor, opened the program season with readings from his poetic works, and Bookmark Society members were also given the opportunity to view a superb exhibit of Professor Nemerov's books, manuscripts, and other primary materials owned by the University.

Kenneth Rendell, the internationally recognized handwriting expert, was another prominent person whose program was sponsored by the Society and focused on autograph holdings of the University's Special Collections. The richness of these collections and their research value were recently underscored by the rediscovery of a very rare and unique 16th-century
Michelangelo manuscript that will, according to Professor William Wallace, assistant professor of art and archaeology, enrich research on a time that we know "very, very little about."

In terms of interest in and support of the Libraries, the growth in the membership of the Society during the year was our most gratifying experience. Approximately 300 new members joined the Society, even though we did not conduct a direct mail campaign; this points to the popularity of the Bookmark Society in the community and the high regard its members have for the University's libraries.

Changing Nature of the Libraries

The primacy of the archival role of the academic research library still exists, but increased electronic handling of information is forcing many expensive changes in order to meet the teaching and research needs of all students and faculty. The nature of teaching, learning, and scholarship in the humanities still requires heavy use of books, journals, and manuscripts. But students and faculty in the sciences and engineering are using more and more information obtained through direct electronic means; access to information by use of computers and telecommunications is supplementing and in some cases replacing use of the research library. Managing this dual information system is the major challenge facing the Olin Library System.

Some very good starts have been made in managing these rapid changes, and these were continued this year. The improvements in library services, which were made, however, could not have been accomplished without the sustained support the Libraries have received from the many friends of Washington University and its libraries. We are very grateful to them all.

Charles D. Churchwell
Dean
Washington University Libraries
School of Medicine

The people who make the School of Medicine such a premier institution are again foremost in my mind as I reflect on occurrences of the year. For example, in 1986 two more of our faculty were elected to the National Academy of Sciences. William H. Daughaday, M.D., Irene and Michael Karl Professor of Endocrinology and Metabolism, and Philip W. Majerus, M.D., professor of medicine and biological chemistry, were rightfully honored for their distinguished achievements in original research.

Majerus' contributions to our understanding of how blood clots form began in the early 60s, and his research on how cells respond to hormonal signals continues today. Daughaday, who has been on our faculty nearly 40 years, is renowned for his research on growth disorders and diabetes.

Daughaday and Paul E. Lacy, Robert L. Kroc Professor in Diabetes and Endocrine Diseases, were both elected into fellowship in the American Association for Advancement of Science this year, another national honor.

Philip R. Dodge, M.D., has after 19 years in the position stepped down as head of pediatrics in order to pursue his research interests in neurology full time. We were fortunate and delighted to attract Harvey R. Colten, M.D., to the School as our new head of pediatrics.

Educated at Cornell, Western Reserve, and Harvard universities, Dr. Colten was on the faculty at Harvard Medical College for 15 years before joining us. His research has focused on the genetics, biochemistry, and cell biology of disorders, such as cystic fibrosis, arthritis, and asthma. He will serve as pediatrician-in-chief at Children's Hospital.

Ronald Evens, M.D., Elizabeth E. Mallinckrodt Professor and head of radiology and director of the Mallinckrodt Institute of Radiology, took the helm of Children's Hospital by assuming the position of president there. He assumed that position in addition to his faculty position, clinical appointments, and Mallinckrodt Institute of Radiology directorship.

Luis Glaser, Ph.D., head of biological chemistry and director of the Division of Biology and Biomedical Sciences, has left Washington University to become Provost at the University of Miami. We hope to have a new department head in biochemistry soon and are happy to report that the head of genetics, Daniel L. Hartl, Ph.D., has been appointed biology and biomedical sciences director.

Virginia V. Weldon, M.D., deputy vice chancellor for Medical Affairs, who represents our own School of Medicine so effectively both here in St. Louis and among legislators in Washington D.C., this fall will conclude her one-year representation of medical schools nationwide as chair of the Association of American Medical Colleges.

W. Maxwell Cowan, Ph.D., head of anatomy here from 1968 to 1978 and more recently vice president of the Salk Institute for Biological Sciences, has returned to Washington University as Provost. All of his friends and colleagues at the School of Medicine extend warm greetings to him upon his return to St. Louis and look forward to his great success as Provost.

Students

The School of Medicine conferred the M.D. degree upon 113 individuals in May. This year's smaller-than-normal class may have been more parochial than those of the past. Nearly half the class stayed at Washington University Medical Center for residencies or for research. More graduates opted for internal medicine than for any other residency. Surgery attracted 18 of our graduates, second to internal medicine's 43.

The entering class of 1985 was selected from a pool of more than 4,700 applicants; there were approximately 40 applicants for each available place in the first-year class. Our number of applicants was down from previous years, yet the character and quality of our first-year students were extremely solid. This decrease in applicants reflects a nationwide trend.

The number of students in the M.D./Ph.D. program rose again in 1985-86 and totaled 92 at the close of the year. This program continues to expand and

M. Kenton King

is an indication of the School's appeal to students who want research experience, whether they are headed for clinical, research, or academic careers. The biggest leap in students, however, occurred among candidates for the Ph.D. through the Division of Biology and Biomedical Sciences. We were proud last year of our gains in this area, where total enrollment from 1983 to 1984 rose from 137 to 154.

Incredibly, that enrollment rose to 173 in 1985—an increase of 25 percent over 1983.

Physical Therapy remains our largest paramedical program with nearly 100 students. X-ray Technology with 40 students and Occupational Therapy with 39 students were the next-largest programs. Our master's degree program in Health Administration and Planning reported 75 students enrolled.

Research Support

This past year our School of Medicine stepped into the national limelight by being appointed one of only four institutions in the country to be designated a Sen. Jacob Javits Center of Excellence in Neuroscience. Our center, which was awarded $3.4 million, will be under the direction of Gerald D. Fischbach, M.D., and Dale Purves, M.D. The center was chartered
to pursue the cause, prevention, and care of neurological diseases and is designed so that multi-disciplinary teams can address fundamental issues of nervous system structure and function.

Also, Washington University School of Medicine was named one of five new Alzheimer’s Disease Research Centers (ADRC) and was awarded $3.7 million to expand our study of this debilitating illness. The Washington University ADRC is directed by Leonard Berg, M.D., professor of clinical neurology and program director of the Memory and Aging Project, which began here in 1979.

We received yet another new Program Project Grant this year from the National Institutes of Health, raising to 20 our total of such program or special center grants. This one, for more than $2 million over four years from the National Institute of Child Health and Human Development, will fund an expansion of research on the pathophysiology of human growth. Dennis M. Bier, M.D., professor of medicine and pediatrics, is the principal investigator of this new research program.

Many other new federal grants were awarded to the School of Medicine. Though there are too many to mention, it is noteworthy that this year’s funding from such sources exceeded $51 million, surpassing totals from the previous year.

We’ve been fortunate to witness parallel increases in our funding from private sources. We have extended our research agreement with Monsanto from 5 to 8.5 years, more than doubling the funding this unique arrangement provides. As extended, the agreement now provides a total of nearly $52 million through the end of 1990. Because of a provision incorporated to offset inflation, actual funding will total nearly $62 million. Currently, the Monsanto funds are supporting about 30 research projects involving some 120 University scientists.

The generosity of alumni has resulted in the availability of our second and third alumni endowed professorships. The second chair will be in the Department of Pediatrics, the third chair will be appointed in the fall of 1986. Also in pediatrics, the Harriet B. Spoehr Professorship was provided for new Department Head Harvey Colten. Mrs. Spoehr is a long-time benefactor of Children’s Hospital and Washington University. This particular gift, the most recent of many from Mrs. Spoehr, was instrumental in attracting new leadership to the pediatrics department.

The basic sciences were assisted significantly this year by another generous grant from the Whitaker Charitable Foundation, Urban Bergbaur, Trustee, for the purchase of a peptide synthesizer. The foundation has been very supportive with gifts of well over $500,000 during the ALlANCE FOR WASHINGTON UNIVERSITY campaign, primarily for equipment in the preclinical area.

Other individuals with a history of generosity have remembered the School of Medicine. Alumnus Winfred A. Showman and his wife Emma R. Showman have endowed a professorship in dermatology, which was awarded to Arthur Z. Eisen, M.D. The professorship will be an immense boost to Dr. Eisen’s continuing, fruitful research into collagen-related diseases.

These gifts and the many others we’ve received this year have helped us in our progress toward the goals established by the ALLANCE FOR WASHINGTON UNIVERSITY. By the end of the 1985-86 fiscal year, we raised $152 million, surpassing the School’s goal of $150 million. In order to add to areas of remaining need, the ALLANCE effort will continue through December 31, 1987, as originally planned. We hope at the end of that period to have added dramatically to the School’s endowment for student aid, operation of the Clinical Sciences Research Building, distinguished professorships, and research.

M. Kenton King
Dean
School of Medicine
New Curriculum

The faculty spent considerable time in refining the process of student advisement, in tightening the evaluation of student performance in the field practicum, and in implementing the new curriculum introduced last fall. The new curriculum, designed to prepare students for advanced social work practice through an integrated program of studies in the classroom and the outside world, consists of three elements: a foundation component comprised of a series of required courses; five areas of concentration in health, mental health, children and youth services, gerontology, and social and economic development; and two fields of specialization—family therapy and management.

Faculty Changes and Honors

As we pondered the implications of the new curriculum, it became evident that GWB will need to allocate additional resources to field education. Consequently, Helen Graber, who as assistant dean for student affairs was responsible for both admissions and the field practicum, was named assistant dean for field education. In her new position, she will devote all her attention to directing the program of field education. James Akin was appointed as the director of admissions and student resources. The needs of the new curriculum dictated new faculty appointments as well. Wendy Auslander will head the concentration in health and social work. Nancy Morrow-Howell is an expert in the areas of mental health and gerontology. Francis F.X. Paiva will add immeasurably to the GWB resources in international social development. Arlene Stiffman brings experience and competence in child welfare and child abuse. Nancy Vosler, who specializes in family social services, will coordinate the specialization in family therapy.

After serving the School for more than 30 years, during which she trained generations of GWB students with sensitivity and affection, Evelyn P. Perlstein retired as associate professor emeritus on June 30, 1986. Among her many contributions is the development of a specialization in family therapy, which has become one of the most sought-after components of the M.S.W. curriculum.

As in previous years, GWB faculty were recognized by various honors, appointments, and citations. William Butterfield, associate professor, became president of the Missouri chapter of the National Association of Social Workers. David Cronin, assistant dean, completed his term as president of the Missouri Consortium of Social Work Education. Professor Ronald A. Feldman, a faculty member since 1969, accepted the deanship of the Columbia University School of Social Work. David Katz, associate professor, received the 1986 Mortimer Goodman Award of the St. Louis Chapter of the National Alliance for the Mentally Ill. Martha Ozawa, Bettie Bofinger Brown Professor of Social Policy, was invited to deliver a plenary session address at the 1986 International Conference on Social Welfare, held in Tokyo. Michael Sherraden, associate professor, was appointed a member of the Commission on Employment and Economic Support of the National Association of Social Workers.

Two researchers at Florida State University recently completed their study of the scholarly productivity of social work faculty in the United States. According to their findings published in the Winter 1986 issue of the journal...

Shanti Khinduka

of Social Work Education, the faculty of the George Warren Brown School of Social Work ranked as the second most productive in the country based on faculty publications in six leading social work journals during 1979-1983.

Student Placements and Scholarships

One hundred thirteen students from 24 states and several foreign countries commenced their studies in the M.S.W. program last fall. They were joined by 27 other students in the spring semester. The quality and mix of the students were impressive. During the year, 115 master of social work degrees were awarded. Despite the cutbacks in human care services, the demand for GWB graduates remained strong. The placement record of GWB graduates was excellent with more than 90 percent of the graduates receiving job offers within three months from the time of their graduation.

Five new fellowships were established during the year. These were: Hubert H. Humphrey Fellowship, International Peace Fellowship, Florence Kelly Fellowship, Mary McLeod Bethune Fellowship, and Mother Teresa Fellowship. A new loan fund, made possible by the generosity of Delmar and Helen Templeton, was established to give small, interest-free emergency loans to M.S.W. students.
Alumni Support
Alumni continued to be a source of special support to the School. The GWB Alumni Board devoted its efforts and energies to the process of developing an alumni network. Plans were made during the year to survey the alumni and assess their willingness to interview prospective students, provide job-related information to graduating students, and participate in fund-raising activities on behalf of the School. The Alumni Board selected Leon Chestang, M.S.W. 61, dean of the School of Social Work at Wayne State University, as the 1986 recipient of its Distinguished Alumni Award.

One alumna, the late Barbara A. Bailey, a 1943 graduate of GWB, left a generous bequest for the School, which enabled us to establish the Barbara A. Bailey International Program in Social Work. Under this program we will seek to bring distinguished social welfare policy-makers, administrators, clinicians, researchers, and educators from abroad as visiting faculty to GWB each year. From time to time, significant symposia and conferences on international social welfare and development will also be sponsored as part of the Barbara A. Bailey International Program. In recent years, GWB has enjoyed the distinction of hosting the largest number of foreign students in any school of social work in the United States. The Barbara A. Bailey program and the appointment of Paiva will both formalize and deepen GWB’s commitment to international social work education.

Continuing Education
Two continuing education programs were sponsored. A year-long post-master’s certificate program in marriage and family therapy with 12 students began its fifth year in the fall. A computer-training program for the top management personnel of the Salvation Army in their Midland Division was also offered by the School during the year.

The Thursday Lecture Series, inaugurated a few years ago, brought a number of social welfare leaders to GWB. Among those addressing the faculty and students were Nancy Amidel, former director of Food Research and Action Center, who spoke on "The Impact of the Gramm-Rudman-Hollings Legislation on Human Services"; Dorothy Harris, president of the National Association of Social Workers, who spoke on "Critical Issues Before the Social Work Profession"; and, Margaret Bush Wilson, former president of the National Association for the Advancement of Colored People and a current trustee of Washington University, whose speech topic was "Retreat From Affirmative Action?"

As planned, the School of Social Work closed the year with income in excess of expenditures, although transfers from general reserves to endowment for student aid resulted in a decrease in the reserve funds. While fiscal prudence will continue to remain the watchword, the spirit among the faculty was to concentrate on long-term educational goals of the School and on fashioning specific strategies for attaining these goals, so that we are able to sharpen our qualitative distinction from the proliferating number of social work schools. This spirit will permeate what we do in the years immediately ahead.

Shanti Khinduka
Dean
George Warren Brown School of Social Work
Financial Condition of the University

The University ended fiscal year 1986 with income in excess of expenditures. The income increased 11.9 percent over the preceding year, with the largest percentage increases being from organized patient-care activities, patient and laboratory fees, sales and services of educational activities, government grants and contracts, and private gifts.

Below is a brief analysis of total income and expenditures, operations of separate fiscal units, and University assets and investments.

Total Income and Expenditures

Income
The University has four major sources of support for activities represented by its expenditures. These are:

- Operating Revenue
- Government Grants and Contracts
- Private Gifts, Grants, and Bequests
- Current Funds Investment Income

Operating Revenue
Total operating income, primarily from payments by those who benefited directly from the University's operation, amounted to $254,280,000. Student tuition and fees accounted for $73,275,000. Patient and laboratory fees for medical services provided by faculty and staff amounted to $69,838,000. Income from organized patient-care activities, such as the Edward Mallinckrodt Institute of Radiology, was $52,625,000. The auxiliary enterprises, including residence halls, food service, and bookstores, had income of $19,222,000. Sales and services of educational activities amounted to $19,160,000. Current funds investment income was $8,272,000, while other miscellaneous operating income totaled $11,888,000.

Government Grants and Contracts
A large portion of the research done by the University is sponsored by grants and contracts from governmental agencies, mostly federal, for specific sponsored projects. Total income from governmental sources expended in fiscal year 1986 was $78,733,000, an increase of $8,395,000 over fiscal year 1985. Scholarships and traineeships accounted for $7,130,000 of the total and $1,250,000 of the increase. In addition, 90 percent of the total $3,398,000 student loan funds issued under the National Direct and Health Professions Loan Programs was funded by the federal government.

Private Gifts, Grants, and Contracts
Washington University received a total of $145,461,000 in gifts and grants from private sources for various purposes (including a $100 million foundation gift for endowment). This amount is used for financial statement purposes and does not include gifts-in-kind of $671,000. Major sources include alumni, individuals, business corporations, and foundations. The table below presents a breakdown of the total gifts, grants, and bequests received by source and purpose. The total $145,461,000 was divided as follows: $22,230,000 for operating purposes which includes $3,991,000 in unrestricted gifts and $18,239,000 for sponsored research, other sponsored programs, and scholarships; $118,261,000 for endowment; $4,758,000 for plant; and $212,000 for student loans. In the table, $669,000 in scholarships is combined with $212,000 in loans for total "Student Aid" of $881,000.

In addition to these private gift sources, the University also receives funds through private contracts for sponsored projects. In fiscal year 1986 these contracts amounted to $12,737,000 which, when added to the $18,239,000 referred to above, brings the total for sponsored programs to $30,976,000. Of this total, $3,130,000 is being held for future expenses on sponsored programs. The remaining $27,846,000 was expended for current operations in fiscal year 1986 and, combined with the $3,991,000 in unrestricted gifts, brings the total private gift, grant and contract income utilized for operating purposes

Private Gifts, Grants and Bequests Received

<table>
<thead>
<tr>
<th>Source</th>
<th>Total Received</th>
<th>Excluding Danforth Fndn Endow</th>
<th>Purpose</th>
<th>Total Received</th>
<th>Excluding Danforth Fndn Endow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trusts and Foundations</td>
<td>77.8%</td>
<td>28.8%</td>
<td>Endowment</td>
<td>81.30%</td>
<td>40.17%</td>
</tr>
<tr>
<td>Business Corporations</td>
<td>6.3%</td>
<td>20.1%</td>
<td>Current Operations</td>
<td>2.74%</td>
<td>8.78%</td>
</tr>
<tr>
<td>Alumni</td>
<td>9.1%</td>
<td>29.2%</td>
<td>Sponsored Research and Other Sponsored Projects</td>
<td>12.08%</td>
<td>38.65%</td>
</tr>
<tr>
<td>Agencies and Groups</td>
<td>2.6%</td>
<td>8.5%</td>
<td>Plant</td>
<td>3.27%</td>
<td>10.46%</td>
</tr>
<tr>
<td>Individuals</td>
<td>4.2%</td>
<td>13.4%</td>
<td>Student Aid</td>
<td>6.1%</td>
<td>1.94%</td>
</tr>
</tbody>
</table>

Total Private Gifts, Grants and Bequests = $145,461,000
Excluding Danforth Foundation Gift for Endowment = $45,461,000

26 Annual Report
to $31,837,000. The ten-year chart on this page reflects large unrestricted grant support from the Danforth Foundation for the years 1977 and a large bequest in 1981.

**Endowment**
The investment of endowed funds resulted in $26,633,000 of income used to support operating expenditures.

**Expenditures**
The total operating expenditures of Washington University in fiscal year 1986 amounted to $359,910,000. In 1985 this figure was $321,552,000. Approximately 34 percent of the increased expenditures was attributable to instruction and student aid. Organized patient-care accounted for another 18 percent; 17 percent was in research, primarily supported by outside agencies; and another 11 percent was attributable to academic support.

Included in operating expenditures is student aid (scholarships, fellowships, and stipends) amounting to $28,467,000 from University income and from governmental and private sources, but excluding College Work Study and the State of Missouri Student Grant Program. The summary on page 30 reflects undergraduate financial aid for the past three years.

Student loans and capital expenditures for buildings are not expended from current funds—their sources are separate fund categories. All student loans issued during fiscal year 1986 totaled $4,758,000, compared with $4,262,000 in the prior year. Net capital expenditures for buildings were $21,750,000. Investments in all physical facilities, including buildings, land, equipment, and library acquisitions, increased $36,135,000.

**Operation of Separate Fiscal Units**
The Trustees of the University have adopted a policy requiring each of the schools to operate as an independent fiscal unit. Under the policy, which is called the "reserve school system," each of the independent units is responsible for supporting its operating expenditures with its income, and each...
### Summary of Current Funds Revenues, Expenditures, Transfers, and Changes in General Reserves for Separate Fiscal Units of the University for Fiscal Year 1986

**Thousands of Dollars**

<table>
<thead>
<tr>
<th>Total</th>
<th>Central Fiscal Unit</th>
<th>Faculty of Arts &amp; Sciences</th>
<th>School of Architecture</th>
<th>School of Business</th>
<th>School of Engineering</th>
<th>School of Fine Arts</th>
<th>School of Law</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$73,275</td>
<td>Tuition and Fees</td>
<td>$348</td>
<td>$28,692</td>
<td>$2,635</td>
<td>$8,452</td>
<td>$11,892</td>
<td>$2,411</td>
</tr>
<tr>
<td>78,733</td>
<td>Government Grants and Contracts</td>
<td>(Research, Training, Financial Aid to Students, and Other Purposes)</td>
<td>2,441</td>
<td>10,406</td>
<td>27</td>
<td>53</td>
<td>2,413</td>
</tr>
<tr>
<td>31,837</td>
<td>Private Gifts</td>
<td>4,945</td>
<td>3,077</td>
<td>112</td>
<td>2,272</td>
<td>2,031</td>
<td>136</td>
</tr>
<tr>
<td>26,633</td>
<td>Endowment Income (A)(B)</td>
<td>2,646</td>
<td>9,042</td>
<td>225</td>
<td>449</td>
<td>1,219</td>
<td>211</td>
</tr>
<tr>
<td>8,272</td>
<td>Current Funds Investment Income</td>
<td>2,195</td>
<td>611</td>
<td>33</td>
<td>141</td>
<td>151</td>
<td>19</td>
</tr>
<tr>
<td>19,160</td>
<td>Sales and Services—Educational Activities</td>
<td>2,515</td>
<td>693</td>
<td>33</td>
<td>62</td>
<td>642</td>
<td>44</td>
</tr>
<tr>
<td>19,222</td>
<td>Sales and Services—Auxiliary Enterprises</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69,838</td>
<td>Organization of Patient Care Activities—Sales and Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52,625</td>
<td>Other Income and Additions</td>
<td>1,982</td>
<td>125</td>
<td>34</td>
<td>38</td>
<td>407</td>
<td>5</td>
</tr>
<tr>
<td>$391,483</td>
<td>Total Revenues</td>
<td>$34,036</td>
<td>$52,646</td>
<td>$3,099</td>
<td>$11,467</td>
<td>$18,755</td>
<td>$2,863</td>
</tr>
</tbody>
</table>

| Expenditures and Mandatory Transfers: | | | | | | |
| $133,164 | Instruction | $2,884 | $21,020 | $1,598 | $4,943 | $9,455 | $1,509 | $2,176 |
| 61,755 | Research | 59 | 7,570 | 14 | | 2,254 | 3 |
| 26,464 | Academic Support | (56) | 6,969 | 437 | 2,442 | 1,380 | 558 | 2,281 |
| 8,801 | Student Services | 1,002 | 3,352 | 165 | 623 | 1,176 | 185 | 357 |
| 12,592 | Institutional Support | 703 | 3,145 | 137 | 431 | 903 | 146 | 325 |
| 27,151 | Operation and Maintenance of Physical Plant | (391) | 4,858 | 259 | 558 | 1,468 | 452 | 587 |
| 20,403 | Scholarships and Fellowships | 1,633 | 9,765 | 649 | 1,761 | 2,852 | 678 | 679 |
| 45,409 | Organized Patient Care Activities | | | | | | | |
| 17,373 | Auxiliary Enterprises | 15,167 | | | | | | |
| 6,789 | Miscellaneous Services | 3,236 | 289 | | 491 | 371 | |
| $359,910 | Total Expenditures and Mandatory Transfers | $24,237 | $56,976 | $3,259 | $11,249 | $19,859 | $3,531 | $6,405 |

| Transfers and Changes in General Reserves: | | | | | | |
| $180 | Student Loan Funds | | | | $31 | 3 | | | $7 | $7 | $13 |
| (1,297) | Endowment Funds | 606 | (3,465) | | (734) | | (564) | |
| 6,251 | Plant Funds | (1,563) | 252 | | | 61 | | |
| 12,258 | Other Reserves | 10,519 | (1,190) | (149) | 193 | (234) | (81) | 6 |
| 14,181 | Changes in General Reserves | 237 | 42 | (14) | 25 | (204) | (30) | 145 |
| $31,573 | Total Transfers and Changes in General Reserves | $9,799 | (4,330) | (160) | $218 | ($1,104) | ($668) | $164 |
| $391,483 | Total Expenditures, Transfers and Changes in General Reserves | $34,036 | $52,646 | $3,099 | $11,467 | $18,755 | $2,863 | $6,569 |

(A) Endowment at Market Value with Income for:
- Support of Current Operations
- Other Purposes

(B) A portion of the Central Fiscal Unit Endowment Income is Distributed to Several Schools.
maintains its own individual reserves which are increased by any operating surpluses and decreased by any operating losses.

The Schools of Business, Dental Medicine, Engineering, Law, Medicine, and Social Work have been independent units for a number of years. 1986 was the third year of separate fiscal status for the Schools of Architecture and Fine Arts, and for the Faculty of Arts and Sciences. General University services and activities such as Olin Library are grouped in one fiscal entity presently referred to as the Central Fiscal Unit. The Central Fiscal Unit is reimbursed for services rendered to the independent units.

The Schools of Business, Law, and Medicine, as well as the Central Fiscal Unit ended the year with income in excess of expenditures as well as an increase in general reserves. The School of Social Work also had income in excess of expenditures, but ended the year with a decrease in general reserves because of transfers to student loan funds and endowment. The Schools of Architecture, Engineering, and Dental Medicine, as well as the Institute of Biomedical Computing ended fiscal year 1986 with reductions in their general reserves.

As anticipated in the budget plans adopted by the Board of Trustees, the School of Fine Arts utilized $564,000, the remainder of its quasi-endowment, called the Dean's Endowment, as part of its transition to a reserve basis, and ended the year with a small reduction in its general reserve. Similarly, the Faculty of Arts and Sciences utilized $3,470,000, a portion of its Dean's Endowment, as part of its transition to a reserve basis, and ended the year with a slight increase in its general reserve.

University Assets

Institutions of higher education and other not-for-profit organizations keep their financial resources in the form of funds to comply with the wishes of donors and to account properly for government grants and contracts. A separate fund is established for each project or purpose. The thousands of funds for which Washington University is accountable are handled in four major groupings: current funds, student loan funds, endowment funds, and plant funds. With the exception of income from the investment of endowment funds, the ongoing operating expenditures of current funds may not be offset by resources of the other three fund groupings. The Summary of Assets, Liabilities, and Fund Balances as of June 30, 1986, presents the assets and any claims against them for the four fund groupings.

Current funds must be separated between unrestricted and restricted funds. The unrestricted current funds consist of revenues from the various income-producing operations of the University, plus unrestricted gifts and unrestricted earnings from endowment. Expenditure of these unrestricted funds is left to the discretion of the University. Other funds available for current operations restrict expenditures to a given department or school, or for special, designated purposes such as research in a specified field or by a specified person. Unrestricted and restricted funds are combined in the overview of current operations of the separate fiscal units presented previously. They are kept distinct in the accompanying Summary of Assets, Liabilities, and Fund Balances.

As of June 30, 1986, the total assets of the current funds were $177,921,000, including restricted current funds of $30,920,000 and unrestricted current funds of $147,001,000. Accounts payable and other such liabilities against unrestricted current funds amounted to $35,110,000. Another $78,786,000 of the unrestricted current fund assets was encumbered or otherwise administratively committed for specific future purposes. The net uncommitted general reserves was $33,105,000.

Summary of Undergraduate Financial Aid (Excluding Loan Funds)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Tuition Remission</th>
<th>Restricted Scholarships</th>
<th>College Work Study</th>
<th>Pell Grants</th>
<th>State of Missouri Grants</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>$8,760</td>
<td>$2,580</td>
<td>$1,305</td>
<td>$807</td>
<td>$890</td>
<td>$14,342</td>
</tr>
<tr>
<td>1985</td>
<td>10,181</td>
<td>2,847</td>
<td>1,288</td>
<td>774</td>
<td>920</td>
<td>16,040</td>
</tr>
<tr>
<td>1986</td>
<td>10,822</td>
<td>3,169</td>
<td>1,200</td>
<td>732</td>
<td>828</td>
<td>16,751</td>
</tr>
</tbody>
</table>

Summary of Assets, Liabilities and Fund Balances As of June 30, 1986

<table>
<thead>
<tr>
<th>Assets:</th>
<th>Current Funds</th>
<th>Student Loan Funds</th>
<th>Endowment Funds</th>
<th>Plant Funds</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Securities maturing within thirty days</td>
<td>$23,465</td>
<td>$8,219</td>
<td>$1,764</td>
<td>$530</td>
<td>$24,262</td>
</tr>
<tr>
<td>Investments at book value</td>
<td>48,942</td>
<td>17,143</td>
<td>2,551</td>
<td>621,199</td>
<td>69,577</td>
</tr>
<tr>
<td>Receivables</td>
<td>64,339</td>
<td>5,558</td>
<td>27,117</td>
<td>1,708</td>
<td>482,952</td>
</tr>
<tr>
<td>Plant Facilities</td>
<td>10,255</td>
<td>397</td>
<td>27,826</td>
<td>1,363</td>
<td>39,841</td>
</tr>
<tr>
<td>Total Assets</td>
<td>$147,001</td>
<td>$30,920</td>
<td>$31,829</td>
<td>$651,263</td>
<td>$580,594</td>
</tr>
</tbody>
</table>

Student loan funds totaled $31,829,000. The total student loan fund receivables was $27,117,000, of which notes receivable from current and former students amounted to $26,926,000. Outstanding loans to students included $21,718,000 under the National Direct and Health Professions Loan Programs, which were 90 percent funded by the federal government.

The total assets of the endowment fund at book value were $651,263,000, including $621,729,000 in cash and investments. The market value of endowment investments associated with each of the separate fiscal units is presented along with the summary of expenditures and income for each unit.

Plant funds totaled $580,594,000. Of that amount, $482,952,000 was invested in land, buildings, books, and equipment. Total borrowings for physical plant facilities as of June 30, 1986, was $155,576,000, of which...
$7,453,000 represents Housing and Urban Development bonds for student housing and dining facilities; and $146,785,000 represents bonds issued by the Health and Educational Facilities Authority of the State of Missouri to partially finance the construction and improvement of certain educational facilities.

**Investments**

Income (interest, dividends, rents, etc.) from all investments for the year ended June 30, 1986 totaled $51,942,000 compared to $49,564,000 for last year. Endowment income for the same period was $36,013,000 compared to $34,411,000 for last year.

The market value of all investments (endowment, current, plant, student loans, etc.) including interfund advances (loans) and those securities maturing within 30 days totaled $1,198,013,000 compared to $795,954,000 for the preceding year.

The market value of endowment funds was $972,458,000 on June 30, 1986 compared to $633,478,000 the preceding year. A comparison of endowment funds over the past ten years is presented in the accompanying chart.

The increase in market value of endowment funds of $338,980,000 is the net result of gifts, grants, and net transfers of $124,713,000, (including the Danforth Foundation gift of $100,000,000), realized market gains of $26,998,000 and unrealized gains on the portfolio as of June 30, 1986, of $187,269,000.

On June 30, 1986 the total investment portfolio was diversified as follows:

<table>
<thead>
<tr>
<th>Cash and Short-term</th>
<th>14.7%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Securities</td>
<td></td>
</tr>
<tr>
<td>Fixed Income</td>
<td>22.6%</td>
</tr>
<tr>
<td>Equities</td>
<td>61.5%</td>
</tr>
<tr>
<td>Real Estate and Other</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Net income from securities lending was $157,000 compared to last year’s $136,000.
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William Tao & Associates, Incorporated

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All addresses are St. Louis
unless otherwise indicated
Sonny's Last Stand

by Gerald Early

When Charlie "Yardbird" Parker singled out Edward "Sonny" Stitt as his saxophone successor, he did not present a compliment so much as chant a curse, an extremely successful curse. One wonders if Stitt spent his life trying to live up to Parker's pronouncement or trying to live it down. No matter: Stitt was, all his life, haunted by the ghost of Bird.
Even Fate played the most horrible trick by seeing to it that Stitt's most memorable and artistically acclaimed album should be filled with Parker's compositions. "Stitt Plays Bird" was the best album Stitt ever made and all it did, at best, was make people think it was redundant or, at worst, make people put on their Bird sides to listen to the real thing.

Stitt was an incredibly gifted saxophonist who really did have a sound that was distinct from Parker's. Unfortunately, he sounded enough like an imitator of Parker to be forced to go through his career tagged as just that: one of Bird's better imitators. Stitt switched from being exclusively an alto saxophonist to being both a tenor and alto man, but nothing helped. When he played alto, he seemed to be playing Bird verbatim; and when he played tenor, he was merely doing Bird in a different voice.

Stitt, though, was able to do a few things that Bird was unable to achieve. First, Stitt was a survivor in an area of music that was notorious for its blood-thirsty propensity. Second, Stitt reached an entirely different audience from Bird's. Parker appealed to the white and black hipsters and intellectuals; Stitt, on the other hand, was a great draw for the ordinary, working class folk whose favorite jazzmen did not have to be cultural rebels or the subject of articles in Esquire. The first fact is significant because it shows that Stitt never allowed his excesses or his frustrations to destroy him as a young man. The second fact reveals why Stitt was so important to jazz as Parker's alter ego: he demystified Bird's music; he made it accessible and freed it from the charismatic burden of its creator's shadow; he virtually made it over into rhythm and blues.

I remember Sonny Stitt as the skinny, nervous cat who was billed with Gene Ammons in "the battle of the tenor saxes." He and Ammons would always front an organ combo in a little dingy nightclub filled to the rafters with slick papas with processed hair and finger-poppin' mamas in tight dresses. You rarely, if ever, saw any white people wander into these clubs; they were always in the heart of some black community, sometimes on the same block as some notorious bucket of blood such as the Clam Bar in South Philadelphia where my uncle once was cut to pieces simply because he was a stranger. These were not neighborhoods that took kindly to strangers.

The patrons of the club would thoroughly enjoy the tenor sax battles, almost to the point of acting as if they were at some sort of holy roller church service or a revival meeting. During Ammon's solos, people would yell, "Blow it, Mr. Man," or "Preach it, Brother man," or "Brother Gene is saving a taste tonight." During Stitt's solos, the chorus would be "Make it talk, Sonny, make it talk," or "Blow that shit, my man, and work it on out." The music was extraordinarily loud; on a summer evening you could stand outside the nightclub, as I did when I was a youngster, and hear everything quite clearly.

It was always difficult to tell who won the saxophone battles. Stitt played more notes to a bar, but Ammons had a bigger,
bluesier tone. By playing with Ammons, Stitt had forsaken any possibility of taking on Parker's highbrow audience. After all, no one was going to mistake Ammons for anything but a gassy rhythm and blues man who played jazz in order to keep alive a family tradition. But Stitt, I always thought, was a bit more than this. It is a curious thing in jazz that a solo which goes beyond 90 seconds tends to become loaded. He was not very steady on his feet; his eyes were terribly bloodshot, and his speech was thick and slurred. There were stories traveling like bad news through the audience about poor Hank Mobley, once a first-rate tenor man, and his drinking problem. Seeing Stitt stumbling around looking very old, very tired, and very much like a man who had been slowly and viciously used up made everyone feel uneasy. He stood on the bandstand for two minutes with his head down and a cigarette dangling from his lips. I thought for a moment that I was about to witness not merely a tragedy but a very messy affair of bad taste. Stitt finally put the horn in his mouth and began to play; he sounded better than anyone had a right to expect.

Second, Stitt held in his hand the most gleaming, golden Selmer saxophone I had ever seen. It was such an amazing counterpoint to the slightly shabby man—this cold, hard but brilliant piece of metal that scarcely seemed an instrument at all. It more deeply resembled a thing that could take flight, not an animated thing or a living thing, just the impersonal touched with a soaring grandeur.

Third, I remember one moment in the set as Stitt's triumph. He had played in a rather perfunctory manner, not bad but not outstanding. It was simply not his audience nor his element. He would never have that old-time audience again nor that old-time element. Clifford Jordan, a solid tenor sax man with Texas roots, sat in on a few numbers and seemed to lift Stitt out of his lethargy. Echoes of those old tenor battles with Ammons must have reverberated in Stitt's mind for a moment. They honked their way through Bird's "Constellation" like uncontrolled roller coasters careening toward a wall. Stitt then played a slow tempo version of "Skylark" while Jordan laid out. He returned to his lackadaisical self, giving a rather pedestrian reading of the song; then suddenly, during a two-minute cadenza, he played a solo which was simply the best ever played by a jazz saxophonist.

It had not merely the fireworks of technique but it was faultlessly constructed. It was not merely as good as Bird, it was actually better. For a brief moment, Stitt outdid the teacher; he was the king of the hill. After the cadenza, there was a brief silence before Stitt and his group launched back into the theme. In those few seconds, someone in the audience yelled "Bird lives."

Stitt started to play the theme but he abruptly stopped, peered at the audience a minute as if searching for someone, then said clearly into the microphone, "I don't play Bird." I suppose he meant to say that he didn't play like Bird. But that is really open. Perhaps he meant exactly what he said just as when old black folk say, "The sun do move," they do not mean, "The sun does move."

He never finished the theme of "Skylark." He simply walked off the stand. The unfinished set did not matter; he had played for a long time. Perhaps he found out that night he had played too long.

As he walked off the stand, he looked quite sad, sadder than any man ought to look. I suppose Hemingway was right: "It is awfully easy to be hardboiled about everything in the daytime, but at night it is another thing."

Sonny Stitt demystified Bird's music—he made it accessible and freed it from the charismatic burden of its creator's shadow.

uninteresting and repetitive. Here were two men, Stitt and Ammons, who played solos that seemed to go on forever, solos that were so long that they seemed to be parodies of jazz, reducing the music to simple rhythmic blocks of cacophony. Yet in all this din, Stitt would sometimes play 90 seconds of extraordinarily well-conceived music. As I grew older, I became convinced that Stitt was the better saxophonist.

I saw Stitt perform about ten years ago in the basement of a church on the campus of the University of Pennsylvania. The audience was small, made up mostly of young white college students; the only drink to be had was organic apple juice. I figured that in this kind of atmosphere Stitt was definitely out of his element. I remember three things most clearly about the performance.

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WOMEN 
of the 
NEW RIGHT

by Susan Hegger

The political body of conservative women is made up of two separate parts, says sociologist Rebecca Klatch, each with its own set of values.

In the pantheon of the New Right, two names stand out: Phyllis Schlafly and Jeane Kirkpatrick. On the surface, what is noteworthy about these two is something they share. Both figures—almost icons—are women. Indeed, they are two of the most prominent and influential women on the political scene today.

However, to limit their political importance to their sex is to miss an issue of even greater significance. In many ways, Schlafly and Kirkpatrick are the emblems, highly visible symbols, of the two major currents of New Right thinking.

Despite the prevalence of the term, the New Right is a misleading label, implying a degree of consensus and uniformity that does not exist. Rebecca Klatch, assistant professor of sociology at Washington University and author of Women of the New Right, which will be published by Temple University Press next spring, points out that the New Right is a coalition of sometimes contradictory strands of right-wing thought linked together in the Republican Party by common political aims. Just as the New Right cannot be easily pigeonholed, Klatch also argues that right-wing women, the subject of her research, cannot be readily categorized. Women in the various factions tend to resemble their male cohorts more than each other.
For Klatch, the two major streams of thought composing the New Right are what she calls “social conservatives” and “laissez-faire conservatives.” But, as she notes in her book, neither of these perspectives is particularly new. Both philosophies are historically rooted in the American Right. And while both of these conservative schools have historical precedents, says Klatch, their current forms can also be seen as a reaction against the 1960s. People tend to forget, she adds, that many leaders, and followers, of the New Right came to political maturity during that era. Social conservatives in particular were shaped by the civil rights movement, the anti-war movement, and the feminist movement, but instead of seeing social improvement, they saw social decay and anarchy.

“While it’s less appropriate for the laissez-faire conservatives, I see a strong link (from the 1960s) to the social conservatives,” says Klatch. “A lot of the New Right leaders came out of the Young Americans for Freedom (YAF), a breeding ground for conservatives that was founded in the same year, 1960, as the Students for a Democratic Society (SDS).”

Phyllis Schlafly, LA I-4, BW ‘78, a Washington U. alumna, typifies the social conservative view, which tends to be family-centered and much more religious in its orientation. Although Klatch has no hard numbers, she suspects that women who get involved in right-wing, grassroots activities are more likely to be drawn in by social conservatism. These are the women, and men, who are opposed to abortion, homosexuality, pornography, abolition of prayer in school, and all other “social evils” that erode the family, the basic unit of society, and the Judeo-Christian ethic. The problem with American society, in this view, is moral decline, and the solution is a return to traditional moral values.

Feminism represents a particularly odious adversary for social conservatives. It’s not surprising that many social conservative women are homemakers, women who have chosen the family over the office. Or that they feel under siege. For them, issues like abortion and homosexuality threaten the sanctity of the family by challenging traditional sex roles, the bulwark of that institution, as do women rushing into the labor market, seemingly rejecting motherhood and housewifery for a paycheck.

In spite of the overt hostility to feminist thinking and causes, there are certain characteristics both social conservatives and feminists share, says Klatch. “The social conservatives are anti-materialistic,” she says. “They’re also reacting against a purely consumer society. Like movements on the left, the social conservatives are saying that there are things in life more important than material achievement and making money.”

The other major trend in right-wing thinking is what Klatch calls the laissez-faire conservative. Those who adhere to this position are concerned with intrusions into the free market and any attempts to handcuff Adam Smith’s invisible hand. The modern-day version of classical liberalism, laissez faire conservatism situates the individual, not the family, at the center of society. The problem with American society, in this view, is economic decline, caused chiefly by Big Government intervention. The solution is a return to a “sound economic base” and the protection of the individual.

Laissez-faire conservatism is, in part, a reaction to the perceived collectivizing tendencies of the Great Society or the welfare state. To this school of thought, Big Government stifles individual initiative and creativity. Once economic freedom is swallowed up, infringement on personal liberty is not far behind.

In stark contrast to the social conservative view, though, laissez faire conservatives tend to be less hostile to certain aspects of feminism. To them, the individual, no matter what sex, is paramount. “The laissez faire conservative...
women are much more like mainstream feminists," says Klatch. "There's a greater ease of communication because both tend to be professional women. There's also one very important shared belief: a concern with liberty."

While Ronald Reagan succeeded in positioning himself as the standard bearer for both factions, the GOP maneuverings for the 1988 presidential nomination seem to indicate that no contender at present has a similar ability. Rep. Jack Kemp, of New York, a darling of the laissez-faire contingent for his supply-side economics, sparks little enthusiasm among social conservatives. The Rev. Pat Robertson, who almost personifies the social conservative agenda, hardly impresses laissez-faire conservatives as a credible candidate. And Vice-President George Bush's flip-flops have done little to convince either faction of his sincerity and loyalty. In seeming recognition of this fact, it's no wonder that some conservatives have mounted an effort to repeal the 22nd Amendment limiting presidents to two terms.

Despite these real differences between social conservatives and laissez-faire conservatives, Klatch warns against speculation that this alliance, the keystone of Reagan's presidential victories in 1980 and 1984, may soon be in shreds. "There are areas of convergence," she says. "Both groups prefer the GOP, and both tend to be anti-tax and anti-welfare. That goes a long way to healing any splits."

There's something else that unifies social and laissez-faire conservatives: a hatred and abhorrence of Communism. Yet, the reasons for their abhorrence differ, says Klatch. For the social conservatives, Communism is a satanic, atheistic system, opposed to every Christian value. For the laissez-faire conservatives, Communism is an antagonistic economic system that destroys the free market and individual enterprise. Both groups are committed to stopping the "Evil Empire," so they tend to agree on foreign policy issues like aid to the Nicaraguan Contras.

Looking into the future, Klatch predicts that of the two, the laissez-faire group is in the ascendancy. She bases this on research on two different demographic groups: the Baby Boomers and the new generation of college students. Both groups share an important outlook: a conservatism on economic issues and a liberalism on issues of personal freedom.

For laissez-faire conservative women, political activism poses no apparent contradictions. Entering the political or public arena is perfectly consistent with promoting individual self interest. For example, these women, such as Jeane Kirkpatrick in her classic Women in Politics, oppose sex discrimination because it puts unwarranted limits on an individual's aspirations. However, laissez-faire activists often are at odds with feminists on remedies for discrimination. They often are against programs such as affirmative action, because they represent Big Government intrusion.

When it comes to political activism and appropriate female political roles, social conservative women tend to be in a very different bind. They enter the public sphere to make a plea for women's rightful and traditional position within the private realm. They protest issues such as abortion rights, publicly supported daycare, and gay rights as intrusive assaults on the integrity of the family. So, the world of politics and public activism becomes a means to insure the continuity of the more private world of the home.

One of the most insightful aspects of Klatch's research is her assessment of how social conservative women reconcile political activity with the essential belief that women belong in the home. "From the outside it looks like a paradox," says Klatch. "It is, in fact, woman's role as moral gatekeeper, as protector of the moral realm, which allows her to adopt these new positions,
"I wanted to know how women my own age had arrived at diametrically opposed views of the world," says Klatch. "I wanted to know what these women were thinking."

to be a voice of righteousness in the political world. Through such action, the social conservative woman hopes to bring moral purity to a world filled with sin." For these women, political activity becomes an extension of their role in the family.

In particular, Klatch cites Connie Marshner, a leading advocate of the social conservative position. Marshner describes how conventions regarding sex roles can change, who does the laundry and who does the grocery shopping. However, says Marshner, as quoted by Klatch, while convention can change, fundamentals, a wife's subservience to her husband, do not.

At first glance, Klatch, 33, may seem an unlikely candidate for such a project. She holds a Ph.D. from Harvard, a university frequently stereotyped as a bastion of East Coast liberalism (although its neoconservative evolution is being explored by some analysts on the occasion of its 350th birthday this year). She is Jewish, a member of the ethnic group not normally embraced by right-wing groups. Politically, she feels more at home with liberal and feminist outlooks.

Her theoretical bent, though, is one with a long and distinguished history in sociology. She poses the question asked by generations of sociologists: How do people, no matter how different, make sense of their lives? What symbols reverberate through people's daily existence and give it meaning? In many ways, these are but contemporary variations and refinements of the questions asked by sociology's "founding fathers," Max Weber and Emile Durkheim.

While that in itself may have been sufficient to arouse her intellectual curiosity, there was also a personal element involved. "Here were women my own age, or younger," she says. "And I wanted to know how they'd arrived at diametrically opposed views of the world."

I wanted to know what these women were thinking.

There was another personal impetus for Klatch's research. "In the 1970s, I became fed up with dogmatism about any group or cause," she says. "You could say I'm almost dogmatic in my anti-dogmatism. My desire to understand right-wing women comes from a desire to understand different people and to overcome that dogmatism. I have a hard time with labeling or categorizing people, and I reserve the right to protect people from that labeling process."

It comes as no surprise that Klatch's next project is the 1960s and its radicalism. To her it's a very natural evolution. "As I was doing this research on the New Right, it became very clear—it hit home the hardest—how much the New Right is a reaction against the 1960s," says Klatch.

The details of this research project are still somewhat sketchy. Right now, she is reviewing the historical literature about the 1960s in preparation for interviewing leaders in both YAF and SDS. The goals of the research are similar to the goals of her research on right-wing women. How do people with differing social and political belief systems understand their pasts and presents? How do people interpret certain objective events in radically different ways?

The enormity of the task has been brought home by her sociology class on the 1960s. For the current crop of students, the 1960s is pure history. "The students have very stereotyped media images of the 1960s," she says. "They're very one-dimensional portraits: people with long hair listening to rock music. Still, the students are fascinated with the era. They want to know all about it. They have a sense of the idealism of the time, but they think that idealism was naive."

What Klatch's research ultimately hopes to bestow is the gift of foresight. And there's one particular message she hopes to convey: "The very existence of multiple meanings, the fact that our world views do not coincide, makes it more imperative that we listen to the voice of the other, that we begin by respecting those who are different from ourselves. For only by realizing that difference is not a sign of weakness—that there is not one way to live, to act or to think—does hope remain for forging common symbols."

Susan Hegger, who holds a master's degree in anthropology from Washington University, is managing editor of The Riverfront Times, St. Louis' weekly newspaper.
World-class chemist, numismatist, music lover and teacher, Peter Gaspar this year received the Kipping Award, an international accolade, for work with molecules that exist for only fractions of a second.

by Linda Sage—photographs by Herb Weitman

With his lopsided smile and his belt askew, Peter Gaspar talks about symmetry. At 51, he has the beginnings of a paunch, a slight stoop, and a shock of brown, wavy hair. This Thursday morning, there is also an enormous bulge in the pocket of his blue, open-necked shirt. For stuffed behind his pens are the reading glasses he has worn since childhood.

Screwing up his eyes, Gaspar begins to draw on the chalkboard, making overlapping figure eights that represent clouds of electrons in molecules. He explains when these clouds can couple and when they can’t in a Southern California accent with a smooth, Ivy League finish. But sometimes his speech slams into a stammer, leaving the words bouncing against the ear.

Gaspar began this class by cleaning the chalkboard with wide, rhythmic strokes, as if he were conducting an aria from one of his favorite operas. But as the lecture speeds up, the strokes get shorter, his writing jerker, and the drawings hit the board with a staccato rhythm. Every now and then, though, he pauses for questions, probing this class for signs of fuzzy thinking. As a chemist, Gaspar is known for his clever approach to research, and he wants to infect these students with his rock-hard brand of logic.

Often Gaspar leaves this room soaked with sweat from the sheer intensity of his presentation. Then he takes refuge in his office down the hall, behind a door that is covered with comic strips. One, a “Wizard of Id” strip, reminds him that death after life sounds more logical than life after death. But Gaspar isn’t worried. In this life, fractions of seconds interest him more than eternity.

Millionths of seconds form the framework for his research into the mechanisms of chemical reactions. When one stable substance changes into another, he is there with his spyglass, scrutinizing the intermediate stages. But this chemist’s spyglass is a cyclotron or laser spectrometer or whatever equipment can help answer the burning question of the moment. For Gaspar simply has to know how factors such as shape or alignment influence a molecule’s behavior during chemical reactions.
A less dogged man might quake at the obstacles to such research. "Reactive intermediates are almost impossible to see," says Thomas Barton, professor of chemistry at Iowa State University, "because they have a very fleeting existence. As a result, they are very difficult to learn about. But Peter's intuition and his cleverly designed experiments manage to find out what is going on. A unique talent is required even to think about such a problem."

Gaspar studies carbon compounds, which first intrigued scientists because of their importance in living organisms. But he was drawn to the shadowy world of organic intermediates for other reasons. Faced with memorizing an endless list of chemical reactions as an undergraduate, he resolved to find a better way to understand the subject. "It seemed to me that to find the common ground between seemingly different reactions by discovering their mechanisms would be a good thing to do. I wanted to build a simple conceptual picture of the behavior of organic molecules by relating a molecule's structure to the way it reacts with other molecules."

As a philosophy student at UCLA, Gaspar was irritated by the attitudes of his fellow students: "They tried to logically analyze friendship."

As a pre-doctoral student at Yale, Gaspar was captivated by a family of short-lived carbon compounds called the carbones. Though their lifespan of less than one millionth of a second made them difficult to study, their unusual structure and willingness to react with many different compounds fitted them well for his studies. After arriving at Washington University as an assistant professor in 1963, Gaspar decided to compare the reactions of the carbones with those of analogous compounds of other elements. His goal was to see how far the principles of organic chemistry extend.

"One develops certain mechanistic ideas in chemistry that work pretty well in relating one kind of organic reaction to another," the chemist explains. "Then the question is, to what extent are these ideas limited to the most common elements, such as carbon and oxygen, in organic molecules?"

For answers, he decided to focus on silicon analogs of the carbones, since silicon is a larger atom than carbon but has the same number of bonding electrons. But in the mid-1960s, such analogs were known only in chemists' dreams.

Gaspar was not deterred. Since the simplest carbene consisted of a carbon atom linked with two hydrogen atoms, chemists knew that the simplest silicon analog, silylene, would have a silicon atom linked with two hydrogens. Gaspar set out to make such a compound in the most logical way possible—by combining silicon with hydrogen.

Free silicon doesn't exist in nature. So using a cyclotron and a technique called...
hot-atom chemistry, Gaspar bombarded phosphorus with subatomic particles called neutrons. When the two combined, they produced radioactive silicon - ideal for Gaspar's purpose since radioactive substances can be easily detected.

Although this technique could produce only a few million silicon atoms in each experiment, this amount was sufficient for Gaspar's work. Like a coach who reconstructs a diver's midair stance from the angle at which he enters the water, Gaspar was able to show that silylene is created as an intermediate when silicon reacts with hydrogen to form a stable gas called silane.

While this early work was carried out purely as an intellectual exercise, it turned out to have important practical applications. The thin films of silicon now used on computer chips and in solar-energy collectors are made by heating silane until it decomposes into silicon and hydrogen. As in the reverse reaction that Gaspar first studied, silylene is an intermediate compound. Gaspar's extensive studies of

"The intensity with which Peter pursues his various interests is all-consuming," says Peter Jordan, a professor of chemistry at Brandeis who has known Gaspar since childhood. "Whatever he's interested in, he wants to do in a first-class fashion."

the factors that affect this transformation have influenced improvements in the performance and manufacture of silicon films. In recent years, this man who started out in the purest realms of scientific inquiry has become a consultant to a company that studies chemical vapor deposition, Aerodyne Research of Boston.

Applied chemistry was far from Peter Gaspar's mind when he was casting about for a profession. His father had been an industrial chemist who, during the 1930s in Germany, invented Gasparcolor, the first workable color process for moving pictures. After the Gaspars were forced to abandon their home in Belgium following the outbreak of World War II, they settled in Los Angeles, where Gaspar's father set up a photographic laboratory. The research lab made millions from patents but also lost millions, in abortive manufacturing ventures, leading the young Gaspar to equate practical research with financial instability.

The business also ate up a great deal of time. Gaspar's father used to come home from work late every night, only to disappear into his study right after dinner to read chemical journals. "My father was fanatically devoted to his work," Gaspar says, "and I was afraid that, if I became that way, I would push all other things out of my life."

Enrolling at the California Institute of Technology in 1953 to major in chemistry, Gaspar realized that single-mindedness wasn't limited to industrial chemists. "The narrowness of my fellow students appalled
Gaspar and graduate student Janet Braddock inspect a laser spectrometer.

me," he says. "Most of them had no interest in any field other than their own, including the humanities."

After his junior year, he transferred to the University of California at Los Angeles to study philosophy, hoping for a broader intellectual milieu. But he found that philosophers could be just as narrow as scientists. "What really bothered me," he recalls, "was the tendency for the students of mathematical logic, for instance, to apply theoretical solutions to their daily lives. They tried to logically analyze friendship and other areas of personal choice."

Acknowledging that his retreat had been too hasty, Gaspar returned to Cal Tech. Graduating a year later, he was off to Yale University, drawn to the sophisticated Ivy League by the novels of F Scott Fitzgerald and poolside encounters with glamorous young women on vacation. Yale provided the hoped-for social life and frequent trips to the culture of New York. But most of all, it shaped Gaspar's commitment to chemistry. His research adviser there, William Doering, was, Gaspar recalls, "an extraordinary man, who has a tremendous interest in chemistry, and a subtle and powerful mind. He developed in me a much stronger interest in chemistry than I had had up to that point."

This interest has driven Gaspar during the challenging years that have followed, allowing him to become an acknowledged leader in his field. "When one poses a problem and starts to look for answers," says Frederick Lampe, professor of chemistry at Pennsylvania State University, "Peter is one of the few people in the world about whom one says, 'Let's see what Gaspar has to say about this.'"

Gaspar has plenty to say, judging from the continual stream of papers that flows from his lab. While each publication deals with a very narrow topic, the work as a whole provides answers to some of the far-reaching questions that Gaspar began asking when he started his research. Silenes, it seems, exhibit many similarities to carbenes, such as a tendency to rearrange their molecular structure internally by shifting atoms around. Such correspondences suggest that the rules evolved for carbon do extend to larger elements, provided some allowance is made for difference in atomic size.

In the course of these comparisons, Gaspar has made many new compounds, but the synthesis of a silacyclopene, the first member of an entirely new class of substances, is an achievement often cited by other workers in his field. Silacyclopenes contain an unusual three-atom ring, formed when silylene attacks a triple-bonded carbon compound. It was previously thought that only carbenes were able to yield stable products from this quirky reaction.

International reputations are made of such discoveries, and last April, Gaspar's many accomplishments earned him the coveted Kipping Award, given every other year by the American Chemical Society. The award honors Frederic Kipping, a British chemist who died in 1949. Like Gaspar, Kipping did basic research with unexpected practical applications. He accidentally discovered the silicones—now used in many resins, rubbers, and greases—as annoying, gummy by-products of simple silicon reactions. Nominations for the Kipping Award are sent to an international committee. Although the prize has been given 20 times since 1960, Gaspar
nineth American recipient.

In his work with carbon and silicon compounds, Gaspar draws heavily on the classical skills of organic chemistry, but he is not mired in traditional techniques. "Gaspar never lets go of a problem until he gets to the end, no matter what elaborate techniques are required," says Barton, who was a previous recipient of the Kipping Award. "Many people are willing to solve half a problem and then move on to another one. But Peter never displays this cavalier attitude."

"Gaspar has a problem and then finds techniques to solve it," says Edward Macias, professor of chemistry and head of the chemistry department. "And he's fearless in the sense of being willing to try new techniques."

Competence in research wasn't won easily, says Gaspar, "because I didn't have a natural affinity for lab work. I needed to develop both a strong desire to be technically more able and the patience to do things right." The turning point came in 1961, when Gaspar went to Heidelberg as a postdoctoral fellow in the lab of Georg Wittig (winner of a Nobel Prize for chemistry in 1979). "There I learned to take pleasure in doing experiments correctly," Gaspar recalls. "Part of being a better experimenter is wanting to be."

"My father was fanatically devoted to his work," Gaspar says, "and I was afraid that if I became that way, I would push all other things out of my life."

This pleasure is now so strong that Gaspar can be found in his lab evenings and even holidays. But even though he has become a fanatic, he has learned to direct his passion into other areas as well. "The intensity with which Peter pursues his various interests is all-consuming," says Peter Jordan, a professor of chemistry at Brandeis who has known Gaspar since childhood. "Whatever he's interested in, he wants to do in a first-class fashion."

In addition to his passion for groundbreaking research, at times, esoteric inquiries, Gaspar finds time for several other abiding interests, into each of which he delves as intensely as his scientific investigations. Besides being a world-class chemist, Gaspar is also a lover of music, and an international authority in the field of numismatics (the study of coins).

"He has very diverse interests," says William Eckleman, Gaspar's first graduate student and now associate director of the Squibb Institute for Medical Research in New Brunswick. "Just as he can keep track of a lot of different fields in chemistry, so he is involved with a lot of different areas in life. When we used to have lunch together, our conversation would cover a gamut of topics, ranging from baseball to jazz, from coins to classical music."

Gaspar's interest in music began as a teenager, when his father forbade him to own a phonograph that might distract his study of chemical journals. Escaping from his overly quiet house, Gaspar used to go with a group of friends from Beverly Hills High to the home of a friend whose father owned a very expensive hi-fi system. His self-directed musical education continued through college and graduate school, leading him to a recital in St. Louis in 1964, where he heard operatic soprano Carole Godwin. Ms. Godwin became his wife in 1965, before leaving St. Louis to fulfill a contract with a German opera house. She is now head of the voice department at Webster University in St. Louis and
Peter Gaspar and his wife, Carole, a soprano, share a love of music.

often gives recitals here and in Europe during the summers. The Gaspars have a son, Damon, who is presently serving in Korea with the Army infantry and hopes on discharge to study history at Washington U.

Although Gaspar calls himself a "passive" musician, he takes an active interest in his wife's career, attending all concerts and acting as a "devil's disciple." "I take every opportunity to push my wife as hard as I can," he says, "but I'm not sure that my interest in music is all that unusual. Over the years, I've noticed many colleagues with similar interests, and it may be that, for most scientists, there is a natural affinity to music. Part of the pleasure of listening to good music, after all, is gradually discerning patterns that are not obvious. In some ways, that's what scientists do as they ask nature to gradually reveal itself through their experiments and investigations."

Similarly, Gaspar's lifelong love of coins—"little mirrors of history," he calls them—also began out of a kind of restriction. Confined to bed with a kidney infection when he was 12 and recently moved to Beverly Hills, he initiated a six-month, non-stop read-in. Introduced to serious non-fiction for the first time, he became engrossed in books about current affairs and history. A book called English Coins sparked an intense interest, which lasted through adolescence. It reached flashpoint at Yale, where the young numismatist finally got to handle some of the coins he had earlier only read about.

When he arrived at Washington University, Gaspar met a biochemistry graduate student, Jim Hazby, who knew a great deal about the making of the dies from which coins are struck. Following Hazby's interest, Gaspar began to learn about the changes in coin-making that took place in the seventeenth and eighteenth centuries, as machines gradually replaced manual labor.

In 1973, Hazby and Gaspar went to the British Royal Mint, where they met librarian and curator Graham Dyer. Dyer and Gaspar have worked together at the mint nearly every summer since; they recently finished a 70,000-word chapter that covers the mint's history between the day Sir Isaac Newton died in 1727, and the day the mint moved from London to Wales in 1969. Like Gaspar, Newton was both a scientist and numismatist: in 1696, he became warden of the mint, and in 1699, he became its master.

Dyer and Gaspar are now writing a book about proof coins, which are struck for presentation or collection, and which display the coinmaker's highest art. Also, in 1979, Gaspar received the Heath Literary Award from the American Numismatics Association for a paper on which he collaborated with St. Louis businessman and philanthropist Eric Newman. The paper identified a hoard of counterfeit 18th-century British coins that was uncovered by treasure hunters during the construction of a Philadelphia expressway.

Thinking about coins and the way in which the names of medieval coymakers live on through their work sometimes leads Gaspar to consider his own immortality. And he has decided that his teaching rather than his research will make the greater contribution. "I feel acutely that, no matter how many good ideas one develops, those ideas become obsolete. But if I can help people think more clearly and motivate them to think as hard as they can, that's a longer-term contribution."

"Peter is a very dedicated teacher," says Bill Phillips, who was chairman of the chemistry department from 1978 to 1984, and is currently senior vice president for science and technology of Mallinckrodt, Inc., a St. Louis-based chemical manufacturer. "He's so anxious that students get their full value that he prepares very intensely and teaches very intensely. It's a quality act the whole way."

Gaspar derives much of his teaching style from his mentor, Doering, asking penetrating questions that force his students to comprehend a subject as deeply as he understands it himself. In weekly seminars, he is notorious for his relentless probing. "You are required to give a 45-minute formal talk that is both coherent and logical," says pre-doctoral student Paula Miller Young. "If it's not, you will be interrupted by constant questions. I was terrified at first."

Behind a door that says, "Good judgment comes from experience; experience comes from bad judgment," Miller Young prepares for a seminar for three weeks, putting in one or two hours a night. But she appreciates the results. "It's a great plus that Dr. Gaspar makes sure that you are capable of presenting a formal seminar," she says. "If you were to discuss topics at random, with no logical outline, you wouldn't be as well prepared for a career in either academic or industry."

"Within the group seminar," Gaspar explains, "students learn to articulate their thoughts and organize themselves so that they can talk about their work as I stimulate them by asking hard questions. It's hard on students at the beginning, but they toughen themselves, and become ready to engage in that
kind of give-and-take. If you learn to think on your feet in a fairly friendly, almost family situation, that goes a long way toward helping you develop good communication skills that will last the whole of your career."

Despite his success as a mentor, Gaspar finds teaching difficult. "It's a very close relationship, and different every time," he confides. "Research students vary tremendously in confidence, strength of background, intensity of commitment, and the rate at which they're ready to progress. Most chemists have to grow more mature emotionally and learn how to empathize with others before they can become better teachers and research directors. The essential problem in nurturing students is that people who are drawn to science tend to enjoy solving intellectual puzzles by going off into a corner by themselves."

Gaspar's group is typically a mixture of post-docs, graduate students, and undergraduates, but without the usual pecking order: sometimes a bright undergraduate will become a leader within the group. "Peter's had an amazing string of undergraduates working with him," says Macias. "He often goes after them when they're just freshmen or sophomores, and by the time they graduate, they're terrific. It's definitely unusual to have undergraduate researchers that are so productive, and he's been consistently successful in that."

The researchers form a close-knit group, enjoying annual potlucks, regular parties at Gaspar's house, and the occasional surprise party about which Gaspar always finds out. "We tried to surprise him when he got the Kipping Award," says Miller Young, "but he knew all about it. About three days before, he got this silly grin all over his face and started to tell us where he would be at any moment—"

"No matter how good the ideas one develops," Gaspar insists, "those ideas become obsolete. If I can help people think more clearly and motivate them to think as hard as they can, that's a longer-term contribution."

T'm going home to walk the dog now. I'll be gone for about an hour. That sort of thing."

Three years ago, the group ordered a batch of yellow T-shirts with the inscriptions "Gasparados" on front and "BGIG" on back. BGIG stands for "Boss Go, I Go," a phrase his Chinese students used to chant when they heard the squeak of his departing bicycle. The current Gasparados have banned whistling in the lab, because a tuneless whistle, emanating from the space between Gaspar's front teeth, warns of the boss's imminent approach and the need to give the impression of working.

Gaspar welcomes these somewhat irreverent gestures, for he wants to inspire independence as well as dedication and passion in his students. After all, his goal is to make them self-sufficient enough to launch their own careers. "The people who work with me and then go out on their own are easily as great a reward as any publication or prize," he insists. "I believe that teaching is the most effective way of passing on one's point of view and, so, influence the history of ideas."

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Living in the Garden of Eden

Bill Moyers was deputy director of the Peace Corps under President John F. Kennedy and press secretary in the administration of President Lyndon B. Johnson. After leaving the Johnson White House, he became publisher of Neisday and under his leadership the Long Island daily newspaper won 33 major awards including two Pulitzer Prizes.

He is perhaps best known as a commentator for CBS News, and as the producer of several documentaries for the Public Broadcasting System. “Everyone knows Bill Moyers,” Chancellor William H. Danforth said in his introduction to Moyers’ appearance in Graham Chapel on September 10 as part of the Washington University Assembly Series. “Everyone here has, as I have, watched him on television and appreciated his wise comments and his fair presentation. We have seen how his experience as a journalist and public servant influences his approach to the issues.”

As a young man, Moyers received a degree from the Southwestern Theological Seminary, where he trained to be a Baptist preacher. Forsaking that road, he went on to study at the University of Texas at Austin, and later, at the University of Edinburgh in Scotland. Throughout his career as a print and broadcast journalist, he has remained dedicated to an essentially moral vision. Here, in remarks excerpted from a more lengthy speech, Moyers, with a preacher’s instinct for rhetoric, presents a case for our remaining intimately tied to the events that precede us.

As a journalist I’m engaged in a continuing course in adult education at somebody else’s expense. And I’ve learned in my work that the values of a society are derived from its connectedness to history. If history dies, we lose our sense of the past being alive. “When a country goes under, or a society perishes,” the poet Carl Sandburg told us, “there is always one condition present—it forgot where it came from.”

So it was that a few years ago I produced a series for public television called “A Walk Through the Twentieth Century.” There are 17 programs in there which attempt to reveal our century through the vivid contrast of visual images and the various personalities of this century. I wanted especially to look at what pictures were telling us that we didn’t know when we took them.

In this series, I explored the arming of the earth with weapons and machine guns, the tank, the submarine and the airplane—each of which was introduced as the atom bomb has been introduced, as the ultimate deterrent to the next war, and wasn’t. I looked at the role of the automobile in America. I looked at the roaring 1920s, the volcanic 1960s. I looked at a lot of things. And through it all, the past became to me a real world and not, as Thomas Carlyle said, “a void of gray haze.” And the people who inhabit the past became not ghosts, but players in the drama of my life.

This struck me most powerfully when I was working on a program about the propaganda battles of the Second World War. One of the interviews is with a man named Fritz Hippler. He was 82 years old when we found him in Germany in 1981. As an ambitious young man, an aspiring cameraman, and an aspiring journalist, he had become the chief of Adolf Hitler’s film ministry. He lives today in the shadow of Hitler’s old retreat. He’s tall. He’s healthy. He’s unrepentant.

And in a chilling interview—chilling because in the course of the interview, he says the only mistake that Hitler made was to lose the war—Fritz Hippler told of how he tried to reach the soul of the masses through appalling propaganda films which planted the seed of genocide in the breasts of the German people.

Listening to this calm and unemotional man, I found it hard to believe that evil could wear so placid a face and fester behind eyes so serene. But, of course, evil is not in a face, is it? It’s in the heart.

I interviewed another man in this documentary—a little Sicilian immigrant to America named Frank Capra—one of the great Hollywood figures of an earlier time. His gentle, humorous movies like Mr. Smith Goes to Washington show ordinary folks displaying their apple-pie virtue in the public arena, and winning. Frank Capra was a celebrated Hollywood director when Franklin Roosevelt drafted him to answer the powerful propaganda films that were circulating throughout the world, many of which had been made by Fritz Hippler.

Frank Capra was in his 90s when I interviewed him for my series. He came to New York with a portfolio of pictures under his arm, and it wasn’t until the end of the interview that, as the cameras were still rolling, he took that portfolio from beside his chair and put it in front of us and opened it. He wanted me to see something.

He had gone into the propaganda business very reluctantly. He believed so fiercely in an open society and in the independence of the arts that he hesitated putting his craft and his talent at the service of the state, a democratic state, even in the midst of war. But he had done his duty. He had answered the call. He’d made his films and, when the war was over, he went back to California where he lives today.

But it wasn’t until the end of the war that he’d come to see clearly why his documentaries had been truly justified. The photographs he showed me had been taken at the end of the war when the allied troops, boys from this country and others—the very boys who had seen
The past, honestly faced, has a power to correct our sentiments, temper our illusions, and check our nostalgia. It can also temper our pessimism. We’re told that in the Middle Ages it was bad form to praise the world and life openly. It was fashionable to see only suffering and the misery, to discover everywhere signs of decadence. In short, to condemn the times and to despise them. Yet looking back we know that the bright days of the Middle Ages were a prelude, with a vast, subterranean network of connections to the great and vibrant flowering of beauty, art, and intelligence known as the Renaissance, the soaring of the human spirit. Who knows what will come of our time?

The one thing we are certain we share with the Garden of Eden is that we have tasted from the Tree of Knowledge, and we must thereafter change. Knowledge changes us. The tempo of the life you and I lead is fast; the music is loud and brassy. The strangers in our midst are legion. The crowds cantankerous. The hustling constant. The architecture spectacular but hardly beautiful. And everything is up for grabs, formless, eclectic, anarchic.

When Tocqueville stepped off the boat in New York, he said he was greeted by tumult. A tumult. He ought to try to get from the west side of Manhattan today to the east side. Everything’s happening here in this society. All about us are fads, fashions, and fakes. We tear up and throw away our clothes. We junk our machines for the slightest damage. Our books are as expendable as our newspapers. A third of us move every year. In our frenetic quest for change we necessarily sacrifice the ideals of durability, permanency, and even beauty, not to mention community, coherence, and convention.

There has been nothing comparable to the internal dynamics of American society in this century. Not for us, the Sameness and repetition which the old world saw in the cosmic order. No, for us, there is always a new heaven, or a new hell, and the vision of affecting all things possible.

But you learn when you look back that although there is trouble in the world, there is also honor. And people of conscience, and moments of such great beauty and vision that they transcend the struggle. And you learn that nothing you are likely to face in your generation, not even the existence of nuclear weapons, requires more courage of you than was required of your parents and grandparents.

You learn that it’s okay to love your country right or wrong, but that it’s never right to be silent when your country, or company, is wrong. And you learn not to give up on the American experience: the same culture that produced Jonestown, Watergate, and the Ku Klux Klan also brought forth the Peace Corps, the Marshall Plan, Robert Frost, and Martin Luther King, and this university. This is the discovery that the men and women of my generation have made, and you must make your own.

We learn that nothing God ever made is perfect. Not the Garden of Eden, and not America. But that in this flawed experience, this vineyard of liberty overrun by thistles, which you must cut through, rises a mutual vision of freedom and opportunity and responsibility we must never take for granted, and which must always be renewed.

When I finished my graduate study at the University of Edinburgh, my wife and I, 30 years ago, roamed through the ruins of many of the old churches and cathedrals of England and Scotland. There, beginning to fade and peel on the side of the ruins of a church, was a little plaque that stopped me in my tracks like the onrush of a train. I wrote down what it said, and remember it to this day: “In the year 1693, when all things sacred in the kingdom had been either profaned or demolished, this church was built by Sir Richard Shirley, whose singular duty it was to do the best of things in the worst of times.”

So may we all.