Viktor Hamburger
A Man for All Seasons
To celebrate her 30th year at Washington University, Annelise Mertz, professor of dance and one of the leading proponents of modern dance education in the United States, staged an all-star recital this spring in Edison Theatre. The recital included the world premier of an expanded version of “Ceremonial Rites” (shown above in dress rehearsal), Mertz’ dance choreographed to music by Philip Glass.

A pioneer in dance education and strong defender of her art, Mertz is responsible for establishing the dance program at the University (which includes a creative dance program for children as well as the Summer Dance Institute). She is also founder of both Dance St. Louis, which sponsors local appearances of professional dance companies, and St. Louis Dancers, the company performing the spring recital.

Alwin Nikolais, with whom Mertz has long been associated as student and colleague, once called her “the Carrie Nation of dance in the Midwest.”
Frontrunners
The latest in research, achievements, and other adventures, from around the campus and beyond.

A Place to Come to
OASIS is no mirage. The model outreach program for the over-60 crowd now operates in ten cities coast-to-coast.

A Man for All Seasons
Overlooked by the Nobel Prize committee, Viktor Hamburger remains dedicated to principles that have characterized a near-legendary, 60-year career in neurobiology.

Laughing All the Way
Student Life cartoonist Steve Edwards is serious about humor that attacks the boundaries of conventional thinking.

Proust and the Professor
On Rememberance of Things Past and on teaching Proust, who will never learn.

Emperor of the Airwaves
Holli's Huston is keeper-of-the-spirit of Holy Roman Radio, a history lesson disguised as intellectual vaudeville.

The Call of the Wild
A project in North Carolina attempts to reintroduce red wolves bred in captivity into their natural habitat.
Heavenly Artifacts on Tour: A Tale of Two Curators

In the manner of King Tut’s successful, albeit posthumous, American tour, Robert Thorp, Washington University associate professor of art history and archaeology, and his Chinese counterpart, Yang Xiaoneng, hope to rouse our artistic curiosity when they debut Son of Heaven: Imperial Arts of China in the U.S. in February 1988. The exhibit of almost 200 artifacts never before shown in the West is the result of a collaboration between curators and cultures.

Son of Heaven will be displayed in exhibition halls rather than museums as the elaborate collection, with groupings such as a throne-room ensemble, requires nearly 2,500 square feet of floor space.

No stranger to China, Thorp’s immersion in Chinese art is unmistakable. His conversation is frequently suspended as he darts to a massive bookcase, selecting the appropriate book to illustrate his words. Thorp insists his partnership with Yang is not tainted in any way by historical problems or cultural differences; yet he makes sure to stay on top of Chinese protocol and thus far has successfully avoided any serious gaffes.

Thorp and Yang are working together to select objects, write the catalog and design the exhibit. "In the past, China has sent its own packaged exhibit," Thorp says, "This has been a joint venture from the beginning. That is the satisfaction for me."

"On one three-week trip to China," Thorp reports, "we were told that rather than request art ourselves, we must go back to the Ministry of Culture in Peking, tell them what we liked, and let them make the request for us. But we’d see something we liked — start oohing and aahing — and it was obvious that we wanted it. You could tell from the faces of our Chinese hosts that they were wondering why these people were going into such a frenzy over a particular object."

In May 1986, Thorp and a group of eight Americans traveled to China, taking their hosts somewhat by surprise. "We didn’t tell them enough about who was coming and just didn’t give them enough advance notice. But they were very good about reacting to nine people who expected to tramp around their country for three weeks and see everything."

While the Chinese have an uncanny mental inventory of their country’s artifacts, they look to the Americans for advice on how to display and publicize the treasures of their heritage. This trade-off of strengths characterizes the collaboration, Thorp suggests, despite disparate attitudes between the American and Chinese art worlds. "The Chinese term for art has always been ‘cultural relic’ rather than ‘work of art’. For them, to see the past through art is a historical science."

Son of Heaven — due in part to Thorp’s influence — will inform in a style unique to both countries. "The typical American museum displays objects beautifully, almost like a jewelry store, but they don’t teach much, say much, about the objects through the display," Thorp says. "We’re going to try to teach in a less overt manner than a text or a recording, but through the actual presentation. The visual impact will be one people here haven’t often seen before."

Son of Heaven will travel to three American cities: Seattle, Indianapolis, and one soon to be announced, during its one-year tour. —Suzanne Siteman

Treasure hunt: Associate Professor of Art History and Archaeology Robert Thorp (top), surrounded by curatorial team members and a local archaeologist, examines some recently excavated porcelains and pottery from the 11th and 12th centuries at the Henan Cultural Relics Institute in Zhengzhou. Thorp (above), inspects the detailing on an 18th-century emperor’s summer sacrificial robe, which will be part of the exhibit Son of Heaven.
Modest, steady growth in 1986 with only a slight uptick in inflation. As it turned out, that was pretty close, but the model built by Laurence H. Meyer & Associates in St. Louis was even closer. Meyer is professor of economics at Washington University.

The consensus believed that a turnaround in the two major drags in 1985 — inventory liquidation and the drain from foreign trade — would provide the main thrust in 1986. Larry Meyer, whose model runs on a personal computer, disagreed. He felt that high real interest rates would keep a lid on investment and that the dollar had not fallen enough to alleviate the trade deficit. Thus, he expected less growth than the consensus.

Basically, that was right. But he didn’t foresee the robust consumer spending that further darkened the trade picture. Meyer’s model, along with the one at the University of Michigan’s Research Seminar in Quantitative Economics, also correctly placed inflation below the consensus rate. Unlike many, Meyer’s inflation projections were entirely model-generated — no judgmental tinkering with the numbers. “We were especially happy with that,” says Meyer, “because the inflation results were a key ingredient in our forecast of interest rates.” Meyer pegged interest rates much closer than most.

Many monetarists were misled by what appeared to be a very expansive monetary policy. They expected brisk economic growth. But while the Fed’s stimulus helped support consumer spending, it didn’t do much for the manufacturing sector, as dollars continued to flow abroad.

The willingness of consumers to spend confounded the pessimists. John K. Langum, president of Business Economics Inc., had expected an outright recession.

Does Meyer agree? No, but he expects 1987 to begin on a weak note, with only a modest pickup in the second half.

—James C. Cooper


The right stuff: interest rates throttle investment; high dollar discourages foreign trade.

Off the Rim

The Washington University basketball Bears fell two points short this season of winning the NCAA Division III South Regional championship, advancing to what sportswriters call the “sweet sixteen” (those teams winning the first game in the regional tourny) but failing to win admission into the “elite eight” (those teams winning regional championships).

The season, though, was an unmitigated success. For only the second time in the team’s 72-year history, the Bears won more than 20 games (finishing 21-7); for their efforts, they were ranked 15th nationally among Division III teams. The Bears also hosted this year’s tourny, the first in which they’ve ever competed.

Four of this year’s starters will be returning next year, led by 6’3” guard Kevin Suiter (pictured, left), who midway through the season topped the 1,000 mark in career scoring; he needs only 116 more points to become the leading scorer in Washington University basketball history.

“We accomplished a lot,” observed head coach Mark Edwards, A.B. ’69. “We faced an ambitious and competitive schedule and, by the end of the season, I felt we were building a reputation and a tradition for our basketball program.”
Replicating AIDS Virus Increases Medicinal Arsenal

Lee Ratner, assistant professor of medicine at the Washington University School of Medicine, in collaboration with Robert C. Gallo, an internationally respected AIDS researcher from the National Cancer Institute, and six other researchers, has successfully cloned two mutants of the AIDS virus that may eventually be used to beat the original form at its own game.

The genetically altered viruses behave in exactly the same way as the original AIDS virus, except they do not kill T-cells, the white blood cells that control the body's immune system. Ratner and his colleagues, who reported their unprecedented results in a recent issue of Science, created disarmed variants of the AIDS virus by slicing into its genes.

Ratner and his fellow investigators opened up circular strands of the virus' DNA with a bacterial enzyme that cuts through the DNA at only one point on the circle. Then they added a second enzyme that chews inwards from both ends of the DNA, as if it were removing beads from the ends of an unclasped necklace. In this way, they created holes of varying size along the DNA strand. After ligating or "reclasping" the ends, the investigators isolated six genetic variants which, when added to cultured T-cells, produced six correspondingly mutated viruses.

The two nonlethal mutants were created more or less by accident, according to Ratner. They were formed when the enzyme chewed past the suspected killing gene into the next gene, which really does control cell killing. The four mutants that contained alterations only in the originally suspected killing gene retained their ability to kill, ruling out that gene as the killing gene.

Because nonlethal mutants of the AIDS virus replicate just like the killing form, they may eventually be used to treat AIDS patients in the hope that the non-lethal forms might outcompete the killing variety for helper T-cells. Studies are already underway to determine whether this is so. "If this were any other virus, this would be the perfect vaccine," Ratner says. "It replicates, but doesn't kill. It's an attenuated virus just like everyone gets vaccinated with for polio."

Although mutants of the virus may be used to help people who already have AIDS, they will probably never be used as a vaccine for noninfected patients. "The problem with this class of viruses is that they get converted into DNA forms, which go into your chromosomes and stay there forever," Ratner says. A live retrovirus will probably never be of any use as a vaccine, because it could damage normal genes. "Whether it actually would or not, we don't know," Ratner says.

But it's too dangerous to take a chance."

Even more important than any clinical role they may play, Ratner's mutants have provided AIDS researchers with a powerful new tool for learning exactly how the AIDS virus kills the T-cell.

"What we have is a mutant virus and a wild-type virus — both of which grow well — and yet one kills, and one doesn't. Now we'll be able to separate out the effects of virus replication alone from that of cell killing, by comparing the effects of our killing variety virus to our new mutant virus," Ratner says.

More specifically, Ratner and his colleagues are using the mutant-virus/killing-virus comparison to look for cellular proteins that might be involved in cell killing. "There are a number of proteins — some that we know about and, probably, some that we don't know about — that are made by lymphocytes and kill lymphocytes," Ratner says.

Ratner speculates that if researchers could identify such a cellular protein, they would eventually be able to engineer a drug that interferes with the production of that protein. "Our major goal is not to sort through the chemistry shelf for drugs that inhibit viral replication," he says.

"Rather, by learning what structures are involved in killing lymphocytes, we'll have a way to actually design drugs based on those structures."

A former research fellow under Gallo at the NCI, Ratner has made several substantial contributions to frontline AIDS research. He was one of 19 individuals responsible for initially cracking the virus' genetic code, and one of the first researchers to produce its biologically active molecular clone.

—Kathy Will
"Opera is a narrative; we may not be ZZ Top, but we're not weird."

**Outlaw Composer Robert Ashley Improvises Myth & Music**

It's not yet noon on a winter day, and you find yourself in the Unrathskeller, the campus hangout commonly known as the Rat. You are here to interview composer Robert Ashley, on campus to present his modern comic opera *Atalanta* at Edison Theatre. Ashley is considered by many a pioneer in American experimental music. *Atalanta*, every staging of which is unique as the performers improvise speech and music, has been performed throughout the United States and in Europe.

The vibration of the rock-and-roll blaring from the jukebox glides your tape recorder across the polished wood of the bar at which you sit. On the stool next to you sits Ashley, looking very much like the man next door. With a trench coat draped across his lap, shoulders slightly stooped, he sips his beer and munches on a bag of Old Vienna chips.

"Opera," says Ashley, "has very strong connotations to someone who has never been to an opera. I don't think it's particularly good for the reputation of the piece, but none of the coinages I've heard used really describe the idea. The only reason that I use the term opera is because that term in all the traditions that I know about — in European opera and other operas, too — tells a story. It's not musical theater, it's not just a collection of songs, it's a narrative.

"Atalanta is about myth, the oldest European myth that has been argued about by philosophers forever," he explains. "It's a very peculiar story and not at all what it seems on the surface."

He explains that every performance is a different interpretation of an extremely complex story.

"Of course, the opera isn't really about Atalanta. It's about the potential suitors." Those symbolic suitors, he tells you, are surrealist painter Max Ernst, jazz pianist Bud Powell, and storyteller Willard Reynolds, Ashley's uncle.

"I attach to the idea of those three suitors the image of three architectural molds or forms. One is architecture as shelter, one is a power-generating building, for instance power dams, and one is architecture as monuments — that is, standing for something without actually having an internal function. We've actually been doing a tribute to monuments in a very recondite way," he adds.

At this point you check your tape recorder to make sure it's reading, and then you both order another beer.

Ashley says there are about six hours of *Atalanta* music. "If we do a very elaborate staging, it could go for twelve hours. That means when we go to any particular place, like Rome or St. Louis, I try to bring those parts of the piece that I see intuitively will work, both for the audience and the performers.

"The form we're doing in Edison Theatre is an image Americans recognize as talk shows," says Ashley. "I mean, we're not going to do a talk show, but the way it's staged you'll recognize as a talk show like Johnny Carson's or Joan Rivers'."

Like Ernst, Powell, and Uncle Willard — artists he refers to as artistic outlaws — Ashley himself is an artist ahead of his time. "I don't pay a very heavy price for being an artistic outlaw. People have paid heavier prices than I have," says Ashley.

"What I'm trying to say about the growth of this kind of music is that it continues to grow outside the establishment. Eventually, it will probably become its own establishment. I don't know if that will happen in my lifetime. But I think the outlaw nature of the music is not really a moral thing. It's just that it functions outside of what we consider to be musical society."

Ashley says his music has been influenced by musicians such as John Cage and Henry Cowell.

"I think that this particular generation of music has grown up with an audience, and now the audience is coming of age at the same time the music is. Music," says Ashley, "that's not in the European classic style and not straight-ahead pop. It's really a very indigenous kind of music that, to my idea, has been around for a number of years. A person who is 30 years old has grown up with this kind of music and doesn't consider it weird. We may not be ZZ Top," says Ashley, "but we're not weird." —Bridget McDonald
The Cosby Show Avoids Issues Says Consultant

"People keep coming to me," confesses Alvin F. Poussaint, associate professor of psychiatry at Howard University, "and asking, 'Why doesn't The Cosby Show deal more with prejudice, or teenage pregnancy, or their social problems?'"

In a recent campus visit, longtime Cosby friend Poussaint explained that he reviews scripts every week and offers comments and suggestions in his role as a psychologist and educator. In doing so, Poussaint, who previously has received an honorary degree from Washington University, is involved in the careful decisions as to what subjects are appropriate for comedy and what are not.

"One of the problems," he says "is that when you have an all-black show, it is also, typically, a comedy. Despite the success of the miniseries Roots, the remainder of all-black programs on the air are comedies."

He recalled a recent episode in which a character on the program had a drug-addicted daughter. "The father started crying, and Cosby just sat there," explains Poussaint. "He couldn't come back with anything funny, because it would demean the whole situation."

Poussaint visited the Hilltop Campus as part of the eighth annual W.E.B. DuBois Lecture Series at Washington University. In his talk, Poussaint suggested that the condition of black America — made worse by government cutbacks in social services, by poverty, and by the stresses of black high-school dropout and unwed-teenage pregnancy rates — is at its lowest in recent history.

In his best seller, Why Blacks Kill Blacks, directed at a lay audience, Poussaint outlines three main reasons for intraracial violence. He suggests that a lack of respect for the self, combined with an internalized hatred of whites, and a consequent hatred of the self are all exacerbated by constant impoverishment.

Calling poverty "the greatest psychological stressor you can have," Poussaint asserts that changes in the structure of the family will affect blacks in disproportionate numbers.

Poussaint notes that 50 percent of pregnant black teenagers are unwed, and says that the stress to the black family lies not only in the fact of teenage parenthood, but that those teenagers who give birth are from single-parent households. In a culture ill-equipped to provide resources for the single parent, Poussaint expresses a sense of concern for the future of children in America, saying, "America, in general, does not care enough about children."

When asked what his one primary message to society would be, Poussaint answered, "We have to give children top priority...love and care for them and help them along with their development in positive ways."

Acknowledging the impact television has on viewers of all ages, Poussaint said he is disappointed that few all-black television shows on the air today are able to deal with heavier subjects.

Alvin F. Poussaint

Quotables

"We now have far more video shops than bookshops in Britain."
Lord Asa Briggs, provost of Worcester College, Oxford University, on "The Age of Broadcasting," as part of the Washington University Assembly Series.

"We recently found out our foreign policy is a Rube Goldberg machine, run by Inspector Clouseau." Arthur M. Schlesinger, Jr., Albert Schweitzer Professor of the Humanities at the City University of New York, on "Cycles of American History," as part of the Assembly Series.

"Remember when you were young and were asked what you wanted to do when you were older? All I knew was I was comfortable only at the moviehouse. Everything else for me was hell." Manuel Puig, author of Kiss of the Spider Woman, on "Literature and Film," as part of the Assembly Series.

"If some other galaxy is made of antimatter, then the cosmic rays it accelerates would be anticosmic rays. It's possible that some would leak into our galaxy." Martin Israel, professor of physics, in a Science section article on the search for antimatter, in The New York Times.

"If all the economists in the world were laid end to end, it would be a good thing." Murray L. Weidenbaum, Edward Mallinckrodt Distinguished University Professor of Economics, on the annual spate of economic forecasts, in the Chicago Tribune.

"Free agency isn't what it was a few years ago when the owners were going after the players. Something's going on, but I can't really put my finger on it." John Denny, former Cardinals pitcher and 1983 National League Cy Young award winner, in an exclusive interview with Student Life.
No matter how profound, the theory must be discarded if it contradicts observation.

Experimentally Seeking Einstein: Testing Relativity

Several new terms have been coined in the scientific community in recent decades: quasar, cosmic fireball radiation, pulsar, black hole, gravitational lens. What do these things have in common?

First, they were all discovered after 1960, during a period of unparalleled advances in the technology of scientific investigation, especially in astronomy.

Second, they have attracted immense popular interest. Just look at the recent success of the books (The First Three Minutes), movies (The Black Hole), and television productions (Cosmos) that have presented these phenomena to the general public, to say nothing of the wristwatches (Pulsar) and TV sets (Quasar) that carry some of their names.

Third, every item in the preceding list involves Einstein's general theory of relativity in a crucial way, and forces us to ask whether the man most of us regard as a genius was in fact right in his many theories and postulations. Modern day astronomers and astrophysicists use Einstein's theory of relativity as a tool in their attempts to comprehend these phenomena. If the theory were incorrect, they would be at a loss; an important underpinning of their models would be weakened.

Of course, there is more at stake in the question "Was Einstein right?" than keeping astrophysicists happy (and employed). General relativity is a fundamental theory of the nature of space, time, and gravitation, and has profoundly influenced how we view the universe. But like any theory of nature, it cannot stand on its own. It must face the test of experiment and observation. No matter how profound it may be, no matter how beautiful or elegant it may appear, it must be discarded if it does not agree with observation.

Observations of quasars, pulsars, and the like don't, in themselves, tell us much about general relativity. This is because so many complex effects of physics are going on in the composition of these objects that we can't easily unravel the effects of general relativity from the others. So to find out if Einstein was right, we must look at different kinds of tests.

Beginning around 1960, an intensive, worldwide effort was undertaken to check the predictions of general relativity accurately, and to find new predictions to check. This effort was aided by the technological revolution of the last quarter century and by the development of the interplanetary space program, which provided new high-precision tools to measure the tiny effects predicted by the theory.

For instance, measurements of the bending of light by the sun in 1919 helped make Einstein a celebrity, but during the 1970s radio telescopes trained on quasars measured the effect 20 times more precisely. The effect of gravity on the rate of passage of time was verified by sending atomic clocks aloft on rockets and jet aircraft. Bouncing radar signals off the surface of Mercury allowed astronomers to confirm the general relativistic effect on its orbit known as the "advance of the perihelion" to higher accuracy than ever before.

By sending radar signals on round trips across the solar system to such spacecraft as the Viking stations on Mars, scientists were able to measure the retarding effect on the passage of the signals through the warped space-time region in the vicinity of the sun. The general relativistic prediction that the Earth and the moon should fall toward the sun at the same rate was confirmed by bouncing beams of laser light off special reflectors that were placed on the moon by Apollo astronauts.

Finally, by carefully studying the behavior of a pulsar named PSR1913 + 16, which whirls around a companion star in a frenetic eight-hour orbit, astronomers found that its orbit is inexorably shrinking, at a rate that corresponds to the energy lost through the emission of gravity waves.

For better or worse, we of the late-20th century have become skeptical. Over and over, we have seen beautiful theories put together only to be shot to pieces by a conflict with experiment. Just because the theory of general relativity, based on the force of gravity, has been around for 70 years does not mean that it should not be subjected to the same skepticism as, for example, modern theories of the elementary particles.

But since gravitation is the oldest known, and in many ways most fundamental, force of nature, does it not deserve an empirical foundation second to none? —Clifford M. Will

Was Einstein Right?, by Clifford M. Will, professor of physics at the McDonnell Center for the Space Sciences at Washington University, was recently published by Basic Books, New York.
A Place to Come to

OASIS is no mirage. The model outreach program for the over-60 crowd now operates in ten cities coast-to-coast.

by Candace O'Connor — photographs by Herb Weitman

In a classroom at the rear of the Famous-Barr department store in Clayton, Missouri, a small group of gray-haired men and women sit clustered around a handout. It compares the fat and sodium content, calculated to the milligram, of various cheeses. But the class, clearly sophisticated, seems undeterred by the detail. They aim a barrage of pointed questions (“If we are limiting our intake of dairy foods to cut down on cholesterol, how do we make sure to get enough calcium to guard against osteoporosis?”) at the teacher, Christy Delabar, a clinical dietitian from Jewish Hospital’s Program on Aging. “They keep you on your toes,” Delabar admits after class.

These senior citizens are participating in an innovative St. Louis-based program called OASIS (Older Adult Service and Information System). Like its young-at-heart students, OASIS fits no stereotypes. It springs from the unusual alliance of Washington University School of Medicine and Jewish Hospital on the one hand, with The May Department Stores Company on the other. And instead of the traditional social service approach, OASIS offers a strong mix of free educational classes designed to stimulate its target audience — able and active over-60 adults.

“One of the joys of getting older is being able to decide how to spend your time,” says Marylen Mann (A.B. ’57, M.A. ’59), OASIS director and founder.
"If you want to just watch TV, that's fine. We think, though, that it's more challenging to take a creative writing class, tour a museum, find out about prudent investments, or improve your health."

The young program has already had extraordinary success. Since 1982, when OASIS opened its first three centers in St. Louis, it has enrolled more than 40,000 members in ten cities, including Baltimore, Washington, D.C., Pittsburgh, Denver, and Los Angeles. In each case, the ingredients are the same: a May department store acting as "private" sponsor, providing space, supplies, and staff resources; a "public" partner, sometimes a hospital or Ymca, which may supply money, secretarial help, or teaching assistance; and a local advisory committee, which hires an OASIS coordinator. Since its inception, OASIS has been supported in a big way by the May Company; it has been OASIS' major financial sponsor and in 1986 provided more than $200,000.

"Our partnership has been excellent," says Stanley Birge, M.D., clinical director of the Program on Aging at Jewish Hospital. "The health-care programs we have established through OASIS have been extremely well attended and the audiences very receptive. We have been able to reach a large number of well elderly in the community and practice an effective preventive health care program."

And the potential for OASIS? "I can't put a lid on that," says Mann, with enthusiasm. Each day brings fresh inquiries from cities anxious to duplicate the program's success. Two hospitals in Portland, Oregon, recently asked to become public sponsors; a call came from Cincinnati seeking help with a new OASIS program. Since the May Company's acquisition of Associated Dry Goods, which has stores in 42 cities, growth could be "almost unlimited," Mann says.

OASIS has already attracted national attention. In 1984, Mann was asked to describe OASIS in testimony before the Senate Labor and Human Resources Committee. She regularly keeps in touch with the U.S. Administration on Aging. There is no other program like OASIS, she says, anywhere in the country.

Even those who are not older adults, says Mann, need to take a close look at OASIS. The over-65 age group represents some 11 percent of the U.S. population today; by the year 2020, it will comprise more than 20 percent, with the 55-65 age group contributing another fifteen percent. By the turn of the century, 30.6 million Americans will be over the age of 56. Altogether, there will be more seniors than ever before and a great need for programs to challenge them. Let's not forget too, she adds, that many of us will be among them.

"We should all be aware," says Mann, "that after the responsibilities of family and job we have ahead of us a good part of life. What are we going to do with it? How are we going to live it? How are we going to involve ourselves so as to keep growing and learning?"

Most of the credit for OASIS goes to Mann, its ebullient but steadfastly modest director. A Washington University graduate in philosophy, she once intended to continue those studies in graduate school. Then her father intervened with a strong suggestion that she pursue something more practical. She switched to the education department for a master's degree.

Several years of teaching followed, along with volunteer work for St. Louis civic organizations. Increasingly, though, she became convinced that local schools were not using the area's wealth of cultural institutions to enrich classroom work. Through her association with one of ten regional labs set up by the U.S. Department of Education to encourage curriculum development, Mann developed new school programs using cultural and community resources.

She participated in organizing city-wide conferences aimed at enriching school curricula, wrote proposals for funding, and organized an advisory board chaired by her friend, Margie Wolcott May, the former wife of May Company's late president and chairman, Morton D. (Buster) May. Then one day the head of the St. Louis branch of the Area Agency on Aging approached her with a question. Why not do the same thing for the elderly?

"Until then, I hadn't thought about it," she says. "I started attending conferences and visiting senior centers and was very distressed by what I saw. While the network was good at providing people with basic care needs, the quality of life was lacking." She shifted focus and established Arts for Older Adults, which brought cultural programs to senior centers. But five years later, she was still not satisfied. "We needed a neutral setting," Mann says, "where offering educational programs would not be confused with providing social services."

Then Margie May, now head of the OASIS advisory board, made a pivotal suggestion: How about using Famous-Barr? In 1982, three St. Louis centers opened at suburban stores to immediate success. Older people like the vitality of a department store, says Mann; they grew up shopping and enjoy a place that offers choices. OASIS hoped for 2,500 members during the first year — and got 8,000.

Though she now supervises a St. Louis staff of nine, Mann is still the whirlwind organizer who makes OASIS work. As its chief fund-raiser, she presents proposals to the Administration on Aging, other federal agencies, and private funding sources, primarily the May Company, with additional help coming from PaineWebber, Inc. and Southwestern Bell. In other OASIS cities, she lays the groundwork for new programs and oversees local coordinators. She hopes, by the end of the decade, to open an additional ten OASIS centers and double membership.

Last year, she heard on her car radio that the Ellis Island Museum was asking for written accounts of immigration experiences. "I thought 'What a wonderful idea, but a lot of people won't do it,'" she recalls. "Then I thought, 'We can do it.'" That inspiration culminated in The Immigration Experience, an exhibit and videotape presented last October at the Missouri Historical Society, in which 21 senior St. Louisans shared their memories of immigration in paintings, creative writing, and memorabilia.
In pursuit of her ideas, she has become expert at friendly arm-twisting. Borrowing an idea from Cleveland, she decided that St. Louis should stage its own tribute to endangered ethnic arts and crafts still done by local seniors. Mann, vice-president of the Arts and Education Council of St. Louis, was convinced that the show had to take place in the prestigious St. Louis Art Museum. Over one weekend in June 1985, some 7,000 people poured into Sculpture Hall to see the music, dance, and exhibits that were all part of the highly acclaimed show called Living Treasures.

"We've had more follow-ups from contacts Marylent has made on airplanes, people who eventually get involved," says Verna Green Smith, acting assistant director of OASIS. The staff groans affectionately whenever Mann says she has a new idea. How much does OASIS owe to Mann's leadership? "About 99 and 4/10ths percent of its success," says Smith. "It takes a special kind of person to capture such a worthwhile idea and carry it through."

Initially, Mann directed the program from donated office space in the Metropolitan Studies Center at the University of Missouri-St. Louis. But in 1984, OASIS became affiliated with the Program on Aging at Washington University School of Medicine and Jewish Hospital. The two programs mix well, says Mann, whose office suite is now across the street from the hospital.

Now the Program on Aging supplies OASIS with physicians, gerontologists, nutritionists, and social workers to teach a host of classes. A course on "The Healthy Body," for instance, has a nurse clinician advising OASIS members on body function and care. In a special program, Dr. Birge details the prevention and treatment of osteoporosis.

"Universally, everyone in our program who has talked and lectured to an OASIS class has been impressed at how sharp and knowledgeable many OASIS members are," says Dr. Birge. "I have often said that this audience is far more attentive and receptive than the usual medical school audience."

To capitalize on this interest, OASIS and the Program on Aging have established an intensive new preventive medicine program called Activate Your Health. It begins with a nine-week series of classes on exercise, nutrition, stress reduction, and general wellness. During the last class, students make contracts setting health goals they plan to attain over the following six months. Then they meet in weekly support groups to report on their progress.

One woman summed up her relief at being able to take charge of her health, in a supportive setting. "My family sees me as I have always been," she says. "My OASIS group sees me for what I want to become."

Recently, OASIS recruited more than 100 research subjects and 28 interviewers, trained by the University department of psychiatry, for the pilot phase of a major study on preventing hip fractures to be conducted by the Program on Aging. Some 50 percent of the elderly who sustain these fractures never walk again. For many, that means confinement in a nursing home. It makes sense, says Dr. Birge, to make an effort to prevent these fractures among a group of healthy and independent older adults.

Using seniors to conduct the detailed interviews worked beautifully, says Mann. An important element of the OASIS plan, she says, is providing older adults with the opportunity to occupy active, responsible roles; many, for instance, lead OASIS workshops and classes. "We're interested in empowering those who want to take advantage of the opportunity," she explains. "It's a wonderful experience for someone who has never had the opportunity to stand up and lead a class. They provide important models for other older people."

The senior citizens themselves are the ones who benefit from OASIS. Each center is run by committed volunteers in addition to a paid coordinator. Last year, they poured some 13,000 hours into the St. Louis program alone. And the OASIS students, who pay no fee for the annual club membership and a nominal fee for cultural tours, also gain new stimulation and new friends.

Helen Malevin of St. Louis has come to a nutrition class to refine her already careful eating habits. Staying active is a secondary benefit. "If it weren't for this class, I probably wouldn't have come out at all this morning," she says.

"We want to make sure there is a longer span of quality living," Mann says. "Through OASIS, we want to help keep people independent and active as long as possible."
Overlooked by the Nobel Prize committee, Viktor Hamburger remains dedicated to principles that have characterized a near-legendary, 60-year career in neurobiology.

by Linda Tucci — photographs by Herb Weitman

Viktor Hamburger is skeptical. "All this because I didn't win the Nobel Prize?" he says dryly, his cultured European accent still sharp after fifty years in this country. He is referring to the magazine's request for an interview and to the Nobel Prize in medicine awarded this past October 13th to his collaborator and friend of many years, Rita Levi-Montalcini, for discoveries made nearly forty years ago in Hamburger's laboratory. Levi-Montalcini, professor emerita of biology at Washington University, who returned to her native Italy a decade ago to head the Institute of Cell Biology in Rome, shared the honor with Stanley Cohen, a biochemist now at Vanderbilt who also worked in Hamburger's laboratory. The award-winning work
concerned the description of biochemist that can cause nerve and other sorts of cells to grow.

Hamburger is also an important scientist. He not only encouraged these two younger scientists but has made many fundamental discoveries in his own right. He was the first to put chick embryos to routine use in embryology. His paper with H. L. Hamilton on the embryonic stages of chick development is a "citation classic," that is, one of the most frequently cited scientific papers of all time. Because of this pioneering work, the chick has become the embryo of choice for almost all developmental biologists. Hamburger can also claim (although he never would) to be a founding father of developmental neurobiology, a burgeoning field that traces its roots, at least in part, right to Hamburger's experiments on the rise (and fall) of nerve cells during development and his groundbreaking experiments on the ontogeny of behavior. Indeed, as John T. Edsall, editor of the Journal of the History of Biology, and emeritus professor at Harvard University, has written, Hamburger is one of the "supreme biologists of our time." As the century winds down, his stature becomes almost legendary: the whole history of a scientific field can be traced in this one man's 60-year career.

That Hamburger, who recruited both Levi-Montalcini and Cohen to Washington University, was not included in the Nobel award is regarded by many neuroscientists as a serious omission on the part of the committee. It is, in fact, something more, for the committee is allowed to present the honor to up to three people; giving it only to two is an act of commission not omission, a fact not easily dismissed and one that would have escaped a mind as analytical as Viktor Hamburger.

Yet, the remarks Hamburger made publicly to his colleagues and privately to friends about not receiving this honor showed remarkably little disappointment and suggested that the eighty-seven-year-old professor has more important things to think about than Nobel Prizes. Meeting with colleagues for his customary weekly luncheon on the day after the announcement from Stockholm, Hamburger made three such comments. First, by not winning he finds himself in good company; such as that of Ross Harrison, one of the acknowledged giants of embryology who was also passed over. Second, he is too old to deal with phone calls from strangers asking for interviews or for his opinions (not that he doesn't have strong ones) on, for example, the summit at Reykjavik. And third, he is said to have quipped, a Cohen is the high priest in the temple hierarchy; a Levi is his assistant — but where does a lowly Hamburger fit into this scheme?

Those who know Hamburger well were not surprised by his good-humored reaction. Despite his renown, he is unpretentious. Although he is expansive in conversation, he nevertheless is not someone who wears his heart on his sleeve. He keeps his distance. And he has put distance between who he is, what he has accomplished, and what the world thinks of his accomplishments. As one colleague remarked, "Not getting that prize has not made Viktor any less a human being in his own eyes. His point of reference is internal."

Born in Landeshut, Silesia, a part of Germany that now belongs to Poland, Hamburger came from a well-to-do family. His father owned a textile factory. Both parents, though members of the town's plutocracy, were deeply sympathetic to the problems of the workers and expressed that sympathy in good works; Hamburger's father built decent housing for his workers, and his mother, moved by the plight of working mothers, founded a day-care facility and nursery school for their children.

"I had a happy childhood despite all the political upheaval of the First World War. The stage was set for a fairly stable

**Life's rewards:** Among Viktor Hamburger's many honors (top, left) is the E.O. Schmitt Medal given in 1976 by the Neuroscience Research Program at M.I.T. This spring he was named the first recipient of the Fidia-Georgetown Award in Neuroscience given by the National Academy of Sciences. The Horwitz Prize (newspaper, center), awarded by Columbia University, came in 1983, and the Gerard Prize (opposite page, bottom), was awarded to both Hamburger and Rita Levi-Montalcini by the Society for Neurosciences in 1985. Viktor, as he is known to nearly everyone in the University community, also has been blessed with a wide range of loyal acquaintances and friends as well as three successive generations of his family tree. At left (center), he is shown with one of his two younger brothers in native German costume, and as a young soldier (top) in 1918. On the far left is a snapshot of Viktor with his two daughters, Carola and Doris, and on the near right he holds one of his two great-grandchildren (he also has four grandchildren) by the hand.
person who developed a certain set of priorities and that has stayed with me all my life. These early experiences have a tremendous effect on what you become."

Hamburger, pausing, says there is another element of his upbringing that could have "proved to be a very negative one but fortunately did not."

"I never had to compete," he says. "Not for the love of my father or my mother, or for excellence in school or at the university. The notion of competition is very foreign to me, and I could have easily fallen into a life in which competition is absolutely necessary. I never have been motivated by an effort to be better than other people in anything. My only motivation was to be as good as I could be in whatever I did, irrespective of what other people thought was good."

It could be argued that this is not the ideal formula for fame and fortune and may, in part, explain why Hamburger did not get the Nobel Prize. In any case, it is not an issue that seems to weigh heavily on Hamburger. After talking to him at his University City home for even a few minutes it becomes clear that it is the past, not these current affairs, that occupies him these days.

The Edward Mallinckrodt Distinguished University Professor Emeritus of Biology still goes to his Hilltop Campus office several times a week, but this morning he is at home, shifting restlessly in his favorite seat, a straight-backed wing chair placed in front of the sitting-room windows. Bright with reflected light from the few inches of snow outside, the modest, sparsely furnished room, which strikes many visitors as "spartan" or "ascetic," has some of the stark grace of the Japanese art Hamburger has admired since his student days in Germany.

When the Washington University community paid tribute to Hamburger for his more than fifty years of service to the school last spring, many of the people who gathered to honor him noted the richness of Hamburger's interests. And indeed, throughout the house there is evidence of Hamburger's long-standing interest in the arts and literature and the natural world. Above the couch are three exquisite paintings, each no bigger than an outstretched hand, by the German artist Julius Bissier, whom Hamburger knew in Freiburg. There are works by German expressionists Max Beckmann and Otto Mueller. From the bookshelves that flank the fireplace, Hamburger takes out one of his prize possessions, a natural history of insects, hand-painted in the 18th century by August Johan Rosel van Rosenhof.

Upstairs is the study where Hamburger spends several hours each day working hard on his latest project. Three years ago, he began a scholarly study of his mentor, the great biologist (and Nobel laureate) Hans Spemann. The book, which will be published next year by Oxford University Press, is a detailed and complex analysis of the work that came before and after Spemann's crowning achievement, the "organizer experiment," as well as a history of experimental embryology. Why, at a time when Hamburger might certainly have been writing his memoirs (or for that matter taking it easy), did he assume this monumental task?

"For two reasons," he says. "The one is that I don't put much stock in the autobiography of a scientist. Most of a scientist's life, Hamburger explains, is spent either doing experiments or ana-

Nature's way: "It is given to relatively few," writes W. Maxwell Cowan, provost of Washington University and past chairman of the department of anatomy and neurobiology, in his introduction to Viktor Hamburger's Contribution to Developmental Neurobiology: An Appreciation, "to be so totally identified with a scientific endeavor." Since his first publication as a student in Germany in 1925, Hamburger has been connected with every major development in the field of developmental neurobiology.

An early paper (written with H.L. Hamilton) on the embryonic stages of chick development (far right) is one of the most frequently cited scientific papers of all time. Hamburger's text, A Manual of Experimental Embryology, which grew out of the first course in embryological lab techniques, given at Washington University, has become a standard guide.

Hamburger's interest in all things natural reveals itself in the many reminders of the natural world that populate his home and office, among them a reproduction from the museum in Naples of a sculpture excavated from the ruins of Pompeii.
More Glorious than the Green Parade of Spring


"IT WAS A SUMMER DAY in 1940 when we first met in that railway cattle car. The train was running at a slow speed across the country between Turin and the small village I was heading for. The insolent scarlet red of the poppies in the corn fields was competing for my attention with your crystal-clear account of the effects of limb ablation on the sensory ganglia and the motor spinal system of the chick embryo. Not too far from the train, the war still raged on the French front and the fate of Western civilization was dangerously threatened by the triumphant advance of the new German barbarians, as it has been so often in the past by other hordes of barbarians on the battered lands of the Old Continent.

"But this dark hour also passed away, and the poppies are blooming again in the fields of Europe and elsewhere in an atmosphere that is apparently calm but in reality deeply perturbed, in this summer of 1980. At present, you are pursuing the same train of thoughts as you have for all these past years, there in the pleasant surroundings of your office on the Washington University campus or on the porch of your residence at 740 Trinity Avenue.

"Your hair has grown whiter than when we first met 33 years ago, but your thinking (as well as the way of conveying it) has gained even greater precision and depth — a living challenge to the concept that equates aging with loss of brain power. Your curiosity in regard to the endless mysteries that surround us, from those amenable to the analytical approach that you love, such as the hatching behavior of the chick embryo, to those that are not, such as the mind-brain problem, is, if anything, sharper than it was when we first met.

"At the same time, your tolerance of human weakness and your loyalty to your numerous friends are even stronger than they used to be. Likewise, the flavor of your dry, benevolent humor, which I appreciated from the day of my first encounter with you is even more appealing to me now than when I first tasted it. Your approach toward mankind at large has the splendid red and gold colors of a midwestern sunset, which is perhaps more glorious, though less celebrated, than the green parade of spring."

—Rita Levi-Montalcini

Viktor Hamburger and Rita Levi-Montalcini in 1976

"On the other hand, experimental embryology is a closed chapter, and the history of experimental embryology has not been written. I have vivid memories. I think it was a crucial period. Perhaps the major reason (for writing this book) is that experimental embryology faded out with the problems it raised unresolved."

These embryologists, explains Hamburger, had a lofty aim: to understand the forces that underlie development, and in particular, to understand morphogenesis, the process by which a single fertilized egg is transformed into the complex of a multicellular embryo. The approach taken by these pioneers was experimental: They manipulated the early embryo (cutting out and transplanting various bits and pieces) to test their hypotheses about the importance of particular tissues in creating order and specialization in the developing animal.

This method of inquiry reached its pinnacle in the "organizer experiment" of Hamburger’s mentor, Spemann. In this experiment, Spemann and a young graduate student, Hilde Mangold, transplanted a part of the embryo known as the dorsal lip of the blastopore to a region of the embryo that would ordinarily become the flank. The results were astounding. They found an entire extra embryo grow up around the small transplant. This unlikely scrap of tissue, not unlike the oyster’s lowly grain of sand, had the power to induce an entire embryo around it. Spemann gave the dorsal lip of the blastopore the suggestive name of the Organizer for its remarkable but unexplained powers, and the world gave him a Nobel Prize. Hilde Mangold, who was killed at age 26 when a gas heater exploded in her kitchen, is one of very few biologists whose dissertation is directly connected to a Nobel Prize.

One of the most important legacies of experimental embryology was the creation of a new vocabulary for describing the miraculous processes of development. Words like differentiation, determination, regulation, and induction were given precise scientific meanings and came to denote specific concepts central to the study of development. These terms are still in use today, mainly because the mysterious phenomena they describe have remained mysterious. Modern science has not yet found a way to reduce the

Book learning: As a young man, Viktor Hamburger desired to know as much as possible about the world of nature. The five-volume set purchased early in life (at right) of hand-colored plates illustrating an 18th-century natural history of insects, translated from German to Dutch, is today a prized possession.
complex processes of morphogenesis to its underlying mechanisms.

In contrast to these concepts, which have endured, the experimental approach taken — the other potential legacy of experimental embryology — is, in this age of molecular biology, considered all but obsolete. Few biologists today are even aware that a vast number of experiments were done in that bygone classical era.

"I am one of the few survivors who have an overview of the whole business, and fortunately, at my age, I was able to put these things together." Hamburger adds dispassionately that were he to begin today he probably would not be able to complete this project. "The book I have written is the only authentic history of this scientific era that is closed, and if I am very lucky it will instigate or encourage maybe 20 years from now a scientist in developmental biology. At least, he or she can look at what the problems were, where we got stuck, where there is a possibility of breaking through the crust."

Hamburger's writing has apparently always had the ability to encourage scientists to break through the crust. It was a 1934 paper of his that prompted a then-young Rita Levi-Montalcini to study the relationship between the development of nerve cells and the target they contact. Inspired by Hamburger's "sharp, talmudic approach to the problem," recalls Levi-Montalcini in an essay on Hamburger, she repeated his 1934 experiments in her makeshift bedroom laboratory during World War II. In 1942, she published a paper that reported the same results as Hamburger's but came to a sharply different conclusion about their meaning. Hamburger, stumbling upon the Levi-Montalcini paper in a Belgian journal, invited the Italian scientist to visit his lab, and, as they say, the rest is history.

In an oral history done for the Washington University Medical School archives collection in 1983, Hamburger is asked how this initial collaboration between himself and Levi-Montalcini "turned out."

"It turned out Rita was right, as usual," says Hamburger, without hesitation, revealing a dimension of his character that has existed since at least 1947 when he asked Levi-Montalcini to come in the first place: his intellectual integrity.

In an essay honoring Hamburger, neurobiologist and University Provost W. Maxwell Cowan makes the point: "A lesser man might well have been chagrined over such a difference in interpretation or been tempted to dismiss it because of its relative obscurity; but not Viktor. With characteristic forthrightness he contacted Dr. Levi-Montalcini, persuaded her to come to St. Louis to reexamine the problem in his laboratory, and obtained the necessary funds from the Rockefeller Foundation to make it possible."

The problem Hamburger and Levi-Montalcini set out to examine concerned the relationship between the peripheries (e.g., arms, legs, tails, wings) of a developing animal and its nerve centers. Using techniques he had learned in Spemann's lab, Hamburger found that when the limb of a chick embryo was removed, the nerve cells in the spinal cord that ordinarily innervated the limb were almost completely absent. It was clear that the nerve cells were somehow dependent upon the limb they were supposed to innervate. What was open to debate was the nature of their dependence, the reason why the mass of neurons was not present when the limb, or target, was removed.

Hamburger's interpretation was that the production of the motor neurons was somehow inhibited by the absence of the target. "In a way," says Hamburger, "that was correct and incorrect.
It was correct in that a signal from the target, which normally tells them what to do, was cut off. The incorrect interpretation was what the signal did. My interpretation was that the signal from the limb told the spinal cord to make motor neurons.

Hamburger, drawing on the principles of organization he had learned in Spemann's lab, believed that the target induced or instructed the nerve cells to differentiate and ultimately grow into the limb.

"Rita was unburdened by the Spe­mann approach, and she looked at the thing with a completely open mind," explains Hamburger. By counting the cells, Levi-Montalcini found that every­thing went on normally for a while, even in the absence of the signal from the peripheral target. In other words, the nerve cells came into being with or without the presence of the limb, what they didn’t do without the signal was stay alive.

The target, she conjectured, permitted the neurons to survive; it was a maintainer, not a molder, of nerve cell destinies. With a combination of intuition, luck, and tenacity Levi-Montalcini pursued this notion to its logical conse­quence: the identification of a chemical substance made in peripheral tissues that keeps nerve cells alive. The discovery of the "nerve growth factor" (NGF) for which she received the Nobel Prize began with collaborative studies between Hamburger and Levi­Montalcini in the late 1940s and continued with the recruitment of Stanley Cohen to their group, in 1953, in order to characterize the substance biochemically. NGF drew increasing worldwide attention as one remarkable property after another was revealed by the St. Louis team.

Hamburger, however, bowed out of this enterprise quite early. As an embryologist, he felt that the subtleties of biochemical analysis were beyond him. And the embryological aspects of NGF’s actions were being pursued with unstoppable energy and singlemindedness by Levi-Montalcini.

"I had the feeling," says Hamburger, "that these two extremely good people will do everything that has to be done, and I didn’t see a fruitful role of my own in that progression or process. I didn’t see how I could productively do more than they could." Hamburger pauses. "They didn’t need me," he says, adding that he would rather work in his own "light" than in their "shadow."

Hamburger was also at this very crit­ical time in the research preoccupied by serious difficulties at home. His wife had recently been hospitalized, leaving him to care for a teenage daughter and to take on many new responsibilities. Hamburger’s older daughter, who was at Bryn Mawr, returned to St. Louis and spent her senior year at Washington University so she could help at home. In addition, his academic duties prevented him from aggressively participating in the ongoing studies. He was chairman of his department and each year taught two very popular embryology courses, with labs, that took up much of his time.

True to his word, in the late 1950s, "casting about for something entirely different to do," he decided to start a project completely unrelated to NGF. He set his sights on the ontogeny of behavior and began a groundbreaking study on the origins of the first embryonic movements. "I didn’t read much literature, so I went at it rather naively," says Hamburger, adding that had he known what he was getting into he "would have thought twice." Hamburger soon found himself in the midst of a raging controversy in psychology dominated by the behaviorists, who held that all behavior originates with reflexes or learning.

"I started, though, with an unfettered mind, and that was again in my good fortune. I was just curious what the embryo did. So we made a window in the shell and looked. It was like a window display in a department store." Hamburger found that the earliest movements in the chick were entirely independent of outside stimuli. In one fell swoop, the little chick had disproved the idea, espoused by such developmental psychologists as B. F. Skinner, that the origin of all behavior is reflexive.

These experiments were very pro­vocative and as a result Hamburger was embroiled in disputes with several leading psychologists whose theories were threatened by his observations. On the whole, however, such controversies remained scientific disputes, rarely degenerating into personal attacks.

Although Hamburger has strong views on many political issues (he describes himself as a New Deal liberal) he has experienced a similar lack of contentiousness when dealing with political disagreements. Hamburger does not mention his own remarkable equanimity (although this is probably a..."
critical factor) as the cause of his having so few scientific or political enemies. Rather he sees tremendous differences between Americans and the Germans when it comes to dealing with differences of opinion.

"I have the feeling that here even the strongest political opponents can in the evening sit and shake hands and have a beer together. In Germany, and very often during my time there in the 1920s, dissent and conflicts became sharp and personal. At Freiburg, I came for the first time in contact with real confrontational politics."

The academic world in the 1920s, says Hamburger, was sharply divided between the right-wing "super-patriotic" majority, who detested the Weimar Republic, and the minority who defended its democratic principles. Hamburger, though he has never belonged to any political party, sided strongly with the democratic party, unlike his mentor Hans Spemann and several other of the more senior scientists he worked with.

Despite the political turmoil, miserable living conditions, and staggering inflation after World War I, Hamburger remembers his student years as happy. In the Spemann lab, Hamburger and his friends were participating in the "heroic" period of experimental embryology. Their work was regulated by the seasons; each spring, they began that year's experiments on the developing salamander and frog embryos culled from local ponds and streams. During the fall and winter, they analyzed and finally wrote up their experimental results. As winter settled in, they began to prepare for the next season's experiments. Outside the lab, they had a freedom no longer enjoyed by doctoral students. Unencumbered by examinations or a set curriculum, they had an unlimited choice of courses and could elect, for example, to attend lectures by Husserl, the founder of phenomenology, or courses in literature, or art. Hamburger was "attuned" to the poetry of Rainer Maria Rilke and Stefan George and to German expressionist art. He and his friends seemed to have spent a good deal of time outdoors, hiking, skiing, on alpine expeditions, collecting rare flowers, sampling local wine.

This world (and even the possibility of living in such a world) ended abruptly for Hamburger some ten years later. In the spring of 1933, he was, to use his phrase, "kicked out of Germany." At the time he was actually in the United States on a one-year Rockefeller Foundation fellowship, working in the lab of F.R. Lillie at the University of Chicago. He had been there four months — his project was to apply Spemann's dissecting techniques to the chick embryo — when a letter came from the dean at Freiburg telling him that due to a "cleansing of the professions" he was dismissed from his faculty position because of his Jewish ancestry. For his part, Hamburger did not feel "strongly Jewish" and his family was, according to him, "completely nonreligious." In fact, Hamburger says he never set foot inside the town synagogue though his father contributed to its upkeep. A letter from Spemann followed, advising Hamburger to find a job in the United States; the universities in Germany were state run, and there was nothing to be done about this, nothing that Spemann, at any rate, was willing to do. Remarkably, Hamburger did not seem to take these bad tidings personally.

Spemann, says Hamburger, was a "strong patriot" who saw the Versailles Treaty as a national disgrace, "something like the Vietnam War in this country, as ignominious. So Spemann was like, perhaps, the majority of academic people, susceptible to the promises of Hitler to rectify all that, the loss of the military, the unemployment, the economic hardships."

But at what price? Asked if Spemann was anti-Semitic, Hamburger pauses a few minutes.

"He would never admit it," he says finally.

Hamburger is due for his luncheon meeting. He makes a joke about what he should be called in this piece. As he struggles into his heavy winter coat and collects his cane, he has that fierceness of expression, that determination, sometimes seen in pictures of chicks hatching.

"Don't say a man of all seasons, whatever you do. Winter is so horrible," he says, deadpan. "And the other side of that coin, that cliché, Renaissance man, don't say that. I have read a little about that period and would not have wanted to live then." On the way out, Hamburger stops in front of a large desk by the door. He opens the drawer and takes out a plastic-coated sheet of slides of himself and Levi-Montalcini in the laboratory.

He laughs, holding up one to the light. "This is Doris" (his daughter's) favorite one of Rita." The slide pictures Levi-Montalcini in a black cocktail dress, her bare arms adorned with bracelets, standing alone just below the snow-covered summit of Mont Blanc.

Outside, the few inches of snow form a crust on the sidewalks, making walking somewhat difficult. Hamburger negotiates with his cane and curls into the small car, his large frame seeming to fill the space and use up all the air. For some reason, a series of images comes to mind of Hamburger and his young friends skiing down the Alps. Then, just as suddenly, they are inside the Freiburg lab, all business, sitting at their winter workbenches, honing their instruments and waiting for the new crop of life.

Auspicious beginnings: A 1933 portrait of the scientist as a young man, in the labs at the University of Chicago, where Hamburger spent three years as a Rockefeller Fellow, learned to write in English, and began publishing his seminal work on chick embryos.

Linda Tucci is a free-lance writer based in St. Louis. She is currently at work on a book about Eli Robins, Wallace Renard Professor of Psychiatry at Washington University School of Medicine.
Student Life cartoonist Steve Edwards is serious about humor that attacks the boundaries of conventional thinking.

by John W. Hansford

Steve Edwards is tall. Not ungainly tall, but the kind of tall that lets him get a good view of the parade even if he doesn’t arrive early enough to stake out a prime spot at curbside. That pretty well describes Steve’s approach to cartooning, too; he always seems to have a good view of the passing parade.

Edwards, a senior, is wrapping up a four-year tenure as staff artist (read: strip cartoonist, editorial cartoonist, and spot illustrator) for Student Life, Washington University’s semiweekly student newspaper.

It’s been a rewarding four years, he says, not just at the paper — where the disclaimer “opinions expressed herein are not necessarily...” barely hints at the freedom of expression he has enjoyed — but at the School of Fine Arts, too, where a flexible curriculum allowed him to transform his illustration major into a professional and intellectual blueprint for a life of cartooning.

Cartoonists seem to be returning to favor among the heroes of popular culture. On American campuses these days, cartoonists like Gary Larson and Berke Breathed pack assembly halls; Larson’s appearance on campus in early February drew a capacity crowd to Graham Chapel — hundreds were turned away at the door. Today’s book publishers love cartoon collections, too, because book buyers do.

And, of course, the syndicates that distribute the strips and panels to newspapers and magazines are ecstatic when cartoon characters are taken to the public’s bosom, spin off into television specials or commercials (whose name is on that American Express card, anyway — Garfield’s or creator Jim Davis’?), and help sell toys, and T-shirts, and calendars, and tons of other highly profitable merchandise. Garfield and Opus and Charlie Brown are not just cartoon characters. They’re franchises.

Even the editorial cartoonists enjoy special standing among the purveyors of media opinion. They have a visibility not shared by anonymous editorial writers. How much more often have you

Comic inheritance: Senior Steve Edwards (left) hopes to join other Washington University alumni — like Pulitzer Prize-winning cartoonist Mike Peters, B.F.A. ’65, Mort Walker (of “Beetle Bailey” and “Hi and Lois” fame), and Jim Meddick, B.F.A. ’83, Edwards’ predecessor at Student Life and author of the syndicated “Robotman” strip — on the drawing boards of life.
heard, "Did you see Oliphant's (or MacNelly's, or Peters', or even the infamous Garry Trudeau's) cartoon this morning?" than, "How about that second unsigned editorial in today's paper?"

Cartoons, wherever they may appear, are more than they seem at first glance. They amuse and divert, yes; the comic pages are full of strips that don't stretch beyond simple entertainment: "The Girls," "Blondie," "Drabble," "Boner's Ark," to name a few. But cartoons outside the opinion pages can also educate, irritate, shock, puzzle, and proselytize.

A short generation ago, controversy wasn't such a staple of the funny pages, with a few exceptions. Walt Kelly's "Pogo" introduced some likable anthropomorphic critters who satirized America's foibles, especially its politics. Al Capp's denizens of Dogpatch in "Li'l Abner" sometimes twitted, sometimes offended. But most comic strips aimed to be funny, or at least no worse than silly, innocuous soap operas (of the pre-sexual-revolution variety).

Today some serious stuff assaults our groggy minds over our morning coffee.

Edwards' point of view can hardly be called detached; he is passionate, intense, and ready to confront anything he sees as harmful, silly, useless, wasteful, shortsighted, or just plain dumb.

Consider how many times in the past decade Trudeau's "Doonesbury" has been censored by newspaper editors and its creator censured for social comment beyond the limits of acceptability. Despite his battle scars, Trudeau successfully opened the door for a new generation of cartoonists who continue to stretch the scope of the cartoon, who grittily leap back and forth across the crumbling wall between mere entertainment and more serious purpose.

Like Berke Breathed and "Bloom County," Through the strange and wonderful characters who people this mythical place, the cartoonist makes sometimes funny, sometimes scathing social comment. A disabled man whose wheelchair is a vehicle for expressing what people have in common, rather than what makes them different. A pre-adolescent whose uncommonly familiar anxieties run the gamut from parental relationships to -- gasp! -- sex. And an interspecies courtship between a human female and an all-too-human penguin that explores the silliness and predictability of modern relationships. Opus the penguin has for many become the nonhero's hero for our times.

At an age when most of his contemporaries probably haven't been at much of anything for more than a couple of years, Steve Edwards can trace his urge to express himself through cartoons back through this modern history of cartooning to toddlerhood, when his first heroes were, in fact, cartoonists. "I have cartoons that I drew before I really knew how to write," he says. "Growing up, cartooning became something that I identified with. In grade school and junior high and high school, I did it because I enjoyed seeing my work in print. Now I've moved from the need to be approved to the need to
Cartoonists are still among Steve’s heroes. “I admire Trudeau a lot for breaking the rules. And Charles Schulz — I think people don’t realize anymore how much he revolutionized the field. And Jules Feiffer. He has his own style and way of saying things, and he’s not afraid to change his mind, to contradict what he’s said before.” When he talks about the cartoonists who excite him — the innovators — he seems ready to spring from his chair.

He speaks with special admiration for those, like Jeff MacNelly and Mike Peters, who move with grace between the editorial pages (read: journalism) and the comic pages (read: entertainment). He plans to emulate, not imitate, his heroes and role models. “There’s got to be some kind of balance between reflecting what is successful, and pioneering, making a name for myself,” Edwards says. “What I’m doing now is looking for my own voice.”

While he looks, he takes careful notice of what the others are doing. He buys all the books, reads the history, studies the trends, and keeps turning back and forth from the funny pages to the editorial pages. And he continues to learn, with incredible, enviable energy.

His strip in Student Life, “Fleetwood,” reflects what is going on on the campus of a familiar Midwestern university in the mid-1980s. As campus cartoonist, Edwards had the unenviable task of following in the footsteps of his immediate predecessor, Jim Meddick, B.F.A. ’83, whose college strip, “Paperback Writer,” gained him nearly immediate entrance into the world of syndication; Meddick now draws the “Robotman” strip for newspapers across the country. But even more intimidating to a less secure novice might have been the trail left by another alumnus, Mike Peters, creator of “Mother Goose and Grimm” and winner of a Pulitzer Prize for his editorial cartoons.

People will ask Edwards: “So you’re going to be another Jim Meddick?” or “You’re going to be another Mike Peters?” Steve winces, but such comparisons are to be expected. Both Meddick and Peters followed the same course as Edwards, graduating from the School of Fine Arts (Peters in 1965) and honing their skills on the staff of Student Life.

But the Washington University connection is the key here. "Togetherness is the key here. Only together can we learn to trust each other. Yes, trust. Yes indeed." Arms Talks: Schultz Talks Gronyk.

Together, we can trust each other. Together, we can disarm. Together, we can stop this insanity! Together, we can trust each other! Together, we can disarm! Together, we can trust each other! And we can disarm! Together! Trust! Peace!! Disarm!! Together! TOGETHER!!

Two other nationally syndicated cartoonists besides Peters and Meddick have studied on the Washington University campus. Dan Piraro, a Texan who creates the offbeat panel “Bizarro,” sojourned briefly in the School of Fine Arts in the 1970s. And Mort Walker, one of the most durable of active cartoonists, attended U.S. Army-sponsored illustration courses taught by regular fine arts faculty as part of his World War II training. Walker, best known for “Beetle Bailey” and “Hi and Lois” (in both strips college buildings eerily resemble Brookings Hall), is a founder of the Museum of Cartoon Art.

When (not if) Steve Edwards makes his mark in the cartooning world, he will become the fifth active cartoonist with the Washington University connection. Is it something in the water supply? Or some invisible emission wafting through the studios in Bixby Hall that makes otherwise sane human beings want to test the waters of popular taste and brave the rigors of daily deadlines?

Twice named College Cartoonist of the Year by the College Media Advisers, Edwards has without a doubt already come into his own. “Fleetwood” has
ON BECOMING A CARTOONIST

The humorist who shows us most clearly our shortcomings — not our strengths — makes us laugh the hardest. Tragedy is the core element of humor. Just as laughter and tears spring from the same source, perhaps we laugh at ourselves because, in recognizing the common condition of our brokenness, we are encouraged to move towards healing. This is why the roots of humor must often be frustrating, grief, or loss, if the message is to be one of hope, of laughter.

The foundation of the cartoon must be the concept. And when imaginative, bold drawing springs from a personal style to carry that message, the art-form speaks in its deepest and most complete sense. Then the impact of the message cannot be missed. I do want to write, yes, but I am at Washington University on an art scholarship. I am an illustration major and see the visual art of cartooning as a profoundly important element in my decision to enter the field.

If it is my job to write about the world, I have a tremendous amount of research to do. It is my responsibility both to grasp historical analysis of past systems and to remain aware and informed regarding present directions my society and my world take. To give intelligent, accurate social commentary requires that I ask myself “What’s really at issue here? What is the root of the problem? What must be done and by whom? And what do I need to say about it?”

—Steve Edwards

Bond is a Liar and a Jerk

Woods is a filthy Mudslinger

“ME? I’M NOT SURE YET ... WHO YOU GONNA VOTE AGAINST?”

Edwards '86
Washington & Lee Univ.

Growth in scope and in the quality of the drawing and the writing as its creator has grown and matured and found new heroes. He can recognize a shared idea in the works of Tolstoy, find inspiration in a symphony, see basic human truths through the rhetoric of politicians and theories of economists. He has abandoned the naive notion that he could ever solve one of society’s problems with a stroke of his pen, but he remains determined to change things, one chuckle, one wow!, one step, one mind at a time.

“Fleetwood” deals with the limited world of the campus, a narrow worldview; it reflects Steve’s real-life experiences so far. But he isn’t likely to set such narrow limits for himself in the post-college world. Many popular cartoons, like “Ponytail” or “The Family Circus,” stake out small areas in the world of ideas where only so many plot twists or viewpoints are acceptable. Some have struck paydirt with this strategy: Cathy Guisewite’s “Cathy” is the satiric heroine of Yuppie-dom.

Another group has chosen to avoid familiar territory altogether: from Nicole Hollander’s “Sylvia” to Gary Larson’s “The Far Side,” they tread the fringes of what is, by consensus, thought funny. Sometimes the cartoons click, but too often the average comics reader reacts with a blank stare. (Perhaps those readers are searching too deep. Asked what “Sylvia” is about, Steve says, “It’s about a lady who sits around typing dumb, flaky things. And yet, some days I think she’s brilliant.

Innovating means taking risks.”)

Edwards’ point of view can hardly be called detached. His eyes flash, he is passionate, intense, and ready to confront anything he sees as harmful: silly, useless, wasteful, shortsighted, or just plain dumb: the attitude of asbestos manufacturers, for example, or the plight of the homeless, or the excesses of the media. His eyes dart; he’s not quixotic, but thoughtful, practical, conscious of his environment. And they twinkle; he has learned, or knows instinctively, how humor can be a prism to refract events, attitudes, behaviors, and ideas into concise, simple images that touch the common ground. His own emotions, philosophy, and perceptions control the focus.

If he seems singleminded about his career choice, he is multidisciplinary in drawing together influences to support that choice. “That’s exactly what a liberal arts education is all about,” says David Hadas, associate professor of English literature, who supervised an independent study course for which Steve wrote (and illustrated with his own work) a 70-page report.

In his independent study project, Steve describes learning as a series of leaps from one plateau of thought to another. Drawing from his exposure to literature, political science, economics, sociology, journalism, theology, and philosophy, he traces his journey to learning. He talks of being free: released from attachment to old ideas, freed to explore new ideas and relationships, to “wander wide-eyed” in
search of new meaning. He defines cartooning as a serious artistic medium and a forum for social commentary, and he defines his role in the profession. "He's so confident and grounded in himself," Hadas says. "It's a delight for faculty to work with someone like that."

But it's just as instructive to hear Steve talk about "writing" a strip or a panel, even one in which no words appear on the page. Of the two fundamental skills one might believe indispensable to cartooning — writing and drawing — writing, in his view, clearly predominates. "If you know how to draw and you don't know how to write, the cartoon won't go over," he says. "If you know how to write and don't draw well, the cartoon can make it." If, of course, you have ideas worth writing about in the first place, and can express them in terms that ordinary people can understand, and can do so in a way that gets their attention but doesn't persistently offend them. "Cartoonists are people who have ideas and interpret them for others," says Jeff Pike, associate professor of fine arts and Edwards' faculty adviser. "Steve is curious, intelligent, mature, and has those interpretive skills, as well as artistic ability."

So, to writing and drawing, add an appreciation of art, literature, and scholarship; perception; empathy; and a clear recognition of the rules of the game. Edwards says, "If I make a cartoon subtle, the readers will pay attention. If it's provocative, they'll think. If it's original, they'll remember. And if it's funny, they'll come back. I have come a long way, but I'm still dissatisfied with my work in a lot of respects. I think as long as that continues, I will continue to push the boundaries."

All the way, one suspects, to the Museum of Cartoon Art, where he will join others who have refined their art here, in a corner set aside for Washington University cartoonists.

John Hansford is a writer and editor in the Office of Alumni and Development Programs at Washington University who reads the daily newspaper by first turning to the funny pages.
On Remembrance of Things Past and on teaching Proust, who will never learn.

by Howard Nemerov

The name of the course is The Modern Novel, and the book assigned for the term’s reading might indeed be a candidate for the title The Modern Novel, its melancholy, elegance, pride, reflexiveness, all make it that. It is Proust’s *À la Recherche du Temps Perdu*, translated into English by Scott Moncrieff and Fredrick Blossom.

Reading schedule. Perhaps the assignments will be for you unduly modest, and the pace might well be stepped up. I’d rather not, meself, as I belong to an age before speed-reading. And this is a book belonging peculiarly to solitude and meditation; indeed, I have heard that several persons who tried to speed-read their way through Proust had to be sent to asylums for more or less long periods of rest; so what you win on the swings you lose on the roundabouts.

On being bored by Proust. It can happen, and doubtless will. This author no less than other great men has his longueurs in some plenty. But to be now and then tired and impatient with his excesses, for instance of description and analysis, is one thing; to realize that this author is simply not for you, or not for you at the present moment in your lives, is quite another. The university calendar allows you until 13 February to find this out free of charge; after that the lesson will cost you five dollars.

Note on nervousness, and the classical Freudian interpretation of it as the speaker’s own hostility projected upon his audience. Would say about this that I am not conscious of feeling this hostility toward my students, save as the unintentional occasions of my having to do a lot of work and hence a damn nuisance; but that’s the way with the Freudian psychology; it’s got you coming and going. If I don’t feel the hostility, that means merely that it is as they say *latent*. One learns to live, said Merleau-Ponty, with this merciless interpretation.

Anyhow, the spectacle of ever so many people reading as it were in chorus this so solitary and meditative work brings embarrassing analogies to mind: telling the rosary, spinning the prayer wheel . . . but doubtless I shall have somewhat more to say of the prayer-wheel theory of modern education later on.

I shall begin today’s talk with a few notes of self-pity and appeal to you for a sympathy which I hope you will remember sometimes to extend to every teacher of modern literature with whom you study.

When I went to college, modern — that is, twentieth century — literature was not much studied. We read it on our own, and delighted in secret, and fancied ourselves a cut more advanced than our teachers. Then, a few years ago, perhaps in 1960, T. S. Eliot was heard to remark somewhat wearily that he did not think modern literature should be taught in the colleges. In the interval of twenty or so years, however, modern literature
had been massively studied in the colleges. I think this happened largely because a small number of works produced around the period 1914 to 1924 were very difficult, and these gave the whole of modern literature a reputation for formidable difficulty, or as it was then called “obscurity.” A species of criticism grew up to meet the challenge and was presently labeled the New Criticism. This criticism concentrated its efforts on interpretation of difficult works, and its words for interpretation were characteristically technical-sounding; books were not for reading, so much as for “analysis” and “explication.”

My simplified memory of the early part of this period seems to say that this kind of close reading was invented as a guide to half-a-dozen poems of Eliot, Joyce’s Odyssey, and the songs and sonnets of Donne, plus perhaps Marvell’s The Garden. And it was, in this country at least, a rather piratical movement, a little outside the academy, and rather given to sniping at historical scholarship and the Ph.D. for being critically inadequate and for directing attention away from the work being discussed rather than to it. To be as brief as possible about it (and I warn you that this is only my opinion, or dream, about what happened): the original freebooters received the Dean’s pardon and presently became full professors.

The movement, by now named New Criticism for good or ill, invaded the academy, where it flourished wondrous well and sent out invading armies of bright young instructors in the direction of Shakespeare’s plays and the modern novel even while as a method this sort of criticism was subjugating such outlying countries as psychoanalysis, anthropology, and theology; and for quite a while, maybe fifteen years dating from 1940, all this looked extremely good. Students read so atrociously, perhaps, that it was no trick at all to teach them to read better, for the only direction open to them was up, as I. A. Richards had shown in his Practical Criticism a long while before.

And the teaching of modern literature was massively instated in college education. Whereupon two other things happened. At least two. The teaching had some effect, maybe only by osmosis or as contaminating the atmosphere so that everyone breathed it in willy-nilly, so that the teacher could no longer astound his pupils by pointing out, say, the ambiguity (as it was called) in the word die when used by an Elizabethan poet. For the pupils knew that already. The other thing that had happened, though, was that for the most part modern writers were letting us down. Either they were difficult in a way that was not amenable to New-Critical treatment (Pound in the Cantos), or they just weren’t very difficult. But by now a great deal of time and money and learning and feeling had been invested in the industry, and no one could easily quit.

To this predicament there were in the main, again, two solutions that blended readily into one: teach easy works as though they were hard ones; and make criticism itself much harder, more systematic, more rigorous, more of a method. This answered tolerably for a while, but one could not get rid of an uneasy sense that it was leading in the direction of idolatry. Moreover, a great many people, especially students, began to be sick of the whole damn business, and I should judge that from the rise of the Beat movement in the middle 1950s there began a corresponding decline in the fortunes of whatever was represented by the New Criticism; at best, the habit of patient and minute scrutiny of a literary work in and for itself, coupled with a search for its remotest relations in other fields of study.

Thus I suspect — chiefly from my poetry-writing pupils that people went back to reading as casually and sloppily as ever, and it was as if the New Criticism had never done its work. This is of course the lament of a middle-aged teacher, and it’s common, you will understand, for the middle-aged to project their own declining powers upon the world at large and upon their students in especial. Allowing that, as Saint Augustine says, these things are true in a way because they are false in a way, I shall make some application of the foregoing to the difficulties I anticipate in the teaching of Proust’s novel.

Remembrance of Things Past is I think a difficult work, but rather for the spirit and the feelings and the senses than for the critical intelligence. For that last faculty, it is not difficult, because Proust explains it himself at such very great length throughout. Whereupon I warn myself that it would be a teacherly disaster for me to spend much time reading great swatches of the text to you in order to say afterward rather badly what the author has said so well concerning what they mean. On the other hand, it would be equally catastrophic for me to read you passages only in order to exclaim “How beautiful!” While we have a highly developed terminology for dealing with what things mean, we have little or none for dealing with how things feel; with an author’s way of sensing, his way of putting the world together by, as it were, his own individual variation of the transcendental a priori unity of apperception, or with the soul, rather than the meaning, of his work. And it is with these things that I hope to be chiefly concerned.

I just wanted your sympathy.
novel. It begins with the smallest unit of action: the man alone remembering the child alone, in bed; and it expands by marked stages to bring under its consideration something so large as the First World War and the absolute transformation of society and a generation, the sinking of a great world into dark, defeat, death: yet all this, by the laws of composition of the work, remains within the mind of one man alone who at the end is left contemplating the world he will bring and has brought into being and seen die.

A few abstract observations may make more striking the grandeur of this achievement. If we begin by asking, How do human beings — how do we — see the world? the answer will be: by making up stories about it, or by hearing stories told about it. For the world is largely invisible. Which is to say that it is too big, too complex, too full of people and things, for any of us to see it directly: we have to take, as Einstein tells us the scientist does, synoptic and symbolic views; and we must, as Polonius tells us the plotter does, by indirections find direction out.

If we stop to ask What is a story? and How come stories are possible? we shall get in trouble far too deep for amateurs. A story is the recital of certain facts: that is to say, most uncertain facts, in that they obey mysterious laws of relation: they are bound to one another; these facts, by chronological sequence, but not only so; and they are bound to one another in relations of cause and effect, or ground and consequent, but not only so here either: for a last condition is that they are bound to one another by likenesses and patterns made of likenesses, so that one thing stands for another even while remaining itself. The story is as it were a great metaphor, a great synecdoche, a great metonymy; and, yes, to complete the series of tropes, a great irony as well — for in telling us everything it yet, after all, tells us nothing much, and leaves the world as mysterious when it's done as before it began. The story gives always both more and less than it promises: more, because of the mysterious richness that gathers around the recital of certain facts, and less because when we are drawn to expect the revelation of the truth of existence by its charms and terrors, it always excuses itself smilingly: it's only a story.

It is quite odd, the existence of stories. If you wanted to tell the story of the whole world would you begin by reading all the phone books? Unlikely. More likely that you begin: In the beginning God created the heaven and the earth (already you have a character doing something). Or you begin in the middle of nowhere: There was a man in the land of Uz whose name was Job.

Truly, as Scott Fitzgerald said, it is a novelist you begin with something in particular it may if you are fortunate turn into something of universal import; but if you begin with something of universal import you will end with nothing.

Now the modern world — the nineteenth century to some extent, but the twentieth much more — puts some difficulties of a special sort in the storyteller's way: the size, complexity, and interrelatedness of the world made it harder to take simple account of, even while representative government and democratic institutions, by replacing monarchy, deprived the storyteller of a central image that made a hierarchy of relations for him, wherein family and state were one, as they are for example in King Lear.

But I warn myself and you to take these statements in moderation. Probably the world has been huge and complex since cities were founded and the division of labor instituted; also, if the old world looks simpler than the new it is in large part because our impression of the old world is founded almost entirely and exclusively on the stories it left to us. Moreover, it is the storyteller's art to make triumphs precisely out of difficulties. Nevertheless I think it may be said — in moderation — that something like what I have just observed at least seemed to novelists to have happened, and they responded in three ways.

There were the ones who thought that modern life was too rich in itself to be handled by stories — one of the senses of the word is significantly "falsehood" — and so you had realism; there were the ones — fewer, these — who thought on the contrary that only the story could handle the mystery of life at all — "within our whole universe," says a character in a story by Isak Dinesen, "the story only has authority to answer that cry of heart of its characters, that one cry of heart of each of them: 'Who am I?'" And finally there were the ones, fewest of all, the master novelists, all of them monsters as well as masters, who do both, who can handle without being corrupted the immense quantity of detail that realism demands, and at the end turn out to have been telling us all the while a simple old story about getting lost in the dark wood of the world and getting found again by some benevolent and reconciling strength belonging to world and spirit at once: as in Ulysses and Finnegans Wake: in The Magic Mountain and Joseph: in Remembrance of Things Past.

In conclusion. The instructor who discourages his pupils from beginning the endings of their essays with "And so we see that . . ." especially when no one has seen anything of the kind, or indeed anything much, had better forbid himself the same way out. But all the same there is something to be said, and he should try to say it.

Many wonderful things have been said about teaching, and I will reproduce two while warning you that in spite of my admiration I can't afford either.

Plato comes first, as he should, and in the Seventh Letter says of his own teaching, "There is no way of putting it in words like other studies. Acquaintance with it must come rather after a long period of instruction in the subject itself and of close companionship, when, suddenly, like a blaze kindled by a leaping spark, it is generated in the soul and at once becomes self-sustaining."

There's a Buddhist anecdote I prefer even to Plato. A man in danger of being drowned in a flood grabbed hold of a raft that providentially came by; and was devirfied to safety. In gratitude he strapped the raft to his back and carried it for the rest of his life. I couldn't have predicted the moral, Reader, and nor I think could you. So do all they that live by the doctrine.

But my favorite epitome of teaching and learning, one that works, I now see, in substance, form, and context, is one by Proust. It is remarkable how in old age, after following as best we could every fashion in history, psy-
chology, aesthetics, and so on, we return to the moral, or maybe it isn’t so remarkable, for M. H. Abrams holds it is the most persistent and recurring idea of the function of letters in life from antiquity through the eighteenth century, and indeed it keeps showing through even the most Sorbonnical refinements of the present moment.

The scene before us is this. Marcel, the protagonist of *Remembrance of Things Past*, now adolescent, has made the acquaintance of the great painter Elstir, and is walking with him to Elstir’s summer place at Balbec, when it suddenly occurs to him that this man of genius, this lonely sage and philosopher with his marvelous talk, master of all wisdom, may have been in his youth the silly and corrupt painter once taken up by the Verdurins and known as M. Biche. Marcel, remarkable as ever for his superb tact and social refinement, asks Elstir about this, and is answered. Elstir says that yes, he was indeed that man: “And as we were now already almost at his house, a man less distinguished of intelligence and spirit might perhaps have simply and a bit dryly bade me farewell and afterward taken care never to see me again. But that was not how Elstir dealt with me.” And now there enters another voice for a moment, that of the aged Marcel or of the author, Marcel Proust himself, another wise and deep master who had also been a silly and corrupt young man, and knew it: “In the style of a true master — and this was perhaps, from the point of view of pure artistry, the only way in which Elstir fell short of the true sense of mastery, for an artist, in order to live altogether in the truth of the life of the spirit, ought to be alone, and not spread himself around, even among disciples — in every situation involving himself or others, he sought to draw out, for the better instruction of the young, the element of truth contained therein. So he now chose, in preference to words that might have avenged his pride, words that might teach me something.” The brief sermon follows:

“‘There is no one, however wise he may be,’” he said to me, “‘who has not at some time in his youth said things, or for that matter done things, which he wishes to remember and would wish to have erased. But he ought not to regret them absolutely for he could not be certain of having become wise (in the degree to which that can happen at all), unless he had gone through all the foolish or hateful forms that had to lead up to that last of forms. I know that there are young men, the sons and grandsons of remarkable men, whose tutors have instructed them since their schooldays in nobility of spirit and moral refinement. Perhaps they have nothing in their lives they need wish away, they might publish and sign everything they ever said, but they are pathetic persons, characterless children of pedants, whose wisdom is a nothingness and without issue. Wisdom is not had as a gift, one has to find it for oneself after a journey that no one can take for us nor spare us, for it is a point of view about experience. The lives you admire, the attitudes you find noble, were not arranged by parent or preceptor, they come from beginnings altogether different, being influenced by whatever fashion of wickedness or stupidity reigned around them. They stand for fight and victory. I can see that the portrait of what we were in early days is no longer recogniz-

Marcel Proust

able to us, and would in any event be unpleasant to look at. But it ought not to be denied, for it is a witness that we have really lived, that out of the common elements of life, the life of the studio and artistic cliques (if we are talking about a painter), we have drawn something that goes beyond them.”

It was for the substance that I first admired and loved that passage, and still do. But as I copied it out I saw that in context it represented also the formal situation of teacher and pupil, for while Elstir has been telling Marcel has thought of little else but possibly seeing the little group of girls appear on his horizon, and of his disappointment at their failing to appear.

So there is teacher, handing out the platitudes — this is the order of the alphabet, eat your soup with a spoon — reveling in what a friend of youth, now many years dead, called in his autobiography “the yes-they-are-Eternal Verities,” while Marcel, or Lucretius’ Memnus, or anyone in any class, is dreaming of love.

And so we see that.

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This article has been excerpted from The Oak in the Acorn: On *Remembrance of Things Past* and on Teaching Proust, Who Will Never Learn.

The volume, to be published in May by Louisiana State University Press, Baton Rouge and London, is based on transcribed classroom lectures given at Brandeis and Washington Universities.
Hollis Huston is keeper-of-the-spirit of
Holy Roman Radio, a history lesson disguised as elaborate, intellectual vaudeville.

by Roger Hahn

The original idea behind Holy Roman Radio," explains Hollis Huston, currently artist-in-residence at Washington University and proprietor of what has become a spontaneous, ongoing repertory company devoted to reviving the flagging art of live radio theater, "was to combine my background as a street performer with the talent of Nicholas McGegan, a baroque specialist and superb performer then in residence at the University. We wanted to do some kind of media project, and that naturally meant radio. Radio is cheap, relatively easy, and terribly evocative."

What Holy Roman Radio evokes in its irregular series of broadcasts carried by fifteen National Public Radio stations from Kodiak, Alaska, to Jacksonville, Florida, is historical comedy in the manner of the Golden Age of radio — programming, as St. Louis Post-Dispatch music critic James Wierzbicki describes it, "in the long-lost tradition of parlor entertainment. There is indeed plenty of humor in a series of Holy Roman Radio routines," Wierzbicki suggests, "but the evening is far more sophisticated than sophomoric."

Sophisticated in the sense that much of the acted material is drawn from historical texts — Jane Austen, say, or François Rabelais, or Samuel Pepys — as is the majority of the music. Sophisticated in the sense that appreciating Holy Roman Radio requires attentive listening, an ability to imagine, an ear for the subtle double entendre. Sophisticated in the sense that, although some broadcasts require fair warning of a language advisory, most of the dirty jokes would be above even the most mall-wise of today's worldly teens.

The project takes its name from a loose collection of German states that persisted from the ninth to the eighteenth century and called itself the Holy Roman Empire. It was, as Voltaire once noted, neither holy, nor Roman, nor an empire. But its inflated sense of self provides Huston and company with that heady whiff of intoxicating folly necessary for the undertaking of historical parlor entertainment existing primarily in the mind.

Lovers court or spat, music plays on the lute or harpsichord, a historical figure comments on his life and times. The typical Holy Roman entourage, a trio of actors and a quartet of musicians, enacts a skit or a monologue, sometimes to musical accompaniment, sometimes not.

"For you know that it is not the salary of a place that does make a man rich," a powerful friend tells seventeenth-century English diarist Samuel Pepys, "but rather the opportunities of getting money while he is in that place." Or, a majestic Queen Victoria tells a friend, in a letter, that she will not easily be consoled after the death of her husband. "Now," she confesses, "there is no one to call me simply Victoria."

The eclectic nature of Holy Roman Radio's crazy-quilt approach to historical parlor pieces is also its genius; the madness of its double-edged historical reference — antique scripts in an outmoded format — is its sober-minded method. For performer and listener alike, there is more to the distracting, attenuated air of Holy Roman Radio than meets the ear. "People familiar with literature and history like the program," observes Rob Thomas, a producer at NPR affiliate WJCT in Jacksonville, Florida. "But Holy Roman Radio also has the power to introduce people to history. The warmth and intimacy of the radio format bring the characters to life."

A history lesson, then, disguised as elaborate, intellectual vaudeville, begun on a lark one April Fool's Day in 1983 when Huston and McGegan slapped together a pastiche, "In Praise of Folly," in Washington University's Edison Theatre. Huston, a hefty, lantern-jawed, classically trained actor whose earnest manner is as at home doing TV commercials as it might be in
Making waves: "The aesthetics and philosophy of performing live are important to me," says artist-in-residence Hollis Huston, shown above in rehearsal. "Both radio and live performance demand a willingness to listen for longer than contemporary life usually requires."

broad farce, was hell-bent on keeping his performing credentials alive, continuing the work he'd done several years earlier as part of a mummers' troupe in Delaware. There he took variations of the medieval St. George play around to malls, public parks, and retirement homes. Enter McGegan, a celebrated conductor of what is known as "early music," who is now conductor of the Philharmonia Baroque Orchestra of the West, in San Francisco.

"Nick was teaching in the University's music department at the time," Huston recalls, "and he agreed to go in with me, but confided that his specialty was actually baroque and 18th-century music rather than medieval and Renaissance. So right away," Huston observes, "we had broadened the scope of things by a couple of centuries!"

Huston also discovered that this first-rate musician was an invaluable social historian. "The great thing about Nick was that he knew the period that had produced the music. He knew the literature, the journals, the events. Actually, during the first couple of shows," Huston confesses, "Nick was a more dominant personality than I was."

But it is Huston who has kept the imaginary, often-improvised troupe formally known as the Holy Roman Repertory Company alive through five years. While McGegan returns on occasion as a spotlighted guest performer, Huston serves as scriptwriter, stage manager, advance man, and general all-around keeper of the Holy Roman spirit. He even caretakes the show's self-distribution network, buying time on NPR's satellite and touting the offering to affiliates around the country.

Over the years, Holy Roman Radio has refined its format while broadening its audience. The first segment recorded for broadcast, by St. Louis NPR affiliate KWMU-FM, which continues to produce the show, was, even by Huston's standards, "mad stuff. We did 33 scenes in 29 minutes, and the text and music covered a range of eleven centuries." Later shows settled into thematic collections and finally coalesced as reflections of particular personages, holding firm to the expression of one personality and a single historical era. The current format comprises three one-hour shows a year, but the endeavor is flexible enough to adapt, for instance, to a lunch-hour perfor-

One constant is the presence of an audience. In the beginning, 75 ticket-buyers was a healthy turnout. But this winter more than 500 showed up for a benefit performance at the Sheldon Theater in St. Louis, and many had to be turned away at the door.

Performing live is part of the package. "The aesthetics and philosophy of that are important to me," Huston insists. "Both the radio and live performance demand a willingness to listen to words and music for longer than contemporary life usually requires. We alternate the words with music because attention spans are shorter — there's no getting around it — but we trust the spoken word and the stringed instrument."

In its most recent incarnation, the repertory company, composed according to participants' busy schedules, relies on Jeffrey Noonan, a Ph.D. candidate in Washington University's music department who has replaced McGegan as musical director, and Agnes Wilcox, an accomplished actress and director. Drew Minter, a young, critically acclaimed countertenor featured in the recent benefit performance, has also become a semiregular member of the proceedings.

The most obvious comparison to the world of Holy Roman Radio are the sheltered environs of Lake Wobegon, Minnesota, the mythical township chronicled each week for the past thirteen years on Garrison Keillor's immensely popular Prairie Home Companion, which will be broadcast live for the last time this June. Although both are purveyed on the NPR network, and both attempt to reinvigorate the cachet of live radio performance, Huston is quick to point out the differences. "Nobody does radio theater the way we do," he insists, "in a live format that relies mainly on the actors' performances and period music. Traditional radio theater usually refers to actors gathered around microphones staying within a realistic convention. And we're not a variety show. Our shows have a thematic and musical unity as well as a social and historical unity. I like to think of us as our own art form."

And seldom an argument does he hear.

Roger Hahn is editor of Washington University Magazine.
THE CALL OF THE WILD

by Carol Farnsworth

Brindled Hope and Rust, a pair of red wolves whose species is extinct in the wild, had never met before last November, when the two, born and raised under the watchful eyes of humans, were left alone together in a 50-square-foot chain-link pen at the end of a muddy, single-lane road that winds its way through a remote peninsula of coastal North Carolina.

The meeting, a sort of extended blind date, is, in reality, an appointment with the destiny of their species. It brings the U.S. Fish and Wildlife Service one step closer to its goal, which would be a first: the successful reintroduction of a major North American predator into the wild.

The Fish and Wildlife Service hopes that when it releases four breeding pairs this May into their natural environment, the result will be litters of pups raised outside captivity. If this beachhead population grows to at least 25 within a few seasons, it would prove to scientists and wildlife managers that humankind can indeed right a crime against nature.

Across the country, a network of specialists involved in the federal project is tracking its progress with keen interest. Those specialists include Washington University geneticists Alan Templeton and John Patton, and Bill Malloy at the University's Tyson Research Center. Templeton and Patton have performed genetic studies to authenticate the red wolf as a species separate from both the larger gray or timber wolf, and the smaller coyote. Malloy is administrative director of the Wolf Sanctuary, which leases land on Tyson's rambling, wooded acres southwest of St. Louis. He helped raise Brindled Hope and identified her as a prime candidate for the North Carolina experiment. "She's aggressive and affectionate toward males," Malloy insists, "and success at producing offspring in the wild is an essential qualification for this project."

The release and successful breeding in the wild of four pairs of red wolves holds hope for the survival of a timid, high-strung animal nearly erased from the Earth by human fear of wolves; there are still those who believe that wolves are bloodthirsty fairy-tale villains who carry off children and dig up graves. But the red wolf — *Canis rufus*, a true native of North America — avoids humans; it is shy, secretive, and nocturnal. Only about half the size of the bolder gray, the red wolf almost always hunts alone and preys mostly on rabbits and other small animals.

"These aren't pack animals," says Warren Parker, director of the project for the Fish and Wildlife Service. "The red wolf doesn't blow down doors and eat Little Red Riding Hoods. It's a different critter altogether."

What brought the red wolf to the brink of extinction is a now-too-familiar story, intensified by human hatred. Two hundred years ago, the red wolf roamed the hardwood forests, marshlands, and cane-brakes of the southeastern United States. But deep cover shrank as land was cleared for crops and towns. A century ago, livestock owners, convinced that all wolves were dangerous, set out to eradicate them. In 1890, a dead wolf of any color brought a handsome $20 bounty. Federal predator-control poisoning further diminished their ranks.

The red wolf's last stand was in the Gulf Coast marshes of southeast Texas and southwest Louisiana. By the mid-1970s, time was running out. To make matters worse, coyotes had encroached
on the scruffy, mange-ridden red wolf. When a female in heat could not find a male of her species, an amorous male coyote always seemed available. The result was a population riddled with hybrids, which cannot sustain the strength of either species. Federal biologists rounded up every red wolf they could find — about 400 — and then labored through the tedious task of culling the hybrids.

Even red wolves that looked untainted by coyote blood had to be mated to be sure they were pure. The result was worth the effort: 40 healthy reds certified the genuine article. After five long years of preparation, the project finally began. The captive breeding population, divided between Tyson and a Tacoma, Washington, site, supplied animals to zoos and produced candidates for the North Carolina experiment. Last summer eight animals, one from Tyson and seven from Tacoma, were selected from the total population of 75, and plans were made for their relocation to the shrubby bogs and wooded swamps of the Alligator River Wildlife Refuge.

On a cloudy day last November, the wolves were flown to Raleigh and then ferried by Coast Guard helicopter to the airport at Manteo, a rural town on Roanoke Island near the refuge. The cargo, eight plastic cages marked "Endangered Species — Red Wolf" came off the copter one by one and were loaded into waiting pickups.

At the pen chosen for Brindled Hope and Rust, she was unloaded first. Covering in her cage, she screeched to its rear, giving in to gravity with reluctance as her hosts tilted the cage forward. Gently but firmly held to the ground by handlers, she was fitted with a radio-transmitter collar and then returned to her cage. Rust was next, his countenance angry in contrast to the female’s look of resignation.

Then, together, they were released into the compound. The male immediately slunk to the back of the eight-foot-high pen and circled until the female seemed to acknowledge him. Together they quickly disappeared into an above-ground earthen den built for them.

If the animals thrive in their new bog-and-forest-filled home, U.S. government biologists will push ahead with their five-year plan to establish two other permanent wilderness homes for the endangered species. "We have a mandate under the Endangered Species Act to reintroduce these animals wherever possible," says Warren Parker.

The eight animals are gaining weight and acclimating well to the isolated reality with a bolt or a floating trot, the refuge will swallow them up quickly; so dense is the tangle of undergrowth and so perfect the animal’s natural camouflage — a coat of dulled cinnamon — that even a few feet in, they will be invisible to the few people who live on this sparsely populated, 120,000-acre peninsula of Dare County.

Although the wolves’ whereabouts will be detectable through radio collars, Parker and his team realized they needed more than technology to assuage concerns of local citizens and convince them that red wolves make good, though seldom seen, neighbors. Negative public opinion killed a similar red wolf project in Land Between the Lakes on the Kentucky-Tennessee border in 1983. In North Carolina, the wildlife managers met with citizens’ groups and held public hearings in little towns like East Lake, Manns Harbor, and Manteo. There were grumblings, but the consensus was that the red wolf needs a new home, and probably no place is better suited to provide it than this isolated refuge teeming with marsh rabbits, opossum, black bears, wildcats, raccoons, alligators — and no coyotes.

As University geneticist Patton puts it, "We know what we have destroyed. But we also know that if we give the red wolf the right opportunity, it will come back. If we can keep enough red wolves around so that a red wolf can breed with a red wolf, we have a decent chance of establishing wild-raised individuals." Patton says once the beleaguered animal’s odyssey reaches that point, "Mother Nature will take her course and allow survival of animals best adapted to continue their species."
Sentimental journey: This is how 67-year-old Jacques Chicoineau (B.S. '64, M.A. '69) remembers the house in Mantes-La-Jolie, France, in which he was born and in which he lived until the age of 12, when his family moved to Paris.

For 25 years a teacher of French, Chicoineau came to this country in 1959; his memories of his homeland and of leaving it have been captured, along with those of 20 others, in an exhibit, The Immigration Experience, sponsored by OASIS (featured in a story beginning on page 8).