Cover Story: Pushing Deadlines Page 8. Student journalism lives!


Comics Aren't Just Kid Stuff Page 20. Star-spangled good guys carry a social message.
LETTERS TO THE EDITOR

The Review welcomes letters from readers and will print as many of them as space permits. Letters may be edited for brevity and clarity. Unsigned letters cannot be used, but names of the writers may be withheld on request.

Hardly Matters

The part of my world reserved for appreciation of a great university has been SHATTERED! by the subtitle of the lead feature article ["The Path from Bryant Pond"] of your Fall 1988 issue: "Were today's collegians all stamped from the same cookie cutter? NOT HARDLY. For starters. . . ."

The capitalization is mine to emphasize the point.

Please let me know what you think is the correct meaning of the two words "not hardly."

I suspect you meant to say "hardly."

Has one of the last bastions fallen into sloppy writing; has the editor become a rubber-stamping functionary? I am sorely disappointed.

H. Milton Peck '50G
Rio Rancho, N.M.

Oh, dear. We had no idea when we indulged in that bit of colloquialism that it would prove such a shattering experience for some of our readers (Peck wasn't the only one we heard from on the subject).

No, your editor is not a rubber-stamping functionary (you can ask her boss or her writers). The use of "hardly" in the double-negative construction was deliberate—as an intensifier, a usage characterized by our most recent office dictionary (Random House, unabridged, 1987) as "jocular" when found in the speech of educated persons. Questions of jocularity to one side, we were pleased to learn there was that much concern out there for careful use of the language. But, knowing Rochester graduates, we were hardly surprised—Editor.

Scott and Ernest

When you mix up Hemingway and Fitzgerald, I can't let you off "Scott" free.

In your note at the bottom of page 7 in the Fall Rochester Review, you state, "to paraphrase the other Hemingway, the intellectuals are different from you and me..." It was Fitzgerald who said in "The Rich Boy," "Let me tell you about the very rich. They are different from you and me."

You were simply too much in "Ernest." But the article was excellent, and the Review is always first-rate.

Michael Bobkoff '65
Valhalla, N.Y.

He's right, of course. But so is Denise Bolger Kovnat, author of the article. Referring to Fitzgerald by the fictional name of Julian, Hemingway wrote in "The Snows of Kilimanjaro": "The rich were dull and they drank too much. . . . He remembered poor Julian and his romantic awe of them and how he had started a story once that began, 'The very rich are different from you and me.' And how someone had said to Julian, 'Yes, they have more money.'"

In the interest of literary symmetry in her story about Terry Hemingway, Kovnat chose to go with Ernest rather than Scott—Editor.

Original 'Contract'

Your excellent review [Fall 1988] of an extraordinary book, Contract on America by David Schein '69, calls it "a new book."

For the past four years I have used Dr. Schein's book as required reading in my criminology course. It was originally published as a paperback in 1983.

We enjoy your publication!

Sherman W. Selden '55G
Plymouth, N.H.

The 1988 hardcover, published by Shapolsky, was based on the privately printed 1983 paperback—with the addition of, Schein says, "one year of heavy work," resulting in a substantially different, expanded version. A paperback edition of this version is scheduled for publication later this year—Editor.

Taking Over the Big Apple (Medically Speaking)

I was delighted to read the story, in the Fall 1988 issue, discussing the recent appointment of Dr. John Rowe '70M as president and chief executive officer of New York's Mount Sinai Medical Center. The article notes that another illustrious Rochester graduate, Dr. David Skinner '56, is president and CEO of New York Hospital. But there is yet one more "major medical facility" in New York whose president and CEO is a Rochester alumnus—me (63M). In fact, I hold these titles not only at Beth Israel Medical Center (934 beds), but also at Beth Israel's affiliate, Doctors Hospital, which has 263 beds.

All in all, 3,737 acute-care beds in New York City are in hospitals under the aegis of Rochester graduates; I hope this does not stir paranoia about a possible plot by the University of Rochester to take over the Big Apple!

Robert G. Newman '63M
New York City

We're happy to hear from Dr. Newman. Any more of you out there taking part in the Big Apple plot?—Editor.

Room for (at Least) One More

Do you have room for any more WRUR memories? Concerning the matter of the first female station manager, Joyce Gilbert '58 wrote in the last issue that she holds this distinction, not Suzanne Weiss '76.

Round Three: In the early years of the revitalization of WRUR—when it moved from Burton to Todd Union, I was chief engineer. I recall that in the academic year of 1956-57, Ann Dalrymple [Baird '57] was station manager, and thus probably the first female station manager (see Interpreters 1957).

I remember long nights over several summers building the new studios with a great deal of help from George McKelvey '50, '58G, then working at the University, and a classmate, Gordon Spencer '57, '63G. Not only did we manage to broadcast Rochester football over a local station (billed as "Big Time Small College Football") but we continued the dedication of probably the earliest student catalyst for broadcasting on campus, Dave Luehring '55, who I believe was responsible for the building of the Burton Dormitory studios in the early '50s.

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Features

The Fat of the Land
by Jan Fitzpatrick
Obesity, says Gilbert Forbes '36, '40M, is second only to tooth decay as a major nutritional problem in this country.

Pushing Deadlines
by Thomas Fitzpatrick
Campus journalism: From the days of linotypes and hot lead to the era of computer readouts and photos mechanical transfers, deadlines are what it's all about.

The Wolf Effect
by Robert Kunzig
What we see in the sky is not always what it seems. And a recent discovery may make some of it even less so.

Comics Aren't Just Kid Stuff
by Denise Bolger Kovnat
Was red-haired, cipher-eyed Annie really just a capitalist tool?

Our Man at the Met
by Jeremy Schlosberg
Raymond Gniewek '53E plays second fiddle, as it were, to a dazzling amalgam of music, acting, set design, lighting, costumes, and special effects. And he finds it exhilarating.
Listing Toward Stardom

One of the 53 known metaphysical paradoxes of the Republic is the fascination of this democracy with rank. Having done away with knights and earls in the interest of the common man/woman, we haste to check the latest headlines for who’s on/at first. I suppose everyone has been accustomed to this practice of listing the largest corporations, the wealthiest individuals, the tallest building, the plumpest squash—what is new in the rank race, however, is the ranking of educational institutions. No nobility, but where is Duke relative to Princeton?

The University of Rochester is caught up in the ranking game willy or nilly. Last year we were 12th among private universities in the amount of outside research funds received. The Medical School is among the top 10 in the percent of faculty who are principal scientific investigators. The Simon School recently was listed in the top 20 in business schools nationwide by Business Week. Several years ago the School of Nursing was 17th in a poll of nursing deans on the question of quality programs. The School of Education was in the top 50 selected by the Ford Foundation for a conference of leading education schools.

On the other hand, we have made some lists and been ignored by others that we would just as soon not. Somehow Rochester landed relatively high in a list in USA Today for “crime” on campus (through faulty methodology, we contend). In a conglomerate list of the 125 top universities and colleges by US News and World Report, we were conspicuously not there. The time has come to enter the lists against lists.

I offer a descending order of quibbles against any ascending hierarchy of universities and colleges. In the first place it seems unseemly. I fully expect that some daring daily will soon publish a list of the outstanding churches of the country: four halos is positively sanctifying, three halos mildly edifying, and so on. The value and complexity of education (and salvation) make these sorts of sortings a mildly tasteless undertaking from those wiser (holier) than whoever.

Perhaps fastidiousness should be ranked below consumer full disclosure. There are, after all, some dubious church goings-on, and one would assume some higher education is not so very elevated. We obviously believe that the University of Rochester is better than lots, so there must be some scale of value. Indeed there is but in big bunches not in micro distinctions.

The US News list is a fascinating case in point. What value should one accord to a list of the top 125 which includes Oral Roberts University and excludes the University of Rochester? No offense to Brother Oral. I have at times admired his energy and even considered locking myself in the tower of Rush Rhees as part of the next major fund campaign. But honestly, all you good folks in Tulsa, Rochester is really better.

The logic of the US News list is equivalent to asking for the top 125 baseball players in the country. You take 25 from the major leagues, 25 from the International League, 25 from the Pacific Coast League, 25 from the Little League, and 25 from the Des Moines Garage Mechanics Amalgamated Softball Association. I bet that all those folks play a pretty good game any Sunday afternoon but it is no list of the nation’s stars. In my analogy, Rochester is in the major leagues, and if you are looking at star players that is where they are found.

In past years the US News poll has ranked universities within categories (major research, liberal arts, regional, etc.) as other university presidents perceived quality. I am not sure that is the proper cloud of witnesses. At least it is certain that no one needs a group of university presidents to discover that Harvard or Stanford are leading institutions. A random selection of subway conductors could tell you that!

The current US News effort is more “scientific” in that it gathers all sorts of quantitative measures of “quality” and feeds them into a secret formula to produce the rank order. The results are about as good or bad as the opinions and whims of college presidents. The same institutions are at the very top and life scatters badly below 12. In any absolute list I am prepared to argue dogmatically that Rochester is 16th or 26th or 36th—but not one step below that.

One might think that the principal sensible factor used in the US News machinery is academic scores of the (continued on page 45)
The **FAT** of the Land

Why do so many bouncing baby boys and girls grow up to be big bouncing grown-ups? A Medical School professor has a very simple answer.

By Jan Fitzpatrick

Something, it seems, is amiss. Despite "lite" foods, diet pop, and advice in every issue of women's magazines on slimming down or shaping up, we are a nation of fannies, where one out of every three of us is overweight. And despite the proliferation of diet books on the best-seller lists, pot bellies aren't melting away, and queen-size pantyhose aren't vanishing from supermarket shelves.

Obesity, says Dr. Gilbert Forbes '36, '40M, is second only to tooth decay as a major nutritional problem in this country. After spending nearly a quarter of a century investigating the role of what we eat in determining whether we become lean and strong, or pudgier than the Pillsbury dough boy, Forbes has learned some simple—if hard—truths. One of them is that if you feed people too much, they will gain weight.
Count on it, Forbes has the facts to back it up. That may not seem startling on the face of it, but after decades of hearing people blame their metabolisms, their genes, or even particular foods, for their inability to either lose or to gain the weight they'd like, Forbes decided a scientific study was in order.

For what may be the world's most complete study of the effects on women of overeating, Forbes recruited 13 female subjects. He paid each of them $800 for what seemed like a piece of cake—living in the University's Clinical Research Center for a month, chugging down as much as they could eat. At the end of the month, though, the patients agreed that it was a harder job than they'd thought.

When his first three patients told their stories to the wire services, publications all over the world took note with headlines such as "Three Go Whole Hog in Overeating Study" (New York Post); "Pig Out Heaven: Gaining Weight for the Sake of Science," (Miami News); "Three Women Sacrifice Their Waistlines for Science" (Stamford Advocate); and "Stuffed and Studied," (Kansas City Star).

Forbes's subjects chose from a prescribed list the foods they liked most, and proceeded to eat them in gradually increasing amounts. "The first week it was a maintenance diet; we didn't want them to gain or lose any weight. We estimated what each person would need, using a combination of measurements—basal metabolic rate, height and weight, extent of physical activity, and so on," says Forbes. "After the first week, we increased their food, giving them as much as they could tolerate without actually getting sick."

In addition to three (hearty) squares a day, there were snacks in between, featuring milkshakes, peanut butter and crackers, double-Dutch chocolate cookies, slices of pound cake, and other high-calorie treats. Toward the end of the month, the women were consuming an average of 1,600 extra calories a day—approximately half again what they'd been used to eating.

At the end of the study, the subjects had gained between 7.5 and 11.5 pounds each. A number of the participants were surprised they hadn't gained more. (Contradicting popular belief that women gain weight more easily than men, Forbes's subjects gained about the same amount of weight, per calorie consumed, as had the male subjects in other studies.)

"I always thought I was one to gain 20 pounds if I even ate one little thing," said Sharon Masseth. But she noted that most of the eight pounds she did pick up during the study were put on during the third and fourth weeks, when she was chugging down milkshakes with hearty dollops of ice cream and topping off all her meals with dessert. It wasn't so easy to gain weight after all, she acknowledged:

"I must have been really overdoing it when I gained so much before."

Others were surprised to find themselves sick of what had been favorite foods: "I used to love filet mignon," moans Leslie Hopkins, who chose it as one of her three rotating entrees. But eight pounds later, she says, "I got to the point where I could hardly eat it." Even today, well after shedding her experimental girth, Leslie says "I'm not crazy about having it anymore." Leslie's stepmother, Pat Hopkins, who joined the study after hearing about it from Leslie, discovered that she just got sick of eating in general. As she edged up on the 10 pounds she eventually put on, she recalls, "I really felt like a pig; I was actually looking forward to not eating."

Ruth Noble, who weighed in about 12 pounds heavier at the end of the month, now remembers the experiment only as one long binge. "There was constant eating."

So what did Dr. Forbes learn?

"Every single subject in the study gained weight—even the two thin women who told us that they had been trying to gain weight in the past, but without success. It was just what we expected."

The overeating study may seem a far cry from what attracted Forbes to medicine some 50 years ago, when he was at the Medical School preparing to become a pediatrician and World War II was looming on the European front. The choice of pediatrics as a specialty came to him at a time of personal sorrow: "I watched my father die of heart disease, and I decided I'd rather work with the other end of life."

He was also drawn, early in his career, to scholarship and teaching. Soon after interning in pediatrics at Strong Memorial Hospital and serving a residency in St. Louis Children's Hospital during the next two years, Forbes accepted a teaching post at Washington University's School of Medicine and began publishing early and often on an impressive range of topics: management of severe infections, scarlet fever, tetanus, poliomyelitis, problems in endocrinology and metabolism, among others. After he returned to Rochester as an associate professor of pediatrics in 1953, he began to specialize in questions of growth and nutrition.

When he was awarded the 1982 Gold Medal of the Medical Alumni Association—given to senior faculty who have made particularly distinguished contributions to the Medical Center—his colleagues endorsed the selection enthusiastically. Forbes, they said, is "a rigorous student of all aspects of child life," "an extraordinary teacher," "a natural leader," but most of all, perhaps, a scholar of unusual gifts. "He has not chosen easy or flashy problems to work on," said Harvard University's Charles A. Janeway '64M, "but fundamentally important ones, and thus has produced a very impressive and solid body of knowledge which affects the work of pediatricians wherever they are."

Forbes's interest in nutrition and metabolism in children expanded to include the same concerns in adults when he divined the potential of an unusual research instrument housed in the Medical Center Annex, just north of Elmwood Avenue. They called it a "whole-body scintillation counter," and it afforded him a way to make precise estimates of both the lean (muscles, organs, and bones) and fat tissues in people's bodies, with—always a plus—minimal need for cooperation from the research subject. It was to become an integral part of dozens of studies he conducted on body composition.

To use the device to fullest advantage, Forbes had to develop expertise in yet another field—radiation biology—because what it does is measure radioactive substances in the body. His authority in this area was recognized when he was named professor both of
Dr. Gilbert Forbe's book, *Human Body Composition: Growth, Aging, Nutrition, and Activity* (1987, Springer-Verlag), sums up much of what is known about what bodies are made of, based on his own research and the work of others. Here are some observations from the book:

- The typical weights of organs in a "reference" (standard) adult male who weighs 70,000 grams, or 153 pounds, are:
  - Skeletal muscle — 61 pounds
  - Fatty tissue — 33 pounds
  - Skeleton — 22 pounds
  - Skin — 11 pounds
  - Liver — 4 pounds
  - Brain — 3 pounds
  - Heart — about 12 ounces
  - Kidneys — about 12 ounces

- Skeletal size and bone density increase in both males and females from birth to about age 20. After that time, there is a gradual loss of bone in both sexes, but at different rates. The density of an 80-year-old female's spine is only 40 percent of what it was when she was 20. The density of an 80-year-old male's spine is 55 percent of what it was at 20. The aging process also produces a decline in lean weight and in muscular mass.

- The typical adult male weighs 20 times as much as a newborn. Compared to the newborn infant, he has 36 times the amount of calcium in his body, 30 times as much potassium, 27 times as much nitrogen, 25 times as much magnesium, 13 times as much iron, 43 times as much zinc, and 5 times as much copper.

- The size of the newborn compared with the mother varies enormously from one species to another. Total litter weight as a percentage of the mother's weight ranges from 68 percent in the guinea pig, and 23 to 24 percent in the rabbit and rat, to as low as 3.6 percent in the elephant and 2.5 percent in the blue whale. The human newborn constitutes only 5 to 6 percent of its mother's weight, roughly comparable to the situation in the cow and the pig.

- During pregnancy, more than the woman's uterus increases in size; the heart grows by about 12 percent; her kidneys grow by about 10 percent; mammary tissues enlarge, and the volume of blood circulating in her system also increases.

- An individual who weighs 2 pounds more than another will, on average, need to eat 20 additional calories each day to maintain his or her weight. That's about the equivalent of a heaping teaspoon of sugar.

- Obese children of both sexes tend to be a little taller than their leaner peers. The increase in height appears to be related to a surfeit of food, just as stunting growth is a consequence of food deprivation. If you examine height-weight relationships over a period of time, you see that the child's growth spurt occurs either at about the same time he or she put on the extra weight or somewhat later. It never seems to occur before the weight gain.

- When a normal-weight individual gains weight by overeating, about a third of the weight gain is in the form of additional lean body tissue.

- When people fast, they all lose a combination of lean and fatty tissue. But obese people tolerate fasts better than slender people. Pound for pound, the weight that an obese person sheds contains more fat and less lean tissue than the weight a leaner person sheds.

- Orientals are usually shorter and lighter than Caucasians, and therefore have a smaller lean weight. North American blacks tend to have a slightly larger lean body mass than whites, together with thicker and denser bones. Contrary to popular belief, one study found, Eskimos (the Igloolik tribe of Canada) are no fatter than Caucasians. Adult men had an average of 13.5 percent fat, women, 24 percent. Although they were shorter than the average Caucasian, their calculated lean body mass was about the same; so the people of this tribe have a stocky, but non-obese body build.

- Your brain and your bone mass are least affected by weight loss from a restricted diet, data from animal experiments show.
pediatrics and of radiation biology and biophysics in 1968.

A man devoted to art as well as to science, Forbes sprinkles his papers, books, and conversations with literary allusions.

"One of my favorite passages from Samuel Johnson's conversations with Boswell is about a fat man," he remarks.

"It goes like this:

"Johnson: 'He eats too much, Sir.'

"Boswell: 'I don't know, Sir; you will see one man fat, who eats moderately, and another lean, who eats a great deal.'

"Johnson: 'Nay Sir, whatever may be the quantity that a man eats, it is plain that if he is too fat, he has eaten more than he should have done. One man may have a digestion that consumes food better than common; but it is certain that solidity is increased by putting something into it.'"

It is Boswell's, not Johnson's view that is familiar to every physician who treats obese patients ("Gee, doctor, I eat less than everyone else I know, and I still can't lose weight"). And it seems to confirm casual observation: that some people can down mountains of potatoes topped with scenic lakes of gravy, cut through thickets of well-marbled steaks, and conquer gobs of ice cream floating in a valley of chocolate sauce—all without letting out the belt a single notch.

But is the proposition that some people gain weight more easily than others a fact?

On this question, the scientific jury is out, Forbes says.

"We don't have any hard evidence that this is so," he says. "We do know from controlled studies that obese patients tend to underestimate what they eat and that thin people tend to overestimate. We also know that under controlled conditions, patients always lose weight when you restrict their calories to a level below a normal maintenance diet—even those who tell you they could never lose weight before.

Okay, how about another proposition: that some people are "born" to be fat?

"It does appear that there is a strong genetic component operating here," he says. "All you have to do is take a trip to the beach in the summer to observe family resemblances in body build."

Scholar that he is, Forbes did considerably more than visit the beach to gather data on whether obesity stems from some genetic similarity or whether it's a matter of shared eating and exercise habits. He made extensive body measurements in 51 pairs of identical twins and in 38 pairs of same-sex fraternal twins. He weighed them. He tested them for lean/fat tissue ratios. He measured height. He ran a tape measure around waistlines and hips to see where fat deposits had accumulated.

"What we found is that the identical twins were much more concordant than the fraternal twins, both in the amount of body fat they had, and in the distribution of the fat. If one identical twin had a small belly and big hips, then the other twin did too." While shared environment can account for some resemblances, Forbes points out that many of the adult twins had been living apart from each other with their respective families.

Genetic influence plays nearly as powerful a role in the distribution of lean and fat as it does in height, Forbes believes: "We are never free of environmental influences, but it appears that genetics can account for 75 percent of the differences in people's height, between 60 and 70 percent of the differences in their fat tissue, and about 60 percent of the differences in lean tissue.

Does that mean fat people are genetically predisposed to grow bigger bellies and bottoms on the same diet that keeps others trim? Forbes will not go so far. "I think of obesity as a disease of appetite. All the evidence we have accumulated under controlled conditions suggests that obese people do tend to eat more than lean people. I think that what obese people may inherit is a big appetite."

Here's another food fact or fallacy to ponder: A breakfast-cereal commercial pans to the poolside, as a bathing beauty with workout-sculpted thighs whispers, "Keep the lean, lose the fat." Can real people on real diets do this? The answer, says Forbes, is no.

"Whenever people lose significant amounts of body weight, they lose some lean tissue in addition to the fat. Conversely, when people gain weight, most of it is in the form of fat, but a small proportion is lean tissue. Most obese people have not only larger stores of fat, but larger hearts, livers, kidneys, spleens, and pancreases. Their skeletons are heavier too. Probably the larger organs and heavier frame help support the extra weight."

Forbes knows of only one exception to the rule that says you lose fat and lean together, and this special case does not offer much consolation to the human dieter: "The hibernating bear has been observed to lose 13 percent of its initial weight during 60 days of hibernation without losing any lean tissue. Bears apparently accomplish this by reabsorbing nitrogen, water, and electrolytes through the bladder."

Okay, just one more popular conception about foods to run by this dean of nutrition: Are junk foods really "empty" calories?

Potato chip lovers can take heart. "If you ask people which foods they would define as junk foods, the potato chip is probably one of the first things they will name," says Dr. Forbes, leaning back. "But if you break down the composition of potato chips, you find that they have the same amount of protein as rice and wheat, more iron, less sodium, and as much niacin as milk. They're low in thiamine and riboflavin and high in fat, but they do have a bit of Vitamin C. All in all, there's more nutritional value there than in apples."

So couch potatoes should just stock up on bags of chips, practice their cocooning skills, and forget about that apple-a-day that was supposed to keep the doctor away? Well no, Forbes says, beginning to hedge. Apples are fine. "The real point," he suggests, "is that some of the foods that get labeled as 'junk' are perfectly wholesome in moderation."
Measuring the Interior Environment

The room looks faintly menacing. Built in the mid-1950s with funds from the Atomic Energy Commission, the cubicle has eight-inch-thick steel walls constructed to block out “background” radiation and prevent it from reaching the interior of the chamber. It measures 6 by 6 by 8 feet and weighs 42 tons. It is called a “whole-body scintillation counter.”

Back during World War II and shortly thereafter, Rochester was one of many universities conducting research for the Manhattan Project, the wartime effort to design and build the first atomic bomb. Here, the focus was not on weapons development but on how atomic radiation affects humans and animals. What Rochester researchers discovered not only helped set safety standards for people who worked in atomic weapons laboratories, but also paved the way for radiation treatments in the war against cancer.

In order to monitor fallout from atomic tests, the whole-body scintillation counter was built by Dr. John Hursh, now an emeritus professor of biophysics, to measure the amount of radiation given off by the human body. Thirty years later, in the hands of Dr. Gilbert Forbes, it has become the perfect instrument for plumbing the mysteries of what lies beneath our skin.

Forbes opens the door to the chamber. An oversized chair with tubular metal arms stands in the center of the stark room. There is a TV-camera monitor, a sound system, a light, and a scintillation crystal to collect radiation from the subject. No other furnishings are present.

“The patient sits quietly in here for 40 minutes,” he says. Stripped of watches and other jewelry, dressed only in cotton pajamas, the patient listens to radio programs for entertainment. No books or magazines are allowed, for these too give off small amounts of radiation and would therefore throw off the readings.

Forbes explains how it works: “The lean tissue in our bodies—muscles, organs, and bones—contains an abundance of potassium. Fat tissue does not. One of the naturally occurring isotopes of potassium, 40K, is radioactive; it emits a very strong gamma ray.” The average man or woman is fairly “hot,” radioactively speaking: “A man gives off about 30,000 gamma rays a minute. A woman gives off about 20,000.” Women aren’t usually as “hot” because they tend to be both physically smaller than men and because a higher proportion of their weight is in fat tissue—which doesn’t contain potassium.

“We also know how much radiation each gram of lean tissue gives off,” says Forbes. “So if you weigh a person and measure the radiation, you can calculate what part of the weight is lean tissue and what part is fat.”

There are other radioactive substances in the body that give off gamma rays too, he points out, such as isotopes of radium and thorium. And most people in this country have a certain amount of cesium 137, a radioactive fallout product that has been in the atmosphere since above-ground atomic bomb tests were conducted in the 1950s. Since the nuclear-test ban treaty was signed in 1963, though, cesium levels in people have been dropping.

It is therefore essential, he explains, to have an extremely sensitive gamma-ray detector placed near the person in the chamber, one that is capable of distinguishing the gamma rays of the potassium isotope from the other gamma rays people give off. Constant vigilance against stray radiation which might contaminate the results is also required.

“Any number of things can throw off your results. We were amazed to find that the background readings in our instrument increased after we installed a new television monitor. The culprit proved to be not only a new television, but also a heavy snowstorm which caused background radiation to increase measurably.”

Moderation. Ahh, you knew there’d be some strings attached. What he’s saying is that there’s nothing wrong with potato chips, or with giving in to a full-blown Big Mac attack, complete with milkshake and fries, as long as you don’t do it very often.

“This meal has almost enough protein to adequately nourish a normal woman or child for the whole day,” says Forbes. “There are two pitfalls in allowing our children to fall into the ‘fast food’ habit as a steady diet. One is that the hamburger-shake-and-fries diet has no variety—no green vegetables, no fruit, and so forth—and it is a variety of nutrients that is essential to good health. The other problem is that the convenience and cheapness of fast-food restaurants tend to result in overeating and turn into obesity.”

Too many fast-food forays, in other words, have stretched our collective waistlines and padded our collective hips.

“Today we spend a lot of money on fast food—about 10 percent of all food dollars. That’s a big percentage, and it is most often the families with young children who patronize these burger parlors. Our pace of life today has become so frantic that families no longer have the opportunity to get together at the end of the day for a peaceful, relaxed dinner. Perhaps our lifestyle has to change before our eating habits do. One thing I know: When a child reaches adolescence, it’s too late to change his or her eating patterns.”

Jan Fitzpatrick says that if she were pensioning out for science, she would fatten up on Gruyère cheese and chocolate truffles.
By Thomas Fitzpatrick

The old upright Royals, slug rulers, and grease pencils are gone, replaced by electronic gizmos. But the current crop of Campus Timesmen and women upholds a 115-year tradition of pulling all-nighters, pushing deadlines, and as the masthead proudly declares, “Serving the University of Rochester Community since 1873.”

You can’t really call them “ink-stained wretches” anymore. Not with the word processors, laser printers, and scanners taking the place of the grease pencil, upright Royal, and slug ruler. But Hildy Johnson could still find common cause with the current frontpagers who are about to perform the “Weekly Miracle of Room 102.” The Campus Times for October 6, 1988, is going to press.
Reliance on electronic gizmos to produce the student newspaper makes for a discouraging lack of litter—discouraging, that is, to veterans who rank a scruffy newsroom next to a snappy lead in the hierarchy of journalistic virtues. Where are the rolls of mostly ignored AP wire-ticker paper spewing out on the floor to be kicked and trampled by passing staffers? Where are the scrunched-up wads of copy paper, cursed, ripped from the typewriter carriage, and flung disgustedly in the general direction of the wastebasket? Well, that sort of mess is gone for good. When you deal with computer screens and keyboards you just don't generate enough waste paper to wade colorfully through on the way to breaking the big story.

Otherwise Hildy would be proud of this bunch of CTimesmen and women for keeping up the tradition of journalist as aristocratic slob. The screws holding a bulletin board to an arsene-green wall groan against the studs (Rule No. 1 for preserving journalistic grunge ambience: Never take anything off a bulletin board. Just keep thumb-tacking stuff on top until you can’t push the pin through. Then Scotch tape to wall). A couple of desks are piled chest high with press releases and rolled-up exchange copies from other college newspapers (Rule No. 2: Consider picking up that copy of the Carnegie Mellon Tartan. Realize that such action would cause pile to spill and you might have to do something about it. Reconsider, shrug shoulders, walk off). The air of this windowless room in Wilson Commons has a pervasive, lived-in funk (Rule No. 3: View newspaper office as an extension of your dorm room. Have some reporters and editors hang out here at all hours of day and night, causing sullen hatred to form in the hearts of cleaning people. If they come in while you are shmoozing, show you are helpful by putting your feet on top of desk).

One physical trait that links this generation of newshawks with their predecessors is a convict-like pallor. Fran Nolan, the junior from Boston who edits the CT, chalks up his own pallor to “my alabaster Celtic complexion,” but Travis Miller, his managing editor, allows as how he lost a summer’s worth of tan after only a month of school. It comes from spending most of your time indoors, putting questions to college officials in their offices, buttonholing Student Senators in corridors, and mostly from pulling all-nighters in the newsroom.

This Wednesday night the staff is hunkered down for the duration. All the terminals are occupied by writers finishing off the front-page stories. A boom box propped up in a corner is emitting some kind of music to which nobody is paying the slightest attention (“Turn it down!” somebody yells every five minutes, and this plea is ignored as well). Production manager Peter Kapner is exhorting his staff, charming and wheedling them on in their efforts to cut, paste, and tinker the page layouts into shape. The mostly female workers do this in a kind of sweatshop, assembly-line fashion, standing at a long draftsman’s-style board that stretches the length of two walls. Kapner relieves the tedium with some horsing around, plopping one woman after another into a caster-equipped desk chair and careening her around the newsroom, bopping into desks and door frames. Everybody is fueling up by bolting Captain Tony’s pizza and chugging Coke, especially Miller, who has been here practically all day already, moving like a crab on roller skates, between bites and glugs.

Nine p.m. now, and Nolan, Miller, & Co. have about 10 hours left to deliver the goods to the printer, get the paper run off, and have it deposited around on the various University campuses. They’ll stay here until it’s done, pick up their eyeballs, and do it all again the following week. And the week after that—until the first of May or burnout, whichever comes first.

“The integrated campus offers many advantages. And we must realize that women will be new residents there. No one wants his toes trod upon—especially those in white bucks. Nor do they want to change their style (shoes or otherwise). So let’s be satisfied with tightening of the laces.”

Sarah Miles Watts, besides teaching in the SUNY system, went on to write drama and arts criticism for the Rochester Gannett newspapers and other publications.
Editor Fran Nolan '90: "Elect a sophomore as editor-in-chief? They must be out of their minds! I guess they were, cause I was it."

earn cash payments for their efforts; not at the CT. Most undergraduate papers are adjuncts of college journalism departments, and their students earn credit and put out the paper as homework; Rochester does not offer a journalism major, so working at the CT is strictly an extracurricular activity.

So, why? People who have had their program, project, boyfriend/girlfriend, dance, meeting, or whatever basted in the pages of the CT might sniff at the suggestion, and even current editor Nolan squirms at the imputation of virtue, but as one former CTimesman cagily puts it, "You have to possess something not unlike a streak of altruism."

Service to the community is what the founders of the original newspaper had in mind in October of 1873 when Volume 1, Number 1, of The University Record rolled off the hand-cranked press. The student-editors wrote up a "declaration of principles" for page 3, and while maybe not quite as dramatically stirring as the one Charles Foster Kane showed to Jed Leland for the first issue of the Inquirer, it is earnest and high-minded. "We do not believe in large promises, and so make none," the editors wrote, and then proceeded to make a medium-sized pledge: to do whatever it takes to inform its readership (see box, page 13).

Current CT editors could easily go along with that, but they would probably give a miss to the last principle the editors of 1873 enunciated: "Our advertising columns will contain the cards of reliable business men only, and may be depended upon in all cases by those who seek information in this department." It's hard to imagine C'Ters going to the wall for banning parlors and stress-reduction centers.

The early Record was a curious amalgam of essays by faculty members (with titles like "On the Value of Pi" and "Wordsworth and the Poetry of Nature"—on the front page!); student exercises that read a bit like recycled term papers ("Bismarck and the Church" and "The Tuscarora Indians"); notes on alumni ("Schofield has adopted Mr. Greeley's advice, and 'gone West'"); and needling of other college newspapers (the Amherst Student is criticized for writing overmuch about Germany, the Cornell Era for being football-obsessed).

Later in the century things picked up a bit. Some humor in the form of burlesques of faculty members appeared, along with lampoons of other student activities, and much gossip. But the Record always aimed to inspire "that indescribable something—college spirit." The paper probably knew it had arrived when critics accused it of slack writing, printing "slop," and ignoring matters in which students were truly interested—which past and present editors would no doubt include under "that indescribable something." (The Record's critics, incidentally, included the Interpres yearbook, which, having been founded in 1858, considered itself very much the senior publication and feuded constantly with its journalistic sibling.)

More than a century later, on this October night in 1988, news editor Jeff Farkas finds himself pressured by somebody trying to dictate what appears in the news columns of the CT. A fraternity in bad odor on campus has recently taken up community service. A representative of an off-campus organization helped out by the frat has written a news story full of praise for the brothers, and she wants it in the paper, as is, on the front page if possible. Farkas wonders if he is being spin doctored here, if this is an attempt to use the paper to refurbish a public image. "I told her we wouldn't publish it until we checked it out," he says. Someone wonders aloud if the whole thing isn't some kind of a plant. Farkas gives the time-worn gesture of journalistic skepticism—a waggle of the downturned palm that means, "maybe yes, maybe no, we'll see." But the woman won't take "maybe" for an answer. She calls up the offices of both the vice president for student affairs and the University president, attempting to turn up the heat on Farkas. The answer from both is the same: The CT has the sole authority to determine what goes into its pages. In the end, Farkas runs the puffery as a letter to the editor, which undoubtedly satisfies no one. But integrity is upheld.

Pressing Matters

- The Campus Times is a tabloid, a word with unfortunate connotations for college newspapers, nearly all of which use this format (either four or five columns stretched over a page measuring about 11½ x 17 inches). The National Enquirer is a tabloid, and the New York Daily News; but so are the New York Review of Books and Grit. Dramatic lore would have it that the format got its moniker from the trademark of a tablet of condensed medicine sold in the mid-19th century.

- The CT cannot make its way in the world through advertising revenue alone. It receives a subsidy of $2,000 a year from the Students' Association, which sets up a sometimes dicey relationship between the two organizations. In its long history, the newspaper has shown little reluctance to bite the hand that feeds it.

- The term "daily" to describe a college newspaper is something of a formalism. Very few staffs around the country publish during exam periods and university holidays; still fewer publish daily during the summer term. Most universities with undergraduate populations the size of Rochester's have newspapers that publish about as often as the CT. Washington University's Student Life, Chicago's Maroon, and Emory's Wheel come out twice a week; Case Western's Observer and Carnegie Mellon's Tartan are weeklies.
The Record was not so fortunate. It disappeared in 1882 (owing, University historian Arthur J. May hints darkly, "to dissension in the college body"). It reemerged the following year as the Campus, and continued publishing under that name—weekly for the most part, always in financial straits, but a vital part of campus life nonetheless—until 1955.

Women students—even during the days when they shared the old Prince Street Campus with the men—tentatively launched a number of their own short-lived publications, the titles of which tended to reinforce their isolation from their male classmates rather than break it down: The nunnish Cloister Window ran for about five years. A new spirit of independence seemed to take hold, however, in the middle of the reign of Annette Gardner Munro, who was dean of women from 1910 to 1930. The Campus published an impertinent article saying the women were not "welcome" on the main campus at Prince Street. From the Women's College enclave on the other side of University Avenue, Munro struck back, canceling her subscription to the paper (enclosing 30 cents to pay for the copies she had already received), and banned the Campus from her bailiwick. In 1932—after the Men's College moved away to its new home "beside the Genesee," leaving the women in sole possession of Prince Street—the Tower Times appeared, taking its moniker from the location of its office, high up in Cutler Union. It was a lively and first-class effort, imbued with a nervy, gadfly spirit. The women editors casually referred to the men students as "Riverats," both in headlines and news columns, carried on a good natured, pot-shooting rivalry with the Campus, and the TT was read with equal interest on both campuses.

In the late 1930s both newspapers reflected the isolationism of the times, calling for peace, neutrality, and non-intervention in the European war. The Tower Times broke with this attitude in 1938, after the Nazi annexation of the Czech Sudetenland, and mounted a "Stop Hitler" editorial campaign. But a Campus editorial of April 29, 1939, still declared that "young men have no burning desire to act as receivers for machine-gun fire." (The author of that editorial, Robert H. Zwierschke '39, would later be in the vanguard of those Rochester alumni to serve in World War II, and the very first to die in combat.) Three days before Pearl Harbor, the Campus observed, "Beside the muddy, turbid Genesee, it has been a dull week, not a major ripple on the placid surface of Men's College life." But the very next issue after December 7, 1941, declared: "The ivory tower has come tumbling down about the youth of this generation."

With the war increasingly calling men students away from the University, the Campus found it almost impossible to keep a full staff going. Finally, negotiations brought about a merger with the women's paper, and on March 12, 1943, the combined Campus-Times appeared—a "war marriage" it was called—which lasted for the rest of that spring semester. By the fall, "the short but happy marriage ... of last spring has by divergence of the two campuses resulted in a divorce," editorialized the Campus, back at something approaching full strength. It would not be until 1955, with the reunion of the men's and women's colleges, that the newspapers would be re-yoked as the Campus-Times (somewhere along the line los-
ing its hyphen) and publish twice a week. But even in 1943, the male journalists seemed to have a premonition of things to come: "But we strongly hope that future staffs, looking over issues of the marriage and seeing better coverage, greater news value, better reporting, and better make-up will agitate for a real marriage. While the union lasted we enjoyed it."

Who really enjoyed those days were the women students, particularly the "doers." Anne Keefe '46 was one of them (as Anne Houlihan she wrote a peppy column called "Nothing Sacred"), and her group became, in her term, "the Rosie the Riveters of campus life." "With the wartime shortage of men," she recalls, "we were involved and often led in everything, the plays, the yearbooks, and the newspapers. A whole generation of women bloomed with the chance to exercise authority, and I've made a living ever since from my college extracurricular activities." A varied and pioneering career it has been. A mainstay of Rochester radio, she was also present at the creation of television in the city, working for years at WROC, doubling and tripling up as anchor of the evening news, doing cooking shows, "Romper Room," and many other things. Since 1976, she has broadcast for KMOX-AM in St. Louis, hosting an afternoon public affairs call-in show, her husky tenor sent out by that station's many kilowatts all over the midwest and points beyond.

Keefe thinks that the "amateur" kind of journalism practiced at the Campus Times is the best sort of preparation for a career in the media. "The mechanics taught in journalism schools are really overrated. If you have a liberal-arts background, if you know what the Aeneid is and who Kafka was — and for God's sake get some science — if you know something about editing and can write, above all the latter, you'll always make a buck in this world."

Amy Williams '89 has already found that out. Her two-and-a-half years as news editor of the CT have opened the doors to a couple of internships, one with the University public relations department, the other with an upstate hospital. But all the career edges in the world seem like cold comfort when you're trying to wrestle the front page into shape and tap something for the lead story. Williams is obviously wiped out. She has deep circles under her eyes and she has run her hands through her long brown hair so many times that it just flops on either side of her head. She has opted to go with the story of the University taking over the campus post-office branch. It's not exactly the sinking of the Lusitania, "but it's a good solid story," she says. "Students can now send bulk and personal mail throughout the University without paying postage, and maybe those long post-office lines will be reduced."

That decided, she leans an elbow on a terminal and reflects on the hard times the CT has gone through lately. "A couple of years ago I went to an organizational meeting. Everybody was hammering on, and I had to get somewhere else. So I said, 'I'm willing to help but I have to leave.' The next day I was told I was the news editor." And she still is — the senior editor in point of service — and she has seen the number of issues decline from two a week, to one. Just a few semesters ago, the then editor dumped the front page and ran instead a manifesto, threatening the demise of the CT unless he got more help.

But she thinks things are looking up now. "If this current crew of juniors can stick around for a while" — she points to Nolan, Miller, features editor Christine Garrahan and copy editor Eric Moses — "to give some continuity, the paper will be all right. We had an interest meeting in September, and nearly a hundred students showed up. But we don't have enough editors to funnel that many reporters through. I find myself trying to teach somebody how to write a news story, with one eye always on the clock."

Nolan wants to return the CT to a twice-weekly, but first he aims to get the features section up to speed and expand the coverage of doings on the Eastman School campus downtown. Right now he is limited by a lack of warm bodies on the editorial side, and by, he admits himself, his own inexperience. "Last year I thought, elect a sophomore as editor-in-chief? You must be out of your minds! I guess they were, 'cause I was it."

The previous year's editorial staff vanished almost to a person, and it was up to Nolan to reinvent the wheel. Having to start from scratch every year has plagued the CT of late, and Nolan feels it. Whenever he has a question about the way the paper might have handled a specific situation or problem in the past, he has no one to ask: It's either consult Karl Kabelac's Special Collections Room in Rush Rhees for back issues, or fly by the seat of his pants.
In the best of all possible worlds, the editor-in-chief should have time and space enough to map out long-range strategies, ask pertinent, off-the-record questions of those who know, look out for the big picture. Nolan hardly has time to think. He has managed only one editorial in the first four issues of this term, mainly because he is forced to pick up a share of the mechanical labor, banging on the keyboard, cutting and pasting with the production crew. Achieving the editorship of the CT is sometimes like getting the black spot from Blind Pew.

It was not always so. In the 1960s, student preoccupation with the Vietnam War, the draft, the questioning issues of this term, mainly because he

caused a falling away from usual undergraduate activities. But not at the Campus Times. Students with an itch to write and publish flocked to the paper. It published three times a week, and put out “extras” whenever issues would heat up. Editorials and opinion columns sometimes covered three pages, and the editorial-staff box contained over twice the names Nolan has to work with.

The undergraduate career of Marjorie McDiarmid ’67, who now teaches at the University of West Virginia Law School, can stand for many others during this period: She begins in 1963 as a reporter, works her way through many staff positions, serves for a year as editor-in-chief, and then runs for student-body president on the platform that student government should be made relevant to current concerns. She loses, but her challenge provokes a record voting turnout. She then returns to the CT as “advisory editor,” just one of five former editors assuming that position, and continues pumping out the column inches until a mortarboard is placed on her head.

All of this feistiness and momentum culminated in editor Marc Rosenwasser’s decision on October 1, 1973, the 100th anniversary of the founding of the University Record, to turn the CT into a daily. Skeptics of the time who doubted whether an undergraduate population of less than five thousand could sustain such an effort were

‘This Awful Silence’

Perhaps it’s because college journalists tend to be activist types themselves. In any case, nothing seems to enrage the spleen of a college editor here and elsewhere—more than the suspicion that the student body is in an unresponsive state of heffalump dormancy, uncaring about the real issues of campus life. Here are some examples of editorial reveilles sounded in Rochester publications over the years.

• The University Record in October 1874 deplored the “lack of College songs” on the campus, and opined that more “jolly airs” were desperately needed: “The deep toned voice of ‘The Bull Dog on the Bank and the Bull Frog in the Pool’ is heard no more. Verily the silence is oppressive.”

• The Campus Times, late in 1933, ran this parting shot from its outgoing editors, breathing fire as they went out the door: “The new editors will have to learn that a large percentage of the student body is always apathetic to seemingly important questions. . . . Editorialy they will try to sense out student sentiment, but find to their dismay that students are too cowardly to have their names stand for a definite point of view expressed in a letter on the editorial page.”

• The Campus Times in September 1961 deplored the lack of student concern on campus, and decided to change this state of affairs: “The Campus Times henceforth dedicates itself to making the student body aware of reality. Everything we say editorially will have as its purpose the rejuvenation of interest in Unself.”

Ten years later, the Campus Times had given up on the “Unself” and blamed student apathy on “an enforced resident community . . . which pampers the student, extending his functional infancy to 22.” More effort on the part of the administration to link the University with the surrounding community “would help combat the UR student’s insularity of thought and convert it to a voluntary community of ideas.”

On September 29, 1988, the CT noted that the 25 percent of the student body that voted in student-government elections, even though it was up from 13 percent the year before, was not enough: “The student apathy both on and especially off campus is reflected by the low turnout for voting in the SA Senate elections.”

around the halls, preserving the strictest order, hardly a sound is heard. . . . We do not wish to be understood as advocating hazing, or class contests of any sort, but we do believe in innocent fun and merriment and also that the absence of these indicates an abnormal condition of things. The extreme quiet which is manifest among us this year does not at all harmonize with our notions of college life. If we can’t sing, let’s go out on the campus and yell. Anything but this awful silence.”

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proven wrong. The daily CT lasted for a decade. If there is such a thing as the Golden Age of Journalism at Rochester, 1973-1983 is it. And a surprising number of writers and editors from this period carried on with journalism, or went into related fields, after graduation.

Rosenwasser, for example, became Moscow correspondent for the AP and now is a writer-producer for ABC News. He thinks that in his day students saw working for the paper “as a way of making a social statement.” He remembers that “there was then a spirit of questioning everything that perhaps doesn’t exist today on college campuses. A lot of all-nighters were pulled, a lot of classes missed. We really spent most of our time working on the paper. I look back on that part of my life with great fondness.”

“I think that the idealized vision of journalism that came out of Watergate — Woodward and Bernstein, and all that — gave us a boost,” says John Swanson ’83, who edited the CT in its last year as a daily and now edits trade publications for the glass industry.

Splendors there were, but miseries aplenty, as well. Gary Stockman ’83, who was successively features editor, managing editor, and executive editor (and who found time as well to captain the Rochester crew), now works for an advertising agency in Rochester. He remembers battles with the Student Senators over funding: “We got along with them all right until there was a budget crunch or a crisis in student government that we covered. Then we would hear noises about how we weren’t doing enough about their activities, or weren’t covering them to their satisfaction.”

What’s Your War Story?

CT alumni (and of the Tower Times and the Campus, too, of course): Got any tales to share from your life as a student journalist and how it helped/hindered you in getting where you are today? Rochester Review would love to hear all your stories and will consider them for publication in either the Letters section or (perhaps) in a follow-up feature. Write to Editor, Rochester Review, University of Rochester, Rochester, New York 14627.

Pizza parley: Between bites of Captain Tony’s Pizza and glugs of Coke, they get through the night. And when they’re done, they’ll pick up their eyeballs and do it all again the next week.

Neil Savage ’84, associate editor for Beacon Communications outside of Boston, mainly recalls being afraid for his academic future, but that didn’t stop him from putting in “idiotic hours,” helping to edit the paper for three years, and even returning as a senior to put in a stint as business manager. “The more issues you can put out in a week, the closer you’re in touch with the students. Having them read your words the first thing every day — that made putting out the daily worth it,” says Savage.

But pressures, both in finances and personnel, mounted toward the end, and the daily was sustained more by acts of Spartan will than practicality. “No editor wanted the daily to end on his watch,” says Stockman.

But end it did, and not only at Rochester but at similar institutions where undergraduate journalism is not a semi-pro job of work but a vocation. The latter depends on a rush of enthusiasm, and a history of the CT shows that to come and go in cycles. “We were sloppy but dedicated,” says Swanson. “We had to learn about journalism while we were putting out the paper. But we had energy, and it made for a special atmosphere around the CT.”

The atmosphere in Room 102 this night in October is largely one of growing fatigue. Empty pizza cartons are tossed in piles; eyes are bleary and tempers edgy as the staff works into the night.

But come morning the students get their copies of the issue of Thursday, October 6, 1988, to leaf through, spill coffee on, and leave behind on cafeteria tables. No matter. Nolan & Co. are enjoying the particular rush that a century of editors have felt before them. On this optimistic morning, it can be understood if they sense that the cycle of enthusiasm for journalism on the campus is swinging once more their way. For they have tapped into the miraculous: They have fooled the printer’s devil, and made deadline.

While a student journalist at a small college in San Francisco in the 1960s, Thomas Fitzpatrick saw three issues confiscated, two editors fired, his GPA once dip below the Mendoza Line — and had the time of his life.
The Wolf Effect

You've heard of the Doppler Effect. Now Emil Wolf has discovered the Wolf Effect—which may have profound implications for the study of astronomy.
Much of modern cosmology is based on the idea that what we see in the sky is not what it seems. The light reaching us from distant galaxies is different from the light they emitted; it is shifted to lower frequencies, toward the red end of the spectrum. Astronomers assume that this redshift is caused by the Doppler effect, and they conclude that the galaxies are moving away from us, that the universe as a whole is expanding. (If the light were shifted to the blue end of the spectrum, that would mean the galaxies were coming toward us.) The Doppler effect is also how astronomers measure cosmic distances. The farther away a galaxy is, the faster it is moving and the more its light is shifted. You've probably heard of the Doppler effect. You've almost certainly experienced it: It can shift sound too, causing, for example, the sudden drop in pitch of an ambulance siren as it passes by.

You probably haven't heard of the Wolf effect, though. A lot of astronomers haven't either; Emil Wolf, an optical physicist at the University of Rochester, just discovered it within the last couple of years. But they might do well to pay attention. The Wolf effect is a way of producing frequency shifts that has nothing to do with the motion of the light source. Although Wolf deduced the effect mathematically, its reality has now been demonstrated in several experiments. And while its implications for astronomy are still unclear, they could turn out to be profound.

The effect arises when a source emits light that is partially coherent. Any hot object, from an ordinary 100-watt bulb to a star, emits incoherent light. That's because the individual atoms it's made of radiate light waves randomly and independently. Lasers, on the other hand, emit fully coherent light: Their atoms can be made to radiate in unison, and the peaks and troughs of the resulting light waves are all in step. Partially coherent light falls between these two extremes. The atoms in a partially coherent light source don't radiate in unison, but they're not entirely independent either; if one atom is emitting a light wave, there is a certain probability that another one nearby will also be radiating.

The light waves from these partially correlated atoms therefore fall in and out of step. So when they cross they don't interfere with one another the way coherent light waves do. Instead of the classic interference pattern of alternating bright bands (formed where wave crests coincide) and dark bands (formed where the trough of one wave cancels the crest of another), partially coherent light waves interfere partially. Some frequency components of the light are amplified, some are canceled, and others are left alone.

The result, says Wolf, is that the overall frequency distribution of the light changes as it moves away from the source. "Each atom sends out radiation that is exactly the same," Wolf explains, "but in the process of propagation the radiation from different atoms mixes. It's that superposition that causes the changes in spectrum." And if the radiating atoms are correlated in just the right way, their light—whose initial frequency is set by the atomic structure—may actually be shifted toward the red or the blue end of the spectrum.
Unfortunately, no one knows how to assemble a group of atoms that are correlated in just that way. But Wayne Knox of AT&T Bell Laboratories has recently simulated such a light source—and proved that the Wolf effect exists. Using a series of mirrors and filters, he split a beam of light in two, changed the spectral character of each half, then recombined the halves into a single beam again. The result was a single light beam in which some of the frequencies canceled and others didn't. And just as Wolf had predicted, the light's overall spectrum shifted—in either the red or blue direction, depending on the choice of filters.

"Once people see this," says Knox, "they immediately say, 'This is absolutely trivial. All you're doing is using interference to cancel out some of the frequency components.' And indeed, the Wolf effect is trivial. The whole point, though, is that it could still have enormous implications, and you need to consider them when you start to measure light sources."

That's certainly true in the lab. But can nature, which lacks ingenious arrays of mirrors, produce the Wolf effect? Wolf thinks so. Although large groups of partially correlated atoms are hard to imagine, the light emitted by ordinary, incoherent atoms might acquire partial coherence later, by passing through some medium—Earth's atmosphere, say. The temperature and pressure of the atmosphere vary from point to point in a partially ordered way, which means the degree to which air refracts light varies that way, too. So light scattered by the atmosphere ought to pick up some of that order. Wolf is now trying to calculate whether the resulting shifts in frequency would be large enough to be detectable.

Much larger shifts, he says, might be produced in the violent surroundings of quasars—and it's in that connection that the Wolf effect might prove to be most important. Because quasars have the largest known redshifts, astronomers believe they are the most distant objects in the universe. And because they are very bright in spite of their distance, it is assumed they must be extremely energetic. The conventional view is that quasars are the explosively active cores of young galaxies, probably powered by supermassive black holes.

Yet there is evidence that contradicts this view, at least in the case of some quasars. Most of it has been gathered by Halton Arp of the Max Planck Institute for Astrophysics in West Germany and by Jack Sulentic, an astronomer at the University of Alabama. For years Arp and Sulentic have been challenging the assumption that redshift is a reliable indicator of a quasar's distance. Their most striking exhibits are images of a galaxy and a quasar that seem to be physically linked—even though the quasar, according to its redshift, ought to lie some 750 million light-years behind the galaxy. Most astronomers say the quasar is in fact behind the galaxy; and that the "link" is really just an illusion caused by a chance superposition. But Arp and Sulentic argue that many quasars, including this one, are not distant galaxy cores at all; instead they are compact blobs of gas—"like the Orion nebula, only a little more flashy," says Sulentic—that have been ejected from ordinary, more nearby galaxies.

If they're right, then part of the quasars' large redshifts must have a source other than the Doppler effect. Wolf believes—though he is a long way from proving it—that his effect could help.

Robert Kunzig ©1988 Discover Publications, Inc. Robert Kunzig is a senior editor of Discover magazine, in which this article originally appeared.
Light Waves, Quasars — and Olivia Newton-John

Books on optics line the walls of Emil Wolf’s office on the third floor of Bausch & Lomb Hall. The blackboard is covered with squiggled markings that tell of quasars and light beams. A photograph of Albert Einstein hangs on one wall; the likeness of another hallowed thinker, Max Born, with whom Wolf collaborated on “the optics text, Principles of Optics,” hangs nearby. All is well and ordered in this Rochester physicist’s world.

But wait a minute. What’s this photo of pop singer Olivia Newton-John doing in here, lifting face beaming out between the two heavy-duty Nobel laureates? Step a little closer and you can read, scrawled underneath her smile, the handwritten note, “To Emil, Love Olivia.”

Newton-John’s place in this pantheon, it turns out, is generational. She is Max Born’s granddaughter. And Born was, in a sense, Wolf’s scholarly progenitor. It was Born who, toward the end of his career in 1951, took on the young Emil Wolf as his assistant, to begin collaboration on the book that was to launch the younger man’s rising star in the field of optical physics.

“Some of my students don’t know me so much for my work or my book, but rather because I’m the one who has an autographed picture of Olivia Newton-John in his office,” Wolf admits cheerfully.

While the photo catches the eyes of his students, it’s Wolf’s work on light waves that is making waves in the eyes of his colleagues. His recent findings on the “Wolf effect” (described in the accompanying reprint from Discover) have been written up in magazines and newspapers across the nation and around the world.

“There is no question that the theory is correct,” Wolf says. “The question is, of what relevance is it to astronomy?”

A theoretical physicist rather than an astronomer, Wolf has found himself plunged into the middle of a heated debate concerning some features of the light that quasars emit; the resolution may influence thinking about the age and size of the universe itself. He is already exploring the ramifications of the theory, studying light waves as they pass through a moving medium.

“Now please don’t start writing about my old research,” he cautions a reporter, jumping to the blackboard to illustrate his latest findings. Pulling citations from shelves and digging through his desk for references, he tells the story of a European astronomer who has been, intellectually speaking, exiled by his colleagues because he dared doubt the prevalent wisdom concerning quasars. The Wolf effect casts doubt in the same direction.

“Astronomers don’t want to believe this. If this shift is due to something other than the Doppler shift, then the problem becomes more complicated,” he says. “It goes to the fundamentals of astronomy, such as the size and age of the universe.”

Wolf wasn’t always concerned with such cosmic concepts. He started in mathematics, and switched to physics as a postdoctoral student at Bristol University in England, to which he fled from the Nazis in 1940.

A native of Prague, he remembers the day in 1939 when the German tanks rolled into Czechoslovakia. A teenager and a Jew, he escaped the country a month later, first traveling to Italy and eventually settling in England. (His parents were not as fortunate: Staying behind to dissolve the family business, they were sent to a concentration camp, where they died.) Wolf spent nearly 20 years in England, coming to this country—and the University—in 1959.

Today Rochester’s Wilson Professor of Optical Physics, Wolf is the modest recipient of numerous honors (among them the Max Born Award and the Frederick Ives Medal from the Optical Society of America, of which he is past president), and the editor of Progress in Optics, an ever-growing series of volumes that is now up to 26 books with no end in sight.

He is widely known among his colleagues as the leader in the theory of the partial coherence of light—having to do with light waves that are neither fully in phase with each other, as in laser light, nor, on the other hand, radiating randomly, as in the light from your ordinary 100-watt bulb.

And the book that he and Max Born wrote some 30 years ago (“I am sometimes asked,” he says, “whether I am a son of the Emil Wolf who co-authored Principles of Optics”) is now in its sixth edition and has been translated into a number of languages, among them Russian, Chinese, and Japanese.

“It will never go out of date,” says University physics professor Leonard Mandel, who has known and collaborated with Wolf for many years. “Emil’s the leader in classical optics.” The two have been working on a book on coherence and quantum optics and are hoping to have it ready to hand over to the publisher next year.

Wolf may not be interested in discussing “old research,” but he is quite happy to return, with obvious warmth and affection, to his years of collaboration with Olivia Newton-John’s grandfather.

He tells of a point in the production of the book when Born became impatient, deciding that his young colleague was holding up its publication so he could finish a chapter in an area that was later to become Wolf’s special field of study—partial coherence. Suggesting that Wolf was perhaps the only person in the world interested in the subject, Born told him to drop the chapter and send the rest of the manuscript post-haste to the printer. Wolf persisted, and the section got in.

“It so happened,” recalls Wolf, “that two years later, in 1960, the world’s first laser was invented. And suddenly everyone was interested in coherence. Our book was the first to deal with the subject in depth. Born was as pleased as I was that I hadn’t done what he told me to.”

Thomas Rickey
Classically handsome, with rippling bi- and triceps, comic-book superheroes may look like Ken dolls on steroids. But, according to Professor Jesse Moore, they are highly accurate mirrors of American society.

By Denise Bolger Kovnat

Professor Jesse Moore reads comic books. Not just any comic books, mind you. This respected scholar, award-winning teacher, and widely published author prefers such classics as early Superman and Spider-Man, and the Green Lantern/Green Arrow series of the 1970s. He has spent a lot of time perusing old comic strips, too, including Little Orphan Annie and Dick Tracy, and he’s not above thumbing through The World Encyclopedia of Comics for more.

Before you assume that this dignified associate professor of history is possessed of the thrill-seeking, bubble-gum-popping, prepubescent mentality of a 10-year-old, it’s important to note that a), in case you haven’t looked at one lately, comic books are not necessarily just for juveniles any more, and b), as a specialist in 20th-century American culture, Moore reads them as a subject of scholarly study. To him, Spider-Man, Batman, et al. are highly accurate mirrors of American society, reflections of our dreams and discontents—kid stuff, if you will, as cultural id stuff.

The crux of Moore’s fascination is this: Since the 1930s, many comics have served covertly or overtly as media of protest—opportunities for their creators, as he puts it, to “chastise America for its imperfections.”

Now Moore himself is a gentle man, as well as a scholar, with more the mien of a federal judge than a social critic. In 1980, he won the University’s Edward Peck Curtis Award for Excellence in Undergraduate Teaching, and that same year he published a book called The Search for Equality in the National Urban League. He has more recently been working on another book, on racial conflict in the U.S. armed forces and defense-related industries during the two World Wars and the Korean War. He has also been, for a number of years, on the editorial review board of the Journal of Negro History, and he recently completed a paper on “Apartheid: The White Man’s Burden,” which he plans to submit soon to the Journal of Southern African History.

Currently, Moore teaches a course on protest movements of 20th-century America, covering feminism; the anti-war movement; McCarthyism; the political mobilization of blacks, Chicanos, and American Indians; environmentalism; and both pro-choice and pro-life activism. It was a student in this course who lent him a full collection of Green Lantern/Green Arrow, rekindling an old flame.

As a graduate student, Moore was a reader of these trailblazing, socially conscious comics and once owned all 13 issues, now considered classics and recently reprinted by DC Comics. He sees Green Lantern/Green Arrow as the culmination of a trend that began in the 1930s.

“Between the 1930s and 1960s, most Americans just assumed that liberalism was the best political expression that one could associate oneself with,” he comments, taking time from his full schedule for an interview in his office high up in Rush Rhees Library. (“I’ve got to clean up my office,” he half-apologizes, shuffling the papers and books on his desk, “but I just haven’t had the opportunity.”)
AREN'T JUST KID STUFF

Green Lantern & Green Arrow

HE OVERDOSE... HE'S DEAD... WE... LOST!

LIKE HELL!
"Orphan Annie's philosophical bent was that nothing worked better than an honest day's work to make one forget his or her own troubles. But Gray's artistic work did more than highlight a girl's positive human characteristics. In it, he warned readers of the dangers of political extremism in general and that of the Left in particular. As one of Roosevelt's arch enemies, Gray remained convinced that the New Deal's architects and defenders were the chief promoters of a dangerous kind of liberalism."

The message was straightforward enough. In a 1932 strip, a young tough blocks Annie's path when she seeks a job as a newspaper carrier. She tells him, "It's a free country—you've got no right to spoil a good job for someone else who is willin' to work." He shoves her in the face, so Annie kicks him in the shins and then decks him. For her resourcefulness, she is hired on the spot.

It's Annie's knockout punch—not big government—that saves the day for good of American entrepreneurship. But while this may have been cathartic for readers, it had little political impact, says Moore. "Most readers didn't pick up on it—there was almost a forced subtlety. FDR was such a popular president; I suspect that most people would have been up in arms if he had been criticized openly."

In thousands of strips from 1923 to 1968, as in the one described above, Annie met and overcame obstacles that Americans encountered daily—obstacles arising from the social and political problems of the times, says Moore. Millions identified with this child who, like Superman and Huck Finn, was an orphan, and she attained a sort of mythical status. (Unlike Superman and Finn, Annie broke new ground as a female lead character who was independent, determined, and self-confident, although this may not have been intentional. According to Moore, she was initially "Little Orphan Otto," but Gray's editor convinced him that his original character sketches were too effeminate for an "Otto.")

If Annie might, with a little luck and good timing, have been the girl next door, the next generation of comic-strip and comic-book protagonists was from another planet altogether. The late '30s and early '40s brought the stuff of unbridled fantasy—Superman and Batman and their followers, extravagantly muscled, Homeric creatures engaged in never-ending struggles against arch villains. These superheroes may have been a response to the super problems of the age. Moore says: With the rise of Fascism, "comic-book writers and artists began to suggest that America's technological and economic capabilities were the world's last hope of avoiding a one-world totalitarian state."

By the 1940s, American comics—one of our few indigenous art forms, according to one observer quoted by Moore—had come of age. Millions of Americans, and millions of American children in particular, were avidly following the adventures of star-spangled good guys who were forever stronger or smarter or braver than the bad guys. (Superman himself was created in 1938 by two 17-year-olds.) In a 1944 essay written for *The American Scholar*, "Why 100,000,000 Americans Read Comics," William Moulton Marston wrote of "America's most popular mental vitamin, the wish-fulfilling picture story." (A Harvard-educated psychologist and college lecturer who also invented the polygraph, Marston believed in the salubrious effect of comic books to the extent that he created Wonder Woman, aiming to give American youth "a feminine character with all the strength of a Superman plus all the allure of a good and beautiful woman.")

"Truth, justice, and the American way" played well in Peoria until the 1960s, when increasingly rebellious and sophisticated young readers began to turn to such underground publications as *Zap* comics by R. Crumb. Moore views *Doonesbury* as one effort that made it big at that time. Simultaneously, mainstream comics began to
reflect “relevant” themes. (A pioneer here was Walt Kelly’s *Pogo*, whose protagonist was involved in national politics and fighting McCarthyism in the 1950s.)


It’s not that these books were best-sellers; one reason they lasted only two years was flagging sales. But Moore hails them as classics and credits them with altering the focus of “quality” comics altogether.

He’s not alone in this view. Says Don Thompson, co-editor of the industry's weekly newspaper, *Comic Buyers Guide*: “Sales figures don’t necessarily have anything to do with how good a comic is or how long it will last as literature. *Green Lantern/Green Arrow* was in the forefront. It showed that, even in an unrealistic context, you could still have superheroes operating in a real world. There are people writing comic books today who were very much affected by them.”

While “the Greens” had been appearing in separate publications since the early 1940s, both lacked the popular appeal of Batman and Superman. The only luster to the character of Green Arrow (in civilian life, wealthy industrialist Oliver Quinn), aside from the trick arrows in his quiver, was his “Arrow Car.” *Green Lantern* (a.k.a. Hal Jordan, who originally sported a cacophonous black, red, green, purple, brown, and yellow uniform) went through a number of transmogrifications, each centering on the almost omnipotent capabilities of his “power ring.”

In 1970, DC Comics called on artist Neal Adams and writer Denny O’Neil to breathe some life into these characters and their sales. O’Neil, now the editor of Batman comics, describes the scenario: “I had been a journalist once upon a time, and that experience was still pretty fresh. I was also a concerned citizen, the parent of a young child, but a little too old to be part of the ’60s protest generation.

A Critical Exposition of “Swamp Thing”

Jesse Moore isn’t the only Rochester professor who reads comic books. Associate professor of English Thomas Gavin, a well-received fiction writer, is another fan.

For the past three years, Gavin has been working on his third novel, the story of a 12-year-old boy who reads Dostoevsky and Poe—and who also writes and illustrates comic books (any resemblance to a young Gavin is more than coincidental). In researching his novel, he came upon a comic-book writer whom he regards as “a kind of Shakespeare of comic books,” an Englishman named Alan Moore.

Moore at one time wrote a series called *Swamp Thing*, which Gavin rates as “an extraordinary piece of work” for its artful use of language and cinematic techniques.

The frames shown here are a case in point. The setting: Three teenagers have been drinking beer in the woods in a car that belongs to the father of one of the boys. When one of them leaves the car, the other two are attacked and killed by one of *Swamp Thing*s enemies, a creature called “Woodrue.”

Gavin details how Moore brings the scene to a climax:

[Frame 1] “Closeup on the face: ‘Andy, Andy, what’s this stuff on the car? This is my dad’s car, man! Hey, Andy!’ And notice that line, ‘This is my dad’s car.’

Now, it takes a certain kind of art to be able to throw in that very practical, teenage kind of worry. And then you notice also in the background of the frame this sound effect, ‘lup, lup, lup.’ It stirs curiosity, but you can’t identify its source, its meaning.

[Frame 2] “And we get closer, from still another point of view. Look at the art that goes into just figuring out what you might call the ‘camera angles’ in a scene like this. And we still hear this strange sound effect, this ‘lup, lup, lup.’

[Frames 3 and 4] “We get still closer to it, and it’s at this point, in this frame and the next one, that we see both this horrible catastrophe that’s happened in the car and we also get the sound effect identified, the beer still emptying from the can. See what’s happened here, as you read that image? Now, that suggests the passage of time. And it suggests the difference between being at a distance from this scene and getting gradually closer so that you can read the image.

“These are all the kind of cinematic techniques—choices about angle and distance and point of view—that Orson Welles was using in *Citizen Kane* and *Touch of Evil*, which are films that are very close to the brooding, horrible world that *Swamp Thing* inhabits. But that technique of the sound effect gradually becoming intelligible is something right out of the film *Lawrence of Arabia*.”
“I had done a couple of other comic-book stories dealing with environmental issues. And also, the ‘new journalism’ was happening at the time, combining fiction with journalism. All of that was in the air.

“So when they came to me and said they had a magazine that was in trouble but that there were reasons for keeping it alive, we thought, ‘Why not?’ This was the glorious opportunity, the heaven-sent chance to see how real-life concerns and social issues mixed with the exploits of superheroes.”

And thus Green Lantern and Green Arrow were born again. Green Arrow, hailed as the “dynamic archer of the Justice League of America,” was recreated as a blond, bearded, angry, and impatient type, of New Left militant leanings. Green Lantern, fellow member of the Justice League, became, in Moore’s words, “a naive do-gooder . . . shocked beyond belief by the corruption in society.”

Green Lantern retained his magic arrows and Green Arrow his super ring. And both Greens still had all the physical attributes of superheroes: Classically handsome, with rippling biceps and triceps and quadriceps, they looked like Ken dolls on steroids. Their eyes, behind their masks, were otherworldly: all white, without pupils or corneas (like their predecessor Orphan Annie’s).

But the two showed believable human frailties, and they grappled with very real problems. Together, they took to the streets against drug pushers, TV evangelists, polluters, racists, corrupt politicians, exploitative businessmen, male chauvinists, and even Mother Juna, who had forced overpopulation on the planet Maltus.

According to Moore, this was the first example of a mainstream comic-book that probed the issues of the day intelligently and incisively. He points to one story dealing with drug abuse, “Snowbirds Don’t Fly,” as an example.

In their search for a friend they suspect is involved with drugs, the Greens encounter three young men—a black,
Sound and Fury

What’s the sound of an airplane exploding?

SSCHHAAAAKKKKKKK!

How about a fistfight between Green Arrow and a humanoid robot?

SLANG! ZAK! POK! KLUMP!

The sound of Green Lantern hitting the ground in a dead faint?

UNMNGA!

Such are the “noises” of comic-book action—wildly imaginative, onomatopoeic crashes and bangs and blows that reverberate only in the reader’s mind. What’s required is an artist who can give a word color and movement and dimension (say, with red letters two inches high blasting from the center of the page), and a writer who can deliver phonetically what the ear might hear.

Denny O’Neill, who with Neal Adams created the Green Lantern/Green Arrow series, is such a writer. What’s more, he says it was the “fun part” of his job. There were some tricky things about it, however: “The one problem we never solved was the sound of glass breaking. The closest we could come was ‘KHA-REEESH,’ which we thought was pretty good.”

“And then one of our sounds was ‘KALUTA,’ which was the name of an artist I happened to be working with at the time.” (On the page, with a little poetic license, it screams “KALOOOOOTA,” representing the noise-polluting crunch of a punch press in a plastics factory owned by an evil businessman.)

Other sound bites were less cryptic: “BAM BAM” for the sound of a gun being fired, “BRINGING” for a telephone, “PATOOO” for someone spitting, and “NOK NOK” for a knock on the door. And some were downright elegant: “TINK,” as Green Arrow breaks the chains that bind his wrist to the steel wing of an airplane, and “KUHZZLLZIE,” as a robot fries Green Lantern with mysterious rays.

The sheer genius of it all ZAPS the mind.

And now, since every story, great and small, is supposed to end with flair—if not fireworks—we thought we’d use some Denny O’Neil-isms to conclude this one.

FAVOMP! SLANG! POK! KLUMP! THOOM! KASH! BADOMP! SKRRRUNCH!

And now, for the finale: BUZZZZUK!

a white, and an Oriental—awaiting a drop-off of heroin. In a conversation their youth says to the Oriental, “Chink’s nothin’ compared to the names I’m called. . . . Nigger is for openers! Then they get real poetic! But it ain’t the names they call you, it’s what’s behind their eyes, baby. This is my reason for shootin’ . . . It makes life more bearable . . . and it gets me through the day!”

Comic Buyers Guide editor Thompson notes that this was the first comic-book story of its time to focus on drugs and still win the approval of the Comics Code, the industry’s watchdog organization.

But as to the larger question of whether the series had an impact on young minds, Moore believes that it did. “It did introduce, particularly to affluent suburban white youths, a world which was totally different.

They were forced to begin to question, ‘Must America be as it is?’ ‘Is America a land in which everyone has an equal chance of rising to the heights of his or her capacity?’ ‘Do we have as much of an impact on the political process as we believe we do?’

As a reader himself, Moore encountered another world, he says, “particularly when they dealt with the problems of the inner-city poor.” He had taken a summer job with a New York City youth program, “and I began going into areas in Harlem and East Harlem, and the hopelessness that I saw in people’s eyes and in their body language—to see it in print and then to see it in reality was a shocking experience.”

So that’s why the professor reads comic books—because in theme and in import they are, many of them, far from comic. Green Lantern/Green Arrow writer O’Neill puts it this way:

“I think comics have been unfairly stigmatized, particularly in this country, as literature for idiots. You know,” he says, lapsing into Brooklynesque, “‘Ya need the pitchahs in order to understand the woids.’ Comic books have been assumed to be for kids.

“But people like Garry Trudeau and Gary Larson and Berke Breathed are just astonishing. They’re doing the Green Lantern thing every day; they’re capturing the zeitgeist, on deadline, 365 days a year.”

There’s no question they do it well: Trudeau, creator of Doonesbury, won a Pulitzer Prize for political cartooning in 1975, for example.

But Professor Moore would see a larger pattern here. He would argue that they are all, together with Little Orphan Annie and the Greens, fighting for truth and justice in a uniquely American way.

Rochester Review assistant editor Denise Kovnat hopes that when her colleagues in the University administration building see this article they will understand why it was that she seemed to be spending so much time last fall reading comic books at her desk.

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OUR MAN
Concertmaster Raymond Gniewek ’53E went to a lot of trouble to get his job with the Metropolitan Opera. Thirty-two years later, he’s still as happy as the day he landed it.

By Jeremy Schlosberg

When 25-year-old Raymond Gniewek drove from Rochester to New York City for an audition before the concertmaster of the Metropolitan Opera Orchestra, he was not what you’d call a wealthy man. How broke was he? So broke he had to drive back to Rochester the same day because he couldn’t afford to stay the night in Manhattan, even at 1957 hotel-room prices. So broke he realized he didn’t even have enough money to buy the gas he needed to make the return trip, even at 1957 gasoline prices.

After he finished playing, he sheepishly asked Felix Eyle, the concertmaster, if he could cash a check for him, an $8 check. Eyle smiled benevolently at the plight of this talented young violinist, peeled the $8 out of his wallet, and waved him on his way.

Instrument case in hand, Gniewek climbed once again behind the wheel of his Ford station wagon to return to his wife and daughter and low-paying job with the Rochester Civic Orchestra. Gniewek today—a jovial, confident man—relates the story with a chuckle. He has certainly had the last laugh.

Beyond enjoying the prestige and satisfaction inherent in belonging to so distinguished a group, Gniewek is buoyed by the plain fun of it all. “This is really being in the theater,” he says. “It gets under your skin.” Although he took the job with every intention of using it as a stepping stone to a symphony-orchestra position, he quickly abandoned that goal. “After a few years here, I was hooked. Now, in all honesty, the thought of playing in a symphony orchestra seems just a little boring.”

And yet, for a person trained to play music designed to be heard by itself, isn’t it hard playing second fiddle, as it were, to voices, scenery, and special effects? “It used to be frustrating,” admits Gniewek. “But not anymore.” He remembers a time years ago when the Metropolitan did a production of Elektra—and we were terrific.” Two weeks later, he says, the New York Philharmonic did a concert version of the opera, to enthusiastic critical response. “Well, the Met had just done the same thing two weeks earlier, and the reviewers didn’t even mention the orchestra.” But he’s learned to expect this sort of thing. “Basically, it’s like the movies. If the background music is really excellent, you don’t even notice it.”

As a member of an opera orchestra, you are rewarded simply by being part of an extravaganza unlike anything else in the performing arts—an amalgamation of voice, orchestra, acting, set
design, lighting, costumes, and effects as dazzling in their way as anything Hollywood can do, all performed in large, “wedding cake” halls peopled with emotional audiences. Inside the Metropolitan’s opulent, multi-tiered home in Lincoln Center, the opera orchestra performs a different work every night, six nights a week (and again on Saturday afternoon), for 32 weeks a year, collaborating with a parade of renowned singers and conductors. “It’s a spectacle, it really is,” says Gniewek. And there’s nowhere else he’d rather be.

He didn’t always think that way.

The son of immigrant Polish parents who settled in East Meadow, New York, Raymond Gniewek (pronounced “nee-EV-ick”) was pushed toward the fiddle and bow practically from the womb. His father, a barber, was a frustrated violinist, with a strong will. The family joke had long been that the first son would become a violinist, but it was a joke that wasn’t all that funny to Gniewek as he grew into his teens still subject to his father’s authoritative presence behind him while he practiced.

As college approached, Gniewek plotted a rebellion of sorts. He wanted to study physics, not music. He applied to, and was accepted by, both MIT and Cornell. There was only one problem. “It was made pretty clear to me at home that I wouldn’t get any financial backing to go into science,” he says. To become a physicist, he was going to need a scholarship. He applied for a couple, but just missed them. The coup de grâce was learning of his selection as one of 10 finalists competing for one of the five Grumman Aircraft scholarships that would pay for an education at the school of his choice—and then learning that he had been passed by. The day he received the letter that gave him the bad news, he stalked into his father’s barbershop and announced, “Well, I guess you’re going to get your way.”

A conversation later that spring revealed a potential escape route. The principal violist in the Cincinnati Symphony was performing at Gniewek’s high school. Impressed with young Raymond’s talents, the violist told him he should consider a career in music.

A teacher he had studied with had since joined the Eastman faculty. Why not apply there, urged the violist, pointing out that the University of Rochester, in addition to its music school, also had an excellent physics department. This sounded like a good idea, and although it was already May, Gniewek applied and was accepted at Eastman.

Once there, of course, he found no time at all to study physics, but no longer did he want to. His years of intensive fiddling and his natural talent had by then produced an enviable combination of skill and confidence. Once he got the lay of the land at Eastman, he realized he was going to excel there, and readily did so.

Gniewek stayed in Rochester after his graduation in 1953. Married and a father by that time, he needed steady work, which he got with the Rochester Civic Orchestra and the Rochester Philharmonic Orchestra. (In those days, the RPO was considerably more modest than at present, and the Civic Orchestra was the core group, with the Philharmonic playing less regularly and augmented by students.) By 1955, he was concertmaster of the Civic Orchestra. And by the following year he was getting itchy, struck by a growing sense that his talents might be better exploited in a more prominent ensemble, and by a creeping fear that he might get stuck where he was if he didn’t do something soon.

As luck would have it, 1956 was a year the Rochester Philharmonic conductor departed to greener fields. With no immediate replacement in sight, a series of guest conductors was imported. Gniewek saw an opportunity. Eager for contacts of any kind, he asked each of the visitors if he could play for him privately after one of the rehearsals. The conductors were all polite and responsive, but typically had no jobs to offer.

Thus, when Max Rudolf arrived, Gniewek had few expectations. In fact, he may have had fewer than usual, since Rudolf was then musical director of the Metropolitan Opera Orchestra, and Gniewek’s operatic experience was zilch.

Still, Gniewek again requested the chance to perform, as he had with all the guest conductors. Rudolf politely acceded and sat through the by-then typical private concert in the Eastman Theatre. Rudolf was impressed, as the others had been. But he could go further. There was the possibility, he said, of a job opening. His concertmaster was leaving. Perhaps, he said, Gniewek could come down and play for the departing violinist in New York. Rudolf wanted his own opinion of Gniewek’s talents corroborated.

Then came the private audition and the matter of the $8 check we’ve heard about. Gniewek later returned to New York (this time with enough money) for an open audition for the spot. At 25, Gniewek was younger than anyone else in the orchestra, but he played with the subtlety and skill of someone twice his age. His hearers, like Rudolf, were impressed.

Then, for weeks, no news. Gniewek grew increasingly uneasy at not hearing anything, and when one of the audition judges, conductor Dimitri Mitropoulos, happened to be visiting Rochester on tour with the New York Philharmonic, Gniewek took the bull by the horns. After the concert, he marched backstage as if he belonged there, which he did not, and knocked squarely on Mitropoulos’s dressing room door. Mitropoulos opened the door and greeted his visitor with happy recognition.

The older man invited the younger to a reception taking place across the street. Again, not really belonging, Gniewek went anyway, skulking round the periphery (with important officials wondering, “What is he doing here?”) until the great Mitropoulos himself arrived. All the local dignitaries greeted him, as Gniewek watched from across the room. “Then he saw me,” says Gniewek. “He lit up, walked right over to me, and said to the people around him, ‘This is one of the finest violinists I have ever heard.’ Oh, that was quite a moment for me. He all of a sudden
Team Work

Back up a glittering parade of guest artists, the Metropolitan Opera enjoys a complement of distinguished performers who are on its payroll full time. Among them, along with concertmaster Raymond Gniewek ’53E, are two other Met veterans, conductor Richard Woitach ’56E and singer James Courtney ’73E.

Nothing emerges so strongly from conversations with these Met players as the remarkable team effort it takes to produce a world-class opera night after night.

Sometimes, as in Woitach’s case, this means being prepared to perform far more often than doing the performing. As a member of the conducting staff, he must be completely ready to step in and take over from the scheduled conductor, in case of illness or incapacity, anywhere from two to five times a week. Yet he has performed this emergency duty only a dozen or so times in his 14 years as a full-fledged conductor (his first nine years at the Met were spent as an assistant conductor, who does not conduct any performances). That is not to say that this has left him twiddling his thumbs instead of his baton: He is occasionally the designated conductor that someone else has to back up, and week in and week out he has many other backstage responsibilities, such as coaching singers, conducting the orchestra during rehearsals, to carry out as well.

Courtney is a comprimario singer—a singer of solo supporting roles, neither in the chorus nor a lead. More than a walk-on, a comprimario usually has 10 minutes of onstage glory and then disappears. “I think of the comprimarios as the sprinters,” says Courtney. “They’ve got to do what they do all at once.” The artistry of the comprimario is the ability to pull yourself together in a short period of time and make it look like you’ve been on that stage all evening.

Courtney may be in three to six performances a week. Four is fairly normal; five begins to be a strain. This is not like Broadway, he notes, where it’s the same show seven days a week. At the Met there’s a different opera every night. “It gets to be like ‘If this is Wednesday, this must be The Barber of Seville,’” he says.

And yet, somehow, it all works, 99.9 percent of the time. For longtime Met trouper, our Eastman guys have surprisingly few tales of woe or weirdness to report.

One personal disaster Courtney recounts is a performance of The Marriage of Figaro two years ago when his role required him, in the third act, to jump from behind scenery to surprise the other characters. The jump went down a small step, and on this particular night it ended with a turn of the ankle and an audible crack. He was next supposed to walk 32 feet across the stage to place a hat on the head of another character—a difficult stunt with a broken foot. “It might as well have been 32 miles,” he says. He turned upstage and told a few chorus members what he had done (yes, the singers often do have conversations on stage whenever they are supposed to appear to be conversing in character), but did his best otherwise to hide it. It was too late in the show to get in a replacement, so he hobbled his way through the fourth act.

“The humorous part was that for my claim for workmen’s compensation I was asked if there were any witnesses to the accident,” says Courtney. “And I said yes—the prompter, the conductor, and 3,000 other people.”

Backstage can be a far more treacherous place than on stage; there are wires, cables, holes everywhere—and it’s dark. There’s always the potential for trouble but fortunately little ever happens.

Woitach recalls one tragedy where an elevator carrying a singer to a high level of the set got stuck on her costume and actually strangled her. Beyond that horrific incident, he’s seen mostly the occasional power failure or equipment problem—things that if they happen, tend to happen on the road.

One of the strangest incidents Woitach has experienced occurred at Christmas in 1980. It was the first time he had conducted Hansel and Gretel, and he had just finished the overture when suddenly the house lights came on. Turns out the Met had received a bomb threat; the entire audience had to exit to the front lobby, while the company was forced out into the traffic tunnel on a very cold night. Fortunately, it was just a scare, and the show went on.

The most dramatically embarrassing moment Courtney knows of happened at the Met long before any of our current Eastman fellows were there. He heard about it from a veteran singer who remembers a performance of Der Rosenkavalier with a particularly unsightly first scene. This was a production that featured two small dogs on stage. We’re talking here about one male dog and one female dog, mind you, so perhaps you can guess what happened.

Ah, well, they do say that opera is for lovers...
Opera is the stuff of drama, both on stage and off. Gniewek has seen a singer collapse and die during a performance. He has seen a fumbling singer replaced in the middle of an act (the implication is that he was drunk, but Gniewek is too decorous to say so). And he has seen the whole place shut down in mourning, on the day of John Kennedy's funeral. But mostly, in true show business tradition, the performance must and does go on—through "rain, snow, sleet, hail, and subway strikes," as he puts it.

Gniewek is no longer prone to opening night jitters, and in his early years, when he did get nervous, he managed to maintain at least the appearance of cool. Over the years he has turned into one of the orchestra's reliable anchors. For performances with one notable guest conductor who insisted on directing without a score, it was to Gniewek that many of the musicians turned when the maestro unknowingly missed cues. When the concertmaster's fiddle came up, the orchestra members knew where they were.

But even the experienced Gniewek can be swept away by emotion and adrenaline. One of the tensest times he remembers was a performance last year of Strauss's Ariadne auf Naxos. A Saturday-afternoon performance was not only being broadcast live over the radio in the United States, as Met matinees have always been, it was also being taped for American television, and was going live to Europe as well as the Soviet Union. The estimated total audience was about 180 million.

On top of that, Ariadne is a challenge from a musician's point of view, featuring a small (38-piece) orchestra, with many noticeable solos. "It was a difficult opera, very exposed, and going completely live." On top of that, even, broadcasting to Europe always carries with it an extra burden, the desire to "prove" that we here in the United States can "do opera" too, he says. "It was one of those performances where everybody is looking at each other and saying, 'Oh, boy, ...' You could cut the tension with a knife.

In the event, nothing went wrong. The performance was terrific, and well received. Anticlimactic? Not at all. It's the potential for that kind of drama and emotion that makes operatic performance so satisfying. Gniewek loves the exuberance of a filled opera hall, the audience so different—with their anticipatory breathlessness and their cathartic cheers—from their more staid cousins in the symphony audience. While some nights are to a degree marred, he says, by a "partisan audience" for a particular singer, there are other nights when you can feel the combined emotion of 3,800 cheering fanatics down to the soles of your shoes. "It's an unbelievable, indescribable feeling."

And that's another difference for the Metropolitan Opera Orchestra member—the chance to play routinely for large numbers of appreciative fans. Opera critics in New York have far less box-office clout than do theater critics, since the Met is usually 95 percent sold out by subscription. In fact, reveals Gniewek, the critics sometimes have a reverse effect. He's seen it happen: A scathing review in the Times will actually attract people to the purportedly terrible performance. They want to see what the fuss is about.

Ask him for his favorite operas, and he hems and haws—he's been exposed to dozens and dozens over the years, after all. He'll settle, if forced, on Don Giovanni, Otello, Götterdämmerung, but he clearly doesn't like to narrow it down that much.

New York-based writer Jeremy Schlossberg frequently writes about alumni for the Review. His most recent profile was of yacht-designer Britton Chance '62.
Marshall Winner

A molecular-genetics major who has worked in science labs since she was 12—and who came to college the year she turned 14—senior Thuy Phung has become the third Rochester student in recent years to win a Marshall Scholarship for graduate study in Britain. She was one of only 30 students nationally to receive one of the 1988 awards, considered only slightly less prestigious than a Rhodes.

Awarded by the British government, the Marshall Scholarships recognize the winners' exceptional academic achievement, intellectual abilities, and potential to make significant contributions to British universities and to their home country.

Phung plans to use the two-year scholarship to pursue a master's degree at Oxford University before beginning work in an M.D./Ph.D. program back home in the States.

She'll be no stranger to Oxford when she gets there; she spent her junior year studying biochemistry at the university's Somerville College. Eventually she wants to become both a physician and a medical scientist capable of helping people with genetic disorders.

Soft-spoken and modest about her achievements, Phung admits she has a strong will to succeed, fueled by the crisis she and her family faced in 1980, when they fled as boat people from political and economic oppression in Vietnam. They brought almost nothing with them except a determination to make a new life for themselves in this country.

Phung watched as her parents struggled to make ends meet for the family and to adjust to an unfamiliar culture. She quickly learned English, fell in love with the study of genetics, and swore to take advantage of the intellectual and cultural freedoms that opened for her here.

Now working on her honors thesis in genetics, she has collected a full bag of academic awards during her college career, among them junior-year election to Phi Beta Kappa and two summer-study grants (one for independent research in biology, the other for language study in France). Ask about her out-of-class activities, and she talks enthusiastically about choral singing.
Bush must remain committed to the plan, says MacAvoy, because it "established his distinctive position in the campaign and was responsible in part for his election."

Still, there's bad weather up ahead, he says. "Congress has never before agreed to any kind of freeze. Even if it does agree, it would have to contain programs like Social Security, Medicare, food stamps, and housing that over the last decade have grown by percentages roughly four to eight times greater than the Bush budget would allow."

A freeze would work in eliminating the deficit by the end of Bush's first term only if the economy generates large new receipts for the federal treasury by growing at 4 percent, MacAvoy believes. "But," he cautions, "we are looking at current projections for GNP growth of 2, not 4, percent."

As for the backpack: This entails carrying a 50-pound backpack.

"I think one should be a citizen who's aware of what's going on. One should have a voice and opinions about things that affect our lives. War and other catastrophes may seem remote to you. But war changed my life."

Getting to Millinocket

President Bush's attempt to eliminate the budget deficit by 1993 is like a traveler from New York trying to get to Millinocket, Maine, in bad weather, carrying a 50-pound backpack.

So says Paul W. MacAvoy, dean of the William E. Simon Graduate School of Business Administration, quoting the old Maine story that has the farmer telling the New Yorker, "You can't get there from here."

MacAvoy, a long-time economic adviser to Bush, made the analogy at the Simon School's annual Economic Outlook Seminar. "Getting to Millinocket involves . . . no new taxes, an indefinite freeze on constant-dollar total government spending, funding new programs from reductions in old programs, and a constitutional amendment requiring a balanced budget that would give the president a line-by-line veto of expenditure bills."

The Quayle Puzzle

How effective was Dan Quayle as a U.S. senator from Indiana? And what kind of vice president will this young politician make?

A Rochester political scientist, Richard F. Fenno, Jr., has published a new book, The Making of a Senator: Dan Quayle (Congressional Quarterly Press), that helps answer some of the questions.

Much attention has been paid to Quayle's pre-Congressional life, and much speculation has developed about how he will handle his new national office. Fenno, a well-known Congressional scholar, who finished writing this character study before Quayle was nominated for the vice presidency, provides an important missing piece of the puzzle—an assessment of Quayle's senatorial career from 1980 to 1986.

Fenno reveals some surprising information about the senator, whose legislative career shows another side to the stiff conservative seen during the presidential campaign.
In the Senate, Quayle was often practical and flexible. His most important legislative success—his cosponsorship of the Job Training Partnership Act of 1982—was a strongly bipartisan effort that involved working closely with liberal Senator Edward Kennedy and battling with his conservative soul mates in the Reagan administration.

While in the Senate, Quayle shied away from the extremist views embraced by some members of his party. After his election in 1980, he noted: “Conservatives have very different ideas than the New Right about where we ought to go. Some of the New Right people really want to turn the clock back... on affirmative action and all the civil rights gains. There’s no way they’re going to do that. We won’t let them.”

Although he had acquired a reputation in the House as a lightweight who lacked interest in legislative work, Quayle began to be seen in the Senate as tenacious and eager to get things done, and he gradually gained the respect of many senators on both sides of the aisle.

New Science and Technology Center

Late last fall the National Science Foundation (NSF) announced its selection of Rochester as the site of one of 11 new science and technology centers it is creating throughout the country for basic research. A $1.65 million grant will fund the center for its first year. Expected to top $8 million over an initial five-year span, the NSF grant could be extended for an additional six years.

At Rochester, investigators will be exploring the interaction between light and matter—examining chemical processes in which a positive or negative electrical charge is transferred between molecules when a material interacts with light. This research, scientists speculate, could have benefits for such areas as photography, photosynthesis and enzymatic reactions, photocopying, and photopolymerization.

Called the Center for Photoinduced Charge Transfer, the new Rochester facility is headed by David G. Whitten, professor and chair of chemistry in the College of Arts and Science.

In what Whitten calls “a teamwork approach,” University faculty will collaborate closely with scientists from the Eastman Kodak Company and Xerox Corporation. “Among the University, Kodak, and Xerox,” Whitten says, “we have quite a concentration of scientists in photochemistry, all within a seven-mile radius. We'll be pooling our resources and our capabilities to do research that is probably not possible anywhere else in the world.”

After NSF in 1987 announced plans to establish the new centers, it received 323 proposals from research groups and institutions. The 10 other successful proposals came from the University of California (Berkeley and Santa Barbara), California Institute of Technology, University of Illinois at Champaign-Urbana, Michigan State, Northwestern, Oklahoma, Rice, Rutgers, and Virginia Polytechnic Institute and State University.
What Killed the Dinosaurs?

Speculation on the demise of the dinosaurs has been raging for years. Now a Rochester scientist thinks he may have come up with a definitive answer as to what killed them off some 66 million years ago.

While most theories have focused on either a meteorite impact or on extensive volcanic activity as the single cause of the mass extinctions of the dinosaurs and many other animal fossil groups, Asish Basu, professor and chair of geology, offers the first hard evidence that ties the two events together. He presented his findings—at the annual meeting of American Geophysical Union in December.

What he has discovered are clear indications that a meteorite once struck the Indian Peninsula at the site now known as the Deccan Trap, a huge basalt plateau produced by volcanic activity in central and southwestern India. He believes the impact of the meteorite triggered the area's extensive volcanic activity at the time of the mass extinction.

Basu is the first to find physical evidence of a meteorite impact beneath the site. Basu's principal evidence is the finding of "shocked" quartz—quartz that has split along certain planes in a way unique to quartz that has withstood a large impact. The quartz grains were found immediately beneath the lowermost solidified layer of lava of the Deccan Trap, which indicates to Basu that a meteor struck the site just before the volcanic activity began.

The theory that an asteroid hit the earth at the time 66 million years ago when the dinosaurs disappeared (known as the K/T boundary) was first suggested in 1980 by scientists at Berkeley. They had found throughout the earth an abundance of the element iridium in samples dating from the K/T period. Iridium is extremely rare in the earth's crust, but relatively common in asteroids, leading the researchers to believe an asteroid slammed into the earth at that time.

Scientists believe that a meteorite's impact and the resulting volcanic activity would have sent huge amounts of dust and sediment in the atmosphere, causing a type of nuclear winter. Sunlight would have been cut off, plunging the earth into darkness and depriving plants of the light they need to survive. The food supply of the animals at the bottom of the food chain would be destroyed, and the scarcity of food would affect the larger animals as the smaller ones died off.

The chance that the quartz grains originated from a meteorite impact elsewhere and settled in India is extremely unlikely, Basu says. The combination of the shocked quartz grains and the sudden volcanic activity leads to his conclusion that the impact of a meteor at the Deccan Trap spurred the volcanic activity.

Basu's find could also account for the contention of some paleontologists who say the dinosaurs died off over a span of several thousand years. They argue that if the extinctions were caused by an impact, they should have happened more suddenly. According to Basu's theory, the extinctions resulted from both the impact and the resulting volcanic activity that took place over thousands of years.

NEWSCLIPS

Readers of national publications, as well as of scientific and professional journals, regularly come across references to the scholarly activities—and professional judgments—of people at the University. Following is a cross section of some of those you might have seen within recent months:

Newsweek

The word "psychoneuroimmunology"—more easily described as "PNI"—may not mean much to you. It didn't to Rochester professors Robert Adert and Nicholas Cohen either—until their discovery that "virtually spawned the field" in the mid-1970s, according to a Newsweek cover story.

Basically, PNI analyzes how our beliefs, emotions, and relationships influence our susceptibility to illness—something we human beings have long suspected but only recently begun to prove.

The article credits Adert and Cohen with being among the first to do so. In a relatively simple taste-aversion study in which they gave rats a saccharine solution followed by an injection of a nausea-inducing drug (also known to suppress immune function), Adert found he could condition the rats to suppress their own immune systems—much in the same way that Pavlov conditioned dogs to salivate at the sound of a bell.

The New York Times

The words "rebellious" and "teenager" needn't always be linked, according to the recent research of Judith Smetana, an associate professor of education, psychology, and pediatrics at Rochester, who was quoted in a Sunday-magazine article.

What may look like rebellion may be just normal adolescent self-assertion. According to Smetana, there are two fundamentally different world views at the core of family conflict: Adolescents tend to see much of their behavior as a "personal" matter, affecting no one
The New York Times

Only 26 years old, pianist Anton Nel already commands his share of publicity.

The winner of the prestigious Naumberg competition in 1987 and a new associate professor at the Eastman School of Music, Nel was praised enthusiastically in a recent Times review of a recital at Alice Tully Hall: “Even in . . . moments of seeming abandon, his renderings were note perfect and his textures crystalline.”

Columbia (Mo.) Daily Tribune

Thumbing through a collection of journals at Rush Rhees Library, novelist and assistant professor of English Joanna Scott came upon that of a French boy on a 19th-century slave ship.

“In the journal, the boy vividly describes how the African is brought on board . . . slashed, then the image of blood on the water,” Scott told the Daily Tribune.

The image seized her imagination — and became the inspiration for her second novel, The Closest Possible Union.

Chapter One of the book received the 1987 Peden Prize of The Missouri Review, published by the University of Missouri at Columbia. Scott’s story won, according to a judge, because of “the quality of prose and the fabric of the voice.”

St. Petersburg Times

The author of the Pledge of Allegiance — a socialist?

Most certainly not, writes an editor of the Times. Responding to the charge (in U.S. News & World Report) that Francis Bellamy, Class of 1876, was “a prominent socialist” who favored nationalizing much of the American economy, the Times columnist states: “That view is not supported by Elizabeth Brayer, a writer who recently published a long article on Bellamy in [Rochester Review], which she researched in the large collection of Bellamy papers at the University of Rochester. Bellamy left the Baptist ministry because he felt the church was not doing enough for the working man, she said, but she ran across nothing to indicate he was a socialist.”

The Chronicle of Higher Education

It was a Page One story in both The Chronicle and The New York Times, among scores of other publications: Dr. Shervert Frazier, one of the nation’s most eminent psychiatrists and a former director of the National Institute of Mental Health, resigned from his post at Harvard Medical School after admitting he plagiarized large sections of several papers he wrote for medical journals and textbooks.

Frazier’s plagiarism came to light after Paul Scatena, a graduate student in cognitive science at Rochester, wrote a letter to Harvard last August outlining the material he had concluded was plagiarized. He came upon the material, he said, while he was “working my way through the literature on phantom limb pain” (often felt by those who have lost a limb). He said he was following principles he learned at the City University of New York, those of checking references carefully and consulting primary sources whenever possible.

Attention, readers: The Office of University Public Relations is asking its network of alumni readers for their help in compiling clippings of published references to the University, its faculty members, and its alumni. When you come across such items, if you would take a minute to clip out the article, identify it with the source and date of publication, and send it along to the Review (108 Administration Building, University of Rochester, Rochester, NY 14627), the office would be grateful. A number of you did just that after our last request, and we thank you all.
SPORTS

Mind Games

Beethoven is Pete Lyman’s favorite composer.

You might not think that bit of information would have much relevance to a sports story. But it turns out that the two are linked by something more than the musical predilections of Rochester’s enduring men’s tennis and squash coach.

Beethoven was already being hailed as one of the greatest composers and pianists of all time when his ears began to fail him at age 31. By his late 40s, he could no longer hear the applause after conducting a performance. And yet, his greatest works he wrote in the last years of his life, when he was completely deaf. Beethoven heard the music in his head.

Lyman graduated from the University in 1947, and by his late 20s, he had won the first of his 16 consecutive titles in men’s singles tennis in Rochester. He was the best around. Then rheumatoid arthritis began to slow his game. Today, after more than 20 years as the men’s tennis coach, he walks slowly and painfully and plays the game hardly at all. But as his body betrays him, his coaching appears to be reaching toward its zenith. Pete Lyman lives tennis in his mind.

“Coaching has always been a challenge, not only to try to win, but also to make the best of the talent on the team. My challenge now is to keep my mind going,” he says. “Sure I’d like to be a little more physical, but my physical condition has improved me upstairs and made me a better coach because I’ve had to study the game and my players harder.”

Thanks in large part to Lyman’s guidance, the men’s tennis team has enjoyed more than a few successes. In 1983, Alex Gaeta and Bob Swarthout captured the Division III national doubles title. Two years ago, the team was No. 5 in the nation, its highest ranking ever. Last year, Rochester came in second in the UAA. One of Lyman’s top players is Scott Milener ’89, singles champion, doubles runner up, and MVP of the UAA, who was recently ranked No. 2 nationally. Another star is Joachim Hammer ’89, a junior Phi Beta Kappa, who has earned three All-American honors and selection as the “Senior Player of the Year” in Division III men’s tennis.

Lyman’s coaching magic works on the squash court as well; in a sport that has no divisions, Rochester is currently ranked 12th nationally, just behind such traditional powers as Harvard, Yale, Princeton, Army, and Navy.

His racquet savvy comes in part from an unlikely source—physics, which is just one of his hobbies. “I like to relate physics to the mechanics of tennis and squash, the forces on racquets and balls, to supplement my general knowledge of the sports.” A math major at Rochester, Lyman was raised in Europe, and he enjoys keeping up his Russian and French. And he has loved to play piano since childhood.

Now he seldom plays either piano or tennis; his body won’t cooperate. He turns instead to his Beethoven recordings to satisfy his musical cravings and his experience and understanding of tennis and squash to nurture his players’ talents. A national team championship is his goal.

“If I could have my body of 20 years ago and my mind of today, it’d be even better,” he says, without a hint of wistfulness. “There’s no secret to good coaching. It is like creating a work of art; when I help my players develop their talent and reach their potential, that’s tremendously satisfying.

“Of course, I enjoy winning too.”

Fall Wrap-Up:
Men’s Cross-Country Is Tops

The men’s cross-country team pulled down the greatest accolades last fall when the Yellowjackets finished third at the NCAA Championships in St. Louis. It was the highest finish ever for Rochester at nationals. Junior Al Smith

Court king: Yellowjacket basketball has a new high-scoring champ. Jonathan Jones ’89 (left) shattered the 1,414-point career total of Jack Herlan ’77 (right) only 12 seconds into the Case Western Reserve game early in the season. Herlan was on hand during the match, and with coach Mike Neer (center), handed Jones the game ball during a break in the action.
was the first man across the tape for the Yellowjackets, finishing in sixth place. Rochester finished second to Brandeis in the UAA championships.

Women’s cross-country finished eighth overall at nationals. Returning All-American Josefa Benzioni won championships at the UAA meet, the NCAA Division III Regional Qualifier, and two in-season competitions. Benzioni was seventh overall at the NCAA Championships.

Volleyball qualified for the NCAA Division III Championships for the first time in three years. The Yellowjackets finished with a superb 45-14 record. Senior middle hitter Diane Ulatowski was named UAA Player of the Year as she guided Rochester to the league title.

Both men’s and women’s soccer earned trips to post-season play. Each team also won the UAA championship. The men ended 11–5–3 with the runner-up spot in the ECAC Upstate New York playoffs. The Yellowjackets put together an 11-match unbeaten streak to nail down the playoff bid. Women’s soccer was 12–3–3. The squad was knocked out of the NCAA playoffs in the first round on a tiebreaker. Rochester dueled Kalamazoo College 2–2 in double overtime before officials used penalty kicks to break the deadlock.

The football team put on an offensive display in the final two games, crushing Brockport, 45-0, at Homecoming and thwarting Denison, 38–14, a week later. Junior wide receiver Tom Sheehan set single-game, season, and career marks for receivers in the Denison game. He caught five passes for 189 yards and three TDs. Rochester set a school record for points in a season with 296. Seven players were named to the ECAC Upstate All-Star team, and six were cited for the UAA Honor Team.

Fall Results by Sport
Football: 8–2
Field hockey: 9–8
Men’s cross-country: 3rd at NCAAs
Women’s cross-country: 8th at NCAAs
Women’s volleyball: 45–14
Men’s soccer: 11–5–3
Women’s soccer: 12–3–3
Men’s golf: 6th at ECACs
Women’s tennis: 4–3, 7th at N.Y. States
Men’s tennis: 2nd at Albany Tr.

Rochester TRAVELERS

All members of the University community are eligible to participate in these tours. Non-associated relatives and friends are welcome as space permits. Those—other than spouses, dependent children, or parents of alumni and current students—who have no direct connection with the University will be requested to make a tax-deductible donation of $50 to the University. Prices are current best estimates, subject to final tariffs and significant fluctuations in international exchange rates.

Portugal—Spain—May 18–30
A unique Iberian adventure—3 nights in Lisbon, 2 in the Algarve, 3 in Seville, and 3 in Madrid. Includes full-day excursion to Jerez de la Frontera aboard luxurious Al-Andalus Express. Full orientation tours in Lisbon, Seville, and Madrid, deluxe motorcoach transfers, and all baggage handling included. $2,795 from NYC. Group arrangements from Rochester.

Gota Kanal, Sweden, and Norway—June
The highlight of this unique Scandinavian itinerary is a 3-night cruise on Sweden’s “Blue Ribbon” (the Gota Kanal) from the Baltic to the North Sea, with a midpoint visit to charming, historic Linkoping. Also, 3 nights in Stockholm, 2 in Gothenburg, and 3 in Oslo. Unending scenery, history, galleries and museums with ghosts of Vikings, and long daylight hours will flavor this program. Deluxe hotels, Scandinavian breakfasts, all cruise meals, transfers, and luggage handling included. This one is different. $3,145–$3,445 from NYC. Lowest-price domestic connections will be arranged.

Canadian Rockies—August 30–September 10
An 11-night program which includes Vancouver, Victoria, Lake Louise (Chateau Lake Louise), Jasper (Sawridge Hotel), and Banff (Banff Springs Hotel), relaxing and scenic tour-transfers, all breakfasts and 10 dinners, plus city tours of Vancouver and Victoria. $2,495 from Rochester or NYC; $2,075 from Vancouver, with attractive air supplements from major cities to Vancouver and return from Calgary.

Russia—Pathways of the Great—July 18–31
Moscow and Leningrad, with 7 nights aboard M/S Kirov for cruise of Neva and Svir rivers and Lakes Onega and Ladoga, including visits to Kizhi Island, Petrozavodsk, and Valaam Island, plus 2 nights in Berlin. This is a “white nights” visit to the Karelia region in northwestern Russia, newly opened to Westerners. $3,000–3,445 from NYC. Group fares from Rochester.

Cultures of Eastern Europe—July 28–August 11
Berlin (3), Warsaw (3), Cracow (2), Budapest (2), and Vienna (3). Experience the present in a region from which much of our intellectual and cultural heritage derived, and which has experienced such devastating upheaval and remarkable recovery in the 20th century. A new itinerary to old places. All meals in Poland and full breakfasts elsewhere, air from Berlin to Warsaw, deluxe motorcoach Warsaw to Cracow to Budapest, hydrofoil on Danube to Vienna, and orientation tours in all cities included. $3,095 from JFK. Group arrangements from Rochester.

Wings Over the Nile—October 7–20
Two weeks and the best of Egypt, with key transfers by air. Cairo (Giza); Alexandria; Suez Canal flyover; St. Catherine’s Monastery at the foot of Mt. Moses in the Sinai; Nile River cruise with visits to Luxor and tombs of the West Bank, Edfu, Kom Ombo, and Aswan; and Abu Simbel. An exciting encounter with antiquity. $3,499 from NYC. Group arrangements from Rochester.

Vikings, Czars, and Emperors—October 28–November 12
From NYC to Copenhagen (3), Moscow (2), Beijing (3), Xian (2), Hong Kong (3), and return via San Francisco. Perspective from the Mermaid to the Kremlin; to the Great Wall, Temple of Heaven, and Forbidden City; to a mythical army of 7,000 terra cotta soldiers and horses; to the singular scene from Victoria Peak and the bustling of Hong Kong, in an unbelievably manageable Round-the-World program. Over-the-water flights on SAS and Cathay Pacific, two of the world’s finest airlines. Many inclusions. $3,595 from JFK. Group arrangements from Rochester.

For further information or detailed mailers (as they become available) on any of the trips announced, contact John Braund, Alumni Office, University of Rochester, Rochester, NY 14627, (716) 275-3682.
Row, Row, Row Your Boat

The joke goes like this: The hundred oarsmen on the ancient Greek galley have been rowing mightily for hours toward their destination. They're pooped. After a while, the first mate comes into the cabin with an announcement. “I’ve got good news and bad news,” he says. “The good news is, we’ve sighted land.” Cheers erupt; the rowers are beside themselves with relief. “The bad news is, the captain wants to go waterskiing.”

It wouldn't be easy for those oarsmen to oblige their captain; just ask Jeff Knakel '82. He's been there.

Knakel (foreground of photo above) was among the select international team of men and women rowers who descended on the Greek island of Poros last summer to crew on a modern-day trireme, the big wooden warship used by the Greeks and other ancient naval powers. Christened Olympias, the replica was built and launched two years ago, the result of a joint effort in experimental archaeology by the Greek and British governments. It was the first trireme to ply the Aegean in more than 1,500 years.

The trireme gets its name from the three-tiered arrangement of its oars—170 of them, one per person—that sprout like so many legs from either side of the 118-foot hull. The ship looks much like a centipede water bug, and as you can imagine, keeping all those 13-foot oars moving in perfect harmony was a vexing problem even for a crew of experienced rowers.

“There are 170 people crammed into a boat that’s twice the length of a modern eight-man shell,” says Knakel. “You can’t see your oar, and there’s only a couple of inches between your blade and the next. If you hit the other guy’s oar, the domino effect takes over and you can screw up everybody. It’s a real challenge in concentration.”

The trick, it was discovered, was to get the three rowers within each vertical column to work together. “It was no harder physically than rowing a shell, but more of a test of style and coordination with your fellow rowers. After a while, we developed a system of grunts and groans to signal each other,” says Knakel, who was a zygite, a middle man, and thankful for that. At least he wasn’t a bottom man, a thalamite. “The lower level is a crummy place to be; the guys on the top two levels would be sweating down on you, there’s no air, and you can’t see out of the boat. We were always buying gifts for the thalamites because we felt they were abused.”

For the modern-day rower, challenges were numerous. The trireme oars are considerably heavier than those normally used these days. The cramped quarters—designed for the average ancient Greek at 5 foot 7 inches—left little room for today’s rowers to stretch out and less room for error.

But surely the Greeks had figured all this out long ago. After all, the Athenians used a fleet of triremes to fend off the Persians at the Battle of Salamis in 480 B.C. They must’ve left instructions, right? Wrong; no remains or plans of any triremes have ever been found. Our knowledge is limited to clues gleaned from ancient texts and bits of decorated pottery. The builders and rowers started from scratch. “The ancient Greeks refined their design over hundreds of years; we had just two weeks to figure out how to row the thing.”

Even when all went well, Olympias managed a top speed of only 9.6 knots in its 20th-century incarnation. That’s slower than an eight-man shell, slower even than a single shell, says Knakel. You can forget about water skiing.

Now a senior design engineer at McDonnell Douglas in St. Louis, Knakel never rowed at Rochester, although the crew club began in his junior year. He instead devoted his time to writing for the Campus Times and working on projects like engineering an all-terrain vehicle for the Mini Baja. He started crewing when he moved to St. Louis. When the opportunity to row on Olympias came up, Knakel says he just “fit the envelope” of qualifications.

Although in his time off he traveled around the Greek isles like any other tourist, Knakel was busy studying too. “It was a chance to learn something about Greek history, to look at an ancient ship and see how it was engineered.” He certainly wasn’t able to do much sightseeing while he was aboard Olympias. “The 170 crew members made up 15 tons of ballast, roughly half the weight of the ship,” he explains. “When the ship’s moving, you can’t have 15 tons of ballast get up and walk around.”
Uncle Sam

“One thing about Sam, he’s never been a guy who gave a good damn about an air-conditioned Mercedes,” a friend recently remarked about long-time Congressman Sam Stratton ’37.

Indeed, some years back, Stratton was known to tour his district in his station wagon and bed down in the back in a sleeping bag. He defended this mode of travel, says The New York Times, on the ground of common sense.

Last fall, the 15-term Democratic Congressman announced that he would not seek reelection—which may have Republicans breathing easier, since Stratton was known as a consummate campaigner. If he didn’t care much for fancy cars and air conditioning, he obviously did care about his constituents in the Albany-Schenectady-Troy-Amsterdam area of upstate New York. And he returned the compliment. In the 1960s, the Republican state legislature redrew his district, giving their party a two-to-one margin in registration (an aide says it used to be called “the submarine district” because it stretched from the Hudson almost to the Genesee). Still, Stratton won that year by a rousing 12,000 votes. He ran for his final term in 1986 virtually unopposed.

Stratton has almost always been a winner in almost everything he’s done—from his years at the University when he graduated Phi Beta Kappa and set a backstroke record on the varsity swim team to his service in World War II as a naval combat intelligence officer on MacArthur’s staff, when he won two Bronze Stars. For a time after World War II, he was popular on Schenectady radio and TV as “Sagebrush Sam,” for which he sported a false beard and played the harmonica.

But he’s best known for his work on Capitol Hill, where he chaired the House Subcommittee on Procurement and Military Nuclear Systems and served on the House Armed Services Committee, helping to shape the Pentagon’s budget. Stratton has consistently supported a defense buildup, but he’s also taken more traditionally “liberal” stances—for a national minimum welfare payment, for economic sanctions against South Africa, and against an anti-busing amendment to the Constitution.

He’s lent his support to the University, too, having served as a trustee (first on the board, then in an honorary position, and now as a life trustee) since 1959. For his work here and on “The Hill,” he received a Presidential Citation in 1958 and the Hutchison Medal, the highest honor the University gives to alumni, in 1978.

Broadcast News

The term “producer” is one of those nebulous job titles—like “technician,” “consultant,” or “writer” —that can make you wonder, “What exactly do people like that do?”

For instance, what does a television producer produce? We put the question to Anne Eastman ’81, who covers the money beat for the weekly “American Agenda” segment on ABC’s “World News Tonight” with Peter Jennings.

“Basically,” she tells us, “I work with the correspondent, in this case Shiriah Kast, to research what story to tell, how to tell it, and whom to interview. Then we go out with a camera crew, film our interviews and cover footage, screen all the material, write the piece, and when the correspondent puts it all together, we edit it and then send the piece to the senior and executive producers for more editing. Then it goes on the air.”

For one recent assignment—a piece on flexible benefits—the schedule went like this: Fly from New York City to Houston, arrive 11 a.m. Wednesday; meet camera crew 6:45 a.m. Thursday; finish shooting 10:30 p.m.; meet camera crew 5:45 a.m. Friday; fly back to New York, home by 9 p.m.; screen material Saturday; edit piece Sunday. Of all that boils down to one 3 1/2- to 4-minute segment.

Whew.

“The film Broadcast News was accurate in showing the hysteria of putting together a nightly newscast, although for those of us in the business, it was a fairly blown-up portrayal,” she says. “The problem I had with the film is that network anchors are not dumb talking heads; they’re top-notch people, with a lot of education and experience. The idea of someone who simply looks good and who happens to fall into an anchor position—that’s just contrived.”

“There are producers like the Holly Hunter character, though. In fact, she was modeled after an ABC News producer who used to work the White House beat. I like to think I’m not like her—I mean, I don’t cry on schedule, I’m not a screamer, and I’m organized enough, I think, so things don’t get so crazy. We producers are an eclectic bunch; we have different styles and different interests, and that’s what makes the pieces lively.”

Despite the pace and the pressure, Eastman has loved the seven years she’s been at ABC News. “I’d definitely recommend the job, but you have to be young and single.

The main thing for me is I have always enjoyed meeting new people in new places, learning new subjects, and constantly dealing with new topics.

“The hours are horrendous, and the pressures are intense, but when you’re out there in the field talking to people and learning their stories, that’s what’s fun.”

A Successful Operation

Since 1958 when Ernest Bates ’62M became the first black student to graduate from Johns Hopkins, he has continued to set standards for minority achievement.

He was one of the first black neurosurgeons to complete a residency in this country (he was the third). And he now heads one of the first black-owned companies to offer stock publicly (his was the fourth).

Bates is chairman and president of American Shared Hospital Services (ASHS), a San Francisco-based company with 660 employees and 1988 earnings of $44 million. ASHS contracts with hospitals and clinics for part-time use of medical-scanning equipment for diagnostic imaging and respiratory therapy.

“Contract-management services is one of the fastest growing health-care industries, since hospitals have to contract out more and more of the services that they used to provide for themselves,” says Bates.

“An MRI scanner, for example, sells for about $2.3 million. Few hospitals can justify that kind of expenditure.”

That makes sense, certainly. What is harder to conceive of is a neurosurgeon who understands cash-flow analysis and ROI.

It happened by accident, says Bates.

“Like many doctors, I was looking for tax
write-offs. In the late '70s, I was approached by a group of doctors looking for investors in CT scanners.

"The venture immediately started losing money, paychecks bounced - and," he adds, laughing, "I was the only investor they could find."

"I reached into my pocket. And I agreed to run the business in my spare time. I found some very good people to help me; the firm grew from one machine to four machines; I bought out the original investors. At that point I began to realize that there was potential."

Soon, he was a convert. "I got a lot of satisfaction out of seeing that my cohorts in rural cities could have the same sophisticated equipment I had in San Francisco." Another compelling reason: "I started to make money."

Today, Bates is effectively a full-time entrepreneur (although he does teach neurosurgery one morning a week at the University of California at San Francisco). And he has a full-fledged sense of purpose about his work.

"If we physicians take charge of our own destinies," he says, "we can do a better job, because we understand the health-care needs of our communities and our patients."

Meet the Beatles

For all of you maturing - we won't say aging - Beatlemaniacs out there (if you think your life was forever changed when you heard that first "yeah, yeah, yeah" on the Ed Sullivan Show back in '64, you qualify), here's more fuel for your fire. Tell Me Why: A Beatles Commentary (New York: Alfred A. Knopf) by Tim Riley '84GE (at Eastman, his surname was Mike), offers an exhaustive analysis of something all Beatles fans have always known intuitively - why the music works so well.

According to a review in The New York Times: "Mr. Riley is remarkably attentive. He follows not just lyrics, melodies and chord progressions but the textural elements essential to understanding rock - that don't show up in sheet music: bass and drum parts, shifts in instrumentation, vocal inflections."

Sure, there's the inevitable trivia, for those who like that sort of thing: The bumper-sticker phrase, "Think globally, act locally," was coined by John and Yoko; "Happiness is a warm gun" came from a slogan of the National Rifle Association; "Hey Jude" was, in part, McCartney's effort to comfort Julian Lennon after his parents' breakup.

But the bulk of the book's 388 pages is devoted solely to the music - indeed, the text serves as an illuminating reference for serious listeners as well as a pleasure cruise for ardent fans who know most of the words to most of the songs.

Here's a sample, from the comments on "She Loves You":

"When the first verse begins, it's like a whole new world opening - the music defines ecstasy. The verse melody climbs right up the scale ('You think you've lost your love'), unwinds from unison into harmony ('Well I saw her'), and closes with the playful bounce John and Paul take on the words 'yesterday-ee-ay,' and 'say-ee-ay.' Everything points toward the hook - the good news - of 'She loves you,' which is kicked with a syncopated stroke from the whole band before they finish singing the word 'you.'"

"Far out," in the words of a '60s adolescent-type. And Riley is mindful of adolescents of all ages, who would rather listen to the music than analyze it. He begins the book with a quote by rocker Elvis Costello, "Writing about music is like

Horseplay, or How to Pick a Whinnier

In the small Texas town of Tioga, about halfway between Dallas and the Oklahoma border, Joan Brown Bivin '66 labors on the far-out edge of horse reproduction.

Bivin is founder and manager of the Emtran Center, perhaps the first facility in the country built exclusively for equine embryo transfer. At Emtran, specialists remove embryos from pregnant horses and place them in special breeding mares. The procedure, though an ethical minefield if applied to humans, is the newest high-tech wrinkle in the big-money, high-stakes world of champion horse breeding.

Bivin's clients are some of the nation's largest breeders of quarter horses, Arabians, Morgans, paints, and appaloosas. They are also some of the wealthiest; at about $4,800 a pop, embryo transfers are affordable among only the very well-heeled. However, since the procedure became commercially available five years ago, Emtran
dancing about architecture," which at first seems to dismiss the book out of hand. But then again—consider the relationships between space and dancing, and space and architecture, or writing and the ear, and music and the ear—Riley knows there's value to this kind of study: The music of the Beatles has more to it than meets the ear, and as we read, our appreciation deepens.

Riley, who holds a master's degree in piano from Eastman and a B.A. in English from Oberlin, had planned on teaching piano at the college level. But when he signed the contract for Tell Me Way, he says, "I suddenly realized that—what?—I could earn a living writing about this, my passion. Hey, I'll get on that bus." He's now working on a book about Bob Dylan and serving as rock critic for the "alternative" newspaper, the Boston Phoenix.

As with all good music critics, Riley simply loves good music. And in the end (sorry, but we had to say that), his book is a celebration of the music and the chords it struck in so many people. He closes: "It's our connections with people that make us most human, the Beatles seem to be telling us; our interaction with others fulfills the biggest part of our humanity."

As John, Paul, George, and Ringo used to say, "Yeah, yeah, yeah!"

A School of One's Own

Irene Duckworth Hecht '6IG has two problems with the practice of admitting women to formerly all-male schools: one, what happens in class, and two, what happens out of class.

As the newly appointed 15th president of Wells College, a highly regarded women's school in upstate New York, Hecht has become sort of an ad hoc spokeswoman for the merits of such institutions. In a recent issue of The Chronicle of Higher Education, she observes that "women apparently are socialized into certain corners of the curriculum" at all-male schools that have opened their doors to women.

In other words, you're likely to see fewer women majoring in economics than in English at Dartmouth—or Harvard, or Princeton, or Amherst. But not at Wells, says Hecht: "Economics here bobs somewhere around third to fifth as the most popular major."

As for out-of-class activities, she believes that "you're more apt to find the females as secretaries" in student organizations at a coed institution—whereas at a women's school, "it is only the student's aims and desires that affect what she tries.

Still, what about social life, that one indisputable advantage of coed schools? Hecht answers: "As one student said to me, 'You just have to make some decisions and take some initiative. You just have to go do it.' It seems to me that social life in a single-sex institution is a lot closer to the real world."

Case dismissed. And what does Hecht, personally, find appealing about an all-women's school?

"I think we're living in a time of extraordinary creativity for women's institutions. Those who are going through college right now are going to live their lives differently from the way their mothers and grandmothers—as far back in millennia as you want to go—lived theirs. Women are taking it for granted that they will enter the public arena and that this is a permanent state of affairs."

"And this has got to affect what we do educationally. So I can't think of anything more exciting than to be the president of a women's college right now."

Different Drummers

Ever heard of a dholak? A kwengggwary? A kentongan, a ranat, or a tablu? Well, then, how about a snare, a vibraphone, or a tambourine—or a Yamaha DX7 or a Roland Sync Box, for that matter?

At Expo '86 in Vancouver, Canada, percussionist and composer John Wyre '63E synthesized these and countless other percussion instruments from all over the world for "The World Drum Festival."

Wyre served as composer and artistic director for the extravaganza, which began with a series of small concerts and culminated in "The World Drum Finale"—four sold-out performances that featured some 200 drummers (and 45 miles) and served as the focus of the documentary film, "World Drums." Included in this Olympics for drums ("without the competition," he qualifies) was steel-band music by an ensemble from Antigua whose sound was described as "an incredible bundle of joy," energetic "dundancing" by Les Compagnons D' Akati of the Ivory Coast, the military precision of the Queen's Lancashire Regiment Drum Line, and an electrifying solo by Steve Gadd '68E (whom Wyre has called "the drummer for our band of drummers").

"I'm kind of the referee when all of the musicians come together," says Wyre, who has directed a total of seven World Drum productions to date, the most recent of which was in Australia last fall. "I like to let people do what they do best, because that's why I've hired them. They represent some of the finest examples of their kind of drumming in the world."

He describes World Drums as "a family of artists that has been growing since 1984 under my direction and that of my partner, John Crompton, an entrepreneur-producer based in Ottawa." Performances are in the planning for 1990 and 1991 in New Zealand, Australia, Japan, and the Soviet Union, among other places.

He says he's been dreaming of this kind of cross-cultural drumming since 1961 when he was on tour with the Eastman Philharmonia.

"We were in Beirut. In those days I always carried a pair of bongos with me, and I wound up jamming with a Lebanese drummer who played the drum bed and an Indian who played the tabla. It felt beautiful; it planted a seed, and it confirmed my theory that drummers could sit down and improvise together very quickly."

After this and similar experiences on other tours, Wyre says, "I thought at that point in my life that I would be very interested in leaving music and somehow going into cultural relations. But I couldn't leave music—and now I seem to be doing both."

In addition to his work with World Drums, Wyre for the past 17 years has been a member of Nexus, Canada's premier percussion ensemble. He also performs with the Boston Symphony and teaches at the University of Toronto. But he seems to revel most in his role as musical ambassador at large.

"For me, the whole essence behind making music is to lose yourself in playing with other people and simply become something greater. The Buddhists would call it a 'sama - madi'—a meditative state of deep concentration," he says.

"Once you've been seduced by this process, then to be able to make a living at it is even wonderful. Sometimes I sit down and just laugh at the thought that people pay me to do this."

As for World Drums, he says, "The bottom line is to provide an example of the strength of music has to bridge social gaps, understanding gaps, intellectual gaps. It shows that this great variety of cultures can work together in a very positive, joyful way."

Denise Bolger Kovan
and Shinni Morokuma
Alumni

MILESTONES

RIVER CAMPUS

Career Moves

Robert Quade ’51, named treasurer, Educational Consultants Group, Keene, N.H.

James Crum ’56, appointed Midwest Regional Manager, McGraw Construction Co., a subsidiary of International Mill Service, Inc.

David Witton ’56, named chair, Otis Worldwide Quality Council. He is director, Otis Elevator Engineering, which he joined in 1986 after 30 years at Pratt & Whitney Aircraft.


Christina Munson Schmidt ’64, appointed head, Children’s Services, Allentown (Pa.) Public Library.

David O’Brien ’65G, promoted to professor of history, Holy Cross College.

Robert Wayland-Smith ’65, named Rochester Division president, Chase Lincoln First.

Lawrence Goodheart ’66, ’68G, named assistant visiting professor of history, Nichols College.

Meredith Bernstein ’68, opened literary-agency office, New York City.

Ernest Rosenberg ’68, named director, legislation and regulation, health, environment, and safety, Occidental Petroleum Corp.

Linda Scott Syrell ’69G, appointed interim dean, continuing education, public service, and summer sessions, SUNY Oswego.


Clarence Bassett ’72, named publisher, New York Business Environment, an independent newsletter reporting on environmental affairs in New York.

Nancy Moore Mark ’72G, named principal, Pawlet (Vt.) School District.

Alan Bernstein ’73, named chair, Dept. of Pediatrics, The Brooklyn Hospital/Caledonian Hospital.

Roberta Kirsch Feldman ’74, joined law firm of Suiton, DeLeeuw, Clark & Darcy, Rochester, where she is responsible for matrimonial and family law.

Lawrence Brown ’75G, named Samuel P. Capen Professor of Accounting, SUNY Buffalo.

Michael Goldman ’76, named assistant professor of biology, San Francisco State University.

Enrique Hernandez ’76G, named global product manager, Du Pont.


Cliff Rubenstein ’76, named associate, Dann Pecar Newman Talesnick & Kleinman law firm, Indianapolis.

Richard Wise ’77, named tax manager, Pasternak Schweizer & Co. public accounting firm, St. Louis.

Arvin Adler ’79, named assistant professor of radiation oncology, SUNY Stony Brook.

Victor Jenkins ’79, named director of national accounts, Blue Cross and Blue Shield of Central New York.

Maureen Stewart ’79, ’80G, joined professional mortgage sales staff, First Federal of Rochester in Mount Kisco, NY.

Scott Reisinger ’80, ’87G, named chair, history dept., Greens Farms Academy, Westport, Conn.

Bradley Goddard ’81, promoted to v.p., Investment Banking Group, Chemical Bank, New York City.

Danny Smolnik ’82, opened law office, Farmington, Conn.

Eric Fiegel ’83, ’85G, named director of computing, Emory (University) Business School, Atlanta.

Debra Mathinos ’84G, ’86G, named assistant professor, Dept. of Education, Bucknell University.

Alexandra Filla-Keegan ’87G, named an officer and assistant manager, Citibank, Rochester.

Advanced Degrees

Karen Thompson Greene ’69, Ph.D., clinical psychology, NYU; she has begun work at the Manhattan Psychiatric Center, where she supervises the internship training program.

Marjorie White ’82, M.B.A., Fordham University; she is now an assistant v.p., middle-market commercial lending, Union Bank, Los Angeles.

Robert Kowalewski ’83, Ph.D., physics, Cornell University; he has begun work as a research associate, Carleton University, Ottawa.

Vincent Trisco ’83, J.D., cum laude, St. John’s University School of Law; he passed the New York and the Commonwealth of Massachusetts bar examinations and is now associated with the New York City law firm of Rogers & Wells.

Honors/Elections

Frank Schell ’43, reelected president and trustee, The Society for the Relief of Families of Physicians of New Jersey.

Herbert Strohson ’45, president, Delta Dental Plan of Colorado, elected president, Delta Dental Plans Association, the largest prepaid dental plan in the U.S.

Henry Thiode ’47, professor and chair, University of Rochester Dept. of Obstetrics and Gynecology, elected president, American Gynecological and Obstetrical Society.

Dorothy Durfee Wurtmann ’50, elected president, Ridgefield (Conn.) Branch, American Association of University Women.

David Kearns ’52, chair and chief executive officer, Xerox Corporation, elected to board of directors, Ryder System, Inc.


Robert Schoenberg ’66, president of the board of directors of ActionAIDS, named 1988 Social Worker of the Year by the Philadelphia and Brandywine (Pa.) divisions of the National Association of Social Workers.


Margaret Kopley ’74, awarded medical psycho-
therapist national board certification; listed in the National Registry of Medical Psychotherapists.

Mark Bartusis '75, professor of history, Northern (S.D.) State College, named Andrew Mellon Faculty Fellow, Harvard University.

Elliott Lichstein '77, member of Westwood (N.J.) Cardiology Associates and attending in the Jonathan Lunine 'SO, assistant professor, therapist national board certification. Listed in the National Registry of Medical Psychotherapists.

Scott Argast '78, assistant professor of geology, Indiana–Purdue University at Fort Wayne, named IPFW Sigma Xi "Researcher of the Year."


Elizabeth Goldstein '84, named managing editor, Stanford Law Review.


Books Published


EASTMAN SCHOOL OF MUSIC

Career Moves

Al Parner '63GE, appointed music lecturer, University of Wisconsin Center–Marshfield/Wood County, where he also directs the Campus Band and Jazz Ensemble.

James Pouliot '65E, '67GE, appointed company director, Lake George Opera Festival, and guest professor of opera, Manhattan School of Music.


Mark Parker '76GE, named assistant minister, Bridgeport Baptist Church, Clarksburg, W. Va., where he conducted a concert by The West Virginians performance choir.

Jerry Evans '81E, named principal oboist, Asheville (N.C.) Symphony; English hornist, Greenville Symphony; and music director and conductor, Mostly Modern Chamber Players, a contemporary music ensemble.


Tanya Gille '84GE, joined piano faculty, Eastern Kentucky University in Richmond. She was formerly chair, music dept., Texas Wesleyan College, and was named College Teacher of the Year by the Fort Worth Music Teachers Association.

Douglas Besterman '86E, named assistant musical director/synthesizer player for the Off Broadway revival of "Godspell," to which he also contributed new orchestrations.

Audrey Cupples '86E, embarked on four-year tour of duty with the U.S. Marines as a member of "The President's Own" Marine Band.

Heather Buchman '87E, named principal trombone, San Diego Symphony Orchestra.

Honors/Commissions

George Walker '56E, chair, music dept., Rutgers University, awarded commission for new musical works from the Serge Koussevitzky Music Foundation in the Library of Congress.

Scott Lindroth '80E, composer and performer, awarded commission for new musical works from the Serge Koussevitzky Music Foundation in the Library of Congress.

David Thomas '83GE, honored by the National Orchestral Association, which selected his Oboe Concerto for its 1988-89 New Music Orchestral Project at the Manhattan School of Music. He has completed a string quartet composition begun in residency at the Atlantic Center for the Arts in New Smyrna Beach, Fla.

Performances/Recordings

Robert Glasgow '50E, '51GE, professor of organ, University of Michigan School of Music, performed in the opening recital of the sixth annual organ seminar at the Interlochen Center for the Arts.

Taavo Virkhaus '57GE, '67GE, conductor of the Duluth (Minn.) Symphony Orchestra, conducted the opening performance of the 1988-89 season of the Huntsville (Ala.) Symphony Orchestra.

John Davison '59E, professor of music, Haverford College, attended the performance of his Concerto for Flute and Orchestra at the Orange (N.J.) County Community College.

Key

RC – River Campus colleges
G – Graduate degree, River Campus colleges
M – M.D. degree
GM – Graduate degree, Medicine and Dentistry
R – Medical residency
F – Fellowship, Medicine and Dentistry
E – Eastman School of Music
GE – Graduate degree, Eastman
N – School of Nursing
GN – Graduate degree, Nursing
FN – Fellowship, School of Nursing
U – University College
GU – Graduate degree, University College
Anthony Crain ’60GE, faculty member, SUNY Oswego, performed “Baroque at the Piano,” featuring works of Bach and Scarlatti, at the Masterworks series in the school’s Hewitt Union.

Thomas Stacy ’60E, English horn, New York Philharmonic, and faculty member, Juilliard School and Manhattan School of Music, performed in a concert honoring the Society for the Performing Arts’ 10th anniversary at Trinity Cathedral, Trenton, N.J.

Stanley Sussman ’60E, ’62GE, guest-conducted the Spoleto Festival U.S.A., Charleston, S.C., and was principal conductor for the Martha Graham Dance Company performance at New York’s City Center.

David Greenhoe ’64E, faculty member, University of Iowa, was solo trumpet in Haydn’s Trumpet Concerto in E-flat Major in a concert with the school’s Symphony Orchestra.

Michael Webster ’66E, principal flutist with the Rochester Philharmonic Orchestra since 1968, was featured soloist with the Redlands (Calif.) Symphony Orchestra at a University of Redlands concert, where he performed works of Mozart, Mendelssohn, and Saint-Saëns.

Gerard Niewood ’70E, released the compact disc Gerry Niewood Alone on the Perfect Sound label. The recording includes solo improvisations on alto, tenor, and soprano saxes and on alto flute.

Adah Toland Mosello ’71E, ’72GE, music faculty member, Southwestern Texas State University, conducted the school’s Flute Choir in a performance in Recital Hall.

Leigh Howard Stevens ’75E, classical marimbist, performed in the New Views/Other Voices 1988—89 Series at SUNY Buffalo. He was nominated for Artist of the Year and Album of the Year awards by Ovation magazine’s 1988 readers poll.

Stanley Yerlow ’80GE, was guest piano recitalist at West Georgia College, where he performed works of Chopin. In December he appeared in his second Carnegie Hall performance.

Sylvia Wang ’85GE, assistant professor of piano, University of Iowa School of Music, was piano soloist with the university’s Symphony Orchestra, performing Mozart’s Piano Concerto in C Minor.

Julie Stout ’86GE, concertmaster, Finger Lakes Symphony Orchestra, was violin soloist with the orchestra in a performance of Saint-Saëns’ “Introduction and Rondo Capriccioso.”

Shaw Walker ’87E, appeared with a solo ensemble in a performance of Chavez’s Toccata for Percussion Instruments with the Annapolis Symphony Orchestra Percussion Ensemble.

MEDICINE AND DENTISTRY

Career Moves

Roger Hertz ’63RC, ’67M, named chair, Ob./Gyn. dept., Providence Hospital, Southfield, Mich.

Philip Singer ’64RC, ’69M, professor of neurology, University of Kansas Medical School. He was also appointed chair of neurology and director, Neuromuscular Disease Center, Kansas City, Mo. Hospital.

Donald Magilligan, Jr. ’74R, appointed chief, cardiothoracic surgery, and professor, surgery, University of California-San Francisco Dept. of Surgery.


Joseph Antonowicz ’82M, appointed consultation-liaison psychiatrist, psychiatry dept., Allentown (Pa.) Hospital-Lehigh Valley Hospital Center.

Michael Gordon ’82M, granted privileges, internal medicine, endocrinology, and metabolism, Beverly (Mass.) Hospital. He has opened offices in Ipswich and Topsfield.

John King ’84M, granted privileges, Depts. of Medicine, Pediatrics, Obstetrics, Surgery, and Emergency Medicine, F. F. Thompson Memorial Hospital, Canandaigua, N.Y.

Harriet Squier ’84R, opened family practice office at Northern Oswego County Health Services, Inc., Pulaski, N.Y.

Minoo Buchanan ’86GM, opened pediatric dentistry office, Delmar, N.Y.

Honors/Elections

Alfred Decker ’40RC, ’43M, surgeon, General Hospital, Saranac Lake, N.Y., named chair of the hospital’s $750,000 fundraising drive.

Todd Wasserman ’68RC, ’72M, named fellow, American College of Radiology.

Karl Marchenese ’74M, ’79R, a physician at Thompson Hospital, Canandaigua, N.Y., elected v.p., New York State Ophthalmological Society.

SCHOOL OF NURSING

Career Moves

Elaine Lamberson Hopkins ’58N, returned to full-time nursing, newborn nursery, Johnson City (Tenn.) Medical Center Hospital, an affiliate of Quillen-Dishner College of Medicine, East Tennessee State University.

Donna Kinney Smith ’78GN, appointed v.p. of nursing, Newark-Wayne (N.Y.) Hospital.

Pamela Austin Thompson ’79GN, appointed v.p. of nursing, Maternal Child/Psychiatry, Mary Hitchcock Memorial Hospital—Dartmouth Hitchcock Medical Center, Hanover, N.H.

Honors

Janet Bostrum Ezraty ’75N, awarded postdoctoral fellowship, National Center for Nursing Research, National Institutes of Health. She has begun study at the Stanford University School of Medicine.

Jacquelyn Campbell ’86GN, associate professor and interim chair, community-health nursing dept., Wayne State University College of Nursing, Detroit, elected fellow, American Academy of Nursing.

LETTERS
(continued from inside front cover)

A final note: My son Mark, Class of '89, has been broadcasting a jazz program this year. My work on WRUR has come full circle.
Barry Robinson '57
West Redding, Conn.

Quick Flip-Slap
I find the revamped Rochester Review interesting, and the Fall issue had particularly good articles.

BUT
In your search for efficiency, it probably seems like a good idea to file various alumni tidbits under appropriate headings like "Career Moves," "Advanced Degrees," "Books Published," etc., and with a quick flip-slap of the hands get that over with. Unfortunately, the human condition is such that a tidbit about one's classmate far outranks a grander one for a graduate 20 years away.

AND
The omission of the chronological obituaries removes the most interesting section of the magazine (the first checked). Over the years I have watched the Class of '40 slide inexorably from the end of the list to the middle and begin to edge its way up. I look at those names and think of their owners as they were and grieve a little, and think of my own mortality. This isn't morbid; this is human nature.

Please restore this section, and the chronological approach in general.
Olivia Fosburg Reardon '40
Glen Ellyn, Ill.

We agree that the "human tidbits" form an important part of our alumni publications, and that is why Alumnotes (along with In Memoriam) was moved to our companion publication, Rochester '89, where we had room to expand on that kind of coverage. The "flip-slap" (marvelous term!) treatment of Milestones in the Review is our attempt to supplement Alumnotes with even more news of your fellow alumni. And we hope you'll all continue to send it to us — Editor.

Quick Flip-Slap (continued from inside back cover)

Your "Marx-fest" photo in the Fall 1988 Review instantly reminded me of a cold Halloween evening 15 years ago in an underground Hill Court suite (actually, the underground Hill Court suite). Attached, for your viewing enjoyment, is a photo from that night. A free El Producto to anyone guessing this Groucho's identity. (Hint: He has since changed movie studios.)

Randy P. Auerback '76
Washington, D.C.

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Two Pats
I should like to report my pleasure over two happenings at the University of Rochester.

The first of these is the report in the 1987-88 Report on Giving of the gift by the Class of 1988 of a wheelchair lift in Wilson Commons. Unusual, perhaps, but splendid in its message, "We Care."

The second is the book University of Rochester, filled with magnificent photographs, mainly in color, of campus and Rochester scenes. I am most happy to have bought it and recommend its purchase to other alumni and alumnae.

John S. Phillipson '47
Cuyahoga Falls, Ohio

The testimonial for the book was totally unsolicited. But since Phillipson brings it up, we'll tell you that The University of Rochester, A Photographic Portrait is still available. For information, you can call the alumni office, (716) 275-3682 — Editor.

PRESIDENT
(continued from page 2)

student body. Not quite. There is growing consensus that SAT scores are now overblown as indicators of a college's ranking. In fact, the American Council on Education and the College Board have suggested that colleges not release median or average SAT scores for the purposes of newspaper or college guide rankings. We agree, and in line with their recommendations now report only the range of scores for the middle 50 percent of admitted students.

The basic strength of universities is the quality of the faculty who teach, not the students who come to learn or enjoy the skiing. Faculty quality is much more elusive, and it seems to elude the journalists entirely.

Next year, if we make some sort of glory list, I assure you that we will boast proudly (but sheepishly) about the fact. Our excellence has been building for nearly a century and a half; we can wait for the weeklies to catch up with us.

Dennis O'Brien
AFTER Words

ADAM URBANSKI '69, '75G:
At the Head of the Class

1989: A Leader in Educational Reform

Call him a revolutionary and Adam Urbanski will answer, quickly and quietly, "Thank you."

Indeed, this union leader with a Ph.D. in history seems bent on attacking every sacred cow that stands in his way—he's a unionist who cautions against "the narrowminded perspective of 'what's in it for me,'" and he's a teacher who contends that both teaching and schools today are "largely hostile to the process of learning."

Such a perspective may be just what it takes to achieve his goal: nothing short of a radical change in our public-school system, so that it succeeds in educating the majority of students. As the head of the Rochester Teachers' Association, the union representing the city's 2,300 teachers, Urbanski in 1986 negotiated a salary hike that put his teachers among the highest paid anywhere, with some earning as much as $70,000 a year.

The agreement was only one element of a three-year contract that includes a "Peer Assistance and Review" program to involve teachers in monitoring quality within their own ranks, as well as a "Career in Teaching" program that establishes four professional levels: intern teacher, resident teacher, professional teacher, and lead teacher. Urbanski views the contract as a step toward transforming the career of teaching into a true profession—which includes holding teachers accountable for student performance.

On a larger scale, the contract is the foundation of an ambitious experiment in educational reform now taking place in the Rochester City School District (an effort in which the University, Kodak, and the Urban League have all been key players). According to U.S. News and World Report, "National education experts say Rochester's experiment is further along than any in America."

But, true to form, Urbanski says only that "its greatest achievement so far is that it hasn't failed yet." To him, this isn't so much a bleak assessment as a humble one: "It recognizes the complexity of the issue. What we're trying to do is something that's never been done in America before."

This "something" happens to be Urbanski's passion. He's participated in a program on "Making the System Work for Children in Poverty" sponsored by Harvard's Kennedy School of Government, and he's on the board of the National Center for Education and the Economy. In conversation and in writing, he has a penchant for using medical metaphors to underscore the difficulties involved: Reforming education is "no less complicated than finding a cure for cancer"; giving rookie teachers the toughest assignments is like having "interns perform heart surgery"; "saying that 'all you have to do to be a good teacher is love kids' is like saying that 'all you have to do to be a good surgeon is love patients.'"

He knows whereof he speaks, since—except in his native Poland—he has taught in every school he has attended, from Franklin High to Monroe Community College to the University of Rochester, where he currently teaches a course on Community Issues in Public Education. (Urbanski's family came to this country from Poland in 1960, when he was 14, after fleeing through 13 countries in three and a half years, but that's another story altogether.)

As a graduate student at the University, while he was teaching full time at Franklin, he considered teaching in a college setting as a career. But, he says, "It seemed to me that the younger the age of the student, the more challenging—to use a euphemism—it is."

So, characteristically, he went with the challenge: He taught in city high schools and was active in union activities through 1981, when he was elected union president, a full-time position. First on his agenda as president was "to bring about a comfort-
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UNIVERSITY OF ROCHESTER
Backs to the drawing board: A lineup of Campus Times editors takes a last look before putting yet another week's issue to bed. Since 1883, with the appearance of the CT's predecessor, the University Record, Rochester student journalists have been enthusiastically gathering and publishing "all the news that's fit to print"—and (sometimes, in the view of their elders) then some. For more on campus newspapering, past, present, and future, see "Pushing Deadlines," beginning on Page 8 inside.