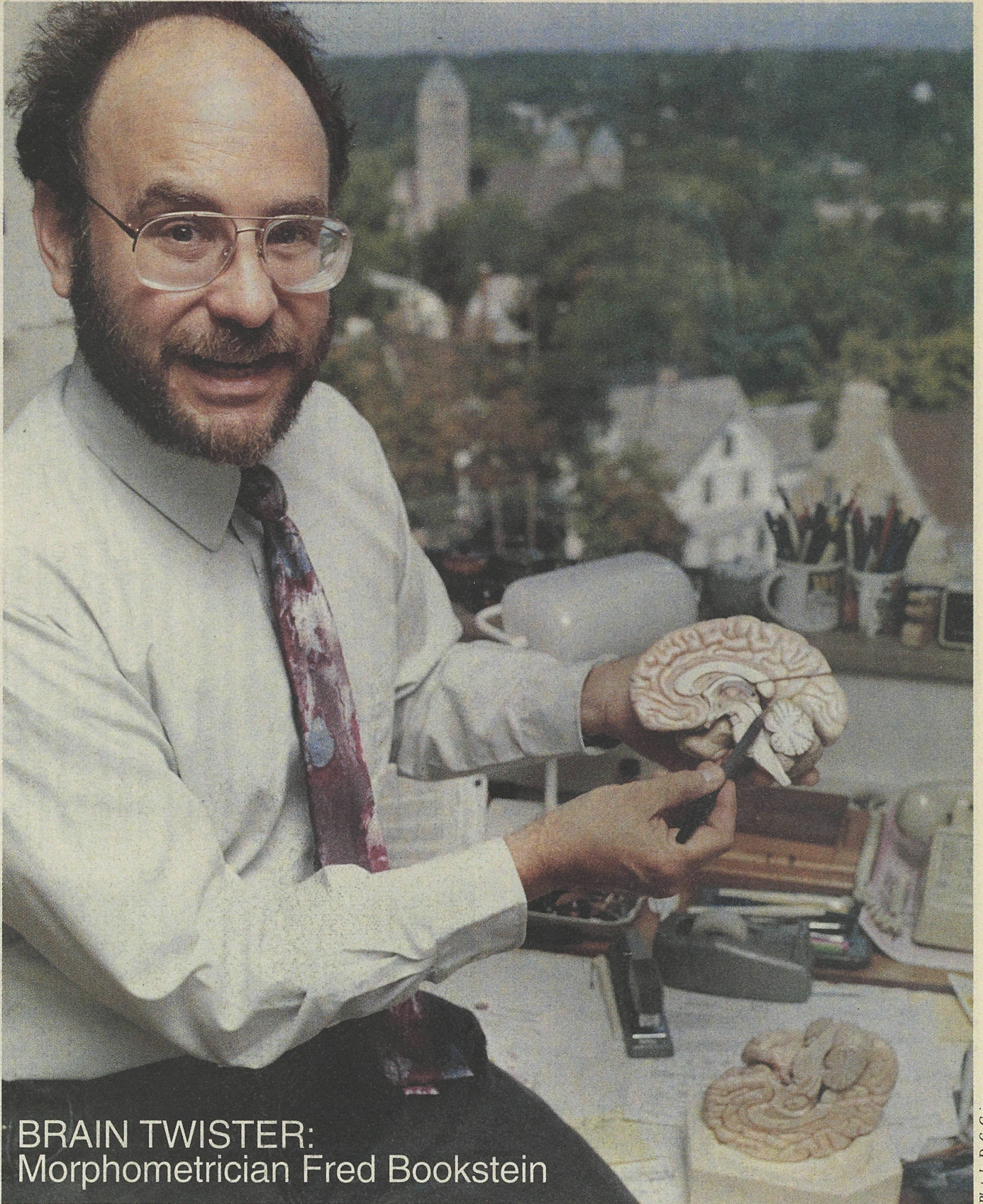


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Michigan Today

The University of Michigan

October 1994 Vol. 26 No. 3



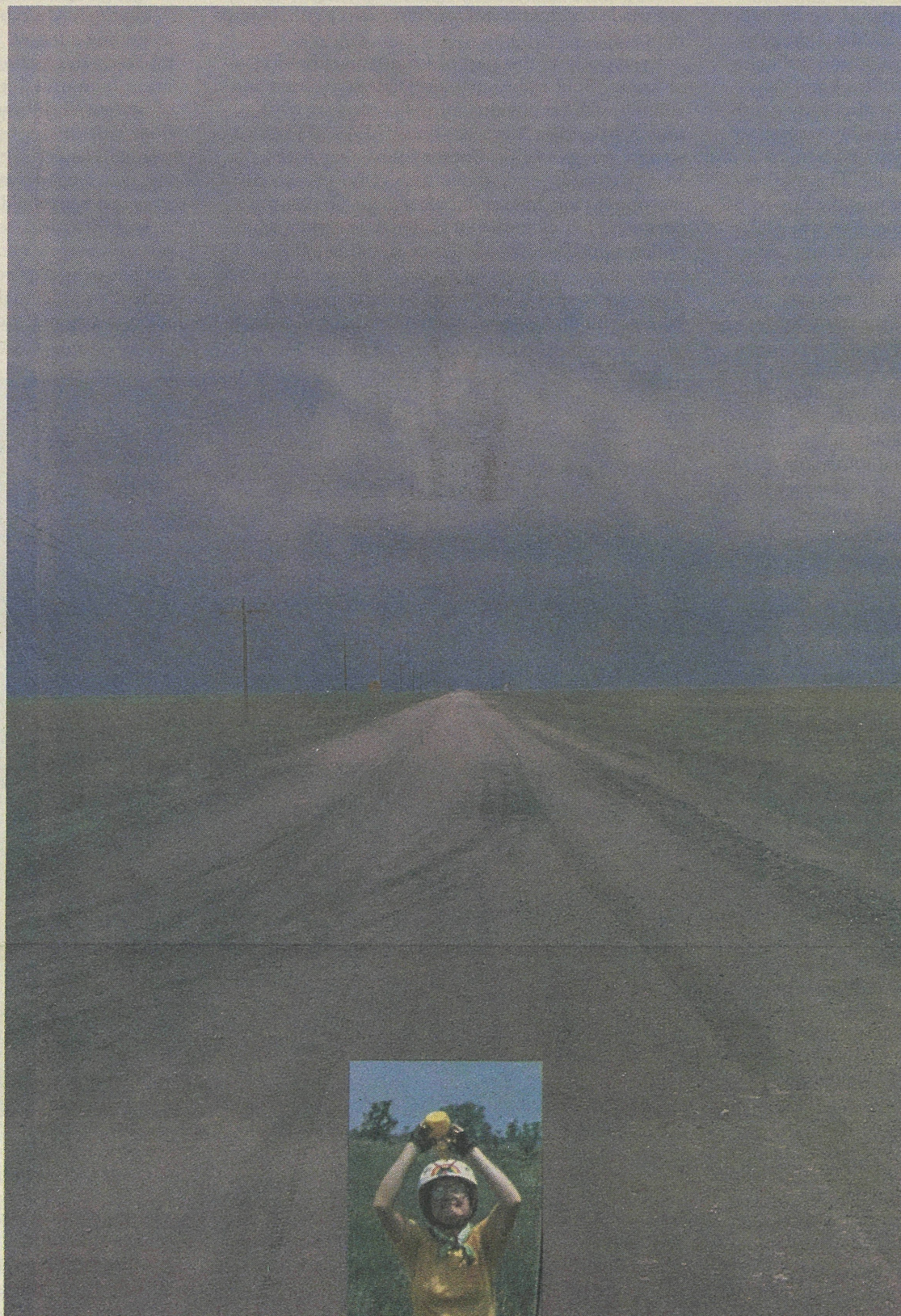
BRAIN TWISTER:
Morphometrician Fred Bookstein

Photo by D. C. Goings

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A SKEETAH S-O-O-O BIG....

AND OTHER STORIES OF A WARY PEDALER

BY MARTHA J. RETALLICK

What's it like to see the entire United States from the seat of a bicycle? Martha J. Retallick '79 can tell the tale. Since 1980 she has pedaled her Nobilette touring bike more than 15,000 miles of the United States, and considerable lengths of Canada and Mexico as well. What got her going this way? Well, it happened like this . . .

If it can be said that fateful moments happen in the strangest places, then mine happened in a place whose name I can barely pronounce.

It was July 1980, and I was just a year out of the U-M, in the midst of a 2,500-mile bicycle journey through the upper Midwest and Canada. I was heading west across Michigan's Upper Peninsula, bound for Minneapolis, where I hoped to revive my temporarily stalled journalism career. (I'd just been laid off from an editorial position at a small journal in Ann Arbor.)

I had just passed through a town called Ishpeming when I saw something I hadn't seen in weeks: another cyclist. Jeff was riding home to New Jersey, having begun from the West Coast. He told me about another cyclist he had met during his cross-country journey, a man who intended to ride in all 50 states. Jeff said he wanted to do the same.

"Me, too!" I replied, not at all realizing what my spur-of-the-moment announcement would mean. I never made it to Minneapolis, but I've been discovering America ever since.

That summer's journey was my initiation into a world I knew little about. My longest previous solo ride was a 30-mile day trip. But now, out on the road, I was on my own as I'd never been before. As well as acting as my own engine, I had to be my own mechanic, dietitian, meteorologist, physician and navigator.

As a woman traveling alone, I was repeatedly warned about robbers, rapists and murderers, warnings that were usually accompanied by long lists of horrible "what-ifs." Before I left Ann Arbor, I had no idea that my going solo would be considered so risky. In the Ann Arbor Bicycle Touring Society you weren't really a serious cyclist until you'd done a long tour—whether you went alone or with a group was up to you.

During my four-month journey I was nearly hit by several cars and trucks. I'll never know if those drivers were being inattentive or malicious, and I quickly lost count of all the people who hollered at me as they sped by. But no one ever laid a menacing hand on me. Nor did I ever look down the barrel of a gun. Instead, I met a far more diverse, curious and generous world than I ever dreamed of. I was befriended by college professors, ministers, housewives, airline pilots, dairy farmers and iron miners.

A SKEETAH S-O-O-O BIG CONTINUED

A BATTERED BLUE PINTO

My good fortune continued into 1981, when I embarked on an 8,300-mile ride around the United States. One hot Friday afternoon in May I dragged my weary body into the state campground at Dixon Springs, Illinois, in the Ozark foothills. I had the place to myself and felt pretty smug about my good fortune until a battered blue Pinto station wagon pulled in and a couple and their two children claimed a picnic table next to my site. The mother immediately began making supper and the boy invited me to join them. I was having digestive problems and declined, but went over to their site and chatted while they ate.

Their grime and body odor put my one day away from soap and water to shame. We introduced ourselves by first names, which we promptly forgot. They were from Gadsden, Alabama, where the father had worked in the steel mills. Considering the depressed state of the steel industry, I gathered he had been laid off, but he never mentioned what happened to his job. Lately, they'd been collecting bottles and cans along the roadside and cashing them in at recycling centers. Home was their Pinto pulled off the road, or cheap campgrounds.

Despite their outward appearance, they had a certain dignity I couldn't ignore. The son and daughter called their parents "Sir" and "Ma'am" and did as they were told without complaining, and their parents didn't nag.

"I'm teaching her the ABCs," the mother said, motioning toward her daughter. Neither child was enrolled in school, and I wondered how much time they really had for lessons, because they worked from sunup to sundown just like their parents. The college-educated Ann Arbor liberal in me felt angry because these people had been forced to survive on our society's jetsam.

If they had any resentment toward their fate, they certainly didn't show it. Instead, the father bragged about how they got the bottles and cans others would pass up. "We drive 15 miles an hour—my wife does," he said. "And I'm out there with the kids pickin' 'em up—all of 'em."

They planned to see Canada and the West before returning home, where the father hoped to resume working in the steel mills and the mother would go back to being a housewife.

"Any woman who marries me stays home. I'll make her livin' for her," he said. It took every ounce of will power I had to keep my feminist mouth shut.

your own business," she stated. "You don't ask too many questions—that's the last thing you want to do. You ask the wrong person the wrong thing, and *bang!*" She made her thumb and forefinger into a gun, pointed right at me.

Everybody in this part of Louisiana either knew or knew about elaborately dressed young men and women with no obvious means of support who toiled around in Mercedes and BMWs. "They're always going on trips, but they never say where," Margaret said. And woe to those who got too curious about their interesting lifestyles. The local papers were full of stories of undercover agents whose bullet-riddled bodies were later found in some god-forsaken bayou, if the alligators didn't get them first. Then there were the innocent and the naive: the hikers who'd blundered down the wrong marshy

operas and sitcoms, I ended up staying in churches, parking the bike in a hallway and unrolling my sleeping bag on the carpeted nursery room floor.

Finding a church to crash in was at least as tricky as finding a motel. Every day I had quite a selling job to do to convince the pastor that I wasn't a penniless bum or a thief. In Aspermont, the county seat of Stonewall, I found the Church of Christ's front door blown wide open by the wind, but no one was inside. I leaned the bike against the side of the building, then went down to the courthouse, hoping to find someone who could tell me where the pastor was.

Unfortunately, the entire county bureaucracy was out to lunch except for a smiling secretary who said the pastor was a "real nice fellah" who attended college in Abilene during the week. Abilene was 60 miles away, and she doubted he'd come home before



The storm that came with these clouds forced a week layover in Manning, Kansas, in 1987.

Photos by Martha J. Retallick

A PUREBRED-POODLE MINEFIELD

I left Baton Rouge, Louisiana, on May 31, 1981, and spent the night in the Abita Springs cycletourist hospitality home of Margaret Foust, a schoolteacher on summer vacation. She'd turned her attention away from lesson plans and test papers to her other vocation of raising purebred poodles. The entire house smelled doggy, something the Fousts had obviously gotten used to, just like the tiny brown piles that made a walk in the backyard seem like a trip though a minefield.

Margaret insisted that this stretch of country was too dangerous for me to travel alone. Life was cheap here, she said. This was drug running country. Louisiana's innumerable swamps and bayous provided the perfect cover for marijuana and cocaine smugglers coming in from South America. Most of their boats and airplanes escaped detection.

"Around here, you mind

trail and fell into a Vietnam-style booby trap near a secluded airstrip, and the fisherman whose discovery of a cove full of catfish was greeted by semiautomatic rifle fire from the bushes.

"Martha, I really hope you're carrying a gun with you," she said, locking her gaze on me. "I can't tell you how lucky you are to make it this far without any trouble. You're really taking a big chance."

I confessed that no, I didn't have a gun, and skipped my usual explanations that a gun was just another heavy thing I'd have to haul uphill and into the wind, and that it could easily be yanked out of my hands and used against me. Ever since I'd been run off the road some time ago, I'd begun to think about carrying some sort of protection. Over supper, Margaret suggested that we go out and get one of those pocket-sized canisters of Mace, but we never got around to leaving the house.

AN UNFAVORABLE WIND IN TEXAS

After cycling from Michigan to Baton Rouge to New Hampshire across to Idaho, getting sick, taking a train to California, and riding to Phoenix, I crossed New Mexico—actually I was pushed across by a strong gale at my back. But now I was in Texas. Unlike New Mexico, Texas seemed to go on forever. All the way across the state, I battled a wind at least as strong as the one that pushed me across New Mexico.

The 20 or 30 miles I could cover in an hour in New Mexico became my daily totals in West Texas. I inched eastward across dusty plains dotted with pale green mesquite trees and oil wells. Towns were few and far between, and most were little more than tiny clusters of houses, a church or two and a general store. The larger towns usually had at least one motel—which charged a minimum of \$20 a night for a single room and was filled to capacity with oilfield workers. As much as I wanted to shower off the dust and sweat, then immerse myself in TV soap

nightfall, but she gave me his home phone number anyway. I trotted outside to the phone booth to try his number. No answer. I skulked back inside, told that friendly young woman about my bad phone luck, and grouched about that east wind that had slowed me down to a crawl.

The folks on these West Texas plains thought that wind spelled good news, she informed me: rain. "It's been real drah here," she drawled, "real dra-ah." She added that during the long drought two summers ago, a public prayer for rain was held on the courthouse square. Throughout that scorching summer, it seemed that not even God was on the West Texans' side, for the cooling rains didn't arrive until fall.

As for my staying overnight in the Church of Christ, she suggested I try the local sheriff, who also was the deacon. So over to the jail I went. His secretary said the sheriff was out to lunch, but I was welcome to wait until he got back. I sat down and fidgeted through a couple of magazines, but what really caught my eyes was the marijuana plant on the secretary's desk.

"Do you get a lot of comments on what you're growing there?" I asked.

"Oh, some, but you'd be surprised at how many people still don't know what marijuana looks like," she replied.

I was about to make some snappy remark about the worldliness of folks back where I came from compared with those here, when the sheriff walked in. He was a potbellied fellow in his mid-50s. With eyes that had obviously seen just about everything, he looked me up and down. He didn't move a muscle on his poker face. I told him who I was and asked permission to stay overnight in his church. He motioned for me to follow him into his office. He sat down at his desk, then looked at the empty chair next to it. I sat down there. He removed a cigar from his shirt pocket and began chewing on it.

"You got a drah-ver's license?" He measured each word very carefully.



Illustration by Jeff Neff

Detail from cover of *Discovering America*

I handed him my Michigan driver's license with a two-year-old address and photo. He studied its every line and letter, then announced that he was going to "run a check" on me. He picked up his phone, made a long-distance call, then recited my name, description and license codes to someone on the other end. There was a painfully long pause, then he said "thank yew," and hung up. "You're okay," he said without changing his expression. I fought back a tremendous urge to heave a sigh of relief.

Then he picked up the local phone book, which was no thicker than my folded Texas map. He called several church members, greeting whoever answered with a hearty, "Who'm ah talkin' to?" I gathered that formal hellos weren't necessary, everyone out here knew everyone else within a 50-mile radius.

The congregational consensus was that it was okay for me to stay in the church if I checked it out with the janitor. The sheriff directed me to the janitor's son's electrical contracting office, and the son assured me that his dad wouldn't mind.

Having gotten permission from most of Stonewall County, I took the bike inside the Church of Christ, then closed that front door. I slept undisturbed and left early the next morning.

M'A SKEETAH S-O-O-O BIG' My journey around America turned a year old on May 3, 1982, in Commerce, Texas. A couple days later, I aimed northward for the last time. I nipped off a corner of southeastern Oklahoma, then re-entered Arkansas.

It felt good to be back in the South again. After three weeks in windy, rainy Texas, that sultry Mississippi River Delta was a blessed relief. Once again, I could hardly keep two hands on the bars for all my waving back at people, from those huge black families in beat-up old station wagons with bamboo fishing poles poking out the windows and a mess of catfish in the back, to those wealthy white men in shiny new pickups bearing the names of their plantations.

The sun beat down on the newly planted rice paddies, sending up great hazy clouds that could turn a blue sky gray by mid-morning. The planting of the rice crop provoked the return of a formidable Arkansas creature: the mosquito. Whenever I stopped, the little varmints descended on me in droves.

"The skeetah's our state bird," a farmer told me while I took refuge from the stinging legions in a restaurant along the White River. "Lemme tell you a story. I know you've prob'ly seen some big skeetahs out there—some *big* ones—haven't you?"

"Uh-huh," I winced, rubbing the latest crop of bites on my arms and legs.

"Well, I know a farmer around here who shot a skeetah that was s-o-o-o big it took him three days to drag it into the woods."

"No kidding!" I exclaimed, as the locals broke up, having once again pulled the leg of an unsuspecting Yankee.

A A STRETCH OF KANSAS After my 1981-82 journey, I lived in Pittsburgh for five years. During my final year there I worked on a journal at the University of Pittsburgh's economics department. I was getting the call of the open road again, and heeded it in 1987. Before moving to Tucson, I pedaled off on a 3,600-mile ride from Phoenix to Mexico, from Mexico up to Canada and the Pacific Northwest.

At Pitt I worked down the hall from a professor who'd grown up on a Kansas farm. Gene Gruver was a soft-spoken man who stayed out of the rough-and-tumble of economics department politics, preferring instead to close his door and do his work, emerging only to teach one of his classes.

Gene's parents, Tom and Neva Gruver, took a cross-country bus to Pittsburgh to visit Gene and his family, and they invited me to come stay with them if I ever was cycling across Kansas. A year later, in April 1987, I was bouncing up the dirt road to their wheat farm outside the semi-ghost town of Manning.

My arrival had been eagerly awaited by much of this part of the country—Neva even had the mailman on the lookout for me. The Gruvers had also held up lunch until I got there. Tom and Neva, their oldest son, Royce, his wife, Sue, their 2-year-old son Brad and I joined hands around the table for grace, which in Tom's rendition was more an extended chat with God than a formal prayer. Brad was more interested in showing off his extensive collection of toys than in eating. He ultimately won the war of wills

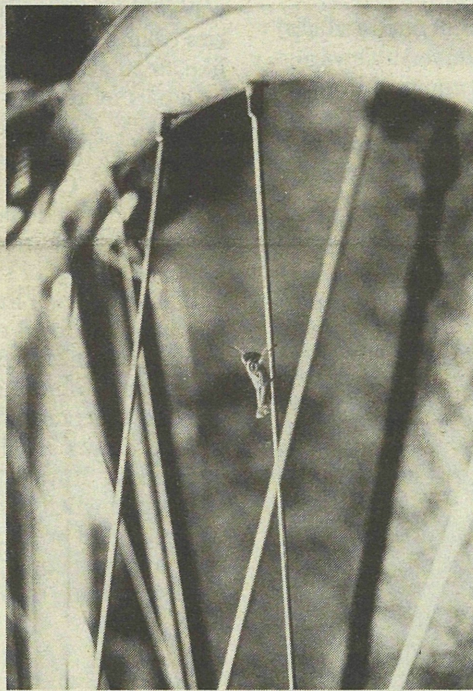
with his mother and began plowing the living room floor with his model John Deere tractor.

"My son drives a better tractor than I do," Royce joked.

The next morning, Royce took his parents and me over to a field he was plowing. Royce started the used John Deere he'd bought at auction, then invited me to ride in the cab with him. After he plowed a few rows, he turned the controls over to me. I had to steer constantly to keep the tractor from veering off course. I also had to be on the lookout for Russian thistles—Westerners call them tumbleweeds—and badger holes. The former could lock up the plow and the latter could bounce the tractor and get a wheel stuck. The plow also could turn up rocks big enough to flip the tractor, an accident we probably wouldn't survive.

In addition to its physical risks, farming was also a huge financial gamble. "Around here, it's more profitable to grow oil than wheat," Royce told me. The Gruvers' property was surrounded by farms that had oil wells set out amidst the wheat and alfalfa fields. Unfortunately for the Gruvers, the oil company geologists found nothing that would warrant drilling beneath their land. In spring 1987, the price of wheat was slightly more than \$2 a bushel. "Even the most frugal farmer has a cost per bushel of about \$2.50 to \$3," Royce explained. "None of us would be in this business if it weren't for the government subsidies."

After plowing we drove to the grain elevator in nearby Grigston, where the manager offered me a tour. He handed me a hard hat, then opened the



The hitch-biker. This grasshopper joined a leg of my journey across Ohio in 1981.

door to the man-lift, a cage about the size of a phone booth. He told me to push the "up" button, then wait for him at the top. Throughout the long ascent, I began to comprehend why grain elevators were called the skyscrapers of the prairie. Up on top, the wind nearly blew my hard hat off. I could see 10, 20, 30 miles across flatlands filled with green rectangles of wheat, alfalfa and pasture interrupted by an occasional building. The nearest large city, Wichita, was more than 200 miles away. It was a place my hosts loved to visit, but as Neva aptly put it, "I can't wait to get back to these plains and stretch my eyes."

The elevator was criss-crossed by pipelines through which grain was circulated constantly. Much of the manager's time was spent making sure this elaborate circulatory system worked. If grain settles, stagnant "hot spots" can cause deadly explosions. Before I left, the manager gave me a Grigston elevator baseball cap, telling me to "wear it, so people'll know you've been here."

A BOY WHO HATED SQUIRRELS

As a solo cyclist of many years standing, I have mixed feelings about organized bicycle events. But in June 1991, I flew from Tucson to upstate Vermont to visit my aunt, then pedaled across northern New England to join the American Lung Association's annual Trek Across Maine.

Northern Vermont isn't full of the knock-your-socks off scenery the state tourism board so avidly

promotes. Yes, there are the dairy farms—lots of them—and numerous little towns prettified way beyond their working class origins. Both the farms and the towns became scarce after I crossed the Connecticut River and entered New Hampshire.

In New Hampshire, US 2 wound its way through a thickly forested valley between two ridges of the White Mountains. This was logging country, and I found myself sharing a road with logging trucks for the first time in years. I was terrified. One year before I did the Arizona cross-state ride, a participating cyclist was killed by a logging truck outside Payson. Both the truck driver and the cyclist were highly skilled in what they were doing—they just happened to be in the wrong place at the wrong time.

I decided to make sure the drivers on US 2 would recognize my presence in time to avoid any trouble. I started waving to them. And they waved back. I figured that if they perceived me as a friendly, likable sort, they'd be less likely to run over me. Practical politicking to be sure. But it worked. We shared the road without incident.

My home for the night was the Bowman Base Camp hostel, a popular accommodation for climbers wishing to experience the crummy weather capital of the East: Mount Washington. The place was wide open when I got there in the middle of the afternoon, so I unloaded the bike, went inside and made myself comfortable in what I described in my journal as "a real dump."

The hostel manager was supposed to come by at 5 p.m. to collect overnight fees, but the only one who showed up at the appointed hour was a teen-aged boy with a rifle. I was too petrified to even plead for my life, but he put the gun down as soon as he saw me.

"I've been out hunting squirrels," he said. "I hate squirrels. They're out all over the place and I'm sick of them."

His hunt had been unsuccessful. I remembered from childhood hunts with my dad that a squirrel was a hard thing to hit, and he wouldn't even let me take a shot until I was sure I knew it was a squirrel.

The boy took my \$10.80 hostel fee and we got to talking about life in a small New Hampshire town versus a large Southwestern city. Then in a very hopeful tone, he asked me, "Do you shoot?" I've never turned down an invitation like that, so we got some .22 rounds and went up to the abandoned railroad tracks behind the hostel for some target practice. Our target was an old milk jug, and I could see why he wasn't getting any squirrels. His aim was terrible! I was grateful for all of that "hold steady and squeeze the trigger" coaching my dad had given me when I was that boy's age. On the way back to the hostel, he told me that he really wanted to get an Uzi. "Oh, good," I thought, "now he'll never have to aim carefully at the squirrels again. He'll just vaporize them."

A CODA: ON SOLITUDE

It wasn't in my plans to be a solo tourist when I began in July 1980. I tried to find a partner but none materialized.

Do I get scared out there? You bet. I've been shouted at, threatened at times, and have also received lots of sexual harassment. Despite these negatives, I still enjoy the freedom of setting my own pace and keeping my own schedule. There's also a temperament factor: I am an only child who grew up having plenty of solitude. Solitude remains one of the greatest treasures of my life.

But it can get pretty lonely out there, and you have to be careful that your loneliness doesn't lead you to let your guard down and trust the wrong people.

While I'm on the road, I try not to make it look too obvious that I'm female. I keep my hair short and tucked under my bicycle helmet. When I'm wearing an oversized T-shirt, you can't tell which gender I am. Lust-filled motorists occasionally discern that I fill a pair of black stretch bike shorts differently from a man, but they tend to express whatever verbal reaction they have, then move along. I report the more persistent harassers to the police, or to their employers if they're driving a company vehicle.

I also don't travel at night. The old highway patrolmen say it best when they note that there's a lot of alcohol on the road after dark. Drunk drivers and bicyclists don't mix.

MT

Martha J. Retallick lives, works and rides in Tucson, Arizona. These vignettes are adapted from her book, *Discovering America: Bicycle Adventures in All 50 States* (Lone Rider Productions, \$17.95; PO Box 43161, Tucson AZ 85733-3161; phone 602/690-1888).

AROUND CAMPUS



Photo by Bob Kaimbach

Seminars Boost Student Confidence

By Jon Altshul

Class ended 15 minutes ago, although Frances Zorn is still talking to a handful of first-year students who need some pointers for an upcoming essay. One student hands her a rough draft about a high school experience long since past, and Zorn, a lecturer in the Comprehensive Studies Program, reads the piece and meticulously critiques it, forcing the student to re-evaluate her own experience.

"When you work with smaller groups, you care more for each student," Zorn says after all the students have filed out. The course she's teaching, "Insiders/Outsiders," is not a 500-person lecture, but a far more intimate first-year seminar being held in one of the dormitory common rooms.

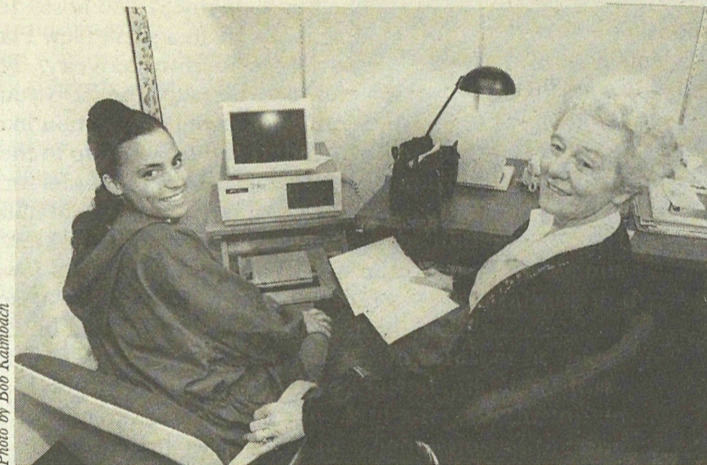
The seminar represents just one of the many choices in the rapidly expanding First-Year Seminar Program offered through the University Courses Department. This year, for example, the University will offer approximately 100 sections, up from 20 a few years ago, with even more to come next year.

"It's part of [Literature, Science, and the Arts Dean] Edie Goldenberg's program to improve undergraduate education," says LSA Assistant Dean David Schoem. "Our goal is to make seminars available to all first-year students."

Nearly 1,200 students have enrolled in at least one of the courses this semester, and Schoem expects another 800 next term. Most seminars have a maximum enrollment of 18 students, even

fewer than are found in most regular discussion sections.

The seminars are intended to help students fulfill the University's various distribution and composition requirements, and, as a result, the range of courses offered is extremely diverse. Topics vary from the classical ("Socrates and Democracy"), to



Zorn and seminar participant Marya Smith '98.

the scientific ("Explorations in Number Theory"), to the interdisciplinary ("Environmental Concerns for the 21st Century: Rethinking Suburbia, Spraycans and Handguns").

Zorn's course, for instance, approaches via fiction and non-fiction readings "what it means to belong to or to be excluded from specifically identified groups." She hopes to relate the discussions directly to the personal experiences of each student.

Student support for the expanding seminar program has been extremely enthusiastic. "I enjoy it," says Nikita Kennard of Detroit, who is taking Insiders/Outsiders. "It makes learning more personal. You can really get involved."

Ultimately, the University hopes to offer as many as 200 seminars for first-year students each year in as many disciplines as possible. And to that end, "increasingly it's an expectation that all departments offer first-year seminars, and that regular faculty will teach them," Schoem explains.

Community Plunge

By Elisabeth Dalton

Jennifer Fitzgerald had never really thought too much about where her trash goes or how exactly it gets recycled, until one day when she was knee-deep in old paper and cardboard. The LSA freshman from Livonia, Michigan, spent an entire day sorting materials at Recycle Ann Arbor, as one of 400 participants in Community Plunge, a new part of Welcome to Michigan '94 that gave incoming freshmen and transfer students the opportunity to volunteer in the community on Friday, Sept. 2.

"It was a very inspiring day for me," Fitzgerald said. "The people who work [at Recycle Ann Arbor] have a hard job that could be made easier if we each took a little part."

Mona Kumar '96 of Bloomfield Hills, Michigan, works out of the U-M Project Serve office and was one of the site coordinators for Community Plunge. She was amazed to see the development of a project that was only a hazy idea at the beginning of the summer. "We came up with the idea at the beginning of the summer," she said, "and at first when we approached agencies it was this new, provocative experience. Then as summer continued, the whole idea progressed from being this nebulous, way-in-the-future plan to having agencies calling us saying, 'Hey, this sounds like an amazing program. How can we be a part of it?'"

Recycle Ann Arbor was only one of 30 agencies that took part in Community Plunge. Other groups hosting activities included Habitat for Humanity, the Ann Arbor Hunger Coalition, and the Humane Society of Huron Valley.

Illana Feiglin, a freshman from Cleveland, painted rooms at the Communicative Disorders Clinic. "I found out about Community Plunge when I came to Orientation," she said. "They gave us a flyer and I thought it sounded interesting. It was a really long day, and I was tired when I was done, but it was interesting. The good thing is that you meet a lot of people, and I felt that I gave something back to the community."

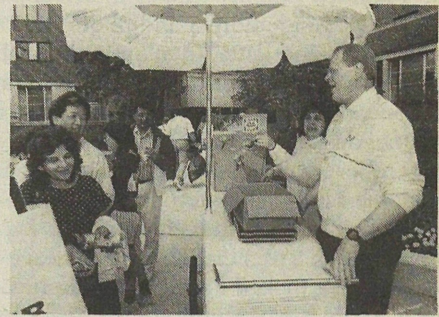


Photo by Bob Kaimbach

President James J. Duderstadt and his wife, Anne, served ice cream in front of South Quad as part of the many 'Welcome to Michigan '94' activities. At a convocation for new students, he said the Class of 1998 was one of the strongest academically in U-M history and urged them to take full advantage of their classroom and extracurricular opportunities.

Fitzgerald agreed. "I met a lot of interesting people and it made me want to become more involved in the community as well as the University," she said. "It was also one of the most fun and rewarding days I've had in a long time."

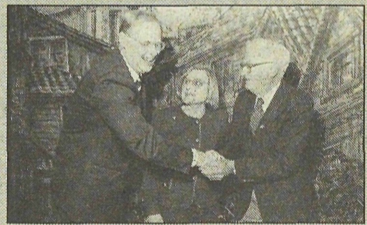
Julie Lubeck '96 of Ann Arbor was another site coordinator for the project. She also served as a site leader along with Associate Dean of Students Frank Ciancola, and took volunteers to the Student-Parent Center in Ypsilanti to clean carpets, wash windows and clean up a playground covered with weeds and broken glass.

"The program was a struggle and there was much work involved, especially since such a program had never been done before on campus," Lubeck said. "Some of our concerns included not having enough participants and making sure that we were filling a community need, rather than overburdening the agencies as volunteers can often do."

"Overall, the feedback we have gotten is amazing," Lubeck concluded. "We will be conducting some follow-up to see how this program has affected these students on a long-term basis. My opinion is that it was a life-changing experience for all, myself included."

Elisabeth Dalton '97 of Rochester, Michigan, is a Michigan Today student reporter.

Halfway There!



President Duderstadt thanks Joyce V. and Rufus S. Teesdale '43 BSE, '68 MSE, of Grand Rapids, at dinner honoring donors of \$1 million or more since 1992 Campaign Kickoff.



Dinner accompanied by woodwinds from the School of Music.



Limber cymbalists clash at Varsity Night.



James Earl Jones '55 and his former teacher, Prof. Claribel Halstead (on his right), headlined the multimedia event 'Michigan Generations: Tradition and Youth' with a cast of talented students.

Photos by Bob Moustakas and Peter Yates

New Wave Calculus

"Math is math," or so an old axiom goes. And for countless years, generations of U-M students have endured the same litmus test for competence in advanced mathematics—college calculus.

Recently, however, in response to what many felt was antiquated material and an impersonal, impractical method of learning, the University has begun to offer college calculus in a new way.

Three years ago, with a grant from the National Science Foundation, a team of U-M math professors developed an experimental program called New Wave Calculus. The course de-emphasizes symbolic manipulation and encourages "real world" problem solving, like the following sample question:

*IBM-Peru uses second derivatives to assess the relative success of various advertising campaigns. They assume that all campaigns produce some increase in sales. If a graph of sales against time shows a positive second derivative during a new advertising campaign, what does this suggest to IBM management? Why? What does a negative second derivative during a new campaign suggest? (From *Calculus*, by Deborah Hughes-Hallett et al., John Wiley & Sons: New York, 1994, p. 130.)*

Beginning this fall term, after two years of offering New Wave Calculus on a limited, experimental basis, all Math 115 classes and most 116 sections will be New Wave.

According to Pat Shure, a lecturer who helps coordinate the New Wave program, the seminal teaching and learning format "connects to students in a real way." Students now complete problems with the aid of graphing calculators, Shure says. Group homework teams collaborate together in completing exercise sets. Answers must be written out in complete sentences.

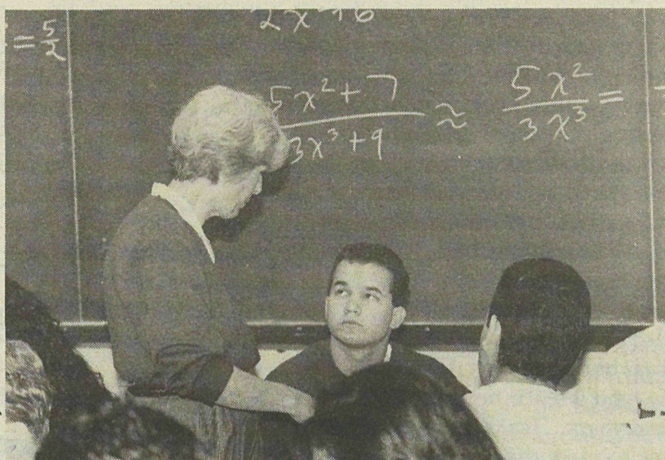


Photo by Bob Kaimbach
Shure and New Wave Calculus student Ryan Kelly '98.

In the old, traditional calculus course, Shure explained, "students were able to perform the skills, but when it came time to recalling these skills, they had no gut understanding of them. People had no idea of what they were doing."

Although Michigan, along with Harvard, is one of the pioneers of this new approach to calculus, the reform of pre-existing mathematics curriculums was not entirely unexpected. The past few years have witnessed a radical re-evaluation of how universities perceive quantitative reasoning skills, and more specifically math and science.

Mathematics Prof. Jeffrey Rauch observed that "what we're doing is more interesting and profound. It's more fun to teach and, I suspect, more fun to take."

Students who have already completed the New Wave sequence tend to agree with Rauch. "I thought the course was very worthwhile," said Peter Smith '97, a mechanical engineering major from Fenville, Michigan. "It helped that I had a good professor, and that's what I liked the most."

Amy McCulloch '97 of Dundee,

Michigan, who took the New Wave course on the 115 level, noted that the hardest adjustment to taking a "traditional" calculus course again after taking New Wave was re-acquainting herself with the old "plug and chug method" after she had become "so used to thinking through everything" in Math 115.

One of the premises behind the program is that mathematics needs to become a more interdisciplinary subject. In this respect, New Wave Calculus, which also promotes reading, writing and communication skills, fills that void by forcing students to contextualize the material within other fields of study.

Because of the reliance upon word problems, for example, the course allows students to use mathematical applications as springboards for learning about such subjects as economics and medicine. And perhaps it is this dynamism that makes New Wave Calculus such a welcome change from the traditional calculus curriculum.

"We are trying to transfer the responsibility [of learning] back to the students where it belongs," said Shure. The program "really encourages self-confidence if you're willing to give it a shot," she added.

A top priority of New Wave Calculus, according to Shure, is re-defining what it means to teach mathematics. "It's a demanding way to teach. It requires you to be very involved in how students learn."

The mainstreaming of the New Wave Calculus program this year coincides with the introduction of the quantitative reasoning requirement for all new students in the College of Literature, Science, and the Arts. The requirement stipulates that students complete at least one course dealing with mathematics and logic.

"What studies show is that in college, students actually get worse in quantitative or computation skills," Associate LSA Dean Michael Martin said. And while there is no official correlation between New Wave Calculus and the reasoning requirement, the University appears firm in its progressive approach to math and logic.

While a few students echo the sentiments put forth by James Yurko, a sophomore from Yale, Michigan, who felt "bummed out that people can't go through the traditional program anymore," most graduates of the New Wave sequence feel entirely comfortable with their experience. Wrote one student in his end-of-the-semester essay—one of the most unusual New Wave course requirements—"I had been exposed to things like derivatives, integrals and similar calculus terms before and been able to figure them out with little difficulty. However, for the first time, I now feel that I am able to understand what these things really mean and how to use them."

Jon Altshul is a senior English major from New Haven, Connecticut.

'We're Not Running a Railroad'

Relations between students and faculty, even at a large institution such as the U-M, can be warm and cordial, philosophy Prof. Carl Cohen assured parents.

Speaking at one of several programs designed for parents as part of the "Welcome to Michigan '94," Cohen offered tips on how to foster faculty-student relationships.

Students need to "be politely forward, to put themselves out there," he said.

Cohen frequently suggests that students who want to get to know a particular faculty member read a few of his or her recent articles, make an appointment or visit the faculty member during office hours, and ask questions about the readings and what's being discussed in class. "You've got to work on these friendships; they just don't pop up," Cohen said.

Noting that most students tell friends and relatives that they intend to study a particular subject, Cohen said, "It isn't essential for a freshman to know his or her area of concentration." He advises first-



Cohen

and second-year students to "go easy and try to keep their options open."

Even if they don't know what area they want to concentrate in at the end of the second year, "the heavens won't fall; it is a decision that should be made wisely and thoughtfully," Cohen added.

Cohen talked about distribution and concentration requirements, grades and the need for self-discipline.

For 17- and 18-year old men and women, the U-M provides a very heady atmosphere, a very free environment. Music, films, politics, sports, bull sessions, parties and sex compete for students' time and sometimes it doesn't go well, he observed.

"How can a student develop the needed self-discipline? Who knows?" Cohen said. Influence of peers has the greatest impact on a student, he continued. If the friends are serious and get their papers in, the student is likely to do the same.

"If I had one wish, it would be for your sons and daughters to find the right groups of friends," Cohen said. And he noted that the prospects for doing that were "extremely good" because U-M students in general are bright and wholesome.

"It will settle out, I promise you," Cohen told the parents. "Be patient with us. We're not always a very efficient organization, but then, we're not trying to run a railroad."

Mary Jo Frank is an editor in the Office of News and Information Services.

Campaign for Michigan Celebrates Success

By Rick Krupinski

Hundreds of University of Michigan donors and volunteers gathered in Ann Arbor Sept. 23-24 to mark the midpoint of the five-year Campaign for Michigan. The Campaign, which seeks to raise \$1 billion by 1997, is now \$680 million toward its goal.

The Mid-Campaign Event offered an array of exciting presentations, exhibits, tours and entertainment all across the Ann Arbor campus. A formal dinner, honoring donors who have given \$1 million or more since the 1992 Campaign kickoff, was held on Friday night.

An inspirational presentation in the Power Center, hosted by the actor and U-M alumnus James Earl Jones, highlighted the two days of activities. "We are halfway home," Jones said at the beginning of a multimedia event that featured film, slides and live performances around the theme "Michigan Generations: Tradition and Youth." The program celebrated the student-based life of the University

and the enduring impact of donors' gifts on future generations.

Calling the University's Endowment Fund "the single greatest tool to recruit the best possible faculty," Jones and U-M President James J. Duderstadt cited the Endowment as a focus of the Campaign's second half.

The Power Center program was followed by an evening of food and entertainment capped by a rousing Varsity Night in Hill Auditorium with coaches, athletes, cheerleaders, the glee club and the entire U-M Marching Band.

Even the last-second disappointment of Saturday's 27-26 football loss to the Colorado Buffaloes didn't dampen the Wolverine spirit as donors and volunteers celebrated the Campaign's success to-date and recommitted themselves to achieving its goal of securing the University's future into the next century.

DINOSAURS: A Reconstruction

By Murray F. Markland

In line at the student union one day I heard three students talking. Waiting dully with a plastic cup of coffee in my hand as the cashier validated checks, punched food cards and changed \$20 bills, I picked up words that roused me.

"He's a dinosaur. A real left-over from the Middle Ages."

"Yeh. He tumbled out of a retreating glacier."

"Nah, they reconstructed him from a fibula."

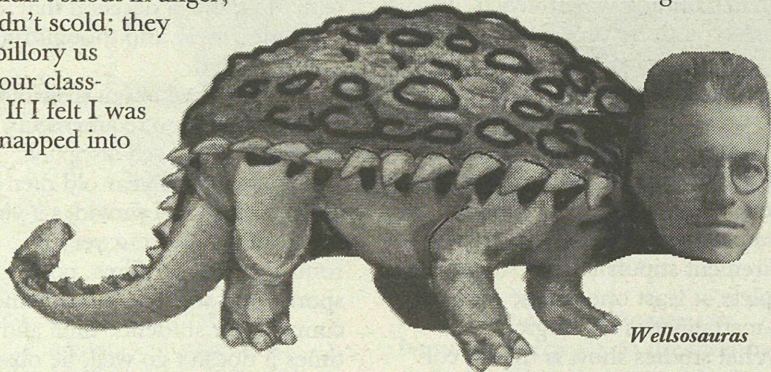
The last I heard was a girl's voice, still giggling over the joke, but tinged with an irritated incredulity: "A monster, anyhow. He'll snap you up if you do something wrong. Like you'd made a mistake or something."

That was all I heard. I hadn't seen them. They went their way. I found an empty table and drank my coffee. Only two days before I had heard a student, whose voice I knew, say to a group in the hallway, "Can you imagine Professor Markland showing up in Adidas!" It was a time that fostered introspection.

I found myself first thinking I might be, then hoping I was, the teacher they spoke of—the dinosaur. After all, they knew some paleontology, despite their compressed time frame, and the image of myself they suggested was amusing and not far from the way I often felt about myself. But which way had I come into being as a dinosaur? Held over and fully fleshed, until unfrozen and put into action? Or built piece by piece out of dried, broken parts, reconstructed eclectically from appropriate and fitting parts of others, filled out and held together by modern plastics?

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We have little control over how students remember us, nor do we have any real sense of what will remain of us and our teachings in their minds. I have had teachers who would probably do rather poorly on our student evaluation forms. Some of them snapped at nonsense and whimperers. Some were intolerant of indifference. Some were irritable and even arrogant. I don't want to do them wrong. They didn't shout in anger; they didn't scold; they didn't pillory us before our classmates. If I felt I was being snapped into



line, it was because I knew, or suddenly realized I should have known, that I was out of line.

I came upon my first dinosaur when a freshman in Detroit's Central High School. Mrs. Paperno, teaching English, called on me for a report. I had neglected to do the assignment, but I stood and faked it. I vamped so smoothly that when she thanked me I thought I had gotten away with it. She asked me to stay after class. What else she said I don't remember, but there was this: "Murray, you'll learn nothing in the next three years. Teachers won't have time to push the likes of you; others deserve help more."

She was prophetic. Three years later I nearly failed English 1 in a summer session at the University of Michigan in 1939. Carlton Wells, his stiff hair trembling in a Mohawk cut, gave me Fs on the first four of eight essays to be written. Then I thought and wrote my way to a C. He corrected and encouraged us in those mechanics of writing we English teachers concern ourselves with. Most of what we say is not about one paper but all papers, not to one student but to all students. Once, Professor Wells spoke directly to me. On two pages of a research paper I found a long line in the left-hand margin and a note: "See bibliography." I turned to that last page. Against one item was a check and a message. "You used this source almost exclusively, didn't you, Mr. Markland?" I had, and how he could tell I came to know for myself after a few years of reading student papers.

One year passed before I encountered another dinosaur, Bennett Weaver, lisping slightly and cultivating his resemblance to Leslie Howard. Now a confident sophomore English major, I was holding forth in his Angell Hall office about something I had just read and pressing him for a response.

"Haven't you read it?" I pried. "It came out six months ago."

He grinned, turned and tilted his head to fix me with one eye, and struck: "No. Have you read *The Canterbury Tales*? [In the pause there was not a word from me.] It came out about 600 years ago."

The second semester of that sophomore year I faced

another. This time I was one among many. It was Warner Rice's class in Milton, which he opened by saying, "I've been studying Milton for 20 years. There is much that I still don't understand, so I don't expect a great deal from you."

Certainly he intended it as a disclaimer and as a comforting statement of modest expectations, but the magnitude of my ignorance it opened for me to tumble into, matched that of the abyss I was soon to watch Satan fly through.

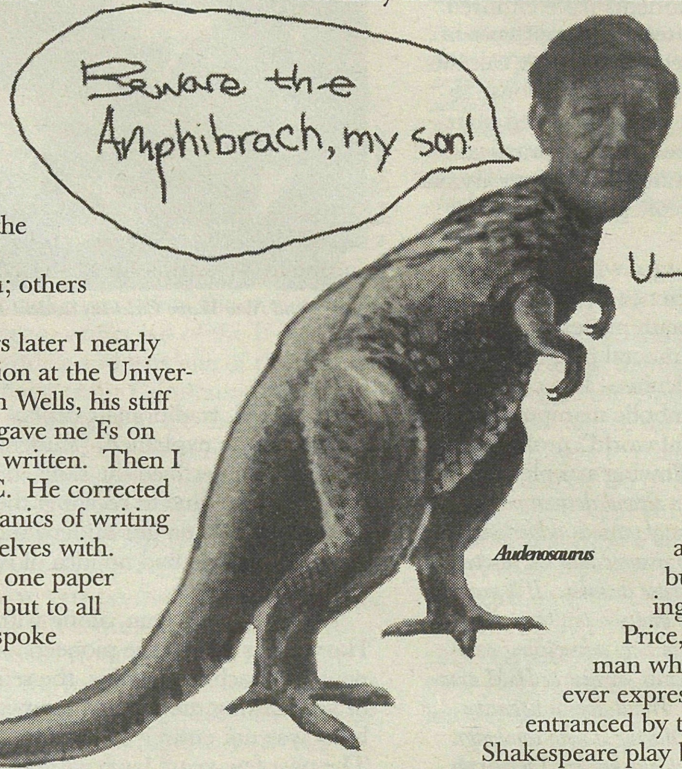
As formal as Professor Rice, but less intimidating, Hereward T. Price, a small gray man whose face seemed ever expressionless, was so entranced by the text of the Shakespeare play before him and so committed to indirection that he would never confront students as Rice did. He taught by asking questions.

"Act 3, scene 2, lines 20 through 53. How does the scene function, Mr. Hervey?"

No matter what answer Mr. Hervey gave to that opening broad question, another directed to him would follow. Then another and another, each opening the passage further, so the student could enrich his first observation. Often, too often, after 10 minutes of being pricked and prodded, unable to dodge or to face that helpfulness any longer, a student would blurt, "I haven't read the play, Mr. Price." We all knew it was the only way to stop the concentrated discharge of questions. Some of us learned to escape by confessing on receiving the first one.

His gray face turning a deep pink between his white hair and his white shirt, Professor Price seemed more chagrined by the offense to Shakespeare than by someone's failure to do his assignment. He waited, then formulated a new question and floated it toward another one of us.

Unlike Hereward Price, W. H. Auden taught on his feet. He moved constantly. He smoked constantly. He lectured loudly and rapidly. Auden was lecturing



Once Upon a Time in Willow Run

By Olivia Murray Nichols

Like Brigadoon, Willow Run Village exists now only in memory, but after World War II, it was the University of Michigan's answer to the housing problem for married student veterans. During the War it provided apartments for workers at the Willow Run bomber plant, which later became the Kaiser-Frazer automobile plant, five miles away. There were over 3,000 units, arranged 10 apartments to a

long unpainted wooden structure, set out in "courts." Although still open to automobile workers, the Village housed 1,500 student families and some single students who lived in the West Lodge dormitories.

My husband, Dean, was a Michigan graduate student, but I was getting the best of the education. With an income of \$90 a month from the GI Bill, I had to learn the economics of a budget. I learned the diplomacy and discretion necessary in our cardboard-thin-walled units where we could hear neighbors on either side scrape the toast or rattle the bed-springs—and know they could hear us as well.

I learned child psychology and, more important, parent psychology to deal with the fact that no matter how advanced my child was or how dear, someone else's child had done the same thing much earlier and behaved better. And I had to learn to plan meals short on meat and

sweets which were vitamin-rich on the limits of a meager grocery allowance. One-dish casseroles dominated the conversation at any neighborhood gathering.

These and others were more lessons than I had anticipated when we chose to come to this frozen north country from sunny New Mexico so that Dean could get his master's degree in chemical engineering.

In January 1947, when we first applied for living quarters, we were number 1,254 on the waiting list. We had heard of families sleeping in tents or cars if vacancies did not occur in the housing project by the beginning of a school term. On August 15, 1947, we received a telegram: **Two-Room Kitchen and Bath Apartment; Available September 4; Wire \$30 First Month's Rent, Payable US Treasurer If You Accept.**

Relieved, we paid the \$2.59 collect charges and wired the \$30. Two sets of grandparents feared for the 3-month-old grandchild we were taking away, but we set out in our 1936 Plymouth, looking very much like Steinbeck's Joads with the mattress inside, not outside, the car.

After four days on the road we arrived at the Village's management office. If I



The Nicholsons and son Gary in 1947.

on English prosody that day in a large Angell Hall classroom. The benches had been crowded into the center of the room so that he could prowling around the periphery, scrawling a term or metric pattern on whatever part of the blackboard he was near at the moment, or stopping to look out the window. All the while he smoked. Once in a while he made it back to his table to stub out a butt. Usually, after lighting another cigarette from it, he dropped it where he was. Some student, after he passed on, would smother it under a shoe. Now and then Auden would fire a question and point a long deific finger. He pointed once at me.

"What is an amphibrach?"

I didn't know, but what I replied was, "I'm not in the class, Mr. Auden. I'm just auditing."

His arm was still up. The finger was still pointing, and his hair hung over his forehead. "I don't give a damn. You look like you're in the class. Just answer the question."

As if he had already given more than enough time to me and the amphibrach, he did not wait for me to sputter something but drew one on the board and continued his peripatetic lecture around the room.

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In late 1942, the Marines summoned me. I could graduate in the January '43 class, the dean of students told me, if I finished all the semester's course work. I spent what I had left of Christmas vacation writing papers and examinations. Then in 1945, a letter from Carlton Wells to me on Guam opened up the possibility of a teaching fellowship. "What are your plans?" he asked. "I'll be back," I wrote.

Price was gentle, Auden irascible and John Reinhard was saturnine. I encountered him after the war, when he told our class of men in their late 20s and 30s, "You can't be a married man and a scholar." And he said to the same group, "How can you expect to deal with modern literature unless you know Latin and Greek?"

Well along in one semester at a night-time seminar on 18th-century literature, a student asked a question of Prof. Louis Bredvold. Its substance I have forgotten; what I remember is the manner of Bredvold's answering. Even though he was sitting down, he shoved his hands into his trouser pockets, stretching

out his suspenders as he often did when lecturing on his feet. For half an hour he extemporized a critical essay, quoting primary sources, citing and footnoting the secondary. It was an awesome performance, humbling to us who had for over two hours been confidently speaking our minds on the basis of a few assigned anthology readings. To return to our discussion after that was impossible and inappropriate. The class broke up early.

Walking down the hall beside Bredvold, I looked up at him and asked, "How did you read all those books?" It was a quantified form of the thought in my mind, not quite what I had tried to ask. Three strides down the hall he said, "One at a time."

Often now, when I am grading student papers, scribbling suggestions for doing it differently, underlining, questioning, paraphrasing until I have written nearly as much as the student, I think of R.W. Cowden's silent, almost wordless teaching of creative writing. Seated next to me, manuscript on his desk, he would read, guiding me and himself with a finely sharpened pencil moving below the line. Nothing being said, just the two of us reading silently.

Then the pencil would pause, wavering beneath a word or traversing a whole line. To make it move on I had to say something. "The line's a little rough." His head might nod, but the pencil might still swing back and forth. "Perhaps an inversion?" Now the pencil might shorten its swing to include only a single word. "Needs another syllable there?" I asked. The pencil would be on its way again to the next line and the next. It never touched the paper. Thus we read together. Never did he say, "That's wrong" or, "That's bad." Never did he tell me what to do or what needed to be done.

Once, however, when his pencil had guided me three times over the same eight lines, and I despaired, unable to perceive and to tell him what was wrong, he relieved me and inflated me by breathing, "That is real poetry." And I thought of John Ciardi and Arthur Miller who not many years before had sat in this chair learning from Cowden.

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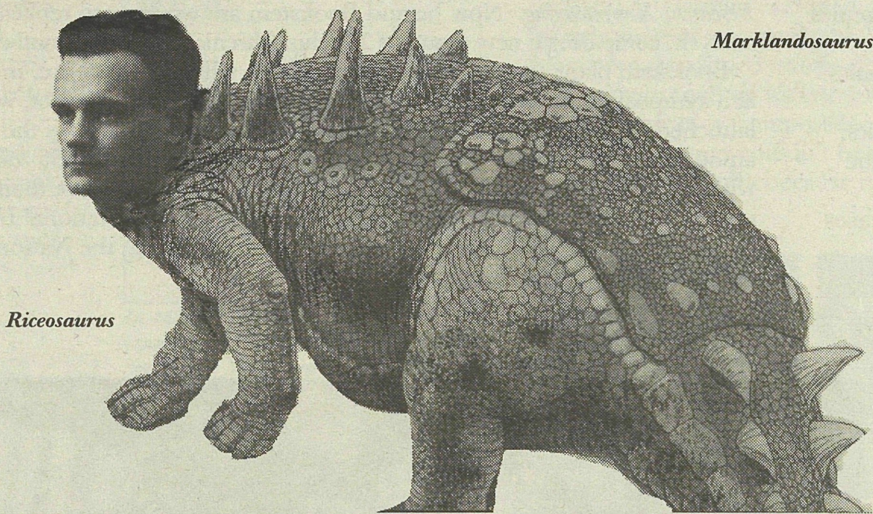
At UCLA, back in graduate school after three years of teaching three sections of freshman composition and one of introductory literature at Washington State University, Will Matthews, that year in England happily translating Pepys's diary, put it aside to read the chunk of my 555-page dissertation I sent him each month. He returned it remarkably unscored, except for an insistently, impatiently repeated, uncompromising, "Make your point, Murray." And once, a plea or a curse, "Oh, say it!"

Will Matthews was my last teacher, my last dinosaur. Still trying to obey his injunction to make my point, I had it in mind to explicate each of these encounters, but I'm not going to. To make them explicit by claiming I learned from them to answer the question asked, to know my place, to avoid presumptuousness, to be responsible for myself, to work to capacity, would diminish them somehow.

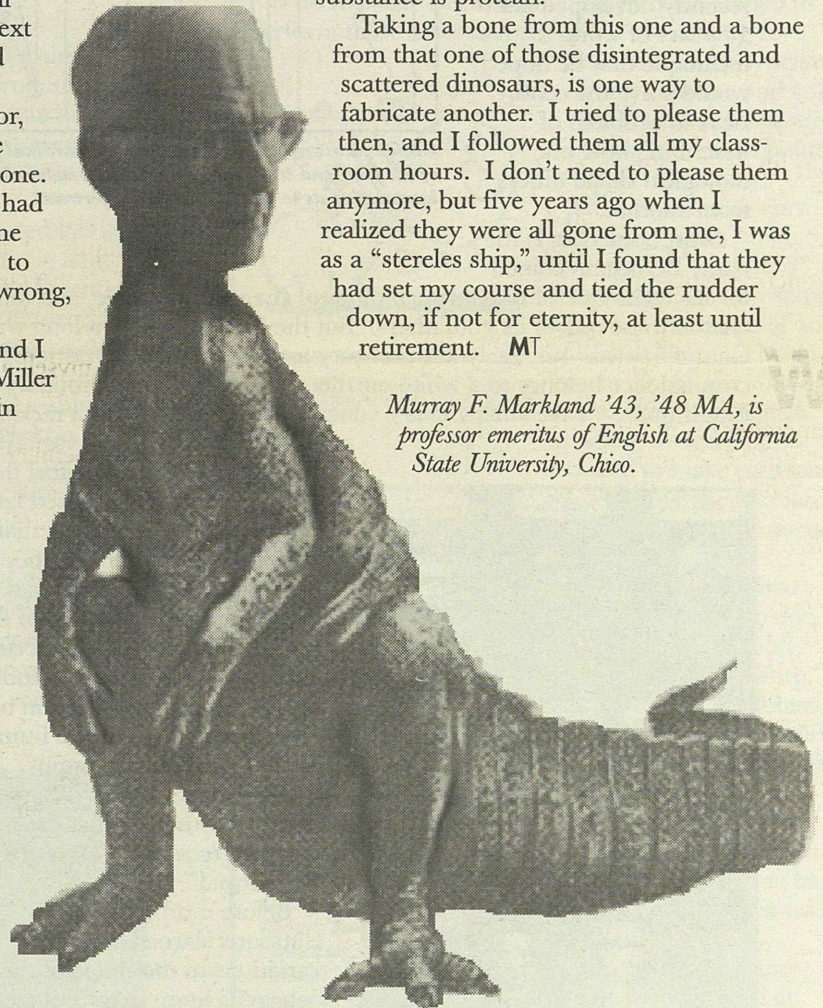
I'm sure my memory has reshaped what I took them to mean at the time and what my reactions were. I doubt that I sensed as I do now my teachers' goodwill for me. I probably felt embarrassed, put down, caught out, badgered, abused and misunderstood. I find several messages in each encounter; in their multiplicity they have become ambivalent—despite the literal directness of some—and like proverbs their substance is protean.

Taking a bone from this one and a bone from that one of those disintegrated and scattered dinosaurs, is one way to fabricate another. I tried to please them then, and I followed them all my classroom hours. I don't need to please them anymore, but five years ago when I realized they were all gone from me, I was as a "sterile ship," until I found that they had set my course and tied the rudder down, if not for eternity, at least until retirement. **MT**

Murray F. Markland '43, '48 MA, is professor emeritus of English at California State University, Chico.



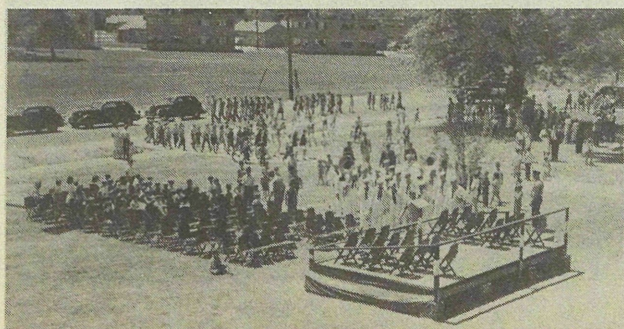
Marklandosaurus



had not expected luxury, I had definitely hoped for more than that apartment had. The kitchen was equipped with primitive essentials: table, two chairs, an ice box (for block ice delivered daily except Sundays), sink and a coal-burning cook stove.

Willow Run Village was 10 miles from Ann Arbor. During the week, the University ran bus service between West Lodge and the campus, a necessity for students and a blessing for wives to ride into town to shop.

I loved the neighborliness in the court. Every morning when the men left for classes, one of the wives called the others in for coffee, and we took turns bringing cinnamon toast or powdered donuts. Only one woman worked away from home. Betty went forth to her job in a ready-to-wear shop in Ann Arbor. Those of us who stayed behind, wearing our skimpy wartime skirts, both admired and envied Betty in her long New Look fullness.



Parade ground of the Willow Run housing complex on July 4, 1948.

Budgeting was a problem we had to master. By the last week in the month we were all cashing in empty soda bottles and stretching the meat dishes with more rice or macaroni. Entertainment rarely cost much, but not many people had the time to go out. In warm weather the courtyard became a green for community wiener roasts, and at any time there might be card games in one apartment or another. Students had passes for football games and hockey games, and everyone cooperated with babysitting, trading off children so that couples could go out when they would or *could* go.

The time came for final examinations before any of us could believe it. Gardening, ball-playing and bull sessions gave way to intensive study sessions. Mothers took the children to the park to leave the house quiet for scholars at work.

After graduation, three families in our court moved on to careers in other parts of the country. With new jobs and new homes, they were eager to leave. As one of the wives said when she came to say goodbye, "Later, when we look back on this place and what we went through, we'll probably think it was OK."

I did not have to wait till later. I knew it was OK then. **MT**

Olivia Murray Nichols of Dallas went to college "many years after" her husband received his engineering degree in 1949. She is an alumna of Texas Women's University.

BRAIN TWISTER

The world's first morphometrician and his colleagues depict the shape of the human brain in sickness and in health

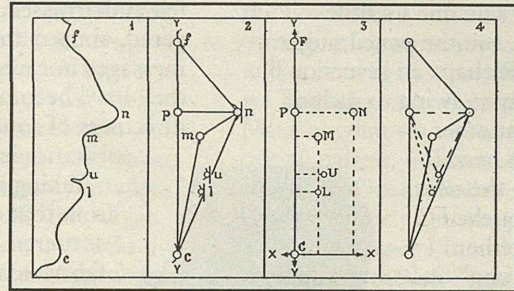
By Diane Swanbrow

A few years ago, Fred Bookstein was browsing in his library when an illustration in the second volume of *The Life, Letters and Labours of Francis Galton* by Karl Pearson (1924) stopped him cold. The picture was a geometric diagram of Galton's system for classifying human profiles. Galton (1822-1911), the British natural philosopher and polymath, was a pioneer in the racist field of eugenics, among many far more notable achievements, including the invention of weather maps and the description of fingerprints.

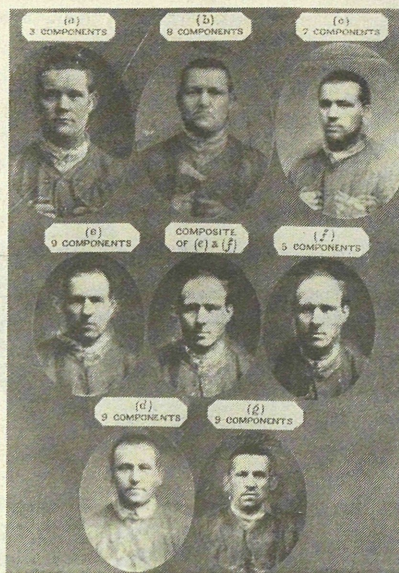
Galton's interest in criminology led him to devise a way to analyze profiles by measuring the distances between sets of standard facial features, such as the corner of the eyes, the tip of the chin and the bridge of the nose. Calling his method "anthropometry," Galton proclaimed it "the best means available for identifying habitual criminals."

Bookstein (pronounced Book-steen) was astonished to see in Galton's amateur methods one of the key tenets of a statistical technique he had recently developed after 10 years of work, a technique that he hoped would solve the centuries-old problem of describing how one biological shape differs from another.

Morphometrics is the name Bookstein coined for his technique of measuring biological shape and change, and he considers Galton to be one of its godfathers. But the field has come a long way from Galton's pernicious, early-20th century assumption that a "normal," non-criminal face belongs to a white northern European male, probably an Englishman. "Like almost every educated Brit, Galton was a racist,"



Galton measured the distances around 'cardinal points' of the face, and translated them into geometrical language so as to 'classify' series of portraits.



'What Galton did,' Bookstein says, 'was to think of categories of people, for example, habitual criminals [see photo], Welsh ministers or members of esteemed families. In his theory of eugenics, it was assumed that people who had things in common should look similar. Galton invented a way to take photos that standardized the height and width of faces by printing them together in layers. If there was some family or professional average, then you would be looking at it. What's astonishing is that his method sometimes worked.'

Bookstein says. "His variety of eugenics was more genteel than the virulent form that erupted later in the century. But the irony is that eugenics didn't fail because of politics but because it was just plain bad genetics."

Still, it has taken most of this century to heal the scar of eugenics, according to Bookstein. Today, the most promising application of morphometrics is not to human faces at all, but to human brains. And Bookstein and others are extremely careful about just what they mean by terms like "average" or "normal."

Before morphometrics, clinicians learned about variations in the shape of the "normal" brain in the course of their experience. But this knowledge could not be represented visually. Each anatomy text showed only a single version of the "normal" brain, based on the sliced brain of a single cadaver or on the magnetic resonance image of the brain of a single patient. The "normal" brain, however, comes in a range of shapes and features.

"The range of normal could not be depicted because we had no way of squeezing

objectively defined 'average pictures' out of stacks of individual images, each of which a clinician was willing to call 'normal,'" says Bookstein, a Distinguished Research Scientist at the University's Center for Human Growth and Development and Institute of Gerontology. Bookstein figured out how to construct a "normal" image as an average derived from billions of high-speed computer computations on images of many different individual brain images. Now, with morphometrics, digitized images of individual brains can be speedily and precisely compared with a computerized image of an average brain. The composite image will reflect the current, agreed-upon range of "normal" brain structures and shapes.

Bookstein's technique has already yielded some intriguing clinical findings. This past summer, John De Quardo, a U-M psychiatrist, used software developed by Bookstein and mathematician William D.K. Green of the Center for Human Growth and Development, to identify previously unsuspected structural abnormalities in the brains of schizophrenics.

While the links between various anatomic features and the symptoms of disease remain unclear, previous studies have suggested that the brains of schizophrenics are a bit small, with enlarged cerebral ventricles (the brain cavities that connect with the central canal of the spinal cord). But those studies were limited in scope, investigating one or another region of interest. As a result, they begged the hotly debated question of whether the extent and focus of detected abnormalities are local or global.

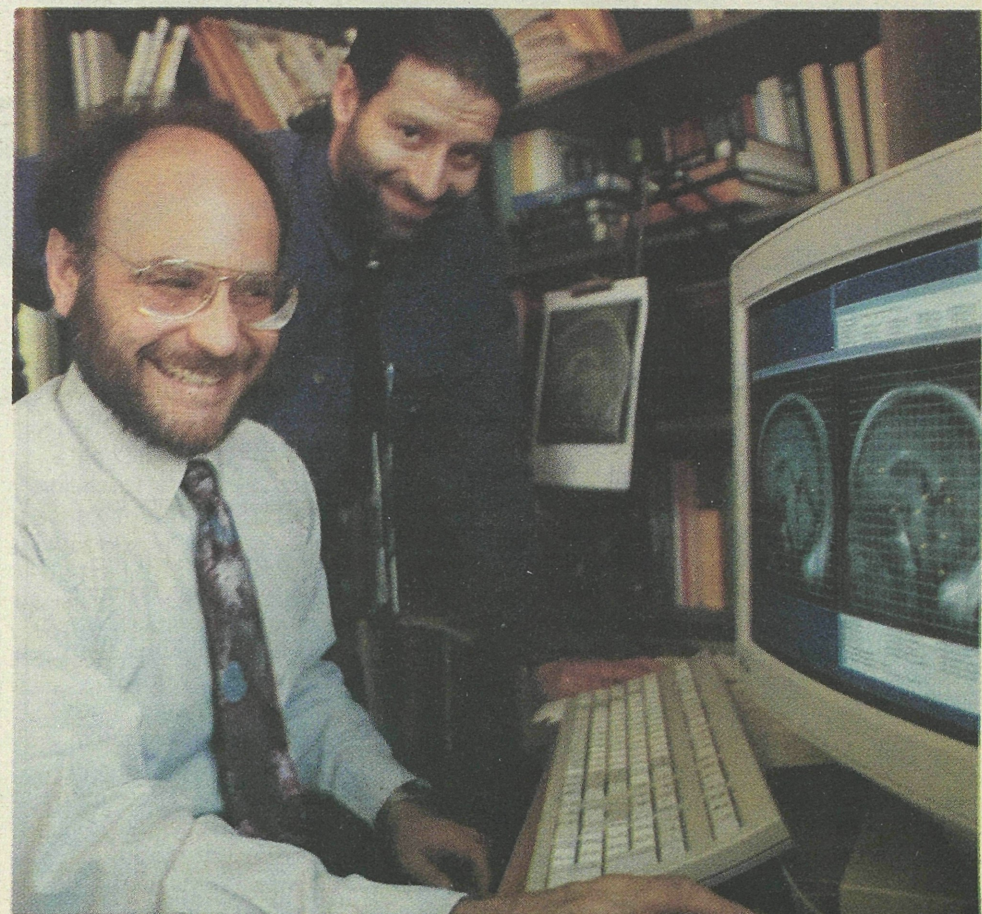
DeQuardo deployed the new technique of morphometric analysis to show that in schizophrenics, the abnormalities are both global and local. "The brains of schizophrenics are significantly smaller than the control average," DeQuardo says, "and the corpus callosum, the hard body connecting the two hemispheres of the cerebrum [the gray matter that allows people to think and speak], appears thinner than normal all along its length."

According to Rajiv Tandon, associate professor of psychiatry and director of the U-M schizophrenia program, "John's application of Fred's image-averaging technique nicely complements traditional region-of-interest analyses, which are nearing a dead-end. It's very useful to be able to step back and view the brain whole, since what's wrong in schizophrenia is probably not just one abnormality, but many."

Down the road, Tandon speculates, morphometric analysis may allow researchers to sort out which brain abnormalities are developmental and which are degenerative. These differences, he notes, may be related to various behavioral dimensions of the disease, from delusions and hallucinations to a loss of interest in life's normal pleasures.

DeQuardo presented the findings based on morphometric analysis of 14 schizophrenic patients and 14 unidiagnosed controls at a national psychiatric conference last May, and an article on his findings is being reviewed by *Psychiatry Research: Neuroimaging*. Now he and Bookstein are working to replicate the analysis, comparing a new group of 25 schizophrenics to a new group of 25 controls.

Bookstein plans to present the latest results, whatever they are, in November at a symposium on research progress in the Human Brain Project, which was launched last year to give scientists the tools they need to access the vast amounts of information on the brain now accumulating. The \$6 million project, which is supporting the research of Bookstein, Green and more than 40 other investigators from around the world, is sponsored by the National Institute of Mental Health (NIMH), the National Institute on Aging, the National Institute on Drug Abuse and other federal agencies.



Bookstein (left) and DeQuardo.

'Whenever you do something new, you take the risk of being wrong.'

"I hope we'll replicate the schizophrenia findings," Bookstein says. "If we do, the value of morphometrics as a tool of scientific analysis, a means of achieving new insights into the brain, will be confirmed. If we don't, well, I'll be disappointed but not defeated. Whenever you do something new, you take the risk of being wrong. You can't expect a tool, even one as mundane as a screwdriver or a voltmeter, to work every time you use it."

Whether or not morphometrics works this time out, Bookstein's accomplishment is substantial. The 1994 edition of the "bible" of mathematical statistics, *The Advanced Theory of Statistics*, refers for the first time to "Bookstein's (1986) shape variables." And DeQuardo and other clinicians are using morphometrics to help evaluate their patients' brains.

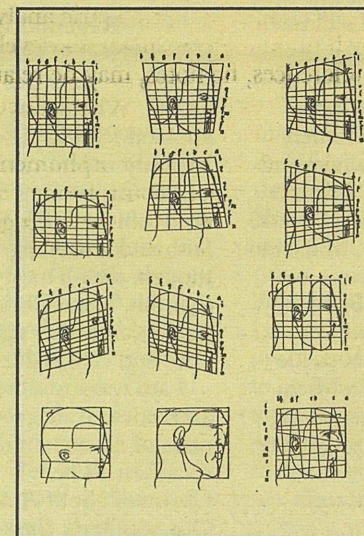
Morphometrics is also expected to play a crucial role in solving the puzzle of the human brain, according to Stephen Koslow, director of the division of neuroscience and behavioral science at NIMH and coordinator of the consortium of federal research organizations that are funding the Human Brain Project.

"Other studies are providing pieces of the puzzle," Koslow says. "They're looking at one set of chemicals, one electrical system, one piece of the brain's structure or another. Yet the brain works as a unified whole. Fred's achievement is that he's found a way, by warping brain images, to create an aggregate brain and then to compare one brain with that aggregate. He's found a way to see the brain whole." **MT**

Pioneers in Morphing

Fred Bookstein may be the world's first and only full-time morphometrician, but he makes it clear that his contributions to the field extend earlier work done not only by Francis Galton in Victorian England, but also by the German Renaissance artist Albrecht Durer.

In 1524, Durer, known primarily for his accurate and delicate style of drawing and his canny delineation of character, drafted a dozen drawings of the same face in profile on a grid. In these drawings, the face looks rather like a contemporary cartoon creature; each grid is transformed as if it were printed on a rubber graph which was then bent and twisted to distort the normal proportions and positions of facial features.



In 1524, Durer used a grid to examine and represent proportions of the human physiognomy and other anatomical regions.

"Durer showed how a series of grid transformations would give faces different proportions," says Bookstein. "These transformations resemble, but are completely independent of, the studies in perspective commonly done by artists of the period."

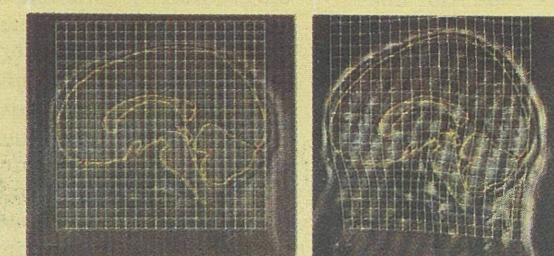
Bookstein's breakthrough—the morphometric synthesis—consisted of applying statistics to the insights of Durer and Galton. Starting with magnetic resonance images (MRI) of individual brains, he has identified discrete points on the organ's various surfaces and parts. Bookstein calls the points "landmarks," and notes that they are analogous to the identifying features that Durer and Galton or any of us refers to in describing a human face—the nose, tip of chin, eyebrows, cheekbones and so on.

The brain has no shortage of potential landmarks; anatomical atlases are filled with illustrations identifying various features, usually designated by their scientific, Latin names, such as *medulla oblongata*, *pons*, *cerebellum*, *corpus callosum*, *dura mater*, *gyrus angularis*. In a recent schizophrenia study, Dr. John DeQuardo identified 13 such landmarks with the goal of identifying neuroanatomic abnormalities suspected of being linked to the mental disease afflicting 2.5 million Americans. Among these landmarks were the optic chiasm, the tip of the fourth ventricle and various parts of the cerebellum, corpus callosum and pons.

DeQuardo digitized the landmarks, using Bookstein and Green's computer program, which then averaged the configurations in the brain images of schizophrenics and compared that average to the average configuration found in the brain images of undiagnosed controls.

The difference between the averaged landmark configurations in the two groups can be depicted as a picture, a brain image, or it can be shown as a selection of wavy lines on a grid, a deformation just like the ones Durer drew so long ago. "It's a direct diagram, an explicit picture, of the abnormality," says Bookstein. "The eye is led to the abnormal. What's abnormal is what looks warped on the grid."

What Bookstein has done is to give pictures the authority of numbers. After four centuries of progress in graphics and mathematics, morphometrics was inevitable. But it could not have been developed much sooner. "Until computer image analysis was developed in the 1960s, morphometrics was impossible," Bookstein explains. "Biological shapes couldn't be compared and averaged statistically because there was no good



The warping of the image and bending of the grid on the right indicate a departure from the average geometry of the human brain at left. If the distortions in imagery systematically identify abnormalities, the Bookstein-Green software will become valuable in the diagnosis and treatment of many diseases.

source of graphic data on those shapes. The invention of computed axial tomography (CAT scans) in the 1970s and the development of MRI scans in the 1980s changed all that."

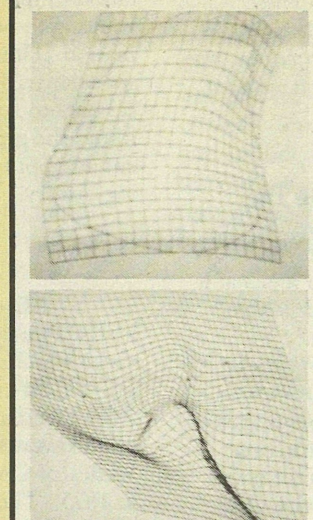
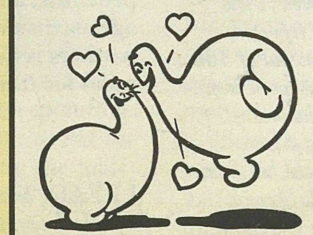
"The mass of accumulated data has proliferated so much in the last decade," says Stephen Koslow, NIMH coordinator of the Human Brain Project, "that one of the biggest problems in brain research today is to create the capability of putting everything that's known about the brain in one place." Koslow hopes morphometrics can help researchers all over the world to collect and compare what they've learned about the brain. And Bookstein hopes morphometrics will provide new insights into the ranges of anatomy consistent with normal mental function, versus the deformations expressing the typical brain forms associated with Alzheimer's disease, manic depression, fetal alcohol syndrome and many other conditions. From these insights may come new avenues for prevention and treatment. One day there may even be cures. **MT**

Pixels, Shmoos and you

In collaboration with U-M's Biomedical Communications, Fred Bookstein has produced a video, somewhat dauntingly titled *Edge Information at Landmarks in Medical Images*, to explain how the young science of morphometrics melds statistics, geometry and computer science. Thanks to Bookstein's narration, the video is entertaining in spots even if it remains incomprehensible to those with limited mathematics.

After one challenging passage, for example, Bookstein remarks that the "gentlest possible outline" on a bent plane results in a shape that's remarkably similar to that of the gentlest of mythological beasts, "the Al Capp character, the Shmoo, which lays eggs in cartons and gives milk in quarts, of an obscure phylum, eager to immaculate itself for the comfort of its human companions."

The software Bookstein and Green developed to perform these morphometric feats is enabling re-



Going beyond looking at photos, Bookstein expresses differences in form by grids that exploit powerful pattern-processing skills of human visual perception: displacement (dots) or twists (segments) of a square grid are smoothed out by Bookstein and Green's software until they look like aspects of landscape. But this 'land form' is actually describing how pixels (picture elements) have changed from one image to another. This example, drawn just for fun, does not correspond to Galton's data, the Shmoo or anything else, Bookstein emphasizes.

searchers and physicians, using a mouse and computer screen, to tie each of the landmark points on an individual patient's brain to corresponding points on an "average" or "standard" brain image. At the same time that the shape of an individual brain is being "normalized," the software is recording how much bending, or warping, is required to make each landmark assume the location it would occupy in the average brain.

The preliminary, two-dimensional version of the morphometric software, called "Edgewarp," was posted on the Internet in September and is available under a standard file transfer protocol to any interested user. To date, more than 25 users from England to California have dialed up and downloaded Edgewarp.

Bookstein and Green are now hard at work on a three-dimensional version of the software, which should be finished, they estimate, within two years. The 40 or so researchers affiliated with the national Human Brain Project, which is a large-scale effort to do for neuroscience what the Human Genome Project is doing for genetics, will probably welcome a technique that has the geometrical efficiency and statistical power needed to make sense of the massive archives of data now being assembled.

Neuroscience isn't the only discipline that stands to benefit from morphometrics, however. The software has already shown its applicability in fields ranging from evolutionary biology to micropaleontology, where improved measurements, descriptions and comparisons of complex but subtle shape changes can open new chapters in the story of life. **MT**

Diane Swanbrow is an information officer in the U-M Office of News and Information Services.

LETTERS

Women and Education

WE ESPECIALLY appreciated the June 1994 issue on women's education. It was discouraging, though, to see the use of "thin" as a descriptor of women's bodies (articles on Beatrice Guydon and Jane Maginnis Bloom). This is a value-laden term for many women in our society, and we question its relevance in these inspiring accounts of women who earned their U-M degrees in spite of challenging personal circumstances. In the future, please try to avoid reinforcing the pervasive message that successful women of any age should conform to a particular body type.

Andrew R. Bonamici, '84 AMLS
Elizabeth Herlihy Bonamici

MELISSA PEERLESS'S article on WISE [Women in Science and Engineering program—Ed.] is outstanding and a welcome piece of information. It coincides with a book review I wrote. I have included 100 copies of it for you to distribute at Couzens.

Susan M. Mueller '60
Wilmette, Illinois

Editor's Note: *Alumna Mueller reviewed Nobel Prize Women in Science by Sharon Bertsch McGrayne, Birch Lane Press, New York, 1993. The book, Mueller reported, "focuses on the nine female winners out of 300 total, with five more women whose work won, but the award went to a male collaborator." One of the five was nuclear physicist Lise Meitner (1878-1968). "While she hid from Hitler in Sweden," Mueller noted, "her collaborator, Otto Hahn, wrote from Germany and asked her to explain some of his findings. She analyzed his data while cross-country skiing, making intricate mathematical calculations mentally, and discovered that he had come up with nuclear fission! Hahn was awarded the prize in 1944, alone."*

Every Pronoun Has His Day

I TOOK note of the following sentence on page 7 of your June issue: "Its meaning is for everyone who looks at it to decide for themselves, said Baskin, who did not title his creation."

Everyone should decide for themselves? Unless the viewing of the sculpture is limited to people with multiple personalities, the grammatical construction seems an example of the current politically correct theme of sensitivity uber alles.

Et tu, Michigan? Oh, well. I guess everyone must decide for himself how much he is willing to tolerate.

Brad Jolly '86 UM-F
Longmont, Colorado

Editor's Note: The American Heritage College Dictionary, Third Edition (1993), contains Usage Notes recommended by a panel of 173 champions of the English language. The note under the pronoun "he" reports that 63 percent of the panel choose not to use masculine pronouns in sentences referring to both female and male subjects.

The note says that while such sentences as, "Every member of Congress is answerable to his constituents," are correct grammatically, anyone who chooses to use the masculine pronoun in such instances should be aware of how such usage may be interpreted—that is, as inaccurate and perhaps offensive as well. Women will undoubtedly be among those who look at Baskin's sculpture.

Sex and History

I READ the article by Laura Betzig which evidently was intended to appeal to one's prurient interest. It did and I was titillated. The author claims that she is loath to spread slander and then she goes about it. There is no question that Ben Franklin was a lady's man. [As to Thomas Jefferson], although there are claims of a relationship with one of [his] mulatto slaves, the colored children that resembled him are supposed to be chil-

dren of a cousin that had a very similar facial appearance. With all the cerebral pleasure that he received with his diverse intellectual inquiry, it is doubtful that he would have time for sexual exploitation. Since he excelled at everything, it may have been presumed that he excelled at sex or that it would have been the only way to attack him.

Alexander Hamilton was the illegitimate son of a ne'er-do-well alcoholic son of a Scottish laird. He was the aide-de-camp to George Washington, who became the father figure Hamilton never had. Hamilton was naive about women and easily beguiled by them; he believed that Washington should serve for life because not only was the president one of the physically strongest men in America, but one of the morally strongest men as well.

Never have I read of any question implied about the moral quality of the character of George Washington until the backhanded assassination by Laura Betzig. It is no wonder that the U of M is in the middle of the moral decline of America, and has forgotten its Christian beginning. Porno films, institutional protection for discrimination against pederasts, and medical insurance coverage extensions to sexually immoral partners is not what the founders had in mind for this educational facility.

A.R. MacEwen
Westland, Michigan

I READ "Sex in History" expecting a scholarly treatise or, at the other end of the spectrum, a tongue-in-cheek presentation of relevant fact. As I read, I kept wanting to be surprised by new information. However, it was only a long, speculative diatribe, having little historical data to support its thesis. Overall, I found the article offensive for its apparent attempt to denigrate men by rewriting history.

Gregory P. Andrus '72
St. Louis

Alice Freeman Palmer

I FIND many enjoyable and interesting articles in *Michigan Today*. It was surprising to read in the June 1994 issue that Alice Freeman Palmer of the U-M Class of 1876 was the first president of Wellesley College, which was founded in 1875. The first president, as you can see by enclosures, was Ada L. Howard (1875-1881). Alice Freeman Palmer (1881-1887) was the second.

It may be of interest that Barbara Warne Newell, president of Wellesley from 1972-1980, had been associate professor of economics at Michigan from 1967-1971 and vice president of student affairs from 1968-1970.

Thank you for much good reading. An occasional surprise is fine.

Lucy Shaw Schultz '28 Wellesley College
Flint, Michigan

I FOUND your article on Alice Freeman Palmer's new biography very interesting. She has long been a most admired figure to me. However, I was very surprised to see that Ruth Bordin's book was described as a "first biography of alumna Alice Freeman Palmer." I went to my bookcase and took down *Alice Freeman Palmer* written by her husband, George Herbert Palmer, Houghton Mifflin, 1908.

Mary M. Anderson '70 AMLS
Marysville, Michigan

THE PIECE on Alice Freeman Palmer in the June issue stirred some memories. The only book I have left from my undistinguished career at the U of M is "University Readings," from which I read assignments for my freshman English class in the summer of 1933. Re-

cently I began to re-read some of the essays and was most impressed by the "Personal Statement" of George Herbert Palmer, who was so sickly as a youth it was a miracle for him to reach maturity, much less pass 91 (March 1842 - May 1933).

In May of 1869, according to his essay, he applied for a position at Michigan, but receiving no reply he felt "obliged to accept" an appointment at Harvard. "Twenty-five years later, President Angell showed me on the Faculty Record my appointment to an Assistant Professorship at Michigan, and underneath it in a different hand, 'Declined.'"

Palmer goes on to say, "The only explanation I can imagine is a letter lost in the mail."

How the lives of these two great people—as well as the two great universities—may have been affected by a letter lost in the mail! (My own life was occasionally thrown off balance at Ann Arbor for the same reason!)

The article raised the startling factor of costs. When I attended the University about 60 years after Ms. Palmer, my annual cost as an out-of-state student was only a bit more than double hers. In the 60 subsequent years the cost has gone up by a multiple of 25 or more! I wonder what will happen over the next 60 years. Surely more letters will be lost in the mail; but I do hope the Palmers' story will not be forgotten.

A final note: My *Encyclopedia Americana* says that George and Alice were married in 1887; your article says that Alice fell in love in 1888; what a happy sequence!

James Scherr '36
Studio City, California

Editor's Note: *Our article, not the book, was the source of the error. Ruth Bordin, who died shortly after the Michigan Today article was published, reported the sequence as you state it: Freeman and Palmer fell in love in 1886, and married on December 23, 1887, when she resigned from Wellesley.*

"A NEW Woman of the 19th Century" by John Woodford inspired me to read for the nth time my copy of *The Life of Alice Freeman Palmer* by George Herbert Palmer, published in 1908. My husband and I look forward to *Michigan Today*.

Leona (Snyder) Beckert '40
Owosso, Michigan

Freedoms of Inquiry and Speech

I ENJOYED the June 1994 issue very much, especially "Hentoff, panel tackle free vs. hate speech." For once a Michigan publication raises a question of serious general concern instead of projecting the usual stuffy, corporate image that is more appropriate for General Motors, your neighbors to the east.

A number of us are concerned that the University projects a "heartless" image, more concerned with research money than undergraduate welfare, and I for one am glad to see that the Hentoff report blunts that, although interestingly the *undergrads* took the initiative to bring him to Ann Arbor.

I am puzzled however, by the comments that professors don't allow freedom of inquiry and discussion, and that undergrads use "Star Chamber" proceedings out of fear of possible retribution if they attempt to utilize the normal channels as Hentoff asks them to do. Is this a real fear of retribution, ultra-sensitivity, or a Salem-witchhunt-like atmosphere that is deliberately created and manipulated by those who don't want freedom of inquiry at all but the promotion of their own personal agendas, whatever they may be? Hentoff is certainly right when he avers that the university may be the last place in our society where free speech is possible. I hope that U-M and the University of Wisconsin ('65 PhD) don't kill it wittingly or unwittingly. If Michigan continues to display a commitment to free inquiry and shows that it indeed "has a heart" and not just a check-book, I may come up to visit, attend an occasional football game and (oh yes!) make a *modest* contribution!

Roger Hamburg '56
South Bend, Indiana

THE SPEECH CODE debate in the June 1994 issue seems out of touch with what college education is or could be. Some learning is done by discussion: *informed* (not unprepared) exchanges among students and professor. Very little learning is done by listening or looking, whether the professor reads the textbook, delivers a brilliant entertaining opinion or scribbles on a blackboard. Most learning occurs when students work on practical projects (hands-on, minds-on). This holds for all fields and is being seriously considered by public schools now. It is still ignored by 99 percent of college "teachers." Omnipotent professors lecturing the masses are irrelevant to education.

In the new system, grades, if any, or certificates of mastery, come from demonstrated competence, not faculty whim, and might be issued by an outside board. Most faculty would love to lose the adversarial or judgmental role over students' lives. The power issue would vanish.

Professors should be permitted to be human, to have biases and make mistakes, but they are also hired for compassion, wisdom and judgment as proven in their fields of research. If they have these qualities, why not use them with students, too? The bottom line is that the universities should follow the spirit of the First Amendment or the nation will lose it.

Susan Castle Mauldin '67
Pueblo West, Colorado

Future Pulitzer?

RE: "WOULD PAUL Graham go pro?" If the Pulitzer wasn't so tainted, I say Darcy Lockman '94 is a front-running candidate. Bingo!

G. Edgar Beabout '58 Eng
Van Alstyne, Texas

Regental Bylaw 14.06

RE: TANGENTIAL response to response to Regental Bylaw 14.06: Whether in agreement or not, I applaud Paul K. Moots's ('89 Den.) honestly ardent castigation of Bylaw 14.06. By quoting Scripture, he leaves no doubt as to the source of his passion, faith and reasoning. I do question, though, the all-too-typical insinuation that this "once Christian nation" was holy in an earlier age, i.e., before tolerance and civil rights became vogue.

I am wary of obscuring society's antecedent transgressions with declamations of its current descent into godless socialism. There is little inherently Christian about America or capitalism. Our country's charter, to the best of my knowledge, was composed by a man who expressed profound disdain for the Christian church. And John Locke, from whom many of Jefferson's ideas originated, would be labeled a "secular humanist" today. Love for Jesus resides in neither government documents nor economic policies, but in one's soul.

Understand that this "once Christian" nation pursued fiscal growth by sanctioning genocide, rather than conversion or assimilation, while proclaiming *manifest destiny* to the western sea. It was vicarious brutality that enabled settlers, whose preceding armies had killed-the-way-clear, to claim God's country as private property. Such is the story of much nation-building.

One must challenge proclamations of society's greatness, be it yesterday's or today's. For such greatness is often attained through acts un-Christian and inhumane.

Paul D. Moon '87
Livonia, Michigan

I WOULD not have thought there were any 1889 U-M graduates still around; however, judging from the contents and tone of the letter by Paul K. Moots '89, "Regental Bylaw 14.06" in the June 1994, I was mistaken.

Robert Edwards
Glassboro, New Jersey

Favors Controversy

THIS IS my long overdue letter to tell you how much I appreciate receiving *Michigan Today*. My favorite section: "Letters"—the more controversy the better.

Fred Barrett, BBA, '58 MBA
Portland, Oregon

Dr. Jane Bloom

THANK YOU for your wonderful article on Jane Bloom. My wife and I had the pleasure of moving next door to Jane and Bill in 1977. Jane had just returned from the University of Rochester (Strong Memorial Hospital), and I was a second-year medical student. Jane had boundless energy and would "relax" after a busy day at her office by mowing the lawn, and the neighbor's lawn on her other side. Whew!

What a dynamic woman, and an inspiration to all those who think it is too late in life to change careers.

Tor Shwyder '80 MD
Farmington Hills, Michigan

I HAVE just read the story of Jane Bloom's becoming a doctor. I thought you might be interested in the story of my wife, who became a doctor after having eight children (I believe to find out where the babies were coming from). Thanks to the education I received at Michigan, I was able to support five children and a wife at school in the same time.

Richard F. Gretsck
President of Engineering Class of 1930
Newton, Connecticut

Editor's Note: *Alumnus Gretsck included newspaper clippings describing the career of his wife, the late Jean Gretsck. A lack of funds forced her to drop out of college in Louisville, Kentucky. After a stint as a WAC officer during WWII, she married Gretsck, raised eight children and, at the age of 47, completed three years of commuting to Columbia University for her premedical education. At 54, after years of commuting home every weekend, she received her MD from the Women's Medical College of Pennsylvania in 1973.*

Calling All Hacking Alumni

I am an "Old Alum"—LS&A, '54 (wife Flint, '58; she being, incidentally, from the first grad class from Flint)—now living in northern Minnesota and attending a local university here as a "senior citizen" special grad student. The local university that I attend has just instigated an Internet Listserv for all alumni, which incidentally is effected by a professor here, also a U of M grad. We (he and I) both are interested in determining if there might be a "listserv" or something similar that would cover U of M grads. I've lost touch with many, as has he, and we would like to renew old acquaintances. It has been interesting to see the responses to the Listserv (correct spelling, by the way) here for our local U (Bemidji State), coming from all over the country. Does U of M have a similar program? If so, let us know details. If not, might be something to start. Go

Blue, and let's have a great season!

A sidepoint: I have written to the University several times offering the band director's formations for the October 6, '28 (yes, correct—'28) game. (My wife's father was band drum major for several years during that era.) Never a response. A bit disappointing, and not good PR. Even have a Little Brown Jug, ceramic type, from those years. Such deja vu! Nobody seems interested.

Gurnee Bridgman '54
Bemidji, Minnesota

Internet:
Gurnee@Vax1.Bemidji.MSUS.EDU
Ham Radio: W9NT@KOLAL
#NCMN.MN.U.S.A.NA

IN READING the June issue I noticed an article referring to "the seventh annual Jack L. Walker Memorial Conference. Would you identify the Jack Walker for me? I had a close friend in college with that name who graduated in 1938 and was a member of Delta Tau Delta fraternity. Could you tell me if he might be the one who sponsored this conference?

John R. Park, LS&A '37
Bryn Mawr, Pennsylvania

Editor's Note: *Your classmate was not the Jack Walker referred to. The conference honors the scholarship and memory of the late Jack L. Walker, professor of political science and former chair of that department, who died in an automobile accident in 1990 while on sabbatical in California.*

Dalai Lama and Abortion

I AM writing in response to your article "Dalai Lama delivers Wallenberg Lecture" in the June issue. In the paragraph on the universality of human rights he said, "All beings that experience pain and pleasure have equal rights to seek happiness and overcome suffering. ... When certain cultural practices and traditions conflict with universal ideas like human rights, it is the culture that needs to modify, not the ideals of universal human rights."

There exists sufficient evidence that many of the babies aborted every year in this country do indeed suffer pain in the procedures used to end their lives. For starters, the approximately 35,000 victims of third-trimester abortions that occur annually fall into this category. In light of this, it follows from the Dalai Lama's statements that our culture's practice of allowing these unborn babies to be killed at such a late stage of their mothers' pregnancies (when they are developed to the point of being able to feel pain when their lives are ended) is one that needs to be stopped if we wish to claim, with integrity, that we uphold the idea of the universality of human rights.

David Hooten '83
Perrysburg, Ohio

Michigan Today attempts to publish all letters received. Letters may be edited for reasons of length, clarity, accuracy and taste—Ed.

Koop on Health Care Reform

By Darcy Lockman

Former Surgeon General C. Everett Koop visited the campus October 5 to lecture on "The Ethical Imperative for Health Care Reform." He also conducted a seven-hour seminar for 25 undergraduates regarding the ethics of medicine and the law, and the direction of care-giving in America. He spoke about health care with *Michigan Today* before his arrival on campus.

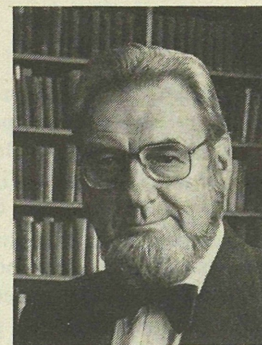
Koop said the partisan debate about health care legislation, which died after the Clinton administration abandoned hope of enacting reform legislation this year, had been "a sorry spectacle, because I don't think we've seen anything on television that speaks of altruism or a sense of compassion for the people who don't have health care."

If Koop, who spent a large portion of last year moderating discussions between Hillary Clinton and members of the medical community, could draft a health-reform bill, he would have "started from a different premise" than the White House's.

"If you wanted to balance your checkbook and were finding you were spending too much," he explained, "I think you'd find a way to cut down. I think we have to look at the things that are out of hand, such as spending 26 percent of our health care dollar on paper pushing, or not having the malpractice system under control with arbitration, so as a result doctors are spending \$70 billion a year on tests that are for the benefit of a lawyer instead of for the patient."

Koop believes that "if we just focused on paper work, malpractice and knowing what works and doesn't work in medicine . . . over the course of 10 years I think we'd get to the point where we could save a couple of hundred billion dollars a year, enough to buy anything we wanted in health care."

Koop said the Clinton administration has a "wonderful goal" of full coverage, but that its "health care package is a Cadillac, and I really think you ought to start off with something a little less pretentious than that."



Koop

Although he is skeptical about the financial practicality of the president's original plan, Koop praises Clinton for focusing on universal coverage.

According to Koop, Clinton's goal of insuring 95 percent of Americans by 1998, which faded during the prolonged debate, could have reduced insurance rates for most Americans.

"If you don't have 95 percent coverage, then you still have the problem of a large number of people who need medical care, but can get it only at the expense of those people who do have insurance," he said. "And that's what cost shifting is all about. For the last 30 years there's been an unwritten conspiracy that everyone in the medical profession knew about: When Medicare and Medicaid patients came into the hospital, the hospital didn't get sufficient money from the government to cover their care.

"Somebody had to pay the bill to keep the hospital open, so those who had insurance were charged more than it cost to take care of them. As long as you don't have universal coverage you'll always have cost shifting."

Koop said that no one could predict the result of the health care debate, but that he saw three possible outcomes: "Either there will be gridlock and no bill at all, or it will be so watered down it really won't accomplish reform, or it will be sort of cobbled together at the last minute."

As things turned out, his first scenario was accurate.

Darcy Lockman '94 is a New York freelancer. She also is on the staff of the Rolling Stone magazine.

Have dinosaur, need sponsors

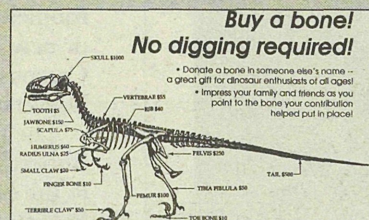
Speaking of reconstructing dinosaurs, as Prof. Murray Markland does in our story on page 6, readers can help the University's Exhibit Museum of Natural History do just that by "buying" a bone for the state's first mounting of a *Deinonychus* skeleton.

Pound for pound (it weighed about 130 of them), *Deinonychus* is considered one of the most ferocious of the dinosaurs. It had a mouth full of sharp teeth, clawed hands and a large, sharp claw on the second toe, which it used to rip open its hapless victims. Indeed, its name means "Terrible Claw" in English.

Deinonychus's discovery "helped to dispel the idea that all dinosaurs were huge, sluggish beasts," said John Klausmeyer, one of the Museum's preparators. "In fact, *Deinonychus* is very bird-like in many details of its skeleton."

The speedy, pack-hunting *Deinonychus* was about 4 feet tall at the hip and about 9 feet long from nose to tail. Its brain was particularly large for a reptile.

The Exhibit Museum will send a personalized certificate for each bone "sponsored." Sponsors' names will appear on a permanent donor plaque. Some 80,000 people visit the Museum each year. For more information, contact the Exhibit Museum of Natural History, "Buy A Bone," 1109 Geddes Ave., Ann Arbor, MI, 48109-1079, or call (313) 764-0478.



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U-M Students 'Go Exploring' in Undergraduate Education

Crossing Boundaries

By Rick Krupinski

Could the undergraduate experience be more effective than it is? Do large classes and limited faculty contact isolate first- and second-year students? Could a student body of greater diversity be learning more, in better ways, and enjoying it more too? And could students graduate better-equipped to face the constantly changing challenges of their generation?

The University's Planning Committee on the Undergraduate Experience, a group of faculty and administrators, concluded in its 1990 report, *A Michigan Education*, that the answer to those questions was, "Yes." And the report has launched a major effort in the College of Literature, Science, and the Arts to revitalize the undergraduate experience.

Leading Curricular Reform

Fundamental change at an institution the size of Michigan is a challenge, but the resources that can be brought to the task are likewise tremendous. The College is only five years under way in what LS&A Dean Edie Goldenberg calls a "long-term endeavor requiring cultural as well as curricular change," but early successes and student-faculty enthusiasm have already brought Michigan national attention as a leader in curricular reform.

Reforms center on two basic areas, the learning environment and curricular content, including the way undergraduate education is taught.

Each year, over 25,000 undergraduates enroll in more than 2,600 courses; it's easy for a student to feel lost. And education's shift since World War II toward research and narrow specialization of studies, according to Dean Goldenberg, has "gone too far" and made use too long of traditional rote methods of learning that don't serve all students equally well.

Increasing the number of senior faculty teaching first- and second-year students is one way LS&A is changing the environment, as is creating "living and learning" communities similar to the Residential College, which for several decades has provided a single setting in which students live and attend class with others enrolled in similar studies.

Cross-utilization of the talents and resources of various departments and disciplines is knocking down walls that have long stood as divisions in learning. "It opens up—early in a student's education—the vast storehouse of wonders that the University holds," Goldenberg says, "and students go exploring. It's what education is all about."

A Costly Endeavor

Interdisciplinary study is not new; neither are opportunities such as undergraduate research with senior faculty or study in a foreign country. What is new is that the principles behind what were previously special, limited programs are being expanded and applied to the very foundation of undergraduate education. It's a costly endeavor to be sure, but one LS&A is committed to.

For instance, study abroad, once considered a luxury for a relatively few students, taught much more than language and communication; it taught differences in culture, history, politics, economics, art and social systems. As society becomes more and more global, such opportunities, far from being a luxury, have become increasingly indispensable to learning.

Expanding study-abroad opportunities, and bringing to on-campus courses the dimensions of a study-abroad experi-

ence, reflect the new direction of undergraduate education at Michigan. The fledgling Language Across the Curriculum program, which aims to incorporate the study of culture into language study, includes German 232, a course whose content focuses on German science, music and history—taught in German—as well as a section of Psychology 111 taught in Spanish, and History 477 and Film and Video Studies 455, which offer extra credit for readings undertaken in Spanish.

The Undergraduate Research Opportunities Program, which began as a way to increase the retention rates of undergraduate students from underrepresented minority groups, has since been opened to a wider pool of undergraduates. Through one-on-one research with experienced faculty, first- and second-year students gain personal experience with scientific thinking and process before they have to select a field of concentration.

Other curricular and instructional changes include having entering students submit a portfolio of their writing to be evaluated rather than assessing their abilities and needs by a single writing sample taken during orientation.

In the revised chemistry curriculum, emphasis on performing research has resulted in increases in the number of chemistry majors. (See related story on p. 4 about innovations in mathematics and the teaching of quantitative reasoning.)

Student Response

And how do students feel about all this? Initial reactions are very favorable. The Undergraduate Research Opportunities Program, begun in the 1989-90 school year with 14 enrollments, is projected to enroll about 650 students in 1994-95. German 232 has proven so successful with students that lower- and upper-level courses are now being similarly revised, more comprehensively combining study of German culture into the study of the German language.

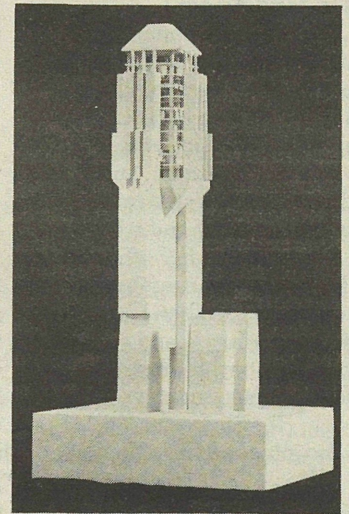
"These are just a few of the many changes under way," says Dean Goldenberg, "and we're really only in the beginning stages of our undergraduate initiative. We are excellent learners here at the University, and that makes for expert educators. The future of the Michigan undergraduate experience looks excitingly bright."

For additional information on undergraduate education at Michigan or making gifts to its programs, contact the LS&A Office of Development and External Relations, 350 South Thayer, Ann Arbor, Michigan, 48104, (313) 998-6255; or the Campaign for Michigan, 301 East Liberty Street, Ann Arbor, Michigan, 48104, (313) 998-6000.



DaRohn Conner delivers an oral presentation of his science project in the University Research Opportunities Program.

N. Campus Bell Tower Given In Honor of Robert H. Lurie



Artist's model of the North Campus bell tower, which will house a 60-bell carillon and feature an observation deck and a memorial to Robert Lurie. Charles Moore, who designed the tower, also designed the Piazza d'Italia in New Orleans, the Beverly Hills Civic Center, and museums at Dartmouth and Williams Colleges.

By Rick Krupinski

Ann Lurie of Chicago has given \$12 million in memory of her husband, Robert H. Lurie ('64 BSE, '66 MSE) to help fund North Campus building construction including a bell tower designed by the architect Charles Moore ('47 B Arch, '92 Hon Arch D), who died last December. Ann Lurie's gift to Michigan is the largest by an individual to the Campaign for Michigan.

Robert Lurie, who for 30 years maintained a highly successful business partnership with fellow Michigan alumnus Sam Zell ('63, '66 JD) and was part owner of the Chicago Bulls and the Chicago White Sox, died of cancer in 1990.

"We discussed at length our intent to express Bob's gratitude and affection for Michigan," Ann Lurie said of the gift. "Our family's involvement with the new carillon tower is a significant, personal pleasure."

Scheduled for completion in late 1995, the 167-foot-tall bell tower will be a significant landmark on the evolving North Campus. With the completion of the Integrated Technology Instruction Center and the Engineering Center, both currently under construction, the bell tower will stand in the center of the North Campus diag.

The tower, ideally suited to the space, will house a 60-bell carillon. Lighter in weight than Burton Tower's 55-bell carillon (the third heaviest in the world), the North Campus bells are being cast in bronze in the customary proportion of 80 percent copper and 20 percent tin at the Royal Eijsbouts Bell Foundry in Asten, the Netherlands.

The North Campus bourdon bell, the name given to the heaviest bell in a carillon and the one that sounds the hour, will weigh in at six tons.

A significant feature of the bell tower will be the incorporation of adjustable louvers in the bell chamber, allowing acoustical adaptation to environmental changes caused by weather conditions or new construction in the area. The North Campus carillon "will advance the art," according to University carillonist Margo Halsted.

The talents of Charles Moore, whose work Robert Lurie long admired, seem entirely apropos to the North Campus project. True to Moore's definition of architecture as a "choreography of the familiar and the surprising," his design for the bell tower seems at once whimsical and carefully organized as each of four sides differs from the others.

A symbol of the dynamic mix of science and art that North Campus contains, the Moore-designed, Lurie-funded tower also represents a fortuitous intersection of lives and endeavors that will distinguish the campus well into the future. —RK.

The Legacy of 'The Chief'

T By Michael Zucker
o so many of us Michigan Band members who played under his baton, William D. Revelli defined the word "inspiration." Whether our careers developed within or outside the world of music, he had an incredibly strong influence on our lives. The sequence of our attitudes toward him often went from fear to anger to respect to awe to reverence.

We remember with affection some of his trademarks which once made us cower—the growls, the snarls, the exclamations after a few bars of triple fortissimo that "I can't hear you!"

All of us will recall special memories or incidents. The one I remember as the most exasperating occurred in 1955 en route to the Minnesota game. Halfway into the 12-hour train trip, Dr. Revelli concluded that we were wasting time. Accordingly, he directed that since we were spread over seven passenger cars, we would have sectional rehearsals.

Those of us in the tuba and percussion ranks assumed that we would be spared because it would be so awkward to retrieve our crated drums and horns and set ourselves up for a rehearsal, right? Wrong! The Chief ruled that there would be no exceptions.

Somehow we tuba players managed to contort ourselves in the various train seats without having the instrument bells bang against the train's ceiling. Then, with the drummers parading down the aisle setting the cadence, our section rehearsed.

Dedication was the Revelli Creed. He defined it extemporaneously in an exhortation he exclaimed in a moment of irritation during a December 1964 rehearsal for a Rose Bowl appearance. The Band was practicing the music for a special dance step arrangement of "Auld Lang Syne," but some musicians weren't getting the rhythm right. Here, in his own words, which I call "Vintage Revelli," are highlights of the version of the Revelli Creed (the emphases are his) he gave that day:

VINTAGE REVELLI

"You know why our high school bands play with such atrocious rhythm? You know where it starts? Where do you think it starts? Right here. Right here. Just listen to them! I don't care what parade it's in. Just listen to them! It's abominable! It's a disgrace! There's no rhythm!"

"All you have to do is count four: one, two, three, four; one, two, three—I heard Mr. Toscanini spend 45 minutes on eight bars of the Italian Symphony with the NBC Orchestra, and he didn't get to anything but rhythm. These are pros—finest pros in the world! Now, they *know* better, but they never had anybody discipline them to do it right. And when they came out of there, they *knew* they had it.

"Demand of yourself! How much do you demand of yourself of what I'm talking about? Not even 10 percent, some of you. You have a negative approach to it to begin with. You see, I'm uncompromising with myself. It'd be easy to stand up here and let you go: 'Have a jolly good time! Go and see Los Angeles!' And go out and play like a bunch of rummies!"

"I want to know how you can dedicate yourself to your forthcoming positions in the musical world, when you can't dedicate yourself right now to what you're doing in a simple little march. I want to know how you expect the students who are going to be under your tutelage in the next 40 years to come out with any ideals. I'm talking to the whole gang of you!"

"The world is full of people who do things just about right. Just about. And a few on the top do them just right—most of the time. Nobody's perfect! When are you going to start to demand of yourself what I demand of myself? When are you going to be as uncompromising with what you do as I am uncompromising in what I hear and what I insist on? When? Are you waiting for some miracle? The miracle will be when you demand of yourself everything you've got of yourself. That'll be the day. And I don't only mean 5 minutes of 10; I mean 10 minutes out of 10; I mean 60 minutes out of an hour, 24 hours a

day, at least all of your waking hours.

"I'm talking about a little quarter-note. I'm taking a lot of time here, and I don't care if we take all afternoon. Twenty-five years later from now we won't remember a lot of things about the Rose Bowl. We might remember this. It may make the difference between what we are and what we might have been. That's my job.

"I don't want it just about right! To me, just about right is terrible!"

"The man who put the gate down one second late and wiped out a whole family across a railroad crossing was just about right. He was only one second off; he was almost right. We've had pilots hit peaks. One out here in Utah some time ago. He was just a little bit off; just enough to kill a whole planeload of passengers.

"To me, you say, 'Dr. Revelli, you think it's that crucial?' It is for me!"

"Now, nobody's killed when you play a half-note as a dotted quarter. But you might, from learning to play a half-note a *full* half-note, make the difference in the lives of 50,000 little kids. And I think this is very serious in education. If all you were going to hurt was yourself, then go and play alone.

"There's going to be 100 million people hearing you. They hear the half-note right or wrong. They don't know why it's right or wrong, they just know it is; they just know in one instant it sounds good. There are 50,000 truck drivers that are going to be listening to this band on New Year's Day. They don't know one note from another. There'll be 100,000 plumbers. They don't know one note from another. Does this forgive me, then, for playing wrong?"

"My responsibility as a musician, one that's serious to his art, is to *play that right!* And I say that this is art. Anytime you pick up that horn and you play a tone, you're dealing with music, and I don't care if it's in a honky-tonk jazz band, or whether it's in the New York Philharmonic, or whether it's in a clarinet quintet, or what—and it is your responsibility to play that right, *not* just-about-right.

"How do you initiate and develop these attitudes? By being honest with yourself. Just be honest with yourself. Don't even *play* it. Keep the horn in the case. Put the horn in mothballs until you have made up your mind: This has to be right! You don't piddle with music—it's a good-time-Charlie business, and for me, the wonderful good times come out of hearing somebody play beautifully. I don't care if it's 'Stars and Stripes,' 'The Victors' or what it is. I mean, there's a *pride*. And this guy *knows* he's good! And nobody can take that away from him.

"When they play sloppy and don't care or don't know—a great many of them don't even know, they don't know how bad it is—they can be forgiven, but more they should be pitied.

"But when you *do* know, and you play badly, then you have no right to be forgiven, you're *only* to be pitied."

Michael Zucker '57 is a stockbroker who lives in Chatsworth, California.



Revelli rehearses the tubas in 1961, six years after he put them through their paces in a train.

Legendary Music Man

William D. Revelli, a legendary figure in American band music and director emeritus of the University's band, died of heart failure in Ann Arbor July 16 at the age of 92.

Revelli began his conducting career in 1929 at Hobart (Indiana) High School, where he won the national high school championship six times.

In 1935 Revelli moved to the U-M as director of bands, a position he held for 36 years until his retirement in 1972.

Revelli is survived by two grandchildren, John Strong of Wheaton, Maryland, and Kimberly Snyder of Jessup, Maryland; and two great-grandchildren. He was preceded in death by his wife, Mary, and his daughter, Rosemary Margaret Revelli Strong.

Memorial tributes may be made to the U-M Marching Band, Revelli Hall, 350 E. Hoover, Ann Arbor, MI 48104, or to Individualized Home Care Incorporated, c/o Society Bank, 100 S. Main Street, Ann Arbor, MI 48104.

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U-M BOOKS

Recommended reading: Books by U-M faculty and graduates, and works published by the University of Michigan Press.

They Also Served: Citizen Soldiers in the Air Force Training and Service Commands by Edgar I. McCormick '37, '50 PhD (Burd Street Press, 1993).

Edgar McCormick was studying at the U-M for a doctorate in English when he was called into the service in 1942. *They Also Served* retraces his service in the 318th Air Service Squadron in Italy and Algeria. Drawing upon his diaries and memory, McCormick surveys the problems as well as the joys of the men and women who served as rear echelon soldiers, or "casuals," during WWII. It's a story that hasn't often been told—*Derek Green*.

A Rape of Justice: MacArthur and the New Guinea Hangings by Walter A. Luski '37, '50 PhD (Madison Books, Lanham, Maryland, 1991, \$24.95).

On October 2, 1944, six African-American soldiers were hanged for an alleged rape of two US Army nurses in New Guinea by order of Gen. Douglas MacArthur. Re-examining the arrest, investigation, trial and execution of the six soldiers, Luski (who was serving as an Army captain and was present in New Guinea at the time of the hangings) comes to the conclusion that the soldiers were not adequately represented, and that at least two of them were probably innocent.

Luski, who served as senior psychologist at the U-M Medical Center between 1964 and 1966, concludes that MacArthur's decision to execute the six men reflects the depth of racism in the Army in that era—*DG*.

Cold River Running by David N. Cassuto (U-M Press, Ann Arbor, 1994, \$15.95).

The Pere Marquette River originates from a spring about two-thirds of the way up the Lower Peninsula, and meanders west to Lake Michigan. Cassuto tells the river's "ecological biography" from prehistory into the 19th century, when the logging industry almost destroyed the Pere Marquette's watershed. This sometimes gripping and always witty narrative describes the river's recovery in the 20th century and looks to the turbulent and perhaps devastating environmental changes that may lie ahead—*DG*. **Lake Country** by Kathleen Stocking '68 (U-M Press, Ann Arbor, 1994, \$14.95).

An artist-in-residence at St. Mary's School on the Leelanau Peninsula, at the top of the state's "little finger," essayist Kathleen Stocking has been compared to E.B. White and Garrison Keillor. In this, her second collection, Stocking recounts visits to such places as Drummond and Mackinac islands, Provemont Pond, and a nostalgic return to Ann Arbor 25 years after her graduation. In "Ann Arbor Again" Stocking writes about the sense of *deja vu* that any alum might feel coming back to Ann Arbor 25 years after graduation.

She finds some of the changes in the U-M welcome and exciting, but is disturbed by others—*SI*.

The Tempter's Voice: Language and the Fall in Medieval Literature by Eric Jager '87 PhD (Cornell University Press, 1993, \$42.50).

Prof. Eric Jager of Columbia University examines one of the most pervasive myths in Western culture: the Fall of Adam and Eve, and how this biblical event has influenced all types of literary discourse.

Jager's book centers on the way in which medieval authors discussed the Fall to combat many practical and theoretical problems posed at the time. On a higher level, Jager's study reflects "underlying cultural anxieties" about language itself, and how Adam, Eve and the Serpent compose a metaphor that has not yet been effaced from the fields of cultural history, linguistics and gender theory. Medieval discussions of the Fall focused on the abuse of eloquence, of the power of verbal persuasion and its misuse as a tool of disinformation, first by Satan and then by Eve, Jager notes. The ethical questions he traces remain relevant today—*Sunil Iyengar*.

The Writing of Melancholy: Modes of Opposition in Early French Modernism by Ross Chambers (University of Chicago Press, 1993, \$29.95).

This recent critical study by Ross Chambers, the University's Marvin Felheim Distinguished Professor of French and Comparative Literature, shows us how works of literature can capture not only the spirit of their time, but also inform later generations of readers of the spirit in which they are to be read. In Chambers's view, texts are "situationally marked," capable of anticipating the very questions and issues that we, as readers, bring to them.

To illustrate his point, he delves into the writings of Flaubert, Nerval, Baudelaire, Gautier, Hugo and others—literature written shortly after France's failed revolution of 1848—exploring how these works reflect the widespread melancholy of their generation. The melancholic experience, Chambers says, has imbued these texts with guidelines for the way they are to be received, and perceived, in our era. The sense of a clouded identity that pervades much post-1848 French literature is a direct response to the mixed "exaltation and disillusionment" of the failed revolution, an impression readily transferable to the post-1968 generation who, as Chambers observes, faced their own "enthusiasm and frustration" in that turbulent period—*SI*.



Chaucer's Merchant's Tale contains a dark parody of the Fall, Jager notes, in which a young wife is moved by the rhetoric of her aged and blind husband's squire, to meet the young man in a pear tree, after climbing its trunk on her husband's shoulders.

Strom Thurmond and the Politics of Southern Change by Nadine Cohodas '71 (Simon and Schuster, 1993, \$27.50).

Strom Thurmond, Republican Senator from Carolina, began his career over 60 years ago as a leader of the so-called Dixiecrat Democrats. In 1964 he switched parties because of his opposition to legislation curbing racial segregation. But in 1982 Thurmond broke ranks with the GOP and voted for the Voting Rights Act, marking his first support of civil rights legislation.

Those changes reflect a life marked by change, and it is this complex and often contradictory nature that Nadine Cohodas, a former editor of the *Michigan Daily*, has captured. Described by the *Kirkus Review* as "an appealingly affectionate, warts-and-all portrait of a uniquely American figure," Cohodas's book is a chronicle not just of Thurmond, but of the changing political landscape of the South in the last half century as well.

"To examine the sweep of Thurmond's public life," Cohodas writes in the opening chapter, "is to explore the power of race to shape politics, to see first the unquestioned acceptance of segregation, then the fierce resistance to any challenge to 'custom and tradition,' ... and finally to witness the accommodations that were required when southern blacks stepped forward to claim their place in southern political life"—*DG*.

Medical Lives and Scientific Medicine at Michigan, 1891-1969, edited by Joel D. Howell (U-M Press, Ann Arbor, 1992, \$37.50).

Michigan's was the first major medical school in the country to admit women and to run its own hospital. Long recognized as one of the finest medical schools in the country, it served as a model for the medical school portrayed in Sinclair Lewis's *Arrowsmith*, and led the way for early 20th-century reform of medical education. Among its early graduates were William James Mayo (1883), founder of the Mayo Clinic, and Alice Hamilton (1893), a pioneer in industrial medicine.

Howell, a U-M associate professor of internal medicine, public health and history, traces the development of the Medical School in eight biographical essays of six key figures in the medical school's history. Howell and the other

contributors draw on archival research to weave a richly nuanced portrait of how personal, social and scientific influences have shaped the medical community at Michigan—*DG*.

Let the Good Times Roll: The Story of Louis Jordan and His Music by John Chilton (U-M Press, Ann Arbor, 1994, \$29.95).

This story of the band leader-vocalist-saxophonist's career—which began in Brinkley, Arkansas, and spanned the globe—traces through Jordan's life the evolution of the major strains in 20th-century American popular music, from minstrel to jump blues, to rhythm and blues, to swing, bebop, pop and rock.

Jordan (1908-75) performed from the mid-1920s to the mid-50s, and his bouncy, humorous, smoothly polished style appealed to all kinds of audiences. Told straight, jammed with facts and devoid of pretentious theorizing, Chilton's meticulous biography shows how the characteristic ease of Jordan's masterful performances—his swinging blend of verbal and musical wit—rested on the 99 percent hard work of relentless practicing, his extraordinary control of diction and the highly coordinated ensemble playing that resulted from his talent at leadership—*JW*.

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Collaborators

Ernie and Yip Harburg: A Father-Son Rainbow Coalition

At Last

By Peter Ephross

It took more than a decade, but Ernie Harburg '62 PhD turned personal loss into both public vindication and personal resolution.

When his father and wife died within a few months of each other in 1981, Harburg was "wiped out emotionally," he says. On the advice of his soon-to-be second wife, Deena Rosenberg, chair of the Musical Theater Program at New York University, he began to research his father's life. It was a rich life to explore. His father, E.Y. "Yip" Harburg, was a Broadway songwriter who wrote the lyrics to more than 500 songs by 48 composers, including such hits as "Brother, Can You Spare a Dime," "April in Paris," "Only a Paper Moon," "Old Devil Moon" and all the songs, including "Over the Rainbow," for the 1939 film classic, *The Wizard of Oz*.

Last fall, Ernie Harburg's 10 years of research culminated in the publication of *Who Put the Rainbow in the Wizard of Oz?*, a biography of Yip Harburg (1896-1981) that has become one of the University of Michigan Press's best-selling books in recent years.

The impetus for Harburg's research (the writer Harold Meyerson shared authorship with Ernie) stemmed in part from a desire to know his father better. Ernie's mother left the family in 1932, when Ernie was only 6 years old. Yip was 36 then, and too busy with his songwriting career to raise Ernie and his sister. Ernie explains his father's behavior by noting, "Those Broadway guys did nothing but eat, sleep and breathe musical theater."

An aunt and uncle in Brooklyn raised Ernie and his sister. Ernie's contact with Yip was limited to three or four visits a year, when Yip would take him to Broadway shows. "Yip was a really bohemian, artistic free spirit," Ernie says. Even today he is circumspect about their relationship. "We took the best from each other," he says guardedly.

During his research Ernie learned a lot about his father that he kept out of

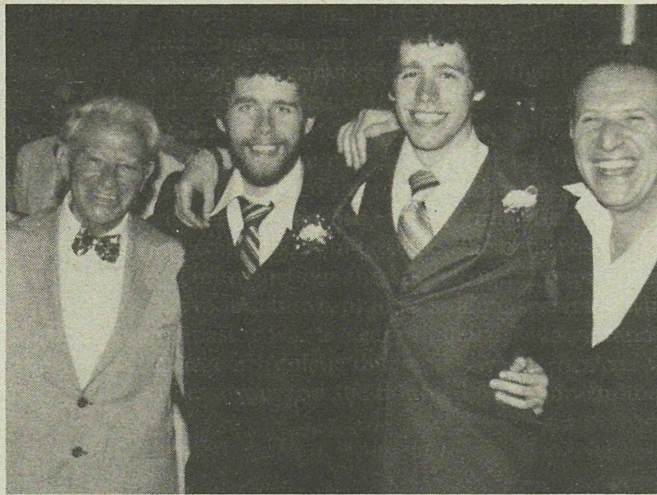
this book, which concentrates on Ernie's other motivation—to restore Yip's name in the American musical pantheon. Although Yip Harburg's lyrics are "part of every American's soul," his name is less well-known than contemporaries like composers Harold Arlen, Oscar Hammerstein, Lorenz Hart and George Gershwin.

Yip had to deal with more than a lack of recognition. He also coped with financial setbacks (his electrical appliance business went under in the Great Depression in 1929) and injustice (he was among the members of the entertainment industry who were barred from work during the McCarthy era).

Yip expressed his anger at US social conditions in many songs. His politics, which Ernie characterizes as "Marxist" and "democratic socialist," were "a framework that he put into his work like no other writer."

Perhaps the most obvious examples of Yip's infusing his lyrics with politics are the Depression-era classic "Brother, Can You Spare a Dime" and the 1947 Broadway show *Finian's Rainbow*, the tale of an Irishman who steals a pot of gold and comes to the United States to plant it and become rich. Yip's lyrics in *Finian's Rainbow* lampoon the greed and the racism in American society, but "with humor and compassion—that was Yip's masterwork," Ernie says.

Harburg has co-written a second book, *The Broadway Musical: Collaboration in Commerce and Art*, which derived from interviews he and Bernard Rosenberg conducted with professionals in the Broadway entertainment field. The authors conclude that the basis of successful collaboration is "conflict, consensus and some creative resolutions."



Yip Harburg (left) and son Ernie flank Ernie's two sons, Thomas (2d left) and John in 1978 photo. Tom received his MD from U-M, and John his MSW.

New York is also where Ernie is "taking care of Yip's legacy." The royalty money from Yip's songs has created the Harburg Foundation, a not-for-profit organization that funds social causes ranging from a Hispanic women's labor union in Texas to documentaries that, in Ernie's words, "reveal things about our society." He also encourages new productions of Yip's work, which the book has helped to bring back into the public spotlight. "For the last 10 years, I've been unable to get these shows and productions, and now they're burgeoning," he says proudly.

An EMI songbook and a Smithsonian Institution CD have recently been released. "Over the Rainbow," a new musical revue devoted to Yip's music and poetry, and a new production of *Finian's Rainbow* will tour in 1995.

The book and the rekindling of interest in his father's work has also allowed Ernie to clarify his own feelings about Yip. "Our relationship has gotten clearer and clearer. We're collaborating at last, which is something we could never have done when he was alive."

Ann Arbor freelancer Peter Ephross '88 is completing his doctoral studies in Russian history at Brandeis University, Waltham, Massachusetts.

Harburg's Health Studies

Much of Ernie Harburg's own professional work stems from his attempts to deal with his feelings toward his father, Yip. Ernie's doctoral dissertation focused on the effects of anger suppression on the mental health of 200 undergraduates. He remembers that his first wife, Torry Pedsen-Harburg, jokingly told him that the dissertation was really about himself.

Ernie was on the U-M faculty from 1964 to 1970. He helped to establish a graduate research methods course at the School of Nursing, and then left teaching to become a U-M-affiliated researcher.

Harburg's inquiry into the effects of controlling anger piqued an interest in blood pressure and alcoholic consumption, two results of many persons' attempts to control anger. In the early 1970s, he helped design a test for hypertension and studied its treatment in the state of Michigan. He is also on a research team that is in its third decade of a longitudinal study of alcohol consumption in the Tecumseh, Michigan, public school system. Currently, he is analyzing data from a U-M study that focused on alcohol use on campus.

Harburg disputes the current notion that alcoholism is a disease with biochemical origins. He prefers to use the term "heavy drinking with problems" rather than "alcoholism," because, he says, "there's no real consensus about what alcoholism is." Teaching people how to drink responsibly, rather than investigating the ideas of chemical dependency is the key to reducing problem drinking, Harburg argues.

He likens some current approaches to campus drinking to the Prohibition era: "We have a 1920s situation—90 percent drink and it's illegal." An effective approach to the problem, he says, lies in part in a transfer of both attention and funds to prevention.

"We're devoting too much of our resources to people who are out of control," he says. "If we could take 100 percent of our funds that we use to look at heavy drinking, and put 50 percent of them into prevention, we could cut the problem of drinking. We should give consistent messages to the new generation that both drinking and not drinking are OK."

"There's a growing small splinter of reaction against the dominant establishment," he adds. He's very excited about a new group called Moderation Management, which teaches, unlike Alcoholics Anonymous, that problem drinkers can control their alcohol consumption.

Today, Harburg spends one week a month in Ann Arbor, working on his research, attending to business at the Del Rio and the Earle restaurants in which he is a partner, and "renewing my soul." He lives in New York's Greenwich Village the other three weeks.

Resurgence of U-M Press

Who Put the Rainbow in the Wizard of Oz? is one of the bestsellers in University of Michigan Press's steady resurgence over the past several years.

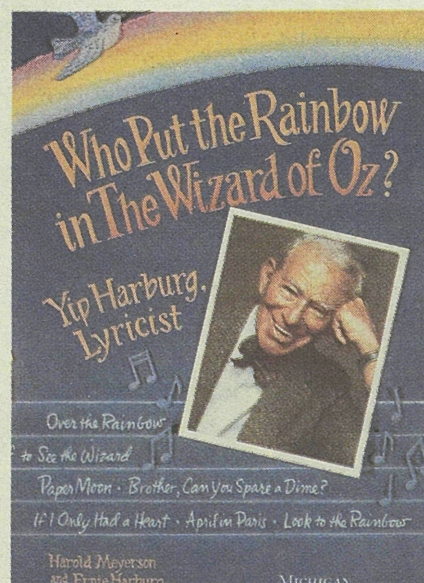
In the mid-1980s, the U-M Press published only about 30 books a year. But with the 1988 arrival from New York of current director Colin Day, the Press began to increase both its productivity and visibility.

In 1993, the U-M Press published about 125 books, and this year plans to publish about 130. Having increased the volume of its new book publishing and its net sales (by 129 percent over the last five fiscal years), the Press is now one of the top 20 in the country.

While high sales are always a goal, the U-M Press retains its mission of

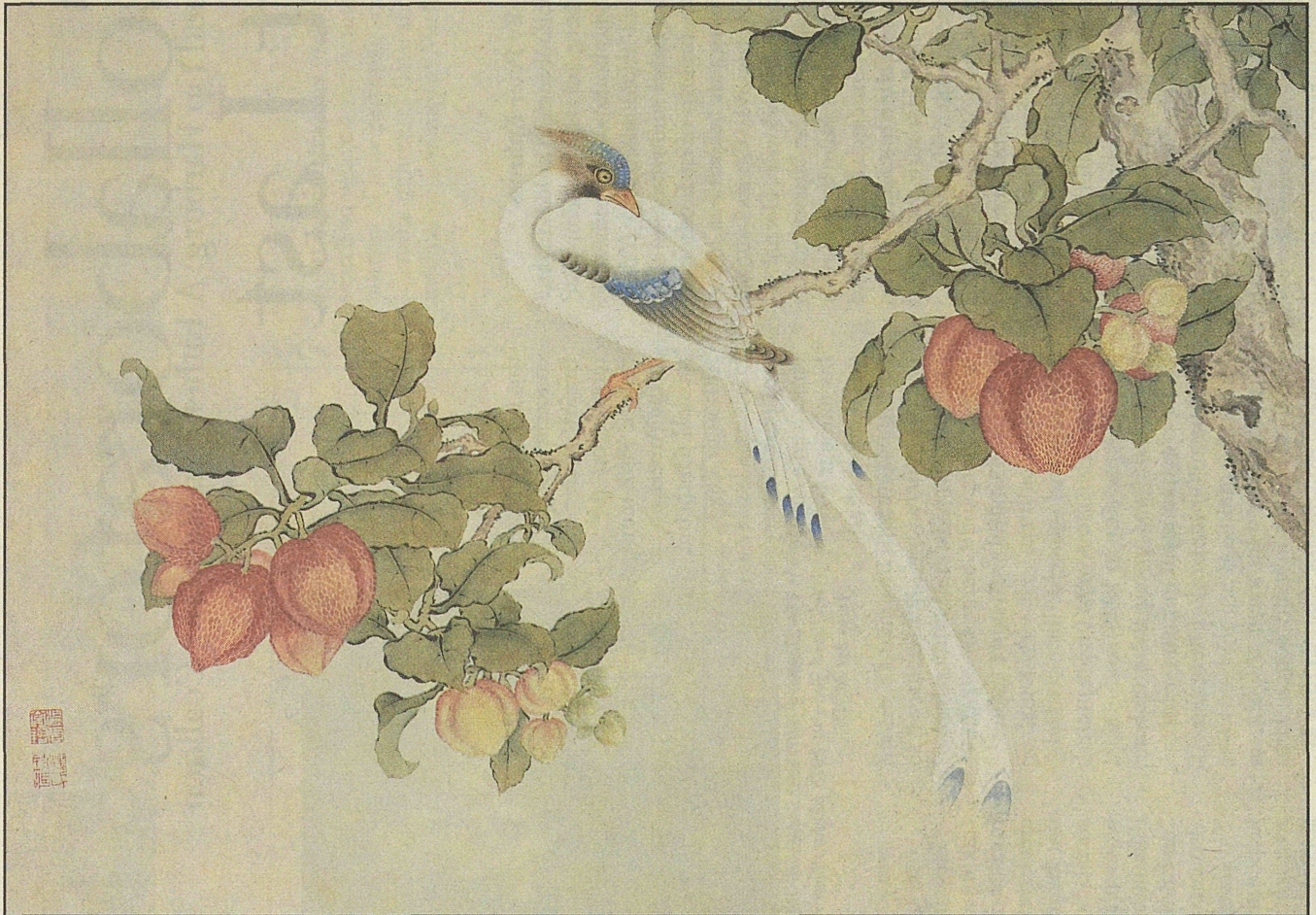
providing outstanding monographs to the scholarly community. Its current areas of specialty include English as a Second Language textbooks, economics, political science, women's studies, theater, literature, anthropology, classical studies and books about the Great Lakes region and Michigan. It is also aggressively entering the electronic publishing era, most notably with SEENET (Society for Early English and Norse Electronic Texts), which will publish electronic versions of Old Norse, Old English and Middle English texts.

If your bookstore does not carry *Who Put the Rainbow in the Wizard of Oz?*, you may order it from the U-M Press at P.O. Box 1104, Ann Arbor MI, 48106-1104; or by calling (313) 764-4392.



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Michigan Today



'PARADISE FLYCATCHER AND LYCHEES' by Shen Qian, ink and color on paper, circa 1738 is among the 89 masterworks in the exhibition *The Jade Studio: Masterpieces of Ming and Qing Painting and Calligraphy from the Wong Nan-p'ing Collection at the U-M Museum of Art through Nov. 20.*

When collector Wong Nan-p'ing moved from Shanghai to Hong Kong shortly after the Communist revolution in 1949, he left behind most of his sizable collection, which he had named Jade Studio.

In the mid 1960s, the Chinese government confiscated the works remaining in Shanghai, expropriating many of them and 'losing' 540 others. Wong has dedicated himself to recreating his collection which spanned the 16th through 20th centuries. The Jade Studio was organized by the Yale University Art Gallery.

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