

NDSU NORTH DAKOTA STATE UNIVERSITY • FALL 2001
magazine



Leo Kim, *Stark County, N.D.*

9/11/01





-photo by Julie Babler, *Lower Manhattan, summer 1999*

Editor
Laura McDaniel

Editorial staff
Steve Bergeson
Dan Koeck
Kathy Laid
David Wahlberg

Art Direction/Design
Julie Babler

Address changes
Send address and name
changes to:
sualumni@gvmail.nodak.edu

Letters
Unless noted "not for publication," communications to the editor
are considered for publication, often in a condensed version.

E-mail: *laura.mcdaniel@
ndsu.nodak.edu*
PO Box 5167
Fargo, ND 58105
Fax: 701.231.1989

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President
Joseph A. Chapman
joseph.chapman@ndsu.nodak.edu

Vice President for Academic Affairs
R. Craig Schnell
craig.schnell@ndsu.nodak.edu

Vice President for Student Affairs
George H. Wallman
gwallman@gvmail.nodak.edu

**Vice President for Research, Creative Activities
and Technology Transfer**
Philip Boudjouk
philip.boudjouk@ndsu.nodak.edu

Vice President, Dean and Director for Agricultural Affairs
Patricia A. Jensen
pjensen@ndsuxext.nodak.edu

Vice President for Business and Finance
Richard L. Rayl
drayl@gvmail.nodak.edu

Executive Director of University Relations
Keith D. Bjerke
keith.bjerke@ndsu.nodak.edu

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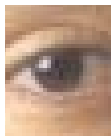
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letters

What an emotionally, intellectually and visually stimulating magazine you have created! Thank you for the beautiful profiles of a variety of NDSU people. "The Right Combination" about Ana Simonovic and Marc Anderson was an especially moving celebration of the art of the possible, as well as the power of the Internet to bring us closer. Compliments to Martin Fredricks.

Cecilia Matta
Casey Riske
Class of '84
Seattle, WA

I got a lot out of Rebecca Knutson's story on underage drinking on campus in the Spring 2001 issue. I can now think of the ways I could apply some of the things I read about when I work with my church's youth group.

I felt one of the reasons contributing to the problem at NDSU was that of boredom. That was especially true in the winter. Creating safe and accessible alternatives to drinking is certainly a positive and measurable approach. Students showing up at functions like MU Live are obviously

not out drinking. That's the way it should be. After all, we were there to go to college and achieve academic success. I wish programs like this the best of luck.

Dan Sullivan
Class of '92

The latest edition, Spring 2001, was fabulous! I especially enjoyed the article about Lowell Christiansen. Great success story! I am so proud of NDSU's research!

LaRon Croft
Dayton, NV

In the spring issue of the *NDSU magazine* there is a very interesting article about Lowell Christiansen, class of '63.

Lowell and I were close friends in college. I too belonged to the SPD fraternity and attended the LSA on a regular basis. We both worked summers for the USFS in Idaho. After graduation we went our separate ways and lost touch. Imagine my surprise when I saw the article.

Eugene (Gene) Hanson,
Arch Eng., Class of '63.
Portland, ND



editor's note

A little lesson

Even the most rewarding jobs are chained to the reality that you have to do them. All day, every day. Which is why I enjoy simple pleasures. An example: one of my co-workers comes in and announces that an office downstairs has food to share. I am out of my chair like a shot, grinning silly at the prospect of a day-old muffin to assuage my rather loud hunger pangs. It is, after all, two hours into the workday, and worse, two long hours until lunch.

As I hurry toward the promised snacks, I pass a new student I'd met the previous day. He comments that I sure do look happy. "There's food!" I blurt, but stop for a minute or two to further welcome this student, who, it turns out, has come to North Dakota State University from Africa and is going to work hard to make his dreams come true. Oh. I wonder how it strikes him to hear a well-off American say she's hungry. He seems not

to think me greedy, but is happy to see a familiar face. He promises to stay in touch.

And so on a morning when an extra muffin was going to be the highlight, a whole better thing does the job. How fortunate we are to be part of a place that provides such promise to its students.

Everything has changed

Much of the work in putting together this magazine took place, or at least began, during the summer. Looking over the work this fall in preparation for printing, it is a different issue than originally envisioned.

After Sept. 11, we wondered how, or even if, this magazine should attempt to address the events. When it's possible to stand back from the sadness, it is interesting to note that the topic emerged without our bidding. New York and Washington, D.C., used to seem far away, but what happened there matters everywhere. The photograph on pp. 2-3 was taken by our graphic designer, Julie Babler, a couple of summers ago. It is our tribute to the victims.

Thank you for reading.

contributors



When he was a kid, Patrick Springer dreamed of becoming a scientist. He was especially fascinated with geology and paleontology. But he discovered that he was, in a word, horrible at math and science. He found words more welcoming than numbers, and started writing for publication in high school when a friend cajoled him into writing for the school paper. Somehow it took. He has written for daily newspapers for almost 20 years, at the *Argus Leader* in Sioux Falls, S.D., and *The Forum* in Fargo, N.D. His work also has appeared in *Newsweek*. He has covered murder cases, parades, scandals and a dog that could climb trees. He teaches

journalism and writing at Concordia College, where he is a visiting journalist.

A few years ago, Martin Fredricks became captivated by the story of two guys who happened to record a Duke Ellington performance in Fargo, N.D. He has nurtured this article like a chef frets over a duck à l'orange. Fredricks knows to appreciate a fine story, having worked so hard at jobs that required more in the way of stamina than finesse. That is to say, his first job in 1990, fresh out of the English program at North Dakota State University, was to edit a small town weekly newspaper, as difficult a journalistic task as there is. These days, he still

works very hard, but under kinder conditions. In addition to freelance writing, he is an advertising agency copywriter.

You will see Julie Babler's fingerprints all over this magazine. She is the art director/designer for North Dakota State University, but she's on the verge of taking over the whole shop. She also writes seriously good headlines, and is not a bad photographer. She shot the photo of the lower Manhattan skyline on pp. 2-3 while on vacation a few years ago, obviously never imagining that it would someday appear as a memorial.

The press-release definition of David Danbom is: professor of history at North Dakota State University since 1974, a nationally-known scholar of American agricultural history, recipient of numerous awards from colleagues and students, prolific researcher and writer. Students love him; evaluations are full of comments about having hated history in high school and being quite surprised to not only enjoy his classes but to actually learn from him. While these statements are accurate, they fail to capture Danbom's wit and wisdom, the rare ability to write beautifully yet simply.



Jonathan Twingley's career ambitions determine his current location — national publications tend to be located in New York City — but he returns happily and frequently to family and friends in his native North Dakota. His illustrations have appeared in *The New York Times*, *The Boston Book Review*, *The Washington Post*, *The Utne Reader* and other national publications. In 1998 he had his first solo exhibition of drawings at the Visual Arts Gallery in New York. Twingley earned a Master of Fine Arts degree from the School of Visual Arts in New York in 1998.

Dale Keiger is a writer, teacher, marathon runner and avid backroads driver. Professionally he's a senior writer at *Johns Hopkins Magazine*, where he reports on the fine arts, humanities scholarship, collegiate athletics, and people not easily categorized. He's also a visiting associate professor at the Johns Hopkins Writing Seminars. He comes to NDSU magazine by way of a writers' conference at which he confessed a long-standing fascination with North Dakota, a place he's never been. Much of his essay was composed in his head during a pair of 20-mile training runs, and refined on a few long drives. He may be reached at dalek1@home.com.

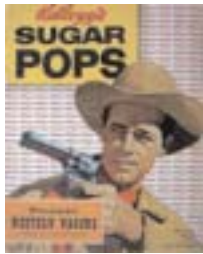
Jim Ross is a dad, an information technology professional in a supervisory role at North Dakota State University and an historian who has taught at the university. With these varied perspectives on people, he was asked to write an opinion piece on how people react to change, particularly to changes in technology. Given so much leeway on such a very broad topic, it was up to him to figure out how. (Sort of a chance to make the professor take a test. He passed, but had to sweat it out a bit.) His approach was to narrow the topic to his observations of children progressing through technology.

Jerry Richardson is the writer and editor many of us hope, someday, to become. In his years as director of the North Dakota State University communications office, he made more friends, wrote more insightful stories, launched better publications and remained calmer than anyone before or since. While editor of the NDSU alumni newsletter, *Bison Briefs*, the publication received more than 50 regional and national awards, and in 1985 was named one of the top two alumni newspapers in the nation. He came to work at NDSU in 1963 and retired in 1993. Though he still does an awful lot of work for the good of the organization, as he puts it, at least he doesn't have to get up every morning, put on a coat and tie and race to the office.

“far” NORTH DAKOTA “go”

I have a Fargo thing. Actually, it’s more of a North Dakota thing, but I like the felicitous conjunction of “far” and “go.” Perhaps I should explain.

When I was six, reading first made sense to me at the breakfast table. I knew how to read, technically, but still thought of it only as something you did in your 1st-grade reading group. The idea that I could read everything, not just Dick and Jane, did not occur to me until one morning when I looked at the cereal box sitting before me and suddenly heard the words in my head. This was too cool. Sentences, no matter where they appeared ... I could read them. I could read them all.



Thus I became a literary devotee of cereal boxes, which, if you’re six, convey a *lot* of useful information. One day, the back of some sugar-laden grain product — probably Sugar Pops or Sugar Smacks — presented to my eager eyes a dozen different license plates. You were supposed to cut them out after you’d finished the cereal, but I just stared at them, morning after morning. In those days my family didn’t own a car and I hadn’t realized

that different states had different license tags. As I stared at these colorful little rectangles, they spoke to me of far-off places. That they were reputed to be manufactured by convicts only increased their allure.

So began a lifetime of scanning license places. Forty years later, I still notice the plates on cars in parking lots, cars that pass me on the freeway, cars that cut me off at the light while their drivers yak on cell phones. And I wasn’t very deep into those 40 years before I realized that rarely did I see tags from certain states. I lived in Ohio, so Kentucky and Indiana were a dime a dozen. But Nevada? Not too common. Idaho? Same story. Alaska? I could go years between sightings. The *rara avis*, however, the plate I never saw, was North Dakota’s. Even after I was old enough to get myself to places like Montana, I didn’t see North Dakota plates. I formed an image of the state as a sort of American Mongolia: remote, isolated, severe in climate, and sparsely populated, probably by nomadic herders of some sort.

Now I must digress for a moment. During my collegiate years, there happened three significant things. One, I came out to my family as a writer; all in all, they took it remarkably well. Two, I developed a fondness for solitary



rambles. I took to going for long walks at four in the morning, which you could do in my college town. Three, I found the open road. The instrument of discovery for the latter was a sky blue 1966 Plymouth Valiant, bought from my father for \$200.



It had a broken accelerator pump, holes in the floorboards through which slush intruded on winter days, enough rust to make its exterior look psoriatic, and no radio or air conditioner. It burned a quart of oil a week, allowing friends to track my whereabouts by following the blue haze. I loved that car and I drove it everywhere. My girlfriend hailed from Princeton, and I made five round trips from Ohio to New Jersey, once on tires so bald that I could see white inner lining peeking through the remnants of rubber. I spent hours not in class or in the library, but driving every gravel and dirt road in the county. One lovely afternoon I drove down an earthen two-track so deeply rutted that the Valiant came to rest on its undercarriage, flush to the ground and very stuck; I levered the car out by hand using the jack, something you can do only if you are 20 years old.

When I did find time to get to the library, I discovered that many a writer has yielded to similar urges for long walks and long drives. Robert Louis Stevenson tramped all over. Twain and Dickens covered a lot of ground, as did Maugham and Conrad and Coleridge. The example of Jack Kerouac hardly needs mention and I actually wanted to be the peripatetic Bruce Chatwin. Jim Harrison, my favorite writer about

A big sky, a flawless horizon, and two lanes of empty blacktop stretching to a vanishing point contain nothing but promise.



all matters gustatory, once wrote, “Leave your reason, your logic at home. A few years ago I flew all the way from northern Michigan to Palm Beach, Florida, in order to drive to Livingston, Montana, with a friend.” In *Wise Blood*, Flannery O’Connor said, “No man with a good car ever needs to be justified.” (She also wrote, “Where you come from is gone, where you thought you were going to never was there, and where you are is no good unless you can get away from it.” But anybody can have a bad day.)

So you see, I wasn’t just driving aimlessly — I was being *literary*. And in the process I learned that I like to drive everywhere. I like to drive in big cities and through small towns. I like driving through deep woods and rolling farmland. I like driving through the mountains, especially on gravel roads with a thousand feet of cliff towering over my left and a thousand feet of drop-off plummeting to my right. And I really, really like driving through empty, austere country. Austere, not bleak. Austere is calming, soul affirming, inspiring. Bleak is enervating, hopeless, sere. Those lovely portraits by Alfred Stieglitz of a young Georgia O’Keefe are austere. Walker Evans’ images of sharecroppers are bleak. Iceland, with its immense sky, volcanic terrain, and deep horizon, is austere. Lordsburg, New Mexico, where I once tanked gas at a forlorn little station while a grit-laden wind abraded my skin, is bleak. Or at least it was 15 years ago.

Vast, austere landscapes humble me like prayer. Kierkegaard said — I’m paraphrasing — that prayer was not talking to God, but shutting up long enough to hear God talk to you. In my experience, witless chatter ends when it confronts an uninterrupted horizon. I calm down, I start to listen. I feel grounded, like I really do belong somewhere, which for me is an elusive feeling most days. Something in the wide, wide open fills me with an expansive sense of possibility. A big sky, a flawless horizon, and two lanes of empty blacktop stretching to a vanishing point contain nothing but promise. Out there somewhere, maybe down this very road, is something great, some new opportunity to reinvent myself, and I’m goin’.

Which brings me back to North Dakota. If you can read a roadmap and feel like I do about empty territory, you will naturally come around to the Flickertail State. I have been in all but four of the 50 members of the Union. Only Alaska, Hawaii,



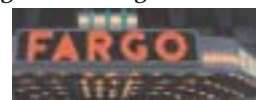
Nevada, and North Dakota remain, and it’s North Dakota that seems to me the most remote, the most exotic, the most in need of driving. I know lots of people who have been to Alaska, Hawaii, and Nevada. I know no one among my Baltimore friends who has ever been to North Dakota. Travel magazines lure tourists to Alaskan fjords, Hawaiian beaches, and Vegas casinos. They expend no ink on North Dakota. But if you have a two-lane sensibility like mine, Fargo and its environs sounds like Shangri-La. Far go indeed.

By now I’m up to about seven or eight sightings of North Dakota license plates, which is pretty good since I’ve heard there are only 40 or 50 left in the wild. Every one that I see reaffirms that someday I am going to back out of my driveway, slide Lucinda Williams into my CD player, and wheel off toward bison country. When I get there I’m going to roll down the window and cruise slowly along the boulevards of Bismarck and Fargo, Mandan and Minot. I’m going to tramp around Theodore Roosevelt National Park, compare the northern badlands to their more publicized southern counterparts, and travel that straight line of macadam from Souris to Westhope just below The World’s Longest Undefended Border. I’m going to see flickertails, whatever the hell those are, and while I’m at it have lunch with a few of those nomadic herders. I am going to be one happy man.


(THIS IS A FLICKERTAIL)



My wife does not share this particular ambition. She has led me on climbs to the summits of 14,000-foot mountains and to the finish-line of 250-mile bicycle rides, but she says she is not driving to Fargo, and that’s all there is to it. She’ll fly out to Montana and meet me there after I’ve gotten this out of my system. We stand out on our deck on a crisp, tangy afternoon as autumn comes on, and I say to her, “Hear that? The wind is calling to me. It’s saying *Farrrgooooo...Farrrgooooo.*” She just looks at me and says, “It’s cold out here. I’m going inside.”



—Dale Keiger, Baltimore, Md.



ALTHOUGH HE'S BOUNCED AROUND THE WORLD QUITE A BIT
PHOTOGRAPHER LEO KIM CONSIDERS NORTH DAKOTA HOME

Early in his U.S./North Dakota/North Dakota State University experience Leo Kim and some friends drove down to a Mom and Pop restaurant for lunch on what is now University Drive in Fargo. One of the establishment's specialties was "homemade soup." Curious, Kim ordered a bowl. When the server arrived with his bowl of soup, Kim observed with an air of mild incredulity, "and you brought it all the way from home!"

That may have been just a sample of his somewhat wry sense of humor, though he denies that today. But with regard to Leo Kim, it has a bit of added significance.

To a person who had batted around the world like a ping-pong ball for the first 20-odd years of his life, learning several wildly different languages along the way, something described as being "homemade" but served in a restaurant, may have sounded a little strange. On the other hand, Leo Kim sees quite a few things a little differently from those of us who grew up in this largely plain-white-vanilla part of the world. And it's a trait that has stood him in good stead in his work as a photographer.

People have been taking pictures of North Dakota before and ever since it became a state. Most of them tend to fall into two categories: 1. Somewhat romanticized, if not quite totally honest shots of people happily sailboating on Lake Sakakawea, or rugged-looking Marlboro men on horseback; or 2. They're

largely documentary photos that capture what the state looked like back in the days of the dust bowl, a bit more honest perhaps, but not very flattering.

Leo Kim's North Dakota landscapes seek and find a happy mid-ground between those two extremes. They're pictures of North Dakota as it really looks, but which also skillfully capture its beauty. They are the product of a trained artist's eye for shape, form, texture and light, rendered with a great sensitivity to North Dakota as a place, and at a high level of photographic craftsmanship.

Thirty-five large matted, framed photographs make up a traveling exhibit that opened last winter at a gallery in Bloomington, Minn. Those photographs have since been making the rounds of numerous art museums and galleries in the upper Midwest. At every stop so far they have managed to strike a responsive chord among members of the public and critics of the photographic art as well.

Early last spring Kim was invited back to the campus as one of seven alumni masters, each representing one of NDSU's academic colleges. During a lecture to a class of art and photography students, he explained, "I try to look at things as though I've never seen them before. I try to see them for the first time. I strive not to be influenced by other people's preconceptions of how things ought to look." The approach is plainly evident in both the work Kim does for his commercial clients and his acclaimed set of North Dakota landscapes.



NDSU Orchestis, 1971

Some years ago a prominent American editor speaking at a convention of budding journalists, advised them: “All of life’s experiences, good or bad, are all part of your education as a journalist.” In Leo Kim’s case that message comes through in his work as a photographer.

Born to Korean parents in what was then Japanese-occupied Shanghai, China, roughly 55 years ago, Kim’s life got off to an unpromising beginning. His businessman father died just a month before he was born, leaving his mother with four young children



Leo Kim and his mother

in a country where Koreans weren’t welcome. Bada by the Chinese communist government to “get the hell out of China,” with the help of missionaries the family made its way to the Portuguese colony of Macao.

Of course the Kims spoke Korean at home, but by the time he reached the sixth grade Leo had gone to schools taught in French (first grade), Chinese (second and third) and Portuguese (fourth and fifth). He was first introduced to English when the family fled to Hong Kong, when Leo was in the sixth grade. And that was just the beginning of his world wanderings.

With help from the International Red Cross and their church, the Kims were able to cross to Hong Kong, but the then-British colony wouldn’t let them stay longer than 72 hours per visit. For a while, the family shuttled between Macao and Hong Kong, keeping one jump ahead of authorities.

A second major tragedy occurred in Leo Kim’s life in 1966, when a British Airways commercial airliner crashed on Mt. Fuji in Japan, as the pilot banked the plane to give passengers a better look at the mountain. Leo’s mother was aboard. He was in

the Hong Kong terminal waiting to greet her when word of the crash was announced. He was now a bona fide orphan.

Luckily, as it now turns out, he had an older sister studying in Vienna, Austria, and was able to join her there, having finished high school in Hong Kong. He enrolled in art history at the University of Vienna (where the classes, of course, were taught in German).

Although money was now beginning to run a bit thin, it was at that point, two years after coming to Austria, that Leo made the decision to move to the United



Kenmare, N.D.

States. That was 1969. He was 22 at the time.

In a U.S. Information Service Library in Vienna, Leo studied possible places to land. Two things intrigued him about North Dakota: It appeared to have the lowest tuition and living expenses among bona fide universities, and it had a total population of 540,000 people on 74,000 square miles of land (compared with Macao, with 58,000 people per square mile). "Wow!" he recalls, "It looked so peaceful and less stressful," clearly a place where a fellow would be free to swing his arms and not

hit somebody else in the nose. Leo Kim never lost that first impression of North Dakota.

Informed he was too late to enroll in architecture classes at NDSU that fall, he was advised to go down to the State School of Science at Wahpeton, which he did for a year after discovering it had no taxicabs at the railroad station.

Then to NDSU, initially taking pictures for *The Spectrum* at \$4 per accepted print (pretty thin gruel for a guy trying to work his way through college), but things improved after that. With classmate Duane Lillehaug as

co-editor of the '71-'72 Bison Annual, his part-time wages went up to a princely \$240 a month. From there it was part time during the school year and full time during the summer of 1972 at *The Forum*, then to editor of *The Standing Rock Star* on the Ft. Yates Reservation, a position he held until he wrote an editorial about a possible waste of government funds, which netted him a firmly stated invitation to "be off the reservation by sundown," just like the old Hollywood cowboy movies.



"WHAT I DO IS GO TO A PLACE I THINK MIGHT BE INTERESTING, THEN TRY TO HAVE THE PATIENCE TO LET THE PHOTOGRAPH COME TO ME. SOMETIMES IT TAKES A COUPLE OF DAYS OF WAITING." -Leo Kim



Since his departure from NDSU, Kim has supported himself contracting as a professional photographer. For a time he worked as a designer/photographer for then Lutheran Hospitals and Homes in Fargo, helping to produce several award-winning annual reports. He moved to Minneapolis in 1985 and has been there ever since, living the kind of feast or famine existence it requires to become established in a major metropolitan market.

Although, on balance, he has done well in the world of commerce — for awhile he was driving a leased BMW and living in a condo behind Orchestra Hall — he confesses it's been a roller coaster ride. Lots of competition and to keep a diverse assortment of clients happy and coming back; taking assignments that, given a choice, he would just as soon decline, all the while managing to keep bread on the table.

That's the reason that one summer day he loaded his camera gear into a battered Ford Fiesta and drove back out to North Dakota just to look around and catch his breath.

There's probably no secret to what makes his North Dakota show unique and brings uniformly good critical reviews. For the most part it's just very skillfully executed photography. But there is a philosophy behind it that comes through in the photographs. "It doesn't really work to plan a photograph, then go out and take it. Somehow that just never seems to work. What I do is go to a place I think

might be interesting, then try to have the patience to let the photograph come to me. Sometimes it takes a couple of days of waiting." But when that split second (photographer Henri Cartier Bresson once termed it "the decisive moment") occurs, it draws on all of the experience that constitutes Leo Kim's education, growing up in other parts of the world, learning different languages, studying art history and architecture, commercial photography and photojournalism.

There are no people in this particular set of photographs. That was deliberate. Many of the subjects, roads, cultivated fields and country elevators, constitute evidence that the people of North Dakota have been there, but these are photographs of the place, not the people.

Albert Einstein once wrote about the impossibility of imposing one's will upon the chaos in life, but added ". . . if you are patient, there may come that moment, perhaps while eating an apple, when the solution will present itself and announce 'Here I am!'"

Leo Kim doesn't take a sack of apples along on his trips across North Dakota, but he keeps his camera gear ready so, when a picture announces politely, "Here I am!" he's ready. **□**

—Jerry Richardson

To contact Leo Kim, go to www.leokim.com



AMY RULEY

Amy Ruley is head coach of the North Dakota State University women's basketball team, and has been since she was 23. In the 1990s, her teams won five national titles, including four consecutive championships and an undefeated season. Two seasons ago she recorded the 500th win in her career, and holds a career record of 537-134 for a rank in the top three among active Division II coaches in most wins and winning percentage. Ruley's teams have led Division II in attendance for nine seasons. She earned her undergraduate degree at Purdue University and a master's from Western Illinois University. She was inducted into the North Dakota Sports Hall of Fame in 2000.

EXCERPTS

You'll get out of things what you put into things. If you really want something you need to work toward it. You'll appreciate it more.

It takes a while to get to know people.

We've had teams that were extremely successful because of the chemistry of the team and the ability of the people on the team to put the team goals first.

It's rewarding when somebody gets it, whether it's a more consistent jump shot or in whatever area. You feel good about it when you see someone learn. Teachers get as much out of it as the learner does when there's success.

I always expect to win.

When you sit down to play cards you've got to expect to win. When you go fishing you should expect to catch a fish.

Everyone wants to win. I think to be really successful you have to believe you deserve it more than your opponent. You've worked harder, you understand better what it takes to be successful; you're willing to make the sacrifices.

Any time you compete there's a winner and a loser. If you lose, that's a learning opportunity.

Sometimes there's luck involved.

You can accept losing, but you don't have to like it.

The things you can't control you just have to learn to live with. Those are life's experiences.

There are some things you can't control, and they might be things you think you should control.

I've been one of those people who goes with her gut.

Kids aren't planning ahead as much as I think they should, but it seems to be working out so maybe I'm not correct.

When I look back I wonder "Where did my personal life go?" Now for women coaching it's easier. You can have a family. The job is better defined. You didn't even go home at night because you ran your own study hall.

This career is who you are. It defines you.

Sometimes I do have to bite my tongue.

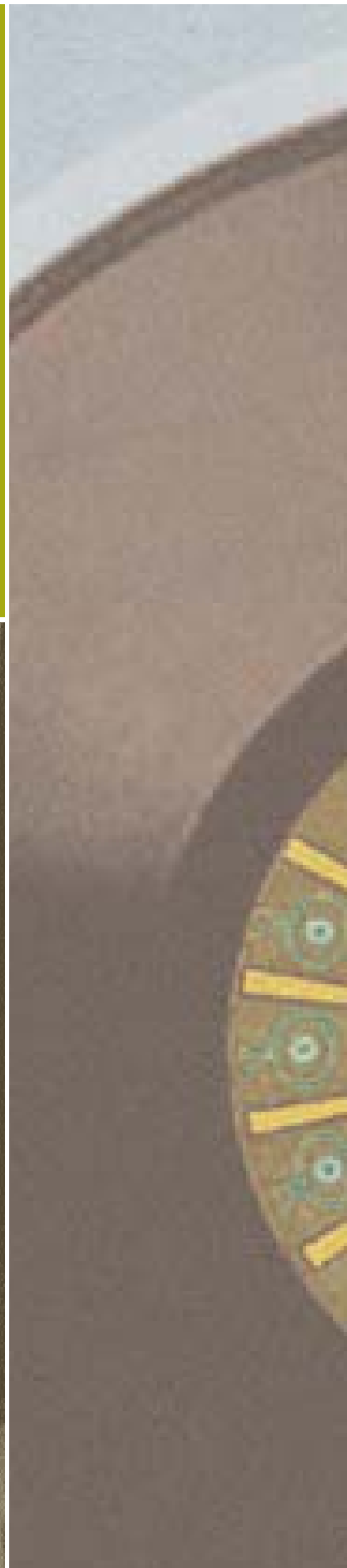
My hands get cold and clammy. I'd be worried if they didn't. There's definitely a pregame jitter, but that's very common in athletics.

We're definitely results oriented.



EDITOR'S NOTE:

This interview took place before Amy Ruley was diagnosed with breast cancer in August. She is receiving treatment and expects to coach another winning team this season.



Duke Ellington, performing at Fargo's Crystal Ballroom. Right, Richard Burriss and Jack Towers
Photos taken by Jack Towers during Fargo recording, except where indicated.





THE TWO MEN WHO LUGGED SOUND EQUIPMENT OUT THE STAGEDOOR OF THE CRYSTAL BALLROOM IN DOWNTOWN FARGO IN THE EARLY HOURS OF A NOVEMBER 1940 MORNING HAD NO IDEA THEY CARRIED WITH THEM A PIECE OF JAZZ HISTORY. SOME 40 YEARS LATER, AS A RESULT OF ONE OF THOSE PRECIOUS ACCIDENTS OF HISTORY, THE SIX ACETATE DISCS THEY RECORDED WOULD WIN A GRAMMY AWARD.

THURSDAY NOVEMBER 7, 1940.

Franklin Delano Roosevelt has just been elected to a third term as president of the United States. The attack on Pearl Harbor is 13 months away, but North Dakotans are anxious about the war in Europe.

Students at North Dakota Agricultural College, still licking their wounds from a Homecoming gridiron loss to North Dakota University the previous weekend, warm up for a fun-filled evening of dancing at the Crystal Ballroom. An NDAC Extension Service employee prepares for the arrival of his friend from South Dakota State College in Brookings, S.D. The two men have permission to record the performance.

Downtown, a Pullman car carrying Edward Kennedy “Duke” Ellington and his orchestra pulls into the train station from Winnipeg, Manitoba, where they played the previous evening.

A MAGICAL NIGHT Richard Burris and Jack Towers shared an affinity for recording and music, especially the genius of Duke Ellington. While at SDSC, both men worked at the college radio station. After graduating, Burris landed a job handling information for the NDAC Extension Service. Towers, who graduated two years later, became his counterpart at SDSC.

One night in 1939, Towers saw Duke Ellington and his Famous Orchestra in Sioux Falls, S.D. When Burris learned Ellington would be in Fargo the following year, he wrote to the William Morris Agency in New York for permission to record the session. The agency granted it, with provisos. He had to promise to get the go ahead from Ellington and the manager of the Crystal Ballroom, Ralph E. “Doc” Chinn. He also had to promise not to use the recording for commercial purposes.

“We went out to the Crystal Ballroom plenty early,” Towers recalls. “We saw the guys in the band up on the stage sitting around playing cards, and they hadn’t even put on their uniforms yet.” Towers and Burris approached one of the band members and learned he played the trumpet. He was new to the band, a replacement for Cootie Williams. “Well, that was just terrible news, because Cootie was one of our men, the great trumpet player,” said Towers. “This was Ray Nance’s first night on the job.”

As the band prepared to play, the two men searched for The Duke for the OK they’d promised to get. Just before the band started they found Ellington. He gave them permission, but couldn’t understand why they would want it, saying the trumpets were in “bad shape.”

Burris and Towers set up in a rush. They had a recording turntable with a sapphire-tipped cutter

that carved v-tracks in 16-inch acetate discs. They placed the recorder next to Ellington’s piano with two additional microphones, one up high and one down low at the front of the stage. After the orchestra played two or three warm-up pieces, Ellington came out to his piano. The band played “Sepia Panorama,” its broadcast theme — local radio station KVOX broadcast part of the show live — and, “Away the program went.”

By all accounts the night was magical. Between 600 and 800 people paid the \$1.30 advance ticket price to see the show. Bill Snyder, a 1942 NDAC graduate, was one of them. He remembers band members propping their sheet music on satchels because there weren’t any music stands. “I used to go there all the time,” Snyder said of the Crystal. “Ballrooms were a big deal in those days. It was a lot of fun.”

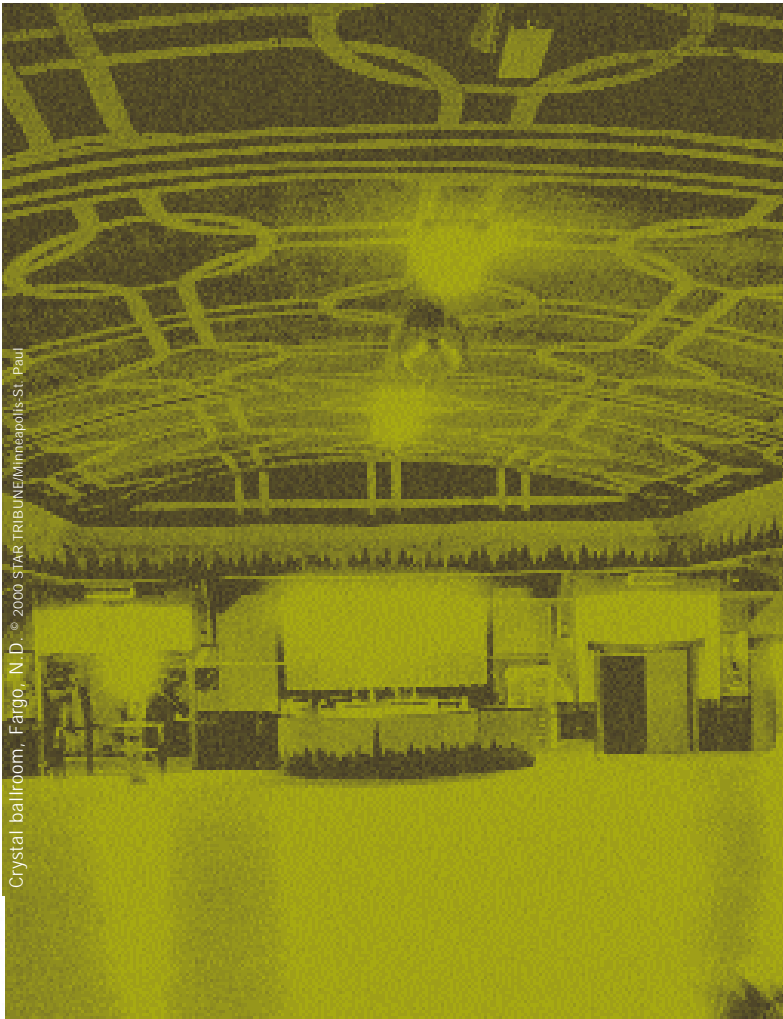
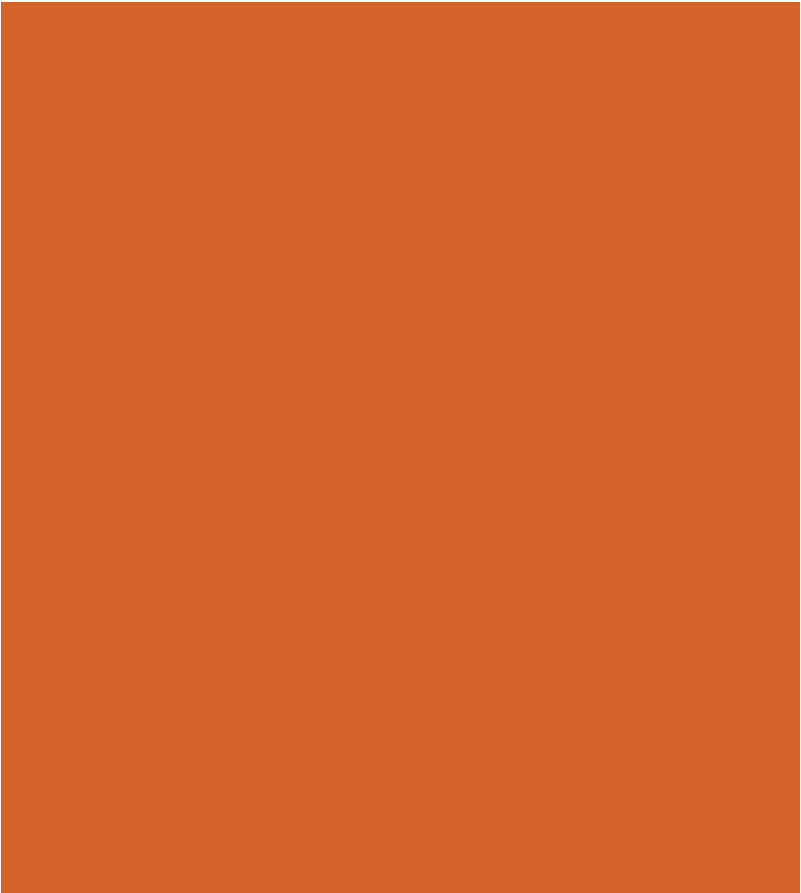
Some of the revelers twirled through the lights reflected from the two-foot diameter glass ball suspended from the ceiling, while others gathered around the stage to watch the greatest band in the land swing the house.

They were on, baby. Stanley Dance, freelance writer and long-time Ellington friend, says the recording captured an evening when the orchestra was hitting all the notes. Dance wrote “The World of Duke Ellington,” helped write two other books about the legendary bandleader, and delivered the eulogy at Ellington’s funeral. “The Duke’s career covered a long period and this was a very happy illustration of the band at that time, when it was a very good band, indeed,” he said. “I would add that there are few live recordings (of Ellington) any better than this.”

Burris and Towers worked their equipment, only missing sections of songs when they were forced to change discs or when the microphones couldn’t pick up the soloists.

During intermissions they played back numbers for the band members. Ben Webster, tenor saxophonist, asked them to put on a fresh disc for a piece he’d worked up with bassist Jimmy Blanton. It was the first time the rest of the orchestra had heard “Star Dust,” but the musicians joined right in. Later, Ellington, “in his coat and porkpie hat,” requested a playback of “Whispering Grass.”

The two men cut 5 1/2 discs, 15 minutes per side. “We had no thoughts other than just the thrill of being there, recording, and having something we could play for our own amazement,” Towers said. “We had no thoughts whatsoever of recording anything that anybody would be listening to 40 or 50 or 60 years down the line.”



Crystal ballroom, Fargo, N.D. © 2000 STAR TRIBUNE/Minneapolis-St. Paul



"WE HAD NO THOUGHTS WHATSOEVER OF RECORDING ANYTHING THAT ANYBODY WOULD BE LISTENING TO 40 OR 50 OR 60 YEARS DOWN THE LINE." — Jack Towers





FROM BOOTLEG TO GRAMMY Burriss and Towers promised the William Morris Agency the recording would never be used for commercial purposes. So how did Dance, or anyone else for that matter, hear it in the first place?

“I had dubbed a tape of this for a guy to listen to, and he gave it to somebody else and in 1964 here it popped up on LP in bootleg form over in Europe,” Towers said. “That was kind of a shock, and I remember talking to Duke Ellington’s sister, Ruth. She was head of Tempo Music at that time. About two days later I got a call from their lawyer, and he almost prevented me from ever listening to the thing again. Of course, they had a point but it was bootlegged, and that was that.”

Bootlegs notwithstanding, the world nearly missed out on this great recording, which one reviewer called “the jazz equivalent of the Holy Grail.” Towers and Burriss played the discs hundreds of times in the 1940s with heavy arms that wore the grooves. Fortunately, in the 1970s Towers learned about different sizes and shapes of playback styli. He found areas in the groove walls that were in good condition to make a reproduction.

In 1978, when the recording was officially released as a Book-of-the-Month Club selection, “Duke Ellington At Fargo, 1940 Live,” Towers made the master tape. It won at the 22nd Grammy Awards for Best Jazz Instrumental Performance, Big Band. Vintage Jazz Classics and Jazz Heritage released subsequent versions.

“THERE ARE FEW RECORDINGS



LOOKING BACK The two men who captured one of the greatest live recordings of Duke Ellington and his Famous Orchestra benefited little from it financially. Towers was paid for writing jacket notes for the various releases and for creating master tapes.

Burriss became a radio announcer and station owner in Detroit. He died in 1971, never to witness the phenomenal success and significance of the recording. Towers went on to a long career as a radio supervisor for the U.S. Department of Agriculture, interrupted only by military service during World War II. He retired in 1974.

Today, at age 86, Towers continues to work in the recording business, taping masters for record companies. The acetate discs from the Fargo session rest on a shelf in his Ashton, Md., home. Last year he provided the tapes for “The Duke at Fargo 1940, Special 60th Anniversary Edition,” released by Storyville Records, Denmark.

The old Fargo City Auditorium at the corner of First Avenue South and Broadway, which housed the Crystal Ballroom on its second floor, was demolished in 1962. During the 34 years Doc Chinn operated the Crystal, he hosted acts such as Guy Lombardo, the Dorsey Brothers, Louis Armstrong and Lawrence Welk’s orchestra up to three nights a week.

In a *Fargo Forum* and *Daily Republican* story on Oct. 2, 1949, Chinn spoke fondly of his patrons. “We have a swell bunch of kids in this territory,” he said. “You folks see them at school or at home or at work, but I see them when they are out having good clean fun.”

—Martin Fredricks

ANY BETTER THAN THIS.”

—Stanley Dance, freelance writer and long-time Ellington friend



Diversity

Last March flyers preaching white supremacy, complete with swastikas, appeared on bulletin boards on the campus of North Dakota State University. About the same time, a minority student at NDSU received a harassing telephone call that began with an expletive. Earlier, messages from the Ten Percent Society promoting awareness of Coming Out Week were defaced, one changed from "Out and proud at NDSU" to "Out and dead at NDSU." Concerns now are expressed that the events of Sept. 11 might create a backlash against Arab and Muslim members of the community.

In response, NDSU President Joseph A. Chapman and others condemn the anonymous flyers of hatred. An NDSU Diversity Council, charged with finding ways to increase diversity, has begun work. Campus groups continue to organize forums following Sept. 11, attempting to make sense of the senseless.

Efforts to promote diversity face challenges, not the least of which is that while some words are easy to define, others mean very different things to different people. Diversity is such a word.

—Interviews by David Wahlberg

A close-up portrait of Sandy Holbrook, a woman with short, light-colored hair, smiling slightly. She is wearing a dark top and a small earring.

Sandy Holbrook

“What we all know, if we think about it for only half a second, that **we are all individuals different from each other in some ways**. Whether that’s the color of our eyes or how tall we are, what we like to eat or what kind of clothes we like. There’s overlap among all of us humans in many of those areas, but there’s also individual difference. The issue about group difference — racial groups, gender groups, groups based on one’s physical or mental ability or disability — is that we’ve come to make assumptions about people based on their group membership.

“We don’t think about white folks as a group. We think about white folks as individuals. But when we think about black folk or Hispanic folk or Native American folk, there’s a huge tendency to think of an individual with all the group characteristics. And, of course, **all the group characteristics aren’t typical of any one individual in any one of those groups**. But groups share some characteristics that tend to predominate our thinking. When we judge people based on their group membership instead of their individuality, then that’s when prejudice and discrimination come into play. Particularly because most of the stereotypes about those traditionally excluded and underrepresented groups are negatives, they are not positives.

“It is not popular these days to admit that we have prejudices and biases and that we operate out of our stereotypes. We know intellectually that’s not supposed to happen. It’s hard to confront that it does happen because we want to be good people. People who have been excluded, for every good reason, want a change. They want justice now, not 20 years from now when we can all get it straight. There is a tension between the good hearted but still well-socialized mainstream folks and the people who know they’ve been mostly shut out and want to be a part of the American dream.”

A close-up portrait of Charles Okigbo, a Black man with short hair, looking directly at the camera with a neutral expression. He is wearing a suit jacket and a white shirt.

Charles Okigbo

“Whenever we hear diversity, our mind goes to racial balance and affirmative action. That’s not the only implication of diversity. Diversity means that there should be room for different subjects to be studied. There should be different teaching methods. There should be different kinds of teachers, some of them with tenured positions, recognized internationally because of their erudition in certain areas. Others might not have any degrees, but they have done something so well that they know it from practice. There should be room in universities for those kinds of people.

“**Diversity should be given a very broad interpretation, and our minds should be redirected away from seeing it only as skin color.** Diversity means allowing that the world is so big that its impossible for anybody to comprehend it in their immediate domain, and therefore they should be **accommodating of different perspectives**.

“But this realization should come to students without anybody shouting it in their ear, it should come through their realization that a university is a place which is unique from any other institution because it is growing knowledge and knowledge should be limitless. It is knowledge about Islam. It is knowledge about homosexuals. It is knowledge about cannibalism. It is knowledge about everything. This is the place where such knowledge should be propagated. Not necessarily promoted, but we should grow it.”



Josh Malnourie

"Most white people never think about being white. It's just the way it is. I'm not saying that's always true, but it seems to me that's how it's been. Whereas people of color are forced to think about it every day. My dad is Native American, my mom is white and so just within me there is a lot of that. **Being with my dad's family and going to a Pow-Wow, people there say 'you're white' almost with hostility. And then being around people who are Caucasian or white, they're like 'ooh, you're Indian.'**

"It's tough for me because I don't look Native American, really. Most people look at me and some of them like to tell their little jokes and then they find out later and then they say they're sorry.

"I feel like I belong here. It's different for me than a lot of other people that are Native American just because I don't look it. Maybe that's why I fit in. I don't know how it is to look different. Really I don't. When people find out, then they react a little bit differently. They'll tell their jokes until they find out. Or sometimes, when they know who I am, they'll ask, "what do you think about this or that?" Like I'm a spokesperson for whatever. 'What do you think about the Sioux name?' That's always kind of funny. That doesn't bother me, I just think it's kind of funny.

"Oh, you're white. What do you think of the potato famine?"

Kathleen Slobin

"What we say is power is really effective when it is invisible. In other words, if I really think you have a lot more power than I and it is clearly visible, than I can go and make a case for it to a court or to the powers that be. But if it is invisible, and I'm just sort of knuckling under all the time without even being conscious of it, then it's very effective.

"We say things like we live in a meritocracy where the cream flows to the top, so that we cannot question how people at the top got there because we assume it is because of their merit or their enterprise. They deserve it, that's why they're there. With that assumption, then, we have a lot of hidden power, we assume that people are in place where they should be. That also goes along with our notion of fairness. **We embrace fairness in this country, at the same time we want to keep people in their place.**

"People are uncomfortable in their communication about these differences. I find that very much the case with disability, for instance. If you see someone on crutches or in a wheelchair, how do you engage them and maintain a sense of equality with them? Yes, I think there's a lot of difficulty with pointing out our differences in a positive way.

"The thing that is interesting is that diversity really cuts across business and the university. It's not just universities that are looking to open up the doors, so to speak. Business, of course, wants more productivity, wants more diversity, so they can have different kinds of ideas floating around and be more productive."



A close-up portrait of Gene Berry, a middle-aged man with glasses and a goatee, looking directly at the camera.

Gene Berry

"Six or seven years ago, I went to Beijing for a few weeks to give some lectures at Beijing Agricultural University.

"In a city of 15 million people, I hardly saw another Caucasian. I was clearly viewed by the native people as being very different. While I don't necessarily think it's a situation where I felt like an African-American would feel in Fargo, at least I had a sense of the differences in how I was viewed. It was a very interesting experience, and I have to say, not altogether pleasant.

"When I went to Beijing, the place was packed, obviously, with Chinese. I had no idea who I was looking for and they had never seen a picture of me. For an hour I couldn't find them. I was starting to think this is going to be really incredible. I'm going to spend two weeks in the Beijing airport, not able to speak to anybody and having no idea where I'm supposed to go. Finally I did run into them, but it was one of those things where you start thinking of every possible bad thing. I've traveled a lot and had no reason to think that, but it was a very unnerving experience."

A close-up portrait of Shawn Volesky, a young man with glasses, looking slightly to the side.

Shawn Volesky


There's this big fear of the unknown person who is going to steal away your family or take away your rights when, really, **I'm the person that sits next to you in your sociology class** and, shockingly enough, I have a family, too, so I'm not destroying families. And somebody has to do it. If everyone's going to stay in the closet and stay quiet, then it's never going to change.

"Last week I was walking down the street in Amsterdam trying to figure out how to use the tram system. I've been a lot of places around the world and I've always been able to figure out the metro, but for some reason that stupid tram map was absolutely eluding me. Then when I did, it suddenly hit me, 'Wow, I had to figure out a new system in Madrid and in Paris. And I had to understand how to barter in Cote d'Ivoire. I had to figure out how to use the trolley in San Francisco. This is really going to be useful someday, and not just in the realm of transportation, but to understand how all these systems work.' Even though I've been to the metro in tons of cities, it's always different. The more you experience, the more you do and the more different systems you have to figure out in your life, the more open you are to anything new that life brings you."



NORTH DAKOTA
AGRICULTURE:
A TOUGH ROAD AHEAD





You can sense the melancholy as Ed Lloyd ponders the future of North Dakota agriculture. His usual grin slowly turns to a frown and his shoulders droop a little as he thinks about what may lie ahead.

Recognized around the state for his successes as an agri-businessman and legislator, Lloyd's comments and concerns carry weight. His frank words also are a little tough to hear.

"Farmers get exasperated because their equity is eroding, and it has been at a serious level for 10 years," said the president of AGVISE Research, Northwood, N.D. Also a farmer and rancher, Lloyd's many accomplishments have been recognized with numerous honors, including the 1974 North Dakota Agricultural Association Award, 1989 NDSU Outstanding Agriculturist Award and the 2000 Grand Forks and East Grand Forks Agri-business of the Year Award.

Lloyd believes the state's major industry is in a confusing and frustrating plight. As he sees it, new elevator complexes being built around the state need 100-car unit trains, indicating a call for large production. At the same time, some people suggest specialty crops or value-added projects with small, very specialized operations are the route to go.

Lloyd thinks North Dakota cannot have it both ways. He is plainly unhappy as he suggests a return to the bygone days of the bonanza-style farms may be what's in store.

"At some point, everybody will have 20,000 acres with tenants working on the farm. That isn't what people want to hear, but, unfortunately, that's the way it is," Lloyd said. "Every year, the farms get bigger and more people have to quit farming or take another job to make sure the family has food on the table."

A state representative since 1995, he thinks lawmakers can help the situation by reducing property taxes and lowering inheritance taxes, but Lloyd says the trends are clear. "We will see a continual decline in the number of people farming in North Dakota, and you are not going to see more young people getting involved."

You feel Lloyd's pain as he makes that prediction. It's obvious that a love for agriculture and rural living has been a primary focus of his life.

In 1976, he left a secure job as a plant pathologist after eight years with the NDSU Extension Service to start his own farmer consulting business and to conduct field research and soil testing. "NDSU was a great place, but I had an inkling I wanted to do something else. Literally with \$300 in our pocket, we came up here and started the company," Lloyd said.

The gamble and his hard work paid off.

AGVISE Inc. eventually grew to 138 employees, with laboratories in Northwood and Benson, Minn. Its many services include field research, soil analysis, plant analysis, water quality analysis and chemical residue testing to help companies get products registered through the Environmental Protection Agency.

Customers come from around the globe, because, as Lloyd puts it, "Our laboratories are in the top three in the nation, and I'd say we're the best in soil testing." In 1997, he sold the laboratory portion of the business to his employees.

Lloyd chose Northwood as the place to start his business for a fundamental reason — he has a passion for the gentle pace of rural North Dakota. "I get gratification out of evaluating disease organisms on a test plot, or riding a horse or working with my cows. That's just the way it is," Lloyd said. "I don't want a big city around me."

And that's what makes his thoughts about the future so difficult. Lloyd does not like the idea that the way of life he enjoys so much may not be available to coming generations.

His frown deepens a bit more.

But, then, with the courage and optimism that would make the state's producers proud, Lloyd's smile begins to re-emerge as he scans the horizon.

"Of course, I hope I'm wrong."

—S. Bergeson

extra**ORDINARY AVERAGE GUY**

If you ran into Steve Anonsen at the grocery store, he'd be the guy with only a couple of necessities in his cart making his way directly to the checkout counter. He's not a big eater and he doesn't have time to spare. You wouldn't know, because even geniuses need milk and bread and he looks just like all the rest of us, but he's really smart. If, by chance, you had a conversation with him, you'd find him to be a nice, mild-mannered Midwestern guy, a dad and a husband like most of the rest of the guys in line. Unless you got him to talk about computer programming. Then his eyes would flash, just a bit, and he'd tell you that software is a thing to be controlled. He tells it what to do and it does what he says. But so quickly that you'd wonder if you saw that fire in his eyes, he'd revert to his basic persona of a slightly introverted, nice enough seeming guy.

Steve Anonsen is in fact a nice guy who is one of the top programmers at Microsoft Great Plains in Fargo, N.D. His title is chief software architect, the same description Bill Gates has at parent-company Microsoft. Steve and Tim and another guy (this is how they talk) will be meeting with Gates in the next few weeks to keep him posted on the progress of their latest work and to see if he can detect any flaws in the programming. The programs end up to be millions of lines of code, so it's important for the architects,







BILL GATES
chief software architect
Microsoft
Redmond, Wash.



STEVE ANONSEN
chief software architect
Microsoft Great Plains
Fargo, N.D.

“TECHNOLOGY WILL shift”

like Steve Anonsen and Bill Gates, to keep their eyes on the big picture.

Anonsen is kind and articulate, and if he were the sort of guy who had time to chat in the aisles of the grocery store, he would like to sink his teeth into a hypothetical conversation on information technology with Rip Van Winkle. Under the circumstances, he has just a few minutes to discuss such a whimsy, and at first, to this analytical computer scientist/mathematician, the layers seem too deep, the time span too long. How to explain interfaces, portals and cross-platform functionality, much less binary code? But soon Anonsen begins to imagine that his buddy Rip would be able to understand about manipulating data. After all, computers were named for the practice of using mathematics to determine an amount or number. In Latin, *computre*, to reckon. Rip might find it astounding, but he could get the idea that machines are used to capture and manipulate extremely high volumes of information, that tasks once performed slowly and imperfectly by humans are rapidly automated at the command of languages invented for this purpose.

His conversation with Rip would be cut short, though, because he's got a bunch of other really smart people waiting for him. They need to talk about a finished product, about writing code today that achieves the needs of businesses tomorrow. Even though his colleagues haven't yet developed the eclectic taste in art prints that Anonsen has hanging in his office-ette (it has walls, but it's more of a glassed-in cube), they are his team. Their appreciation for the avant garde of a Rothko landscape or the subtlety of a Renoir scene will have to come. After all, they did just

move into the second of the new buildings on the Great Plains campus in south Fargo. Meanwhile, the code must be developed.

His crew may not grasp the finer points of his artwork, but the drawings on the white board in that office have their full attention. This is where the minds meet to diagram functions that must be crafted in the code. They work in a new programming language of Microsoft's. Pascal, C and C++ are in the past. Anonsen, as the architect, has to be able to see what the thing should look like and how it will withstand not only the near term changes in technology, but how it will get along in the future. "It's like building a building," except that the ground shifts a lot more often. The builders, some engineers, some computer scientists, do the actual construction, writing the millions of lines. The last project Anonsen was on took 10 years. This time, the Internet and the increasing interaction between businesses affect the decisions about where to put the windows and doors, so to speak. "Technology will shift," Anonsen knows. That's one thing he will guarantee. You can tell he talks about this all the time.

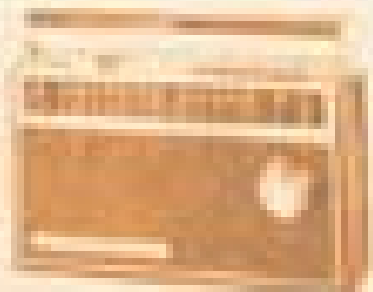
When he followed a girlfriend from White Bear Lake, Minn., to North Dakota State University in Fargo, Anonsen thought he'd be studying engineering, but switched to computer science and mathematics before graduating in 1987. He had no idea back then that he'd become one of the nation's leaders in software development, much less be with Great Plains 14 years and begin counting again when Microsoft took over in the spring. When he started with the company, it was a small gang, looked at by the locals with hope and, to be honest, a bit of doubt. Now he is among 2,000 Great Plains employees throughout the world. And Great Plains is among 44,000 Microsoft employees.

It would be easy to get caught up in the science and engineering of software and technology, and the possibilities of the Internet, but Anonsen also has to be talking about the limits. "People won't stop being human," he says. Technology, after all, is supposed to be a way to make people's lives easier. Business is still business, even if the opportunities and the pitfalls are more plentiful and complex. "There hasn't been a time like this," Anonsen says.

—L. McDaniel



THE UNIVERSITY OF NORTH DAKOTA



On September 11 we were reminded, vividly and shockingly, of the significance of information technology in our lives. Widely separated groups of terrorists, their movements likely coordinated by a sophisticated communications network, attacked two of the great symbols of American power and wealth, the Pentagon and the World Trade Center. Transfixed by our televisions, we witnessed the events as they unfolded. No one factory worker, student, waitress, or president had an advantage over anyone else. All of us witnessed the horror together. And the simultaneity of the experience galvanized us, united us, and allowed us to grieve together as we never could have before. There has been no better illustration of how modern information technology has rendered irrelevant the seemingly immutable constants of time and space.

One could well make the argument that the rapid flow of information has been essential to the rise of the United States to world dominance. Could we have developed a unified and integrated continental economy without the ability to communicate rapidly across 3,000 miles? Would we enjoy our dominant position in the global economy today if we lacked the ability to communicate instantaneously with the entire world?

And isn't there a relationship between our position as the world's only superpower and our mastery of information and communications technology, the sophistication of our communication tools, and the impressively widespread technological literacy of our people?

We like to emphasize the new and the revolutionary in what we do, but as an historian I tend to take a longer view. To my mind, the true revolution in information technology occurred in 1844, when the telegraph was invented by Samuel F.B. Morse. Before the telegraph information moved at the speed of a ship — six weeks from Europe — or a horse. The telegraph allowed information to move over wires at the speed of an electrical impulse.

When the first telegraph message was transmitted from Baltimore to Washington, informing observers in the latter city that the Democratic Convention had nominated James K. Polk for the presidency, most of those in attendance took it for a parlor trick. But shrewd businessmen quickly grasped that the telegraph would facilitate their efforts to conduct affairs at a distance. It was not accidental that the railroads — America's first large, interstate businesses — adopted the telegraph so rapidly and enthusiastically.

The problem with the telegraph was that it was elitist. One company monopolized the American market and operators needed special training in Morse code. Far more attractive to a democratic country, and a country in which people valued their privacy, was the telephone, introduced by Alexander Graham Bell in 1876. Like the telegraph, the telephone at first was mainly an instrument of business, a reality illustrated by the fact that the first telephone network in Dakota Territory was installed at the Cass-Cheney bonanza farm at Casselton to connect Oliver Dalrymple's headquarters to his outlying divisions.

In the late-19th and early-20th centuries the telegraph and the telephone were mainly tools of business, and only relatively affluent people had telephones in their homes. Radio, and later television, proved to be more democratic media of entertainment and information.

Radio and television offered simultaneity — the ability of many people at points distant from an event to experience it while it was taking place. With satellite technology it became possible even to witness an event on the other side of the world as it was happening. Radio and television helped diminish the gaps in American society between regions, classes, races, and urban and rural people. They were homogenizing media, pushing us all toward the same preferences in food, furnishing and dress, giving us similar tastes in music and the arts, imparting a standard Midwestern dialect to ever larger numbers of us, and giving us shared experiences.

In a sense that homogenization created a sort of equality in American society and thus contributed to the democratic ideal, but critics worried that the mass media encouraged cultural

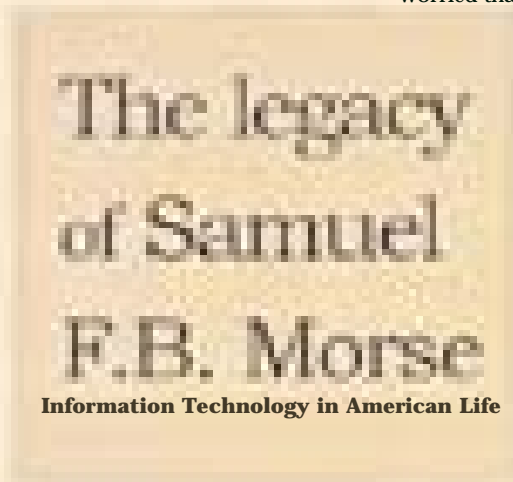
mediocrity and a vapid flatness in American life, a criticism captured by Newton Minow's condemnation of television as a "vast wasteland." Critics also noted that radio and especially television allowed the domination of American entertainment — and perhaps American thinking — by a relative handful of massive corporations committed to little beyond their own profits.

What the information and communications technology revolution of the last quarter century has given

us is an extension and elaboration of what earlier media offered, but in ways and directions that could not be grasped just a generation ago. The Internet provides us with the relative privacy of the telephone, as well as the simultaneity of radio and television. But while those media encouraged homogenization, modern information technology allows us to express our diversity. Anyone can build a Website or a chatroom, and invite others to join. People with interests from bass fishing to barley diseases to the Bosnian economy can find Websites devoted to their interests and a ready-made community of fellow enthusiasts, and they can participate from anywhere in the country at any time of the day or night.

Modern information technology fulfills the democratic promise while allowing the expression of individual preferences and differences. Small wonder that Americans — so democratic, but also so individualistic and so jealous of their privacy — have taken to it so enthusiastically and have so quickly grasped its promise and possibilities.

—David Danborn





★ ★ The little biotechnology firm that could



Michael Chambers sat for hours in his stuffy efficiency apartment, his brain vibrating with ideas about how to start a biotechnology company. Oh, the opportunities were absolutely without end: DNA vaccines, cancer cures, veterinary medicines. He turned the possibilities over and over in his mind, mentally fingering the permutations until they became dog-eared. But the problem lurking in the corner stared back at him with beady eyes: Get serious; you don't have a dime.

Yes, but Chambers had something else in surplus: faith in his ability to solve a problem, any problem, by working until he found the solution. With the right mix of grit and ingenuity nothing was insoluble. It was a matter of running through the steps until the equations balanced, and of networking, talking to people until he finally met the one who had the right answer. So he talked to countless teachers, classmates, family members, friends of friends. His grandfather and a few others were willing to lend him money, not a little money, but not enough to get a biotech company off the ground. He wrote letters, e-mail messages, worked the phone like a telemarketer, even scraped up the cash to fly to Atlanta to wheedle some interested moneymen. But in the end all those venture capitalists and bankers, those who flattered him with an answer, said no. He admits that the suits



might have had a point. He was, after all, just 22 years old, a college senior working toward degrees in biotechnology and microbiology at North Dakota State University. His business experience involved tending bees for his grandfather's honey company in Carrington, N.D.

Then one day he found the answer in a stack of mail piling up on his desk. Lots of people would bet on Michael Chambers and his partner, John Ballantyne, after all: credit card companies. The pair filled out the forms, naively expecting most banks would turn them down, and were surprised when the cards came back smiling. Suddenly they were armed with lines of credit totaling thousands of dollars. Instead of charming money out of venture capitalists they would just charge it.

They were ready. In those endless talks in Chambers' apartment, bolstered by advice from retired business executives and professors, they'd pieced together the rudiments: an idea for a service, a business plan, a target market, even a logo. Chambers' first purchase was a \$2,000 personal computer from Best Buy. They also charged to buy laboratory equipment, supplementing leased apparatus at NDSU so they could breed large colonies of bacteria, the means for replicating snippets of DNA into batches big enough for biomedical researchers to use in experiments. They would provide custom plasmid DNA — tiny loops of genetic material — an essential ingredient for making DNA vaccines and other products.

All they needed was a customer, and finally they found one, a researcher in Puerto Rico. Could they supply him with 250 milligrams of plasmid DNA to test for use in an influenza vaccine? They could, and they did — but had to run out and buy a label maker before they could ship their first order. Through word of mouth, and building themselves an Internet site, they began accumulating customers. By happy coincidence, the start of their business in 1998 came in the early days of Internet commerce — not a small advantage when you are two guys fresh out of college, operating in a rented corner of lab space at your alma mater, using credit cards to finance many of your start-up costs and to weather cash-flow crises. Still, Chambers and Ballantyne were officially in business. The orders began coming in, but so did the bills. At one point Chambers had \$80,000 charged to one card. He and Ballantyne kept juggling balances among cards, managing to avoid paying the astronomical interest rates. They named their company Aldevron, a variation on the name of one of the brightest stars in the Milky Way Galaxy. But would Aldevron turn out to be a commercial supernova, or a brown dwarf?



Michael Chambers gets downright rhapsodic when he talks about the network, the invisible lattice of connections that propped up Aldevron in its spindly youth. The network began with his lessons in the honey business, alongside his maternal grandfather, Dewey Robson, and his father, Bruce. They were his first mentors; from them he got his first inkling that he could combine science and business in ways that could be both fun and profitable. Then, at a high school science fair, Chambers' embryonic network made its most cosmic connection when he met Victoria Knudson, a rival competitor from Hazen, N.D. They instantly became friends and soon started dating. They saw each other through high school and college, and now are partners in both business and marriage. "We've really grown up together," Chambers says. Knudson had been involved informally with Aldevron from the beginning, but joined the company two years ago and now serves as chief operating officer. She shares an office with Chambers, and her job is to set goals and free Chambers from many of the details, to make sure his focus doesn't become too diffuse. She is the planner and organizer, Chambers the source

of vision and ideas. "His ideas don't always get communicated clearly," she says. "I'd say we complement each other very much."

The network kept branching out from roots grown in high school and college. Both Chambers and Knudson attended Governor's School, a summer seminar on the NDSU campus for promising high school students interested in science, technology and, now, business. For Chambers, it was his first exposure to a real science lab. It also was where he met Matt Belter, a friend of Knudson's. All three attended NDSU, where the friendships deepened and eventually evolved into professional ties. So after Belter graduated, he didn't hesitate to quit his summer job in a bookstore to join the company, still operating out of rented space in Hultz Hall. "I had complete confidence Mike Chambers would make a business like this fly," says Belter, who has a central role in lab production. "I can't honestly say that it was a whole lot of risk, because what did I have to lose at that point? Who knows when something like another Great Plains story" — the Fargo-based business software company — "is going to come around? It would be great to be a part of something like that."

While trying to perfect the plasmid-DNA purification process, Chambers consulted a friend in the university's pharmacy school, and ended up meeting John Ballantyne, who was finishing his doctorate in pharmacy, and had expertise in chromatography, a way of separating products based on physical or chemical properties. Their friendship might seem improbable. Ballantyne came from Waiuku, a dairy and fishing town in New Zealand, and is a history buff and sports fanatic who likes to bet on pro football games. They pose striking contrasts: Chambers, tall and thin, with a boyish face and outgoing manner; Ballantyne, burly and bearded, is more retiring. But when Chambers started talking about his dream of getting into the biotech business, Ballantyne was hooked. He had grown fond of North Dakota's open spaces, which he found similar to his sparsely settled homeland, and didn't want to move to a big city on the East Coast, where most pharmaceuticals giants are based.

Other elements of the network fell into place, with a distinctly NDSU pedigree; 16 of its 18 employees are graduates or current students. Average age: 27 or 28. Ballantyne, chief scientific officer, jokes about Aldevron's "friends and family" plan; Chambers compares it to a family farm. Both say it's common in tech start-ups for close

They named their company Aldevron, a variation on the name of one of the brightest stars in the Milky Way Galaxy.



friends to band together and work through the lean times. “I’d say the drive for success is really common here,” Knudson says. “We don’t just hire all our friends. We want the best people.”



Now it all seems to stem from some orderly sequence, a more or less logical chain of events Chambers traces back to his senior thesis project. But Aldevron’s success — never assured — owes much to its ability to exploit a niche market in biotechnology services, and to keep costs from suffocating the business in its crib. It all began, in a sense, with Chambers’ senior thesis topic that DNA vaccines could be administered by nasal spray instead of by needle. He sniffed around on the Internet, and quickly found a scientist at the Pasteur Institute in France, one of the world’s leading authorities on DNA vaccines. His next move was a bit audacious for a college student: He contacted the researcher, Robert Whalen, and quickly struck up a friendship in a series of e-mails and phone calls. In short order, Chambers convinced his professors to fly Whalen in to deliver a seminar on DNA vaccines — a visit that ended up providing Chambers with the idea that became Aldevron.

Whalen pointed out that not all research labs have the capability, or the desire, to do the painstaking work of making their own copies of DNA samples. There is the risk that cells will mutate, and technicians must guard against contamination. Strict purity and quality control are essential. It’s vital work, but not considered glamorous. When Whalen visited Fargo, he realized it was the perfect location. It offered well-educated workers, low costs and technical support from experts at NDSU and other campuses. In fact, Chambers says, the help from his professors and several administrators was absolutely critical in establishing the business. “Without NDSU I think I would just have a normal job someplace.”

Because Chambers and Ballantyne couldn’t attract venture capital, in which investors provide risky start-up funds in return for a stake in a new company, the partners had to break the standard mold for creating a biotech business. They had to start small and grow slowly. Chambers calls it the Fargo model: frugality, lots of hard work and a degree of versatility familiar to any farmer. Chambers and Ballantyne continually must solve their own problems. One day last summer, for instance, Aldevron’s Internet service was knocked out in a storm — on the very day his information technology chief

was out, and a European company was auditing their Web site. Chambers had to roll up his sleeves and become his own computer expert; he spent most of the day getting the Web site back in shape. “It’s exactly like a farmer tinkering around in his garage,” Chambers says.

Whalen, now the leading researcher at Maxygen, a California biotech company, says Aldevron has become a leader in supplying research scientists all over the world with custom DNA materials at an affordable price — affordable, that is, in the world of biotech research: a gram of the firm’s plasmid DNA sells for \$25,000 to \$50,000. If that’s a little beyond your budget, they’ll sell you a milligram for as low as \$250, a bargain for tailor-made materials certified as pure. Forty percent of their sales are overseas.

The company took a big step when it moved two years ago from its incubator space at NDSU to a former bingo parlor in south Fargo. The company grew to 10 employees and significantly boosted its production. The firm plans to build an addition to make room for seven new products, but eventually would like to locate in NDSU’s Research and Technology Park, where Chambers sits on the board of directors. The secret, Chambers says, will be to grow at a rate that doesn’t allow quality to slip. Ballantyne sees the firm moving more into mass production, instead of relying heavily on smaller, custom lab work. Another milestone would be to get federal approval to supply plasmid DNA for clinical trials, which would open up a lucrative new market. “Where we’re at is still very early in the road,” Chambers says. “Ten years from now I expect to employ a lot of people.”

—Patrick Springer

FANTASTIC VOYAGE:

NDSU's entry into tiny 'nano-world' is a big step for technology transfer

| One of 100,000 nanochips in an inch-long vial

Philip Boudjouk imagines minute electronic chips called nanosensors almost everywhere: floating in a can of soup, sprayed onto a wall, woven into a soldier's shirt, even coursing through a patient's bloodstream.

But for the moment his concerns are a lot more pedestrian. On top of the work stack of papers on his desk, written in the dense languages of law and science, is a document awaiting his approval. The intellectual property agreement spells out how North Dakota State University and its partners would share in the profits of a new technology whose product — the nanochip — is tinier than a fleck of pepper.

NDSU's entry into the tiny world of nanotechnology, the science of building electronic circuits and devices from a single atom or molecule, was announced in August when a \$1.4 million contract was awarded by the Department of Defense. The initiative took on added urgency with the recent terrorist attacks in New York and Washington. "September 11 looks like it's changed some things," says Boudjouk, the university's vice president for research, creative activities and technology transfer. "It looks like it's placed some new needs." NDSU was awarded the contract, in partnership with the University of Alaska, Fairbanks; Alien Technology Corp.; Northrop Grumman Corp. and Superconducting Technologies Inc.

The project will inaugurate a center for nanoelectronics and nanomaterials technology at NDSU and will involve collaboration from specialists in fields as diverse as chemistry, polymers and coatings, engineering and computer science. Although the initial contract is with the Department of Defense, many of the technologies that will be developed at the center also will have non-military applications, Boudjouk says. A top priority will be to find commercial uses — ideally, to be exploited by companies in Fargo-Moorhead and the surrounding region. In fact, NDSU has pledged that at least one private company will be "spun off" and located on the campus' Research and Technology Park within the next 30 to 40 months. During the next several years, the initiative could generate up to \$100 million in research funding for the university. "THIS IS A QUANTUM LEAP FOR US," Boudjouk says. "And with that will come a lot of changes and adjustments." Among other things, it will involve hiring scientists and technologists with new areas of expertise, who in turn will work with contractors and companies previously available only to Big Ten research institutions, he says. "This is a brand new set of relationships" available to students. "It's a window of the world that's much more open than it was before." Boudjouk envisions a technology corridor sprouting up along Interstate 94 between Fargo-Moorhead and the Twin Cities. "It's a brand new

technology coming to the area — in fact, to the whole region," he says.

In order to be competitive, the university must be able to match the center's skills and knowledge with the needs of the marketplace. When research administrators see the need for specialized talent, they must be able to go out and get it. That will broaden the area's intellectual capital, which should, in turn, help to lure future companies as a critical mass emerges. Boudjouk envisions Fargo-Moorhead becoming a smaller version of Research Triangle Park near Raleigh-Durham, N.C., or the high-technology industries that have spun off from the University of Wisconsin in Madison. "You don't have to match to scale to have success," he says.

Michael Chambers and John Ballantyne, co-founders of Aldevron, a Fargo biotechnology company, agree that Fargo-Moorhead can become a high-technology center, with the laboratory bench developing products and processes for the manufacturing plant. Ballantyne, Aldevron's chief scientific officer, says hi-tech entrepreneurs should keep an eye out for services needed by university and commercial laboratories, which routinely "out-source" what they can't or don't want to do themselves. "There's a niche out there," Ballantyne says. "It happened in Madison, Wis. It could easily happen in Fargo-Moorhead." Aldevron, for instance, makes custom plasmid DNA and ships its orders to labs around the world.

NDSU's center for nanotechnology and microelectronics will complement existing research programs at NDSU, where earlier alliances with private industry include Phoenix International, the first tenant of the Research and Technology Park. "This is cross-cutting technology," Boudjouk says. "There are very few fields this will not impact." The university has started hiring key staff, and a delegation of faculty traveled to Silicon Valley to meet with representatives of Alien Technologies and the University of Alaska, Fairbanks. NDSU will have to be nimble, however, to keep up with the rapidly changing hi-tech marketplace. "It's a rocky ride in Silicon Valley," Boudjouk says. "It's not going to be any smoother here. But we're in the mix. Our challenge is to stay on that pony."

—Patrick Springer

COMPUTER

Some children, I'll call them computer whiz kids, learn important lessons while mastering information technology. While many adults feel disarmed when facing a computer, kids don't imagine that they are interacting with a machine, they think of gaining access to other kids. This is the new gathering place. It's a telephone to them, it's what church socials were to some of us or the malt shop to others.

Children learn to use computers faster than adults and they are more comfortable being creative while using computers to communicate with their friends. They initiate conversations using pseudonyms; they adopt personas using avatars (a picture chosen to represent a mood or to project an attitude). They want to build a reputation around their on-line role, it's part of the game. Some of them, the whiz kids, learn important lessons about themselves and about other people from using computers. I call them whiz kids because, without adult influence, they learn from their experiences and act on the lessons. They read, research, take each other's counsel, and keep moving ahead. They build and rebuild the gathering place; they invent new rules for the game. Watching them play and remedy mistakes may yield insights about enhancing our work places, attracting and retaining the best people, and adding value to lives of others, so far as these activities revolve around the use of computers.

Here are a few archetypes that I have watched several whiz kids traverse as they gain experience on-line: The Kid Next Door, Pinball Wizard, Lone Ranger, the Hacker, the Leader. Bear in mind that these are my archetypes. They help me organize some of what I have observed. Not all computer whiz kids go through each phase, and my list is not exhaustive. I mean to illustrate that whiz kids graduate from one phase to the next as quickly as circumstances require and that the whiz kids avoid getting stuck in a phase at all costs. They don't like others to pigeonhole them. These whiz kids play

roles, use role models incessantly, and get quite good at intuiting the roles others wish to play.

As they gain confidence in themselves, they see the strengths of others who prefer different role models. These are some of the characteristics of future leaders.

THE KID NEXT DOOR

The kid next door phase might be announced by a child rushing into the house with: "My friend just got a new PC, and you should see what it can do." The notion is simple, new is faster and faster is better — better for playing games, running the latest software, downloading Web pages. Kids want the fastest computer because it gives them an edge in the game. At first, there is nothing better than a new, fast PC. But almost immediately, new is old, and that's not a very satisfying phase to get stuck in.



THE PINBALL WIZARD

Once the kids realize that someone else will always have newer technology, another sort of competition sets in. Whiz kids hope that through self-mastery they will become larger than life in the minds of the peers, like Tommy, the Pinball Wizard in the rock opera by The Who.



Typing at light speed, for example, can be impressive and accurate.

Fast typing can win the latest game. I know two kids who competed in everything between the ages of 7 and 11, including keyboarding, as typing is now known.

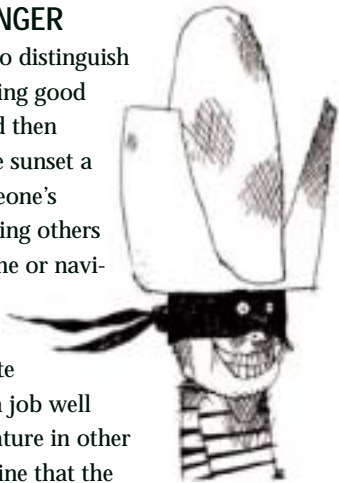
They were the computer whiz kids to their friends because they both typed so

fast. None of the peers really knew what it was these two did with computers, but no one missed the fact that they did it really fast. Eventually, the one kid mastered graphic design and the other became a programmer, so they no longer compete. Now they laugh about the fact that after four years of head-to-head competition early in life, no one can type as fast and as accurately as they can. It's no longer seen as much of an accomplishment, but it set them apart from everyone else for several years, and that was their intention once.

WHIZ KIDS

THE LONE RANGER

Some kids learn to distinguish themselves by doing good in others eyes and then riding off into the sunset a hero. Fixing someone's computer or helping others master a new game or navigate the 'Net does feel good; kids get immediate gratification for a job well done and gain stature in other kids' eyes. I imagine that the whiz kids see themselves as heroes helping the less fortunate, the less able, and the desperate. Heroes are, however, in demand, and as the word spreads, requests for help begin to come in from adults and all of a sudden it's no longer a game but a job. Adults' expectations are higher — they demand more, some even demand that the kid accept payment — this is real life.



THE HACKER

Kids respond to adults in surprising ways. Some, with entrepreneurial acumen, accept the payment, advance their skills, and grow into an advanced Lone Ranger — a hacker. Braggadocio is added to the prescription for getting the grownups back on their feet and on-line. The hacker recounts past exploits to point up other's failures, thinking that once the truth is revealed and others' weaknesses are exposed, we all can advance. Smarter is best, rules are meant to be broken because the hackers are smarter than those who make the rules, and being slow is synonymous with getting caught.



Computer-speak rules, acronyms abound, jokes focus on how dumb everyone else is who struggles with IT. Distinguishing yourself this way, being in the spotlight, has a catch — the trouble is you may get in trouble. One whiz kid I know was blamed for something he didn't do. Who else but the hacker, the adults reasoned, would know how to break into our systems? If the hacker didn't do it, he'll know who did. All of a sudden, no one except the hacker appreciates the difference between knowing how and doing it. Being seen as the one to call for help also means that you'll be the first suspect when something goes awry.

THE TEAM LEADER Some hackers learn the strength in numbers lesson. It takes real maturity to admit there is always someone who's better and there's always a better solution. Harnessing the right people, at the right time, to do the right job is a different sort of challenge. In my observation, team leaders transcend the phases outlined here and see teamwork as synonymous with getting good things done for other people.

One of these team leaders launched a Web site for teens, and five kids, who hail from around the world and have never met, manage it. They act as a support team to 187 registered users who contribute content for distribution on the site. The five teens administer the site, organize the users' contributions, advertise the site, affiliate their operation with other service providers and establish formal, contractual partnerships with others to add value to their users' experience. They have served almost 90,000 discrete visitors to their Web site since its current home was opened in March 2001. It's a small wonder that when they sit down at the keyboard, they are confident and aggressive. They are on a mission. But they are not alone.



—Jim Ross

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