Editor's note 5

On the cover 6

Letters 7

Contributors 8-9

Trinity
Memories of childhood 10-15

Wooly boys
Executive producer is a Fargo guy 16-21

Muscle behind the machine 22-25

Excerpts
Alien Technologies CEO Stav Prodromou 26-27

Gate to plate
Plans to create a beef system center 28-33

Cooler than cool
NDSU geologist journeys to Antarctica 34-41

The impact of a North Dakota writer
Introduction by Kathy Freise 42
By Tom Matchie 43-47
In my 20s I loved to tell the story of my most embarrassing moment as a kid, a spring evening when I thought I was alone in the house and sang my heart out to the sappy love song You Light Up My Life, accompanying myself on the piano. I wasn’t good at singing or playing piano, but since I thought no one could hear me, it was a loud, heartfelt performance until my dad popped open the door to my room to tell me he was going to the hardware store. Concert over.

Some years have passed, and now I wonder if I should begin to tell the more intricate and unfinished story of the influence of Barry Manilow on my life.

It began in the mid-’70s, in sixth grade choir at my south Bismarck school. I was an alto in this choir, learning to sing Mandy, Mr. Manilow’s first big hit. Oh Mandy you came and you gave without taking but I sent you away Oh Mandy. What that meant, we didn’t know. But we wailed away in the choir room between bouts of misbehaving and taunting one another and the other awkward things you do at that age.

Manilow’s singing career progressed rapidly after Mandy. Hits cranked out of my little orange AM radio or the hand-me-down record player in my room. I remember loving I Write the Songs, and feeling thrilled when I grasped the symbolism in the lyric: I’ve been alive forever. I am music and I write the songs. Did the understanding come to me during one of those long sessions playing the same song over? Did I piece it together analytically walking the miles home from school? I don’t remember those details. Only the refuge from the realities of adolescence in those sweet songs.

All through junior high and into high school, adoring Barry Manilow music. Was that cool? Surely not. On the other hand, this wasn’t the Donny Osmond sort of crush from my younger years. There were no posters from Tiger Beat to kiss goodnight. Never did I imagine what it would be like to meet Barry Manilow or that he might hold my hand. This was about the music. I have vivid memories of checking his albums out of the public library, especially an album with a song called One Voice, a cappella, all the 40 parts Manilow himself, mixed in the studio. I was amazed that he could sing all those parts and simulate an all-Barry Manilow choir. I played it over and over, mouthing the words, pretending I too could carry a tune.

Who knew the toxic effects this music could have on others. I grew up in a small rambler, six people, one bathroom, three bedrooms. This meant everyone heard everything — including every playing of a Barry Manilow record from seventh grade through my first year of high school. That’s when the bomb dropped. My brother, the second oldest of the three boys, and in my view the most tolerant, was assumed to be ready to enroll at the local community college. We were stunned to hear the announcement that those Barry Manilow records were driving him crazy and he was getting the heck out.

And so he went away to college, and the remaining two of us followed. Nowadays people study guidebooks and visit campuses. We just followed the guy who was escaping Mandy.

(By the time I arrived on campus, one of his roommates from Minneapolis played early Prince albums over and over, but I don’t think it had the Manilow effect. Maybe my brother simply no longer heard music of any kind. I’ve been afraid to ever quiz him on this, though now that I think about it, I did not feel blame was pointed at me, kid sister. He has always been very nice to me.)

One might hope that could be the end of this saga, but no such luck. There’s one more chapter. A Barry Manilow concert is scheduled in Fargo, and a friend’s husband is unable to attend at the last minute, so there I am, about 15 rows back in a facility full of serious fans, most of them 40-something women in pleasant denim dresses with red canvas belts and matching shoes. Or, in our row, a contingent of younger gals whose large purses were well stocked with boxes of tissues and cameras. They came, they clapped along, they wept, Oh Mandy. These gals could tell from the first couple of chords whether they’d need a tissue or could hold it together to take pictures. To those of us who were not expecting to weep, they offered Kleenex, just in case.

After the performance, word started to get around town that Barry Manilow would not allow local facility workers to look at him as he made his way from dressing room to stage. I did my best to dismiss the rumor as so much gossip.

It comes back to me now, years after the concert, as I enjoy a wonderful ’70s station on Web radio, the tunes conjuring up the better parts of my past. As I listen to nice songs by Olivia Newton John and Starland Vocal Band, Neil Sedaka and the rest, many times I have felt my spirit lift at the beginning of a song until I realize it’s Barry Manilow, and then a whump of disappointment, even though it was just a dumb rumor and I should be upset with the gossips, not the victim. But what of the chance, however slim, that he might not be flawless? My dad says truly great people don’t need to make others feel small, but what if that’s why someone wouldn’t want people to look at him? It is simply too much to absorb. I feel like a little girl who’s learned there’s no Santa Claus. Of course, I remind myself, I still like Christmas. A child can easily forgive Santa for not existing as long as the magic goes on, but it would seem an adult needs a little more time to recover. I remain hopeful.

Thank you for reading.

laura.mcdaniel@ndsu.nodak.edu
The unbroken horizon lines near Wahpeton, N.D., provided early inspiration to Fritz Scholder, now one of the country’s most valued artists. Scholder used the view to fire his imagination. Born in 1937 in Breckenridge, Minn., Scholder knew early that he’d be an artist, winning a Veteran’s Day poster contest at age 10.

Though he is strongly associated with images of American Indians he first painted in the mid-1960s, Scholder’s body of work is vast, including bronzes, books, mixed media constructions, lithographs, etchings and monotypes. He’s always created works in series: landscapes, dogs, butterflies, cats, dogs, dreams, women, the Empire State Building, ancient Egypt.

His paternal grandmother was a member of the Luiseño tribe of Mission Indians, and his father was an administrator at the Wahpeton Indian School. Scholder has said that he does not consider himself Indian, though he’s generally considered a leader of what has come to be known as the New American Indian Art movement — appropriate for a man who has said that his favorite word is “paradox.”

From 1964 to 1969, Scholder taught at the Institute of American Indian Arts in Santa Fe, N.M. There, he worked to find a style that meant not painting clichés of either the region or its people. What emerged was his distinctive look: a colorful fusion of abstraction, surrealism and pop, hovering between the figurative and the abstract.

Scholder says he painted the Indian “real, not red,” refusing to bow to romanticized, stereotyped imagery. He painted what he says he saw and acquired instant notoriety for his interpretations of both American Indian history and contemporary discord.

The subject of multiple books and documentaries, Scholder holds a B.A., an M.F.A. and five honorary degrees. He has received fellowships from the Whitney Foundation, Rockefeller Foundation, Ford Foundation and the American Academy of Art and Letters, and is a lifetime member of the Salon d’Automne of Paris. His work is represented in collections including the Museum of Modern Art, the Bibliothèque Nationale in Paris, the Los Angeles County Museum, the Walker Art Center, the San Francisco Museum of Modern Art and the National Museum of American Art.

Scholder has said that painting is something he must do. In a 1995 interview with the Smithsonian Institution’s Archives of American Art, he elaborated: “The power of art in anyone’s life, it seems to me, is a must. Every society has had … some form of religion and some form of art. It is, it seems to me, a basic activity of putting down one’s marks that you were here. And whether it’s paint or typewriter and paper, at least for me, I’ve always felt that I should try to in some way communicate — and painting is simply another way of communicating.”

— Kathy Freise
letters

Just a quick note to let you know how much I appreciate *NDSU magazine*. I seldom find myself in Fargo these days, and the stories and updates that are printed are a great way to stay on top of what’s happening at my alma mater. Living in Southern California makes it difficult to stay in touch, and your magazine helps. I especially enjoy the stories about individuals, and the work that they are doing after being prepared at NDSU.

I get quite a few shocked looks when I wear my NDSU hat, and a lot of folks think that I’m joking with them about my alma mater. Not too many Bison fans out here, but the few that I run into are instant friends. Thanks for your effort, and keep up the good work.

Bill Sanborn
BS Construction Tech ’86
Sanborn Engineering

I have just spent a good part of my morning reading the *NDSU magazine* from cover to cover. I find it interesting to see that North Dakotans do end up on all corners of the earth and have interesting and beneficial careers. I moved to London, England (via Geneva, Switzerland) directly after graduating from NDSU in 1994 and have met fellow North Dakotans in all of my travels. I have to say that the British people are a bit more clued in as to where our lovely state is located than some of our fellow American citizens! Keep up the good work and I look forward to the next issue.

Lynnette (Fluth) Cash

As I am sitting in Pittsburgh, Pennsylvania, sending our Christmas cards and working on my doctoral dissertation for the University of Phoenix School of Advanced Studies (online), it was a pleasure to read the fall issue of *NDSU magazine*. I noticed the clip on Julie’s work and it was impressive. My daughter is graduating from the Art Institute of Pittsburgh in Graphics Design and I’ll forward this magazine onto her.

During a staff meeting the other day at Eaton, Fargo came up as one of those, “how did that happen,” in regards to high-tech cities with radio frequency identification devices, wind turbines, and others. It was nice to say, I went to school there.

I’ll be there next week to see the family and am looking forward to seeing old friends and even driving by the Cow College, as my father still calls it. Hopefully, it won’t be as cold as when I went to college there. I tell people the story, “there were three weeks in January, 1979, where it never got to 20 below; 25 below during the day, and 40 below at night (without wind-chill).” I’m not sure me spreading that story helps your cause, but it gets a laugh.

Congratulations on a wonderful transformation of the magazine, a university, a technology center, and a metropolitan area.

Dr. Kenneth Uhlman, P.E.
Director, Business Development, Eaton
Pittsburgh, PA
uhlmanken@email.uophx.edu
Tom Matchie’s (Impact of a North Dakota writer, pp. 43-47) tenure at North Dakota State University dates back to the 1960s when he taught God in the Modern Novel at the old School of Religion. He’s taught literature and the humanities in the English department since the early ’70s, and he served in the North Dakota Legislature from the mid-’70s to the mid-’80s, representing the Fargo district surrounding NDSU. Throughout the 1990s Matchie traveled the state discussing novels about the prairie in small town libraries. He’s published many articles on Midwestern and multicultural authors, including North Dakota authors like Tom McGrath, Lois Hudson and Louise Erdrich. Twice he’s received national awards for his essays, one connecting Kathleen Norris’ thinking in Dakota: A Spiritual Geography to four novelists of the Great Plains. In 1998 he received an award for his creativity and research from the College of Arts, Humanities and Social Sciences, and in 1999 the College Advisory Board named him its Outstanding Educator.

Jerry Richardson, (Wooly boys, pp. 16-21) editor emeritus, generously contributes his time and talent to NDSU magazine. He was director of communications at North Dakota State University for 30 years, retiring in 1993.

Kathy Freise (On the cover, p. 6; Introduction, p. 42) is a frequent go-to-gal for NDSU magazine, thanks to a nicely varied career that has allowed her to earn expertise in a number of specialties. She’s been a newspaper reporter and a public relations practitioner. She is now a teacher, a Web developer, and recently, the earner of a doctorate in American Studies from the University of New Mexico. She is teaching technical communications at Southwest Indian Polytechnic Institute, a two-year tribal community college in Albuquerque, and working at a small Web development company.
**Carol Kapaun Ratchenski** (*Trinity, pp. 10-15*)

**Hometown:** Casselton, North Dakota  
**Current address:** Same as above  
**NDSU degree:** Master of Education, 1994  
**Coffee:** Dark roast with cream  
**Tea:** Licorice with sugar  
**Fiction writers:** Sherman Alexie, Margaret Atwood  
**Non-fiction writers:** Thich Nhat Hanh, Pema Chodrin  
**Music:** folk, Greg Brown, Fred Eaglesmith, Gillian Welch  
**Day job:** Counselor in private practice, Fargo, stories and transformation  
**Now writing:** Second novel about a year in the life of a university counseling center (first novel seeking editor who likes wordy prose with lots of food imagery).

---

**Martin Fredricks** (*Gate to plate, pp. 28-33*)

 grew up in Medora, North Dakota, in the 1970s, playing in the boilers and around a smokestack that are vestiges of the Marquis de Morès visionary slaughtering operation, which made him a natural to write about plans for a new incubator for developing small beef processing centers across the state. Fredricks has come a long way from this childhood immersion in the rich history of the Marquis and his contemporary, Theodore Roosevelt. These days, in addition to writing features for a variety of publications, Fredricks runs a writing, editing and communication consulting business in West Fargo.

---

**Steve Bergeson** (*Cooler than cool, pp. 34-41*)

 has spent the better part of the last eight years writing up the news of the day for North Dakota State University. Thanks to that hard work, he found a gem to write for NDSU magazine about the Antarctic adventures of Allan Ashworth. Bergeson has a solid news background, having worked some 20 years in broadcast news. He is a baseball fan, and served for sixteen years on the Roger Maris Celebrity Benefit golf tournament planning group.
My father loved any town’s dump. We visited them like other people visited national parks, with a picnic lunch, trying hard to manufacture a sense of family togetherness that always came off better in pictures than in the moment of experience. With a strange mix of disgust and greed we would put on fuzzy orange work gloves, pile out of our van — my father, his five daughters — carefully walk over heaps of the discarded, the cast off, the left behind. Wood was what we were looking for, dressers, end tables, and chairs especially. We would take it all home to the basement where dad would sand it, rub it, and cover it with paste, slippery white jelly, pure magic. Then to dry on the sunporch, and back to the basement for a coat of “Shine in a Can.”

Sometimes if a scratch was too deep or too much rain had fallen before our rescue operation, we got to keep some wooden treasure for our bedrooms or the living room. The stuff that came out of my dad’s hands looking good as new went downtown to the old three story apartment building we owned and kept rented in part because it offered the only furnished units in town. Our renters were mostly new teachers coming to our small town just out of college, eager to fill our waiting blank slates, or elderly couples coming off the farm where the younger generation had taken over the farmhouse with its dining room sets, headboards, coffee tables and end pieces.

Sometimes when Dad would proclaim “no hope” for a cabinet or set of bookshelves, my sisters and I would drag it to the backyard, take our crumpled allowance to the lumberyard, and buy hideous shades of Watermelon Passion, Blueberry Hill Delight and Sundance Yellow. Stripes, polka dots, every leg two different colors, the grass around us dipped in glorious shades of July play, straight through to a ten-o-clock sunset. If I ever envied my best friend’s white princess bedroom set, I never did understand why she couldn’t paint it Juicy Strawberry if she woke up one day and wanted to.

My mother believed in fine fabric. She collected French decorating magazines, sent away for rubby swatches, rubbed them on her soft pink cheeks until she found one she couldn’t put down. Then she sent away for a bolt. Months later it would arrive wrapped in lavender tissue paper with the name of the designer sprawled across it in fine marker. We hung the prized pastel tissue on our bedroom walls and let the frost seep through it. Our bedrooms wore the soft colorful clouds of a Minnesota winter sky.

Mom took the fabric to a custom upholstery shop in downtown Minneapolis and together, she and the clerks and eventually the soft, flushed-faced owner would decide what it should cover, a love seat, an in-laid side table or an overstuffed sofa. Then my mother would give them her father’s name and tell them to bill him at the Florida address. After all, her parents wanted her to have some nice things, even though she was who she was and she had married “him.” Somehow all their snobbery, of folks who actually made money during the depression, came to her in her decorating gene.

She loved to lecture us on the difference between living with craft and living with art. How it made you different people in the end to be surrounded by things that were original, one of a kind and things that came out of a mold, reproducible and often reproduced.

“Say something you’ve never said before” she would warn us. “And I am your mother, I will know the difference. I’m raising artists here, don’t forget that.” I guess that’s why she approved of our bookshelves of fourteen different shades of green and a different variety of frogs painted on each level, our wallpapering fiascoes, even our trips to the dump.

I didn’t know what my first boyfriend meant when he walked into our house and said, “How can you live like this?” Until I was finally invited to his home and asked to remove my paint dripped sneakers before stepping on the white carpet that matched the white sectional, and white lacquered entertainment center. Even then I thought I had the bigger question to ask. I began to see him as obscenely unoriginal, uncolored. When I tried to think of him before falling asleep, I couldn’t picture him in my mind.

My mother was the first vegetarian I knew. I would come home from school to the aroma of parsnips and summer squash frying in garlic butter, artichoke hearts and goat cheese soufflé, ground apricot seeds spiced with fennel and thyme, a rich black roux and brown basmati rice. Root vegetables, she told me, ground
you in the ways of the earth and eating papayas makes you grow up wise like Athena. She knew the names of seventeen different kinds of beans, seventeen different colors. How to paint a room with the juice of one ripe beet. The secret was to juice it and then thicken the purple syrup with a little ground mint leaf.

For breakfast she ate creamy rice pudding with dates and pecans. She drank wild yam tea until noon when she switched to homemade plum wine with floating cranberries and lots of crushed ice. She taught me that drinking alcohol with crushed rainwater ice dissolved the toxicity of the drug and cleared your digestive system before dinner. Our house had the sweet smooth smell of garlic and mint dancing cheek to cheek to a Mel Torme medley, something you couldn’t help humming to even though you can’t remember the name of the tune. It also smelled, I have come to know, like a meatless house, lighter but more pungent with an unspeakable color mist on the kitchen walls.

As a child, my father carried a rifle for three years while he walked and watched my grandfather hunt grouse, geese, ducks, prairie chickens, wild turkeys, deer and rabbits. Barrel down, elbow bent, straight-ahead, march, turn slowly, and never shout. Then finally he earned the right to carry a bullet in his breast pocket for a year and then the fifth year of rising before dawn, following behind, he was allowed to fire, to kill for food. Division of labor was a tradition in his family. After the men shot it and the women cleaned and cooked it. Dark salty breast of duck or the gristly thigh of a grouse or deep red venison stew. All of these were home and goodness to my father. He never understood what people meant when they said, “It tastes a little too wild for me.” He smoked turkeys in the garage and roasted rabbits in the backyard in forty below zero temperatures. My mother let him eat meat in her house, just not cook it.

My memories of childhood mealtimes hold the tension of a presidential debate. “You do not have to ever eat anything with eyes, feelings and a spirit that is probably near us right now wondering why we hate it so.” “Try one bite of this neck. It’s the most tender part. People pay big money to be served this in a restaurant. Your ancestors all ate what they killed. It’s your heritage.”

Mostly I grew up on breakfast cereal. No living thing had sacrificed its life for my selfish belly, and even Dad ate shredded wheat with lots of brown sugar. Before I could read, I carried animal rights posters in lines in front of the state capitol, hoping no one would mention my down filled jacket. Sometimes, Dad would drive the kids home early so Mom could stay and get on the ten-o’clock news. We would drive through McDonald’s on our way out of town, sing along with the Mamas and Papas on the tape deck. We were California Dreaming as the steam from the cheeseburgers clouded our orange Volkswagen Van windows and blocked our view of the snow-covered prairie, wide and deep as any ocean we couldn’t imagine.

As a child I loved the incense and bells and beautiful glistening fabrics of the priest’s robes and altar cloths. Catholic was the faith of my father’s childhood. At his wake a woman told a story about a skinny six-year-old boy with black hair and eyes, walking slowly with his head down around the same church, kneeling, humming, saying the Stations of the Cross. This woman, square and stooped now, was a girl then and she approached the somber little boy with a secret. Don’t say all of it. Skip the main part. Then we can play. And the boy looked at her hurt or confused and said, but I love the main part. This little boy is my father.

He worshipped with a passion and dedication that left little time for attendance at college graduation speeches or grandchildren’s birthday parties. If he was absent from the events that marked his children’s passing lives, praying was what he did instead in relationships. Still that boy with black hair and eyes, walking the same aisle, bending his knees, chanting.

My mother became a Catholic several years into her marriage, after my older sister asked her why we couldn’t all go to church together like our neighbors the Erb family, who with their long hair wound around their heads, and their flat ugly shoes, marched out of their double-wide every Sunday morning looking like a true Jesus army.

So when I was eight, as a birthday present to my sister turning nine, we became a parade of long blonde hair, curled, clipped, then covered with white lace bobby pinned in place. To the Catholic Church of the sixties, girls were impure, not allowed on the altar, wrong from the beginning, us especially, an army of
five daughters with no son for my dad. Still my mother did not completely join “Mary's Team” as she called St. Leo’s Women’s Circle Number Five, that she was assigned to. Suddenly my gourmet, vegetarian mom was expected to bring soft macaroni and beef based food to funerals and weddings.

At home we still faced the sectional sofa to the east after she was ready for the babies to stop coming. We sprinkled rosewater on our beds during full moon and grew pots of thyme and rosemary for her to bury her diamonds and pearls in when there was an eclipse and over the summer and winter equinoxes. There were no rocking chairs allowed in the bedrooms and no one could wear pink after midnight. We lit candles on our grandparents’ graves on Christmas Eve. And we changed the words to the sign of the cross season to season.

“In the name of Maia, the spring is yours, may your magic keep us well, amen.”

“In the name of Isis, keeper of the day, the source of all love, fill us full, amen.”

Today I call myself a Mystical Pagan Catholic. I don’t see auras or care who I was in my past lives. I plant my root vegetables and potatoes on Good Friday. I sleep after Thanksgiving Dinner, drunk on tryptophan and my own homemade cranberry wine. I say the rosary when I am fighting off an anxiety attack. Sandalwood works too, but it makes me cry. The thick sweet smoke reminds me of my father loving the Stations and wondering why you would skip the main part. Adulthood stole his peaceful childhood patience, made him restless and angry in his thirties and disappointed and sarcastic in his sixties. He became pitiful to me, partly because I do not believe that angry prayer works and I cannot imagine him appealing to God out of anything but rage.

My home is an eclectic array of garage sale finds and gifts from well traveled friends, some liberal, some artists, two old boyfriends of mine, now lovers, who work the land next to my husband’s small grain and edible bean farm. My children’s rooms are full of color coordinated modular furniture, purchased from a mail order company. They sleep on bunk beds with built-in computer desks surrounded by toy boxes, of different sizes, filled with hotwheels, beanie babies, balls, paints, and construction paper. I buy them boxes of two hundred and four crayons, hues unimaginable to me when I was a child and thrilled with twenty-four, firecracker red, lapis blueberry blush, pumpkin bread pudding.

My mother died too young for me to witness the eldering of her faith, nearly twenty years before my father, before his meanness overtook him and shown through like the grain of all the wood he polished and sanded and painted, but could never completely hide. I like to imagine that had she become an old woman, she would have become even more sure of her place beside the hollyhocks and crocuses of this seamless, wide landscape. Toward the end of her short life, she became fascinated by how like the Pacific Ocean she was and how unlike the hairy human male. Still her love for my father, and his for her, has created in me an unwavering appreciation for the other, other places in the world, other ways of doing things. Together they showed their children that difference is not a reason for distance, but rather a chance to see yourself more clearly. They never changed to be like each other but they also never walked away, arms thrown in the air because they were “just so different.” Agreement and intimacy are not the same thing and I am thankful for that knowing.

When my father died, I was only relieved that he was finally free from his unending chore of praying for the unsaved, especially his five daughters, who still honor him with slivers under their fingernails and tuition bills to Catholic elementary schools. Holding the checks in the smoke of sweet jasmine incense ensures that the teaching only gets in so far, leaving much available for the goddesses to have for themselves.

My mother’s death is a terminal loss for me. I do not expect to ever get over it. She was weaving a scarf when she died, blues and purples and greens of every shade she could find in old women’s sewing kits she bought at auctions and estate sales. Made from the yarn of dead strangers, the scarf was enormously long and beautiful, with no clear beginning or end and no sign of being finished.

— Carol Kapaun Ratchenski

Trinity first appeared in Resurrecting Grace, an anthology published by Beacon Press.
woolly boys
Ken Promersberger is not your typical Hollywood movie mogul. No stretch limo, sunglasses or discernible suntan. He’s just sort of a down-to-earth North Dakota kind of guy, born and raised in Fargo, married for 34 years to his college sweetheart.

Yet just a couple of months ago, a bonafide Hollywood movie, the first one ever to be filmed in North Dakota, complete with major stars, was released to an enthusiastic audience. Prominently displayed among its credits was “Executive Producer — KEN PROMERSBERGER.”

How did that all happen to come about? Well, not surprisingly, it’s a moderately long, fairly complicated story.

You have probably had the experience of sitting through a movie you didn’t particularly care for. On such occasions you may have caught yourself thinking, you could make a movie, maybe even a better movie.

But, by the time you’ve hung around long enough to read several yards of credits at the end — the “best boy,” “key grip” (whatever that is), the “rattlesnake wrangler,” “personal assistant to Mr. Second Banana” and the crew that filmed part of it in Bosnia, you were forced to admit that making a major motion picture involves quite a bit more than simply having a good idea.

For starters: a fairly staggering amount of money — even for a so-called low-budget film; a sizable collection of probably over-paid, self-important, temperamental human beings; and a degree of managerial skill on a par with what it took Dwight D. Eisenhower to orchestrate the D-day invasion, not to mention roughly enough lawyers to populate a medium-sized North Dakota town. Those are just a few of the things it takes to pull off making a major motion picture in the hope of ending up with an acceptable product. And even at that point, it’s still a major gamble.

For those of us still in relatively full possession of our faculties, that would be enough to convince us it’s much too daunting a project on which to embark. Apparently not Ken Promersberger.

“It was back in the late 1980s,” he recalls. “I had this idea for a movie I couldn’t seem to get out of my head. It was a ‘whodunit’ (tentatively called ‘Second Rising,’) involving U.S./Japanese cultural and economic conflicts ... back when there was a lot of Japan bashing going on in America.”

As is often the case with wives, Ken’s wife and long-time business partner, Jan (Workman, a 1964 graduate of North Dakota State University), was getting tired of hearing about it. “Either do something about it or forget the whole idea!” she advised.

Luckily for Ken at the time, Minnesota had an independent film organization that put him in touch with a guy named Robert Schwartz. Schwartz knew his way around Hollywood and quite a bit about the nuts and bolts of film production and was willing to share that knowledge. He also had advice on how to go about dipping one’s toe into the maelstrom of Hollywood film production.

Enter James Playhar

Without going into elaborate detail, the Japan idea flopped. Just about the time he and Schwartz were putting finishing touches on the screenplay, well-known author Michael Crichton came out with a book about Japan titled “The Rising Son,” which trumped what they had thought was a good idea. But that minor bump in the road failed to dampen their enthusiasm for collaborating on a film.

NDSU alumni who attended Fargo’s Agassiz Junior High back in the 1960s will remember a classy director/composer of band music
for high schools named James Ployhar. Ployhar, it turned out, owned a screenplay about a 1917 dogsled race from Winnipeg to the St. Paul Winter Carnival (via Fargo and over some strangely situated mountains). The work of a veteran screenwriter John Michael Hayes, who had previously done scripts for “Rear Window” and “To Catch a Thief,” it appealed to Promersberger, who passed it on to Schwartz. With a bit of financial encouragement, Schwartz pitched it to the Disney organization, which filmed it (mostly in Duluth), and titled it “Iron Will.”

Most people who saw “Iron Will” liked it quite a lot. Unfortunately, the week of its premiere, New York City and much of New England went into a deep freeze, and California had an earthquake. Still, the movie did well at the box office and Ken’s career as a movie mogul was off to a running start. That’s roughly how the Hollywood phase of his career began.

These days, Ken and Jan’s day job, the Promersberger Company, an advertising agency with a professional staff of 12, operates out of a very un-Hollywood setting. Rocking Horse Farm, as they have named it, consists of a rather lonesome-looking office building, deliberately designed to have the outward appearance of a North Dakota barn and silo, located on 235 acres of a treeless, windswept, flat-as-a-pancake Red River Valley farmland on the southwest edge of Fargo.
Although its outside appearance is deceptive, Rocking Horse Farm’s principal structure (there are more in the plans for the years ahead) is actually a very classy, state-of-the-art office building, complete with a kitchen that produces daily batches of chocolate chip cookies and occasional lunches for office visitors and staff. Architect Terry Stroh, a 1980 graduate of NDSU, designed the place.

Now into the fourth decade of its existence, the Promersberger Company has a well-established reputation for handling major national accounts for construction and industrial equipment manufacturers, agricultural marketing firms (Mitsubishi Engines and Toro, for example) attested to by a wall of plaques and framed certificates representing honors the agency has won.

Of course it hasn’t always been like that. (We warned you this was going to get a little complicated). For roughly the first decade of their marriage/partnership, Ken and Jan’s lives followed a pattern that will have a familiar ring for many fellow baby boomers — two years in grad school, two kids, three years in the Air Force. Out of the service, Ken took a job doing publicity for a California home builder. They came back to Fargo in the 1970s. Ken helped his dad, Bill (long-time head of ag engineering at NDSU) build the family a Minnesota lake home, then built a speculation house in Fargo, which they lived in and used as an office until it was sold, a calendar year from the day it was finished. That sort of thing.

Looking back, Jan, a phy-ed major at NDSU, claims she doesn’t recall applying for the job that evolved into a full partnership in the advertising business with her spouse. With his involvement in the film and the Rocking Horse Farm development, she, according to Ken, “really runs the agency now.”

Operating their business out of an extra bedroom produced quite a few fond, and...
some not-so-fond, memories:

* Their sole initial office equipment inventory: an IBM Selectric Typewriter and a bag of nickels with which to feed the Xerox machine in the NDSU Library.

* Their bedroom/office, with clothes stored in a couple of Chiquita Banana boxes under the bed.

* Answering an insistent, early morning knock on the door in bathrobe, slippers and pajamas to be greeted by a toothy white-suited television advertising salesman.

It was a pretty hand-to-mouth operation in those days — helping someone design a sales brochure, doing part-time PR work for an architect, and launching Home Magazine, (with the help of Jim Bakken, ’71, and Marilyn Mathison Anstett, ’68) to promote F-M real estate, home construction and decorating.

Corporate headquarters for the magazine was a thin-walled structure in Fargo’s Industrial Park, directly under the flight path at Hector Airport and next to a heavily traveled set of railroad tracks. “Every time a Happy Hooligan decided to blow the soot out of his fighter jet, we had to give up trying to talk on the telephone,” Promersberger says. “My desk was a 4’ x 8’ sheet of exterior-grade plywood on a couple of sawhorses. It left snags across the front of all of my polyester pants. One time the building shook so hard when a train went by that an X-acto knife rolled off the drawing board of one of our hippie-type, barefoot designers and sliced into his foot.”

Although he had sampled engineering and architecture early in his academic career, Promersberger decided the business world beckoned more enticingly. Unfortunately, NDSU didn’t offer a major in business back then. His interest in the business aspects of mass communications was piqued by a part-time job in the university news bureau and one selling advertising for The Spectrum under his friend and classmate Dave Herstad, a 1963 graduate, who was the business manager. Fairly late in their undergraduate years, the two launched a syndicated clip-art service specifically targeted at college and university student newspapers. Although they got an encouraging response from quite a few papers, their enthusiasm for running the business waned as graduation neared. That’s pretty much how it all began.

It is now the mid-1980s. Things are going well at the Promersberger Company and Rocking Horse Farm. Perhaps it’s time to sit back and rest on one’s laurels. But, encouraged by the success of “Iron Will,” there is the nagging compulsion to consider making another film.

In 1993, again in partnership with Robert Schwartz, who became the film’s producer, the Promersbergers purchased an option on the
screenplay for “Wooly Boys.” A team of writers had done the first draft. Feeling it needed additional work, they hired a second screenplay-writing team to make some changes. Ken modestly admits to suggesting the inclusion of the teenage city boy character, and it’s a little hard to picture what the film would have been like without him.

“We spent three years on the creative aspect of it,” Promersberger says, “and four years coming up with the financing.” Total cost of the production runs to $4.1 million, a substantial amount of which came from 13 private investors, all but one of whom are North Dakotans, with further financial underwriting from the State Bank of North Dakota.

After nearly a decade of hard work and preparations, “Wooly Boys” was filmed in the North Dakota Badlands, in 27 working days, during October 2000.

Jan recalls thinking at the time, “It’s going to be sheer pandemonium out in Medora when all of those people show up.” Oddly enough, it wasn’t. Eighteen semis and a crew of more than 100 rolled into the tiny restored North Dakota town. “They all had jobs that they knew how to do. They went right to work and did them. It was amazingly well disciplined and organized.”

In a nutshell, “Wooly Boys” is a story about a pair of scruffy-looking sheep ranchers played by veteran Hollywood actors Peter Fonda and Kris Kristofferson and a young, “over-protected, over-programmed” (from growing up in the city) teenager played by 17-year-old Joe Mazzello (of Jurassic Park fame). Mazzello plays the Fonda character’s grandson. The plot pretty much involves a coming-of-age experience for the young guy in the company of his grizzled companions. A third Hollywood veteran, Keith Carradine, plays the local sheriff. Much of the film is beautifully photographed in the nearby North Dakota Badlands.

Because the interior of a real log cabin offers far too little space in which to shoot the interiors of a Hollywood movie, a replica was constructed in the gym of abandoned Fryburg High School. Art (’52) and Norene Bunker came to the rescue, providing for the construction costs. The former high school made a perfect mini film studio, with the producer taking over the principal’s office and classrooms providing dressing rooms and other needed space.

Both Ken and Jan had nothing but high praise for the film’s several stars. “They seemed to feel right at home in the Badlands. Fonda and Kristofferson were comfortable, seasoned performers.” Fonda later described the 17-year-old Mazzello as “the best actor in the bunch.” Veteran Hollywood director Leszek Burzynski and his crew captured the story and the beauty of the North Dakota Badlands with skill and sensitivity.

Promersberger is quick to acknowledge that “Wooly Boys” was never intended to be an art film, just, he hopes, “good entertainment,” that he describes as a “comedic, heartwarming adventure,” for which there is a market.

Initial reaction to the film’s debut was “beyond our wildest expectations.” It grossed nearly $10,000 per screen in five theaters across North Dakota and finished second highest among 106 films playing in America that week. The Minneapolis StarTribune gave it three of a possible four stars in its review, and box office numbers continued to hold up well during the second week (a rarity among Hollywood films).

At this writing, “Wooly Boys” had yet to be released to a national/international market, clearly the true test of its ultimate success.

Now that Cecil B. Promersberger has experienced both the joys and agonies of making a Hollywood film, are there other such projects in the works? Robert (Schwartz) and Promersberger own two other screenplays, and are looking at others. “The screenplay is what sells the project. Without a great screenplay, we never would have gotten talent of this caliber on either the cast or the crew.”

— Jerry Richardson
At first, Stephen Mascaro was too shy to buy his own adhesives for press-on fingernails. He had his wife pick them up for him. Then, on the day before Halloween, he felt bold enough to buy a pack himself. He went to his neighborhood drugstore, where he faced a bewildering array of fingernail cosmetics. He tried to act nonchalant when women passed by, while wondering to himself what they must think he’s up to. Finally, he found the right adhesives—one small personal breakthrough in his quest to help people suffering from arthritis or repetitive-motion injuries. Mascaro, a mechanical engineer involved in robotics research at North Dakota State University, is working to invent fingernail sensors that could operate a computer without the strain caused by a mouse or keyboard.

Overcoming minor embarrassment is only one of the unusual challenges Mascaro has confronted in pursuit of the light-reading sensors, which would be worn like press-on cosmetic nails. First, there was a bit of gore to contend with. When starting his research, he had to immerse himself in the anatomy of the human hand. That meant poring through medical books, a gruesome task for an engineer grown accustomed to bloodless mathematical formulas and computer models. Still, he counts himself lucky.

“It turns out there were all of these people who had studied the anatomy of fingertips,” says the assistant professor, who favored Legos and toy robots over playing with frogs while growing up in Nyack, N.Y. “There was plenty of gore for me from the pictures.” From the anatomy and physiology books, though, Mascaro gained the foundation to start work on a mechanical sensor model for measuring patterns created by blood flowing through fingertip capillaries. His aim, no simple feat, was to develop a device able to track pressure in order to sense movement in all three dimensions.

To do that, Mascaro had to collect loads of data charting finger movements and their corresponding blood-flow patterns—red when the tiny vessels fill with blood, white when the blood drains—that then could be translated into inputs traditionally provided by a keyboard or mouse. That meant asking friends—fellow engineering graduate students at MIT, where he earned his master’s and doctorate—to volunteer as finger models. The job wasn’t at all glamorous; it required mindless repetitions of bending and pushing their fingers, each movement creating its signature pattern. Tiny diodes in the sensors shine light down into the fingertip, and variations in the reflection of the light rays reveal the blood-flow pattern.

Mascaro toiled for countless hours before coming to an unhappy conclusion: He’d have to abandon his anatomically driven approach to estimate 3-D forces, and switch to a data-driven method. “It’s not that what I did was wasted,” he says. “It’s that that model would only take me so far.” And the work did yield helpful insights. For one thing, it turns out that people with all sorts of finger sizes make uniform capillary patterns. That observation enabled him to pinpoint where to put his sensors. Along the way he solved other problems. He had to paint his fingertip attachments with an opaque black coating to block out extraneous light that was confusing his sensors—and in doing so added a Goth fashion flair to his creation. Now he’s working on a calibration method based on data and mathematical formulas—algorithms to the rescue—and figures he’s at least a couple of years from having it perfected.

Still, the fingernail sensors already have attracted attention from the robotics industry. Last fall, Mascaro and his MIT mentor, Harry Asada, demonstrated the device at a robotics show in Las Vegas. Robotics, in fact, provided the original inspiration for the fingernail sensors, first seen as a novel way to control robots. “People have been following my work for a few years now,” says Mascaro, who came to NDSU last fall. “Everybody acknowledges that it’s a very novel device but they’re waiting to see if I can translate it into a computer mouse that’s reliable.”

So far, he can get his sensors to easily control one dimension. Once he can get them to control two dimensions, plus devise a clicking mechanism, he’ll have the rudiments of a mouse. For now, his sensors are attached
to a computer by wires, but Mascaro envisions wireless
communications could be used for cell phones and other
devices with small control panels. “You could turn virtu-
ally any surface into a virtual keyboard,” he says.

Some day. But lately another project has been
demanding most of Mascaro’s time in the lab. He’s try-
ing to make artificial muscles to operate robots and
other machines. With help from a graduate student,
Mascaro is experimenting with an alloy that remem-
ers its shape. Unlike most metals, nickel titanium
contracts when heated. To make the alloy act like a
muscle, Mascaro is taking his cues from Mother Nature.
He’s trying to mimic the body’s circulatory system
by devising a system of wires within tubes that carry
water. Varying the water temperature can make the
wires expand and contract – much like a muscle that
flexes and relaxes. In a laboratory, Mascaro and Les
Flemming, a graduate mechanical engineering student,
are experimenting with an apparatus of 16 tube-encased
wires hooked up to valves and switches – basically
a crude mechanical bicep on a workbench.

When electricity passes through the wire it contracts
from heat, “remembering” its previous shape; then,
when cool water is pumped through the tube, the wire
expands. Just like a muscle at work or rest. But difficult
challenges confront Mascaro and Flemming. One is to
improve the energy-efficiency of the process. Another is
that nickel titanium, though quite flexible for a metal,
only expands or contracts by 4 percent of its original
length, a capability called “stroke.” Also, after thou-
ousands of repeated manipulations, the wires can break.
Because of that, Mascaro believes shape-memory alloys
will be stopgap materials that eventually will be replaced
by special polymers. Researchers are developing poly-
mers with 10-percent “stroke,” but lots of work remains.

One of the trickiest challenges is to devise a nervous
system that would operate the array of muscle strands –
control software to handle the staggering combinations
of coordinated valve and switch inputs that will be
required to make the wires work smoothly together like
muscles. That’s an area that Flemming, who has a back-
ground in computer control systems, is working on.
“It’s a lot of little questions you need to ask,” Flemming
says of his programming task. Three pounds of force
or half a pound? Six inches of “stroke” or two inches?
The software must be programmed to consider all the
possible inputs, and outputs. They’re daunting chal-

genues, but the concept holds real promise. Fluid helps
the wires cool much faster, allowing them to change
shape in a little more than a tenth of a second – signifi-
cantly faster than earlier systems. Someday, it seems
clear, gadgets will move with artificial muscles.

“I haven’t focused too much on applications,”
Mascaro says. “This is sort of exploratory work. I’m
just interested in trying something new and doing some-
thing nobody’s done before. Nobody’s really tried to
create robots with a vascular system before.”

Robots, meanwhile, are becoming more advanced,
even for the consumer market. Earlier this year, Honda
demonstrated a humanoid robot that can walk up a
flight of stairs, move its arms and balance on one foot.
Sony now makes toy robots, including small pet dogs,
that require relatively bulky motor “actuators” to make
their limbs move. The machines would be even more
lifelike with artificial muscles. “Imagine what we could
do if we had these kind of actuators,” Mascaro says,
gesturing to the twitching prototype on his lab bench.

Well, maybe it won’t soon be the forerunner of
a Doberman. “A smaller dog,” he allows, “probably
not faster.”

Forget fido. Ultimately, the big customer will be the
Pentagon. The Defense Department already is asking
scientists to build prototype robots that can crawl,
jump, even fly, with the goal of replacing human sol-
diers in hazardous situations. Who knows? Maybe
artificial muscles will help hunt down some future
Osama Bin Laden. “People are working on robots that
will go into caves, search out terrorists,” Mascaro says.

But early applications of the artificial muscles are
apt to be both more peaceful and more ordinary. One
possibility: replacing the embedded motors in adjust-
able car seats. Cars are especially well suited, because
their engines generate lots of waste heat that could be
used to heat water to make the wires contract. Then,
as the technologies improve, moveable car seats will
evolves into beefy, more lifelike robots. How far down
the road are robots powered by artificial muscles – five
years? Ten? Fifteen? Mascaro, the cautious engineer,
shies away from making any bold predictions. “I don’t
want to stake my reputation on anything,” he says
of prognostications. “I just want to see how it goes.”
Meanwhile, when time permits, he’ll return to his fin-
gernail sensor project. He’s already dreading his next
trip to the drugstore.
My life lesson has certainly been that anything is possible. I think it’s so trite and you hear so many people say it but it’s true. Whatever you set your mind to you just go and do it. I think that’s a wonderful thing about our country. I came to the United States when I was a boy — 12 years old — and so it was not a foregone conclusion that anything is possible.

My father was an electrician so his whole life had been working with his hands and he was determined that we would all have the opportunity for an education. Having the opportunity to study the things I wanted to study and the things that I liked was important. That just led to things.

I learned very early in my career about the importance of business aspects, customers, financial aspects of the business, so after about 10 years on the engineering side I started getting involved in other aspects.

Whenever anyone asks me I say I’m an engineer, but I don’t think I could earn a living doing engineering any more. It’s an intensely satisfying feeling to be able to grow a company and have it grow into an image that you have for it and to be successful.

I see really three major things that should come out of our collaboration with North Dakota State University. First and foremost we have a very active research partnership that’s already underway. The second thing we hope to do is to help to build around that an RFID hub here at NDSU and the reason that’s important is because just like in any industry there’s an ecosystem of different types of technologies that need to go around. And the third is very important for us from a financial point of view and that’s to build a world class manufacturing center here to make billions of these RFID tags and really become to RFID what Silicon Valley became to the chip world.

We had members of our management team that were actually very interested to come up here and get involved in the project so we’ll be able to have a team here that will kind of pull the activity that we have in Morgan Hill and bring it to Fargo.

One of the things that I think could be a really nice benefit of all this would be to have some of the alums who’ve moved away because the right kinds of jobs weren’t available for them here to come back and say okay I want to work in a technology company and here’s a technology company in Fargo.

The reasons that Wal-Mart or Target sell at very low prices is because they’ve used information technology as a way to reduce their costs and pass that on to consumers. But now this becomes more than just a lower cost way for consumers to get their goods. With RFID you can now assure freshness of the product. You can assure safety of the pharmaceuticals you are taking. You can assume that baggage has not been tampered with so there’s homeland security applications.

You can’t do this if these devices cost tens of dollars each — which is what it costs today — or even down to a dollar. It has to be pennies or even a penny for being able to do these things so that in a typical home you might have several hundred of these things and the cost of that is still $5. And that just makes them absolutely ubiquitous.

We constantly hear from people ideas of how to use this technology and I think it’s going to be as varied and exciting a mix of applications as the computer has become.

RFID is really no more, no less of a privacy concern than the other things that we have to face every day today. You still have to have a trusted commercial party that you are dealing with.

I’ve already put www.gobison.com on my favorites at work.

I’m a very competitive person, not so much to kill the other guys so much as a competitive feeling to succeed and do well. That’s sort of built into my character, and our company. We all feel like we’re going to be winners.
FROM GATE
The meter starts running on a North Dakota cow-calf operator the moment a calf draws its first breath, bawling for mother’s milk. The numbers game begins even before that, from the time he selects his breeding stock, and continues beyond the day a U.S. Department of Agriculture inspector slaps a grade to his beef on the rail.

Did he select cows and bulls with the right genetics to make premium grade? How much will he put into that calf, both in feed and veterinary care, before it reaches 600-800 pounds and is ready for finishing in the feedlot? How many calves will he lose to weather, disease or predation before it’s time to sell? How much will it cost to transport each calf to a feedlot in Colorado, Kansas or Nebraska?

In today’s scheme, North Dakota’s cow-calf operator stands on the bottom rung of the beef processing profit ladder. From gate to plate, as they say in the industry, his calf will travel thousands of miles, crisscrossing the nation at considerable expense. It will be sold at least three times, maybe as many as five, to brokers, feedlot operators, big meat processors, diverse markets and, finally, consumers.

All the way down the line those people are taking another slice of the pie. Even at a modest 3 percent commission on every sale, that’s 9 to 15 percent gain on the cow-calf operator’s sweat and toil that he’ll never see. Guys who have been raising cattle here for decades sometimes have to tip back their hats, scratch their heads and wonder – just who’s getting slaughtered here, anyway?

There’s only one way to move up the ladder, to take a bigger share of that choice final cut. Get smarter.

TO PLATE

A new North Dakota Beef Systems Center of Excellence is being designed to help cow-calf operators do just that. In the process it also could improve food quality and safety, help educate North Dakota State University undergraduate and graduate students, create jobs in rural North Dakota and, just maybe, revolutionize the entire beef industry.

SMALL OPERATOR, SMALL PROCESSOR, HUGE OPPORTUNITY

The Beef Systems Center of Excellence will be a small-scale beef processing and fabricating facility, located close to the NDSU campus, that can handle about 40 head a day. It’s being designed as a living laboratory and ready market for North Dakota cow-calf operators’ cattle. More than that, it will be a one-of-a-kind facility that links the private beef processing business with teaching and research. Many land-grant colleges across the country have a food or meat science emphasis, but none has a comparable facility, a commercial plant that also serves educational needs.

NDSU researchers and students at the center will focus on innovations ranging from genetics to range and feedlot management, nutritional regimens to slaughter processing and fabrication. Research goals will be to discover optimum carcass traits for specific markets and improve quality and safety associated with beef products.

Wade Moser, executive vice president of the N.D. Stockmen’s Association, says an effort to develop this kind of knowledge has been a long time coming. “No matter what we do on the ranch – feeding trials, grasslands work, genetics, the whole thing – we end up putting that product on a meat shelf somewhere and hoping consumers buy it. We use management techniques and ship our cattle out, but we really don’t know how what we’re doing on the ranch impacts beef quality.”

The center also will add a fourth core area of research expertise to the Department of Animal and Range Sciences so it can better prepare students for the real world, where food quality and safety reign. Currently, the department has three strengths: beef cattle or ruminant nutrition, reproductive physiology, and range science or range management. With the opportunities created at the Beef Systems Center of Excellence, meat science will be the fourth.

“We have the research and extension capabilities to tell you how to feed ’em, how to breed ’em and how to grow the grass. But when it comes to that animal heading for a slaughter facility, we don’t have enough expertise in that area yet,” said Greg Lardy,
associate professor of animal and range sciences and Extension Service beef specialist. “We need this facility to take the North Dakota beef industry to the next echelon.”

To take that next step, a group led by the Department of Animal and Range Sciences and the North Dakota Association of Rural Electric Cooperatives (RECs) is taking advantage of funding from the 2002 Farm Bill, which authorized rural development grants for Agricultural Innovation Demonstration Centers across the country. North Dakota was one of the first states to be awarded a grant. It created the new NDSU Agricultural Innovation Demonstration Center, which is helping to fund the NDSU Beef Systems Center of Excellence.

**BACKGROUNDING** - THE CONFINED FEEDING OF CALVES FOLLOWING WEANING TO PREPARE THEM TO BE PUT ON A FINISHING RATION AT A FEEDLOT.

North Dakota has a strong history of agricultural innovation. In a state where agriculture’s economic role is five times as large as it is nationwide, adding value to agricultural products isn’t just logical, it’s necessary. Depending on the year, for producers it might not even be about growth, but economic survival.

Cooperative ventures like American Crystal Sugar, which has been operating for decades and is a major player in the sugar industry, and the Dakota Growers Pasta Cooperative (now Dakota Growers Pasta Co.) are just a couple of examples of North Dakotans pooling their knowledge equity, financial resources and hard work to add value to products grown here.

In beef cattle, the legacy of innovation dates as far back as 1883, when the Marquis de Mores set out to build a beef-processing empire in the Badlands of what is now western North Dakota. By bringing the processing facility to the range, the Marquis surmised, he could cut out the middlemen from Dakota Territory to East Coast markets. Not only would his system put more money in his and cow-calf operators’ pockets, but it also would lower costs for consumers.

The Marquis didn’t make it (see sidebar), but every good idea has its time, especially if it encompasses broader, more laudable goals than amassing a personal fortune.

For decades ranchers and economic developers have kicked around the idea of processing beef in North Dakota to help cow-calf producers move further along the profit food chain. In 1991, a group of them initiated action, and they formed Northern Plains Premium Beef in 1995.

The first equity drive for Northern Plains netted commitments for 500,000 cattle at $1 a head from ranchers in five states and two Canadian provinces. The plan was to build two plants with capacities of 250,000 head annually. When that failed, Northern Plains launched a second equity drive and began planning for a 400,000 head a year slaughtering plant in Belle Fourche, S.D.

But it wasn’t enough. Opinions vary on what caused Northern Plains’ demise. There were questions related to the timeliness of a USDA system that was supposed to help producers buy shares, varying opinions on how many plants there should be and their capacities, and other issues. In the final analysis, the winter of ’96-’97 probably killed it. Much of the Upper Midwest had record snowfalls that year, with blizzards raging through the plains with frequency and ferocity.

“People who had committed cattle to the project lost a lot of them,” said Paul Berg, associate professor, animal breeder and geneticist in the Department of Animal and Range Sciences and former Northern Plains adviser. “All of a sudden, instead of being a successful cattleman, you’re struggling for existence. They didn’t want to spend the money.”

**FINISHING** — ADDING ANOTHER 400-500 POUNDS TO COWS THROUGH A HIGH-CONCENTRATE DIET, FROM GRAINS LIKE CORN OR BARLEY, TO TAKE THEM TO SLAUGHTER WEIGHT, USUALLY 1,250-1,300 POUNDS.

Northern Plains was dead, but Berg wasn’t ready to let the core idea die with it. Two years ago he had an even better idea. “I said we should look at an incubator system,” he said. “We learned from Northern Plains, where we should have been talking about a small pilot plant and building from there with a lot of little plants across the state.”

Not only would the plant provide a ready market for North Dakota cattlemen that cut out many of the middlemen; it would provide data they need for improving breeding and management strategies to produce higher quality beef. The facility also would
Antoine-Adédée-Marie-Vincent-Amat Manca de Vallombrosa – **THE MARQUIS DE MORÈS** – arrived by rail at the Little Missouri River in Dakota Territory in late April 1883. He pitched a tent on the east bank, broke a bottle of wine and christened his chosen spot Medora for his new bride. Then he set out to build a meat-packing and shipping empire.

The flashy, titled and aristocratic Frenchman could have settled into luxury in his homeland or his wife’s native New York, but that wasn’t enough for the Marquis. The entrepreneurial 25-year-old yearned for the untamed adventure and financial potential of the West.

The Marquis had heard the stories of easy money to be made in cattle in the Midwest, where bountiful grass waved in expansive, open rangeland. Recent innovations in the meat-packing industry further piqued his interest and imagination.

The Marquis was prepared to improve on Chicago meatpacker Gustavus Swift’s pioneering method for slaughtering cattle and shipping dressed meat to profitable markets on the East Coast. In his book, “The Marquis de Morès: Dakota Capitalist, French Nationalist,” North Dakota historian D. Jerome Tweton wrote that in 1877 Swift “…converted boxcars into beef carriers by installing a framework on which meat hooks were mounted. Leaving car doors open for ventilation, he shipped his beef on the Grand Trunk to New England.” Since the cars were not iced, Swift’s method only worked during the winter. He next contracted with a Michigan company to build refrigerated cars. “The Marquis carried Swift’s thinking one step further,” wrote Tweton. “If it were possible and more profitable to ship dressed beef from Chicago packing plants to the East by refrigerator car than to drive or ship cattle alive, why not slaughter and dress beef right on the range.”

When he arrived in Dakota, the Marquis saw unlimited potential. Good grazing land for fattening cattle was abundant, and water, ice and fuel were close at hand. Ample game for hunting in the rugged Badlands provided diversion for the Marquis and his equally adventurous wife, Medora, daughter of successful Wall Street banker Louis A. von Hoffman.

With financial backing from his father-in-law and other investors, including an executive with the Northern Pacific Railroad, de Morès formed the Northern Pacific Refrigerator Car Company. He acquired 15,000 acres along the Little Missouri and built a plant that began slaughtering in October. The Marquis believed he could process “150 beeves per day,” but slaughtering began on a limited scale of only about 50 per day.

He was not to be deterred. The Marquis began plans for additional slaughter houses and icehouses in southern Dakota, Montana and Minnesota. He quickly started several additional enterprises, including the shipping of salmon from Oregon to New York by rail and the founding of the Medora Stage and Forwarding Company, which ran from Medora to Deadwood.

With the activity and opportunity surrounding the plant, Medora had 251 permanent residents by the end of 1884. There were three hotels, a church, a dozen stores, a brick yard and a newspaper, *The Badlands Cowboy*. But by June 1885, the Marquis’ meat-packing venture faced serious challenges.

One problem was the failure of local marketing. Another was how to get fat steers to butcher all year when range cattle were at their best only in the fall. Still another was that East Coast consumers preferred corn-fed beef. Finally, the big packers of Chicago got better rates from the railroads. The Medora plant ceased operations in November 1886.

Estimates of de Morès’ losses in Dakota ranged from $300,000 to $1.5 million. “The Marquis’ interests were too varied, and his knowledge of the business was too scant to effect a viable organization,” concluded Tweton.

In 1887 the Marquis returned to France. The following year he went tiger hunting in India and promoted an Indo-Chinese railroad. He became embroiled in bitter political controversy in his native country, but continued his adventures around the world. In 1896, at the age of 38, he was murdered in the North African desert.

The Marquis de Morès left an indelible mark where his ideas crumbled into the red Badlands dust. Medora is one of North Dakota’s premier tourist attractions, where on the west edge of town travelers can stand at the base of a towering smokestack, one of the few remaining remnants of his meat-packing dream.
improve tracking and accountability for addressing food safety and quality issues, serve as a research and educational facility for NDSU students and faculty, and provide economic data that others need to obtain financing for small processing plants across the state.

“For business planning purposes, there really isn’t any efficiency data out there on what small plants can actually do,” Lardy said. “What does it cost to run them? What are the labor costs, equipment costs, and utility costs? You need those answers if you’re asking a banker to finance a smaller plant.”

With Sen. Bill Bowman, R-Bowman, leading the effort, the North Dakota Legislature passed a bill in its most recent session that provided $800,000 for a Beef Systems Center of Excellence. To access those funds, organizers were required to first raise at least $1 million in private plus $1 million in federal dollars.

The federal Agricultural Innovation Demonstration program provided the perfect springboard for the plan, as well as the potential for the necessary $1 million in federal money. Shortly after passage of the federal Farm Bill, U.S. Sen. Kent Conrad, D-N.D., organized a meeting that included NDSU, the RECs, and North Dakota’s farm organizations and commodity groups. That meeting led to the state’s proposal for a USDA rural development grant.

“We all agreed that if this program is going to be up and running across the country, let North Dakota be one of the first,” said Scott Stofferahn, Conrad’s deputy state director. “There are a lot of things we hope will come out of this, in terms of food safety and processing, that we think have the potential to revolutionize the beef industry.”

**BRINGING MORE TO THE TABLE**

Organizers are well on their way to raising the money. The next steps will be to complete a design for the plant, secure a location and enter into an agreement with a private plant operator.

“We envision this coming together as a public-private partnership, very much like what Phoenix International or Alien Technologies have with the university,” said Lardy. “We don’t have a desire to be in the business of marketing meat products, but we’d sure like to be involved in teaching our students how to do that.”

Organizers are working to complete a design with a firm in New Zealand that specializes in small processing plants. Berg says the New Zealand system has two major advantages over the current North American system. First, it’s extreme cleanliness, with residual carcass bacterial counts of one-tenth typically found in the United States. Second, New Zealand has been able to achieve 35 to 40 percent increased production per worker. High efficiencies come from plant design, training and worker retention.

With the efficiencies created, data collected and knowledge developed, the center will be able to achieve all three of its broad objectives related to education, research and economic development.

The facility will employ 20-25 people at an average annual salary of $40,000. Information collected at the center will make other small plants in the Velvas, Hettingers and Bowmans of North Dakota possible, multiplying those figures in rural economic development gains.

“We need to see how small and efficient we can make a plant and have it be profitable,” said Berg. “Then, if we can do a 10,000-head-a-year plant and have five or six of them around the state, we will have actually created more jobs, benefited more localities than one big plant stuck out in the corner of the area somewhere. That’s what we’re after.”

Feedlots needed to sustain these plants will be able to use agricultural byproducts from sugarbeet, wheat and ethanol processing for feed. On the other end of the spectrum, byproducts from beef processing could add even more value to the state economy. For example, hides might be used to further develop the leather industry in North Dakota.

There are also positives related to decentralization of food processing. While a terrorist might be able to infiltrate a large processing facility to spread an organism or agent to affect immense volumes of food product, a smaller, decentralized facility – where everybody knows everybody else – offers security advantages. There might be an opportunity, then, to tap into federal homeland security funds.

The Beef Systems Center of Excellence is about more than meat science or the final product, Lardy says. It’s about developing knowledge and capturing profit through the entire beef industry continuum. From farm to fork, if the organizers’ vision is realized, everyone in North Dakota will benefit.

“We’re discovering things every day, not just here at NDSU but across the country, about how management and genetics interact to produce either a higher- or lower-quality product,” said Lardy. “With this facility, there will be unique things we can explore all along the chain that will play a role in how well a consumer enjoys a steak when it ultimately gets to their plate.”

— Martin Fredricks
COOLER THAN COOL

NDSU GEOLOGIST JOURNEYS TO ANTARCTICA
It was summer in that part of the world, so temperatures hovered near 20 degrees below zero and winds gusted to 50 miles per hour. The rich blue of the sky blended with a similar blue of the glacial ice; the starkness of the 24-hour sunlight made the horizon difficult to discern.

For more than three weeks in November and December, a team conducted field research in a place called the Oliver Bluffs, a desolate scene of icy rocks and snow about 300 miles from the South Pole.

Allan Ashworth, professor and chair of geosciences at North Dakota State University, is back in his Stevens Hall laboratory, warm and safe as he tells his story of the bitter, numbing cold of Antarctica.

“It really is a magical place,” he says. “With the mountains, the ice — you can’t help but feel awed.”

OPERATION DEEPFREEZE GIVES A RIDE.

Ashworth, who had conducted research in Antarctica once before, was team leader for this expedition. Group members included Jane Francis, a fossil wood specialist from the University of Leeds, United Kingdom; David Cantrill, a senior curator of paleo-botany at the Swedish Natural History Museum, Stockholm; stratigrapher Steve Roof of Hampshire College in Massachusetts; and mountaineer Forrest McCarthy, Jackson Hole, Wyo. Explosives specialist Marty Reed, also from Wyoming, joined the team for five days while the research was being conducted.

The team met in Christchurch, New Zealand. Internationally known as the “Garden City,” Christchurch has extensive parks and public flower gardens. Noted for its bright colors, the community of more than 300,000 residents is a contrast as the jumping-off point for Operation Deepfreeze, a joint effort by the U.S. Air Force and New Zealand Air Force to supply the interior of the frozen continent of Antarctica. This provided transportation for the first leg of the trip to the research site.

At the International Antarctic Centre in Christchurch, the researchers were equipped with extreme cold weather gear from long underwear to down parkas. “The rules are that you have to fly in survival gear, just in case something bad would happen on the way down. At least you might have a chance if you are in survival gear,” Ashworth says.
After some basic survival training, the team boarded a U.S. Air Force C-141 aircraft and set out on the five-hour flight to the Antarctic coastal supply town of McMurdo Station.

The 168-foot long cargo plane has four powerful Pratt and Whitney engines and a cruising speed of 500 miles per hour. It has few frills. “We were jammed in like sardines, in webbing seats. It was miserably cold,” Ashworth says. “It is so loud that the crew shouts messages to you.”

On this flight over forbidding seas, there is a spot called the point of no return. This is where the pilots must communicate with “Mac Ops” to see if there is a blizzard at McMurdo. They must determine if the weather conditions will allow a landing on the eight-foot thick sea ice runway. If not, they need to save enough fuel to return to Christchurch.

As it neared that point, the massive plane began a slow turn. After more than two hours in the air, the C-141 returned to Christchurch because of a mechanical problem. “We flew for five hours and ended up in the spot we started,” Ashworth says, recalling his disappointment. “But, sometimes that’s the way things are.”

Two hours to transfer materials to another C-141 and they were back in the air again. “The flight down was a bit traumatic,” Ashworth remembers of the daylong effort to reach McMurdo. “But this time, when we got past the point of no return, I said, ‘Great. We’re going in.’ ”

AN ANTARCTIC WELCOME

McMurdo Station is a town primarily operated by the National Science Foundation. Located at 77 degrees 51 minutes south, 166 degrees 40 minutes east, it is the largest Antarctic station. Established in 1955, it serves as a supply base for expeditions into the continent’s interior. The community has about 85 buildings, each dedicated to specific tasks. There are dormitories, machine shops, a building for tents, another is stockpiled with food, still another is filled with camping supplies and radios.

McMurdo’s Web site boasts it’s “the solid ground farthest south that is accessible by ship.” But even in this cold, lonely location, the world is a small place.

“One evening in McMurdo, we are having a meal, and I hear a voice calling, ‘Hey, Dr. Ashworth, how are you doing?’ ” It was NDSU alumnus Brandon Burmeister, a 2001 architecture graduate who had decided to spend a season working in one of the station’s machine shops. “Strange, isn’t it? Here I am, almost at the end of the earth, and I run into a former student. That was fun.”

McMurdo is the place to prepare for what’s coming. Because Antarctica can be such a dangerous place, expeditions are required to go through a survival school. A shake-down camping trip is necessary to make sure everything is in working order, from the tents to the communication equipment to the scientists themselves.

On their way out of McMurdo for their test run, the team passed a hut built by Capt. Robert Scott in 1911, when he attempted to lead the first expedition to the South Pole. The perfectly preserved frozen structure is reminder of the peril scientists face. “They failed to be the first,” Ashworth says as he looks at a photograph he took of the historic site. “When Scott got to the pole, he found a Norwegian flag. Roald Amundsen had beaten him. On the way back, the five members of the Scott party who made it to the pole all died. It is a tragic tale of polar exploration.

“When you go out in the field and you know the history of Antarctica, somewhere in your mind you are thinking about it, what the early explorers went through,” says Ashworth. “This is serious business.”

The team made survival school camp on Backdoor Bay at Cape Royds, in a place where Mt. Erebus, an active volcano, dominates the skyline. Magnificent glaciers flow off its slopes, frozen into the sea ice. Nearby is Ernest Shakelton’s tiny cabin, left over from his 1907 expedition that nearly reached the pole. Here, too, frozen artifacts like old laboratory apparatus, skis and food canisters, keep history alive.

“They were involved in science as well as exploration. They were geologists, biologists and climatologists,” Ashworth says. “The conditions under which they operated were much more difficult than anything we faced. Their clothing was nowhere near the quality we had. These guys were really tough.”

With a backdrop of the Royal Society Range and the frozen Ross Sea, the team pitched tents. Next, they decided to explore the water’s edge and climbed down onto the
sea ice. “I was in another world, looking all around at the mountains and the sea ice. It is absolutely quiet, an incredibly tranquil place. “Suddenly, penguins start popping up. Bingo, we were surrounded,” Ashworth laughs. Dozens and dozens of Adelie and Emperor penguins had decided to welcome them.

A major Adelie penguin rookery was a short distance away, where humans are not allowed to disturb the birds’ habitat. Humans are not allowed to cross the boundary. “The penguins, however, don’t obey it. They come right out and check you out,” Ashworth says. “They cut right across the line, hugely curious. They come wandering up to you to see what’s going on.”

And as abruptly as the creatures appeared, they were gone. “It was like they all thought, ‘Well, there’s not much to that lot,’ and they all just wondered off,” Ashworth says. “That day was a ‘top five days of your life’ event. It was a gigantic treat, a bonus, because where we were going, there is no life.”

DESTINATION: OLIVER BLUFFS

The Oliver Bluffs are steep cliffs, 250 to 300 feet in height, located on the upper Beardmore Glacier within sight of the Polar Plateau. Composed of ancient glacial deposits, it is not a pleasant place. Even in summer, temperatures are 20 to 30 degrees below zero, and there are perpetual gusty winds that can surpass 50 miles per hour.

That was the ultimate destination. It would still be a difficult task to get there. It started with several tons of food, camping gear and scientific equipment packed on pallets. The crew took a Hercules cargo plane from McMurdo to Bowden Neve on the Lennox Glacier about 100 miles from the Oliver Bluffs.

Unbeknownst to Ashworth, the military flight crew had been ordered to do what is called a “quick drop” of the team’s gear, just for practice. “The noise is so loud I can hardly hear that a crew member is yelling at me to get up out of my seat and stand to the side,” Ashworth says. “Underneath my webbing seat is a lever. He pulls it, and the whole back end of the Hercules seems to fall off. “I thought, ‘My God, what’s going on?’

As the plane skidded on the glacier landing strip, the crew member had released the pallets down tracks inside of the Hercules. “They were actually flying out the back of the plane as it is still cruising down the runway.”

“They released the pallets too early, so they were miles down the glacier from where they should have been. The guys from the Bowden Neve camp went out with a tractor to retrieve our gear, and they weren’t too happy. It was an interesting drop.”

From there, a Twin Otter plane provided transportation for the dangerous last leg of the trip to the Oliver Bluffs. The gusty winds make flying nearly impossible, and after nearly breaking a ski on landing, the crew announced that they did not want to land there again. That news lingered in Ashworth’s mind for the next three-and-a-half weeks.

EXPLORING, RESEARCHING AND SURVIVING

Ashworth’s team made camp on the edge of the glacier on what was once a small glacial lake — a bed of ice covered with about 2 inches of till. It is a miserable place, and the gusting winds made it difficult to stake down tents.

“It wasn’t the best place to camp. Nobody on our team would ever camp there again,” Ashworth says. The small collection of yellow two-person polar tents and a kitchen tent would be home for nearly a month.

Living in the Antarctic interior is a matter of adapting to incredibly harsh conditions. For instance, the 24-hour sun means that even in the bitter cold there is a need to lather up with sunscreen to protect oneself from ultra-violet rays. “The trouble is, you can’t get the stuff out of the tube. Everything is frozen.” The solution: put the tube, along with your toothpaste, in your sleeping bag. Each morning, the creams are thawed out enough to use.

Keeping clean can be a bit of a hassle, too. Remembering his previous experience on the continent, Ashworth had brought along some packages of baby wipes. “The packages were like bricks; they froze solid. You could have built an igloo out of them.” The solution: use a clothespin to hang a package in the kitchen tent. Cooking provides just enough heat to thaw the wipes. “You can’t really wash. But because of the cold, there’s not much perspiration and there are no bacteria, so it doesn’t get too smelly,” Ashworth says.

Sleeping in a frigid tent is no treat. Each team member had a cot, covered with a half-inch foam pad. Then a thin air mattress, wool sleeping bag liner and a down
sleeping bag. Everyone slept fully clothed. Because of the condensation of breath inside the tents, layers would freeze together. The solution: there was none. This is, after all, Antarctica.

In this harshest of environments, Ashworth’s research team had important work to do. Each day, they would climb the steep bluffs, searching for fossils and surveying the area. Their task was to work out a detailed glacial history, to look for signs in the rocks of the glacier advancing and retreating through the millennia. They used a combination of dynamite, rock hammers and chisels to liberate the fossil samples.

Some fossils had been found by previous expeditions. Ashworth’s team went to find new fossil sites and provide details of the stratigraphy.

“We located an incredible bed of fossil leaves, with spectacular preservation,” he says. It provides a clear picture of the ancient environment. The leaves were from shrubs named Nothofagus or “southern beech.” Its modern descendents now grow in the southern tip of South America and the mountain forests of Tasmania and New Zealand.

The plants at the Oliver Bluffs had probably survived around the edges of Antarctica for millions of years since the breakup of Gondwana. Gondwana was a super-continent that consisted of all the existing continental masses of the southern hemisphere. It began to break up about 80 million years ago.

“We think the plants were growing in a tundra-like environment. Eventually, as the great ice sheets of today developed, the climatic conditions in Antarctica became far too severe for plants. All organisms larger than those inhabiting pore spaces in soils became extinct on the continent.”

The fossils are estimated to be 3 million to 17 million years old. Their remains in the rocks provide a picture of a very different place than the Antarctica of today. “It was warm enough that when the glacier retreated, tundra plants, insects and mollusks migrated inland from the Ross Ice Sea.”

The team also found fossils of cushion plants. “One of them is an amazing fossil,” Ashworth says. “Whenever the moss was buried by glacial outwash, it would push up a growing shoot and then grow a new plant. This process would go on and on and on. It’s incredible how resilient the plant was.”

And there was something else.

“Previous expeditions this far south did not find any evidence for life. But we found evidence that at some time, perhaps a thousand or several thousand years ago, our campsite had been a lake,” Ashworth says. “We found evidence of blue-green algae. That’s exciting.”

In all, they collected two tons of rocks containing fossils, which should arrive at the NDSU campus in April for further inspection and study.

The field research was complete.

**GOING HOME**

The Twin Otter crew had been serious; by radio, they refused to land near the camp. Ashworth’s group needed to make other arrangements. “I guess I wasn’t overly concerned,” Ashworth says. “The National Science Foundation couldn’t just leave us out there, would they?”

When the day came to depart, two helicopters braved the winds to sling-hook the team’s gear and samples. With daring flying, the team and all its camping gear and rock boxes were moved to a location about 10 miles from the bluffs, where the wind still howled at 50 miles per hour. At least it was a constant 50 miles per hour.

The Twin Otter crew completed the camp pullout from the Beardmore Glacier. “They weren’t too pleased, but we made it. You’ve got to remember, this was a very nasty place for flying. The pilots of the planes and helicopters had to deal with incredible turbulence near those bluffs. We had nothing but admiration for their efforts.”

As he left the Oliver Bluffs behind, Ashworth says he wondered if his team had finished everything it had set out to do. He answered himself with a satisfied, “Yes.

“We had an enormously successful field season that was beyond anyone’s wildest dreams,” he says with pride. “I feel incredibly privileged to be able to work in such a remote location and have the opportunity to try to piece together the history of such a complex, special place.”

— Steve Bergeson
I’ve come to think that stories keep us as much as we keep them, and that the best narratives may have no real beginning or end. We go on, and the tales stay with us, their meanings reshaped as we move forward. Contemporary Native American literature has helped reform the continuum of history’s stories, introducing elements that change the ways in which meaning is made. When progress is viewed through the lens of loss, when forgetting is met with continuance, the story inevitably shifts.

The stories that today’s Native American writers tell have been there all along. They’ve been told, recorded, interpreted and lived. But in the last 25 years or so, those stories have circulated more widely. Perhaps after the contentious politics of the 1970s — the occupations at Alcatraz and Wounded Knee, for instance — the political climate could accept Native voices. The American Indian Religious Freedom Act, which established a national policy to protect and preserve Native Americans’ inherent rights to believe, express and exercise their traditional religions, helped open up an arena in which accounts told by people living those accounts could circulate more freely. Or, it could be that the world was simply ready for a more balanced chorus of voices.

Indigenous people have always told their stories; the telling is a form of preserving. But the space in which the telling takes place is broader now; it includes plays, poetry, films, essays, novels.

The writers who join Louise Erdrich as the leading voices in contemporary Native American writing include Sherman Alexie, Leslie Marmon Silko, James Welch, N. Scott Momaday. They have much to tell any reader, and bypass categories linked to ethnicity or region; they are writers who have meaningful and memorable stories to tell. They have lessons to teach, as do Winona LaDuke, Thomas King, Linda Hogan, Diane Glancy. Poets Joy Harjo, Luci Tapahonso and Simon Ortiz, who write about contemporary life and its responsibilities, both cultural and political. Other Native writers have made marks with writing that includes critical scholarship: Ward Churchill, Louis Owens, Paula Gunn Allen, Vine Deloria, Jr.

In time, truth is validated in its own way. The truth that many of today’s writers tell is one founded in cultural, ecological and spiritual survival. They write in a context of endurance, reminding each reader to remember, to celebrate, to continue.

With this in mind, Tom Matchie, who reminded me as a student of the magic of stories, gives us here a celebration of Native American writing and its evolution, which he has studied for more than 20 years. He brings his life’s experience to explore Louise Erdrich’s marvelous work, and shows us in the process the careful and meaningful relationship between stories and living. They sustain one another — but most important, they sustain us.

— Kathy Freise
In her fiction, Louise Erdrich creates a whole mythology, much as William Faulkner did with Mississippi in the 1930s, but Erdrich uses mainly North Dakota as a base. Her mythic world is built around the interaction of Chippewa and white cultures throughout the 20th century. Into this world she injects a whole coterie of characters who come and go in the different novels, and in the process she addresses issues of great concern to contemporary Americans. These include our relationship to the earth, the importance of religious commitment, expressions of sexuality, the place of gambling in society, the role of women in the church, and the meaning of violence, at home and abroad. Truly, she is as much a contemporary thinker as she is a uniquely beautiful writer.

Erdrich was born and raised in Wahpeton, North Dakota, the daughter of German and

TRULY, SHE IS AS MUCH A CONTEMPORARY THINKER AS SHE IS A UNIQUELY BEAUTIFUL WRITER... AND I BELIEVE SHE IS MAKING PROFOUND CONTRIBUTIONS TO HOW AMERICA THINKS ABOUT ITSELF.
Chippewa parents. Today she is one of the leading Native American authors in the nation. I am a literary fan of Erdrich, and I believe she is making profound contributions to how America thinks about itself.

Her birth as a serious creative writer and mine as one who enjoys evaluating and teaching Indian fiction came at the same time. In 1984 she published *Love Medicine*, which immediately earned her national awards and placed her on the front line as a writer. Having published something on most of her nine adult novels, I want to review not only how she has evolved as a thinker and writer, but why she is so important to me, and I would hope to anybody curious about what Native Americans have to contribute — aesthetically, politically, spiritually — to the way we live today, and may want to live tomorrow.

I have a background not only as a teacher for forty years, but also in theology (ten years in the priesthood) and politics (ten years in the legislature), and I am amazed at the way Louise brings these three areas together. When Erdrich treats love, it is not about a list of virtues, or any ideal union. She puts it in a realistic context that is simply disarming. *Love Medicine*, for instance, framed as a series of stories that alternate between Fargo and a Chippewa reservation (in North Dakota that would be Turtle Mountain, though she later names it Little No Horse), as a whole focuses on what tears families apart, no matter their color, together with the essential power of love that heals.

At the heart of the novel is a gesture Lipsha Kashpaw makes toward his grandfather, who in trying to live like a two-faced white man, has made a mess of it. Lipsha as a young medicine man endeavors to bless the aging grandfather with a gift of turkey hearts, which turn out to be frozen rather than the real thing, and the grandfather chokes to death. What comes through is the phony things we do to cover our inadequacies. But even such a fault does not diminish the love Lipsha has for someone he cherishes. I think it is the irony inherent in Lipsha’s symbolic gesture which epitomizes the genius of Erdrich — and my attraction to her — representing both our failure and triumph as human beings for whom love is so important, yet somehow so difficult to manage.

I grew up in a small family, with two brothers and a sister, living near Jamestown during the Depression. This might explain part of my attraction to a novel similar to *Love Medicine* entitled *The Beet Queen*. It’s set in Argus (Argusville?) and it’s also about the internal rhythms of family life at that time. I’m amazed at how Erdrich can modulate between worlds. This time three white children are deserted by their mother, who flies away with a lover, sending them to live with an aunt and uncle in Argus where they grow up to experience betrayal, jealousy, competition, and sexual abuse as they strive to survive as individuals. Ultimately, it is Dot, the Beet Queen, who flies off in an airplane, much as the children’s mother did at the beginning. In the end, however, unlike that first flight, Dot returns to her part-Indian mother, Celestine James, who has stuck by her daughter through all her violent moods and antics. Dot returns for the love she could not find — much less understand as a young girl — but needed, and still needs, so desperately. What makes this story is not only the time and place, but without preaching or moralizing, Erdrich is able to put love medicine in a realistic context that is simply awesome.

One of my interests as a farmer’s son has been North Dakota’s soil, and that’s the context in which I read *Tracks*, Erdrich’s most political novel. It’s about the land, but especially trees. It cemented my interest in the environment — locally and globally. In *Tracks* Erdrich focuses on some key characters, including Fleur (meaning flower) Pillager, who seems to be part fish — one with the water as she is with the earth. Her story is told by Nanapush, a Chippewa trickster, who is as funny as he is dedicated to Fleur.
His narrative is juxtaposed with that of Pauline Krupat, who earlier in Argus felt Fleur’s love, but back at the reservation is a lonely soul who joins the convent as Sister Leopolda. Again, a person in need of love, she seeks her salvation in feigning whiteness in order to convert the Indians, while ignoring their own sense of what is spiritual. In the process she becomes one of Erdrich’s psychological grotesques — a caricature of what it means when religious people, however well meaning, undercut their own mission of understanding and love in the guise of self-righteousness. This is the author’s most scathing critique of a Christian missionary spirit when it tries to convert the so-called pagan, who might have more to say about the significance of the land than the conscienceless entrepreneur.

As a teacher at North Dakota State University in Fargo for more than thirty years, my favorite character is Twain’s Huckleberry Finn. In the pre-Civil War days, Huck challenges the whole system of slavery through his love for a black slave, Nigger Jim. Erdrich appeals to me in a similar way in *The Bingo Palace* where she takes on a political issue, in this case gambling, through the vehicle of a young man’s love. Here Lipsha has dissipated his life in Fargo, at one time making his way from the Metro Drug to a dumpster outside the Sons of Norway looking for his runagate father. Like Huck, naive yet perceptive, Lipsha is still growing up. Returning to the reservation for rejuvenation he falls in love with a jingle dress dancer named Shawnee Ray Toose.

Erdrich uses magic realism for the first time in *Bingo Palace*. Lipsha’s dead mother, June — whose spirit permeates many of the novels — returns in a car to give Lipsha tickets by which he wins a van at the Bingo Palace. It is important to know that gambling has a long history in Chippewa culture where the context makes it good or bad, right or wrong. Here Erdrich juxtaposes gambling with — what else? — love medicine. In the novel Lipsha wins and loses his van and his girlfriend — who chooses to go off to college. But the key to the novel is a vision quest Lipsha makes with his cousin and boss at the bingo palace. In a humorous episode on that spiritual quest Lipsha happens to sleep with a skunk. In his dream the skunk tells him “It ain’t real estate,” suggesting that Lipsha has to question his own motives of what is right or wrong for him in work and in love. Again, the book is about love medicine, not money, which is a difficult gamble in anybody’s life.

Nothing is more important to a college teacher than the discovery of new ideas, ways of viewing reality, a factor almost equivalent to Columbus’ original sighting of America. That’s the way I felt after reading Erdrich’s *Crown of Columbus*, written with her husband, Michael Dorris, in 1992. As writers, Erdrich and Dorris were devoted to breaking stereotypes of all kinds, particularly relating to Indians, many of whom were taken as slaves by Columbus. The characters in the novel risk treachery, violence and the unknown as serious human beings for whom knowledge is not only abstract and academic, but experiential.

Erdrich’s novels all deal with the quest for truth about many things — history, race, gender, sexuality, religion, the environment, war and peace. For her, Columbus, in spite of his treatment of Indians, is the paradigm for such a quest. I think that, too, is a type of love medicine, and it’s what underpins my own life as a teacher and writer.

*Huckleberry Finn* is my favorite novel, *The Scarlet Letter* is a close second. That’s why I was surprised, but elated, when Louise published her most erotic novel, *Tales of Burning Love*. For me it

---

---

---
is as important as Hawthorne’s masterpiece as a commentary on America’s preoccupation with sex. \textit{Burning Love} is set in Fargo, and captures part of Fargo’s history — the blizzard of 1984 — as it brings together many of the characters and themes of her earlier novels. In this one four women are trapped on 19th Avenue North in a snow storm and each tells of her marriage to Jack Mauser. The book is about relationships — sexual, physical, psychological, spiritual, communal. In a sense it is Erdrich’s contemporary \textit{Scarlet Letter}, where each of the women is one of Hester Pryne’s many selves. What emerges from the novel is an insightful, multi-faceted, tale of the many faces of love between and among adults. It is a non-judgmental treatise that is at once as real as it is penetrating, as the author combines the sexual and spiritual in a contemporary setting that is as convincing as Hawthorne’s tale of love and sex 150 years ago.

As a teacher, one of the most challenging subjects, especially during the last twenty years, has been the role of women in society. For me, Erdrich has been a great help simply because her novels contain so many different kinds of women — from the rigid Leopolda vs. the insightful Fleur in \textit{Tracks} to the erotic Eleanor Schick vs. the professional Dot in \textit{Tales}. But her most powerful statement on the subject is the characterization of the women (and men) in \textit{The Antelope Wife}. Sweetheart Calico, the antelope wife, is fascinating. The setting for this novel is Minneapolis, where Erdrich now lives, and it begins with a former soldier, Scranton Roy, who with his own breast nourishes a child he finds on the back of a dog following the Sioux massacre in Minnesota in 1862. If he represents Erdrich’s German heritage, the Chippewa side starts way back with Blue Prairie Woman, living an animal-like existence close to the earth. The novel is complex, involving many kinds of characters, male and female, caring and manipulative, as the two ethnicities — German and Anishinabe — come together. This book is Erdrich’s most feminine statement, for Calico emerges as independent as she is tied to her roots, to the earth and to her very name as an antelope. This book is not just about genealogical strains, or passion in its many forms, but about the balance of what is masculine and feminine in all of us, no matter one’s gender, or the relationship of the sexes.

For this author the feminine is born of the earth, and needs its rightful place in the human drama.

As a former priest, piano player (I gave a graduate recital in high school) and long time student of Indian history and culture (including visits to Turtle Mountain), I literally jumped for joy when I read Erdrich’s \textit{The Last Report on the Miracles at Little No Horse}. For me it juxtaposes a positive Catholic spirituality with that of the Chippewa people. Here a woman masquerades as a Catholic priest on the Chippewa reservation we know from \textit{Tracks}. Agnes DeWitt, a former nun who plays Chopin on the piano, discovers the body of Father Damien Modeste after a flood on the Red River near Fargo and takes his place, posing as him, at Little No Horse. Here she comes under the influence of Nanapush, a Chippewa trickster whom she sees as “a priest’s priest” because of his relation to the land, its people, and to Fleur.

The book covers nearly a century, during which Damien writes to the pope who wants to canonize Sister Leopolda. But Damien knows from the confessional (where she is bound to secrecy) that the nun is a fake. Not only is Leopolda’s missionary zeal misdirected, but she has murdered Napoleon Morrissey, with whom she has had a child. Meanwhile, the pope’s envoys to Little No Horse come to respect Damien, one of them falling in love with her, though she chooses her vocation as priest rather than as lover. In this tale Erdrich reverses many biblical myths, as when Damien plays...
Chopin, causing snakes (the principle of evil in Genesis) to rise up in praise, which says something positive about a divine spirit in all creation. At the end, Damien decides to take her own life on an island rather than reveal her true (feminine) identity which might scandalize the people she serves. Erdrich may be a critic of Catholic culture, but she is theologically sound. If the essence of the Gospel is love, that is a medicine Damien exudes. Though some might take issues with her “paganism,” Erdrich is also quite Catholic in that she uses (sacramental?) images as a key to the divine.

My final connection to Erdrich relates to something that’s on everybody’s mind today — the Iraq war. Is it justified and are the effects worth it? Erdrich’s latest novel, *The Master Butchers Singing Club* struck a sympathetic chord with me. Here Fidelis Waldvogel, a butcher like Louise’s own grandfather, sells sausages as a means to leave Germany for America after World War I. In that war he served as a German sniper randomly killing American soldiers. As a butcher in Argus, he and his wife Eva raise four boys. At the same time he forms a singing club, uniting all the men of the community — including a rival butcher, Pete Koska. In short, he turns death into a loving approach to life, though in his old age later in the novel he comes to see the process reversed.

The novel is filled with violence and intrigue, and in the end the family is split when two of the boys are taken to Germany by their Aunt Tante to save money during the Depression. Here they join the German army, where one is killed and the other — to Fidelis’ dismay — remains loyal to Germany after World War II. In America, the other two boys join the U.S. Armed Forces, where one is maimed in an accident after surviving as a fighter pilot. As Fidelis’ health and spirit fade, Delphine, the novel’s central female character, remains strong, now balancing many people and events on her shoulders. She regrets America’s sending boys to war where literally families are fighting against families. In this novel the author examines the history of violence, going back to Wounded Knee. But the book is mainly about contemporary families and two world wars. Recently Erdrich has voiced her opposition to the war in Iraq, but *Master Butcher* is a story from the viewpoint of families, where violence can be in the house next door, as well as on the global sphere. In any case, it undercutts the importance of the love medicine so basic to her prose. How can a nation so given to the ethic of love, she seems to ask, be so prone to violence — in the past, present, and apparently into the future?

For nearly twenty-five years Louise Erdrich has grown and matured as a novelist and poet. She has also written significant books for children and adolescents, like *The Grandmother’s Pigeon* and *The Birchbark House*. And she continues to write significant poetry, as with *Jacklight* and *Baptism of Desire*. Lately, she has produced other kinds of literature, like *Islands and Books*, where she reveals her trip to the Minnesota boundary waters with guide and baby, giving readers a taste of the Chippewa country she loves so much, indeed has mythologized in her fiction. *Bluejay’s Dance* is an early biographical work and her latest effort is a series of biographical essays entitled *Winter Reader, 2003-2004*. She has also written numerous short stories for magazines and anthologies, all of which capture the poetic quality of her prose.

But nothing is more important in my mind than the development of her art and thought which comes through her novels, starting in 1984. They are above all realistic encounters with issues that face all Americans, no matter one’s politics or religion. If they are ambiguous at times, they make us think about ourselves, our failings as well as triumphs, our need for love medicine, and in her unique way what a Chippewa culture has to contribute to that end.