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# FROM THE STATE GEOLOGIST

## Cold War Stratigraphy, Juneberry Places, and Butcher Shops

by John P. Bluemle



study the freshly exposed geology in the walls of the excavation.

The geologic insights I gained by visiting those 165 excavations was a wonderful introduction to the intricate glacial stratigraphy of eastern North Dakota. I saw ice-thrust beds of sand that had to have been frozen when they were emplaced; I saw and began to understand exquisite boulder pavements and paleosols; I saw intact blocks of shale of all sizes that had been pushed around by the glacial ice. It was a priceless field experience that has served me well ever since. From my perspective as a geologist, the installation of the missile sites was easily the most valuable contribution to North Dakota stemming from the Cold War.

I also had the opportunity to experience, first hand, some of the absurdities of the Cold War mentality that pervaded our society in the 1960s. No one was authorized to tell me where the sites were – I had no map showing their locations. So, every week or so, I'd stop at the Grand Forks Air Force Base and check in with the construction office there. The geologist there would tell me the approximate locations of the sites being excavated that week ("One a few miles south of Langdon, one near Hoople," etc.). I'd then drive to the approximate area and, with a little hunting and some local inquiry, eventually arrive at the site, explain my purpose and, depending upon the complexity of the geology, spend a few hours examining and photographing the absolutely marvelous excavations – vertical, fresh, usually 30 feet deep in the actual missile excavations, but up to 50 or 55 feet deep in the launch control facility sites. And since there were four walls, I was able to see everything in three dimensions.

Of course, once at a site, I recorded its exact location on a map I kept with me.

One day, while visiting with a construction

superintendent, I mentioned my minor frustration at having to hunt for each site. He was incredulous! He pointed out that a map showing the locations of all of the sites was posted in every service station and every worker had a copy – after all, they had to know where to report for work each day. He couldn't give me one of the maps (against security regulations), but he did manage to "lose" one at my feet as we were visiting. I felt foolish, but also relieved that I wouldn't have to waste time and gasoline hunting for the sites any more.

But I'd like to take a longer view of my experience with North Dakota geology.

Since I came to North Dakota 40 years ago, I've worked on nearly every facet of North Dakota geology, the rocks that produce oil and gas and coal and gravel, our invaluable minerals, fossils, and groundwater. I've tried to understand the hows and whys of the hills and valleys we see every day as we travel around the state. I've spent years trying to figure out how the land that is North Dakota came to be the way it is and I have learned something about our geologic history. I think I can stake a claim to some special knowledge of our state.

I've had the chance to work in every part of North Dakota. A "field season" for me usually lasted from sometime in May or June, beginning when it got dry enough to get around, and ending sometime in November, when the ground was frozen too hard to dig. Each and every part of the state is special to me in some way, either because of its geologic significance or, sometimes, for more human reasons. My wife, Mary, and our three children as they came along, lived with me in about 25 North Dakota towns over the years. Our oldest son, Bill, was born in Park River when I was mapping Walsh and Nelson counties, and our daughter, Irene was born in Lisbon when I was mapping Ransom County. Paul, the youngest, was born in Grand Forks on the first day of January, when it was too cold to map anywhere. Usually we lived in one town during a summer field season, but sometimes we moved and lived in two or more towns during one summer.

Every year was a separate and special adventure that went well beyond geology. During the autumn of 1970, for example, we spent about two months in Enderlin. Autumn has always been my favorite season in North Dakota and the fall that year in Enderlin was especially pleasant after a blistering hot and dry summer. During that summer we had lived on a beautiful farm near Lisbon. Our daughter, Irene,

was born in August that year in Lisbon. The hospital was not air conditioned, or perhaps the air conditioner was not working at that time. After the hot and the dry, everything about fall in Enderlin was welcome. We rented from a lady whose son, a hunter, provided us with a steady supply of geese and ducks.

Following each field season, we moved back to Grand Forks, usually just a few days before Thanksgiving. Grand Forks was our “winter” home for 27 years, until we moved to Bismarck in 1989. It always seemed more natural to me when Grand Forks was white as I never had much opportunity to enjoy it in the summer. A couple of days after we got home one year, I raked the yard and put up the storm windows. The next day a blizzard hit, it was deep winter, and it stayed that way until spring. Our next-door neighbor, an elderly Norwegian man, commented “that Bluemle, he always times things right” (he pronounced my German name with a Norwegian accent – I can’t quite duplicate the effect!). Well, I don’t “always time things right,” but I was glad I had that time.

During other field seasons, we enjoyed places like Harvey, Hazen, Mayville, McClusky, Washburn, White Shield, Fort Totten, Fort Yates, Rock Lake, and Turtle Lake. I could name about 20 more of my “favorite” North Dakota towns, but if I did, I’d have to leave out a lot of equally nice places. The point is, we lived in many different communities throughout the state, in virtually every county and on four Indian Reservations, for periods up to six months each, and I honestly liked every one of them. Each place is special in some way. The people are always open and friendly. And they are often quite interested in geology.

When we arrived in a new place, we usually asked at the

newspaper office if anyone had an apartment to rent and, more often than not, someone did. It was a great way to move right into the community. In Harvey we rented from the baker – a great choice!

I believe I can claim some important knowledge and understanding of North Dakota, apart from the geology. For example, I know where the best chokecherries are to be found, the best wild plums, the best stands of juneberries. That information was always included on my field maps, right along with the geology. And I am definitely an expert on North Dakota’s butcher shops. Mary and I have shopped them all. Even though there’s no real need anymore to shop around for meat — since we now live in Bismarck, right in the heart of the “land of meat and German butchers” — I like to stop in towns like Langdon, Gackle, Munich, Aneta, Richardton, or Glen Ullin occasionally, just for the variety and to see old friends (and sometimes to buy some sausage).

I’ve certainly enjoyed my career. To some, it may not seem quite as exciting or romantic, moving from town to town around one state, as it might have been moving from country to country around the world, as some geologists do, but I have no regrets. Mary agrees with me and I think our kids do too, but they still need to see the world.

Coming to a familiarity and some understanding of North Dakota towns and people was a subtle exercise for me, but appropriate in my case as I was studying the subtle but intricate geology of a place that some people profess to find uninteresting. It is, most certainly, not uninteresting! The geology, the towns, and the seasons — all are complex and fascinating. And best of all, the people in North Dakota are interesting and friendly. I’d trade this land for no place on earth.