

*Iowa's long tradition of self-trained paleontologists has helped advance the study of fossils. Although their stories cannot be told through the example of only one individual, the requisite passion, devotion, and discipline were all exemplified by one—B. H. Beane. Here his granddaughter offers her perspective on his work.*



## Crinoids in the Sugar Bowl

*Remembering my grandfather,  
amateur paleontologist B. H. Beane*

by Karen Beane Norstrud



**M**Y earliest memories of my grandfather, B. H. Beane, are of him rocking me on his lap as he sang this ditty to me:

*There was an old man  
And he had a wooden leg  
And he had no tobacco,  
No tobacco could he beg,  
So-o he saved up his money  
And he saved up his rocks  
And he always had tobacco,  
In his ol' tobacco box.*

Once I asked him, "Why did that old man save rocks, Grandpa?" and he answered simply, "So it would rhyme, child," and I accepted his rationale.

Unlike the old man in the ditty, my grandfather did not have a wooden leg and did not use tobacco. He did, however, collect rocks—and fossils. As a self-trained paleontologist who became known internationally, he collected thousands. Although the most notable and choice were the remarkably complete crinoid and starfish fossils from the Le Grand quarry bordering his farm, he also hunted rocks and fossils throughout Canada, Mexico, and in every state in the Union except Florida.

Grandpa studied and collected fossils from many eras; however, his main interest was the fossilized remains of the animals and plants of the Paleozoic era. By the time I was born, he had sold and donated scores of fossil slabs to museums and universities around the world. The hundreds still in his home were everywhere—leaning against the walls and doorways, resting in cabinets, reclining on couches and chairs. Out in the yard, they were propped up against sheds and apple trees. Although his discoveries were often written about, my recollections of him may offer new perspectives.

Grandpa was born on the Beane family farm, a half mile north of the small Iowa village of Le Grand on November 17, 1879, to

Abbie (Jacobs) Beane and Rev. Joseph L. Beane. Joseph was a Quaker pastor, author, inventor, and farmer.

My grandfather was educated at the Friends Academy in Le Grand, and also attended William Penn College in Oskaloosa. In 1902 he married Nellye Carey. Grandpa and Grandma had four sons—Raymond, Ralph (my dad), Lewis, and Elmo. (Grandma died when I was an infant so I have no memories of her.)

On the Beane farm, Grandpa and his brother Albert raised Poland China hogs and other livestock and grew beans, hay, watermelons, cantaloupes, strawberries, and raspberries, selling the produce in Marshalltown, eight miles away. The Mesquakie sometimes traveled to the farm from their settlement near Tama to trade beaded headbands, moccasins, and other handmade items for fruit. They shared some of their legends of the area, which Albert promptly recorded in his notebook. Uncle Albert taught school in Tama and Marshall Counties, but like his brother and father, had avocations as well. He was an antique collector and poet, widely known in American art circles.

Although farming was originally my grandfather's livelihood, his real passion was collecting fossils, and by 1922 he had rented out the farm so he could devote more time to fossils. Collecting had been his avocation since childhood. As a young farm boy living next to a quarry and near the Iowa River, he had done a great deal of swimming, hunting, and fishing. "It was within these environments, at an early age, there grew within me a drive to collect," he wrote years later. "Bird eggs were the first; no wonder, as I knew where all the bird nests were! Wood was the next, with a leaf and a piece of wood of each species. Butterflies were next, then stamps and coins." His collecting extended to pretty pebbles and rocks, and he found the ever-changing quarry an interesting place to hunt fossils. In 1874 (five years before Grandpa was born) a major nest of crinoids had been uncovered by quarry workers in Le Grand. To the delight of paleontologists from all over the Midwest and some from the East, this nest continued to produce for the next sixteen

Opposite: The author, photographed about 1950 with her grandfather B. H. Beane (left) and cousin Will Pickering (right) in Everly, Iowa.





As a boy, Beane was never far from the Le Grand quarry and the paleontologists attracted to its crinoid fossil nests. In the Beanes' nearby farmhouse, dishes rattled in the kitchen during blasting at the quarry.

years. As a boy, my grandfather met up with these scientists at the quarry, dogging their steps and plaguing them with questions. The ten-year-old met Iowa amateur paleontologists Charles Wachsmuth, Frank Springer, and other amateur and professional geologists. "They were the idols of my boyhood," Grandpa related years later. He continued to find fossils somewhat prolifically until the turn of the century.

By the early twentieth century, the major nests of crinoids had been exhausted, but Grandpa had learned how to spot where crinoid fossils might be located, and, with the help of quarry workers, kept an eye out for fossils year after year. "I must have turned over and examined a thousand tons of loose rock and kept a close watch on the entire quarry face," Grandpa wrote later about the period from 1900 to 1930. "I used an extension ladder which enabled me to scrutinize the cliff for telltale showings of cross sections

of stems and heads. Only about one rock in 500 would prove to be fossiliferous, and only one to two percent of these contained specimens worth saving." Finally in 1931, when Grandpa was fifty-one, he found several deposits, which yielded many fine crinoids and some starfish (including one remarkable slab of 183 starfish). These Le Grand crinoids, like those found there in the 1870s and 1880s, were in their utmost perfection, complete with calyx, arms, and stalk. Grandpa's discovery attracted international attention in academic circles.

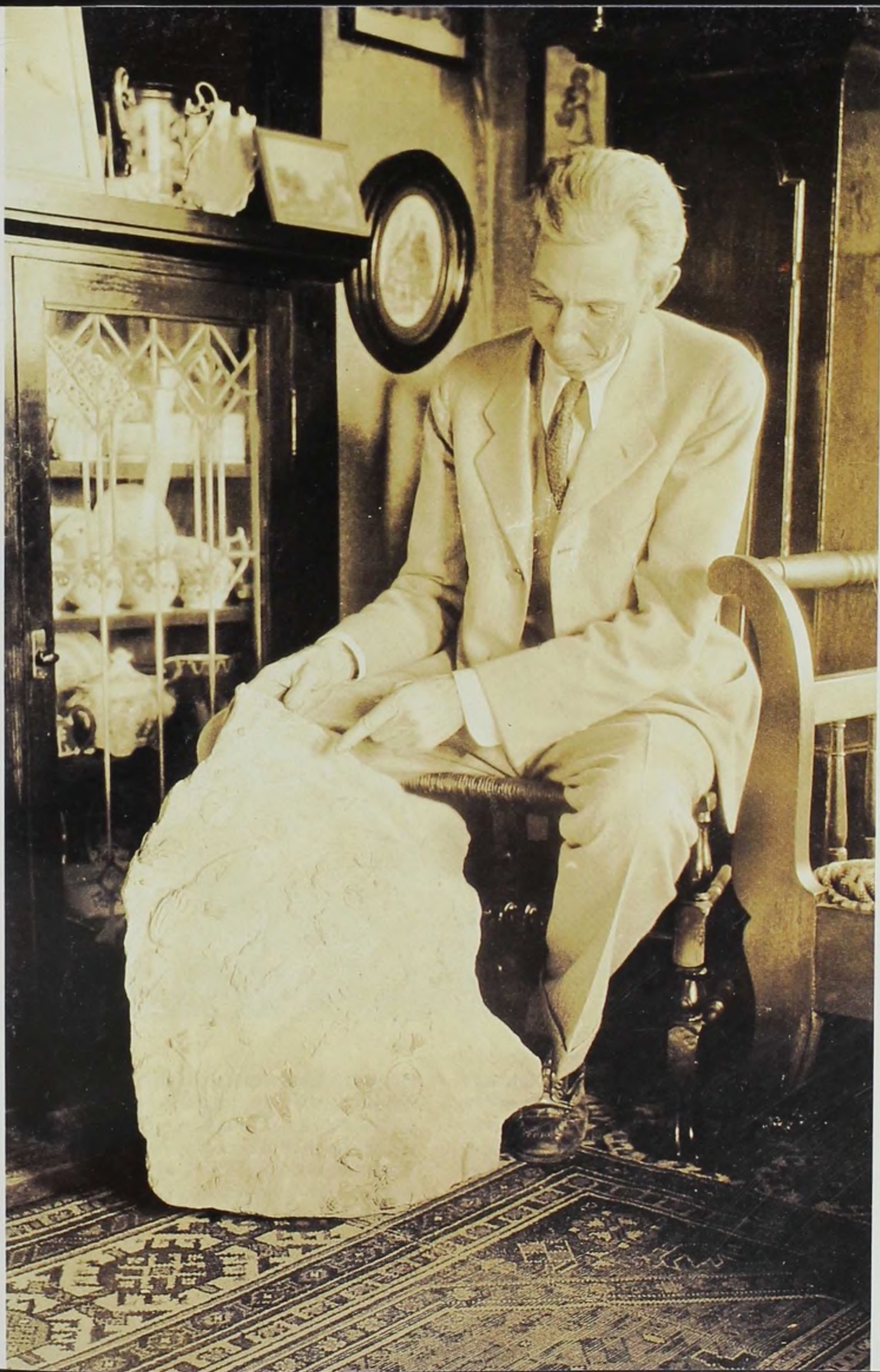
My father remembers coming home for weekends during the early 1930s and seeing crinoid slabs laid out on the parlor and living-room floors, along with the massive volume by Charles Wachsmuth and Frank Springer, *North American Crinoidea Camerata*. Grandpa and professors from the University of Iowa would be down on the floor on their hands and knees, studying and comparing Grandpa's specimens to the illustrations in the book.

Residents of Le Grand as well as newspaper reporters and authors of scientific journals often referred to the family home as "the Beane museum," I suppose because it was filled with things collected by my grandfather and Uncle Albert. I visited the house often, as a child and as an adult, and have always resented that description as sounding cold and austere. It was a simple, square house, eight rooms and two stories, painted white with a single black door in the center. I remember vividly that front door swinging open and my grandpa—a tall, slender, white-haired man—welcoming us with smiles, hugs, and kisses.

Upon entering his living room, I was assailed by smells of old tapestries and furniture, of oil stoves and limestone. Each room was crammed with antiques a few hundred years old and with fossils 360 million years old. There was an eighteenth-century looking glass; an olive-oil lamp from the time of Christopher Columbus; a Queen Anne par-

Right: A lifelong collector, Beane filled his farmhouse with fossils and antiques. Even before his major find in 1931, the farmhouse was overflowing with crinoid fossils from the Le Grand quarry.







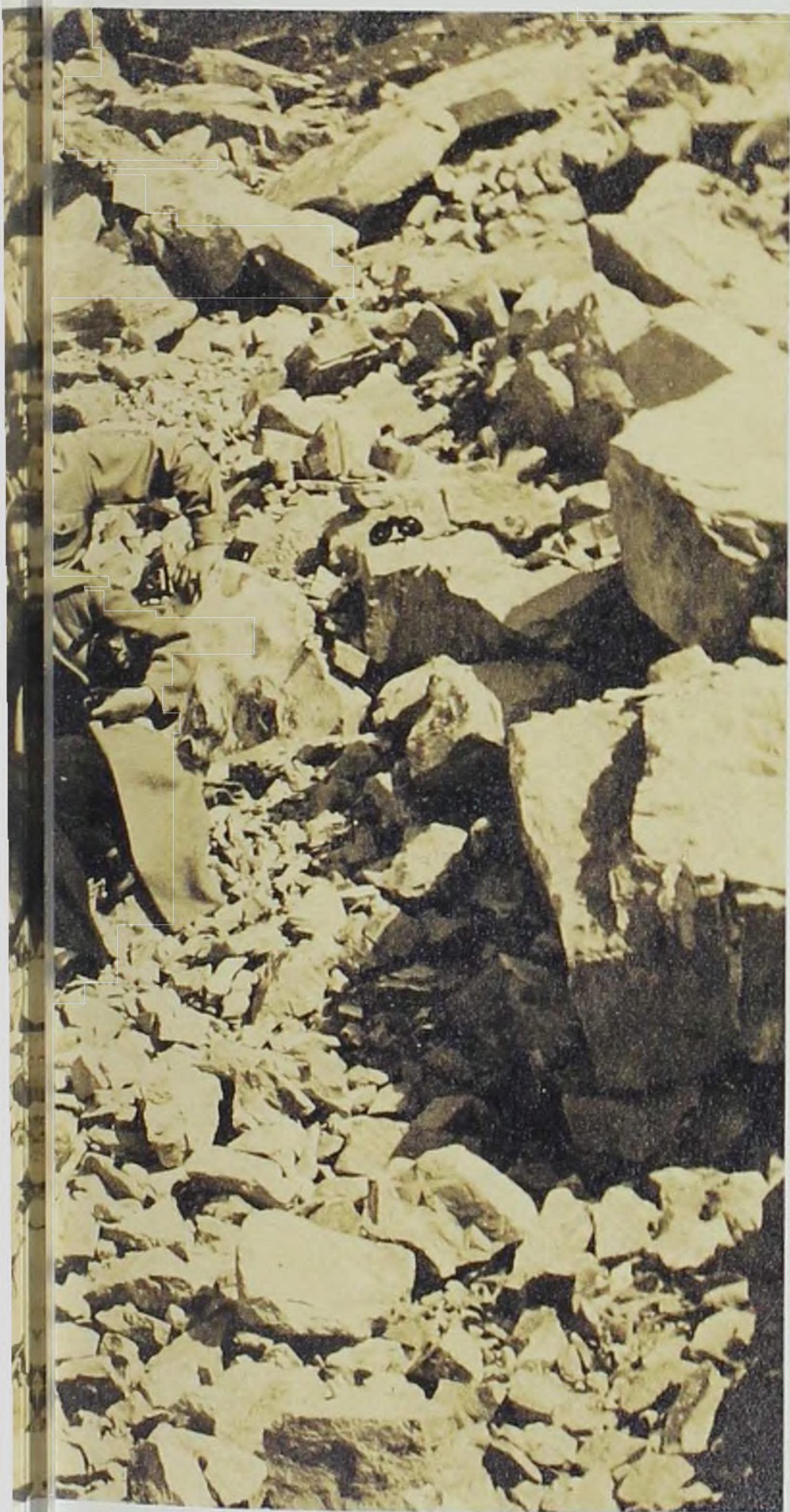


The Le Grand quarry and Beane (in hat) attracted many visitors who shared his fascination with fossils.

lor chair that had once belonged to George Washington; and a fragile cup and saucer that had been Napoleon Bonaparte's. There were family heirlooms, too—a mid-eighteenth-century bed curtain of hand-blocked

English chintz, and a chest brought from Maine in 1854. In the parlor sat a mammoth cupboard with "Sermons in Stone" inscribed above the glass doors; it was filled with fossils. Cabinets and curio stands in every room were packed with brass candlesticks and pewter, a goodly amount of silver, pottery and china, crystal, and glassware, and yet more of the smaller fossils.





I treasured the fossils, and they became as familiar to me as well-loved toys. One that was propped against the colonnades between the living and dining rooms was shaped like the state of Texas. Another, my favorite, was a small slab with three crinoids, the calyxes complete with stem and arms, the stems entwined. In one of his writings Grandpa romantically described the three "as formal as if

a lady had placed them together for a nosegay." These crinoids and many other specimens now belong to Beloit College in Wisconsin, and I recently visited the science department there to have a "reunion" with Grandpa's fossils. The "nosegay" and the "state of Texas" brought tears to my eyes.

In my early years I must have assumed that all grandparents' homes were cluttered with slabs of rock. At least, I never thought it out of the ordinary that in order to sit in Grandpa's house, I often had to move a cluster of fossils, a pile of his notebooks, or stacks of correspondence (with international postmarks from places like Cape Town and London). To have tea with Grandpa at the dining-room table, I learned to look for sugar in the bag in the kitchen, not in the old pewter sugar bowl, where tiny, single crinoid fossils nestled.

When I was thirteen, Grandpa was interviewed on television. The next day at school my teacher asked me, "Karen, what do you think of Dr. Beane?" I'd never heard him referred to as "Doctor" before, so I uttered, "He's just Grandpa." She went on to tell the class about him, using phrases such as, "highly regarded" and "world famous." After school I asked Dad if Grandpa really was famous. Dad admitted that, yes, one could say that in scientific circles he could be considered quite well known. "Wow!" I thought, "a real-life celebrity in the family." I could hardly wait for my next visit to "Dr. Beane."

In the following days I studied Grandpa's published writings, as well as journal articles written about him and his findings. I memorized the names of as many species of fossils—especially crinoids—as I could, paying particular attention to the eleven that Grandpa had discovered, described, and named. I daydreamed about my next trip to the quarry, where I would find a crinoid, maybe even one that hadn't been discovered, and I could give it a Latin species name *kareni*, after my own name, Karen.

When the day finally arrived and Grandpa and I were walking toward the quarry, I told him of my hopes. As I rambled on, he replied simply, "It's possible, but not probable." He guided me through those zealous moments





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of mine with calm humor. In one short afternoon with him, "Dr. Beane" became "Grandpa" again.

On a subsequent visit, undaunted by my fruitless search for an echinoderm fossil, I decided I, too, could become an expert in "preparing" the numerous slabs already discovered and waiting for exhibition. This involved scraping away the limestone in which the fossils were embedded. Grandpa warned, "It takes a good deal of patience and time to clean out just one crinoid," but this did not discourage me. So, out in the yard at a wooden table, he set me up with a small slab and a needle in a vise, and we commenced to work. I had watched him chiseling away often, so I needed little instruction on the basics.

After fifteen minutes or so of scratching, I quipped, "What's this made out of—concrete?"

"Kinderhook limestone," he corrected with a grin.

An hour passed. "They make courthouses out of this stuff that have stood a hundred years," I complained. "Surely a needle can't chip it."

"Took me twenty-six years to clean the starfish slab," Grandpa replied.

"Shouldn't we be doing this in a cooler place?" I suggested a few minutes later.

"It's best to do it in the bright sun so we can see it well," he patiently responded.

Although I watched him prepare many more crinoids after that, I don't recall offering to help again. I had gained a profound appreciation for the thousands of painstaking hours he had dedicated to preparing crinoid slabs.

I suppose one could say my grandfather was a "gentleman farmer," as I never saw him in anything resembling everyday work clothes for farmers, even on the hot summer days when Grandpa helped me "walk beans" on his farm. It must have been a sight to see a young girl in shorts and halter pulling weeds alongside a white-haired man wearing a white shirt, tie, and three-piece suit.

Although in that sense he was formal, Grandpa was a gentle, caring man who smiled and laughed easily and lived his life by



Quaker values. He seemed to live at a slower, more relaxed pace. Now and then, Grandpa got behind on his voluminous correspondence, even to the point of not reading all that he received. The inner pockets of his suit jacket bulged because he carried his filing system on his person. I've been told of the

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In a 1950s photo Beane points to where the crinoid "nest" was found in 1931 at the Le Grand quarry.

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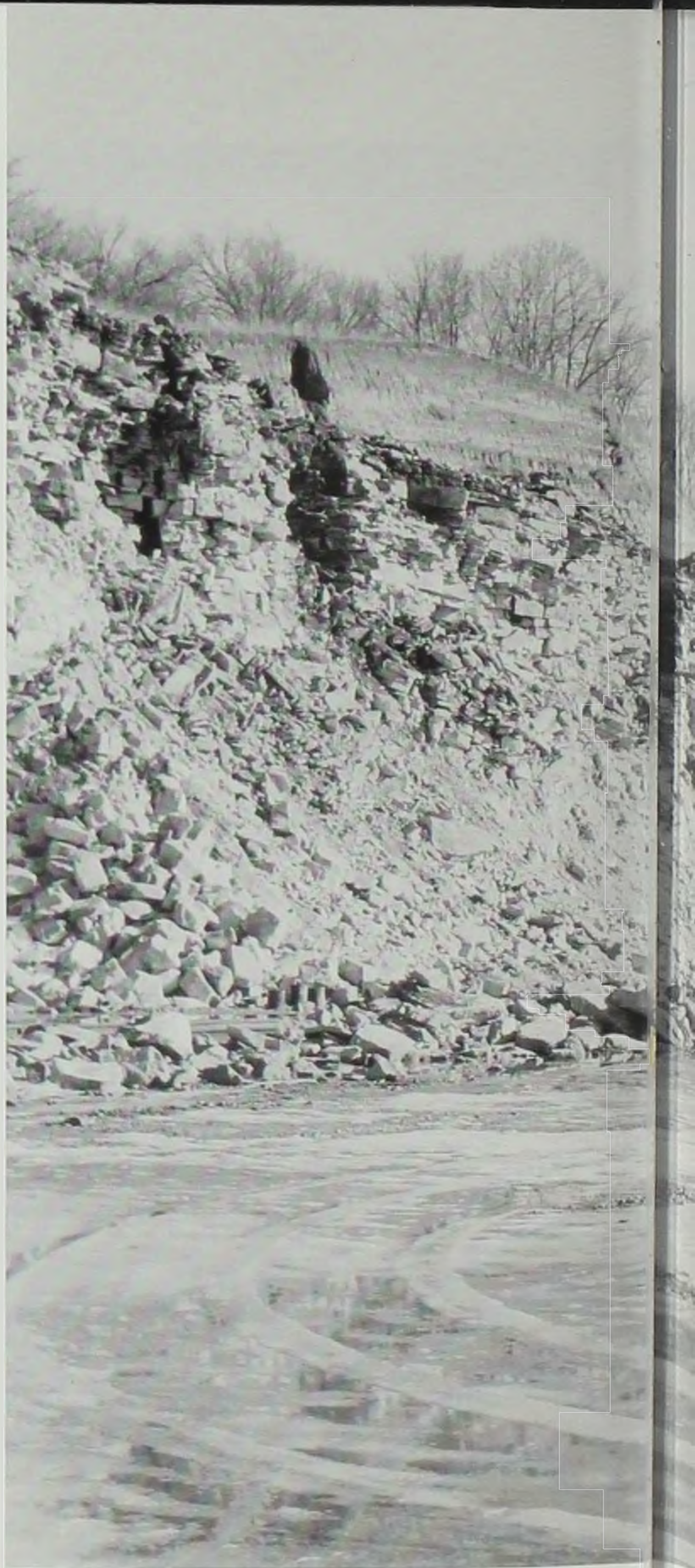
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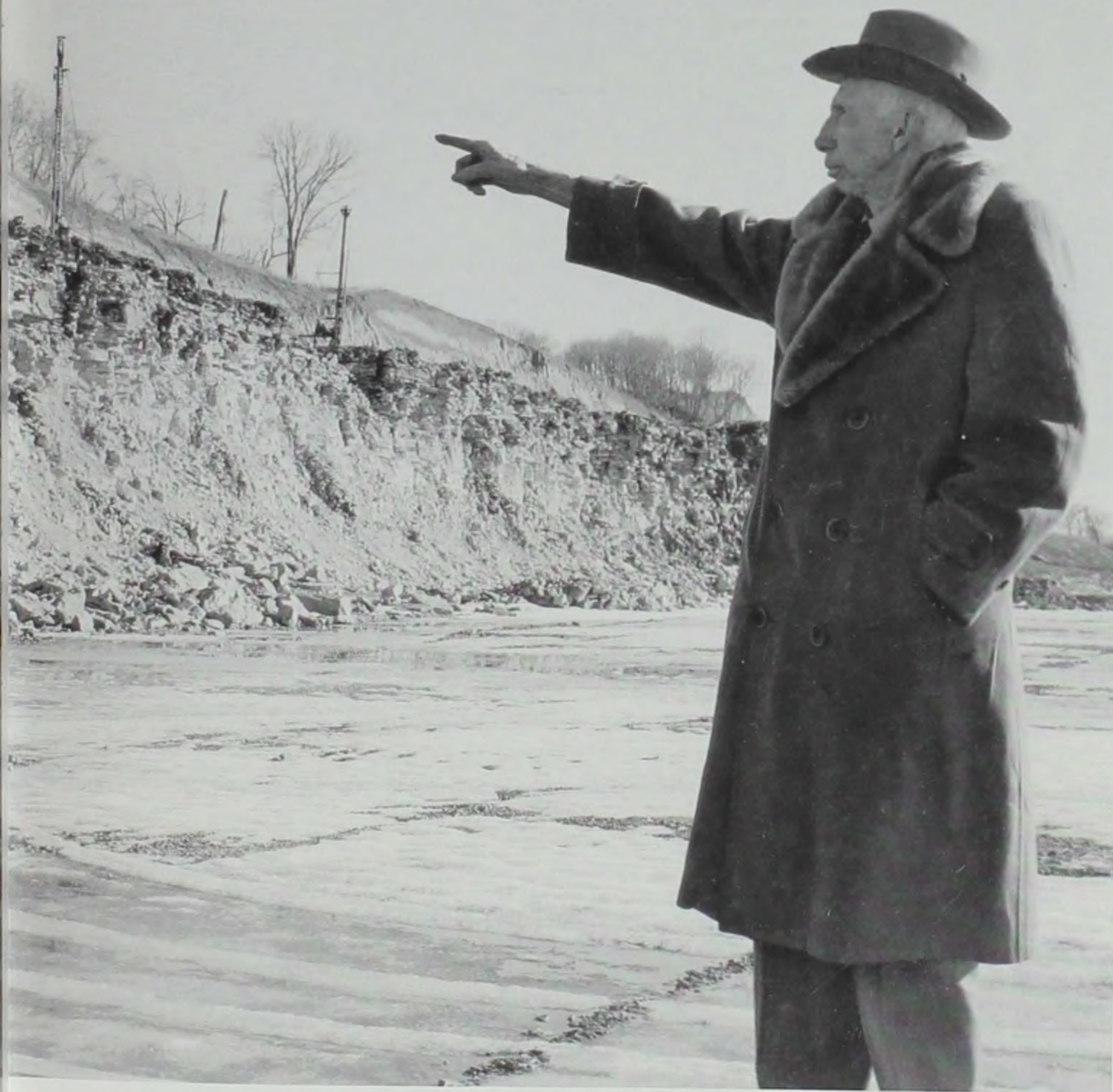
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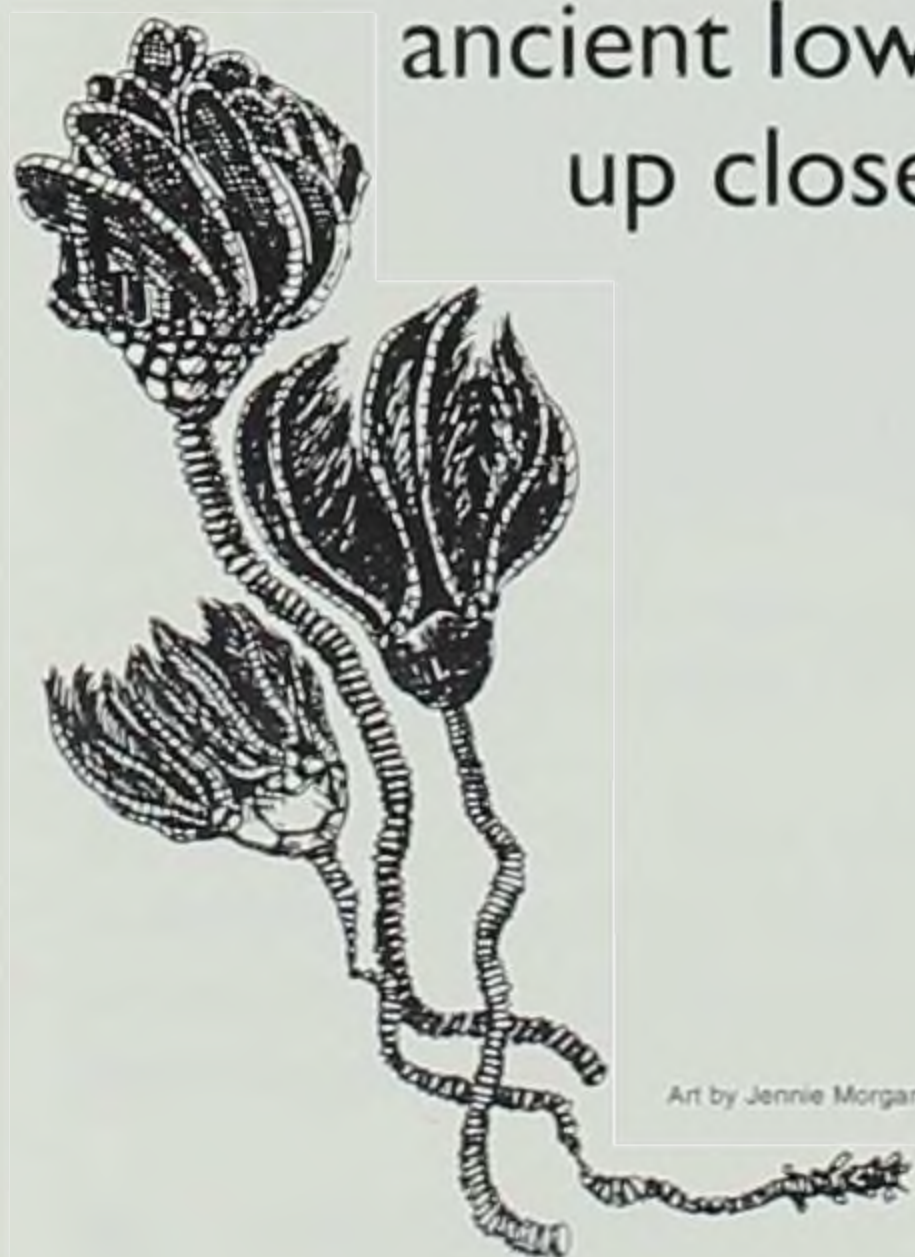
Photographed in spring 1994, the quarry site in which Burnice Beane found spectacular nests of crinoids and starfish six decades earlier is now overgrown and no longer excavated for limestone.

universities. He carried along a carpetbag full of fossils that he intended to donate or to sell on the road to pay his fare. When I inquired as to why he didn't fly, he said he saw more of the scenery and met more people

when he rode the bus, and that he would "leave the flying to the birds." In one bus trip he logged more than ten thousand miles.

It was clear that he loved collecting fossils, but it was also important to him that others

## Where can you see ancient Iowa up close?



Art by Jennie Morgan

**"Flowers of the Iowa Seas,"** a new exhibit at the State Historical Society of Iowa, features hundreds of fossils; a marine reef aquarium with living crinoids, corals, and chambered nautilus; profiles of early Iowa geologists; and an overview of Iowa geology. Open Tuesday-Saturday 9-4:30; Sunday 12-4:30, State Historical Building, 600 E. Locust, Des Moines. Call Sarah Macht, museum education coordinator (515-242-5193) for school tours and exhibit guidebook.

**Devonian Fossil Gorge**, below emergency spillway on Coralville Lake, Johnson County. (See photos

on pages 19-20). Walk on ancient sea floors and observe fossil remains on the bedrock. Fossils removed from the gorge can be seen in the nearby Corps of Engineers Visitors Center on weekdays 7:30-4, weekends noon-5.

**Iowa Hall at the University of Iowa**, Iowa City. Housed in Macbride Hall on the Pentacrest, this museum of natural and cultural history includes a colorful diorama of an ancient Iowa sea, complete with colorful crinoids and a menacing, prehistoric shark. Gives you three-dimensional picture of what Iowa was like as a



learn about and value these prehistoric phenomena. Grandpa enjoyed company and sharing his knowledge of fossils. It always amazed me how he could adapt his lectures to his audience. Busloads of college students would come to meet him and see his collection. When this coincided with my visits, I was not always happy to share him with strangers, even when I was an adult and had brought my own children to see him. On just such a day, two buses pulled up. He rose to greet his visitors as I silently groaned my annoyance.

My three-year-old son wanted to go out with him. Grandpa took Davin's hand and assured me it was perfectly okay. As I sat on the daybed by the window and watched through old lace curtains, Grandpa, with Davin in tow, led the group to some crinoid slabs on a large wooden table outside. As he held up a specimen and began to explain its characteristics, Davin, mouth agape, pulled on Grandpa's pant leg. While sixty or so students and professors grinned at each other and patiently waited, Grandpa promptly and agilely lowered himself to his haunches and answered his great-grandson's questions.

Grandpa always had time for on-the-spot teaching and for young people. Our vocabularies broadened because of how he spoke to

us. In 1952, a long cold walk back to Grandpa's house at midnight (we had been watching wrestling at one of the few houses in Le Grand that had television) became his chance to teach me about different constellations in the clear night sky. When two of his grandsons played college basketball, he attended every one of their games. Wrapped up in an old buffalo robe to keep warm, he seldom even missed a local high school football game, and very few away games. At his funeral one of the high school football players told me that the team was in attendance and that they were really going to miss "the old fossil," as they affectionately called him.

Age never seemed to stop him in his pursuit for fossils. In the 1950s, when Grandpa was in his seventies, he descended five hundred feet in a mine to collect crystals and minerals. When he was in his eighties—and I in my twenties—I was still asking him to slow down on our walks to the quarry so I could keep up with him.

Nevertheless, Grandpa died in January 1966 at age eighty-six. I remember standing beside the coffin with my dad. All his life he had seen Grandpa surrounded by fossils. Now in a final act of farewell, Dad quietly slipped a tiny, single crinoid under Grandpa's hand. □

tropical sea. Monday-Saturday 9:30-4:30; Sunday 12:30-4:30.

## Are you an armchair traveler?

Check your public library for access to these articles on Iowa geology, amateur paleontologists, fossil crinoids, and living crinoids.

*Iowa Geologist* 1994 (No. 19). Recent yearly issue of this free publication features Paleozoic, glacial-age, and 1993 floods and their effects on Iowa, and Devonian Fossil Gorge. For a free copy or to be

added to the mailing list, contact Geological Survey Bureau, 109 Trowbridge, Iowa City, Iowa 52242-1319. Phone 319-335-1575.

"B. H. Beane and the LeGrand Crinoid Hunters" by Charles S. Gwynne in *The Annals of Iowa*, Winter 1961.

"An Epoch in the History of American Science" by Charles Rollin Keyes in *The Annals of Iowa*, April 1896. Profiles of Charles Wachsmuth and Frank Springer.

"Iowa's Self-trained Paleontologists" by Wayne I. Anderson and

William M. Furnish in *Proceedings of the Iowa Academy of Science*, 90:1 (1983). Profiles Wachsmuth, Springer, Beane, as well as Charles Herbert Belanski, Arthur J. Gerk, Carlyle B. Campbell, Harrell L. Stimple, Calvin O. Levorson, and Amel E. Priest.

"Sea Lilies and Feather Stars," *Sea Frontiers* (July-August 1988).

"Creeping Through the Crinoids," *International Wildlife* (May-June 1992).

"For Crinoid-ing Out Loud," *Skin Diver* (January 1991).