

Devonian Day Trip

The Fossil & Prairie Center near Rockford is all about connections—from the 375 million-year-old critters in its quarry to the 60 acres of virgin prairie. BY JENNIFER WILSON PHOTOS BY CLAY SMITH





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You stutter-step down a deep, dusty gully into the pit below, descending 375 million years into a shallow Iowa sea. Giant squid thrust past. Coral waves in the water. A fish-like placoderma prowls in the distance.

You reach out to touch a giant snail, and fleck away hunks of dust. The years roll forward and these ancient creatures are but fossils in the clay soil of an abandoned quarry now part of the Floyd County Fossil & Prairie Park.

Twenty-two miles east of Mason City, the small town was once home to the Rockford Brick & Tile company, which manufactured the drainage tile that siphoned the nation's wetlands. A handful of historic beehive kilns remain on site as a beacon of those times.

Workmen pushed aside soil to mine the blue shale that formed their wares. The soil was left behind. Little did they know they were unearthing a fossil bed dating to the Devonian period. Today, ancient invertebrates—horned corals, brachiopods, gastropods, crinoids, among others—fill one of the few public fossil collection sites in the nation.

The Fossil & Prairie Center unravels the history of these 400 acres in museum-quality exhibits, from the

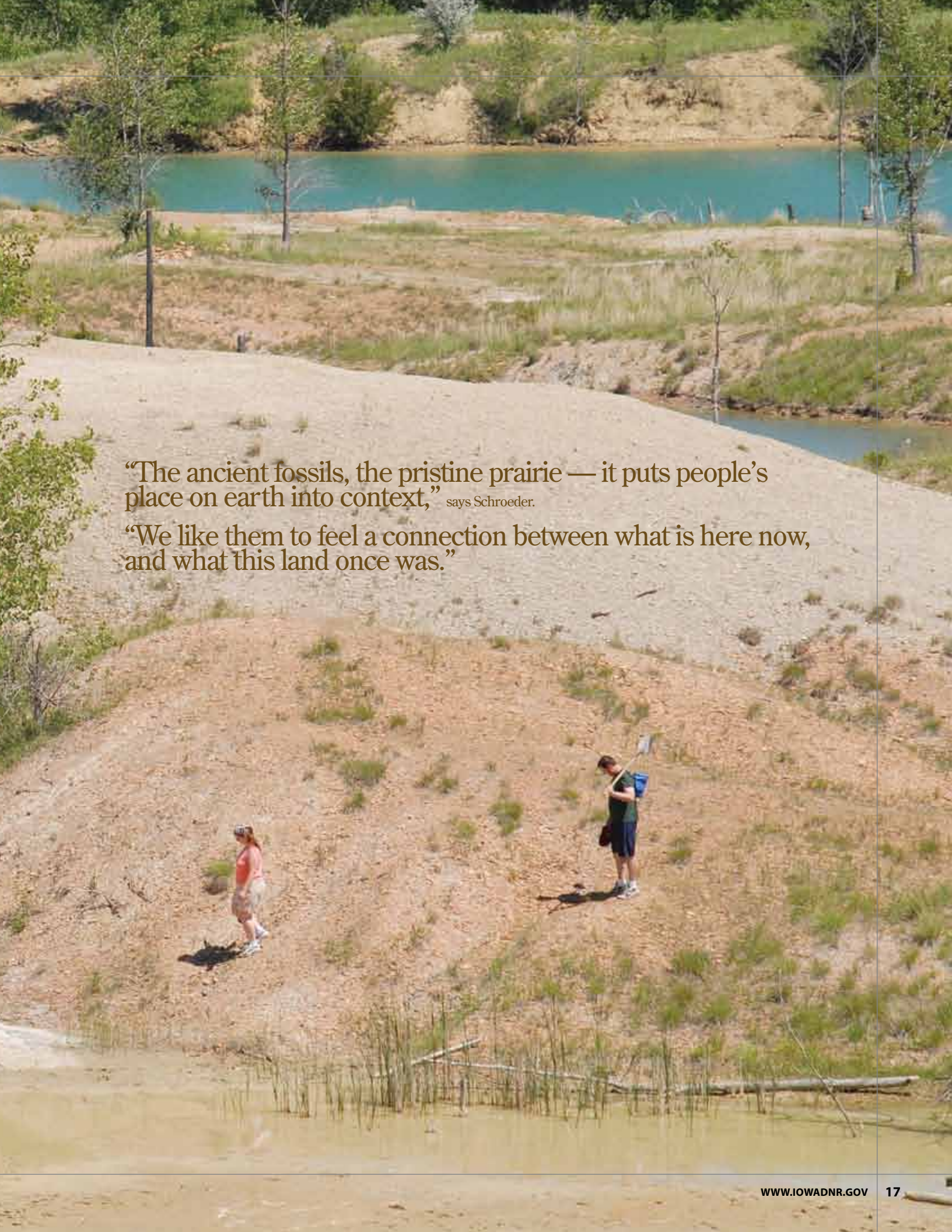
Devonian Sea to early prairie to the back-breaking work of laying tile. Ironically, those acres include several restored wetlands, similar to those Rockford Tile helped drain.

“Scientists believe that Iowa was part of a warm, shallow sea churned by plate tectonics,” says naturalist Barb McKinstry, showing visitors paintings of the sea creatures these fossils once were. “It was teeming with life, similar to the subtropical islands below the Gulf of Mexico.”

Young and old alike wander the center. Proud grandparents hold tiny hands dirty from digging in the fossil bed. Later, they might drive next door for coffee or lunch at the *Rockford Golf Course Clubhouse*, a popular local haunt.

LEFT: Writer Jen Wilson examines a fossilized brachiopod, a clam-like filter feeder. **1)** Near sapphire blue water, trees reclaim the old clay quarry. **2)** Brachiopods average quarter-size and smaller. **3&4)** Native prairie surrounds the exhibit-filled visitor center where cloth collecting bags are provided. Avoid bringing plastic bread bags, which tear. Egg cartons make great compartmentalized containers. **5)** Prairie grasses reclaim exposed rock beds. **6)** Brachiopod and coral fragments cover the ground. **7)** Students from Des Moines to Minnesota study topics from wetlands, insects and birds and of course, fossils.





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“We like them to feel a connection between what is here now, and what this land once was.”

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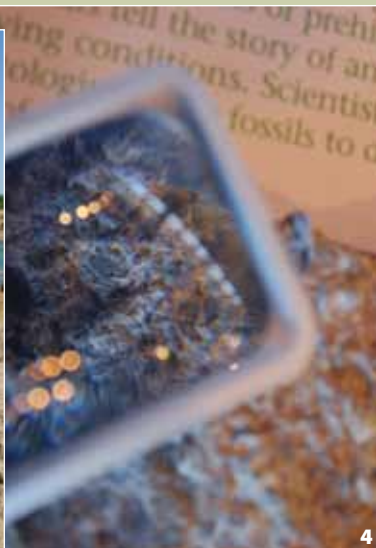
1) On Juniper Hill, just behind the wetland, find creeping juniper, a low-growing threatened shrub. 2) The family-friendly park is suitable for all ages. 3) A view into the quarry, only a few hundred yards from the visitor center. 4) Lights and windows reflect off an interactive magnifier that allows close-up peeks at what awaits outside. 5) Purple coneflower is often the first prairie species to reclaim rocky quarry beds. 6) The area's largest colony coral measures 13 inches across. 7) Naturalist Barb McKinstry, formerly with the fossil park, is the new Winneshiek County Conservation Board director. 8) Gulleys make excellent areas to find specimens exposed by recent rains. 9) In the center, touch bison hair, explore discovery drawers, go eye-to-eye with a preserved bald eagle, soak up the park's vast ecodiversity and chat with friendly staff.



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Kelli Ellingson of Altoona traveled here with her parents, Ralph and Lorraine Bigelow of Charles City. Kelli's 5-year-old, Brandon, is wide-eyed over the turtles and tadpoles in the water exhibit—and a fish that looks like Nemo in a saltwater coral tank. This is what the land he's standing on once resembled.

"Brandon loves anything outdoors," says Lorraine. "This is a real treat for him."

And he's learning his first history lesson. That's the point, says Director of Floyd County Conservation Doug Schroeder.

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ALL PLAY

North of the center, the park is a compact terrarium of Iowa landscapes. There's virgin prairie, cornfield, burr oak knob, and scattered beds of fractured limestone that match the crumble and color of the quarry near the park entrance.

"You can walk five steps in any direction and find fossils," says McKinstry. "This place is accessible to anyone."

Tools aren't even necessary in the crumbly landscape. A fossil-washing shelter and ID board help with the hunt. There's little chance the fossils will run out, though collection to sell is illegal. Every time it rains, more are exposed. Rare finds include placoderma teeth and remains of a giant squid.

It's a local treasure that generates tourism dollars and community pride for those who rallied to save it from becoming a landfill, purchasing the land in 1990 with the first countywide competitive REAP grant.

CHAIN REACTION

In the circle of Iowa life, the park's remnant prairie came thousands of years later. Grassland birds such as bobolink and meadowlark flit about, basking in a diverse ecosystem nursed by the bordering Winnebago River. Rare orange butterfly milkweed and creeping juniper in the summer make more connections to history.

"We're working to get this prairie to where it's rolling



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with nothing but grass to see. No trees, no fences, no buildings,” says McKinstry. “It helps people imagine what it was like for the settlers who traveled Iowa when it was 85 percent prairie.”

Schroeder, a former schoolteacher, stresses the prairie’s importance to the park.

“I do traditional hunting. We make our own bows, and some of the guys knap their own arrowheads. Now, I can get any one of them to make you a perfect arrowhead. But there’s a big difference between that and an actual arrowhead you find on the prairie. The latter is a tangible connection right back to the very hands of a Native American hunter,” he says. “To me, walking through untouched prairie is that same kind of tangible connection with 8,000 to 12,000 years of history.”

He’s quiet for a minute. “Plus, those flowers are just so darn beautiful.”

Outside, the cry of a killdeer signals people walking through the quarry where it has likely nested. As a child explores this wild place, another connection links to the past, bringing understanding to the future. 🐾

Digging Ancient Life

Eight major types and dozens of different species of fossils lay exposed at the park; **BRACHIOPODS** lived inside the protective cover of two hinged shells attached to the floor of warm, shallow seas that once covered Iowa. **CRINOIDS**, often called sea lillies, lived anchored to the sea floor by flexible, rooted stems. **GASTROPODS**, sluggish, snail-like mollusks, grazed the seas. **COLONY CORAL** flourished in reef-like communities in a mass of individual skeletons of lime resembling a honeycomb. The solitary **HORN CORAL** housed soft tissues, including tentacles to filter food particles from sea water. **PELECYPODA** (clams), and filter-feeding **BRYOZOANS** with their twig-like shape punctured with thousands of pin-holes are also found. **CEPHALOPODS**, an ancient giant squid, are rarer. Often found as tiny fragments, larger finds may be half-dollar sized pieces that look like stacks of half-moons. They lived in chambered shells, propelled by ejecting water from a tube near their head. The shell’s partitions were filled with gas, enabling the animal to regulate its buoyancy.

See photos and download a DNR fossil brochure at: www.igsb.uiowa.edu/gsbpubs/pdf/EM-26.pdf