

Wish fulfillment

The author and her brother relive their childhoods' dinosaur mania on a road trip along western Colorado's Dinosaur Diamond Prehistoric Highway.

By Laurel Kallenbach



Photo Courtesy of C. Wesley Allen, Museum of Western Colorado

Participants in the Museum of Western Colorado's Dinosaur Dig program search for fossilized remains of *Allosaurus*, *Brachiosaurus* and other ancient animals in Rabbit Valley, west of Fruita. They are digging in an ancient river bed found in the Morrison Formation, which was laid down 146 to 156 million years ago during the late Jurassic Period.

The green-and-purple tail of *Triceratops* disappeared over the crest of the mesa, heading west through the desert toward Utah on I-70, with our driver in hot pursuit. I sat shotgun, and behind me, next to my brother, David, a seat full of kids shouted, “Catch up, catch up!” We chugged up the mesa, and spotted the *Triceratops*—a.k.a., the Dino Mobile—piloted by ace paleontologist John Foster, on our caravan to a day-long Dino Dig.

The excavation, sponsored by the Museum of Western Colorado, was wish fulfillment for the prehistoric-reptile obsessed kids in the van—including David and me. Once upon a time, we were fossil-collecting 8-year-olds who used to bicker during road trips about who was tougher: *Tyrannosaurus Rex* or *Dimetrodon*. When we recently unearthed boxes of childhood artifacts from our parents’ storeroom—including a stack of 40-year-old dinosaur books and a battery-powered toy *Triceratops*—we decided to take a dinosaur-themed road trip to commemorate the car-camping treks of our childhood. Western Colorado and eastern Utah comprise some of the world’s best dinosaur country. The Dino Dig is just one of the

stops along the 512-mile Dinosaur Diamond Prehistoric Highway. But we’re not bound by maps. We’re time-traveling to the Jurassic Period, 150 million years ago.

Digging for dinosaurs

As the Dino Mobile pulled into Mygatt-Moore Quarry (I-70 exit 2), near the Colorado-Utah border, we heard an announcement from the back seat. Dexter—who had just graduated from first grade *summa cum laude*—said he’d unearth a dinosaur skull. First, though, we must learn the ropes. Dr. Foster demonstrated how to spot dinosaur fossils; they’re darker than the surrounding clay. “Never remove



Laurel and David in 1967 at their childhood home in Louisville, Ky.

a find from the ground until a paleontologist has documented where it's located," he said.

David and I picked a spot under the shade awning, strapped on knee-pads, arranged old carpet squares to kneel on, and started digging, delicately lifting horizontal layers of the bleached-out clay, which was once mud along an ancient river. We scrutinized every earthen clump, swept non-interesting pieces into a dustpan with a small paintbrush, and eventually poured the waste into a bucket. We were hyper-vigilant for anything dark. Bone has a spongy texture; teeth are shiny black.

Fifteen minutes after we started, Dexter yelled: "I found something!" Our heads popped up like prairie dogs on alert. Paleontology assistant Tom Temme checked, and then confirmed, that Dexter unearthed a dinosaur bone fragment. David and I exchanged looks and renewed our search with fervor.

When I encountered a blackish vein about a third of an inch wide, I slowed down and carefully traced its edge. Soon the vein forked to the right. My pulse pounded in my ears at the prospect of digging up the bone of an animal never seen by humans. I called to Kelsie Abrams, a paleontology grad student visiting in Colorado for a summer of digging. She bent over my find. "Yep, that's a stem of *Equisetum*—horsetail." She touched the dark line. "Plant

matter rubs off on your finger like black charcoal." My adrenaline rush crashed.

"*Equisetum* grows everywhere—even today," David said. "Pretty common." I wanted to strangle my biology-major brother. "Still, it's a 150-million-year piece of *Equisetum*," I retorted, but we both knew that horsetail is not paleontology's Holy Grail.

Allosaurus tooth

We continued digging as the sun grew hotter and our legs cramped. Beside us, Frank and his 10-year-old granddaughter, Ashley, held out a chunk of rock to Tom; there's something dark in it. Tom carefully broke off bits of the rock, revealing the tooth of a juvenile *Allosaurus*, a ferocious meat-eater. Had the tooth been from an adult, it would have been three inches long.

Ashley's find ignited in us a frenzy of breaking chunks of hardened clay, but the result was only sore fingers. Deflated, David and I quit for lunch and watched Tom drizzle a mixture of acetone and dissolved plastic on Dexter's bone fragment to keep it from crumbling. Any doubts I had that this Dino Dig is a tourist gimmick evaporated. We amateurs helped with real science—hot, back-straining, exhilarating science.

At the picnic table, we asked Kelsie, who had a *Diplodocus* skull tattooed on her left forearm, why the kids made all the good finds. "It's total luck," she said, sipping Gatorade from a plastic Dinosaur Journey souvenir cup that read, *I'd rather be in the Mesozoic*. Then she added that kids tend to "dig in," whereas adults can be overly thorough. My brother and I looked sheepish. Being meticulous is a family trait.

After lunch, we doubled our speed, yet each time I emptied my dustpan I worried I'd discard a valuable piece of prehistory. We never hit "pay dirt," but it's there at Mygatt-Moore Quarry. Fifty yards away from where we dug, seasoned volunteers unearthed the five-foot-long femur of an *Apatosaurus*. Now that's the Holy Grail.

Young Ashley Villanueva (age 10) discovers the tooth of a juvenile *Allosaurus*.



Time marches on

Before David and I left the Grand Junction region, we took the best of all the paleo hikes there: the Trail Through Time, near our Dino Dig. (If you happen to be there when Dr. Foster's crew is digging, you can watch them work.) Marked with interpretive signs, this 1.5-mile walk is packed with bones left partially excavated in the rock. We puzzled over the vertebrae and ribs of *Diplodocus*—a long-necked, long-tailed behemoth—and visualized the animal's position when it fell. Using my hiking poles to support my wobbly knees, I mused to David, "We're literally stepping over millions of years of life forms." By comparison, I felt much younger.

As we caravanned north on Highway 139, everything reminded me of dinosaurs: oil derricks with their heads pumping up and down, the brontosaurus-neck-like arch of the irrigation lines. We entered Canyon Pintado south of Rangely. Filled with ancient rock art, this lovely area is another prehistoric treasure hunt—this time for the petroglyphs made by the Fremont people who lived here from about 200 BC to 1200 AD. Each stop on the self-drive tour is marked by road signs, and we viewed depictions of Waving Hands, a Guardian figure and Kokopelli (the hump-backed flute-player).

Traveling on, we passed through the town of Dinosaur—not surprisingly, its streets are named for prehistoric reptiles—and continued northwest on Highway 40 to the Utah entrance into Dinosaur National Monument. We Kallenbachs vacationed here back when David and I were surly teens. Oddly, I remember little about that trip other than jostling with crowds for a glimpse of the famous, 150-foot-long quarry wall that's embedded with more than 1,500 fossilized dinosaur bones. A lot has changed since the '70s. David and I survived our pimply adolescence and the remodeled Quarry Exhibit Hall got a facelift, better air-conditioning, and high-tech touch screens that allow visitors to zoom in for close-ups of the bones.

As we entered the quarry hall, a little girl let go of her father's hand and skipped over to



David Kallenbach takes a breather from excavating prehistoric *Equisetum* stems during a one-day Dino Dig with the Museum of Western Colorado.

the fossil wall. "I'm so excited! I can't believe these are *real* dinosaurs," she said, petting a tibia bone in the okay-to-touch zone.

The quarry is preserved to show the bones located exactly as they were found. To help us make sense of the jumbled hodgepodge of bones, which belong to at least seven species of Jurassic-era dinosaurs, David and I used a guide booklet entitled *What Kind of a Bone Is That?* We reverted to full dino-nerd mode and spent a couple of hours identifying interesting bones, like the sacrum and back plate of *Stegosaurus*. At the end, we sat on a bench and simply gazed at the magnificent, intact skull of *Camarasaurus*, a giant plant-eater.

For the next two nights, we tent camped in the park like we did as kids. Nowadays, though,

the ground feels a lot harder, so I brought my own puffy mattress pad and a down pillow. In the time it took me to register and pay for our site in Green River campground, David assembled our two tents and unpacked the camp supplies. Thanks to my wilderness-guide brother, we spent a cozy evening listening to an owl and watching the moon rise.

Dinosaur National Monument has many attractions, including an auto tour to see more beautiful cliff-side petroglyphs created by long-vanished people. We joined the ranger-led Fossil Discovery Hike, where we learned to spot clues from the past—including dinosaurs—in the rocks.

On our last night, I grew nostalgic about the camping excursions of our youth.

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Adult *Allosaurus* tooth next to baby *Allosaurus* tooth on a matchstick.

See

Colorado National Monument

1750 Rimrock Drive, Fruita
970-858-3617

"Colorado National Monument is a geological eye-opener: seeing the horizontal strata of canyon walls makes me understand how layers of rock chronicle different stages of Earth's history. When layers are deeply eroded or are broken by huge earthquakes, canyons and stunning monoliths such as iconic Independence Monument are revealed. That's also how dinosaur bones, which were originally buried hundreds of feet underground, wind up just beneath the surface. At either end of Colorado National Monument's Rim Rock Drive are paths for paleontologist wannabes. Dinosaur

Hill Trail (a 1.5-mile loop) is where scientist Elmer Riggs excavated the bones of an *Apatosaurus* (a.k.a., *Brontosaurus*). The 0.8-mile Riggs Hill Trail takes hikers where Riggs discovered the first-ever *Brachiosaurus* (a massive, Mesozoic marsh wader) in 1900. David and I put on hats, sunscreen and sturdy shoes for the sunny, scree-strewn climbs." –Laurel Kallenbach

Dinosaur Journey Museum

550 Jurassic Ct., Fruita
970-858-7282

Hours: May 1–Sept. 30, 9 a.m.–5 p.m. daily **Admission:** \$8.50 – Adults; \$6.50 – Seniors; \$5.25 – Children (3–12); \$24.50 – Family groups; Museum members are free. Dinosaur Journey is a hands-on, interactive museum featuring paleontology displays; working

Back then David and I quarreled and threw around insults like, “You have the brain of a *Stegosaurus*,” but now I realized even those jibes bonded us: We both knew the hulky reptile’s gray-matter was the size of a walnut.

David dished vegetable curry into bowls, and I opened a bottle of merlot from Palisade and poured it into our souvenir Dino Digs cups with a picture of *Allosaurus* on them. I offered a toast: “Here’s to us. We ain’t dinosaurs yet.” ▣

Boulder writer **Laurel Kallenbach’s** (laurelkallenbach.com) favorite dinosaur is the plate-backed *Stegosaurus*, despite its low intellect. David loves *Triceratops*—like he did as a kid.



After fulfilling their dream of digging for dinosaurs, the author and her brother play with a model *Brachiosaurus* in the Dinosaur Journey Museum gift shop.

© David Kallenbach

laboratory where dinosaur bones are prepared for display; collections room where scientists study dinosaurs and other animals; simulated earthquake ride; dinosaur library reading area; sandbox for making your own dinosaur tracks; and “quarry site” where kids can uncover actual Jurassic dinosaur bones. **Allergen alert:** The Kids’ Dig Pit is filled with crushed walnut shells.

Dig

Dino Digs

888-488-DINO ext. 212

One-, three- and five-day digs available May 21 through Sept. 19. Transportation, lunch, water/Gatorade, and tools provided. Minimum age varies from 5 to 8.

Drive

Dinosaur Diamond Prehistoric Highway

This National Scenic Byway runs through some of the best dinosaur country in the world! Paleontologists have been coming here for over a hundred years to look for dinosaurs and are still making new discoveries.

Dinosaur National Monument

The fantastic remains of dinosaurs are still visible embedded in the rocks. Today, the mountains, desert, deep canyons and untamed rivers support an array of life. Whether your passion is science, adventure, history or scenery, Dinosaur National Monument offers much to explore.

Grand Junction

This magnificent city on Colorado’s Western Slope offers a multitude of outdoor adventures, plenty of peaceful places to relax amidst the natural splendor, and a charming downtown full of great shops, restaurants, art galleries and so much more—all in the heart of Colorado’s Wine Country.

Sleep

Grand Junction Marriott SpringHill Suites

236 Main St., Grand Junction
970-424-5777

AAA Three Diamond rated

Visit AAA.com for links to these destinations and to make your lodging reservations.