Dinosaur-Hunting Hobbyist Makes Fresh Tracks for Paleontology

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Last week, Mike Taylor identified a new dinosaur called Brontomerus mcintoshi, a sauropod with uncommonly large, powerful thighs.

It is the second dinosaur he's named in five years and his 13th paleontology publication.

That would be impressive though not unusual for a hard-working full-time paleontologist. But Mike Taylor is a 42-year-old British computer programmer who writes code for a living in a quaint English village called Ruardean. Hunting for dinosaurs is just a hobby, albeit one he pursues seriously.

One day 10 years ago, while reading a paleontology paper on a long plane trip, he had an epiphany. “I thought, well, blimey, I could do better than that,” he said. “And then I decided, why shouldn’t I? What’s stopping me?”

His childhood interest in dinosaurs was rekindled in 2000 and he got hold of classic books like “The Dinosaur Heresies,” “The Complete Dinosaur” and the “Dinosaur Encyclopedia.” He amassed a collection of paleontology journals and studied them with the intensity of a graduate student.

Dr. Taylor, whose numerous papers earned him a formal Ph.D. in paleontology in 2009 from the University of Portsmouth, is not alone in his love for dinosaurs. The public has long had a fascination for the magnificent creatures that lived millions of years ago, some dwarfing elephants in size.

“There are many dino fan boys out there,” Dr. Taylor said. “And I was just another one of them.”

His latest discovery, Brontomerus mcintoshi, is named after John McIntosh, one other such “fan boy.”

Dr. McIntosh spent his career as a physics professor at Wesleyan. But he spent his spare hours poring over bones in museums around the world. And when he retired 20 years ago, he devoted himself to the study of sauropods, the order of large, plant-eating dinosaurs that Dr. Taylor also favors.

Over the course of more than 30 years, Dr. McIntosh made major contributions to the field, writing many papers and several books. In 1979, he helped prove that paleontologists had mounted the wrong head on a sauropod named Apatosaurus. “Even a minor paleontologist can make a major contribution,” Dr. Taylor said.

Other scientific disciplines, like physics and genetics, require fancy equipment, large labs and major funding. Although paleontology has come to depend more and more on CT scans and even molecular analyses, it still has plenty of room for the time-honored pursuit of puzzling through bones and piecing them together.

“You just need a decent camera, a little time and money to travel to museums, some experience, a good eye,” said Nicholas Longrich, a paleontologist at Yale. “It’s still hard —
not just anybody can do it — but the barrier to entry is a lot lower than for other fields.”

Dr. Taylor has never participated in an excavation, instead choosing to study the scores of unnamed fossils that are collecting dust in the basements of museums. He takes pictures from many angles and makes detailed measurements that he studies.

“Given the limited time I have available for paleo, conferences and museum visits are more important,” he said.

His first discovery, a bone belonging to an elephant-size herbivorous dinosaur called Xenoposeidon, was excavated in the early 1890s. It was acquired by the Natural History Museum in London, and remained unidentified until Dr. Taylor began studying it.

And the dinosaur he recently named was found at a site in Utah in 1995 and housed in the Sam Noble Oklahoma Museum of Natural History, unidentified.

“Our museums are chock-full of things that have never been studied, or explained at all,” said Mathew Wedel, a paleontologist and anatomist at Western University of Health Sciences and Dr. Taylor’s co-author on the Brontomerus paper.

He and Dr. Taylor became pen pals 10 years ago, when Dr. Taylor sent him an e-mail about one of his publications.

Then they began brainstorming and sharing ideas. The two are now best friends, and usually meet about once a year at paleontology conferences and museums to collaborate.

Although Dr. Wedel is employed in paleontology full time, he sees great benefits to working with Dr. Taylor, who provides a fresh perspective.

“There was no such thing as the professional scientist at one time,” he said. “Along the way we lost something, and it’s this idea that anybody can contribute to human knowledge.”