

Stones and “Bones” Set by William (Billy) Octavius Owen: A Brief Historical Account of Living and Surveying in Wyoming

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Beginning Interests in W.O. Owen

In November 2000, while helping to create the Bureau of Land Management's (BLM) Geographic Information System (GIS) base layer—the Geographic Coordinate Data Base (GCDB)—I stumbled upon a Government Land Office (GLO) survey plat that has enlightened my views of surveying and Wyoming history. This plat (Figure 1) was drawn from work conducted by William (Billy) O. Owen during March and April of 1881 in Township 24 North, Range 77 West (T24NR77W).

Noted in the center of the plat is a line of section corner monuments labeled as “Mastodon Bones.” The idea of relocating and collecting some of these “bone” section corners was intriguing, and I found myself researching the methods needed to accomplish this task. While discussing with John Lee (cadastral chief, Wyoming State Office [WYSO] BLM) my intent to locate and recover the “bone corners,” I realized that others within the Bureau were equally eager to recover them.

Search for Mastodon Section Corners

First brought to the attention of paleontologist Laurie Bryant in 1999, the corners were not



Young Billy Owen
[Reproduced with permission from the American Heritage Center, William Owen Collection, University of Wyoming].

recovered at that time because it was believed that they were on private land. My background and training in anthropology, archaeology, history, and surveying fostered my excitement for the project, which in turn rekindled the fire of discovery in the cadastral group at the Wyoming State Office of BLM.

Research at the Albany County Courthouse revealed that some of the fossil corners monumented the location of federal lands, allowing for ingress and egress into the township by federal surveyors. Permission was then received to make contacts at the University of Wyoming for information concerning the history and the types of fossils that have been discovered in Township

24 North, Range 77 West. Dr. Danny Walker, the Assistant State of Wyoming Archaeologist, was contacted. He expressed interest not only in locating the fossils but also in the history surrounding them and suggested that Dr. Brent Breithaupt of the University's Geology Museum be contacted. Through a great deal of correspondence with Dr. Breithaupt, the concept of finding not mastodon, but dinosaur fossils, began to materialize and soon the excitement for the project could hardly be contained.¹

Beth Southwell, Dr. Breithaupt's assistant, began preliminary research in the American Heritage Center located on the University of Wyoming campus and discovered an incomplete autobiog-

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¹ In fact, upon Ms. Bryant's leaving the Wyoming State Office of the Bureau of Land Management, she received a framed copy of the plat.

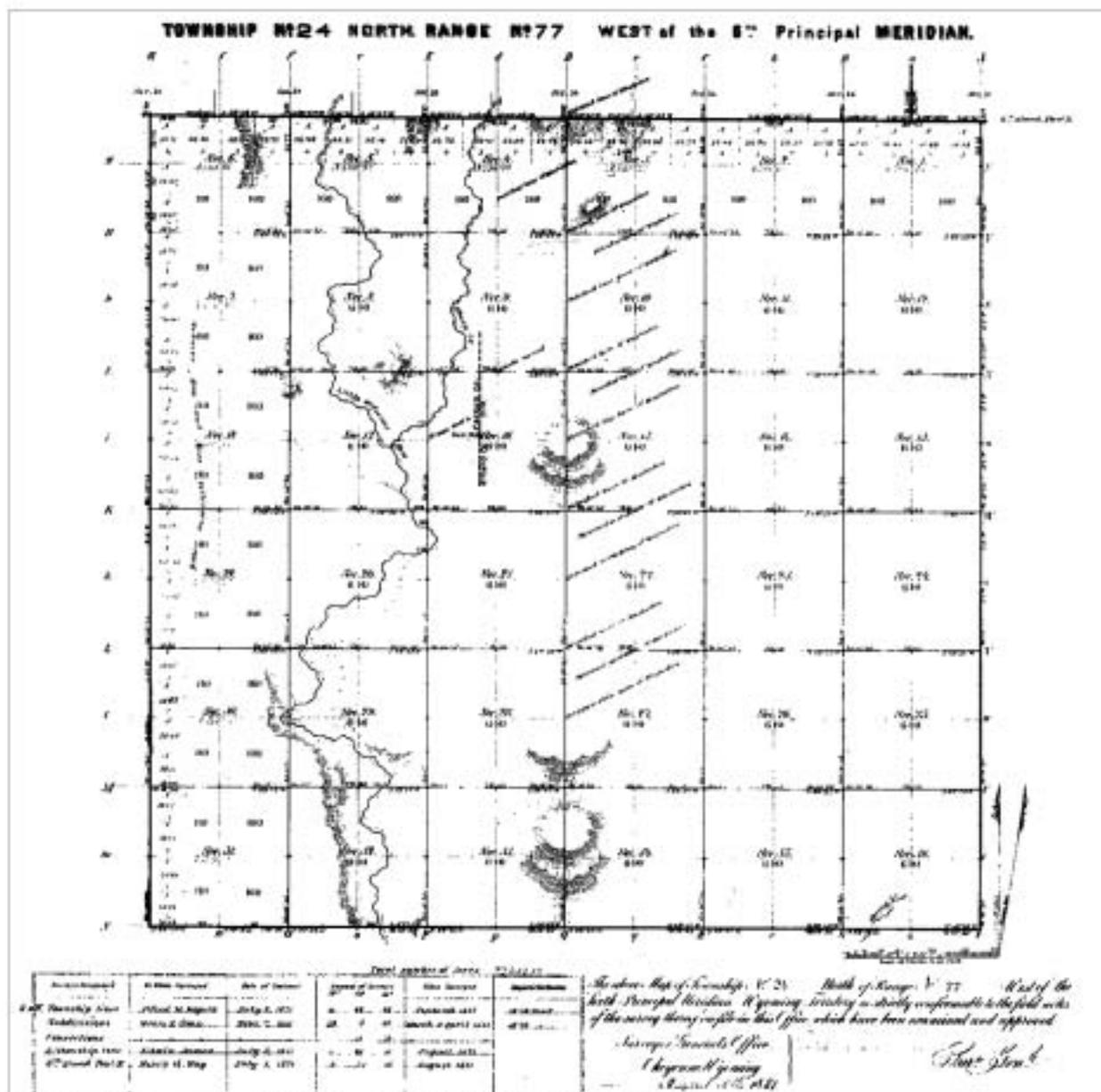


Figure 1. Government Land Office Plat, Township 24 North, Range 77 West.

raphy written by William O. Owen (Owen 1930).² Among his reminiscences she found references to the surveying of Township 24 North, Range 77 West, which Owen considered to be a very special surveying case. Owen described the events taking place early in the month of April 1881 (date based on GLO field notes) thus:

We had our team and wagon with us, and it was our custom, when possible, to load in the necessary number of stones at any favorable place and haul them along with us against the frequent happening that no corner material could be found when we have to have it. There was no sign of a stone near our corner

² The autobiography, *Reminiscences of William O. Owen*, was discovered in the Bancroft Library at the University California, Berkeley among the papers of Sheridan Downey, Billy's nephew and former state senator of California. A roll of microfilm containing the "Reminiscences" was ordered and received early in June 2001. Although incomplete, the stories Billy relays in his autobiography are historically invaluable giving the reader insights into the early days of Laramie City and Wyoming. Some of the stories imparted by Billy appear to be closing on tall tales, but his writing style is so enthralling that one laughs through some of the more unbelievable yarns.

point so I ran on north half a mile hoping to find a supply near the quarter-section corner. But in this we were disappointed. Not a stone could be found. As corners are set every half-mile in surveys of the public lands, we could go no farther till this quarter-section corner was established. Something had to be done. Tom Hale, my old side-partner, was my cornerman and in our extremity he pointed to the east where, about half a mile distant, lay two hillocks where, in his opinion, might repose the material we needed. "It's worth a trial," said Tom, "and if you say so we'll drive over and see what we can find there." "Go ahead, Tom, and if you find anything for corners load up and get back as soon as possible." Two of the boys jumped into the wagon and off they set for the hillocks. We watched them anxiously and when they reached their objective we saw the team stop and the men get out. They walked around and by their behavior we inferred they had found what we needed. After some time they started back and as they drew near I could tell they had considerable load. I ran toward the wagon asking if they had found anything for corners. "We've got something," said Tom, "but God knows what it is—I don't. It's harder then h... and every piece weighs a ton!" Now, what do you suppose those boys had in that wagon? Fossil bones of a dinosaur! There were vertebrae, shinbones, femur bones and what-have-you, and fully as hard and heavy as Tom had said.

Upon reading this excerpt from the Owen autobiography, members of the cadastral group started planning for the recovery and replacement of some of these fossil corners. The anticipation of discovery buzzed in the office, and, after contacting Dr. Breithaupt and Ms. Southwell, a date was set; our long-awaited exploration was coming to fruition.

We acquired GCDB coordinates for selected corner locations and input them into a 12XL handheld GPS (Garmin model) before setting out for a day of investigation on May 31, 2001. John Lee, Mike Whitmore and myself from the Cadastral staff, Dale Hanson (BLM paleontologist), and Marty Griffith from the Resource Management staff (WYSO) were in our party. In Laramie, Dr. Breithaupt and Beth Southwell (UW Geology Museum) joined us, and we continued our trek to Township 24 North, Range 77 West to investigate and locate some of these fossilized bone corners. Dr. Breithaupt and Ms. Southwell filled us with valuable information concerning the history of

paleontological discoveries and narrated stories about colorful local personalities fossils.

Having members of the UW Geology staff to confer with was and is invaluable. Our first sight of the area was well explained by Dr. Breithaupt from a promontory overlooking the outstanding panorama of the surrounding geology. Next we visited the site of the Bone Cabin Quarry (Breithaupt, personal communication, 1997), a dinosaur fossil bed that is still being excavated by a private firm. Here we were able to view the type of material that Owen's crew probably collected for corner material, giving us a much clearer idea of what we would be searching for. It should be noted that this township is gently elevating toward the Laramie Mountains to the east, void of timber except along the Medicine Bow River and a few streams and lacks stone materials used for monumenting corners during Owen's historic era.

Our search began at the position for the closing corner on the north boundary of the township. As we closed on the location, history was very close at hand, and we could all feel it. Mike Whitmore was the first to see the corner, which was marked with a section of Sauropod (Breithaupt, personal communication) fossil long bone. Transfixed by this first discovery, we photographed the section and chatted about it. Sauropods were part of the *Brontosaurus* (now called *Apatosaurus*) family—a family of very large, vegetarian dinosaurs.

We continued our search one-and-half mile south of this corner and found the 1/4 section corner of sections three and four. This position was monumented with a portion of a large fossilized dinosaur vertebra bones and, to our amazement, was plainly marked with 1/4 (Figure 2) on the upper right corner of the fossil. Owen wrote in his autobiography that these stones were too hard to "scribe" (Owen 1930). Finding one that was



Figure 2. Quarter corner [3 | 4 photo by Mike Whitmore].

Point Id.	GCDB, GEO File Lat/Long		GPS'd Field Locations Lat/Long	
	Latitude	Longitude	Latitude	Longitude
400700	42- 5- 12.17220	106- 3- 14.35195	42- 05- 13.0	106- 03- 14.7
400640	42- 4- 54.71241	106- 3- 14.27052	42- 04- 55.0	106- 03- 13.5
400600	42- 4- 28.63073	106- 3- 14.09038	NOT FOUND	NOT FOUND
440600	Not calculated	Not calculated	42- 04- 29.0	106- 02- 38.3

Table 1. Latitude/longitude comparisons of corner locations.

marked adds to the historical significance of the survey. Recall these stones were set in 1881; and, it is quite possible that we were the first people to see this particular monument in 120 years. The 1/4 corner was collected and replaced with a BLM brass cap. Presently, it is awaiting identification at the UW Geology Museum.

Continuing our investigation another half-mile south, we suffered some disappointment as we were not able to find any trace of the section corner monument. After lunch, however, we focused our search half-a-mile east of the lost position and were more successful. We found a portion of a fossilized dinosaur ulna where a 1/4 corner should have been between sections three and ten; there was no inscription visible on the fossil. The bone was large, most probably belonging to a mega-vegetarian (Breithaupt, personal communication).

The use of GCDB latitude/longitude in developing the search area was put to excellent use during this project. Township 24 North, Range 77 West is controlled by 29 digitized corner locations from a 1:24,000, 7 1/2-quadrangle map, allowing for a search area of 40 feet. By utilizing the latitude/longitude values from the GCDB geo file, we were able to navigate close enough to spot the fossil corners in the field (Table 1).

There are several more of these "Mastodon bone section corners" documented on Owen's plat that are yet to be located. They are on private or a combination of private and state lands, requiring landowners' cooperation before these historical corners can be positioned and recorded. Our initial field trip was described in a short article co-authored by Mr. Whitmore and myself and later presented by Mr. Al Pierson, State Director of Wyoming's Bureau of Land Management. An article outlining our work was published in the Wyoming BLM biannual journal *Horizons*.

"Billy" Owen, the Surveyor

Research has continued into the life and times of Mr. Owen. As more information is gathered it seems fitting to call Mr. Owen "Billy"—a long lost friend and comrade, a surveyor from the past with whom we all feel akin in the cadastral branch of the Wyoming BLM. Owen's autobiography contains many accounts of surveying the high plains, deserts, and mountains of Wyoming, which impart the enthusiasm he must have had for life, his work, and adventure. It is our hope that in the future, with the help of the Wyoming Historical Society, we can publish Owen's autobiography in order to share these remarkable accounts with other audiences.

The American Heritage Center on the UW campus houses a large collection of Owen's personal letters, calculations, photos, and newspaper articles. Based on this information, numerous other directions of research could be followed. For instance, one could study other dinosaur fossil discoveries made by Billy Owen, his adventures in mountaineering, and family ties to the well known Downey family of Laramie. Another significant repository of information and, consequently, source of research ideas is the Government Land Office record preserved on microfiche at the Wyoming State Office of BLM.³ This record contains original plats and field notes with observations pertaining to important historical, geological, and natural resources in Wyoming. Locations recorded by early surveyors in their field notes or on plats have proved to be of particular value in research into historic trails.

Billy Owen was the most prolific surveyor in the early days of the State of Wyoming. He received 20 contracts from the Government Land Office: his first contract was issued in 1881, his last in 1894. This does not include time spent working for other

³ Very few of the GLO plats fail to mention a historic detail, be it trails to battle sites, mining camps, or forts. In some cases, the original GLO information is all that exists for township, range and section descriptions, and locations; this information is the basis of information for BLM's GCDB and other GIS databases.

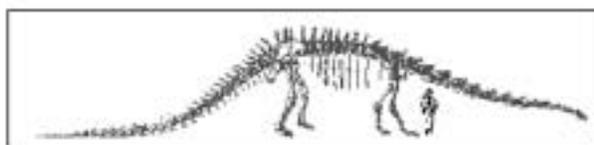


Figure 3. *Apatosaurus* skeleton [From the Carnegie Museum's website].

surveyors such as William O. Downey, Mortimer Grant, and Thomas Medary. Owen was appointed to the position of U.S. Examiner of Surveys in the Interior Department in 1899, retiring in 1914.⁴

A letter to the U.S. Survey General dated August 17, 1930, archived in the William O. Owen file at the American Heritage Center confirms that Billy Owen surveyed a number of forts in Wyoming, including Fort Laramie (April 1896), Fort Sanders (May 1886), Fort Fred Steele (July 1887), and Fort Fetterman (June 1887). In his survey notes for the area surrounding Fort Laramie he makes mention of the original fur trapper's fort—Fort William or Platte (original field notes, WYSO BLM microfilm)—and documents its location. In 1999, field work was done at Fort Laramie by the Office of the Wyoming State Archaeologist (OWSA) to find Fort William. These efforts were focused at Fort Laramie proper, not at the Owen locality, and the fort location was not substantiated. Further investigation at the Owen location could reveal the fort's true location.

Billy Owen also conducted numerous mineral surveys throughout Wyoming (original field notes, WYSO BLM microfiche). Some of these mineral surveys (such as the surveys around Hartville) were done prior to the completion of the Public Land

Survey System in the state. Last but not the least, Mr. Owen was an adventurer—a mountaineer and a Wyoming pioneer. Billy served on the posse trying to capture the "Sundance Kid" during the heyday of train robbery in the state. In 1898, he and a small group of men were the first white men to climb the Grand Teton (still somewhat controversial). He was also the first person to tour the Yellowstone area on a high-wheeled bicycle (*Annals of Wyoming* 1997). While on the subject of bicycles, there was a race with a stagecoach from Laramie to Cheyenne that was won by Billy and a compatriot. According to the tale, the bicycle team pushed and walked as much as rode to Cheyenne through the thick mud of the trail.

The year 2001 marked the 100th anniversary of the Carnegie Museum's discovery of an intact fossil *Apatosaurus* (Figure 3) at the Sheep Creek Quarry. Billy Owen was involved in surveying the location of the fossil, as can be deduced from several telegraph messages between his employer (Stephen Downey) and the Carnegie Museum. Owen may even have led the expedition to the site.

The cadastral branch of the Wyoming State Office of BLM participated in this celebration by adding our research into Billy Owen's surveying and other work. Many of the discoveries he made came twenty years before the Carnegie find.

REFERENCES

- Annals of Wyoming* (winter 1997).
Breithaupt, 2001. Personal communication.
Owen, W.O. 1930. The reminiscences of William O. Owen. University of California, Berkeley.

⁴ A typewritten list of Owen's career accomplishments can be found in the William O. Owen file at the American Heritage Center.