

## DISCOVERY OF THE UNION CHAPEL MINE SITE

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**ABSTRACT:** The discovery of the Union Chapel Mine as a major track fossil site is described, and photographs of the first trackways found are presented. From the first day, it was clear that Union Chapel Mine was not a typical fossil site. The abundance and detailed preservation of the trackways, both vertebrate and invertebrate, were obvious. Thanks to cooperation from the mine owner and an alert high school student, a fossil site that might have escaped notice was drawn to the attention, first of amateurs, and then of professional paleontologists.

### INTRODUCTION

In the early fall of 1999, I was introducing the general content of my seventh grade science class to my students. The usual topic of field trips was discussed. I told my students of many successful trips I had made to north Alabama coal mines for Pennsylvanian plants. Jessie Burton, an energetic young pupil (Fig. 1), volunteered the information that his grandmother owned a coal mining company and suggested that the class visit one of her mines for a field trip. Always willing to investigate a new site, I took the information and prepared to make a scouting expedition. When I contacted Mrs. Dolores Reid, owner of New Acton Coal Mining Company, she was glad to host 75 seventh graders exploring the tailings of a coal mine in search for the usual plant fossils. Mrs. Reid contacted her employees and was informed by Messrs. Tommy Lata and Billy Orick that they noted more fossils in the Union Chapel Mine than in the company's other mines. Arrangements were soon made for me to scout the mine for field trip suitability.



FIGURE 1. Jessie Burton. Photo taken at the Union Chapel Mine, July 2004, by Ron Buta.

### THE FIRST TRACKWAYS FOUND

After less than half an hour of scouting, I exclaimed "Yahoo!" when I found a large invertebrate trackway (Fig. 2). This indicated the proper environment and conditions for the potential preservation of amphibian tracks (Aldrich and Jones, 1930) — the finding of which has been a long-term goal for me. Another invertebrate trackway was found within minutes (Fig. 3). Then, as I was walking up a newly bulldozed road, I saw a long, flat, layered rock jutting out of the hillside. One blow of hammer on chisel and the rock popped into tablet-like halves revealing three separate — and definite — tetrapod trackways (Fig. 4). There was even a small, round *Calamites* protruding through the laminae at a sharp angle to boot. The exclamation at this point went beyond "Yahoo!" A hybrid feeling of excitement, satisfaction, and disbelief would make the next few hours of searching seem like seconds. About a dozen more tetra-

pod trackways and three more invertebrate trackways, one with associated plants, were collected. Figures 5 and 6 show other trackways found during this first visit.

Afterwards, I contacted Dr. Jim Lacefield, author of *Lost Worlds in Alabama Rocks: A Guide to the State's Ancient Life and Landscape*, for confirmation of the nature of the trace fossils with the knowledge that Dr. Lacefield was familiar with Pennsylvanian trace fossils of Alabama — tetrapod trackways in particular. With the identity confirmed, I took some of the specimens to the December 1999 meeting of the Birmingham Paleontological Society (BPS, incorporated as the Alabama Paleontological Society in 2002). It was quickly decided that the Union Chapel Mine would be the site for its next monthly field trip. Since the first scouting trip in late November, the Union Chapel Mine has been visited many times by members of the BPS (and then later the



FIGURE 2. First trackway found.



FIGURE 3. Second trackway found, consisting of *Kouphichnium* undertracks.



FIGURE 4. The first definite tetrapod trackways found, a slab with at least three different trackways.



FIGURE 5. Another invertebrate trace found on the first day.



FIGURE 6. Two oppositely directed tetrapod trackways from the first visit.

APS), area universities, and even the class that was looking for a place to take a field trip. Thanks to active student participation, we have an excellent Pennsylvanian tracksite that will be studied for some time to come.

#### **ACKNOWLEDGMENTS**

I am grateful to Mrs. Reid for her generosity in allowing me to scout the Union Chapel Mine, and to the mine personnel for making the visit practical. I am also indebted to Jessie Burton for recognizing my interest in fossils and alerting me to the existence of this wonderful fossil-collecting site.

#### **REFERENCE**

Aldrich, T. H., Sr., and Jones, W. B., 1930, Footprints from the Coal Measures of Alabama: Alabama Museum of Natural History, Museum Paper, no. 9, 64 p.